

# WF-8090 User's Guide

# **Contents**

WF-8090 User's Guide	11
Product Basics	12
Using the Control Panel	12
Control Panel Buttons and Lights	12
Status Icons	13
Setting a Password and Locking the Control Panel	14
Entering Characters on the LCD Screen	15
Changing LCD Screen Language	15
Adjusting the Screen Contrast	16
Product Parts Locations	17
Product Parts - Front	18
Product Parts - Inside	20
Product Parts - Back	21
Using Eco Mode	22
Changing the Eco Settings	22
Changing the Sleep Timer Settings	23
Changing the Power Off Timer Settings	24
Epson Connect Solutions for Smartphones, Tablets, and More	25
Using Epson Email Print	25
Using the Epson iPrint Mobile App	25
Using Epson Remote Print	26
Using AirPrint	26
Using Google Cloud Print	27
Setting Up Google Cloud Print on a Chromebook	28
Wi-Fi or Wired Networking	30
Wi-Fi Infrastructure Mode Setup	30
Selecting Wireless Network Settings From the Control Panel	31
Wi-Fi Direct Mode Setup	33
Enabling Wi-Fi Direct Mode	34
Wi-Fi Protected Setup (WPS)	36

Using WPS to Connect to a Network	36
Printing a Network Status Sheet	37
Changing or Updating Network Connections	38
Accessing the Web Config Utility	
Changing a USB Connection to a Wi-Fi Connection	39
Changing a Wi-Fi Connection to a Wired Network Connection	39
Connecting to a New Wi-Fi Router	
Disabling Wi-Fi Features	40
Enabling Epson Universal Print Driver (PCL) or PostScript Printing.	41
Selecting PDL (Page Description Language) Settings	
PDL Print Configuration Options	
Selecting Printer Language and Interface Settings	45
Printer Language and Interface Options	46
Printing a PS3 (PostScript) Status Sheet	46
Loading Paper	48
Loading Paper in the Cassette	48
Loading Paper and Envelopes in the Rear Paper Feed Slot	51
Loading Paper in the Front Paper Feed Slot	55
Paper Loading Capacity	57
Available Epson Papers	59
Paper or Media Type Settings - Printing Software	61
Selecting the Paper Settings for Each Source - Control Panel	62
Paper Type Settings - Control Panel	63
Selecting Default Paper Settings - Administrator	63
Selecting the Paper Source Settings - Administrator	64
Paper Source Settings Options	65
Selecting Universal Print Settings	65
Universal Print Settings Options	66
Installing the Optional Cabinet and Paper Cassettes	67
Installing the Optional Cabinet	
Installing the Optional Paper Cassette Units	
Enabling the Optional Paper Cassettes - Windows	
Enabling the Optional Paper Cassettes - OS X	83

Printing from a Computer	85
Printing with Windows	85
Selecting Basic Print Settings - Windows	85
Paper Source Options - Windows	88
Print Quality Options - Windows	88
Multi-Page Printing Options - Windows	89
Selecting Double-sided Printing Settings - Windows	89
Double-sided Printing Options - Windows	92
Print Density Adjustments - Windows	92
Selecting Additional Layout and Print Options - Windows	93
Custom Color Correction Options - Windows	95
Image Options and Additional Settings - Windows	96
Header/Footer Settings - Windows	97
Selecting a Printing Preset - Windows	98
Selecting Extended Settings - Windows	99
Extended Settings - Windows	100
Printing Your Document or Photo - Windows	101
Locking Printer Settings - Windows	102
Administrator Lock Settings	
Selecting Default Print Settings - Windows	
Changing the Language of the Printer Software Screens	106
Changing Automatic Update Options	107
Printing with OS X	108
Selecting Basic Print Settings - OS X	109
Paper Source Options - OS X	
Print Quality Options - OS X	113
Print Options - OS X	113
Selecting Page Setup Settings - OS X	114
Selecting Print Layout Options - OS X	
Selecting Double-sided Printing Settings - OS X	
Double-sided Printing Options and Adjustments - OS X	
Managing Color - OS X	
Color Matching and Color Options - OS X	119

Selecting Printing Preferences - OS X	120
Printing Preferences - OS X	121
Printing Your Document or Photo - OS X	122
Checking Print Status - OS X	122
Printing with the Epson Universal Print Driver - Windows	124
Installing the Epson Universal Print Driver - Windows	124
Synchronizing Printer Settings - Epson Universal Print Driver - Windows	128
Selecting Basic Print Settings - Epson Universal Print Driver - Windows	130
Selecting Additional Layout and Print Options - Epson Universal Print Driver - Windows	132
Selecting Maintenance Options - Epson Universal Print Driver - Windows	134
Extended Settings - Epson Universal Print Driver - Windows	135
Selecting Default Print Settings - Epson Universal Print Driver - Windows	136
Locking Printer Settings - Epson Universal Print Driver - Windows	138
Epson Universal Print Driver Lock Settings	140
Adding Network Printers - Epson Universal Print Driver - Windows	141
Printing with the PostScript (PS3) Printer Software - Windows	144
Installing the PostScript (PS3) Printer Software - Windows	144
Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows	144
Selecting Basic Print Settings - PostScript Printer Software - Windows	146
Selecting Additional Layout and Print Options - PostScript Printer Software - Windows	149
Selecting Default Print Settings - PostScript Printer Software - Windows	150
Printing with the PostScript (PS3) Printer Software - OS X	151
Installing the PostScript (PS3) Printer Software - OS X	152
Enabling the Optional Paper Cassettes - PostScript Printer Software - OS X	
Selecting Basic Print Settings - PostScript Printer Software - OS X	153
Selecting Page Setup Settings - PostScript Printer Software - OS X	
Selecting Print Layout Options - PostScript Printer Software - OS X	159
Sizing Printed Images - PostScript Printer Software - OS X	
Managing Color - PostScript Printer Software - OS X	
Printing Your Document or Photo - PostScript Printer Software - OS X	
Checking Print Status - PostScript Printer Software - OS X	
Cancelling Printing Using a Product Button	162

Replacing Ink Cartridges and Maintenance Boxes	163
Check Cartridge and Maintenance Box Status	163
Checking Cartridge Status on the LCD Screen	163
Checking Cartridge and Maintenance Box Status with Windows	164
Checking Cartridge and Maintenance Box Status with OS X	167
Purchase Epson Ink Cartridges and Maintenance Box	169
Ink Cartridge and Maintenance Box Part Numbers	169
Removing and Installing Ink Cartridges	170
Printing with Black Ink and Expended Color Cartridges	173
Printing with Expended Color Cartridges - Windows	173
Printing with Expended Color Cartridges - OS X	174
Conserving Low Black Ink with Windows	176
Replacing the Maintenance Box	176
Adjusting Print Quality	179
Print Head Maintenance	
Print Head Nozzle Check	179
Checking the Nozzles Using the Product Control Panel	180
Checking the Nozzles Using a Computer Utility	182
Print Head Cleaning	183
Cleaning the Print Head Using the Product Control Panel	184
Cleaning the Print Head Using a Computer Utility	
Print Head Alignment	187
Aligning the Print Head Using the Product Control Panel	187
Aligning the Print Head Using a Computer Utility	189
Cleaning the Paper Guide	191
Cleaning and Transporting the Product	193
Cleaning the Product	
Transporting Your Product	193
Solving Problems	196
Checking for Software Updates	
Product Status Messages	
Running a Product Check	
Resetting Control Panel Defaults	

Solving Setup Problems	200
Product Does Not Turn On or Off	201
Noise After Ink Installation	201
Software Installation Problems	201
Solving Network Problems	202
Product Cannot Connect to a Wireless Router or Access Point	202
Network Software Cannot Find Product on a Network	203
Product Does Not Appear in OS X Printer Window	204
Cannot Print Over a Network	205
Solving Paper Problems	206
Paper Feeding Problems	206
Paper Jam Problems in the Front Cover (A)	208
Paper Jam Problems in the Rear Paper Feed Slot (B1)	209
Paper Jam Problems in the Front Paper Feed Slot (B2)	209
Paper Jam Problems in the Cassette (C1/C2/C3/C4)	212
Paper Jam Problems in the Rear Cover 1 (D1)	213
Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit	216
Paper Ejection Problems	217
Solving PostScript Printing Problems	218
Nothing Prints Using the Postscript Printing Software	218
Documents Print Incorrectly Using the Postscript Printing Software	219
Accessing Printer Properties - Postscript - Windows	219
Solving Problems Printing from a Computer	220
Nothing Prints	220
Product Icon Does Not Appear in Windows Taskbar	221
Printing is Slow	222
Solving Page Layout and Content Problems	223
Inverted Image	223
Too Many Copies Print	224
Blank Pages Print	224
Incorrect Margins on Printout	224
Incorrect Characters Print	225
Incorrect Image Size or Position	225

	Slanted Printout	226
	Solving Print Quality Problems	226
	White or Dark Lines in Printout	227
	Blurry or Smeared Printout	227
	Faint Printout or Printout Has Gaps	229
	Grainy Printout	230
	Incorrect Colors	231
	When to Uninstall Your Product Software	231
	Uninstalling Printing Software - Standard Epson Printer Software - Windows	232
	Uninstalling Product Software - OS X	232
	Where to Get Help	233
Tec	chnical Specifications	235
	Windows System Requirements	235
	OS X System Requirements	236
	Paper Specifications	236
	Printable Area Specifications	237
	Ink Cartridge Specifications	239
	Dimension Specifications	239
	Electrical Specifications	240
	Environmental Specifications	241
	Interface Specifications	241
	Network Interface Specifications	241
	Safety and Approvals Specifications	243
	PS3 Mode Fonts	243
	PCL5 Mode Fonts	245
	PCL6 Mode Fonts	248
	Symbol Sets	250
Not	tices	258
	General Printer Safety Instructions	258
	Ink Cartridge Safety Instructions	260
	LCD Screen Safety Instructions	260
	Wireless Connection Safety Instructions	261
	Cabinet Safety Instructions	261

FCC Compliance Statement	261
Software Notice	262
Trademarks	310
Copyright Notice	311
libTIFF Software Acknowledgment	311
A Note Concerning Responsible Use of Copyrighted Materials	312
Default Delay Times for Power Management for Epson Products	312
Copyright Attribution	312

# WF-8090 User's Guide

Welcome to the WF-8090 User's Guide.

For a printable PDF copy of this guide, click here.

# **Product Basics**

See these sections to learn about the basic features of your product.

Using the Control Panel

**Product Parts Locations** 

Using Eco Mode

Epson Connect Solutions for Smartphones, Tablets, and More

**Using AirPrint** 

**Using Google Cloud Print** 

## **Using the Control Panel**

See these sections to learn about the control panel and select control panel settings.

**Control Panel Buttons and Lights** 

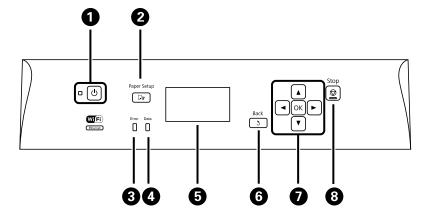
Setting a Password and Locking the Control Panel

Changing LCD Screen Language

Adjusting the Screen Contrast

Parent topic: Product Basics

## **Control Panel Buttons and Lights**



- 1 The  $\circlearrowleft$  power button and light
- 2 The Dir Paper Setup button
- 3 The Error light
- 4 The **Data** light
- 5 The LCD screen
- 6 The 3 Back button
- 7 The arrow buttons and the **OK** button
- 8 The **Stop** button

#### Status Icons

Parent topic: Using the Control Panel

#### **Status Icons**

Status icons may be displayed on the LCD screen depending on the product's status.

Icons	Description
75	There is no Ethernet connection.
공	An Ethernet connection has been established.
*	A Wi-Fi network error has occurred or the product is searching for a connection.
<b></b>	A Wi-Fi connection has been established. The number of bars indicates the connection's signal strength.
ী <sub>A</sub> ব	An Ad hoc connection has been established.
ি	A Wi-Fi Direct mode connection has been established.
₹Ap	A Simple AP mode connection has been established.
eco	One of the Eco Mode settings is enabled.

Parent topic: Control Panel Buttons and Lights

#### **Setting a Password and Locking the Control Panel**

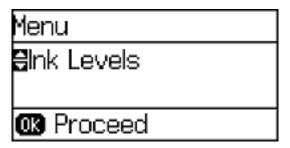
You can set an administrator password to lock the following control panel settings:

- System Administration Setup settings
- Eco mode settings

When the control panel is locked, you must enter the password to access any of the locked settings.

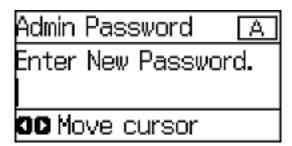
1. Press the arrow buttons to select **Menu** and press the **OK** button.

You see a screen like this:



- 2. Select **Admin Settings** and press the **OK** button.
- 3. Select Admin Password and press the OK button.
- 4. Select **Register** and press the **OK** button.

You see a screen like this:



5. Use the control panel buttons to enter a password and press the **OK** button.

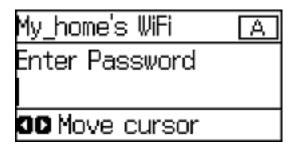
- 6. Enter your password again to confirm.
- 7. Press the **OK** button.
- 8. Select **Lock Setting** and press the **OK** button.
- 9. Select **On** and press the **OK** button.

**Note:** If you forget your password, contact Epson support for assistance.

Entering Characters on the LCD Screen **Parent topic:** Using the Control Panel

#### **Entering Characters on the LCD Screen**

Follow these guidelines to enter characters for passwords and other settings.



- To enter letters or symbols, press the up or down arrow buttons to scroll through characters, and press the right arrow button to select one.
- To enter numbers or change the case of letters, press the ♥ Stop button.
- To delete the previous character, press the left arrow button.
- To enter a space, press the right arrow button.

Parent topic: Setting a Password and Locking the Control Panel

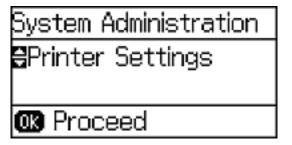
#### **Changing LCD Screen Language**

You can change the language used on the LCD screen.

**Note:** This setting can be locked by an administrator. If you cannot access or change this setting, contact your administrator for assistance.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.

You see a screen like this:



- 3. Select **Common Settings** and press the **OK** button.
- 4. Select **Language** and press the **OK** button.
- 5. Select a language and press the **OK** button.

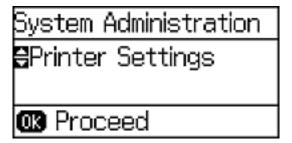
Parent topic: Using the Control Panel

### **Adjusting the Screen Contrast**

You can adjust the contrast of the LCD screen.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.

You see a screen like this:



- 3. Select **Common Settings** and press the **OK** button.
- 4. Select **LCD Contrast** and press the **OK** button.
- 5. Press the up or down arrow buttons to adjust the screen contrast.
- 6. Press the **OK** button to exit.

Parent topic: Using the Control Panel

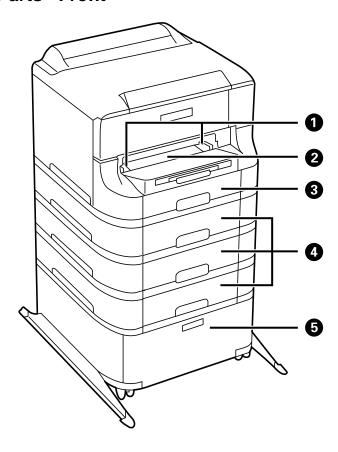
#### **Product Parts Locations**

See these sections to identify the parts on your product.

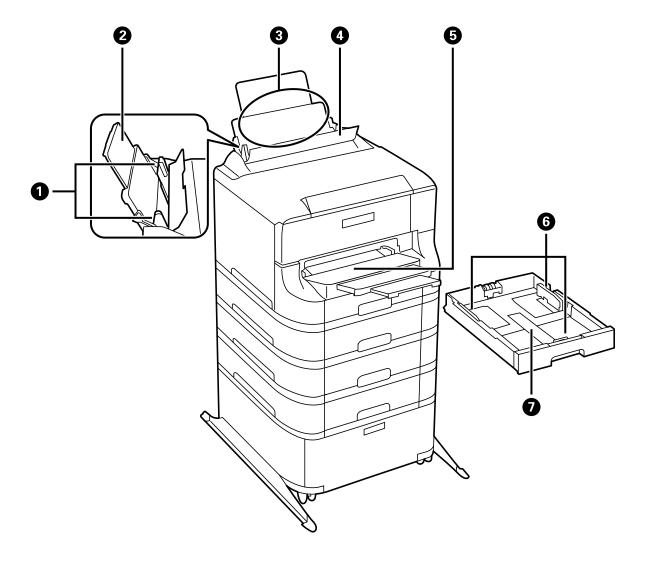
Product Parts - Front Product Parts - Inside Product Parts - Back

Parent topic: Product Basics

# **Product Parts - Front**



- 1 Edge guides
- 2 Front paper feed slot (B2)
- 3 Paper cassette 1 (C1)
- 4 Optional paper cassettes 2 to 4 (C2 to C4)
- 5 Optional cabinet

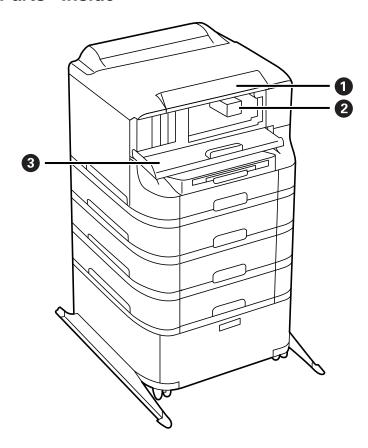


- 1 Edge guides
- 2 Paper support
- 3 Rear paper feed slot (B1)
- 4 Feeder guard

- 5 Output tray
- 6 Edge guides
- 7 Paper cassette

Parent topic: Product Parts Locations

# **Product Parts - Inside**

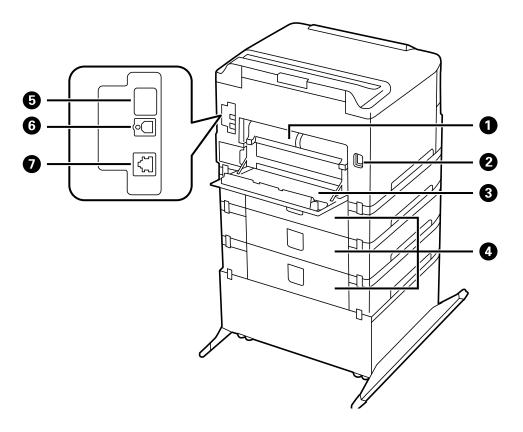


- 1 Control panel
- 2 Print head

### 3 Front cover (A)

Parent topic: Product Parts Locations

## **Product Parts - Back**



- 1 Rear cover 2 (D2)
- 2 AC inlet
- 3 Rear cover 1 (D1)
- 4 Rear cover (E)
- 5 Service USB port (do not remove sticker)

6 **USB** port

7 **LAN** port

Parent topic: Product Parts Locations

### **Using Eco Mode**

Your product enters sleep mode automatically and turns off the LCD screen if it is not used for a period of time. You can make the time period shorter and select other options to save energy and resources.

Changing the Eco Settings

Changing the Sleep Timer Settings

Changing the Power Off Timer Settings

Parent topic: Product Basics

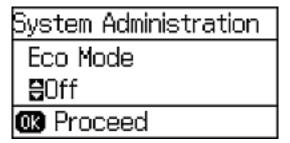
#### **Changing the Eco Settings**

You can use the product control panel to change the Eco settings.

**Note:** The Sleep Timer setting in Eco Mode overrides the Sleep Timer setting in Common Settings. This setting can be locked by an administrator. If you cannot access or change this setting, contact your administrator for assistance.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.
- 3. Select **Eco Mode** and press the **OK** button.

You see a screen like this:



- 4. Select **On** and press the **OK** button.
- 5. Press the up arrow button.
- 6. Change settings as necessary.
- 7. Press the **OK** button to exit.

You see the eco icon on the LCD screen to indicate that Eco settings are enabled.

Parent topic: Using Eco Mode

**Related tasks** 

**Changing the Sleep Timer Settings** 

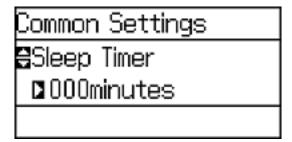
#### **Changing the Sleep Timer Settings**

You can adjust the time period before your product enters sleep mode and turns off the LCD screen.

**Note:** The Sleep Timer setting in Eco Mode overrides the Sleep Timer setting in Common Settings. This setting can be locked by an administrator. If you cannot access or change this setting, contact your administrator for assistance.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.
- 3. Select **Common Settings** and press the **OK** button.
- 4. Select **Sleep Timer** and press the **OK** button.

You see a screen like this:



5. Press the up or down arrow buttons to increase or reduce the number of minutes.

6. Press the left or right arrow buttons to move the cursor.

7. Press the **OK** button to exit.

Parent topic: Using Eco Mode

**Related tasks** 

Changing the Eco Settings

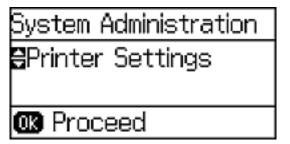
#### **Changing the Power Off Timer Settings**

You can have the product turn off automatically if it is not used for a specified period of time.

**Note:** This setting can be locked by an administrator. If you cannot access or change this setting, contact your administrator for assistance.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.

You see a screen like this:



- 3. Select Common Settings and press the OK button.
- 4. Select **Power Off Timer** and press the **OK** button.
- 5. Select a time period between **30minutes** and **12h** (12 hours), and press the **OK** button.

Parent topic: Using Eco Mode

### **Epson Connect Solutions for Smartphones, Tablets, and More**

You can print documents, photos, emails, and web pages from your home, office, or even across the globe. You can use your smartphone, tablet, or computer. Epson offers these solutions to print from anywhere: Epson Email Print, Epson iPrint Mobile App, and Epson Remote Print.

Using Epson Email Print
Using the Epson iPrint Mobile App
Using Epson Remote Print

Parent topic: Product Basics

#### **Using Epson Email Print**

With Epson Email Print, you can print from any device that can send email, such as your smartphone, tablet, or laptop. Just activate your product's unique email address. When you want to print, attach a PDF, Microsoft Office document, or photo to an email and send it to your product.

- 1. Set up your product for network printing as described in this manual. See the link below.
- 2. If you did not already set up Email Print when you installed your product software, visit epson.com/connect to learn more about Email Print, check compatibility, and get detailed setup instructions.
- 3. Send an email with attachments to your product's Email Print address.

**Note:** Both the email and any attachments print by default. You can change these printing options by logging into your Epson Connect account.

Parent topic: Epson Connect Solutions for Smartphones, Tablets, and More

Related topics

Wi-Fi or Wired Networking

#### **Using the Epson iPrint Mobile App**

Use this free Apple and Android app to print to nearby Epson networked products. The Epson iPrint Mobile App lets you print PDFs, Microsoft Office documents, photos, and web pages over a wireless network.

- 1. Set up your product on a network as described in this manual. See the link below.
- 2. Visit epson.com/connect to learn more about Epson iPrint and check the compatibility of your mobile device.

- 3. Download Epson iPrint from the Apple App Store or Google Play.
- 4. Connect your mobile device to the same wireless network that your product is using.
- 5. Print from your mobile device to your Epson product.

Parent topic: Epson Connect Solutions for Smartphones, Tablets, and More

Related topics

Wi-Fi or Wired Networking

#### **Using Epson Remote Print**

With Epson Remote Print software on your Windows computer or laptop, you can print to an Epson Email-enabled product anywhere in the world.

- 1. Set up your product for network printing as described in this manual. See the link below.
- 2. Visit epson.com/connect to learn more about Remote Print and how to download the software.
- 3. Download and install the Remote Print software.
- 4. Obtain the email address and optional access key of the Epson product you want to use for printing, and enter this address during Remote Print setup.
- 5. Select the print command in your application and choose the Remote Print driver for your Epson product.

Parent topic: Epson Connect Solutions for Smartphones, Tablets, and More

**Related topics** 

Wi-Fi or Wired Networking

## **Using AirPrint**

AirPrint allows you to wirelessly print to your AirPrint-enabled product from your iOS device running the latest version of iOS, and from your Mac running OS X 10.7 or later.



- 1. Set up your product for wireless printing as described in this manual. See the link below.
- 2. Connect your Apple device to the same wireless network that your product is using.

3. Print from your device to your product.

**Note:** For details, see the AirPrint page on the Apple website.

Parent topic: Product Basics

**Related topics** 

Wi-Fi or Wired Networking

## **Using Google Cloud Print**

With a Google Account, you can print from your Apple or Android device to your Epson product. You can also print from Chromebooks and the Google Chrome browser without drivers or cables.

Set up your Epson product for network printing as described in this manual. See the link below.

**Note:** Make sure your Epson printer and computer are connected to the same network before starting the Google Cloud Print setup.

- 1. Connect your device to the same network that your Epson product is using.
- 2. Print a network status sheet.
- 3. Locate your product's IP address on the network status sheet.
- 4. Enter the IP address into the address bar of a web browser.
- 5. Select the **Google Cloud Print Services** option.

**Note:** If you don't see the **Google Cloud Print Services** option, turn your product off and back on. If the option still doesn't appear, select the **Firmware Update** option and follow the on-screen instructions to update your product.

- 6. Click Register.
- 7. Select the checkbox to agree to the Usage Advisory and click **Next**.
- 8. Click **OK** to launch the sign-in page.

A separate browser window opens.

- 9. Enter your Google Account username and password and click **Sign in**, or, if you don't have an account, click **Sign up for a new Google Account** and follow the on-screen instructions.
- 10. Click Finish printer registration to complete setup and print a test page.

Your product is now linked to your Google Account and can be accessed from any Chromebook, computer, Apple or Android device with Internet access. Visit Epson Support for more information on using Google Cloud Print, or the Google Cloud Print website for a list of supported apps.

Setting Up Google Cloud Print on a Chromebook

Parent topic: Product Basics

**Related topics** 

Wi-Fi or Wired Networking

#### **Setting Up Google Cloud Print on a Chromebook**

With a Google Account, you can print from a Chromebook without drivers or cables.

Set up your Epson product for network printing as described in this manual. See the link below.

**Note:** Make sure your Epson product is connected to your wireless network before starting the Google Cloud Print setup.

1. Turn on your Chromebook and connect it to the same wireless network as your product.

**Note:** See your Chromebook's documentation for details on connecting to a network.

- 2. Do one of the following:
  - Click Add to Cloud Print in the notification that appears in the corner of your Chromebook screen.

**Note:** If you do not see a notification, check to see if a number appears in the status area at the lower-right corner of the screen. Click this number to open the notifications menu, then click **Add to Cloud Print**.

- Open a web browser and enter **chrome://devices** in the address bar. Skip to step 4.
- Click Add Device.
- 4. Click the **Register** button that appears next to your product.
- 5. Click **Register** on the confirmation screen. Your product's LCD screen displays a confirmation message.
- 6. Select **OK** or press the **OK** button on your product to confirm the Google Cloud Print connection and print a test page.

Your product is now linked to your Google Account and can be accessed from any Chromebook, iPhone, or Android phone with Internet access. For more information on using Google Cloud Print, visit Epson Support.

Parent topic: Using Google Cloud Print

Related topics

Wi-Fi or Wired Networking

# **Wi-Fi or Wired Networking**

See these sections to use your product on a Wi-Fi or wired network.

Wi-Fi Infrastructure Mode Setup

Wi-Fi Direct Mode Setup

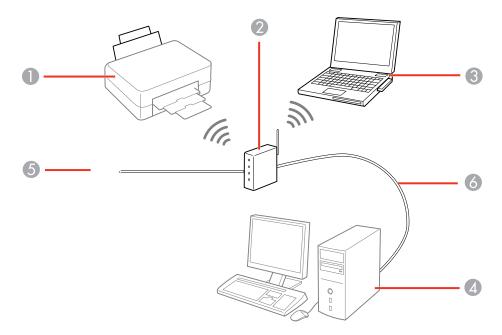
Wi-Fi Protected Setup (WPS)

**Printing a Network Status Sheet** 

**Changing or Updating Network Connections** 

## Wi-Fi Infrastructure Mode Setup

You can set up your product to communicate with your computer using a wireless router or access point. The wireless router or access point can be connected to your computer over a wireless or wired network.



- 1 Epson product
- 2 Wireless router or access point

- 3 Computer with a wireless interface
- 4 Computer
- 5 Internet
- 6 Ethernet cable (used only for wired connection to the wireless router or access point)

Selecting Wireless Network Settings From the Control Panel

Parent topic: Wi-Fi or Wired Networking

#### **Selecting Wireless Network Settings From the Control Panel**

You can select or change wireless network settings using your product control panel.

To install your product on a wireless network, follow the instructions on the *Start Here* sheet and install the necessary software. The installer program guides you through network setup.

**Note:** Breakdown or repair of this product may cause loss of network data and settings. Epson is not responsible for backing up or recovering data and settings during or after the warranty period. We recommend that you make your own backup or print out your network data and settings.

1. Press the arrow buttons to select **Wi-Fi Setup** and press the **OK** button.

You see this screen:



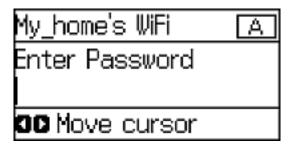
2. Select Wi-Fi Setup Wizard and press the OK button.

**Note:** If you need to disable the wireless network to set up your product on an Ethernet network, press the down arrow button, select **Disable Wi-Fi**, and press the **OK** button. Then follow the instructions on changing to a wired network connection in this guide.

3. Select the name of your wireless network and press the **OK** button.

**Note:** To enter the wireless network name manually, select **Other Networks** and press the **OK** button. Use the printer's buttons to enter your network name.

4. Enter your wireless password using the control panel buttons.



**Note:** The network name and password are case sensitive. Be sure to correctly enter uppercase and lowercase letters, and numeric or special characters.

- To enter letters or symbols, press the up or down arrow buttons to scroll through characters, and press the right arrow button to select one.
- To enter numbers or change the case of letters, press the ♥ **Stop** button.
- To delete the previous character, press the left arrow button.
- To enter a space, press the right arrow button.
- 5. Press the **OK** button when you're finished entering your password.
- 6. Confirm the displayed network settings and press the **OK** button to save them.

**Note:** If you need to change a setting, press the 3 **Back** button.

7. If you want to print a network setup report, press the down arrow button, select **Print connection report**, and press the **OK** button. (Otherwise, press the **OK** button.)

If the Wi-Fi connection symbol isn't lit or does not appear on the LCD screen, you may have selected the wrong network name or entered the password incorrectly. Repeat these steps to try again.

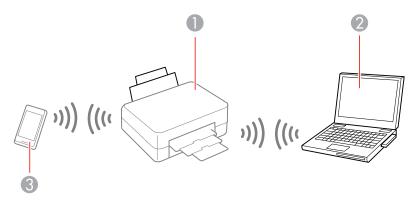
Parent topic: Wi-Fi Infrastructure Mode Setup

#### Related references

Status Icons

# Wi-Fi Direct Mode Setup

You can set up your product to communicate directly with your computer or another device without requiring a wireless router or access point.



- 1 Epson product
- 2 Computer with a wireless interface
- 3 Other wireless device

Your product automatically selects one of these modes to communicate with your computer or device:

#### **Access point mode**

If your product is not already connected to a wireless network, it enters access point mode and the product itself acts as the network access point for up to 4 devices. When operating in this mode, your product displays an **AP** connection symbol on the LCD screen.

#### Peer-to-peer mode

If your product is already connected to a wireless network, it enters peer-to-peer mode and disconnects from any other networks. This also disables any other product features requiring access to the Internet. When operating in this mode, your product displays a **Direct** or **D** connection symbol on the LCD screen.

**Note:** To disconnect a peer-to-peer mode connection, release the connection to your product from your computer or other device. Your product will reconnect to the previously used network.

**Enabling Wi-Fi Direct Mode** 

Parent topic: Wi-Fi or Wired Networking

Related references

Status Icons

#### **Enabling Wi-Fi Direct Mode**

You can enable Wi-Fi Direct mode to allow direct communication between your product and a computer or other devices without a wireless router or access point.

**Note:** You may need to enable the Wi-Fi Direct setting in the **Advanced Settings** menu before you can enable Wi-Fi Direct mode.

1. Press the arrow buttons to select **Wi-Fi Setup** and press the **OK** button.

You see this screen:

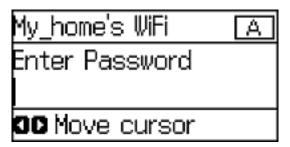


- 2. Select **Wi-Fi Direct Setup** and press the **OK** button.
- 3. Select **Connection Setup** and press the **OK** button.
- 4. Select Change Password and press the OK button.
- 5. Press the **OK** button.

**Note:** If you have already connected devices or computers to your product via Wi-Fi Direct, they will be disconnected when you change the password.

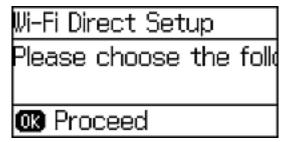
6. Enter a new Wi-Fi Direct password using the control panel buttons.

Note: Your password must be at least 8 and no more than 22 characters long.



- To enter letters or symbols, press the up or down arrow buttons to scroll through characters, and press the right arrow button to select one.
- To enter numbers or change the case of letters, press the ♥ Stop button.
- To delete the previous character, press the left arrow button.
- To enter a space, press the right arrow button.
- 7. Press the **OK** button when you're finished entering your password.
- 8. Press the up arrow button.

You see this screen:



- 9. Press the **OK** button to view the SSID (Wi-Fi network name) and password.
- 10. Use your computer or wireless device to select the Wi-Fi network name (SSID) displayed on the LCD screen, and enter the password shown.

11. Press the 3 Back button to exit.

You see either the **AP** or **D** connection symbol on the LCD screen and should be able to print directly to your product from your computer or device.

**Note:** If the **AP** or **D** connection symbol is not displayed on the LCD screen, Wi-Fi Direct mode is not enabled. Repeat these steps to try again.

Parent topic: Wi-Fi Direct Mode Setup

Related references

Status Icons

## Wi-Fi Protected Setup (WPS)

If your network uses a WPS-enabled wireless router or access point, you can quickly connect your product to the network using Wi-Fi Protected Setup (WPS).

**Note:** To check if your router is WPS-enabled, look for a button labeled **WPS** on your router or access point. If there is no hardware button, there may be a virtual WPS button in the software for the device. Check your network product documentation for details.

Using WPS to Connect to a Network

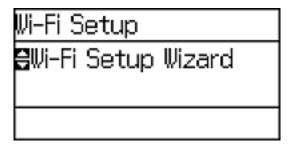
Parent topic: Wi-Fi or Wired Networking

#### **Using WPS to Connect to a Network**

If you have a WPS-enabled wireless router or access point, you can use Wi-Fi Protected Setup (WPS) to connect your product to the network.

1. Press the arrow buttons to select **Wi-Fi Setup** and press the **OK** button.

You see this screen:



- 2. Select **Push Button Setup (WPS)** and press the **OK** button.
- 3. Follow the instructions on the LCD screen to complete WPS setup.
- 4. Press the 3 Back button to exit.

Your product should now be connected to the network.

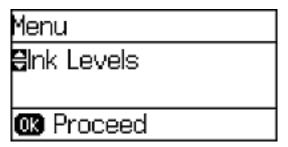
Parent topic: Wi-Fi Protected Setup (WPS)

# **Printing a Network Status Sheet**

You can print a network status sheet to help you determine the causes of any problems you may have using your product on a network.

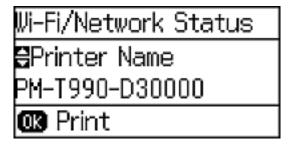
1. Press the arrow buttons to select **Menu** and press the **OK** button.

You see this screen:



- 2. Select **Network Status** and press the **OK** button.
- 3. Select **Wi-Fi/Network Status** and press the **OK** button.

You see a screen like this:



4. Press the **OK** button to print the network status sheet.

5. Press the up arrow button to begin printing the network status sheet.

Examine the settings shown on the network status sheet to diagnose any problems you have.

Parent topic: Wi-Fi or Wired Networking

# **Changing or Updating Network Connections**

See these sections to change or update how your product connects to a network.

Accessing the Web Config Utility

Changing a USB Connection to a Wi-Fi Connection

Changing a Wi-Fi Connection to a Wired Network Connection

Connecting to a New Wi-Fi Router

Disabling Wi-Fi Features

Parent topic: Wi-Fi or Wired Networking

### **Accessing the Web Config Utility**

You can select your product's network settings and confirm its operating status using a web browser. You do this by accessing your product's built-in Web Config utility from a computer or other device that is connected to the same network as your product.

**Note:** For more information on the Web Config utility see the *Administrator's Guide*.

- 1. Print a network status sheet.
- 2. Locate the IP Address for your product that is listed on the network status sheet.
- On a computer or other device connected to the same network as your product, open a web browser.
- 4. Enter your product's IP address into the address bar.

You see the available Web Config utility options.

Parent topic: Changing or Updating Network Connections

Related tasks

**Printing a Network Status Sheet** 

#### Changing a USB Connection to a Wi-Fi Connection

If you have already connected your product to your computer using a USB connection, you can change to a Wi-Fi connection or add a Wi-Fi connection to print wirelessly.

- 1. Do one of the following:
  - If you want to use only a Wi-Fi connection, disconnect the USB cable from your product. With Windows, also uninstall your product software.
  - If you want to add a Wi-Fi connection in addition to a USB connection, leave the USB cable connected to your product.
- 2. Download and install your product software from the Epson website using the instructions on the *Start Here* sheet.

Parent topic: Changing or Updating Network Connections

#### Changing a Wi-Fi Connection to a Wired Network Connection

If you have already connected your product to your computer wirelessly, you can change to a wired network connection if necessary.

- 1. Disable your product's Wi-Fi features.
- 2. Connect one end of an Ethernet network cable to the product's **LAN** port.
- 3. Connect the other end to any available LAN port on your router or access point.
- 4. Uninstall your product software.
- 5. Download and install your product software from the Epson website.
- 6. Follow the on-screen instructions to install the software.
- 7. When you see the Select Your Connection screen, select **Wired network connection**.
- 8. If you see a Select Setup Option screen, select **Setup printer for the first time**.
- 9. Continue following the rest of the on-screen instructions.

Parent topic: Changing or Updating Network Connections

Related tasks

Disabling Wi-Fi Features

#### **Connecting to a New Wi-Fi Router**

If you change the wireless router you have been using on your network, you need to update your product's Wi-Fi connection to the new router.

**Note:** If you switch to a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

- 1. Do one of the following:
  - Windows: Uninstall your product software.
  - **OS X**: Go to the next step.
- 2. Download and install your product software from the Epson website using the instructions on the *Start Here* sheet.

Parent topic: Changing or Updating Network Connections

Related tasks

Uninstalling Printing Software - Standard Epson Printer Software - Windows

#### **Disabling Wi-Fi Features**

You may need to disable your product's Wi-Fi features if you change your network connection type or need to solve a problem with your network connection.

**Note:** Before disabling Wi-Fi features, make a note of your product's SSID (network name) and password, and any network settings selected for the Epson Connect services you may use.

1. Press the arrow buttons to select **Wi-Fi Setup** and press the **OK** button.

You see this screen:



- 2. Select **Disable Wi-Fi** and press the **OK** button.
- 3. Press the up arrow button to disable Wi-Fi.

Parent topic: Changing or Updating Network Connections

# **Enabling Epson Universal Print Driver (PCL) or PostScript Printing**

Before enabling Epson Universal Print Driver (PCL) or PostScript printing on your product, make sure you have installed the software as described on the *Start Here* sheet.

To download the Epson Universal Print Driver or PostScript drivers, go to epson.com/support/wf8090.

Selecting PDL (Page Description Language) Settings Selecting Printer Language and Interface Settings Printing a PS3 (PostScript) Status Sheet

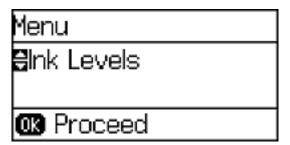
# Selecting PDL (Page Description Language) Settings

You can select settings for PCL and PostScript printing using the control panel on the product.

**Note:** These settings can be locked by an administrator. If you cannot access these settings, contact your administrator for assistance.

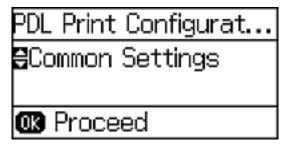
1. Press the arrow buttons to select **Menu** and press the **OK** button.

You see a screen like this:



- Select System Administration and press the OK button. Enter the administrator password, if necessary.
- 3. Select Universal Print Settings and press the OK button.
- 4. Select PDL Print Configuration and press the OK button.

You see a screen like this:



5. Select an option, then select the settings you want to use.

**PDL Print Configuration Options** 

Parent topic: Enabling Epson Universal Print Driver (PCL) or PostScript Printing

# **PDL Print Configuration Options**

Select the PDL Print Configuration options you want to use for PCL or PostScript printing.

PDL Print Configuration option	Available settings	Description
Common Settings		
Paper Size	Various sizes	Sets the default paper size for PCL or PostScript printing.
Paper Type	Various paper types	Sets the default paper type for PCL or PostScript printing.
Orientation	Portrait	Sets the default orientation for PCL or PostScript
	Landscape	printing.
Quality	Draft	Sets the quality for PCL or PostScript printing.
	Standard	
	Best	
Ink Save Mode	On/Off	Saves ink by reducing print density.

PDL Print Configuration option	Available settings	Description
Print Order	Last Page on Top	Starts printing from the first page of a file.
	First Page on Top	Starts printing from the last page of a file.
Number of Copies	1 to 999	Selects the number of copies to print.
Binding Margin	Left Edge	Specifies the binding edge for double-sided documents.
	Top Edge	
Auto Paper Ejection	On/Off	Ejects paper automatically when printing is stopped during a print job.
2-Sided Printing	On/Off	Selects duplex printing.
PCL Menu		
Font Source	Resident	Uses a font preinstalled on the printer.
	Download	Uses a font you have downloaded.
Font Number	1 to 111	Selects the default font number for the default font source.
Pitch	0.44 to 99.99 cpi	Selects the default font pitch if the font is scalable and fixed-pitch (availability depends on font source and number settings).
Height	4.00 to 999.75 pt	Selects the default font height if the font is scalable and proportional (availability depends on font source and number settings).
Symbol Set	Various	Selects the default symbol set. If the selected font is not available for the selected symbol set, the font source and number are replaced with <b>IBM-US</b> (the default setting).
Form	5 to 128 lines	Sets the number of lines for the selected paper size and orientation. Changes the line spacing (VMI) stored in the printer. Later changes in page size or orientation cause changes in the <b>Form</b> value based on the stored VMI.

PDL Print Configuration option	Available settings	Description
CR Function	CR	Selects the line feed command when printing with a
	CR+LF	driver from a specific operating system.
LF Function	LF	
	CR+LF	
Paper Source Assign	4	Makes the paper source select command compatible with HP LaserJet 4
	4K	Makes the paper source select command compatible with HP LaserJet 4000, 5000, and 8000
	5S	Makes the paper source select command compatible with HP LaserJet 5S
PS3 Menu		
Error Sheet	On/Off	Prints a sheet showing the status when errors occur during PostScript or PDF printing.
Coloration	Color	Selects the color mode for PostScript printing.
	Mono	
Image Protect	On/Off	Disable to lower the print quality automatically if the printer's memory becomes full.
Binary	On/Off	Enable when printing files that contain binary images (available when the product is connected to the network). Allows you to print binary images even if the driver is set to ASCII.
Text Detection	On/Off	Converts a text file to a PostScript file when printing (available when <b>Printing Language</b> is set to <b>PS3</b> ).
PDF Page Size	Various sizes	Selects the paper size when printing a PDF file. If <b>Auto</b> is selected, the paper size is determined based on the size of the first page.

Parent topic: Selecting PDL (Page Description Language) Settings

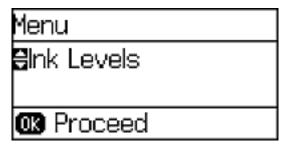
# **Selecting Printer Language and Interface Settings**

You can select printer language and interface settings using the control panel on the product.

**Note:** These settings can be locked by an administrator. If you cannot access these settings, contact your administrator for assistance.

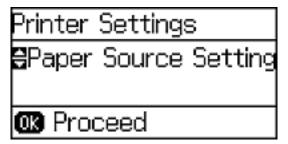
1. Press the arrow buttons to select **Menu** and press the **OK** button.

You see a screen like this:



- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.
- 3. Select Printer Settings.

You see a screen like this:



4. Select the **Printing Language** and other settings you want to use.

Printer Language and Interface Options

Parent topic: Enabling Epson Universal Print Driver (PCL) or PostScript Printing

## **Printer Language and Interface Options**

Select the settings you want to use.

Printer Settings option	Available settings	Description
USB I/F Timeout Setting	0.5 to 300 seconds	Specify the length of time before ending USB communication from a computer using the PCL or PostScript driver. This setting is necessary to avoid endless USB communication.
Printing Language	Auto	Select the language for the USB or network interface.
	PCL	
	PS3	
	PDF	
PC Connection via USB	Enable	Select whether to allow USB communication with the
	Disable	product.

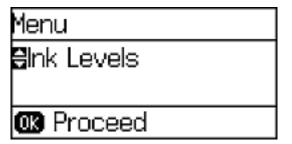
Parent topic: Selecting Printer Language and Interface Settings

# Printing a PS3 (PostScript) Status Sheet

You can print a PS3 (PostScript) status sheet to confirm the current font information and PostScript printing software version.

1. Press the arrow buttons to select **Menu** and press the **OK**.

You see this screen:



- 2. Select **Print Status Sheet** and press the **OK** button.
- 3. Select **PS3 Status Sheet** and press the **OK** button.
- 4. Press the up arrow button to begin printing the network status sheet.

Parent topic: Enabling Epson Universal Print Driver (PCL) or PostScript Printing

# **Loading Paper**

Before you print, load paper for the type of printing you will do.

Note: Load only plain paper when printing with the PostScript (PS3) printer software.

Loading Paper in the Cassette

Loading Paper and Envelopes in the Rear Paper Feed Slot

Loading Paper in the Front Paper Feed Slot

**Paper Loading Capacity** 

**Available Epson Papers** 

Paper or Media Type Settings - Printing Software

Selecting the Paper Settings for Each Source - Control Panel

Selecting Default Paper Settings - Administrator

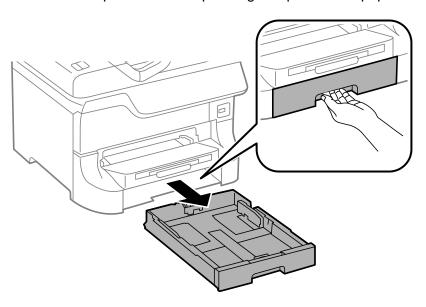
Installing the Optional Cabinet and Paper Cassettes

# **Loading Paper in the Cassette**

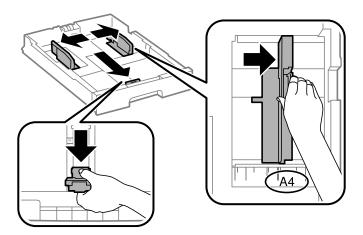
You can load paper up to this size in the paper cassette: A3 (11.7 x 16.5 inches [297 x 420 mm])

Note: If the optional paper cassette units are installed, do not remove more than one cassette at a time.

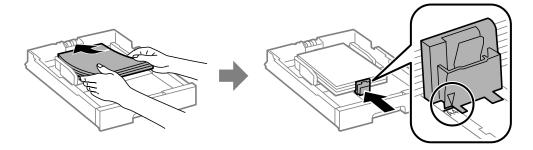
1. Make sure the product is not operating and pull out the paper cassette.



2. Slide the front edge guide outward all the way, then slide the side edge guides to the paper size you are using.

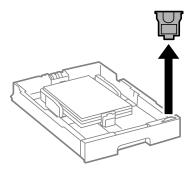


3. Load paper with the printable side facedown and slide the front edge guide against the paper.



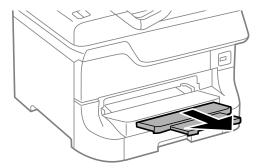
Note: Make sure the paper fits beneath the arrow mark inside the edge guides.

4. Make sure the paper size label matches the size of the paper loaded in the paper cassette. If necessary, remove the label holder and change the paper size indicated on the label.



5. Insert the paper cassette all the way into the product.

#### 6. Extend the output tray.



7. Select the size and type of paper you loaded on the product LCD screen.

Always follow these paper loading guidelines:

- Load only the recommended number of sheets.
- Load paper short edge first, no matter which way your document faces.
- Load the printable side facedown.
- Load letterhead or pre-printed paper top edge first.
- Do not load paper above the arrow mark inside the edge guides.
- Check the paper package for any additional loading instructions.

Parent topic: Loading Paper

Related references
Paper Loading Capacity

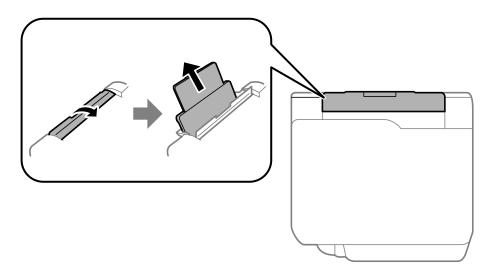
#### Related tasks

Loading Paper and Envelopes in the Rear Paper Feed Slot Loading Paper in the Front Paper Feed Slot

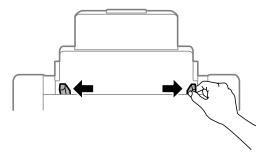
# **Loading Paper and Envelopes in the Rear Paper Feed Slot**

You can print envelopes or documents in a variety of paper types and sizes in the rear paper feed slot.

1. Open the feeder guard and pull up the paper support.

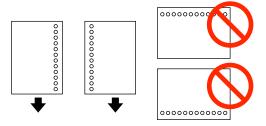


2. Slide the edge guides outward.

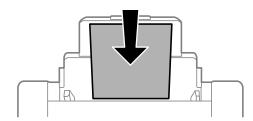


3. If you are inserting a stack of paper, fan the sheets and tap the stack on a flat surface to even the edges.

**Note:** You can load one sheet of binder paper with holes on one of the long edges as shown. Do not select automatic 2-sided printing for this type of paper.

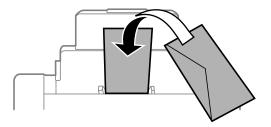


- 4. Do one of the following:
  - Insert paper, glossy or printable side up and short edge first, in the center of the slot.

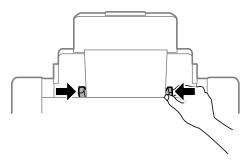


**Caution:** To prevent paper feeding problems, make sure you do not load paper above the arrow marks inside the edge guides.

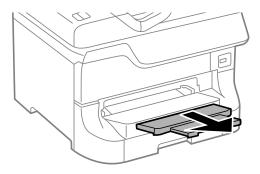
• Load envelopes short edge first, with the flap facing down and the flap edge to the left, in the center of the slot.



5. Slide the edge guides against the paper, but not too tightly.



6. Extend the output tray.



7. Select the size and type of paper you loaded in the **Paper Setup** menu.

Always follow these paper loading guidelines:

- Load only the recommended number of sheets.
- Load paper short edge first, no matter which way your document faces.
- Load the printable side faceup.
- Load letterhead or pre-printed paper top edge first.
- Do not load paper above the arrow mark inside the edge guides.
- If you have trouble loading a stack of envelopes, press each envelope flat before loading it or load one envelope at a time.
- If print quality declines when printing multiple envelopes, try loading one envelope at a time.
- Do not load envelopes that are curled, folded, or too thin.
- Check the paper package for any additional loading instructions.

Parent topic: Loading Paper

Related references
Paper Loading Capacity

Related tasks

Loading Paper in the Cassette

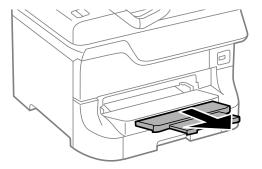
Loading Paper in the Front Paper Feed Slot

# **Loading Paper in the Front Paper Feed Slot**

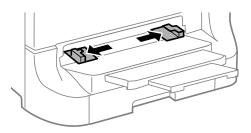
You can load one sheet of paper in the front paper feed slot.

**Note:** You cannot load paper while printing from the front paper feed slot. Paper that is too stiff may not load correctly even if it is within the product's paper thickness specifications.

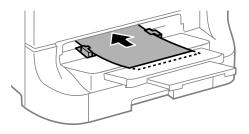
### 1. Extend the output tray.



2. Slide the edge guides to the paper size you are using.



3. Insert the paper with the printable side facedown until the product pulls it in partially.



**Note:** Keep the paper straight to prevent it from loading at an angle.

Always follow these paper loading guidelines:

• Load only one sheet at a time.

• Load paper short edge first, no matter which way your document faces.

• Load the printable side facedown.

• Load letterhead or pre-printed paper top edge first.

• Check the paper package for any additional loading instructions.

Parent topic: Loading Paper

Related references
Paper Specifications
Paper Loading Capacity

Related tasks

Loading Paper in the Cassette

Loading Paper and Envelopes in the Rear Paper Feed Slot

# **Paper Loading Capacity**

Paper type	Loading capacity			
	Paper cassettes	Rear paper feed slot	Front paper feed slot	
Plain paper <sup>1</sup>	A3 (11.7 × 16.5 inches [297 × 420 mm])	50 sheets	1	
	Up to the arrow mark			
	Letter (8.5 x 11 inches [216 x 279 mm]), A4 (8.3 x 11.7 inches [210 x 297 mm]), and Legal (8.5 x 14 inches [216 x 356 mm])	80 sheets	1	
	Up to the arrow mark			
Epson Bright White Paper <sup>1</sup>	200 sheets (cassette 1)	50 sheets	1	
	400 sheets (cassettes 2 to 4)			

Paper type	Loading capacity		
	Paper cassettes	Rear paper feed slot	Front paper feed slot
Epson Presentation Paper Matte	_	A3 (11.7 × 16.5 inches [297 × 420 mm]) and larger	_
		50 sheets	
		Letter (8.5 x 11 inches [216 x 279 mm]) and smaller	
		70 sheets	
Epson Photo Paper Glossy	_	20	
Epson Premium Photo Paper Glossy			
Epson Premium Photo Paper Semi-gloss	_	A3 (11.7 × 16.5 inches [297 × 420 mm]) and larger	_
Epson Ultra Premium Photo Paper Glossy		10 sheets	
Epson Premium Presentation Paper Matte		Letter (8.5 x 11 inches [216 x 279 mm]) and smaller	
Epson Premium Presentation Paper Matte Double-sided		20 sheets	
Epson Brochure & Flyer Paper Matte Double-sided			
Thick paper (cardstock up to 68 lb [256 g/m <sup>2</sup> ]) <sup>2</sup>	_	A3 (11.7 × 16.5 inches [297 × 420 mm]), Letter (8.5 × 11 inches [216 × 279 mm]) and A4 (8.3 × 11.7 inches [210 × 297 mm]) 10 sheets	_
Envelopes	_	10 sneets 10 envelopes	
Liverphes		In envelopes	<u> </u>

<sup>1</sup>You can print 2-sided print jobs automatically or manually. You can only print 2-sided print jobs manually in the rear paper feed slot. Load up to 30 sheets for manual 2-sided print jobs.

Parent topic: Loading Paper

# **Available Epson Papers**

You can purchase genuine Epson ink and paper at Epson Supplies Central at epson.com/ink3 (U.S. sales) or epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

Paper Type	Size	Part number	Sheet count
Epson Bright White Paper	Letter (8.5 × 11 inches [216 × 279 mm])	S041586	500
Epson Brochure & Flyer Paper Matte Double-sided	Letter (8.5 × 11 inches [216 × 279 mm])	S042384	150
Epson Presentation Paper Matte	Letter (8.5 × 11 inches [216 × 279 mm])	S041062	100
	Legal (8.5 × 14 inches [216 × 356 mm])	S041067	100
	11 x 17 inches (279 x 432 mm)	S041069	100
	13 × 19 inches (330 × 483 mm)	S041070	100
Epson Premium Presentation	8 x 10 inches (203 x 254 mm)	S041467	50
Paper Matte	Letter (8.5 × 11 inches [216 × 279 mm])	S041257	50
		S042180	100
	11 × 14 inches (279 × 356 mm)	S041468	50
	A3 (11.7 × 16.5 inches [297 × 420 mm])	S041260	50
	13 x 19 inches (330 x 483 mm)	S041263	50

<sup>&</sup>lt;sup>2</sup> You can load up to 5 sheets for manual 2-sided print jobs.

Paper Type	Size	Part number	Sheet count
Epson Premium Presentation Paper Matte Double-sided	Letter (8.5 × 11 inches [216 × 279 mm])	S041568	50
Epson Photo Paper Glossy	4 x 6 inches (102 x 152 mm)	S041809	50
		S042038	100
	Letter (8.5 × 11 inches	S041141	20
	[216 × 279 mm])	S041649	50
		S041271	100
	11 × 17 inches (279 × 432 mm)	S041156	20
	13 × 19 inches (330 × 483 mm)	S041143	20
Epson Premium Photo Paper	4 x 6 inches (102 x 152 mm)	S041808	40
Glossy		S041727	100
	16:9 wide (4 × 7.1 inches [102 × 181 mm])	S042109	20
	5 x 7 inches (127 x 178 mm)	S041464	20
	8 x 10 inches (203 x 254 mm)	S041465	20
	Letter (8.5 × 11 inches	S042183	25
	[216 × 279 mm])	S041667	50
	11 × 14 inches (279 × 356 mm)	S041466	20
	11 × 17 inches (279 × 432 mm)	S041290	20
	A3 (11.7 × 16.5 inches [297 × 420 mm])	S041288	20
	13 × 19 inches (330 × 483 mm)	S041289	20

Paper Type	Size	Part number	Sheet count
Epson Ultra Premium Photo Paper	4 x 6 inches (102 x 152 mm)	S042181	60
Glossy		S042174	100
	5 x 7 inches (127 x 178 mm)	S041945	20
	8 x 10 inches (203 x 254 mm)	S041946	20
	Letter (8.5 × 11 inches [216 × 279 mm])	S042182	25
		S042175	50
Epson Premium Photo Paper	4 x 6 inches (102 x 152 mm)	S041982	40
Semi-gloss	Letter (8.5 × 11 inches [216 × 279 mm])	S041331	20
	13 × 19 inches (330 × 483 mm)	S041327	20

Parent topic: Loading Paper

# **Paper or Media Type Settings - Printing Software**

For this paper	Select this paper Type or Media Type setting
Plain paper	Plain Paper / Bright White Paper
Epson Bright White Paper	
Letterhead paper	Letterhead
Recycled paper	Recycled
Color paper	Color
Preprinted paper	Preprinted
Envelopes	Envelope
Epson Ultra Premium Photo Paper Glossy	Ultra Premium Photo Paper Glossy
Epson Premium Photo Paper Glossy	Premium Photo Paper Glossy
Epson Photo Paper Glossy	Photo Paper Glossy
Epson Premium Photo Paper Semi-gloss	Premium Photo Paper Semi-Gloss

For this paper	Select this paper Type or Media Type setting
Epson Presentation Paper Matte	Premium Presentation Paper Matte
Epson Premium Presentation Paper Matte	
Epson Premium Presentation Paper Matte Double-sided	
Epson Brochure & Flyer Paper Matte Double-sided	
Cardstock up to 68 lb (256 g/m²)	Card Stock

Parent topic: Loading Paper

# **Selecting the Paper Settings for Each Source - Control Panel**

You can change the default paper size and paper type for each paper source using the control panel on the product.

- 1. Press the **PN** Paper Setup button.
- 2. Select the paper source you want to change and press the **OK** button.

You see a screen like this:

Paper	Setup
Paper	Cassette

- 3. Select the paper size you loaded and press the **OK** button.
- 4. Select the paper type you loaded and press the **OK** button.
- 5. Select another paper source to change or press the 3 Back button to exit.

Paper Type Settings - Control Panel

Parent topic: Loading Paper

## **Paper Type Settings - Control Panel**

Select a **Paper Type** setting that matches the paper you loaded.

Paper type loaded	Paper Type setting
Plain paper	Plain Paper
Epson Bright White Paper	
Letterhead paper	Letterhead
Recycled paper	Recycled
Color paper	Color
Preprinted paper	Preprinted
Envelopes	Envelope
Epson Ultra Premium Photo Paper Glossy	Ultra Glossy
Epson Premium Photo Paper Glossy	Prem. Glossy
Epson Photo Paper Glossy	Glossy
Epson Premium Photo Paper Semi-gloss	Prem. Semi-Gloss
Epson Presentation Paper Matte	Prem. Matte
Epson Premium Presentation Paper Matte	
Epson Premium Presentation Paper Matte Double- sided	
Epson Brochure & Flyer Paper Matte Double-sided	
Cardstock up to 68 lb (256 g/m²)	Card Stock

Parent topic: Selecting the Paper Settings for Each Source - Control Panel

# **Selecting Default Paper Settings - Administrator**

As an administrator, you can adjust default paper settings that apply to all print jobs sent to the product.

**Note:** These settings can be locked by an administrator. If you cannot access these settings, contact your administrator for assistance.

Selecting the Paper Source Settings - Administrator

#### Selecting Universal Print Settings

Parent topic: Loading Paper

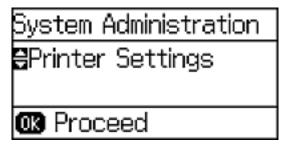
#### **Selecting the Paper Source Settings - Administrator**

You can change default paper source settings using the control panel on the product.

**Note:** These settings can be locked by an administrator. If you cannot access these settings, contact your administrator for assistance.

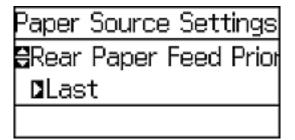
- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.

You see this screen:



- 3. Select **Printer Settings** and press the **OK** button.
- 4. Select **Paper Source Settings** and press the **OK** button.

You see a screen like this:



5. Select the paper source options you want to use.

6. When you are finished, press the 5 Back button to exit.

Paper Source Settings Options

Parent topic: Selecting Default Paper Settings - Administrator

#### **Paper Source Settings Options**

Select the Paper Source Settings options you want to use for your printed jobs.

Paper Source Settings option	Available settings	Description
Rear Paper Feed Priority	Normal	Select <b>Normal</b> to give printing priority to paper loaded in the rear paper feed slot.
	Last	
A4/Letter Auto Switching	On	Select <b>On</b> to switch the selected paper size to match the loaded paper (Letter or A4) if the wrong size is selected.
	Off	
<b>Error Notice</b>	Paper Size Notice	Select <b>On</b> for either of these settings to display an error message when the selected paper type or size does not match the loaded paper.
Pape	Paper Type Notice	

Parent topic: Selecting the Paper Source Settings - Administrator

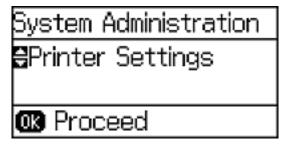
#### **Selecting Universal Print Settings**

You can change the default universal print settings using the product control panel.

**Note:** These settings can be locked by an administrator. If you cannot access these settings, contact your administrator for assistance.

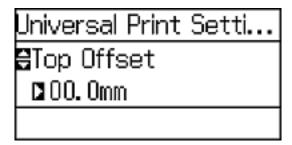
- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.

You see this screen:



3. Select Universal Print Settings and press the OK button.

You see this screen:



- 4. Adjust the settings as necessary.
- 5. When you are finished, press the 3 Back button to exit.

**Universal Print Settings Options** 

Parent topic: Selecting Default Paper Settings - Administrator

### **Universal Print Settings Options**

Select the universal print settings you want to use.

Universal Print Settings option	Available settings	Description
Top Offset		Adjust the top or left margin.
Left Offset		

Universal Print Settings option	Available settings	Description
Top Offset in Back	_	Adjust the top or left margin of the back page when performing double-sided printing.
Left Offset in Back		
Check Paper Width	On	Select <b>On</b> to check the paper width before printing. This
	Off	prevents printing beyond the edges of the paper when the paper size settings are wrong, but may reduce the printing speed.
Dry Time	Standard	Select the drying time when printing double-sided.
	Long	
	Longer	
Skip Blank Page	On	Select <b>On</b> to skip blank pages automatically.
	Off	
PDL Configuration	Common Settings	Selects the settings for printing with PCL and PostScript Page Description Language drivers.
	PCL Menu	
	PS3 Menu	

Parent topic: Selecting Universal Print Settings

# **Installing the Optional Cabinet and Paper Cassettes**

Follow these instructions to add the optional cabinet and paper cassette to your product. If you are installing the optional cabinet, install the cabinet under the bottom of the optional cassette unit first.

**Installing the Optional Cabinet** 

Installing the Optional Paper Cassette Units

Parent topic: Loading Paper

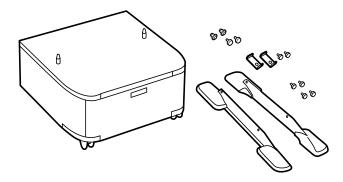
#### **Installing the Optional Cabinet**

You can install the optional cabinet to provide mobility and extra storage space.

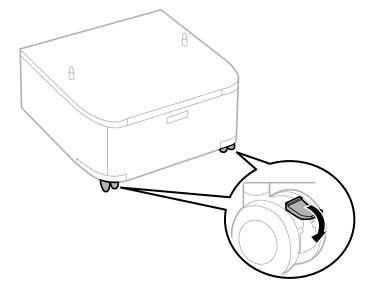
1. Turn off the product, and unplug the power cord and any connected cables.

Warning: To avoid electric shock, make sure you unplug the power cord.

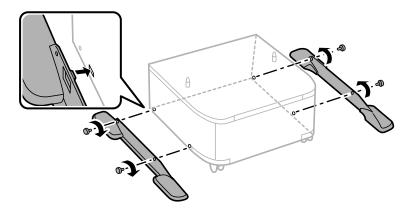
- 2. Remove the cabinet from its packaging and remove any protective materials.
- 3. Make sure you have all the items shown here:



4. Place the cabinet on a flat surface and lock the front casters.

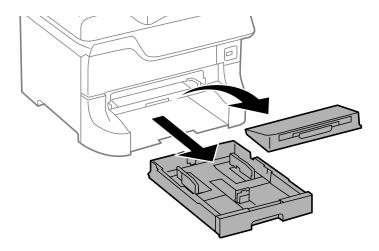


5. Attach and secure the stands to the cabinet with the included screws.

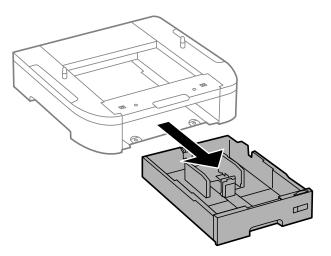


Caution: Make sure the stands are securely attached or the product may fall over.

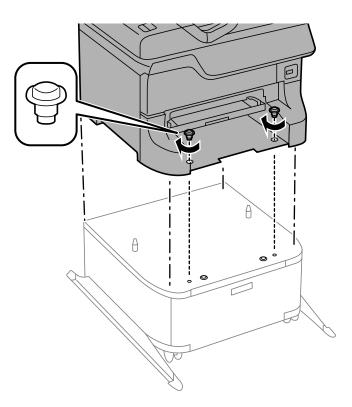
6. Remove the output tray and paper cassette from the product.



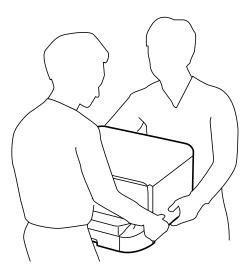
**Note:** If you installed the optional paper cassette unit, remove the paper cassette from the optional cassette unit instead.



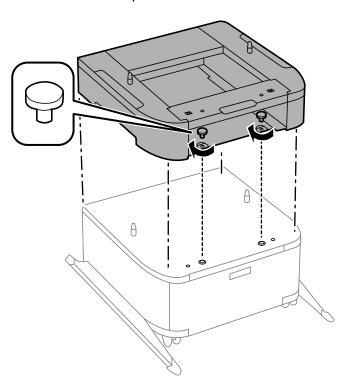
7. Lift up your product and gently lower it onto the cabinet with the corners aligned. Secure the product to the cabinet with the included screws.



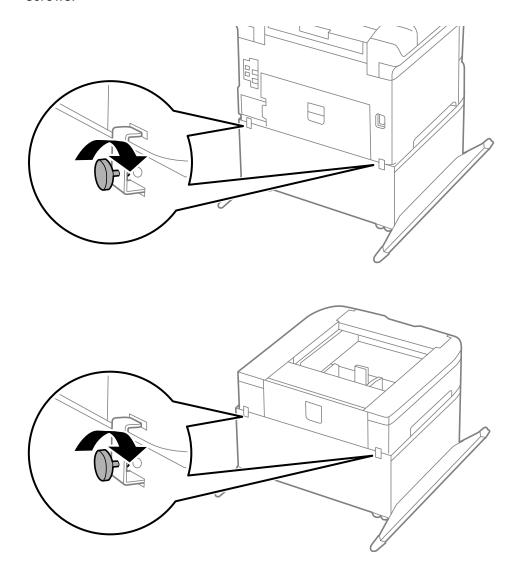
**Warning:** To lift the product, have two or more people hold it as shown here. Lifting from other areas may cause the product to fall or cause you to pinch your fingers when placing the product down.



**Note:** Secure the optional cassette to the cabinet as shown here.



8. Secure the back of the product or paper cassette unit to the cabinet using the included brackets and screws.



- 9. Insert the paper cassette you removed and attach the output tray.
- 10. Connect the power cord and other connection cables, then plug in the product.

Parent topic: Installing the Optional Cabinet and Paper Cassettes

## **Installing the Optional Paper Cassette Units**

You can install up to three optional paper cassette units to provide more paper capacity. If you are using the optional cabinet, install the cabinet under the bottom of the cassette unit first.

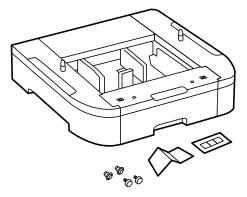
1. Turn off the product, and unplug the power cord and any connected cables.

Warning: To avoid electric shock, make sure you unplug the power cord.

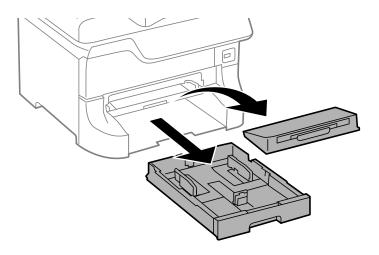
2. Uninstall any optional cassette units already installed on the product.

**Note:** To uninstall any optional cassette units, turn off the product, unplug the power cord, disconnect any cables, and follow the rest of these instructions in reverse.

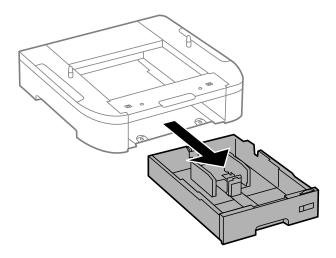
- 3. Remove the paper cassette unit from its packaging and remove any protective materials.
- 4. Make sure you have all the items shown here:



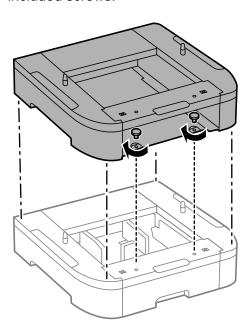
5. Remove the output tray and paper cassette from the product.



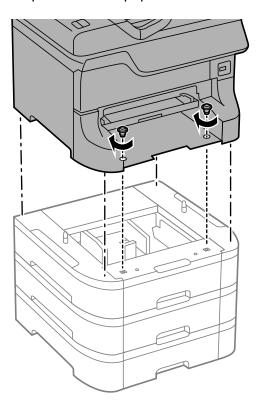
6. Remove the paper cassette from the optional paper cassette unit.



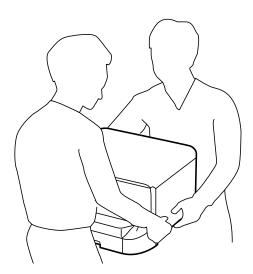
7. Stack all optional paper cassette units on top of each other and secure them to each other with the included screws.



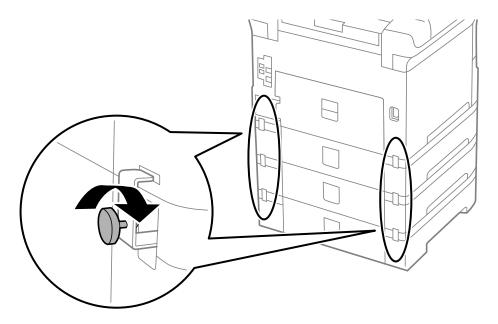
8. Lift up your product and gently lower it onto the paper cassette unit with the corners aligned. Secure the product to the paper cassette unit with the included screws using a screw driver.



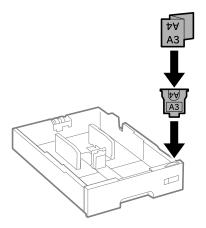
**Warning:** To lift the product, have two people hold it as shown here. Lifting from other areas may cause the product to fall or cause you to pinch your fingers when placing the product down.



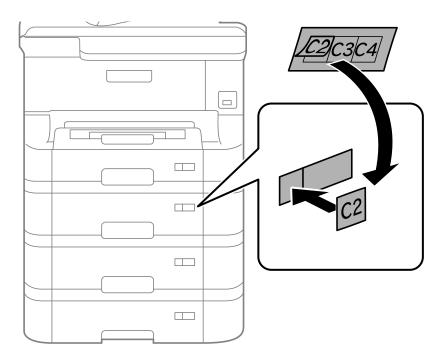
9. Secure the back of the paper cassette units to each other and to the product using the included brackets and screws.



10. Insert a label into the holder indicating the paper size to be loaded in the paper cassette.



11. Place the correct sticker on the cassette unit to indicate the cassette number.



- 12. Connect the power cord and other connection cables, then plug in the product.
- 13. Turn on the product.
- 14. Pull out and reinsert the paper cassette in the optional paper cassette unit to confirm the cassette unit is displayed on the **Paper Setup** screen.
- 15. Enable the optional paper cassette units in the printer software.

Enabling the Optional Paper Cassettes - Windows

Enabling the Optional Paper Cassettes - OS X

Parent topic: Installing the Optional Cabinet and Paper Cassettes

### Related tasks

**Enabling the Optional Paper Cassettes - Windows** 

Synchronizing Printer Settings - Epson Universal Print Driver - Windows

Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows

Enabling the Optional Paper Cassettes - OS X
Enabling the Optional Paper Cassettes - PostScript Printer Software - OS X

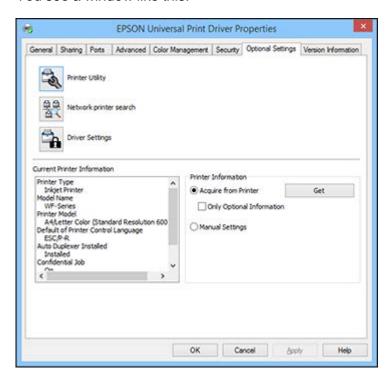
## **Enabling the Optional Paper Cassettes - Windows**

You need to enable the optional paper cassette units before you can use them with the printer software.

**Note:** If you are using the Epson Universal Print Driver or PostScript (PS3) printer software, see the sections covering that software in this manual to enable the optional cassette units.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click your product name and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click your printer name and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click your printer name and select Properties.
  - Windows XP: Click Start and select Printers and Faxes. Right-click your product name and select Properties.
- 2. Click the **Optional Settings** tab.

#### You see a window like this:



Make sure Acquire from Printer is selected, then click Get.
 The optional paper sources are listed in the Current Printer Information section.

4. Click OK.

The optional paper cassettes are now enabled.

Parent topic: Installing the Optional Paper Cassette Units

Related tasks

Synchronizing Printer Settings - Epson Universal Print Driver - Windows Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows

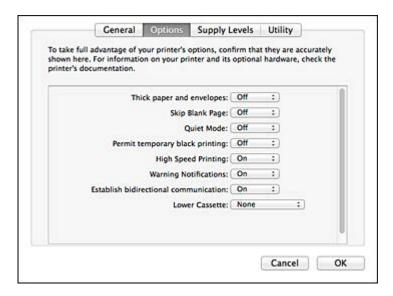
## **Enabling the Optional Paper Cassettes - OS X**

You need to enable the optional paper cassette units before you can use them with the printer software.

**Note:** If you are using the PostScript (PS3) printer software, see the section covering that software in this manual to enable the optional cassette units.

- 1. In the Apple menu or the Dock, select System Preferences.
- 2. Select **Print & Fax**, **Print & Scan**, or **Printers & Scanners**, select your product, and select **Options & Supplies**.
- 3. Select **Driver** or **Options**.

You see a screen like this:



- 4. Select the number of optional cassette units installed for the **Lower Cassette** setting.
- 5. Click **OK**.

The optional paper cassettes are now enabled.

Parent topic: Installing the Optional Paper Cassette Units

Related tasks

Enabling the Optional Paper Cassettes - PostScript Printer Software - OS X

# **Printing from a Computer**

Before printing from your computer, make sure you have set up your product and installed its software as described on the *Start Here* sheet.

**Note:** If you have an Internet connection, it is a good idea to check for updates to your product software on Epson's support website. If you see a Software Update screen, select **Enable automatic checking** and click **OK**. The update scans your system to see if you have the latest product software. Follow the on-screen instructions.

**Printing with Windows** 

Printing with OS X

Printing with the Epson Universal Print Driver - Windows

Printing with the PostScript (PS3) Printer Software - Windows

Printing with the PostScript (PS3) Printer Software - OS X

Cancelling Printing Using a Product Button

# **Printing with Windows**

You can print with your product using any Windows printing program, as described in these sections.

Selecting Basic Print Settings - Windows

Selecting Double-sided Printing Settings - Windows

Selecting Additional Layout and Print Options - Windows

Selecting a Printing Preset - Windows

Selecting Extended Settings - Windows

Printing Your Document or Photo - Windows

Locking Printer Settings - Windows

Selecting Default Print Settings - Windows

**Changing Automatic Update Options** 

Parent topic: Printing from a Computer

## **Selecting Basic Print Settings - Windows**

Select the basic settings for the document or photo you want to print.

1. Open a photo or document for printing.

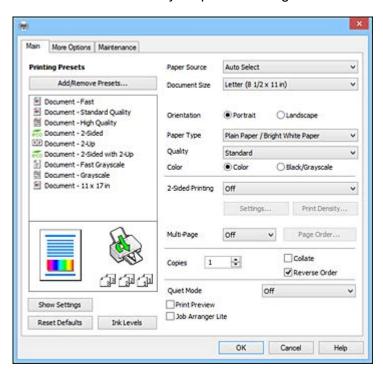
2. Select the print command in your application.

**Note:** You may need to select a print icon on your screen, the **Print** option in the **File** menu, or another command. See your application's help utility for details.

3. If necessary, select your product name as the printer you want to use.

**Note:** You may also need to select **Properties** or **Preferences** to view your print settings.

You see the Main tab of your printer settings window:



- 4. For the **Paper Source** setting, select where you loaded the paper you want to print on.
- 5. Select the size of the paper you loaded as the **Document Size** setting.

6. Select the orientation of your document.

**Note:** If you are printing an envelope, select **Landscape**.

7. Select the type of paper you loaded as the **Paper Type** setting.

**Note:** The setting may not exactly match the name of your paper. Check the paper type settings list for details.

- 8. Select the **Quality** setting that matches the print quality you want to use.
- 9. Select a Color option:
  - To print a color document or photo, select the Color setting.
  - To print text and graphics in black or shades of gray, select the Black/Grayscale setting.
- To print on both sides of the paper, select the 2-Sided Printing checkbox and select the options you want.
- 11. To print multiple pages on one sheet of paper, or print one image on multiple sheets of paper, select one of the settings in the **Multi-Page** menu and select the printing options you want.
- 12. To print multiple copies and arrange their print order, select the **Copies** options.
- 13. To preview your job before printing, select Print Preview.
- 14. To save your print job as a project that can be modified and combined with other print jobs, select **Job Arranger Lite**.
- 15. To reduce noise during printing when you select **Plain Paper/Bright White Paper**, select **On** in the Quiet Mode menu.

Paper Source Options - Windows Print Quality Options - Windows Multi-Page Printing Options - Windows

Parent topic: Printing with Windows

Related references

Paper or Media Type Settings - Printing Software

Related tasks

Selecting Double-sided Printing Settings - Windows

Printing Your Document or Photo - Windows

#### **Paper Source Options - Windows**

You can select any of the available options in the Paper Source menu to print on the paper loaded in that source.

**Note: Paper Cassette 2** through **Paper Cassette 4** are available only if you have installed the optional cassettes.

#### **Auto Select**

Automatically selects the paper source based on the selected paper size.

### **Paper Cassette 1**

Selects the paper in cassette 1 as the paper source.

#### Paper Cassette 2

Selects the paper in cassette 2 as the paper source.

## Paper Cassette 3

Selects the paper in cassette 3 as the paper source.

## Paper Cassette 4

Selects the paper in cassette 4 as the paper source.

## **Rear Paper Feed Slot**

Selects the paper in the rear feed slot as the paper source.

## **Front Paper Feed Slot**

Selects the paper in the front feed slot as the paper source.

Parent topic: Selecting Basic Print Settings - Windows

## **Print Quality Options - Windows**

You can select any of the available Quality options to fine-tune the quality of your print. Some settings may be unavailable, depending on the paper type and border setting you have chosen.

#### Draft

For draft printing on plain paper.

#### Standard

For everyday text and image printing.

#### Standard - Vivid

For text and graphics with good quality and print speed.

## High

For photos and graphics with high print quality.

#### **More Settings**

Opens a window that lets you choose among levels of speed and quality.

Parent topic: Selecting Basic Print Settings - Windows

## **Multi-Page Printing Options - Windows**

You can select any of the available options in the Multi-Page menu to set up your multi-page print job.

#### 2-Up and 4-Up

Prints 2 or 4 pages on one sheet of paper. Click the **Page Order** button to select page layout and border options.

#### 2×1 Poster, 2×2 Poster, 3×3 Poster, 4×4 Poster

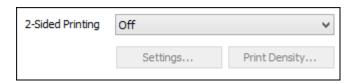
Prints one image on multiple sheets of paper to create a larger poster. Click the **Settings** button to select image layout and guideline options.

Parent topic: Selecting Basic Print Settings - Windows

## **Selecting Double-sided Printing Settings - Windows**

You can print on both sides of the paper by selecting one of the **2-Sided Printing** options on the Main tab.

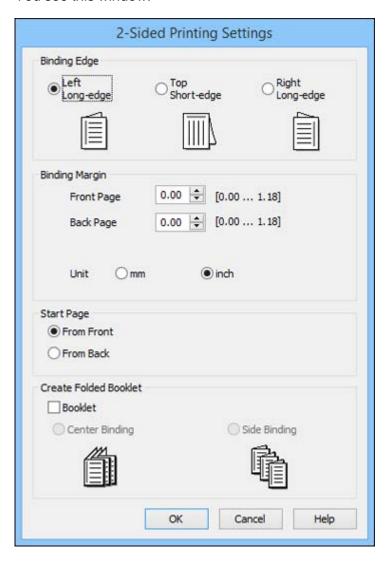
**Note:** Some options may be pre-selected or unavailable, depending on other settings you have chosen or if you are accessing the product over a network.



- 1. Select one of the following options for **2-Sided Printing**:
  - Auto (Long-edge binding) to print your double-sided print job by automatically flipping the paper on the long edge.
  - Auto (Short-edge binding) to print your double-sided print job by automatically flipping the paper on the short edge.
  - Manual (Long-edge binding) to print your double-sided print job by printing one side and
    prompting you to flip the paper over on the long edge to print the other side (recommended for
    paper types that do not support automatic duplexing).

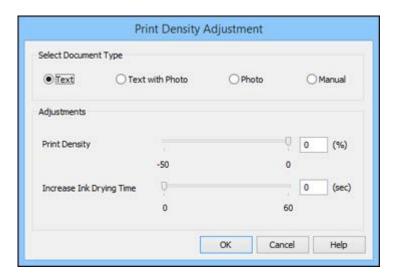
- Manual (Short-edge binding) to print your double-sided print job by printing one side and
  prompting you to flip the paper over on the short edge to print the other side (recommended for
  paper types that do not support automatic duplexing).
- 2. Click the **Settings** button.

You see this window:



- 3. Select the double-sided printing options you want to use.
- 4. Click **OK** to return to the Main tab.
- 5. Click the **Print Density** button.

You see this window:



- 6. Select the type of document you are printing as the Document Type setting. The software automatically sets the **Adjustments** options for that document type.
- 7. If necessary, select the **Adjustments** options you want to use.
- 8. Click **OK** to return to the Main tab.
- 9. Print a test copy of your double-sided document to test the selected settings.
- 10. Follow any instructions displayed on the screen during printing.

Double-sided Printing Options - Windows

Print Density Adjustments - Windows

Parent topic: Printing with Windows

Related tasks

Selecting Basic Print Settings - Windows

#### **Double-sided Printing Options - Windows**

You can select any of the available options on the 2-Sided Printing Settings window to set up your double-sided print job.

## **Binding Edge Options**

Select a setting that orients double-sided print binding in the desired direction.

## **Binding Margin Options**

Select options that define a wider margin to allow for binding.

## **Start Page**

Selects whether printing starts on the front or back page.

## **Create Folded Booklet Options**

Select the **Booklet** checkbox and a binding option to print double-sided pages as a booklet.

Parent topic: Selecting Double-sided Printing Settings - Windows

## **Print Density Adjustments - Windows**

You can select any of the available options on the Print Density Adjustment window to adjust the print quality of your double-sided print job.

#### **Print Density**

Sets the level of ink coverage for double-sided printing.

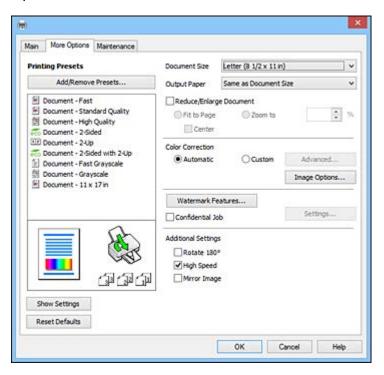
## **Increase Ink Drying Time**

Sets the amount of time required for drying ink after printing on one side of the paper before printing the other side in double-sided printing to prevent ink smearing.

Parent topic: Selecting Double-sided Printing Settings - Windows

## **Selecting Additional Layout and Print Options - Windows**

You can select a variety of additional layout and printing options for your document or photo on the More Options tab.



- 1. To change the size of your printed document or photo, select the **Reduce/Enlarge Document** checkbox and select one of these sizing options:
  - Select the Fit to Page option to size your image to fit the paper you loaded. Select the size of the
    your document or photo as the Document Size setting, and the size of your paper as the Output
    Paper setting. If you want to center your image on the paper, select the Center option.
  - Select the **Zoom to** option to reduce or enlarge your document or photo by a specific percentage. Select the percentage in the % menu.
- 2. Select one of the following Color Correction options:
  - Select **Automatic** to automatically adjust the sharpness, brightness, contrast, and color saturation for your image.

- Select Custom and click the Advanced button to manually adjust the color correction settings or turn off color management in your printer software.
- Select **Image Options** to access additional settings for improving printed images.
- 3. To add the following features, click the **Watermark Features** button:
  - Anti-Copy Pattern: adds a watermark that only appears when your printout is copied.
  - Watermark: adds a visible watermark to your printout.

**Note:** Click the **Add/Delete** button to create your own watermark, and click the **Settings** button to customize the watermark.

• Header/Footer: adds information such as the date and time to the top or bottom of your printout.

**Note:** Click the **Settings** button to customize the text and location of the header or footer.

4. To add a password to your print job, select the **Confidential Job** checkbox, then enter a password. Confidential jobs are stored in the product's memory without being printed. To print the job, enter the password for the confidential job on the product's control panel.

**Note:** Confidential print jobs are cleared from the product's memory after printing.

5. Select any of the Additional Settings options to customize your print.

Custom Color Correction Options - Windows Image Options and Additional Settings - Windows Header/Footer Settings - Windows

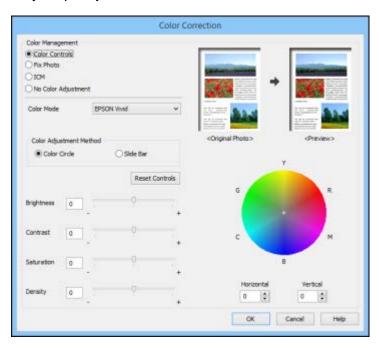
Parent topic: Printing with Windows

Related tasks

Printing Your Document or Photo - Windows

## **Custom Color Correction Options - Windows**

You can select any of the available options in the Color Correction window to customize the image colors for your print job.



#### **Color Controls**

Lets you select a **Color Mode** setting, individual settings for **Brightness**, **Contrast**, **Saturation**, and **Density**, and individual color tones. Depending on the selected color mode, you can also adjust the midtone density using the **Gamma** setting.

#### **Fix Photo**

Improves the color, contrast, and sharpness of flawed photos.

**Note:** Fix Photo uses a sophisticated face recognition technology to optimize photos that include faces. For this to work, both eyes and the nose must be visible in the subject's face. If your photo includes a face with an intentional color cast, such as a statue, you may want to turn off **Fix Photo** to retain the special color effects.

#### **ICM**

Lets you manage color using installed color printing profiles.

## **No Color Adjustment**

Turns off color management in your printer software so you can manage color using only your application software.

Parent topic: Selecting Additional Layout and Print Options - Windows

#### **Image Options and Additional Settings - Windows**

You can select any of the Image Options and Additional Settings to customize your print. Some options may be pre-selected or unavailable, depending on other settings you have chosen.

#### **Image Options**

#### **Emphasize Text**

Adjusts the weight of printed text to increase readability.

## **Emphasize Thin Lines**

Adjusts the weight of printed lines to increase visibility.

### **Edge Smoothing**

Smooths jagged edges in low-resolution images such as screen captures or images from the Web.

#### **Fix Red-Eye**

Reduces or removes red-eye in photos.

#### **Print Text in Black**

Prints colored text in black.

### For Color Text

Prints colored text on a background pattern or underlined.

## For Color Graphs and Images

Prints colored graphics and images with overlay patterns.

## For Color Text, Graphs, and Images

Prints colored text, graphics, and images with overlay patterns.

## **Enhancement Options**

Specifies Color Universal Print enhancement settings for text, graphics, and images.

## **Additional Settings Options**

#### Rotate 180°

Prints the image rotated 180° from its original orientation.

## **High Speed**

Speeds up printing but may reduce print quality.

## Mirror Image

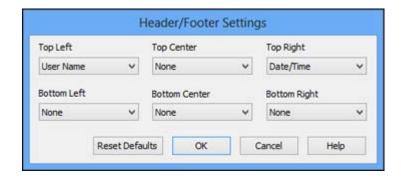
Flips the printed image left to right.

Parent topic: Selecting Additional Layout and Print Options - Windows

## **Header/Footer Settings - Windows**

You can select any of the Header/Footer Settings options to add headers or footers when you print. The items are available to print at the top or bottom of your pages, in either the left, right, or center of the page.

**Note:** These settings are not saved with your document.



You can select to print the following information:

- User Name
- Computer Name
- Date
- Date/Time
- Collate Number (copy number)

**Note:** The user name, computer name, date, and time come from the Windows Control Panel on your computer.

Parent topic: Selecting Additional Layout and Print Options - Windows

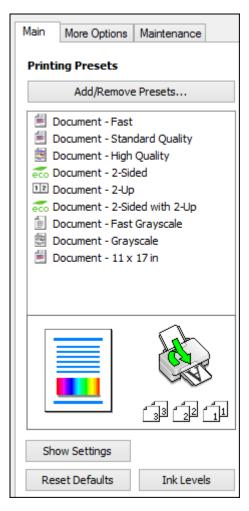
## **Selecting a Printing Preset - Windows**

For quick access to common groups of print settings, you can select a printing preset on the Main or More Options tab.

Note: You can create your own preset by clicking the Add/Remove Presets button.

1. Click the **Main** or **More Options** tab.

You see the available **Printing Presets** on the left:



- 2. Place your cursor over one of the **Printing Presets** to view its list of settings.
- 3. Click on a preset to change its settings, or use any of the available options on the screen to control your printing presets.
- 4. To choose a preset for printing, select it.
- 5. Click **OK**.

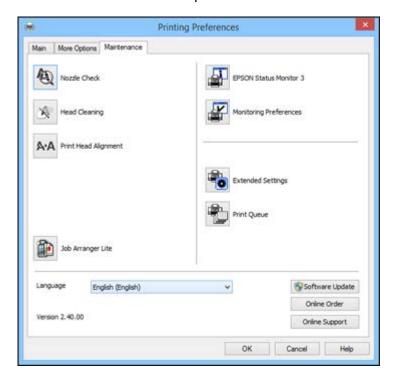
Parent topic: Printing with Windows

## **Selecting Extended Settings - Windows**

You can select additional settings that apply to all the print jobs you send to your product.

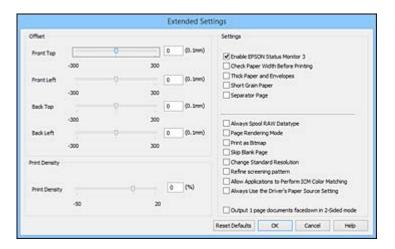
- 1. Access the Windows Desktop and right-click the product icon in the Windows taskbar.
- 2. Select Printer Settings.
- 3. Click the **Maintenance** tab.

You see the maintenance options:



## 4. Click the **Extended Settings** button.

You see this window:



- 5. Select any of the extended settings to customize your print.
- 6. Click **OK** to close the Extended Settings window.
- 7. Click **OK** to close the printer software window.

**Extended Settings - Windows** 

Parent topic: Printing with Windows

## **Extended Settings - Windows**

You can select from these settings on the Extended Settings window.

## **Enable EPSON Status Monitor 3**

Enables product monitoring for ink and paper supplies and other issues.

## **Check Paper Width Before Printing**

Prevents printing beyond the edges of the paper if the paper size setting is incorrect; may reduce print speed.

## **Thick Paper and Envelopes**

Prevents ink from smearing when you print on envelopes or other thick paper.

#### **Short Grain Paper**

Prevents ink from smearing when you print on envelopes or other thick paper, and the **Thick Paper** setting does not help.

### **Separator Page**

Before each document, prints a separator page containing the title, user, date, and time.

#### **Always Spool RAW Datatype**

Increases print speed and may solve other printing problems.

## **Page Rendering Mode**

Increases print speed when printing is extremely slow or the print head stops during printing.

## **Print as Bitmap**

Increases print speed when printing is extremely slow or the print head stops during printing, and other settings do not help.

## **Skip Blank Page**

Ensures that your product does not print pages that contain no text or images.

## **Change Standard Resolution**

Reduces the resolution of print data to correct printing problems.

## Refine screening pattern

Prints graphics with a finer screening pattern.

## Allow Applications to Perform ICM Color Matching

Allows applications to perform ICM color matching.

## **Always Use the Driver's Paper Source Setting**

Prints using the paper source setting in the printer driver, rather than the setting in your application.

## Output 1 page documents facedown in 2-Sided mode

Outputs single-sided pages in a 2-sided print job facedown instead of faceup.

Parent topic: Selecting Extended Settings - Windows

## **Printing Your Document or Photo - Windows**

Once you have selected your print settings, you are ready to save your settings and print.

1. Click **OK** to save your settings.

Print. General Select Printer EPSON Ready Print to file Preferences Status: Location: Find Printer... Comment: Page Range ( All Number of copies: 1 Cyment Page 1-65535 O Pages: Enter either a single page number or a single

Print

Cancel

You see your application's Print window, such as this one:

2. Click **OK** or **Print** to start printing.

page range. For example, 5-12

Parent topic: Printing with Windows

# **Locking Printer Settings - Windows**

Administrators can lock some printer settings to prevent unauthorized changes. The following settings can be locked:

Apply

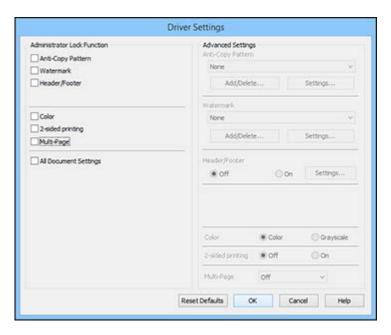
- Anti-copy pattern
- Watermark
- Header/footer
- Color printing
- 2-sided printing
- Multi-page printing

- All document settings
- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click your product and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click your product and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click your product and select Properties.
  - Windows XP: Click Start and select Printers and Faxes. Right-click your product and select Properties.
- 2. Click the Optional Settings tab.

**Note:** You can prevent access to the **Optional Settings** tab by changing the user or group permissions in the **Security** tab.

3. Click **Driver Settings**.

#### You see this window:



- 4. Select the checkbox for the function or functions you want to lock. To lock all print settings, select **All Document Settings**.
- 5. Under **Advanced Settings**, select the setting you want for each selected function.
- 6. Click **OK**.

Administrator Lock Settings

Parent topic: Printing with Windows

## **Administrator Lock Settings**

Select the settings you want to use for locking print functions.

<b>Printing function</b>	Available settings	Description
Anti-Copy Pattern	Various data items	Lets you select the data to use for the pattern (or prohibit anti-copy patterns)
	Add/Delete	Lets you add (or delete) a customized anti-copy pattern
	Settings	Lets you select the arrangement, size, and other settings for the custom anti-copy pattern
Watermark	Various text watermarks	Lets you select the text for the watermark (or prohibit watermarks)
	Add/Delete	Lets you add (or delete) a customized text or image-based
	Settings	watermark
	-	Lets you select the size, position, color and other watermark settings
Header/Footer	Off	Prohibits headers or footers
	On	Allows headers and footers
	Settings	Lets you select the text and position for printing headers and/or footers
Color	Color	Allows color printing
	Grayscale	Prints in black or shades of gray only
2-sided printing	Off	Allows printing on one side of the paper only
	On	Allows printing on both sides of the paper
Multi-Page	Off	Prohibits multi-page settings
	2-Up	Prints 2 pages on one sheet of paper
	4-Up	Prints 4 pages on one sheet of paper

Parent topic: Locking Printer Settings - Windows

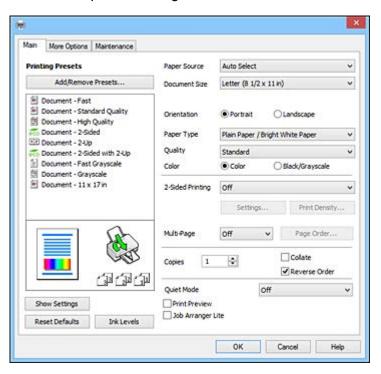
## **Selecting Default Print Settings - Windows**

When you change your print settings in a program, the changes apply only while you are printing in that program session. If you want to change the print settings you use in all your Windows programs, you can select new default print settings.

1. Access the Windows Desktop and right-click the product icon in the Windows taskbar.

## 2. Select Printer Settings.

You see the printer settings window:



- 3. Select the print settings you want to use as defaults in all your Windows programs.
- 4. Click OK.

These settings are now the defaults selected for printing. You can still change them as needed for printing in any program session.

Changing the Language of the Printer Software Screens

Parent topic: Printing with Windows

## **Changing the Language of the Printer Software Screens**

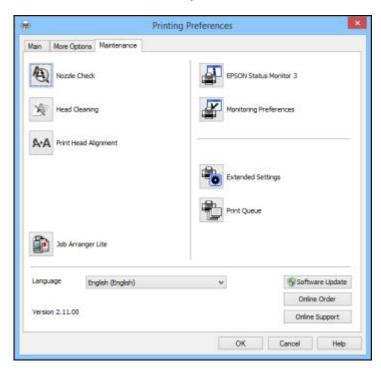
You can change the language used on the Windows printer software screens.

- 1. Access the Windows Desktop and right-click the product icon in the Windows taskbar.
- 2. Select **Printer Settings**.

You see the printer settings window.

3. Click the Maintenance tab.

You see the maintenance options:



- 4. Select the language you want to use as the **Language** setting.
- 5. Click **OK** to close the printer software window.

The printer software screens appear in the language you selected the next time you access them.

Parent topic: Selecting Default Print Settings - Windows

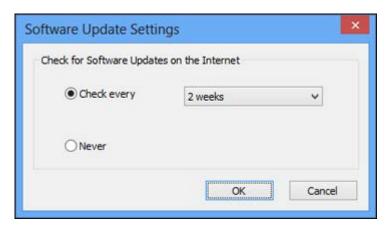
## **Changing Automatic Update Options**

Your printer software for Windows automatically checks for updates to the product software. You can change how often the software checks for updates or disable this feature.

1. Access the Windows Desktop and right-click the product icon in the Windows taskbar.

## 2. Select Software Update Settings.

You see this window:



- 3. Do one of the following:
  - To change how often the software checks for updates, select a setting in the **Check every** menu.
  - To disable the automatic update feature, select the **Never** option.
- 4. Click **OK** to exit.

**Note:** If you choose to disable the automatic update feature, you can check for updates manually.

Parent topic: Printing with Windows

Related tasks

**Checking for Software Updates** 

# **Printing with OS X**

You can print with your product using any OS X printing program, as described in these sections.

**Note:** If you have an Internet connection, it is a good idea to check for updates to your product software on Epson's support website.

Selecting Basic Print Settings - OS X Selecting Page Setup Settings - OS X Selecting Print Layout Options - OS X
Selecting Double-sided Printing Settings - OS X
Managing Color - OS X
Selecting Printing Preferences - OS X
Printing Your Document or Photo - OS X

Parent topic: Printing from a Computer

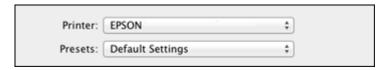
# **Selecting Basic Print Settings - OS X**

Select the basic settings for the document or photo you want to print.

- 1. Open a photo or document for printing.
- 2. Select the print command in your application.

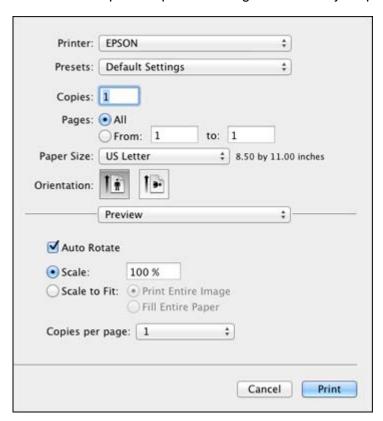
**Note:** You may need to select a print icon on your screen, the **Print** option in the File menu, or another command. See your application's help utility for details.

3. Select your product as the **Printer** setting.



4. If necessary, click the arrow next to the Printer setting or the **Show Details** button to expand the print window.

You see the expanded printer settings window for your product:



**Note:** The print window may look different, depending on the version of OS X and the application you are using.

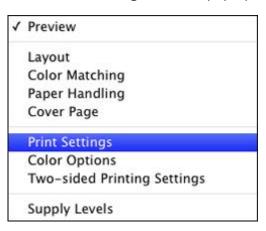
5. Select the **Copies** and **Pages** settings as necessary.

**Note:** If you do not see these settings in the print window, check for them in your application before printing.

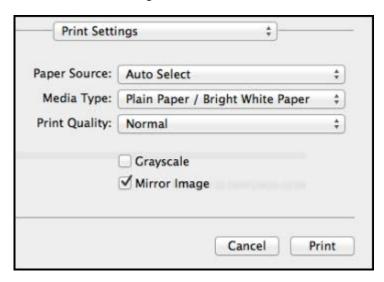
6. Select the page setup options: **Paper Size** and **Orientation**.

**Note:** If you do not see these settings in the print window, check for them in your application before printing. They may be accessible by selecting **Page Setup** from the File menu.

- 7. Select any application-specific settings that appear on the screen, such as those shown in the image above for the Preview application.
- 8. Select **Print Settings** from the pop-up menu.



## You see these settings:



- 9. Select the **Paper Source** you wish to print from.
- 10. Select the type of paper you loaded as the Media Type setting.

**Note:** The setting may not exactly match the name of your paper. Check the paper type settings list for details.

- 11. Select the **Print Quality** setting you want to use.
- 12. Select any of the available print options.

Paper Source Options - OS X

Print Quality Options - OS X

Print Options - OS X

Parent topic: Printing with OS X

Related references

Paper or Media Type Settings - Printing Software

Related tasks

Selecting Page Setup Settings - OS X

## Printing Your Document or Photo - OS X

## Paper Source Options - OS X

You can select any of the available options in the Paper Source menu to print on the paper loaded in that source.

#### **Auto Select**

Automatically selects the paper source based on the selected paper size.

#### Cassette 1

Selects the paper in cassette 1 as the paper source.

#### Cassette 2

Selects the paper in cassette 2 as the paper source.

### Rear Paper Feed Slot

Selects the paper in the rear feed slot as the paper source.

Parent topic: Selecting Basic Print Settings - OS X

#### **Print Quality Options - OS X**

You can select any of the available Print Quality options to fine-tune the quality of your print. Some settings may be unavailable, depending on the paper type setting you have chosen.

#### Draft

For draft printing on plain paper.

#### Normal

For everyday text and image printing.

#### Normal - Vivid

For everyday text and image printing with good quality and print speed.

#### Fine

For text and graphics with good quality and print speed.

#### Quality

For text and graphics with increased quality and print speed.

#### **Best Quality**

For the best print quality, but the slowest print speed.

Parent topic: Selecting Basic Print Settings - OS X

## **Print Options - OS X**

You can select any of the print options to customize your print. Some options may be unavailable, depending on other settings you have chosen.

#### Grayscale

Prints text and graphics in black or shades of gray.

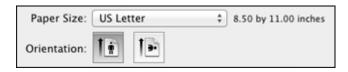
# **Mirror Image**

Lets you flip the printed image horizontally.

Parent topic: Selecting Basic Print Settings - OS X

# **Selecting Page Setup Settings - OS X**

Depending on your application, you may be able to select the paper size and orientation settings from the print window.



**Note:** If you do not see these settings in the print window, check for them in your application before printing. They may be accessible by selecting **Page Setup** from the File menu.

- 1. Select the size of the paper you loaded as the **Paper Size** setting.
- 2. Select the orientation of your document or photo as shown in the print window.

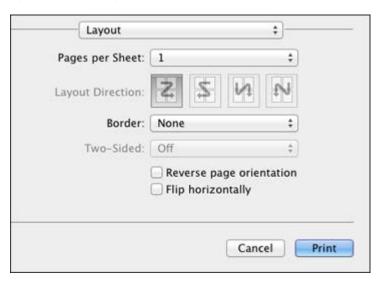
Note: If you are printing an envelope, select the licon.

**Note:** You can reduce or enlarge the size of the printed image by selecting **Paper Handling** from the pop-up menu and selecting a scaling option.

Parent topic: Printing with OS X

# **Selecting Print Layout Options - OS X**

You can select a variety of layout options for your document or photo by selecting **Layout** from the popup menu on the print window.

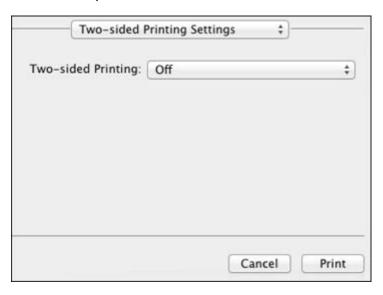


- To print multiple pages on one sheet of paper, select the number of pages in the **Pages per Sheet** pop-up menu. To arrange the print order of the pages, select a **Layout Direction** setting.
- To print borders around each page on the sheet, select a line setting from the **Border** pop-up menu.
- To invert or flip the printed image, select the **Reverse page orientation** or **Flip horizontally** settings.

Parent topic: Printing with OS X

# **Selecting Double-sided Printing Settings - OS X**

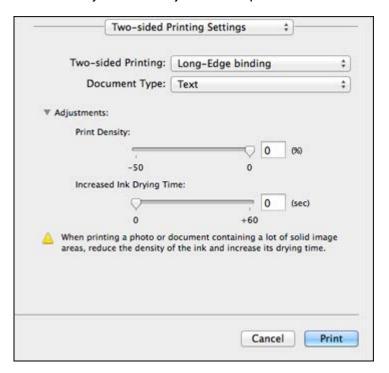
You can print on both sides of the paper by selecting **Two-sided Printing Settings** from the pop-up menu on the print window.



**Note:** Some options may be pre-selected or unavailable, depending on other settings you have chosen or if you are accessing the product over a network. This screen may be different, depending on the version of OS X you are using.

1. Select one of the **Two-sided Printing** options.

2. Select the type of document you are printing as the **Document Type** setting. The software automatically sets the Adjustments options for that document type.



- 3. If necessary, customize the Adjustments settings as instructed on the screen.
- 4. Print a test copy of your double-sided document to test the selected settings.
- 5. Follow any instructions displayed on the screen during printing.

Double-sided Printing Options and Adjustments - OS X

Parent topic: Printing with OS X

## **Double-sided Printing Options and Adjustments - OS X**

You can select any of the available options in the **Two-sided Printing Settings** or **Output Settings** pop-up menu to set up your double-sided print job.

#### **Two-sided Printing Options**

## Long-Edge binding

Orients double-sided printed pages to be bound on the long edge of the paper.

## **Short-Edge binding**

Orients double-sided printed pages to be bound on the short edge of the paper.

## **Adjustments**

## **Print Density**

Sets the level of ink coverage for double-sided printing.

#### **Increased Ink Drying Time**

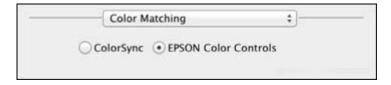
Sets the amount of time required for drying ink after printing on one side of the paper before printing the other side in double-sided printing.

Parent topic: Selecting Double-sided Printing Settings - OS X

# Managing Color - OS X

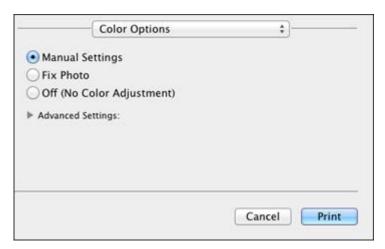
You can adjust the Color Matching and Color Options settings to fine-tune the colors in your printout, or turn off color management in your printer software.

1. Select **Color Matching** from the pop-up menu in the print window.



2. Select one of the available options.

3. Select **Color Options** from the pop-up menu in the print window.



**Note:** The available settings on the Color Options menu depend on the option you selected on the Color Matching menu.

4. Select one of the available options.

Color Matching and Color Options - OS X

Parent topic: Printing with OS X

## **Color Matching and Color Options - OS X**

You can select from these settings on the **Color Matching** and **Color Options** menus.

### **Color Matching Settings**

#### **EPSON Color Controls**

Lets you manage color using controls in your printer software or turn off color management.

## ColorSync

Prints using standard color profiles for your product and paper to help match image colors. You can customize the conversion method and filter settings on the ColorSync pop-up menu in the print window.

#### **Color Options Settings**

#### **Manual Settings**

Lets you select manual color adjustments. Click the arrow next to **Advanced Settings** and select settings for **Brightness**, **Contrast**, **Saturation**, and individual color tones. You can also select a color **Mode** setting for printing photos and graphics and the **Fix Red-Eye** setting to reduce or remove redeye in photos. Depending on the selected color mode, you can also adjust the midtone density using the **Gamma** setting.

#### **Fix Photo**

Improves the color, contrast, and sharpness of flawed photos. Click the arrow next to **Advanced Settings** and select the **Fix Red-Eye** setting to reduce or remove red-eye in photos.

**Note:** Fix Photo uses a sophisticated face recognition technology to optimize photos that include faces. For this to work, both eyes and the nose must be visible in the subject's face. If your photo includes a face with an intentional color cast, such as a statue, you may want to turn off **Fix Photo** to retain the special color effects.

#### Off (No Color Adjustment)

Turns off color management in your printer software so you can manage color using only your application software.

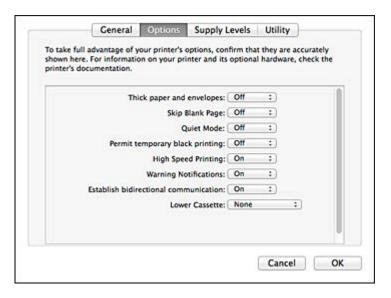
Parent topic: Managing Color - OS X

# **Selecting Printing Preferences - OS X**

You can select printing preferences that apply to all the print jobs you send to your product.

- 1. In the Apple menu or the Dock, select System Preferences.
- 2. Select **Print & Fax**, **Print & Scan**, or **Printers & Scanners**, select your product, and select **Options & Supplies**.
- 3. Select **Driver** or **Options**.

#### You see a screen like this:



- 4. Select any of the available printing preferences.
- 5. Click OK.

Printing Preferences - OS X

Parent topic: Printing with OS X

#### **Printing Preferences - OS X**

You can select from these settings on the **Options** or **Driver** tab.

## **Thick Paper and Envelopes**

Prevents ink from smearing when you print on envelopes or other thick paper.

## Skip Blank Page

Ensures that your product does not print pages that contain no text or images.

#### **Quiet Mode**

Lessens noise during printing but may decrease print speed.

## Permit temporary black printing

Allows you to print using black ink when color ink is expended.

#### **High Speed Printing**

Speeds up printing but may reduce print quality.

## **Warning Notifications**

Lets you choose whether or not to receive warning notifications from the printer software for various operating conditions.

#### **Establish bidirectional communication**

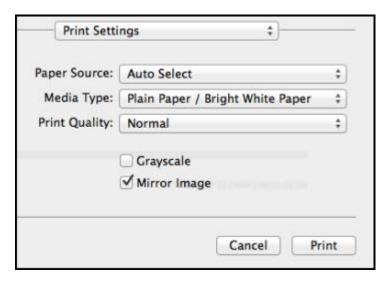
Allows the product to communicate with the computer. Do not change the default setting unless you experience issues when using a shared printing pool.

Parent topic: Selecting Printing Preferences - OS X

# **Printing Your Document or Photo - OS X**

Once you have selected your print settings, you are ready to print.

Click **Print** at the bottom of the print window.



Checking Print Status - OS X

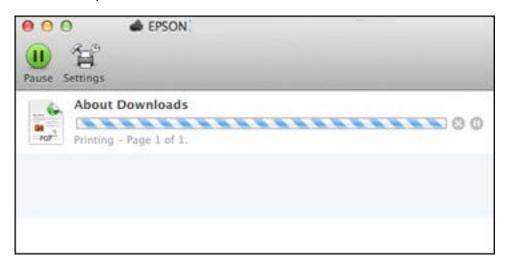
Parent topic: Printing with OS X

### **Checking Print Status - OS X**

During printing, you can view the progress of your print job, control printing, and check ink status.

1. Click the printer icon when it appears in the Dock.

You see the print status window:



2. Select the following options as necessary:

#### OS X 10.5/10.6/10.7:

- To cancel printing, click the print job and click the **Delete** icon.
- To pause a print job, click the print job and click the **Hold** icon. To resume a print job, click the print job marked "Hold" and click the **Resume** icon.
- To pause printing for all queued print jobs, click the Pause Printer icon.
- To check ink status, click the **Supply Levels** icon.

#### OS X 10.8/10.9:

- To cancel printing, click the button next to the print job.
- To pause a print job, click the button next to the print job. To resume a print job, click the button.
- To pause printing for all queued print jobs, click the large **Pause** button.
- To check ink status, click the **Settings** icon, then click the **Supply Levels** tab.

Parent topic: Printing Your Document or Photo - OS X

# **Printing with the Epson Universal Print Driver - Windows**

You can print with the Epson Universal Print Driver using any Windows printing program, as described in these sections.

Installing the Epson Universal Print Driver - Windows

Synchronizing Printer Settings - Epson Universal Print Driver - Windows

Selecting Basic Print Settings - Epson Universal Print Driver - Windows

Selecting Additional Layout and Print Options - Epson Universal Print Driver - Windows

Selecting Maintenance Options - Epson Universal Print Driver - Windows

Selecting Default Print Settings - Epson Universal Print Driver - Windows

Locking Printer Settings - Epson Universal Print Driver - Windows

Adding Network Printers - Epson Universal Print Driver - Windows

Parent topic: Printing from a Computer

# **Installing the Epson Universal Print Driver - Windows**

The Epson Universal Print Driver supports multiple printer languages, such as PCL and ESC/P-R, and can be installed on a Windows computer.

**Note:** Make sure your product is turned on and connected to the same network as your computer before installing the printer software.

- 1. Download the EPSON Universal Print Driver from epson.com/support/wf8090.
- 2. Double-click the downloaded package.

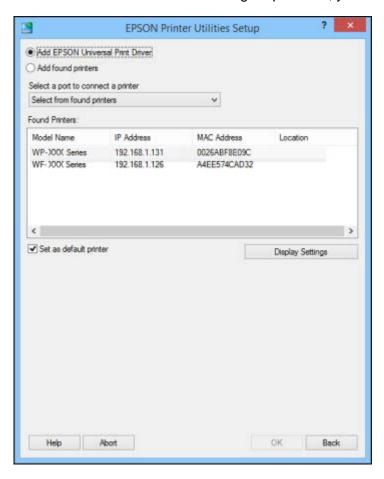
3. Follow the on-screen instructions until you see the screen below.



4. Select Yes: Network connection and click OK.

**Note:** Select the **Set Default of Printer Control Language to PCL6** checkbox if you want to set the default printer language to PCL6. Leave this option deselected to set the printer language to ESC/P-R. (You can change this setting later as needed.)

After the software finishes searching for products, you see a screen like this:



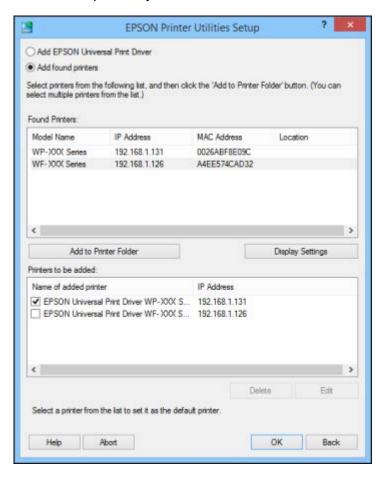
- 5. Do one of the following:
  - If you are installing one product, make sure **Add EPSON Universal Print Driver** is selected, and continue with the next step.
  - If you are installing more than one product, select **Add found printers**, and go to step 9.

Note: You can customize and filter your product search results by clicking Display Settings.

- 6. Open the **Select a port to connect a printer** pop-up menu and select an existing printer port if necessary. Otherwise, skip this option to have a new port created automatically.
- 7. Select the product you want to install from the Found Printers list.

**Note:** Deselect the **Set as default printer** checkbox if you do not want the product to be set as your default printer.

- 8. Click **OK**, then skip the remaining steps.
- 9. Select each product you want to install and click Add to Printer Folder.



The selected products appear in the lower section of the screen.

- 10. Select the checkbox next to a product to make it your default printer if necessary.
- 11. Click **OK**.

Parent topic: Printing with the Epson Universal Print Driver - Windows

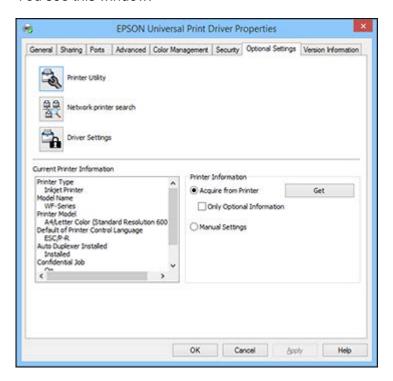
# Synchronizing Printer Settings - Epson Universal Print Driver - Windows

You may need to synchronize the printer driver with the product if the printer driver does not detect the correct information or settings from the product.

**Note:** You must sync the printer driver before you can use any optional equipment installed on the product, such as an optional cassette unit.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click EPSON Universal Print Driver and select Properties.
  - Windows XP: Click Start and select Printers and Faxes. Right-click EPSON Universal Print Driver and select Properties.
- 2. Click the **Optional Settings** tab.

#### You see this window:



3. Make sure Acquire from Printer is selected and click Get.

**Note:** Select the **Only Optional Information** checkbox if you only want to enable optional equipment, such as an optional cassette unit.

The product's settings and other information appears in the Current Printer Information area.

4. Click OK.

Parent topic: Printing with the Epson Universal Print Driver - Windows

Related tasks

**Enabling the Optional Paper Cassettes - Windows** 

Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows

## Selecting Basic Print Settings - Epson Universal Print Driver - Windows

Select the basic settings for the document or photo you want to print.

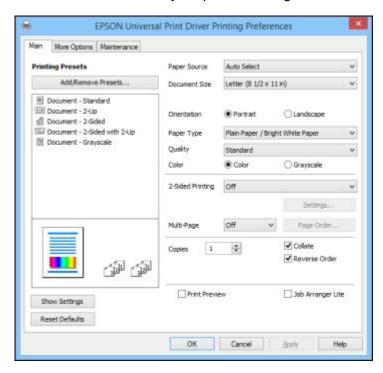
- 1. Open a photo or document for printing.
- 2. Select the print command in your application.

**Note:** You may need to select a print icon on your screen, the **Print** option in the **File** menu, or another command. See your application's help utility for details.

3. If necessary, select **EPSON Universal Print Driver** as the printer you want to use.

Note: You may also need to select **Properties** or **Preferences** to view your print settings.

You see the Main tab of your printer settings window:



**Note:** For more information about a setting, right-click it and select **Help**.

- 4. For the **Paper Source** setting, select where you loaded the paper you want to print on.
- 5. Select the size of the paper you loaded as the **Document Size** setting.

**Note:** You can also select the **User-Defined** setting to create a custom paper size.

6. Select the orientation of your document.

**Note:** If you are printing an envelope, select **Landscape**.

7. Select the type of paper you loaded as the **Paper Type** setting.

**Note:** The setting may not exactly match the name of your paper. Check the paper type settings list for details.

- 8. Select the **Quality** setting that matches the print quality you want to use.
- 9. Select a Color option:
  - To print a color document or photo, select the **Color** setting.
  - To print text and graphics in black or shades of gray, select the Grayscale setting.
- 10. To print on both sides of the paper, select one of the 2-Sided Printing settings.
- 11. To print multiple pages on one sheet of paper, or print one image on multiple sheets of paper, select one of the settings in the **Multi-Page** menu and select the printing options you want.
- 12. To print multiple copies and arrange their print order, select the **Copies** options.
- 13. To preview your job before printing, select **Print Preview**.
- 14. To save your print job as a project that can be modified and combined with other print jobs, select **Job Arranger Lite**.

Parent topic: Printing with the Epson Universal Print Driver - Windows

**Related references** 

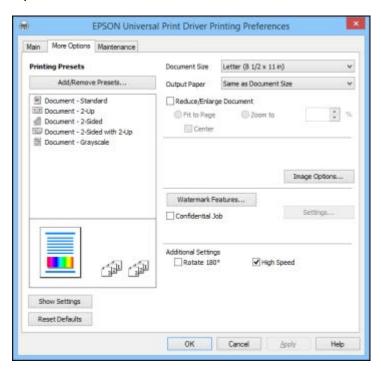
Paper or Media Type Settings - Printing Software

Paper Source Options - Windows Print Quality Options - Windows

Multi-Page Printing Options - Windows

# Selecting Additional Layout and Print Options - Epson Universal Print Driver - Windows

You can select a variety of additional layout and printing options for your document or photo on the More Options tab.



**Note:** For more information about a setting, right-click it and select **Help**.

- 1. To change the size of your printed document or photo, select the **Reduce/Enlarge Document** checkbox and select one of these sizing options:
  - Select the **Fit to Page** option to size your image to fit the paper you loaded. Select the size of the your document or photo as the **Document Size** setting, and the size of your paper as the **Output Paper** setting. If you want to center your image on the paper, select the **Center** option.
  - Select the **Zoom to** option to reduce or enlarge your document or photo by a specific percentage. Select the percentage in the **%** menu.

- 2. Select one of the following Color Correction options:
  - Select **Automatic** to automatically adjust the sharpness, brightness, contrast, and color saturation for your image.
  - Select **Custom** and click the **Advanced** button to manually adjust the color correction settings or turn off color management in your printer software.
  - Select **Image Options** to access additional settings for improving printed images.
- 3. To add the following features, click the Watermark Features button:
  - Watermark: adds a visible watermark to your printout.

**Note:** Click the **Add/Delete** button to create your own watermark, and click the **Settings** button to customize the watermark.

• Header/Footer: adds information such as the date and time to the top or bottom of your printout.

**Note:** Click the **Settings** button to customize the text and location of the header or footer.

4. To add a password to your print job, select the **Confidential Job** checkbox, then enter a password. Confidential jobs are stored in the product's memory without being printed. To print the job, enter the password for the confidential job on the product's control panel.

**Note:** Confidential print jobs are cleared from the product's memory after printing.

5. Select any of the Additional Settings options to customize your print.

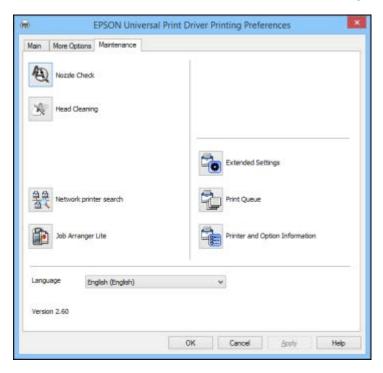
Parent topic: Printing with the Epson Universal Print Driver - Windows

Related references

Custom Color Correction Options - Windows Image Options and Additional Settings - Windows Header/Footer Settings - Windows

# **Selecting Maintenance Options - Epson Universal Print Driver - Windows**

You can select maintenance and other optional settings on the Maintenance tab.



**Note:** For more information about a setting, right-click it and select **Help**.

- Nozzle Check lets you print a nozzle check pattern to check for clogged nozzles.
- Head Cleaning lets you clean the print head.
- Network printer search lets you search for and connect to a product on the network.
- **Job Arranger Lite** lets you save your print job as a project that can be modified and combined with other print jobs.
- Extended Settings lets you change a variety of print settings.
- Print Queue displays all the print jobs in queue. You can also cancel or restart print jobs.

- **Printer and Option Information** displays information on the printer settings and any optional equipment installed.
- Language lets you change the language of the printer software screens.

Extended Settings - Epson Universal Print Driver - Windows

Parent topic: Printing with the Epson Universal Print Driver - Windows

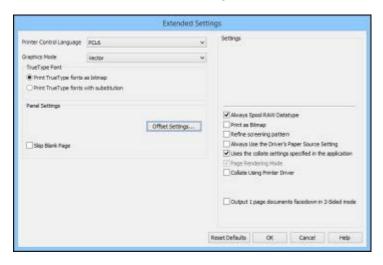
**Related concepts** 

Print Head Nozzle Check

**Print Head Cleaning** 

#### **Extended Settings - Epson Universal Print Driver - Windows**

You can select from these settings on the Extended Settings window.



## **Printer Control Language**

Lets you select the printer control language.

## **Graphics Mode**

Lets you select the mode by which to output PDL commands to the product.

# TrueType Font

Lets you select how you want to print TrueType fonts.

## **Offset Settings**

Lets you make fine-tune adjustments to the print position of data on your printout.

#### Skip Blank Page

Ensures that your product does not print pages that contain no text or images.

#### **Always Spool RAW Datatype**

Increases print speed and may solve other printing problems.

#### **Print as Bitmap**

Increases print speed when printing is extremely slow or the print head stops during printing, and other settings do not help.

## Refine screening pattern

Prints graphics with a finer screening pattern.

#### Always Use the Driver's Paper Source Setting

Prints using the paper source setting in the printer driver, rather than the setting in your application.

## Uses the collate settings specified in the application

Prints using the collate setting in your application.

#### Page Rendering Mode

Increases print speed when printing is extremely slow or the print head stops during printing.

#### **Collate Using Printer Driver**

Prints and collates multi-page documents using the printer driver. Deselect this checkbox to use the product to collate your print jobs instead. (This setting is automatically enabled if there is not enough memory on the product to collate your print job.)

## Output 1 page documents facedown in 2-Sided mode

Outputs single-sided pages in a 2-sided print job facedown instead of faceup.

Parent topic: Selecting Maintenance Options - Epson Universal Print Driver - Windows

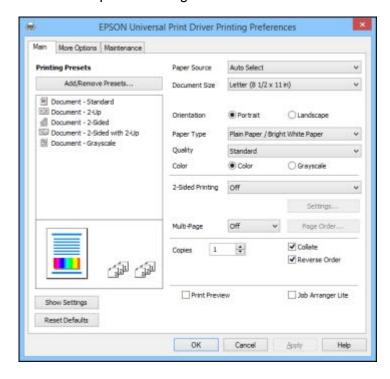
# Selecting Default Print Settings - Epson Universal Print Driver - Windows

When you change your print settings in a program, the changes apply only while you are printing in that program session. If you want to change the print settings you use in all your Windows programs, you can select new default print settings.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click EPSON Universal Print Driver and select Print Preferences.
  - Windows 7: Click and select Devices and Printers. Right-click EPSON Universal Print Driver and select Printing Preferences.

- Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, right-click EPSON Universal Print Driver, and select Printing Preferences.
- Windows XP: Click Start and select Printers and Faxes. Right-click EPSON Universal Print Driver and select Printing Preferences.

You see the printer settings window:



**Note:** For more information about a setting, right-click it and select **Help**.

- 2. Select the print settings you want to use as defaults in all your Windows programs.
- 3. Click OK.

These settings are now the defaults selected for printing. You can still change them as needed for printing in any program session.

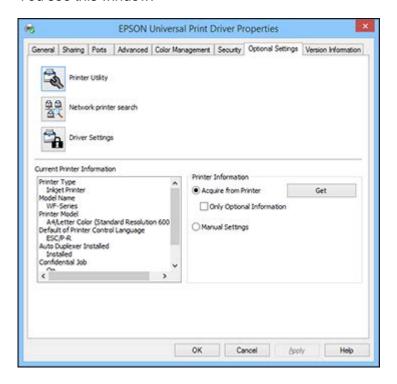
Parent topic: Printing with the Epson Universal Print Driver - Windows

# **Locking Printer Settings - Epson Universal Print Driver - Windows**

Administrators can lock some printer settings to prevent unauthorized changes. The following settings can be locked:

- Watermark
- Header/footer
- Color printing
- 2-sided printing
- Multi-page printing
- All document settings
- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click EPSON Universal Print Driver and select Properties.
  - Windows XP: Click Start and select Printers and Faxes. Right-click EPSON Universal Print Driver and select Properties.
- 2. Click the **Optional Settings** tab.

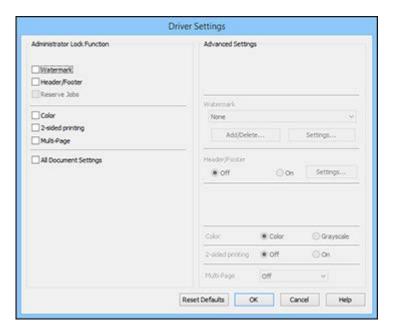
#### You see this window:



**Note:** You can prevent access to the **Optional Settings** tab by changing the user or group permissions in the **Security** tab.

3. Click **Driver Settings**.

#### You see this window:



- 4. Select the checkbox for the function or functions you want to lock. To lock all print settings, select **All Document Settings**.
- 5. Under **Advanced Settings**, select the setting you want for each selected function.
- 6. Click OK.

**Epson Universal Print Driver Lock Settings** 

Parent topic: Printing with the Epson Universal Print Driver - Windows

# **Epson Universal Print Driver Lock Settings**

Select the settings you want to use for locking print functions.

Printing function	Available settings	Description
Watermark	Various text watermarks	Lets you select the text for the watermark (or prohibit watermarks)
	Add/Delete	Lets you add (or delete) a customized text or image-based watermark
	Settings	
		Lets you select the size, position, color and other watermark settings
Header/Footer	Off	Prohibits headers or footers
	On	Allows headers and footers
	Settings	Lets you select the text and position for printing headers and/or footers
Color	Color	Allows color printing
	Grayscale	Prints in black or shades of gray only
2-sided printing	Off	Allows printing on only one side of the paper
	On	Allows printing on both sides of the paper
Multi-Page	Off	Prohibits multi-page settings
	2-Up	Prints 2 pages on one sheet of paper
	4-Up	Prints 4 pages on one sheet of paper

Parent topic: Locking Printer Settings - Epson Universal Print Driver - Windows

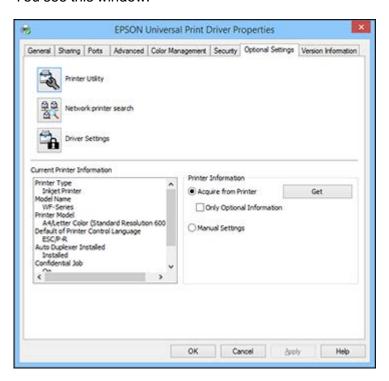
## **Adding Network Printers - Epson Universal Print Driver - Windows**

You can use the Epson Universal Print Driver to find and add network printers.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click EPSON Universal Print Driver and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click EPSON Universal Print Driver and select Properties.

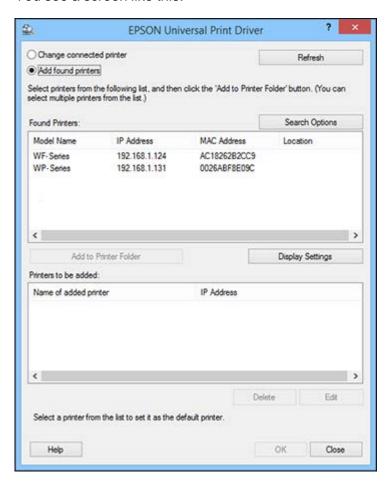
- Windows XP: Click Start and select Printers and Faxes. Right-click EPSON Universal Print Driver and select Properties.
- 2. Click the Optional Settings tab.

You see this window:



- 3. Click Network printer search.
- 4. When you see the search results, select **Add found printers**.

#### You see a screen like this:



- 5. Select the printer or printers you want to add.
- Click Add to Printer Folder.
   The selected printer or printers appear in the lower section of the screen.
- 7. Click OK.

Parent topic: Printing with the Epson Universal Print Driver - Windows

# Printing with the PostScript (PS3) Printer Software - Windows

You can print with the PostScript (PS3) printer software using any Windows printing program, as described in these sections.

Installing the PostScript (PS3) Printer Software - Windows

Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows

Selecting Basic Print Settings - PostScript Printer Software - Windows

Selecting Additional Layout and Print Options - PostScript Printer Software - Windows

Selecting Default Print Settings - PostScript Printer Software - Windows

Parent topic: Printing from a Computer

# Installing the PostScript (PS3) Printer Software - Windows

If you did not install the standard Epson printer software, you need to install the PostScript (PS3) printer software before you can adjust the print settings and print to your network printer.

**Note:** Make sure your product is turned on and connected to the same network as your computer before installing the printer software.

- Download the Drivers and Utilities Combo Package PS3 PostScript from epson.com/support/wf8090.
- 2. Double-click the downloaded package.
- Click OK.
- 4. Click Accept.
- 5. Click **Install**.
- 6. Click **Next** and follow the on-screen instructions.

Parent topic: Printing with the PostScript (PS3) Printer Software - Windows

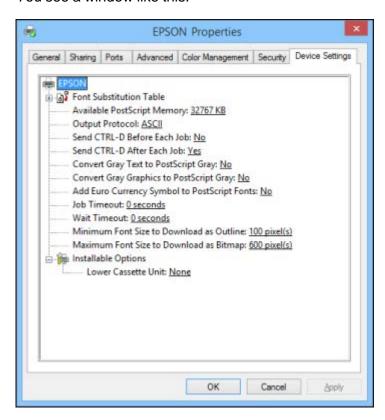
## **Enabling the Optional Paper Cassettes - PostScript Printer Software - Windows**

If you installed optional paper cassette units, you need to enable the optional cassette units before you can use them with the PS3 printer software.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click your product name and select Printer properties.

- Windows 7: Click and select Devices and Printers. Right-click your product name and select Printer Properties.
- Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click your product name, and select Properties.
- Windows XP: Click Start and select Printers and Faxes. Right-click your product name and select Properties.
- 2. Click the **Device Settings** tab.

You see a window like this:



- 3. Select the number of optional cassettes installed as the Lower Cassette Unit setting.
- 4. Click OK.

The optional paper cassettes are now enabled.

Parent topic: Printing with the PostScript (PS3) Printer Software - Windows

**Related tasks** 

**Enabling the Optional Paper Cassettes - Windows** 

Synchronizing Printer Settings - Epson Universal Print Driver - Windows

### **Selecting Basic Print Settings - PostScript Printer Software - Windows**

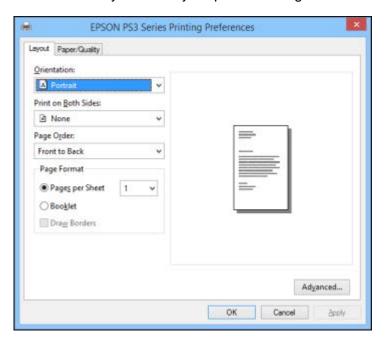
Select the basic settings for the document or photo you want to print.

- 1. Open a photo or document for printing.
- 2. Select the print command in your application.

**Note:** You may need to select a print icon on your screen, the **Print** option in the **File** menu, or another command. See your application's help utility for details.

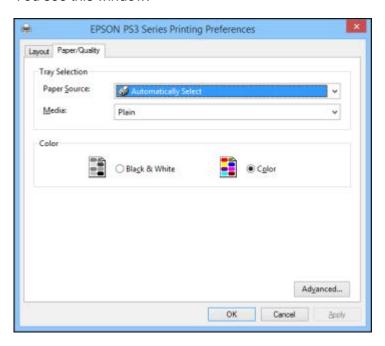
3. If necessary, select your product name as the printer you want to use, and then click the **Preferences** button.

You see the Layout tab of your printer settings window:



- 4. Select the orientation of your document.
- 5. To print on both sides of the paper, select one of the **Print on Both Sides** settings.
- 6. To change the printing order of the pages, select one of the **Page Order** settings.
- 7. To print multiple pages on one sheet of paper, adjust the **Pages per Sheet** setting.
- 8. To create a folded booklet out of your photo or document, select the **Booklet** option.
- 9. Click the Paper/Quality tab.

#### You see this window:

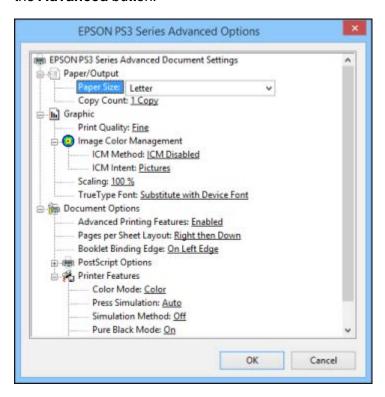


- 10. Select the **Paper Source** that matches where you loaded the paper you want to print on.
- 11. Select **Plain** as the **Media** setting.
- 12. Select one of the following as the Color setting:
  - To print a color document or photo, select the **Color** setting.
  - To print text and graphics in black only, select the **Black & White** setting.

Parent topic: Printing with the PostScript (PS3) Printer Software - Windows

#### Selecting Additional Layout and Print Options - PostScript Printer Software - Windows

You can select a variety of additional layout and printing options for your document or photo by clicking the **Advanced** button.



- 1. Select the size of the paper you loaded as the **Paper Size** setting.
- 2. Select the **Print Quality** option that matches the print quality you want to use.
- 3. Adjust the **Scaling** setting to reduce or enlarge your document or photo by a specific percentage.
- 4. To utilize the Windows Image Color Management system, set the **ICM Method** option to one of the **ICM Handling** options and select the **ICM Intent** setting you want to use.
- 5. Adjust the **Pages Per Sheet Layout** setting to change the order of multiple pages on a single sheet of paper when you have adjusted the **Pages Per Sheet** setting on the **Layout** tab.
- 6. Adjust the **Booklet Binding Edge** setting to change the orientation of your printed booklet.

- 7. Expand the PostScript Options heading to access the advanced PostScript printer software features.
- 8. Select any of the remaining **Printer Features** options to customize your printouts.

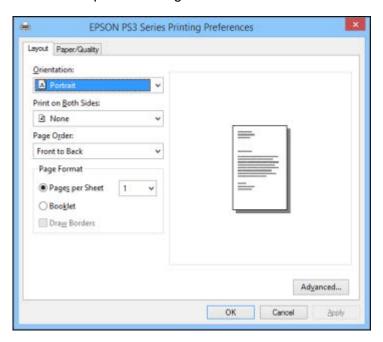
Parent topic: Printing with the PostScript (PS3) Printer Software - Windows

## Selecting Default Print Settings - PostScript Printer Software - Windows

When you change your print settings in a program, the changes apply only while you are printing in that program session. If you want to change the print settings you use in all your Windows programs, you can select new default print settings.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click your product name and select Print Preferences.
  - Windows 7: Click and select Devices and Printers. Right-click your product name and select Printing Preferences.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, right-click your product name, and select Printing Preferences.
  - Windows XP: Click Start and select Printers and Faxes. Right-click your product name and select Printing Preferences.

You see the printer settings window:



- 2. Select the print settings you want to use as defaults in all your Windows programs.
- 3. Click OK.

These settings are now the defaults selected for printing. You can still change them as needed for printing in any program session.

Parent topic: Printing with the PostScript (PS3) Printer Software - Windows

# Printing with the PostScript (PS3) Printer Software - OS X

You can print with the PostScript (PS3) printer software using any OS X printing program, as described in these sections.

Installing the PostScript (PS3) Printer Software - OS X
Enabling the Optional Paper Cassettes - PostScript Printer Software - OS X
Selecting Basic Print Settings - PostScript Printer Software - OS X
Selecting Page Setup Settings - PostScript Printer Software - OS X

Selecting Print Layout Options - PostScript Printer Software - OS X Sizing Printed Images - PostScript Printer Software - OS X Managing Color - PostScript Printer Software - OS X Printing Your Document or Photo - PostScript Printer Software - OS X

Parent topic: Printing from a Computer

### Installing the PostScript (PS3) Printer Software - OS X

If you did not install the standard Epson printer software, you need to install the PostScript (PS3) printer software before you can adjust the print settings and print to your network printer.

**Note:** Make sure your product is turned on and connected to the same network as your computer before installing the printer software.

- Download the Drivers and Utilities Combo Package PS3 PostScript from epson.com/support/wf8090.
- 2. Double-click the downloaded package.
- Double-click EPSON.
- 4. Click **Continue** on the next two screens.
- 5. Click Agree.
- 6. Click **Install**.
- 7. If necessary, enter the administrator password.
- 8. Click **Start** and follow the on-screen instructions.

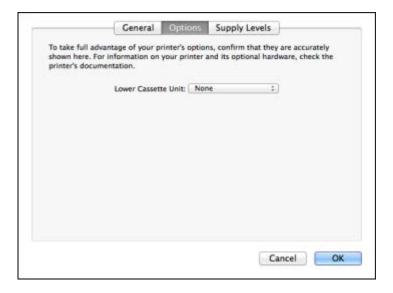
Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

### Enabling the Optional Paper Cassettes - PostScript Printer Software - OS X

If you installed optional paper cassette units, you need to enable the optional cassette units before you can use them with the PS3 printer software.

- 1. In the Apple menu or the Dock, select System Preferences.
- 2. Select **Print & Fax**, **Print & Scan**, or **Printers & Scanners**, select your product, and select **Options & Supplies**.
- 3. Select **Driver** or **Options**.

#### You see a screen like this:



- 4. Select the number of optional cassettes installed as the Lower Cassette Unit setting.
- 5. Click **OK**.

The optional paper cassettes are now enabled.

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

Related tasks

Enabling the Optional Paper Cassettes - OS X

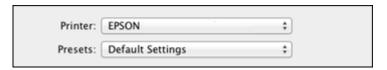
# Selecting Basic Print Settings - PostScript Printer Software - OS X

Select the basic settings for the document or photo you want to print.

- 1. Open a photo or document for printing.
- 2. Select the print command in your application.

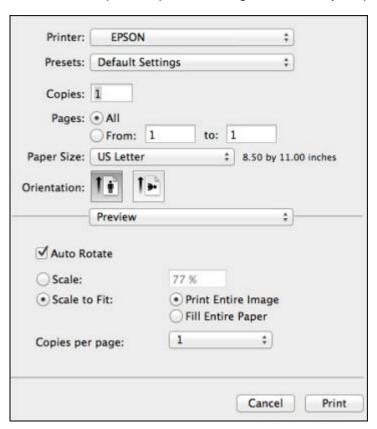
**Note:** You may need to select a print icon on your screen, the **Print** option in the **File** menu, or another command. See your application's help utility for details.

3. Select your product as the **Printer** setting.



4. If necessary, click the arrow next to the Printer setting or the **Show Details** button to expand the print window.

You see the expanded printer settings window for your product:



**Note:** The print window may look different, depending on the version of OS X and the application you are using.

5. Select the **Two-Sided**, **Copies**, and **Pages** settings as necessary.

**Note:** If you do not see these settings in the print window, check for them in your application before printing.

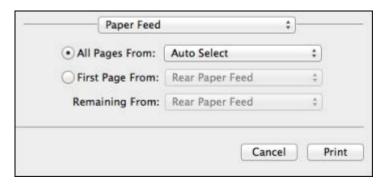
6. Select the page setup options: **Paper Size** and **Orientation**.

**Note:** If you do not see these settings in the print window, check for them in your application before printing. They may be accessible by selecting **Page Setup** from the File menu.

- 7. Select any application-specific settings that appear on the screen, such as those shown in the image above for the Preview application.
- 8. Select **Paper Feed** from the pop-up menu.



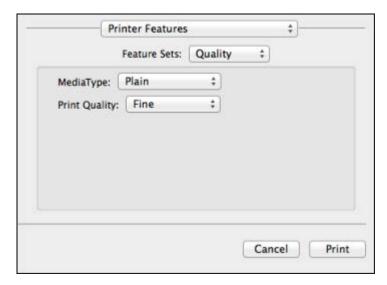
You see these settings:



- 9. Select **All Pages From** or **First Page From** and select the paper source you want to print from.
- 10. Select **Printer Features** from the pop-up menu.



You see these settings:



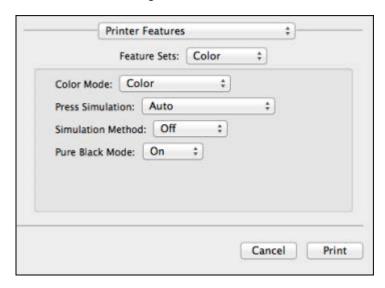
11. Select **Plain** as the **MediaType** setting.

**Note:** The PostScript printer software supports plain paper printing on these paper and envelope sizes:

- A4 (8.3 × 11.7 inches [210 × 297 mm])
- Letter (8.5 x 11 inches [216 x 279 mm])

- No. 10 (4.1 x 9.5 inches [105 x 241 mm])
- 12. Select one of the following **Print Quality** options:
  - For fast printing with reduced quality, select **Fast**.
  - For printing text and graphics with good quality and print speed, select **Fine**.
  - For the best printing with reduced speed, select **Maximum**.
- 13. Select **Color** from the Feature Sets pop-up menu.

You see these settings:



- 14. Select a **Color Mode** option:
  - To print a color document or photo, select the **Color** setting.
  - To print text and graphics in black only, select the **Monochrome** setting.
- 15. Select any of the available print options.

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

Related references

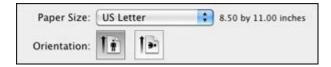
Paper Source Options - Windows

#### Related tasks

Selecting Page Setup Settings - PostScript Printer Software - OS X Selecting Print Layout Options - PostScript Printer Software - OS X Printing Your Document or Photo - PostScript Printer Software - OS X

### Selecting Page Setup Settings - PostScript Printer Software - OS X

Depending on your application, you may be able to select the paper size and orientation settings from the print window.



**Note:** If you do not see these settings in the print window, check for them in your application before printing. They may be accessible by selecting **Page Setup** from the File menu.

- 1. Select the size of the paper you loaded as the **Paper Size** setting. You can also select a custom setting to create a custom paper size.
- 2. Select the orientation of your document or photo as shown in the print window.

**Note:** You can reduce or enlarge the size of the printed image by selecting **Paper Handling** from the pop-up menu and selecting a scaling option.

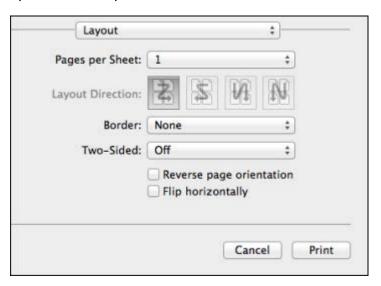
Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

Related tasks

Selecting Basic Print Settings - PostScript Printer Software - OS X

### Selecting Print Layout Options - PostScript Printer Software - OS X

You can select a variety of layout options for your document or photo by selecting **Layout** from the popup menu on the print window.

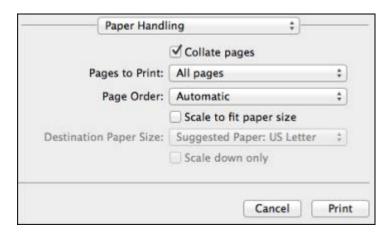


- To print multiple pages on one sheet of paper, select the number of pages in the **Pages per Sheet** pop-up menu. To arrange the print order of the pages, select a **Layout Direction** setting.
- To print borders around each page on the sheet, select a line setting from the **Border** pop-up menu.
- To print on both sides of the page, select one of the **Two-Sided** settings.
- To invert or flip the printed image, select the **Reverse page orientation** or **Flip horizontally** settings.

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

### Sizing Printed Images - PostScript Printer Software - OS X

You can adjust the size of the image as you print it by selecting **Paper Handling** from the pop-up menu on the Print window.



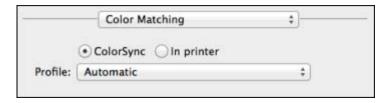
- To print only selected pages in a multi-page document, select an option from the **Pages to Print** popup menu.
- To adjust the order in which pages are printed, select an option from the **Page Order** pop-up menu.
- To scale the image to fit on a specific paper size, select the **Scale to fit paper size** checkbox and select a paper size from the **Destination Paper Size** pop-up menu.

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

#### Managing Color - PostScript Printer Software - OS X

You can adjust the Color Matching settings to fine-tune the colors in your printout.

1. Select **Color Matching** from the pop-up menu in the print window.



#### 2. Do one of the following:

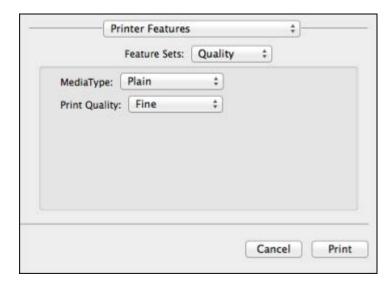
- To print using standard color profiles for your product and paper to help match image colors, select **ColorSync**. Select one of the available **Profile** options to change the active color profile.
- To use the product's default color matching, select In printer.

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

### Printing Your Document or Photo - PostScript Printer Software - OS X

Once you have selected your print settings, you are ready to print.

Click **Print** at the bottom of the print window.



Checking Print Status - PostScript Printer Software - OS X

Parent topic: Printing with the PostScript (PS3) Printer Software - OS X

#### Checking Print Status - PostScript Printer Software - OS X

During printing, you can view the progress of your print job, control printing, and check ink status.

1. Click the printer icon when it appears in the Dock.

You see the print status window:



2. Select the following options as necessary:

#### OS X 10.5/10.6/10.7:

- To cancel printing, click the print job and click the **Delete** icon.
- To pause a print job, click the print job and click the **Hold** icon. To resume a print job, click the print job marked "Hold" and click the **Resume** icon.
- To pause printing for all queued print jobs, click the **Pause Printer** icon.
- To check ink status, click the **Supply Levels** icon.

#### OS X 10.8/10.9:

- To cancel printing, click the button next to the print job.
- To pause a print job, click the button next to the print job. To resume a print job, click the button.
- To pause printing for all queued print jobs, click the large **Pause** button.
- To check ink status, click the **Settings** icon, then click the **Supply Levels** tab.

Parent topic: Printing Your Document or Photo - PostScript Printer Software - OS X

# **Cancelling Printing Using a Product Button**

If you need to cancel printing, press the  $\bigcirc$  **Stop** button on your product.

Parent topic: Printing from a Computer

# **Replacing Ink Cartridges and Maintenance Boxes**

The maintenance box stores ink that gets flushed from the system during print head cleaning. When an ink cartridge is expended or the maintenance box is at the end of its service life, you need to replace it.

You may also need to replace a cartridge that is more than six months old if your printouts do not look their best, even after cleaning and aligning the print head.

**Note:** Please dispose of your used Epson branded ink cartridges and maintenance boxes responsibly and in accordance with local requirements. If you would like to return your used ink cartridges and maintenance boxes to Epson for proper disposal, please go to epson.com/recycle for more information.

Check Cartridge and Maintenance Box Status
Purchase Epson Ink Cartridges and Maintenance Box
Removing and Installing Ink Cartridges
Printing with Black Ink and Expended Color Cartridges
Conserving Low Black Ink with Windows
Replacing the Maintenance Box

# **Check Cartridge and Maintenance Box Status**

Your printer and its software will let you know when an ink cartridge is low or expended, or when the maintenance box needs to be replaced.

**Note:** When using the Epson Universal Print Driver or PostScript (PS3) printer software with the product, you can check ink cartridge and maintenance box status by using the printer buttons or the utilities included with the standard Epson printer software. To download the standard Epson printer software, go to epson.com/support/wf8090.

Checking Cartridge Status on the LCD Screen
Checking Cartridge and Maintenance Box Status with Windows
Checking Cartridge and Maintenance Box Status with OS X

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

### **Checking Cartridge Status on the LCD Screen**

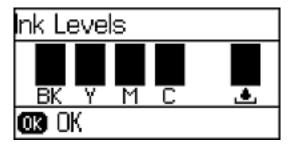
When one of your cartridges is low, the orange **Error** light flashes.

When a cartridge is expended, the orange **Error** light stays on.

You can use the **Ink Levels** option to check the status of the cartridges and maintenance box.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **Ink Levels** and press the **OK** button.

You see a screen like this:



**Note:** The displayed ink and maintenance box levels are approximate.

3. To exit, press the **OK** button.

Parent topic: Check Cartridge and Maintenance Box Status

Related tasks

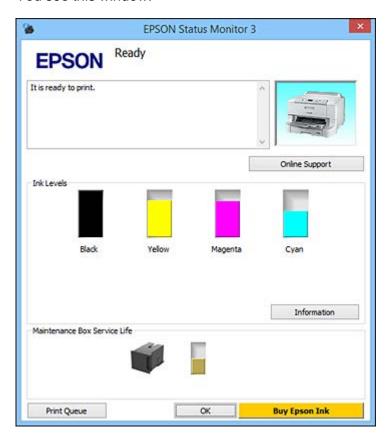
Removing and Installing Ink Cartridges Replacing the Maintenance Box

### **Checking Cartridge and Maintenance Box Status with Windows**

A low ink reminder appears if you try to print when ink is low, and you can check your cartridge or maintenance box status at any time using a utility on your Windows computer.

1. To check your status, access the Windows Desktop, double-click the product icon in the Windows taskbar, and click **Details**.

#### You see this window:

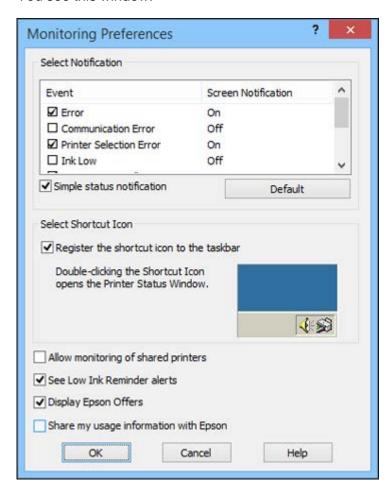


2. Replace or reinstall the maintenance box or any ink cartridge as indicated on the screen.

**Note:** If any of the cartridges installed in the product is broken, incompatible with the product model, or improperly installed, Epson Status Monitor will not display an accurate cartridge status.

3. To disable the low ink reminder, right-click the product icon in the Windows taskbar and select **Monitoring Preferences**.

#### You see this window:



- 4. Deselect the See Low Ink Reminder alerts checkbox at the bottom of the screen.
- 5. To disable promotional offers, deselect the **Display Epson Offers** checkbox.
- 6. Click **OK**.

Parent topic: Check Cartridge and Maintenance Box Status

Related tasks

Removing and Installing Ink Cartridges

#### Replacing the Maintenance Box

## **Checking Cartridge and Maintenance Box Status with OS X**

You can check the status of your ink cartridges and maintenance box using a utility on your Mac.

- 1. Do one of the following:
  - OS X 10.6/10.7/10.8/10.9: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, Print & Scan, or Printers & Scanners, select your product, and select Options & Supplies. Select Utility and select Open Printer Utility.
  - OS X 10.5: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, select your product, and select Open Print Queue. Select Utility.
- 2. Select EPSON Status Monitor.

#### You see this window:



- 3. Do the following as necessary:
  - You can update the ink cartridge and maintenance box status by clicking **Update**.
  - Replace or reinstall the maintenance box or any ink cartridge as indicated on the screen.

**Note:** If any of the cartridges installed in the product is broken, incompatible with the product model, or improperly installed, Epson Status Monitor will not display an accurate cartridge status.

Parent topic: Check Cartridge and Maintenance Box Status

#### Related tasks

Removing and Installing Ink Cartridges
Replacing the Maintenance Box

# **Purchase Epson Ink Cartridges and Maintenance Box**

You can purchase genuine Epson ink, maintenance boxes, and paper at Epson Supplies Central at epson.com/ink3 (U.S. sales) or epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

**Note:** This product uses only genuine Epson-brand cartridges. Other brands of ink cartridges and ink supplies are not compatible and, even if described as compatible, may not function properly.

The cartridges included with the printer are designed for printer setup and not for resale. After some ink is used for priming, the rest is available for printing. Yields vary considerably based on images printed, print settings, paper type, frequency of use, and temperature. For print quality, a variable amount of ink remains in the cartridge after the "replace cartridge" indicator comes on.

Ink Cartridge and Maintenance Box Part Numbers

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

### **Ink Cartridge and Maintenance Box Part Numbers**

Use these part numbers when you order or purchase a new maintenance box or ink cartridges.

Maintenance box part number: T671200

Note: For best printing results, use up a cartridge within 6 months after installing it.

Ink color	Part number		
	Standard-capacity	High-capacity	Extra High-capacity
Black	748	748XL	748XXL
Cyan	748	748XL	748XXL
Magenta	748	748XL	748XXL
Yellow	748	748XL	748XXL

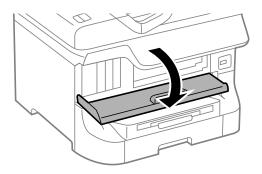
Parent topic: Purchase Epson Ink Cartridges and Maintenance Box

# Removing and Installing Ink Cartridges

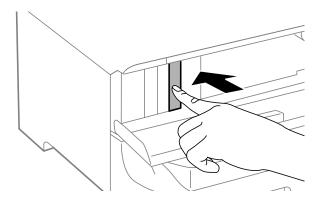
Make sure you have your replacement cartridges handy before you begin. You must install new cartridges immediately after removing the old ones.

**Caution:** Leave your old cartridges in the printer until you are ready to replace them to prevent the print head nozzles from drying out. Do not open ink cartridge packages until you are ready to install the ink. Cartridges are vacuum packed to maintain reliability.

- 1. Turn on your product.
- 2. If an ink cartridge is low or expended, a message appears on your product and on your computer screen. Note which cartridges need to be replaced.
- 3. Open the front cover.

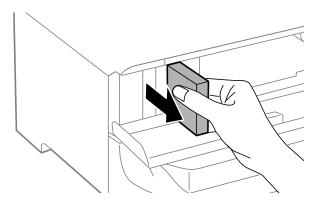


4. Push in the ink cartridge that you want to replace.



The ink cartridge pops out slightly.

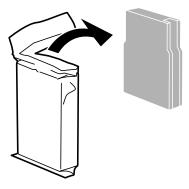
5. Pull the ink cartridge out of the slot.



Note: Dispose of used cartridges carefully. Do not take the used cartridge apart or try to refill it.

**Warning:** If ink gets on your skin, wash it thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water. If ink gets into your mouth, spit it out and see a doctor right away. Keep ink cartridges out of the reach of children.

6. Remove the cartridge from the package.

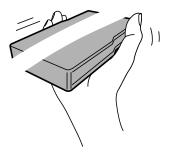


**Caution:** Do not touch the green chip on the cartridge. Install the new cartridge immediately after removing the old one; if you do not, the print head may dry out and be unable to print.





7. Gently shake the ink cartridge horizontally for about five seconds as shown.



Caution: Do not remove any labels or seals, or ink will leak.

- 8. Insert the new cartridge into the holder and push it in until it clicks into place.
- 9. If the **Cartridge Check** option is displayed on the LCD screen, press the **OK** button to make sure the cartridges are installed correctly.

Caution: If necessary, press in the ink cartridge until it clicks into place.

10. When you are finished, close the front cover.

The product starts priming the ink and returns to its previous state when finished.

**Note:** Do not turn off the printer during ink replacement.

**Caution:** If you remove an ink cartridge for later use, protect the ink supply area from dirt and dust and store it in the same environment as the printer. The valve in the ink supply port is designed to contain any excess ink, but do not touch the ink supply port or surrounding area. Always store ink cartridges with the label facing up; do not store cartridges upside-down.

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

**Related concepts** 

Purchase Epson Ink Cartridges and Maintenance Box

# Printing with Black Ink and Expended Color Cartridges

When a color ink cartridge is expended, you can temporarily continue printing from your computer using black ink. Replace the expended color cartridge as soon as possible for future printing.

Printing with Expended Color Cartridges - Windows Printing with Expended Color Cartridges - OS X

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

### **Printing with Expended Color Cartridges - Windows**

If you see a message during printing telling you that you can temporarily print in black ink with an expended color cartridge, you can cancel your print job and select settings to print on plain paper or on an envelope.

Note: To use this feature, Epson Status Monitor must be enabled.

1. Click Cancel or Cancel Print to cancel your print job.

**Note:** If the message screen appears on another computer on a network, you may need to cancel the print job using the product control panel.

- 2. Load plain paper or an envelope in your product.
- 3. Access the print settings in your print application.
- 4. Click the **Main** tab.
- 5. Select Plain Paper/Bright White Paper or Envelope as the paper type setting.
- 6. Select the **Black/Grayscale** checkbox.
- 7. Click OK.

8. Print your document.

Epson Status Monitor 3 displays a print message.

9. Click **Print in Black** to print your document.

Parent topic: Printing with Black Ink and Expended Color Cartridges

## **Printing with Expended Color Cartridges - OS X**

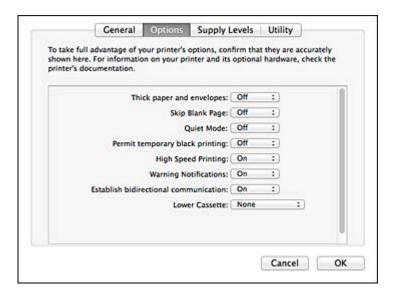
If printing stops, you can cancel your print job and select settings to temporarily print with only black ink on plain paper or on an envelope.

- 1. Click the printer icon in the Dock.
- 2. If you see a message telling you that you can temporarily print with only black ink, click the **Delete** icon to cancel your print job. (**OS X 10.8/10.9**: Click the icon to cancel your print job. If an error message is displayed, click **OK**.)

**Note:** If the message screen appears on another computer on a network, you may need to cancel the print job using the product control panel.

- 3. In the Apple menu or the Dock, select **System Preferences**.
- 4. Select **Print & Fax**, **Print & Scan**, or **Printers & Scanners**, select your product, and select **Options & Supplies**.
- 5. Select **Driver** or **Options**.

#### You see a screen like this:

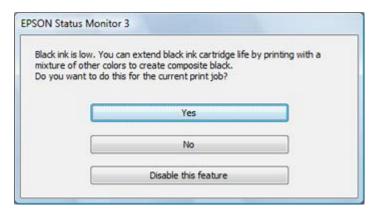


- 6. Select **On** as the **Permit temporary black printing** setting.
- 7. Click **OK**.
- 8. Close the utility window.
- 9. Load plain paper or an envelope in your product.
- 10. Access the print settings in your print application.
- 11. Select **Print Settings** from the pop-up menu.
- 12. Select Plain Paper/Bright White Paper or Envelope as the paper type setting.
- 13. Select the Grayscale option.
- 14. Click **Print** to print your document.

Parent topic: Printing with Black Ink and Expended Color Cartridges

# **Conserving Low Black Ink with Windows**

The following window appears when black ink runs low and there is more color ink.



**Note:** The window appears only when you have selected **Plain Paper/Bright White Paper** as the paper type setting, and depends on other selected print settings. To use this feature, Epson Status Monitor must be enabled.

- Click **Yes** to use a mixture of color inks to create black, or **No** to continue using the remaining black ink for the document you are printing.
- Click **Disable this feature** to continue using the remaining black ink.

**Note:** If you disable this feature, it remains disabled until you install a new black ink cartridge.

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

# **Replacing the Maintenance Box**

Make sure you have a new maintenance box before you begin.

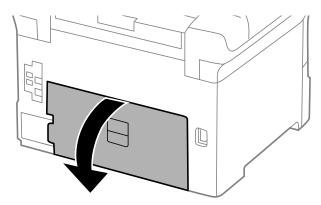
**Caution:** Do not reuse a maintenance box that has been removed and left uninstalled for more than a week. Keep the maintenance box away from direct sunlight.

1. Make sure the product is not printing.

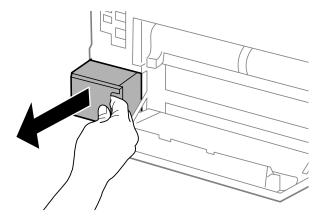
2. Remove the new maintenance box from its package.

**Caution:** Do not touch the green chip on the maintenance box. Do not remove the film on the box, or ink may leak.

3. Open the rear cover 1 (D1).



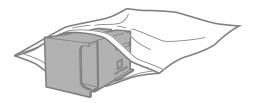
4. Grasp the maintenance box as shown and pull it out of its holder.



Note: Do not tilt the used maintenance box or take it apart.

**Warning:** If ink gets on your skin, wash it thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water. If ink gets into your mouth, spit it out and see a doctor right away. Keep the maintenance box out of the reach of children and do not drink the ink.

5. Place the used maintenance box in the plastic bag that came with the new maintenance box. Seal the bag and dispose of it carefully.



6. Insert the new maintenance box into the holder and push it all the way in.

7. Close the rear cover 1 (D1).

Parent topic: Replacing Ink Cartridges and Maintenance Boxes

**Related concepts** 

Purchase Epson Ink Cartridges and Maintenance Box

# **Adjusting Print Quality**

If your print quality declines, you may need to run a utility to clean or align the print head.

**Note:** When using the PostScript (PS3) printer software with the product, you can clean and align the print head and run a nozzle check by using the printer buttons or the utilities included with the standard Epson printer software. To download the standard Epson printer software, go to epson.com/support/wf8090.

If running these utilities does not solve the problem, you may need to replace the ink cartridges.

Print Head Maintenance
Print Head Alignment
Cleaning the Paper Guide

#### **Print Head Maintenance**

If your printouts become too light, or you see dark or light bands across them, you may need to clean the print head nozzles. Cleaning uses ink, so clean the nozzles only if print quality declines.

You can check for clogged nozzles before you clean them so you don't clean them unnecessarily.

**Note:** You cannot clean the print head if an ink cartridge is expended, and may not be able to clean it when a cartridge is low. You must replace the cartridge first.

Print Head Nozzle Check Print Head Cleaning

Parent topic: Adjusting Print Quality

**Related topics** 

Replacing Ink Cartridges and Maintenance Boxes

#### **Print Head Nozzle Check**

You can print a nozzle check pattern to check for clogged nozzles.

Checking the Nozzles Using the Product Control Panel Checking the Nozzles Using a Computer Utility

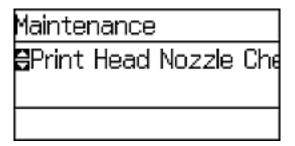
Parent topic: Print Head Maintenance

#### **Checking the Nozzles Using the Product Control Panel**

You can check the print head nozzles using the control panel on your product.

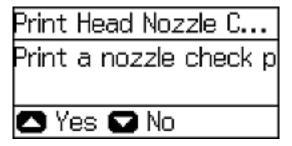
- 1. Load a few sheets of plain paper in the product.
- 2. Press the arrow buttons to select **Menu** and press the **OK** button.
- 3. Select **Maintenance** and press the **OK** button.

You see this screen:



4. Select **Print Head Nozzle Check** and press the **OK** button.

You see a screen like this:

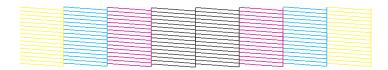


5. Press the up arrow button.

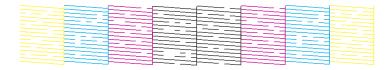
The nozzle pattern prints.

6. Check the printed pattern to see if there are gaps in the lines.

#### Print head is clean



### Print head needs cleaning



- 7. Do one of the following:
  - If there are no gaps, press the down arrow button, select **Finish** and press the **OK** button.
  - If there are gaps or the pattern is faint, select **Clean the print head** and press the **OK** button.
- 8. Follow the instructions on the screen to clean the print head, check the nozzles, and repeat the process as necessary.

**Caution:** Never turn off the product or open the front cover during a cleaning cycle or you may not be able to print.

If you don't see any improvement after cleaning the print head up to 4 times, wait at least 6 hours without printing or longer if printing. Then try cleaning the print head again. If quality still does not improve, one of the ink cartridges may be old or damaged and needs to be replaced.

Parent topic: Print Head Nozzle Check

Related concepts
Print Head Cleaning

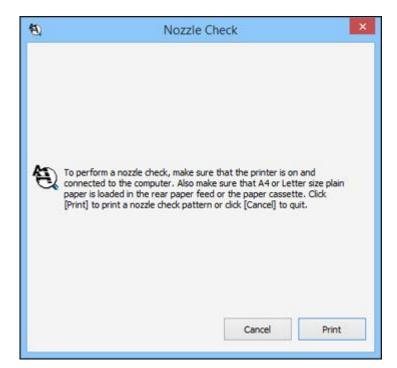
Related topics Loading Paper

### **Checking the Nozzles Using a Computer Utility**

You can check the print head nozzles using a utility on your Windows or Mac computer.

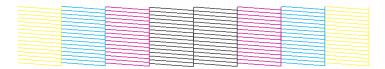
- 1. Load a few sheets of plain paper in the product.
- 2. Do one of the following:
  - Windows: Access the Windows Desktop and right-click the product icon in the Windows taskbar.
  - OS X 10.6/10.7/10.8/10.9: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, Print & Scan, or Printers & Scanners, select your product, and select Options & Supplies. Select Utility and select Open Printer Utility.
  - OS X 10.5: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, select your product, and select Open Print Queue. Select Utility.
- 3. Select Nozzle Check.

You see a window like this:

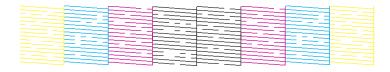


- 4. Click Print.
- 5. Check the printed pattern to see if there are gaps in the lines.

### Print head is clean



### Print head needs cleaning



6. If there are no gaps, click **Finish**.

If there are gaps or the pattern is faint, clean the print head.

Parent topic: Print Head Nozzle Check

Related concepts
Print Head Cleaning

Related topics
Loading Paper

## **Print Head Cleaning**

If print quality has declined and the nozzle check pattern indicates clogged nozzles, you can clean the print head.

**Note:** You cannot clean the print head if an ink cartridge is expended, and may not be able to clean it when a cartridge is low. You must replace the cartridge first.

Cleaning the Print Head Using the Product Control Panel Cleaning the Print Head Using a Computer Utility Parent topic: Print Head Maintenance

Related tasks

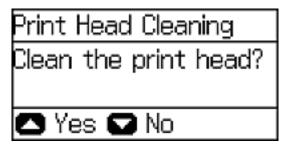
Removing and Installing Ink Cartridges

### Cleaning the Print Head Using the Product Control Panel

You can clean the print head using the control panel on your product.

- 1. Load a few sheets of plain paper in the product.
- 2. Press the arrow buttons to select **Menu** and press the **OK** button.
- 3. Select Maintenance and press the OK button.
- 4. Select **Print Head Cleaning** and press the **OK** button.

You see this screen:



5. Press the up arrow button.

**Note:** Use the nozzle check pattern to determine which colors need cleaning. You can save ink by cleaning only selected colors.

When the cleaning cycle is finished, you see a message on the screen.

**Caution:** Never turn off the product or open the front cover during a cleaning cycle or you may not be able to print.

- 6. Select **Print Nozzle Check Pattern** and press the **OK** button.
- 7. Press the up arrow button.
- 8. Select **Finish** and press the **OK** button to confirm that the print head is clean.

If you don't see any improvement after cleaning the print head up to 4 times, wait at least 6 hours without printing or longer if printing. Then try cleaning the print head again. If quality still does not improve, one of the ink cartridges may be old or damaged and needs to be replaced.

Parent topic: Print Head Cleaning

Related tasks

Cleaning the Print Head Using a Computer Utility

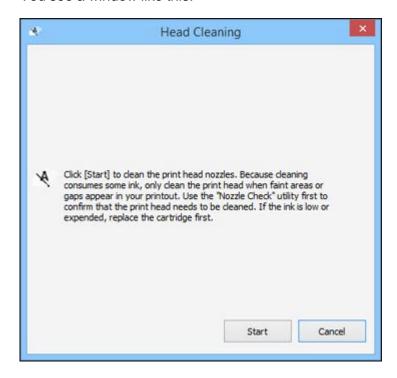
Related topics
Loading Paper

### **Cleaning the Print Head Using a Computer Utility**

You can clean the print head using a utility on your Windows or Mac computer.

- 1. Load a few sheets of plain paper in the product.
- 2. Do one of the following:
  - Windows: Access the Windows Desktop and right-click the product icon in the Windows taskbar.
  - OS X 10.6/10.7/10.8/10.9: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, Print & Scan, or Printers & Scanners, select your product, and select Options & Supplies. Select Utility and select Open Printer Utility.
  - OS X 10.5: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, select your product, and select Open Print Queue. Select Utility.
- 3. Select **Head Cleaning**.

You see a window like this:

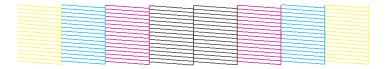


4. Click **Start** to begin the cleaning cycle.

**Caution:** Never turn off the product or open the front cover during a cleaning cycle or you may not be able to print.

- 5. When the cleaning cycle is finished, you can check to see if the nozzles are clean; click **Print Nozzle** Check Pattern and click **Print**.
- 6. Check the printed pattern to see if there are gaps in the lines.

### Print head is clean



### Print head needs cleaning



- If there are no gaps, click Finish.
- If there are gaps or the pattern is faint, click Clean to clean the print head again.

If you don't see any improvement after cleaning the print head up to 4 times, wait at least 6 hours without printing or longer if printing. Then try cleaning the print head again. If quality still does not improve, one of the ink cartridges may be old or damaged and needs to be replaced.

Parent topic: Print Head Cleaning

Related tasks

Cleaning the Print Head Using the Product Control Panel

Related topics
Loading Paper

## **Print Head Alignment**

If your printouts become grainy or blurry, you notice misalignment of vertical lines, or you see dark or light horizontal bands, you may need to align the print head.

Note: Banding may also occur if your print head nozzles need cleaning.

Aligning the Print Head Using the Product Control Panel Aligning the Print Head Using a Computer Utility

Parent topic: Adjusting Print Quality

## Aligning the Print Head Using the Product Control Panel

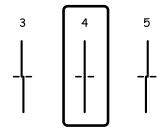
You can align the print head using the control panel on your product.

- 1. Load a few sheets of plain paper in the product.
- 2. Press the arrow buttons to select **Menu** and press the **OK** button.
- 3. Select **Maintenance** and press the **OK** button.

- 4. Select **Print Head Alignment** and press the **OK** button.
- 5. Do one of the following:
  - If vertical lines are misaligned, select **Ruled Line Alignment** and press the **OK** button.
  - If your printouts look blurry, select **Vertical Alignment** and press the **OK** button.
  - If you see horizontal bands at regular intervals, select **Horizontal Alignment** and press the **OK** button.
- 6. Press the up arrow button to print an alignment sheet.

**Note:** Do not cancel printing while you are printing head alignment patterns.

- 7. Check the printed patterns on the alignment sheet and do one of the following:
  - If you printed a ruled line alignment sheet, select the number representing the pattern with the least misaligned vertical line.



• If you printed a vertical alignment sheet, select the number representing the most solid printed pattern for each set on the LCD screen.



• If you printed a horizontal alignment sheet, select the number representing the pattern with the least amount of separation or overlap on the LCD screen.



8. After you have selected the number for all the sets, press the **OK** button.

Parent topic: Print Head Alignment

Related topics
Loading Paper

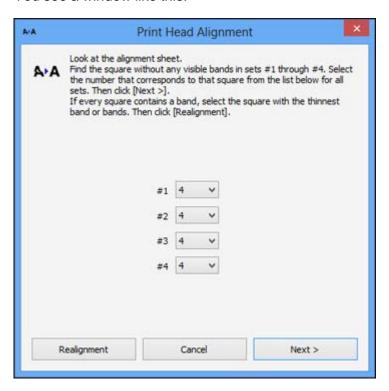
## Aligning the Print Head Using a Computer Utility

You can align the print head using a utility on your Windows or Mac computer.

- 1. Load a few sheets of plain paper in the product.
- 2. Do one of the following:
  - Windows: Access the Windows Desktop and right-click the product icon in the Windows taskbar.
  - OS X 10.6/10.7/10.8/10.9: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, Print & Scan, or Printers & Scanners, select your product, and select Options & Supplies. Select Utility and select Open Printer Utility.
  - OS X 10.5: In the Apple menu or the Dock, select System Preferences. Select Print & Fax, select your product, and select Open Print Queue. Select Utility.
- 3. Select Print Head Alignment.
- 4. Click Next, then click Print to print an alignment sheet.

**Note:** Do not cancel printing while you are printing a head alignment pattern.

You see a window like this:



5. Check the printed pattern and follow the instructions on the screen to choose the number representing the best printed pattern for each set.

## **Vertical alignment**



### **Horizontal alignment**



- After choosing each pattern number, click Next.
- If no patterns are aligned in one or more of the sets, choose the closest one in each set and click **Realignment**. Then print another alignment sheet and check it.

Note: Click Skip (where available) if you want to skip a particular alignment sheet.

6. When you are done, click **Finish**.

Parent topic: Print Head Alignment

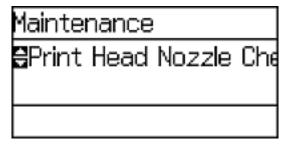
Related topics
Loading Paper

## **Cleaning the Paper Guide**

If you see ink on the back of a printout, you can clean the paper guide rollers to remove any excess ink. If paper does not feed correctly from the rear paper feed slot, you can use a cleaning sheet to clean the rollers.

- 1. Do one of the following:
  - If printouts are smeared or scuffed, load plain paper in the paper source that you want to clean in this size: A3 (11.7 x 16.5 inches [297 x 420 mm])
  - If paper does not feed correctly from the rear paper feed slot, load the cleaning sheet that comes with genuine Epson paper in the rear paper feed slot.
- 2. Press the arrow buttons to select **Menu** and press the **OK** button.
- 3. Select **Maintenance** and press the **OK** button.

You see this screen:



- 4. Select Paper Guide Cleaning and press the OK button.
- 5. Select the paper source you want to clean and press the **OK** button.
- 6. Press the up arrow button.
- 7. If you are cleaning the paper guides, repeat as necessary until the paper comes out clean. If you are using a cleaning sheet, repeat these steps up to 3 times.

**Note:** If the paper is not clean after cleaning several times, try cleaning the other paper sources.

Parent topic: Adjusting Print Quality

Related topics
Loading Paper

# **Cleaning and Transporting the Product**

If your product gets dirty or you need to move it some distance, follow the instructions in these sections.

Cleaning the Product
Transporting Your Product

## **Cleaning the Product**

To keep your product working at its best, you should clean it several times a year.

**Caution:** Do not use a hard brush, alcohol, or paint thinner to clean the product or you may damage it. Do not use oil or other lubricants inside the product or let water get inside it.

- 1. Turn off the product.
- 2. Unplug the power cord.
- 3. Disconnect any connected cables.
- 4. Remove all the paper from the product.
- 5. Clean the paper cassettes using a soft brush.
- 6. Clean the outer case and control panel with a soft, dry cloth. Do not use liquid or chemical cleansers.

Parent topic: Cleaning and Transporting the Product

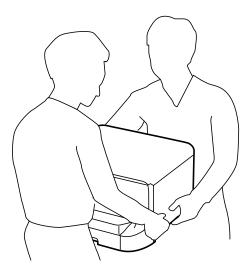
## **Transporting Your Product**

If you need to store your product or transport it, prepare it for transportation as described here.

**Caution:** During transportation and storage, follow these guidelines:

• Use two or more people to lift the product.

• When lifting the product, hold it as shown here. Holding other areas may cause the product to fall or cause you to pinch your fingers when placing the product down.



- Leave the maintenance box installed; otherwise ink may leak.
- When placing the product on the optional cabinet, lock the casters on the cabinet first.
- Avoid tilting the product, placing it vertically, or turning it upside down; otherwise ink may leak.
- Leave the ink cartridges installed. Removing the cartridges can dry out the print head and may prevent the product from printing.
- 1. Turn off the product.
- 2. Unplug the power cord.
- 3. Disconnect any connected cables.
- 4. Remove all the paper from the product.
- 5. Close the paper support and output tray.
- 6. If you transporting the product a short distance, remove the optional cabinet and paper cassettes (if they are installed) before lifting the product.

**Note:** If the optional cabinet is installed, you can use the casters on the cabinet to roll the product instead of lifting it. Remove the cabinet stands and unlock the casters before moving the product. Do not roll the product over uneven or rough surfaces to avoid harsh impacts to the product.

7. If you are transporting the product over a long distance, place the product in its original packing materials, if possible, or use equivalent materials with cushioning around the product. Make sure the box adequately protects the product control panel.

Keep the product level during transportation. If print quality has declined when you print again, clean and align the print head.

Parent topic: Cleaning and Transporting the Product

Related concepts
Print Head Cleaning
Print Head Alignment

Related tasks

Removing and Installing Ink Cartridges

# **Solving Problems**

Check these sections for solutions to problems you may have using your product.

**Checking for Software Updates** 

**Product Status Messages** 

Running a Product Check

Resetting Control Panel Defaults

Solving Setup Problems

Solving Network Problems

Solving Paper Problems

Solving PostScript Printing Problems

Solving Problems Printing from a Computer

Solving Page Layout and Content Problems

Solving Print Quality Problems

When to Uninstall Your Product Software

Where to Get Help

## **Checking for Software Updates**

Periodically, it's a good idea to check Epson's support website for free updates to your product software. Visit the driver download site at (U.S. downloads or Canadian downloads).

- **Windows**: Your printer software automatically checks for updates. You can also manually update the software by selecting **Software Update** here:
  - Accessing the Windows Desktop and right-clicking the product icon in the Windows taskbar
  - On the Maintenance tab in the printer settings window

You can also update the software by selecting **EPSON Software Updater** in the **EPSON** or **EPSON Software** program group, accessible by the **Start** button, or on the **Start** or **Apps** screens, depending on your version of Windows.

• OS X: You can manually update the software by opening the Applications > Epson Software folder and selecting EPSON Software Updater.

Parent topic: Solving Problems

# **Product Status Messages**

You can often diagnose problems with your product by checking the messages on its LCD screen.

LCD screen message	Condition/solution
Printer error. Turn the power off and on again.	Turn the product off and then back on again. If the error continues, check for and remove any paper jams or protective materials from the product. If the error is still displayed, contact Epson for support.
Too many paper cassette units are installed. Turn the power off and uninstall the extra units.	You can install up to three optional paper cassette units. Remove any extra units.
Cannot print because XX is out of order. You can print from another paper source.	Turn the product off and then back on again. Reinsert the indicated paper cassette.
Maintenance rollers on XX are nearing the end of their service life.	The maintenance rollers need to be replaced periodically for optimal performance. (Paper may not feed correctly from the paper cassette when the maintenance roller is near the end of its service life.)
Maintenance rollers on XX are at the end of their service life.	Contact your dealer to replace the maintenance rollers. Reset the maintenance roller counter and select the paper cassette for which you replaced the maintenance rollers.
You need to replace the following ink cartridge(s).	Replace the ink cartridge indicated on the LCD screen.
Memory full	Reduce the size of the print job.
Invalid IP address and subnet mask.	There is a problem with the network connection to your product.
Recovery mode	An error has occurred during firmware updating. Connect your product using a USB cable and try downloading the Firmware Update from the Epson support site. If you still need help, contact Epson for support.

Parent topic: Solving Problems

Related references Where to Get Help

#### Related tasks

**Checking for Software Updates** 

### **Related topics**

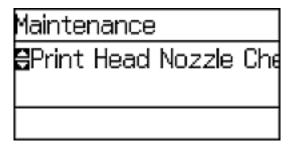
Replacing Ink Cartridges and Maintenance Boxes Solving Paper Problems Wi-Fi or Wired Networking

## **Running a Product Check**

Running a product check helps you determine if your product is operating properly.

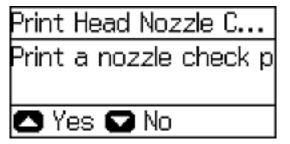
- 1. Disconnect any interface cables connected to your product.
- 2. Load plain paper in the product.
- 3. Press the arrow buttons to select **Menu** and press the **OK** button.
- 4. Select **Maintenance** and press the **OK** button.

You see this screen:



5. Select **Print Head Nozzle Check** and press the **OK** button.

You see a screen like this:



6. Press the up arrow button.

The nozzle pattern prints.

- 7. Do one of the following, depending on the results of the product check:
  - If the page prints and the nozzle check pattern is complete, the product is operating properly. Any
    operation problem you may have could be caused by your computer, cable, software, or selected
    settings. Check the other solutions in this book or try uninstalling and reinstalling your printer
    software.
  - If the page prints but the nozzle check pattern has gaps, clean or align the print head.
  - If the page does not print, the product may have a problem. Check the other solutions in this manual. If they do not work, contact Epson.

Parent topic: Solving Problems

Related concepts
Print Head Cleaning
Print Head Alignment
When to Uninstall Your Product Software

Related references

Where to Get Help

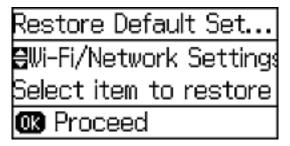
# **Resetting Control Panel Defaults**

If you have a problem with settings on the product control panel, you can reset them to their factory defaults. You can choose which settings to reset or reset them all.

**Note:** This setting can be locked by an administrator. If you cannot access or change this setting, contact your administrator for assistance.

- 1. Press the arrow buttons to select **Menu** and press the **OK** button.
- 2. Select **System Administration** and press the **OK** button. Enter the administrator password, if necessary.
- 3. Select **Restore Default Settings** and press the **OK** button.

You see this screen:



- 4. Select one of these options and press the **OK** button:
  - Wi-Fi/Network Settings: Resets all network settings.
  - Clear All Data and Settings: Resets all control panel settings.

You see a confirmation screen.

5. Press the up arrow button to reset the selected settings. (Press the down arrow button if you want to cancel the operation.)

Parent topic: Solving Problems

## **Solving Setup Problems**

Check these sections if you have problems while setting up your product.

Product Does Not Turn On or Off

Noise After Ink Installation

**Software Installation Problems** 

Parent topic: Solving Problems

### **Product Does Not Turn On or Off**

If you cannot turn the product on or off, try these solutions:

- If you cannot turn on your product, make sure the power cord is securely connected and hold down the power button a little longer.
- If you cannot turn off your product, hold the power button down a little longer. If you still cannot turn off your product, unplug the power cord. To prevent the print head from drying out, plug the power cord back in, then turn your product on and off again using the power button.

Parent topic: Solving Setup Problems

### **Noise After Ink Installation**

If you hear noises from your product after installing ink, check the following:

- The first time you install the ink cartridge, the product must prime its print head. Wait until priming
  finishes before you turn off the product, or it may prime improperly and use excess ink the next time
  you turn it on.
- If the product's print head stops moving or making noise, and the charging process has not finished after approximately 5 minutes, turn off your product. Turn it back on and check to see if charging is still in progress. If it is still in progress, contact Epson for help.

Parent topic: Solving Setup Problems

## **Software Installation Problems**

If you have problems while installing your product software, try these solutions:

- Make sure your product is turned on and any necessary cables are securely connected at both ends. If
  you still have problems installing software, disconnect the cable and carefully follow the instructions on
  the Start Here sheet. Also make sure your system meets the requirements for your operating system.
- Close any other programs, including screen savers and virus protection software, and install your product software again.
- In Windows, make sure your product is selected as the default printer and the correct port is shown in the printer properties.
- If you see any error message or your software does not install correctly in Windows, you may not have software installation privileges. Contact your System Administrator.

Parent topic: Solving Setup Problems

**Related concepts** 

When to Uninstall Your Product Software

#### Related references

Windows System Requirements
OS X System Requirements

## **Solving Network Problems**

Check these solutions if you have problems setting up or using your product on a network.

**Note:** Breakdown or repair of this product may cause loss of network data and settings. Epson is not responsible for backing up or recovering data and settings during or after the warranty period. We recommend that you make your own backup or print out your network data and settings.

Product Cannot Connect to a Wireless Router or Access Point Network Software Cannot Find Product on a Network Product Does Not Appear in OS X Printer Window Cannot Print Over a Network

Parent topic: Solving Problems

#### **Product Cannot Connect to a Wireless Router or Access Point**

If your product has trouble finding or connecting to a wireless router or access point, try these solutions:

- If you are connecting the product via Wi-Fi Protected Setup (WPS) and the Wi-Fi icon on your product's LCD screen is not lit or does not appear, make sure you select one of the WPS options from the product control panel within 2 minutes of pressing the WPS button on your router.
- Make sure to place your product within contact range of your 2.4 GHz router or access point. Avoid
  placing your product near a microwave oven, 2.4 GHz cordless phone, or large metal object, such as a
  filing cabinet.

**Note:** If you are using a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

- Verify that your router or access point is operating correctly by connecting to it from your computer or another device.
- You may need to disable the firewall and any anti-virus software on your wireless router or access point.
- Check to see if access restrictions, such as MAC address filtering, are set on the router or access point. If access restrictions are set, add your product's MAC address to your router's address list. To

- obtain your product's MAC address, print a network status sheet. Then follow the instructions in your router or access point documentation to add the address to the list.
- If your router or access point does not broadcast its network name (SSID), follow the instructions that came with your product to enter your wireless network name manually.
- If your router or access point has security enabled, determine the kind of security it is using and any
  required password or passphrase for connection. Then make sure to enter the exact WEP key or WPA
  passphrase correctly.
- Check if your computer is restricting the available wireless channels. If so, verify that your wireless access point is using one of the usable channels and change to a usable channel, if necessary.
- If you are using a Wi-Fi Direct connection that suddenly disconnects, the Wi-Fi direct password on
  your device may have been changed. If necessary, delete the existing DIRECT-xxxxxxxx connection
  settings from your device and enter a new password. See your device documentation for instructions.
- If you connected your product to a Windows computer using Wi-Fi Direct and it automatically selected Access Point Mode, you may have trouble accessing a low-priority Internet connection. Check the network connection or adapter settings in the Windows Control Panel and set the Internet metric setting to 100 for your version of the Internet Protocol.

Parent topic: Solving Network Problems

Related concepts
Wi-Fi Direct Mode Setup

Related tasks

Selecting Wireless Network Settings From the Control Panel

**Printing a Network Status Sheet** 

**Related topics** 

Wi-Fi or Wired Networking

### **Network Software Cannot Find Product on a Network**

If EpsonNet Setup cannot find your product on a network, try these solutions:

- Make sure your product is turned on and connected to your network. Verify connection using your product control panel.
- Check if your network name (SSID) contains non-ASCII characters. Your product cannot display non-ASCII characters.
- Make sure your product is not connected to a guest network.

- If necessary, reinstall your product software and try running EpsonNet Setup again:
  - 1. Reset your product's network settings to their factory defaults.
  - 2. Windows only: uninstall your product software.
  - 3. Initialize your router following the instructions in your router documentation.

**Note:** If you are reading these instructions online, you will lose your Internet connection when you initialize your router, so note the next step before initializing it.

- 4. Download your product software from the Epson website using the instructions on the *Start Here* sheet.
- If you have replaced your router, reinstall your product software to connect to the new router.

**Note:** If you are using a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

Parent topic: Solving Network Problems

**Related concepts** 

When to Uninstall Your Product Software

Related topics

Wi-Fi or Wired Networking

## **Product Does Not Appear in OS X Printer Window**

If your product does not appear in the OS X printer window, try these solutions:

- Turn your product off, wait 30 seconds, then turn it back on again.
- If you are connecting the product via Wi-Fi Protected Setup (WPS) and the Wi-Fi icon does not appear
  on your product's LCD, make sure you select one of the WPS options from the product control panel
  within 2 minutes of pressing the WPS button on your router.
- If you are connecting the product wirelessly via EpsonNet Setup and the Wi-Fi icon does not appear
  on your LCD screen, make sure your product software was installed correctly. If necessary, reinstall
  your software.

**Note:** If you are using a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

Parent topic: Solving Network Problems

### **Related concepts**

When to Uninstall Your Product Software

### **Cannot Print Over a Network**

If you cannot print over a network, try these solutions:

- Make sure that your product is turned on.
- Make sure you install your product's network software as described in your product documentation.
- Print a network status sheet and verify that the network settings are correct. If the network status is **Disconnected**, check any cable connections and turn your product off and then on again.
- If you are using TCP/IP, make sure the product's IP address is set correctly for your network. If your network does not assign IP addresses using DHCP, set the IP address manually.
- Make sure your computer and product are both using the same wireless network.
- If network printing is slow, print a network status sheet and check the signal strength. If it is poor, place
  your product closer to your router or access point. Avoid placing your product near a microwave oven,
  2.4 GHz cordless phone, or large metal object, such as a filing cabinet.

**Note:** If you are using a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

- Check to see if your wireless router or access point has an enabled Privacy Separator function that is
  preventing printing from a device over the network. See your router or access point documentation for
  instructions on disabling the Privacy Separator function.
- If you are connecting the product via Wi-Fi Protected Setup (WPS) and the Wi-Fi icon does not appear
  on your product's LCD screen, make sure you select one of the WPS options from the product control
  panel within 2 minutes of pressing the WPS button on your router.
- Check your wired LAN router or access point to see if the LED for the port to which your product is connected is on or flashing. If the link LED is off, try the following:
  - Make sure the Ethernet cable is securely connected to your product and to your router, access point, switch, or hub.
  - Try connecting your product to a different port or a different router, access point, switch, or hub.
  - Try connecting with a different Ethernet cable.
  - Try printing to your product from another computer on the network.

**Note:** If you are using a 5 GHz wireless router, set the router to operate in dual band (2.4 GHz and 5 GHz) mode. See your router documentation for instructions.

• If you are connecting the product via EpsonNet Setup and the Wi-Fi icon does not appear on the LCD, make sure your product software was installed correctly. If necessary, reinstall your software.

Parent topic: Solving Network Problems

**Related concepts** 

When to Uninstall Your Product Software

Related tasks

Printing a Network Status Sheet

**Related topics** 

Wi-Fi or Wired Networking

## **Solving Paper Problems**

Check these sections if you have problems using paper with your product.

Paper Feeding Problems

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

Paper Ejection Problems

Parent topic: Solving Problems

## **Paper Feeding Problems**

If you have problems feeding paper, try these solutions:

- If paper does not feed for printing, remove it from the rear feed slot or cassette. Reload it, then adjust the edge guides. Make sure the paper stack is not above the tab on the edge guides inside the cassette or rear feed slot.
- Be sure to insert the paper cassette all the way into your product.
- If multiple pages feed at once, remove the paper, fan the edges to separate the sheets, and reload it.

- Do not load more than the recommended number of sheets.
- Make sure your paper meets the specifications for your product.
- If paper jams when you print on both sides of the paper, try loading fewer sheets.
- Make sure the paper size and paper type settings are correct for the paper source.
- Load and eject paper without printing to clean the paper path.
- If paper does not feed correctly after replacing the maintenance rollers, make sure you installed the maintenance rollers correctly.
- If you installed an optional paper cassette unit, be sure to enable the cassette unit in the printing software.
- If your product pauses during printing, make sure the front cover is closed.
- The maintenance rollers may be at the end of their service life. Check the maintenance roller status and replace them if necessary.
- For best results, follow these guidelines:
  - Use new, smooth, high-quality paper that is not curled, creased, old, too thin, or too thick.
  - Load paper in the cassette printable side down.
  - Do not load binder paper with holes in the cassette.
  - Follow any special loading instructions that came with the paper.

Parent topic: Solving Paper Problems

#### Related references

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

**Paper Loading Capacity** 

**Paper Specifications** 

#### Related tasks

Cleaning the Paper Guide

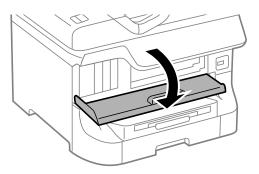
### **Related topics**

**Loading Paper** 

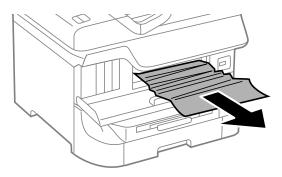
## Paper Jam Problems in the Front Cover (A)

If paper has jammed in the front cover, follow the steps here to clear the jam.

- 1. Cancel the print job, if necessary.
- 2. Open the front cover.



3. Remove any paper inside, including torn pieces.



Caution: Be careful to not touch any parts inside the product to prevent damage to it.

4. Close the front cover.

**Note:** If any torn pieces of paper remain in the product, select **Menu > Maintenance > Remove Paper** after clearing the paper jam error.

5. Follow the prompts on the LCD screen to clear any error messages. If you still see a paper jam message, check the other paper jam solutions.

Parent topic: Solving Paper Problems

Related references

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

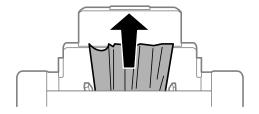
Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

## Paper Jam Problems in the Rear Paper Feed Slot (B1)

If paper has jammed in the rear paper feed slot, carefully remove the paper.



Parent topic: Solving Paper Problems

**Related references** 

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Front Paper Feed Slot (B2)

Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

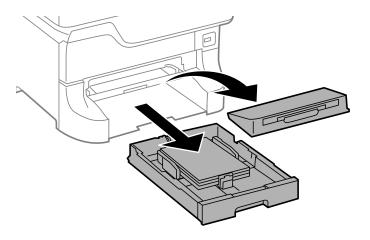
Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

## Paper Jam Problems in the Front Paper Feed Slot (B2)

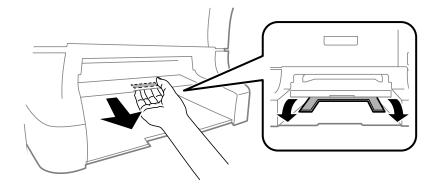
If paper has jammed in the front paper feed slot, follow the steps here to clear the jam.

- 1. Cancel the print job, if necessary.
- 2. Close the output tray.

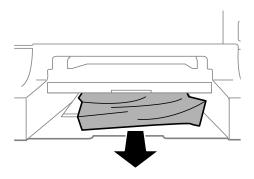
3. Remove the output tray and pull out the paper cassette.



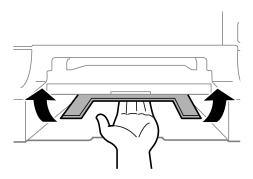
4. Pull the lever to lower the cover.



### 5. Carefully remove any paper jammed inside the product.



#### 6. Raise the cover.



- 7. Reattach the output tray and insert the paper cassette.
- 8. Follow the prompts on the LCD screen to clear any error messages. If you still see a paper jam message, check the other paper jam solutions.

Parent topic: Solving Paper Problems

#### Related references

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

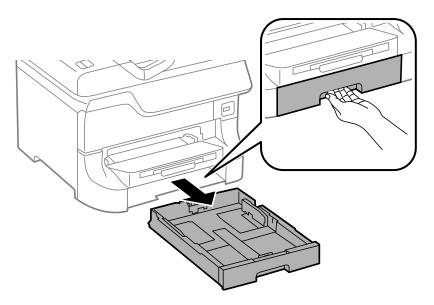
Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

# Paper Jam Problems in the Cassette (C1/C2/C3/C4)

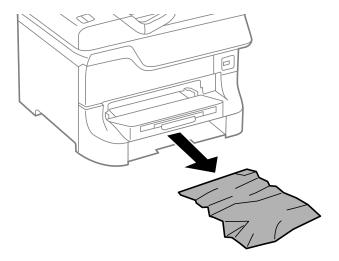
If paper has jammed in the cassette, follow the steps here to clear the jam.

**Note:** If the optional paper cassette units are installed, do not remove more than one paper cassette at a time.

- 1. Cancel the print job, if necessary.
- 2. Pull out the paper cassette.



3. Carefully remove any paper jammed inside the product.



- 4. Carefully follow all paper loading instructions and reload the paper.
- 5. Keep the cassette flat as you gently insert it.
- 6. Follow the prompts on the LCD screen to clear any error messages. If you still see a paper jam message, check the other paper jam solutions.

Parent topic: Solving Paper Problems

#### Related references

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

Paper Jam Problems in the Rear Cover 1 (D1)

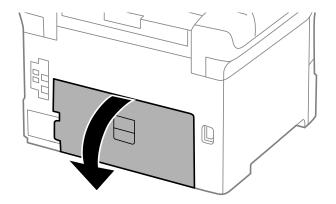
Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

## Paper Jam Problems in the Rear Cover 1 (D1)

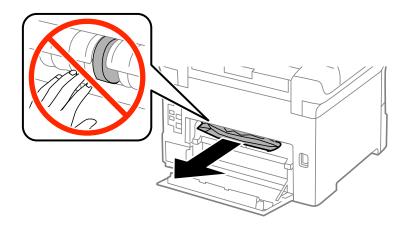
If paper has jammed in the rear cover 1, follow the steps here to clear the jam.

1. Cancel the print job, if necessary.

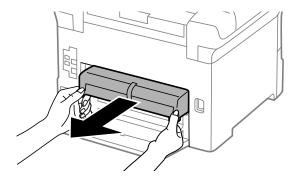
## 2. Open rear cover 1 (D1).



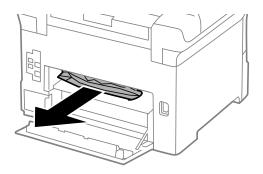
3. Carefully remove any jammed paper.



### 4. Pull out rear cover 2 (D2).



5. Remove any jammed paper from the duplexer.



- 6. Insert rear cover 2 (D2).
- 7. Close rear cover 1 (D1).
- 8. Follow the prompts on the LCD screen to clear any error messages. If you still see a paper jam message, check the other paper jam solutions.

Parent topic: Solving Paper Problems

Related references

Paper Jam Problems in the Front Cover (A)

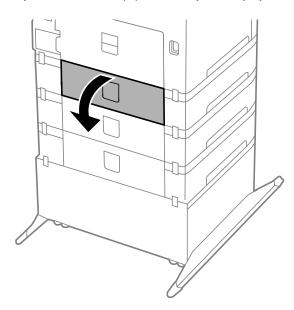
Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

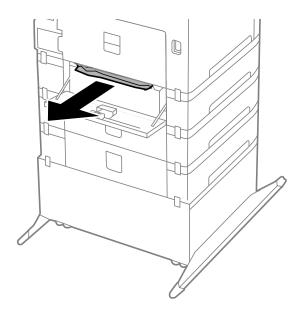
## Paper Jam Problems in the Rear Cover (E) of the Optional Paper Cassette Unit

If paper has jammed in any of the optional paper cassettes, follow the steps here to clear the jam.

- 1. Cancel the print job, if necessary.
- 2. Open rear cover (E) on the optional paper cassette unit with the jammed paper.



3. Carefully remove any paper jammed inside.



- 4. Close rear cover (E).
- 5. Follow the prompts on the LCD screen to clear any error messages. If you still see a paper jam message, check the other paper jam solutions.

Parent topic: Solving Paper Problems

#### Related references

Paper Jam Problems in the Front Cover (A)

Paper Jam Problems in the Rear Paper Feed Slot (B1)

Paper Jam Problems in the Front Paper Feed Slot (B2)

Paper Jam Problems in the Cassette (C1/C2/C3/C4)

Paper Jam Problems in the Rear Cover 1 (D1)

## **Paper Ejection Problems**

If you have problems with paper ejecting properly, try these solutions:

• If paper does not eject fully, you may have set the wrong paper size. Cancel printing to eject the paper. Select the correct paper size when you reprint.

• If paper is wrinkled when it ejects, it may be damp or too thin. Load new paper and be sure to select the correct paper type setting when you reprint.

Parent topic: Solving Paper Problems

Related references

Paper or Media Type Settings - Printing Software

Related tasks

Cancelling Printing Using a Product Button

Related topics
Loading Paper

## Solving PostScript Printing Problems

Check these solutions if you have problems using the PostScript printing software.

Nothing Prints Using the Postscript Printing Software

Documents Print Incorrectly Using the Postscript Printing Software

Accessing Printer Properties - Postscript - Windows

Parent topic: Solving Problems

## **Nothing Prints Using the Postscript Printing Software**

If your document doesn't print, try these solutions:

- Make sure your product is turned on and properly connected.
- Make sure the printing language setting on the control panel is correct.
- If **Text Detection** is enabled on the control panel and you cannot print text, set the printing language to **PS3**.
- Make sure your product is selected as the printer in your printing program.
- In Windows, the product may not print if a large number of print jobs are sent. Try selecting **Print directly to the printer** on the Advanced tab in the printer properties.

Parent topic: Solving PostScript Printing Problems

**Related topics** 

Printing with the Epson Universal Print Driver - Windows

## **Documents Print Incorrectly Using the Postscript Printing Software**

If your document does not print correctly, try these solutions:

- If the file you are printing was created in an application that allows you to change the data format, such as Adobe Photoshop, make sure the settings in the application match the printer driver settings.
- EPS files created in binary format may not print correctly. Try creating the file in ASCII format instead.
- In Windows, the product cannot print binary data if it is connected to the computer using a USB cable.
   Try selecting ASCII or TBCP as the Output Protocol setting on the Device Settings tab in the printer properties.
- In Windows, select the appropriate substitution fonts on the Device Settings tab in the printer properties.
- If the printed colors are incorrect, try adjusting the **Color Mode** setting on the Advanced tab of the printing software.
- If printing is slow, try selecting Fast as the Print Quality setting on the Advanced tab of the printing software.

Parent topic: Solving PostScript Printing Problems

Related tasks

Accessing Printer Properties - Postscript - Windows

## **Accessing Printer Properties - Postscript - Windows**

You can access the printer properties to view and change product settings.

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers. Right-click the postscript driver for your product, and select Printer properties.
  - Windows 7: Click and select Devices and Printers. Right-click the postscript driver for your product and select Printer properties.
  - Windows Vista: Click and select Control Panel. Click Printer under Hardware and Sound, then right-click the postscript driver for your product and select Properties.
  - Windows XP: Click Start and select Printers and Faxes. Right-click the postscript driver for your product and select Properties.
- 2. Click any tab to view and change the printer property settings.

Parent topic: Solving PostScript Printing Problems

## **Solving Problems Printing from a Computer**

Check these sections if you have problems while printing from your computer.

**Note:** When printing using AirPrint, the available print settings are different from those covered in this manual. See the Apple website for details.

**Note:** For problems while printing with the Epson Universal Print Driver or PostScript (PS3) printer software, see the sections covering that software in this manual.

Nothing Prints
Product Icon Does Not Appear in Windows Taskbar
Printing is Slow

Parent topic: Solving Problems

## **Nothing Prints**

If you have sent a print job and nothing prints, try these solutions:

- Make sure your product is turned on.
- Make sure any interface cables are connected securely at both ends.
- If you connected your product to a USB hub, make sure it is a first-tier hub. If it still does not print, connect your product directly to your computer instead of the hub.
- Run a product check to see if a test page prints. If the test page prints, check to see if your product software is installed correctly.
- If you are printing a large image, the computer may not have enough memory. Print the image at a lower resolution or a smaller file size.
- In Windows, click **Print Queue** on the Maintenance tab in the printer settings window and check for the following:
  - Check for any stalled or paused print jobs. Cancel or unpause any jobs as necessary.
  - Open the Printer menu and make sure the product is not offline.
  - Open the Printer menu and set the product as the default printer, if necessary.

- In OS X, select System Preferences from the Apple menu or Dock, select Print & Scan or Printers & Scanners, then double-click your printer icon. Check to see if any jobs are paused. Cancel or unpause any jobs as necessary.
- If you are using AirPrint, make sure AirPrint is enabled with the correct settings using Web Config.

Parent topic: Solving Problems Printing from a Computer

Related tasks

Running a Product Check Using AirPrint

### **Product Icon Does Not Appear in Windows Taskbar**

If you do not see your product icon in the Windows taskbar, first try restarting your computer. If that does not work, try this solution:

- 1. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Hardware and Sound > Devices and Printers.
  - Windows 7: Click and select Devices and Printers.
  - Windows Vista: Click , select Control Panel, and click Printer under Hardware and Sound.
  - Windows XP: Click Start and select Printers and Faxes. (Or open the Control Panel, select Printers and Other Hardware, if necessary, and Printers and Faxes.)
- 2. Right-click your product name, select **Printing Preferences**, and select your product name again if necessary.
- Click the Maintenance tab.
- 4. Click the **Extended Settings** button.
- 5. Select Enable EPSON Status Monitor 3, then click OK.
- 6. Click the **Monitoring Preferences** button.
- 7. Click the checkbox for the option that adds the shortcut icon to the taskbar.
- 8. Click **OK** to close the open program windows.

Parent topic: Solving Problems Printing from a Computer

### **Printing is Slow**

If printing becomes slow, try these solutions:

- Make sure your system meets the requirements for your operating system. If you are printing a highresolution image, you may need more than the minimum requirements. If necessary, increase your system's memory.
- If you are using Windows 7, close the **Devices and Printers** window before you print.
- Make sure Quiet Mode is turned off.
- Clear space on your hard drive or run a defragmentation utility to free up existing space.
- Close any programs you are not using when you print.
- If your product is connected to a USB hub, connect it directly to your computer instead.
- If printing becomes slower after printing continuously for a long time, the product may have automatically slowed down to protect the print mechanism from overheating or becoming damaged. Let the product rest with the power on for 30 minutes, then try printing again.

For the fastest printing, select the following settings in your product software:

- Make sure the paper type setting matches the type of paper you loaded.
- Turn on any high speed settings in your product software.
- Select a lower print quality setting.
- Make sure the ink drying time has not been increased for double-sided printing.
- Windows: Click the Maintenance tab, select Extended Settings, and select the following settings:
  - High Speed Copies
  - Always Spool RAW Datatype
  - Page Rendering Mode
  - Print as Bitmap

Parent topic: Solving Problems Printing from a Computer

Related references

Windows System Requirements

OS X System Requirements

Paper or Media Type Settings - Printing Software

Related tasks

Selecting Basic Print Settings - Windows

Selecting Extended Settings - Windows Selecting Basic Print Settings - OS X

## **Solving Page Layout and Content Problems**

Check these sections if you have problems with the layout or content of your printed pages.

**Note:** When printing using AirPrint, the available print settings are different from those covered in this manual. See the Apple website for details.

Inverted Image
Too Many Copies Print
Blank Pages Print
Incorrect Margins on Printout
Incorrect Characters Print
Incorrect Image Size or Position
Slanted Printout

Parent topic: Solving Problems

## **Inverted Image**

If your printed image is inverted unexpectedly, try these solutions:

- Turn off any mirror or inversion settings in your printing application.
- Turn off the **Mirror Image**, **Flip horizontally**, or **Reverse page orientation** settings in your printer software. (This option has different names, depending on your operating system version.)

**Note:** Leave these options turned on when you print on Epson Iron-on Cool Peel Transfer paper, if available for your product.

Parent topic: Solving Page Layout and Content Problems

Related tasks

Selecting Additional Layout and Print Options - Windows

Selecting Basic Print Settings - OS X

### **Too Many Copies Print**

Make sure that the **Copies** setting in your printing program or printer software is not set for multiple copies.

Parent topic: Solving Page Layout and Content Problems

Related tasks

Selecting Basic Print Settings - Windows Selecting Basic Print Settings - OS X

### **Blank Pages Print**

If blank pages print unexpectedly, try these solutions:

- Make sure you selected the correct paper size settings in your printing program and printer software.
- If a blank page exists in a document you are printing and you want to skip printing it, select the **Skip Blank Page** setting in your printer software.
- Run a print head nozzle check to see if any of the nozzles are clogged. Then clean the print head, if necessary.
- Make sure your product is selected as the printer in your printing program.

Parent topic: Solving Page Layout and Content Problems

### **Related concepts**

Print Head Nozzle Check Print Head Cleaning

#### Related tasks

Selecting Basic Print Settings - Windows Selecting Extended Settings - Windows Selecting Basic Print Settings - OS X Selecting Printing Preferences - OS X

## **Incorrect Margins on Printout**

If your printed page has incorrect margins, try these solutions:

- Make sure you selected the correct paper size settings in your printing program and printer software.
- Make sure you selected the correct margins for your paper size in your printing program.
- Make sure your paper is positioned correctly for feeding into the printer.

You can use the preview option in your printer software to check your margins before you print.

Parent topic: Solving Page Layout and Content Problems

Related tasks

Selecting Basic Print Settings - Windows Selecting Basic Print Settings - OS X

Related topics
Loading Paper

#### **Incorrect Characters Print**

If incorrect characters appear in your prints, try these solutions before reprinting:

- Make sure any cables are securely connected at both ends.
- In Windows, delete all jobs from the Windows Spooler. Click **Print Queue** on the Maintenance tab in the printer settings window, and cancel any stalled print jobs.
- If your product is connected to a USB hub, connect it directly to your computer instead.
- If your computer entered sleep mode the last time you printed, the next print job after your computer exits sleep mode may contain garbled characters. Print your document again.
- If incorrect characters still appear in your prints, try connecting your product using a different cable.

Parent topic: Solving Page Layout and Content Problems

## **Incorrect Image Size or Position**

If your printed image is the wrong size or in the wrong position, try these solutions:

- Make sure you selected the correct paper size and layout settings in your printing program and printer software.
- Make sure you selected the correct paper size on the control panel.
- Make sure your paper is positioned correctly for feeding into the printer.

You can use the preview option in your printer software to check your margins before you print.

Parent topic: Solving Page Layout and Content Problems

Related tasks

Selecting Basic Print Settings - Windows Selecting Additional Layout and Print Options - Windows Selecting Basic Print Settings - OS X

#### Selecting Page Setup Settings - OS X

### **Slanted Printout**

If your printouts are slanted, try these solutions:

- Slide the edge guides against the edges of the paper.
- Select a higher print quality setting in your printer software.
- Turn off any high speed settings in your product software.
- Align the print head.
- Make sure the product is not printing while tilted or at an angle.

Parent topic: Solving Page Layout and Content Problems

Related tasks

Selecting Basic Print Settings - Windows Selecting Basic Print Settings - OS X

Related topics
Loading Paper

## **Solving Print Quality Problems**

Check these sections if your printouts have problems with print quality, but your image looks fine on your computer screen.

**Note:** When printing using AirPrint, the available print settings are different from those covered in this manual. See the Apple website for details.

White or Dark Lines in Printout Blurry or Smeared Printout Faint Printout or Printout Has Gaps Grainy Printout Incorrect Colors

Parent topic: Solving Problems

### White or Dark Lines in Printout

If you notice white or dark lines in your prints (also called banding), try these solutions before you reprint:

- Run a nozzle check to see if any of the print head nozzles are clogged. Then clean the print head, if necessary.
- Make sure the paper type setting matches the type of paper you loaded.
- Make sure you loaded the printable side of the paper correctly for your product.
- Turn off any high speed settings in your product software.
- · Align the print head.
- You may need to replace the ink cartridges.

Parent topic: Solving Print Quality Problems

### **Related concepts**

Print Head Nozzle Check

**Print Head Cleaning** 

**Print Head Alignment** 

#### Related references

Paper or Media Type Settings - Printing Software

#### Related tasks

Selecting Additional Layout and Print Options - Windows Selecting Printing Preferences - OS X

### **Related topics**

**Loading Paper** 

Replacing Ink Cartridges and Maintenance Boxes

### **Blurry or Smeared Printout**

If your printouts are blurry or smeared, try these solutions:

- Make sure your paper is not damp, curled, old, or loaded incorrectly in your product.
- Use a support sheet with special paper, or load special paper one sheet at a time.
- Make sure your paper meets the specifications for your product.
- Use Epson papers to ensure proper saturation and absorption of genuine Epson inks.
- Make sure the paper type setting in your product software matches the type of paper you loaded.

- Make sure you loaded the printable side of the paper correctly for your product.
- If you are printing on thick paper or envelopes, turn on the Thick Paper setting from the control panel
  or select Thick Paper and Envelopes in the Extended Settings of the printer software. (Turning this
  setting on will decrease print speed.)
- In Windows, if the paper is still smeared after selecting the **Thick Paper and Envelopes** setting, select the **Short Grain Paper** setting in the Extended Settings of the printer software.
- Remove each sheet from the output tray as it is printed.
- Avoid handling printouts on glossy paper right after printing to allow the ink to set.
- Turn off any high speed settings in your product software.
- If you print on both sides of a sheet of paper, smudges may appear on the reverse side of heavily saturated or dark images. If one side of a sheet will contain a lighter image or text, print that side first. Adjust the **Print Density** and/or **Increase Ink Drying Time** settings.
- Run a nozzle check to see if any of the print head nozzles are clogged. Then clean the print head, if necessary.
- · Align the print head.
- Clean the paper path.

**Note:** Your product will not operate properly while tilted at an angle. Place it on a flat, stable surface that extends beyond the base of the product in all directions.

Parent topic: Solving Print Quality Problems

Related concepts
Print Head Cleaning
Print Head Alignment

#### Related references

Available Epson Papers
Paper Specifications
Double-sided Printing Options - Windows

#### Related tasks

Selecting Basic Print Settings - Windows
Selecting Additional Layout and Print Options - Windows
Selecting Basic Print Settings - OS X
Selecting Double-sided Printing Settings - OS X

Selecting Printing Preferences - OS X Cleaning the Paper Guide

### **Related topics**

**Loading Paper** 

## **Faint Printout or Printout Has Gaps**

If your printouts are faint or have gaps, try these solutions:

- Run a nozzle check to see if any of the print head nozzles are clogged. Then clean the print head, if necessary.
- The ink cartridges may be old or low on ink, and you may need to replace them.
- Make sure the paper type setting matches the type of paper you loaded.
- Make sure your paper is not damp, curled, old, or loaded incorrectly in your product.
- Align the print head.
- Clean the paper path.

Parent topic: Solving Print Quality Problems

**Related concepts** 

Print Head Nozzle Check

**Print Head Cleaning** 

Print Head Alignment

#### Related references

Paper or Media Type Settings - Printing Software

#### Related tasks

Selecting Basic Print Settings - Windows

Selecting Basic Print Settings - OS X

Cleaning the Paper Guide

### **Related topics**

Replacing Ink Cartridges and Maintenance Boxes

**Loading Paper** 

### **Grainy Printout**

If your printouts are grainy, try these solutions:

- Make sure you loaded the printable side of the paper correctly for your product.
- Select a higher print quality setting and turn off any high speed settings in your product software.
- Run a nozzle check to see if any of the print head nozzles are clogged. Then clean the print head, if necessary.
- Align the print head.
- You may need to increase the image resolution or print a smaller size; see your software documentation.

Note: Images from the Internet may be low resolution and not result in a high quality printout.

• If you enlarged the image in an image-editing program, you need to increase the resolution setting to retain a high image quality. Increase the resolution by the same amount you increased the image size. For example, if the resolution is 300 dpi (dots per inch) and you will double the image size later, change the resolution setting to 600 dpi.

**Note:** Higher resolution settings result in larger file sizes, which take longer to process and print. Consider the limitations of your computer system when selecting a resolution, and select the lowest possible resolution that produces acceptable quality to keep file sizes manageable.

Parent topic: Solving Print Quality Problems

**Related concepts** 

**Print Head Nozzle Check** 

**Print Head Cleaning** 

**Print Head Alignment** 

#### Related tasks

Selecting Basic Print Settings - Windows

Selecting Additional Layout and Print Options - Windows

Selecting Basic Print Settings - Windows

Selecting Basic Print Settings - OS X

### **Related topics**

Loading Paper

### **Incorrect Colors**

If your printouts have incorrect colors, try these solutions:

- Make sure the Black/Grayscale or Grayscale setting is not selected in your printer software.
- If you selected **Standard-Vivid** (Windows) or **Normal-Vivid** (OS X) as the quality setting in the printer software, try selecting **Standard** (Windows) or **Normal** (OS X) instead.
- Run a nozzle check to see if any of the print head nozzles are clogged. Then clean the print head, if necessary.
- The ink cartridges may be old or low on ink, and you may need to replace them.
- Your printed colors can never exactly match your on-screen colors. However, you can use a color management system to get as close as possible. Try using the color management options in your printer software.
- For best results, use genuine Epson ink and paper.

Parent topic: Solving Print Quality Problems

#### **Related concepts**

**Print Head Nozzle Check** 

**Print Head Cleaning** 

#### **Related references**

**Available Epson Papers** 

#### Related tasks

Selecting Basic Print Settings - Windows

Selecting Additional Layout and Print Options - Windows

Selecting Basic Print Settings - OS X

#### **Related topics**

Replacing Ink Cartridges and Maintenance Boxes

## When to Uninstall Your Product Software

If you have a problem that requires you to uninstall and re-install your software, follow the instructions for your operating system.

Uninstalling Printing Software - Standard Epson Printer Software - Windows

Uninstalling Product Software - OS X

Parent topic: Solving Problems

## **Uninstalling Printing Software - Standard Epson Printer Software - Windows**

You can uninstall and then re-install your printer software to solve certain problems.

**Note:** You cannot uninstall the PostScript printer software.

- 1. Turn off the product.
- 2. Disconnect any interface cables.
- 3. Do one of the following:
  - Windows 8.x: Navigate to the Apps screen and select Control Panel > Programs > Programs and Features. Select the uninstall option for your Epson product, then select Uninstall/Change.

Note: If you see a User Account Control window, click Yes or Continue.

In the next window, select your product, if necessary, and click **OK**. Then follow any on-screen instructions.

• Windows (other versions): Click or Start, and select All Programs or Programs. Select Epson, select your product, then click EPSON Printer Software Uninstall.

Note: If you see a User Account Control window, click Yes or Continue.

In the next window, select your product, if necessary, and click **OK**. Then follow any on-screen instructions.

4. Restart your computer, then re-install your software.

**Note:** If you find that re-installing your product software does not solve a problem, contact Epson.

Parent topic: When to Uninstall Your Product Software

## **Uninstalling Product Software - OS X**

In most cases, you do not need to uninstall your product software before re-installing it. However, you can download the Uninstaller utility from the Epson support website to uninstall your product software as described here.

**Note:** If you find that re-installing your product software does not solve a problem, contact Epson.

- 1. To download the Uninstaller utility, visit the Epson download site (U.S. downloads or Canadian downloads).
- 2. Follow the instructions on the screen to install the Uninstaller utility.
- 3. Quit all applications currently running on your Mac.
- 4. Double-click the Uninstaller icon.
- 5. Select the checkbox for each software program you want to uninstall.
- 6. Click Uninstall.
- 7. Follow the on-screen instructions to uninstall the software.
- 8. To reinstall your product software, see the Start Here sheet for instructions.

**Note:** If you uninstall the printer driver and your product name remains in the **Print & Fax**, **Print & Scan**, or **Printers & Scanners** window, select your product name and click the – (remove) icon to remove it.

Parent topic: When to Uninstall Your Product Software

# Where to Get Help

If you need to contact Epson for technical support services, use the following support options.

### **Internet Support**

Visit Epson's support website at epson.com/support (U.S.) or epson.ca/support (Canada) for solutions to common problems. You can download drivers and documentation, get FAQs and troubleshooting advice, or e-mail Epson with your questions.

### **Speak to a Support Representative**

Before you call Epson for support, please have the following information ready:

- Product name
- Product serial number (located on a label on the product)
- Proof of purchase (such as a store receipt) and date of purchase
- Computer configuration
- Description of the problem

#### Then call:

- U.S.: (562) 276-7202, 6 AM to 8 PM, Pacific Time, Monday through Friday, and 7 AM to 4 PM, Pacific Time, Saturday
- Canada: (905) 709-2567, 6 AM to 8 PM, Pacific Time, Monday through Friday, and 7 AM to 4 PM, Pacific Time, Saturday

Days and hours of support are subject to change without notice. Toll or long distance charges may apply.

#### **Purchase Supplies and Accessories**

You can purchase genuine Epson ink and paper at Epson Supplies Central at epson.com/ink3 (U.S. sales) or epson.ca (Canadian sales). You can also purchase supplies from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).

Parent topic: Solving Problems

# **Technical Specifications**

These sections list the technical specifications for your product.

**Note:** Epson offers a recycling program for end of life products. Please go to this site for information on how to return your products for proper disposal.

Windows System Requirements

OS X System Requirements

**Paper Specifications** 

**Printable Area Specifications** 

**Ink Cartridge Specifications** 

**Dimension Specifications** 

**Electrical Specifications** 

**Environmental Specifications** 

**Interface Specifications** 

**Network Interface Specifications** 

Safety and Approvals Specifications

**PS3 Mode Fonts** 

PCL5 Mode Fonts

**PCL6 Mode Fonts** 

**Symbol Sets** 

## **Windows System Requirements**

To use your product and its software, your computer should use one of these Microsoft operating systems:

- Windows 8.x
- Windows 7
- Windows Vista
- Windows XP Professional x64 Edition
- Windows XP SP3
- Windows Server 2012\*

- Windows Server 2008R2\*
- Windows Server 2008\*
- Windows Server 2003R2\*
- Windows Server 2003\*

**Note:** Visit Epson's support website at epson.com/support (U.S.) or epson.ca/support (Canada) for the latest in compatibility and drivers for your product.

Parent topic: Technical Specifications

# **OS X System Requirements**

To use your product and its software, your Mac should use one of these operating systems:

- OS X 10.9.x
- OS X 10.8.x
- OS X 10.7.x
- OS X 10.6.x
- OS X 10.5.8

**Note:** Visit Epson's support website at epson.com/support (U.S.) or epson.ca/support (Canada) for the latest in compatibility and drivers for your product.

Parent topic: Technical Specifications

# **Paper Specifications**

**Note:** Since the quality of any particular brand or type of paper may be changed by the manufacturer at any time, Epson cannot guarantee the quality of any non-Epson brand or type of paper. Always test a sample of paper stock before purchasing large quantities or printing large jobs.

<sup>\*</sup> Windows Server supports only the printer driver; any additional included software is not supported.

#### Single-sheets

Size A3 (11.7 x 16.5 inches [297 x 420 mm])

A4  $(8.3 \times 11.7 \text{ inches } [210 \times 297 \text{ mm}])$ A5  $(5.8 \times 8.2 \text{ inches } [148 \times 210 \text{ mm}])$ A6  $(4.1 \times 5.8 \text{ inches } [105 \times 148 \text{ mm}])$ Letter  $(8.5 \times 11 \text{ inches } [216 \times 279 \text{ mm}])$ Legal  $(8.5 \times 14 \text{ inches } [216 \times 356 \text{ mm}])$ 

4 x 6 inches (102 x 152 mm) 5 x 7 inches (127 x 178 mm) 8 x 10 inches (203 x 254 mm) 3.5 x 5 inches (89 x 127 mm) 11 x 17 inches (279 x 432 mm) 13 x 19 inches (330 x 483 mm)

16:9 wide (4 x 7.1 inches [102 x 181 mm])
Half Letter (5.5 x 8.5 inches [140 x 279 mm])
Executive (7.25 x 10.5 inches [184 x 267 mm])

Paper types Plain paper and paper distributed by Epson

**Weight** 17 lb (64 g/m²) to 68 lb (256 g/m²)

**Envelopes** 

**Size** No. 10 (4.1  $\times$  9.5 inches [105  $\times$  241 mm])

Paper types Plain bond paper

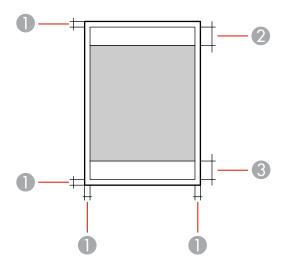
**Weight** 20 lb (75 g/m²) to 24 lb (90 g/m²)

Parent topic: Technical Specifications

# **Printable Area Specifications**

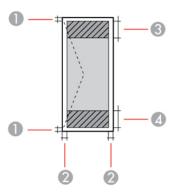
**Note:** Print quality may decline in the shaded areas shown here due to the printer mechanism.

## Single sheets



- 1 0.12 inch (3 mm) minimum
- 2 1.81 inch (46 mm) minimum
- 3 2.01 inch (51 mm) minimum

## **Envelopes**



1 0.12 inch (3 mm) minimum

2 0.20 inch (5 mm) minimum

3 0.71 inch (18 mm) minimum

4 1.81 inch (46 mm) minimum

Parent topic: Technical Specifications

# **Ink Cartridge Specifications**

**Note:** This product uses only genuine Epson-brand cartridges. Other brands of ink cartridges and ink supplies are not compatible and, even if described as compatible, may not function properly.

The cartridges included with the printer are designed for printer setup and not for resale. After some ink is used for priming, the rest is available for printing. Yields vary considerably based on images printed, print settings, paper type, frequency of use, and temperature. For print quality, a variable amount of ink remains in the cartridge after the "replace cartridge" indicator comes on.

Color Cyan, Magenta, Yellow, Black
Cartridge life Opened package: 6 months

Unopened package: do not use if the date on the package has

expired

**Temperature** Storage: -4 to 104 °F (-20 to 40 °C)

1 month at 104 °F (40 °C)

Ink freezes at -9.4 °F (-23 °C)

Ink thaws and is usable after 3 hours at 77 °F (25 °C)

Note: For best printing results, use up a cartridge within 6 months after installing it.

Parent topic: Technical Specifications

# **Dimension Specifications**

Height Stored: 14.9 inches (378 mm) (printer only) Printing: 22.1 inches (562 mm)

**Height** Stored: 41.1 inches (1045 mm)

(printer with three optional cassette units and cabinet)

Printing: 48.4 inches (1230 mm)

Width Stored: 22.3 inches (567 mm)

(printer only) Printing: 22.3 inches (567 mm)

Width Stored: 27.2 inches (690 mm)

(printer with three optional Printing: 27.2 inches (690 mm)

cassette units and cabinet)

**Depth** Stored: 22.4 inches (570 mm)

(printer only) Printing: 35.5 inches (902 mm)

**Depth** Stored: 31.5 inches (800 mm)

(printer with three optional Printing: 35.8 inches (910 mm)

cassette units and cabinet)

**Weight\*** 57.1 lb (25.9 kg)

(printer only)

Weight\* 172.8 lb (78.4 kg)

(printer with three optional cassette units and cabinet)

Parent topic: Technical Specifications

# **Electrical Specifications**

Power supply rating 100 to 240 V

220 to 240 V

Rated frequency range 50/60 Hz

Rated current 100 to 240 V model: 1.0 to 0.5 A

220 to 240 V model: 0.8 A

<sup>\*</sup> Without ink cartridges or power cord

**Power consumption** Printing: Approx. 37 W (ISO/IEC24712)

(100 to 240 V model) Ready mode: 8.1 W

Sleep mode: 2.1 W

Power off mode: 0.4 W

**Power consumption** Printing: Approx. 37 W (ISO/IEC24712)

(220 to 240 V model) Ready mode: 8.1 W

Sleep mode: 2.7 W

Power off mode: 0.5 W

Parent topic: Technical Specifications

# **Environmental Specifications**

**Temperature** Operating: 50 to 95 °F (10 to 35 °C)

Storage: -4 to 104 °F (-20 to 40 °C)

1 month at 104 °F (40 °C)

**Humidity** Operating: 20 to 80% RH

(without condensation) Storage: 5 to 85% RH

Parent topic: Technical Specifications

# **Interface Specifications**

Interface type Hi-Speed USB (for computer)

Parent topic: Technical Specifications

# **Network Interface Specifications**

Wi-Fi

**Standards** IEEE 802.11 b/g/n; complies with either IEEE 802.11 b/g or IEEE

802.11 b/g/n, depending on purchase location

Wireless security WEP (64/128 bit)

WPA-PSK (AES); complies with WPA2 with support for WPA/WPA2

Personal

WPA-2 Enterprise

Frequency range 2.4 GHz

Coordination modes Infrastructure mode

Ad hoc mode (not supported for IEEE 802.11n)

Wi-Fi Direct mode (not supported for IEEE 802.11b or IEEE

802.11n)

Note: Wi-Fi Direct Simple AP mode available even if you connect

the product to an Ethernet network.

**Ethernet** 

Standards IEEE802.3i (10BASE-T)

IEEE802.3u (100BASE-TX)

IEEE802.3ab (1000BASE-T); to prevent risk of radio interference,

use a Category-5e or higher shielded twisted pair cable

IEEE802.3az (Energy Efficient Ethernet); connected device should

be IEEE802.3az compliant

**Communication mode** Auto, 10Mbps Full duplex, 10Mbps Half duplex, 100Mbps Full

duplex, 100Mbps Half duplex

Connector RJ-45

### **Security Protocol**

• IEEE802.1X (requires a connected device compliant with IEEE802.1X)

IPsec/IP Filtering

• SSL/TLS; HTTPS Server/Client and IPPS

• SNMPv3

Parent topic: Technical Specifications

# **Safety and Approvals Specifications**

United States Safety: UL60950-1

EMC: FCC part 15 Subpart B class B

Canada Safety: CAN/CSA C22.2 No. 60950-1

EMC: CAN/CSA-CEI/IEC CISPR 22 Class B

This equipment contains the following wireless module:

• Manufacturer: Askey Computer Corporation.

• Type: WLU6117-D69 (RoHS)

This product conforms to Part 15 of FCC Rules and RSS-210 of the IC Rules. Epson cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Parent topic: Technical Specifications

## **PS3 Mode Fonts**

CooperBlack, CooperBlack Italic

Copperplate Gothic 32BC, Copperplate Gothic 33BC

Coronet

Courier, Courier Oblique, Courier Bold, Courier Bold Oblique

GillSans, GillSans Italic, GillSans Bold, GillSans Bold Italic, GillSansCondensed, GillSans Condensed Bold, GillSans Light, GillSans Light Italic, GillSans Extra Bold

Eurostile, Eurostile Bold, Eurostile Extended Two, Eurostile Bold Extended Two

Geneva

Goudy Oldstyle, Goudy Oldstyle Italic, Goudy Bold, Goudy BoldItalic, Goudy ExtraBold

Helvetica, Helvetica Oblique, Helvetica Bold, Helvetica Bold Oblique, Helvetica Condensed, Helvetica Condensed Bold, Helvetica Condensed Bold Oblique, Helvetica Narrow, Helvetica Narrow Bold, Helvetica Narrow Bold Oblique

Hoefler Text, Hoefler Text Italic, Hoefler Text Black, Hoefler Text Black Italic, Hoefler Text Ornaments

Joanna, Joanna Italic, Joanna Bold, Joanna Bold Italic

LetterGothic, LetterGothic Slanted, LetterGothic Bold, LetterGothic Bold Slanted

ITC Lubalin Graph Book, ITC Lubalin Graph Book Oblique, ITC Lubalin Graph Demi, ITC Lubalin Graph Demi Oblique

Marigold

Monaco

ITC Mona Lisa Recut

New Century Schoolbook Roman, New Century Schoolbook Italic, New Century Schoolbook Bold, New Century Schoolbook Bold Italic

New York

Optima, Optima Italic, Optima Bold, Optima Bold Italic

Oxford

Palatino Roman, Palatino Italic, Palatino Bold, Palatino Bold Italic

Stempel Garamond Roman, Stempel Garamond Italic, Stempel Garamond Bold, Stempel Garamond Bold Italic

Symbol

Tekton

Times Roman, Times Italic, Times Bold, Times Bold Italic

Univers, Univers Oblique, Univers Bold, Univers Bold Oblique, Univers Light, Univers Light Oblique

UniversCondensed, UniversCondensed Oblique, UniversCondensed Bold, UniversCondensed Bold Oblique

UniversExtended, UniversExtended Oblique, UniversExtended Bold, UniversExtended Bold Oblique

Wingdings

ITC ZapfChancery Medium Italic

ITC ZapfDingbats

Arial, Arial Italic, Arial Bold, Arial Bold Italic

Times New Roman, Times New Roman Italic, Times New Roman Bold, Times New Roman Bold Italic

Parent topic: Technical Specifications

## **PCL5 Mode Fonts**

#### **Scalable Fonts**

Font name	Family	HP equivalent	Symbol set
FixedPitch 810	Medium, Bold, Italic, Bold Italic	Courier	1
FixedPitch 850	Regular, Bold, Italic,	Letter Gothic	1
FixedPitch 810 Dark	Medium, Bold, Italic, Bold Italic	Courier PS	3
Dutch 801	Medium, Bold, Italic, Bold Italic	CG Times	2
Zapf Humanist 601	Medium, Bold, Italic, Bold Italic	CG Omega	3
Ribbon 131	_	Coronet	3
Clarendon 701	_	Clarendon Condensed	3

Font name	Family	HP equivalent	Symbol set		
Swiss 742	Medium, Bold, Italic, Bold Italic	Univers	2		
Swiss 742 Condensed	Medium, Bold, Italic, Bold Italic	Univers Condensed	3		
Incised 901	Medium, Bold, Italic	Antique Olive	3		
Aldine 430	Medium, Bold, Italic, Bold Italic	Garamond	3		
Calligraphic 401	_	Marigold	3		
Flareserif 821	Medium, Extra Bold	Albertus	3		
Swiss 721 SWM	Medium, Bold, Italic, Bold Italic	Arial	3		
Dutch 801 SWM	Medium, Bold, Italic, Bold Italic	Times New	3		
Swiss 721 SWA	Medium, Bold, Oblique, Bold Oblique	Helvetica	3		
Swiss 721 Narrow SWA	Medium, Bold, Oblique, Bold Oblique	Helvetica Narrow	3		
Zapf Calligraphic 801 SWA	Medium, Bold, Italic, Bold Italic	Palatino	3		
Geometric 711 SWA	Medium, Bold, Oblique, Bold Italic	ITC Avant Garde Gothic	3		
Revival 711 SWA	Light, Demi Bold, Light Italic, Demi Bold Italic	ITC Bookman	3		
Century 702 SWA	Medium, Bold, Italic, Bold Italic	New Century Schoolbook	3		
Dutch 801 SWA	Medium, Bold, Italic, Bold Italic	Times	3		
Chancery 801 Medium SWA Italic	_	ITC Zapf Chancery Medium Italic	3		
Symbol SWM	_	Symbol	4		

Font name	Family	HP equivalent	Symbol set
More WingBats SWM	_	Wingdings	5
Ding Dings SWA	_	ITC Zapf Dingbats	6
Symbol SWA	_	SymbolPS	4
David BT	Medium, Bold	David	7
Narkis Tam BT	Medium, Bold	Narkis	7
Miryam BT	Medium, Bold, Italic	Miryam	7
Koufi BT	Medium, Bold	Koufi	8
Naskh BT	Medium, Bold	Naskh	8
Ryadh BT	Medium, Bold	Ryadh	8

## **Bitmap Font**

Line Printer, Symbol set 9

## **OCR/Barcode Bitmap Font**

Font name	Family	Symbol set
OCR A	_	10
OCR B	_	11
Code 39	9.37срі, 4.68срі	12
EAN/UPC	Medium, Bold	13

**Note:** Depending on the print density, or quality and color of the paper, the OCR/Barcode Bitmap fonts may not be readable. Print a sample and check for readability before printing large quantities.

Parent topic: Technical Specifications

# **PCL6 Mode Fonts**

## **Scalable Fonts**

Font name	Family	HP equivalent	Symbol set
FixedPitch 810	Medium, Bold, Italic, Bold Italic	Courier	1
FixedPitch 850	Regular, Bold, Italic,	Letter Gothic	1
FixedPitch 810 Dark	Medium, Bold, Italic, Bold Italic	Courier PS	3
Dutch 801	Medium, Bold, Italic, Bold Italic	CG Times	2
Zapf Humanist 601	Medium, Bold, Italic, Bold Italic	CG Omega	3
Ribbon 131	_	Coronet	3
Clarendon 701	_	Clarendon Condensed	3
Swiss 742	Medium, Bold, Italic, Bold Italic	Univers	2
Swiss 742 Condensed	Medium, Bold, Italic, Bold Italic	Univers Condensed	3
Incised 901	Medium, Bold, Italic	Antique Olive	3
Aldine 430	Medium, Bold, Italic, Bold Italic	Garamond	3
Calligraphic 401	_	Marigold	3
Flareserif 821	Medium, Extra Bold	Albertus	3
Swiss 721 SWM	Medium, Bold, Italic, Bold Italic	Arial	3
Dutch 801 SWM	Medium, Bold, Italic, Bold Italic	Times New	3
Swiss 721 SWA	Medium, Bold, Oblique, Bold Oblique	Helvetica	3

Font name	Family	HP equivalent	Symbol set
Swiss 721 Narrow SWA	Medium, Bold, Oblique, Bold Oblique	Helvetica Narrow	3
Zapf Calligraphic 801 SWA	Medium, Bold, Italic, Bold Italic	Palatino	3
Geometric 711 SWA	Medium, Bold, Oblique, Bold Italic	ITC Avant Garde Gothic	3
Revival 711 SWA	Light, Demi Bold, Light Italic, Demi Bold Italic	ITC Bookman	3
Century 702 SWA	Medium, Bold, Italic, Bold Italic	New Century Schoolbook	3
Dutch 801 SWA	Medium, Bold, Italic, Bold Italic	Times	3
Chancery 801 Medium SWA Italic	_	ITC Zapf Chancery Medium Italic	3
Symbol SWM	_	Symbol	4
More WingBats SWM	_	Wingdings	5
Ding Dings SWA	_	ITC Zapf Dingbats	6
Symbol SWA	_	SymbolPS	4
David BT	Medium, Bold	David	7
Narkis Tam BT	Medium, Bold	Narkis	7
Miryam BT	Medium, Bold, Italic	Miryam	7
Koufi BT	Medium, Bold	Koufi	8
Naskh BT	Medium, Bold	Naskh	8
Ryadh BT	Medium, Bold	Ryadh	8

# **Bitmap Font**

Line Printer, Symbol set 9

Parent topic: Technical Specifications

# **Symbol Sets**

Your product can access a variety of symbol sets. Many of these symbol sets differ only in the international characters specific to each language.

**Note:** Since most software handles fonts and symbols automatically, you may never need to adjust your product settings. However, if you write your own product control programs, or if you use older software that cannot control fonts, refer to these tables for details on the symbol sets.

When you consider which font to use, also consider which symbol set to combine with the font. Available symbol sets vary depending on the mode and font you choose.

### **PCL5 Mode Symbol Sets**

Symbol set		Font classification												
name	te	1	2	3	4	5	6	7	8	9	10	11	12	13
ISO 60: Danish/Nor wegian	0D	<b>✓</b>	<b>✓</b>	/	_		_	_	_		1		_	_
Roman Extension	0E	_	_	_	_	_				/	1		_	
ISO 15: Italian	OI	<b>/</b>	/	/	_	_					1		_	
ISO 8859/1 Latin 1	0N	<b>/</b>	/	/	_	_				/	1		_	
ISO 11: Swedish	0S	<b>/</b>	/	/	_	_					1		_	
ISO 6: ASCII	0U	<b>/</b>	/	/	_	_		/	/		1		_	
ISO 4: United Kingdom	1E	<b>✓</b>	<b>✓</b>	<b>/</b>	_	_	_		_		1	_	_	_
ISO 69: French	1F	<b>✓</b>	<b>✓</b>	<b>/</b>	_	_	_	_	_	_	_	_	_	_

Symbol set	Attribu	Font classification												
name	te	1	2	3	4	5	6	7	8	9	10	11	12	13
ISO 29: German	1G	/	<b>/</b>	/			_					_	_	
Legal	1U	/	/	/		_	_	_	_	<b>✓</b>	_	_	_	
ISO 8859/2 Latin 2	2N	/	/	/	_			_		/	_	_		
ISO 8859/4 Latin 4	4N	/	/	/			_						_	
ISO 17: Spanish	2S	/	/	/			_						_	
Roman-9	4U	/	/	/	_	[-	_	_		_	_	_	<u> </u>	_
PS Math	5M	/	/	/	_		_	/	/	_	_	_	_	_
ISO 8859/9 Latin 5	5N	/	/	<b>✓</b>	_		_	_		<b>/</b>		_	_	
Windows 3.1 Latin 5	5T	/	<b>/</b>	/			_						_	
Microsoft Publishing	6J	/	<b>/</b>	/			_						_	
Ventura Math	6M	/	/	/	_		_			_			_	
ISO 8859/10 Latin 6	6N	<b>/</b>	/	/		_	_			/			_	_
DeskTop	7J	/	/	/		_	_	_	_		_	_	-	_
Math-8	8M	<b>✓</b>	/	<b>✓</b>				<b>✓</b>	<b>✓</b>					
Roman-8	8U	/	/	/						<b>✓</b>				
Windows 3.1 Latin 2	9E	/	<b>/</b>	/		_						_	_	
Pc1004	9J	/	/	/										

Symbol set	Attribu	Font classification												
name	te	1	2	3	4	5	6	7	8	9	10	11	12	13
ISO 8859/15 Latin 9	9N	<b>/</b>	/	/	_	_	_	_	_	/	_	_	_	
PC-Turkish	9T	/	/	/	_	_	_	_	_	_	_	_	_	_
Windows 3.0 Latin 1	9U	/	/	<b>✓</b>	_		_			_	_		_	
PS Text	10J	<b>✓</b>	/	/	_	_	_	_	_	_	_	_	_	_
PC-8, Code Page 437	10U	<b>/</b>	<b>/</b>	/		_	_	_	_	<b>/</b>	_	_	_	_
PC-8 D/N Danish/Nor wegian	11U	<b>/</b>	/	/	_	_	_	_		<b>/</b>	_	_	_	_
MC Text	12J	<b>✓</b>	/	/	_	_	_	_	_	_	_	_	_	_
PC-850 Multilingual	12U	/	/	/	_		_	_		/	_			
Ventura Internationa	13J	<b>✓</b>	/	/		_	_	_	_	_		_		_
PcEur858	13U	/	/	/	<b> </b>	<u> </u>	_	_	_	_	_	<u> </u>	_	_
Ventura US	14J	<b>✓</b>	/	/	_	_	_	_	_	_	_	_	_	_
Pi Font	15U	/	/	<b>✓</b>	_	_	_	_	_	_	_	_	_	_
PC852, Latin 2	17U	/	/	/			_			_	_		_	
Unicode 3.0	18N	/	/	/	_	_	_	/	<b>✓</b>	_	_	_	_	_
Windows Baltic	19L	/	/	/	_		_	_		_	_			
Windows 3.1 Latin/Arabic	19U	<b>✓</b>	/	<b>/</b>	_	_			_	_		_		_

Symbol set	Attribu	Font	Font classification												
name	te	1	2	3	4	5	6	7	8	9	10	11	12	13	
PC-755	26U	/	/	/	_		_	_	_	_	_	_	_	_	
PC-866, Cyrillic	3R	/	/		_			_		_	_		_		
Greek8	8G	/	/	_	_	_	_	_	_		_	_	_	_	
Windows Greek	9G	/	/		_		_	_	_	_	_		_		
Windows Cyrillic	9R	/	<b>✓</b>	_			_	_	_	_	_	_	_		
PC-851, Greek	10G	/	/		_			_	_	_	_		_		
ISO 8859/5 Cyrillic	10N	/	/		_		_	_	_	/	_				
PC-8, Greek	12G	/	/		_		_	_	_	_	_				
ISO 8859/7 Greek	12N	/	/		_		_	_	_	_	_				
PC-866 UKR	14R	/	/		_		_	_	_	_	_				
Hebrew7	он	<b>✓</b>	-	_	<u> </u>	_	_	/	_	_	-	_	_	_	
ISO 8859/8 Hebrew	7H	/	_	_	_		_	/	_	_	_				
Hebrew8	8H	/	_	<u> </u>	[-	[-	_	/	_	_	_	_	_	_	
PC-862, Hebrew	15H	_	_				_	/	_	_	_		_		
PC-862, Hebrew	15Q	_		_	_	_	_	/	_	_	_	_	_		
Arabic8	8V	_	_	_	_	1-	_	_	/	_	_	_	_	_	
HPWARA	9V	_							/						

Symbol set name	Attribu	Font classification												
	te	1	2	3	4	5	6	7	8	9	10	11	12	13
PC-864, Arabic	10V	_		_	_			_	/	_	_		_	_
Wingdings	579L	_	_	_	_	/	_	_	_	_	_	_	_	_
Symbol	19M	_	_	_	/		_	_	_	_		_	_	_
ZapfDigbats	14L	_	_	_		_	/	_	_	_	_	_	_	_
OCR A	00	_	_	_	_	_	_	_	_	_	/	_	_	_
OCR B	10	_	<u> </u>	_	<b> </b>	<u> </u>	_	_	_	_	_	/	_	_
OCR B Extension	3Q	_		_	_	_	_	_	_	_	_	<b>/</b>	_	_
Code3-9	0Y	_	_			_	_	_	_	_		_	/	_
EAN/UPC	8Y	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	/

# **PCL6 Mode Symbol Sets**

Symbol set	Attribute	Font classification											
name		1	2	3	4	5	6	7	8	9			
ISO Norwegian	4	/	/	/	_	_	_	_	_	_			
ISO Italian	9	/	/	/	_	_	<u> </u>	_	_	_			
ISO 8859-1 Latin 1	14	/	/	/	_	_	_	_	_	/			
ISO Swedish	19	/	/	/	_	_	_	_	_	_			
ASCII	21	/	/	<b>/</b>	_	_	_	/	/	_			
ISO United Kingdom	37	/	/	/	_	_		_	_	_			
ISO French	38	/	/	/	_	_	_	_	_	_			
ISO German	39	/	/	<b>/</b>	_	_	<u> </u>	<u> </u>	_	_			
Legal	53	/	/	<b>/</b>	_	_	<u> </u>	_	_	/			

Symbol set	Attribute	Font classification									
name		1	2	3	4	5	6	7	8	9	
ISO 8859-2 Latin 2	78	/	/	/		_	_			/	
ISO Spanish	83	/	<b>✓</b>	<b>✓</b>		_		_		_	
Roman-9	149	/	<b>✓</b>	<b>✓</b>	_	_	_	_	_	_	
PS Math	173	/	<b>/</b>	<b>✓</b>		_	_	<b>✓</b>	<b>/</b>		
ISO 8859-9 Latin 5	174	/	/	/		_	_			/	
Windows 3.1 Latin 5	180	/	/	/		_	_				
Microsoft Publishing	202	/	/	/			_			_	
ISO 8859/10 Latin 6	206	/	/	/		_	_		_	/	
DeskTop	234	/	<b>✓</b>	<b>✓</b>		_		_		_	
Math-8	269	/	<b>✓</b>	<b>✓</b>	_	_	_	<b>✓</b>	<b>✓</b>		
Roman-8	277	/	<b>/</b>	<b>✓</b>		_	_	_	_	<b>/</b>	
Windows 3.1 Latin 2	293	/	/	/			_			_	
Pc1004	298	/	<b>✓</b>	<b>✓</b>		_		_		_	
ISO 8859-15 Latin 9	302	/	/	/		_	_				
PC-Turkish	308	/	<b>/</b>	<b>/</b>	_	_	_	_		_	
Windows 3.0	309	/	/	<b>✓</b>		_	_	_	_	_	
PS Text	330	/	/	<b>✓</b>	_	_	_	_	_	_	
PC-8	341	/	<b>✓</b>	<b>✓</b>		_	_	_		<b>✓</b>	
PC-8 D/N	373	/	<b>✓</b>	<b>✓</b>						<b>✓</b>	
MC Text	394	/	/	<b>✓</b>		_		_	_		

Symbol set	Attribute	Font	classif	ication						
name		1	2	3	4	5	6	7	8	9
PC-850	405	/	/	/	_	_	_	-		/
PcEur858	437	/	/	/	_	_	_	_	_	_
Pi Font	501	/	/	/	_	_	_	_	_	_
PC852	565	/	/	/	_	_	_	-		_
Unicode 3.0	590	/	/	/	_	_	_	/	/	_
WBALT	620	/	/	/	_	_	_	_	_	_
Windows 3.1 Latin 1	629	/	/	/	_	_		_	_	_
PC-755	853	/	/	/	_	_	_	_	_	_
Wingdings	18540	_	_	_	_	/	_	_	_	_
Symbol	621	_	_	<u> </u>	<b>✓</b>	_	_	_	_	_
ZapfDigbats	460	_	_	_	_	_	<b>/</b>	_	_	_
PC-866, Cyrillic	114	/	/	_	_	_		_	_	_
Greek8	263	/	/	_	_	_	_	_	_	_
Windows Greek	295	/	/	_	_	_	_	_	_	_
Windows Cyrillic	306	/	/	_	_			_	_	
PC-851, Greek	327	/	/	_	_	_	_	_	_	_
ISO 8859/5 Cyrillic	334	/	/	_				_	_	
PC-8, Greek	391	/	/		_	_			_	
ISO 8859/7 Greek	398	/	<b>/</b>		_			_		_
PC-866 UKR	466	/	<b>✓</b>							

Symbol set	Attribute	Font classification										
name		1	2	3	4	5	6	7	8	9		
Hebrew7	8	/	_	_		_	_	_	_	_		
ISO 8859/8 Hebrew	232	/	_	_	_	_	_	<b>✓</b>	_	_		
Hebrew8	264	/	_	_	_	_	_	<b>✓</b>	_	_		
PC-862, Hebrew	488			_		_	_	<b>✓</b>	_	_		
Arabic8	278	_	_	_	_		_	_	<b>/</b>	_		
HPWARA	310	_	_	_			_	_	/	_		
PC-864, Arabic	342	_	_	_	_		_	_	<b>✓</b>	_		

Parent topic: Technical Specifications

# **Notices**

Check these sections for important notices about your product.

**Note:** Epson offers a recycling program for end of life products. Please go to this site for information on how to return your products for proper disposal.

General Printer Safety Instructions FCC Compliance Statement Software Notice Trademarks Copyright Notice

# **General Printer Safety Instructions**

- Be sure to follow all warnings and instructions marked on the printer.
- Use only the type of power source indicated on the printer's label.
- Use only the power cord that comes with the printer. Use of another cord may cause fires or shock. Do
  not use the cord with any other equipment.
- Place the printer near a wall outlet where the plug can be easily unplugged.
- Avoid plugging the printer into an outlet on the same circuit as a photo copier or air control system that regularly switches on and off, or on an outlet controlled by a wall switch or timer.
- Do not let the power cord become damaged or frayed.
- If you use an extension cord with the printer, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure the total ampere rating of all devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.
- Always turn off the printer using the power button, and wait until the power light stops flashing before unplugging the printer or cutting off power to the electrical outlet.
- Place the printer on a flat, stable surface that extends beyond its base in all directions. It will not operate properly if it is tilted or at an angle.
- Make sure the back of the printer is at least 4 inches (10 cm) away from the wall.
- Leave enough space in front of the printer for the paper to be fully ejected.
- Avoid locations that are subject to rapid changes in heat or humidity, shocks or vibrations, or dust.

- Do not place the printer near a radiator or heating vent or in direct sunlight.
- Leave enough room around the printer for sufficient ventilation. Do not block or cover openings in the case or insert objects through the slots.
- Keep the printer away from potential sources of electromagnetic interference, such as loudspeakers or the base units of cordless telephones.
- When connecting the printer to a computer or other device with a cable, ensure the correct orientation
  of the connectors. Each connector has only one correct orientation. Inserting a connector in the wrong
  orientation may damage both devices connected by the cable.
- Do not touch the flat white cable inside the printer.
- Do not move the print head by hand; this may damage the printer.
- Do not spill liquid on the printer.
- Do not insert objects into the slots in the printer.
- Do not use aerosol products that contain flammable gases inside or around the printer. Doing so may cause fire.
- Except as specifically explained in your documentation, do not attempt to service the printer yourself.
- Unplug the printer and refer servicing to qualified service personnel under the following conditions: if the power cord or plug is damaged; if liquid has entered the product; if the product has been dropped or the case damaged; if the product does not operate normally or exhibits a distinct change in performance. Adjust only those controls that are covered by the operating instructions.
- If damage occurs to the plug, replace the cord set or consult a qualified electrician. If there are fuses in the plug, make sure you replace them with fuses of the correct size and rating.
- Leave the ink cartridges installed. Removing the cartridges can dehydrate the print head and may prevent the printer from printing.
- Before transporting the printer, make sure that the print head is in the home (far right) position and the ink cartridges are in place.
- When storing or transporting the printer, do not tilt it, stand it on its side, or turn it upside down; otherwise ink may leak from the cartridges.

Ink Cartridge Safety Instructions
LCD Screen Safety Instructions
Wireless Connection Safety Instructions
Cabinet Safety Instructions

**Parent topic: Notices** 

### **Ink Cartridge Safety Instructions**

- Keep ink cartridges out of the reach of children and do not drink the ink.
- Be careful when you handle used ink cartridges; there may be ink remaining around the ink supply
  port. If ink gets on your skin, wash it off with soap and water. If it gets in your eyes, flush them
  immediately with water.
- Do not put your hand inside the product or touch any cartridges during printing.
- Install a new ink cartridge immediately after removing an expended one. Leaving cartridges uninstalled can dry out the print head and may prevent the product from printing.
- Do not remove or tear the label on the cartridge; this can cause leakage.
- Do not remove the transparent seal from the bottom of the cartridge. This may cause the cartridge to become unusable.
- Do not break the hooks on the side of the cartridge when removing it from the packaging.
- Do not touch the green IC chip on the side of the cartridge. This may prevent normal operation.
- Do not shake cartridges after opening their packages; this can cause them to leak.
- If you remove an ink cartridge for later use, protect the ink supply area from dirt and dust and store it in the same environment as the product. Note that there is a valve in the ink supply port, making covers or plugs unnecessary, but care is needed to prevent the ink from staining items that the cartridge touches. Do not touch the ink cartridge ink supply port or surrounding area.
- Use an ink cartridge before the date printed on its package.
- Do not dismantle an ink cartridge. This could damage the print head.
- Store ink cartridges in a cool, dark place.
- After bringing an ink cartridge inside from a cold storage site, allow it to warm up at room temperature for at least three hours before using it.
- Store ink cartridges with their labels facing upward. Do not store cartridges upside down.

Parent topic: General Printer Safety Instructions

### **LCD Screen Safety Instructions**

- Use only a dry, soft cloth to clean the LCD screen. Do not use liquid or chemical cleansers.
- If the LCD screen is damaged, contact Epson. If the liquid crystal solution gets on your hands, wash them thoroughly with soap and water. If the liquid crystal solution gets into your eyes, flush them immediately with water. If discomfort or vision problems remain after a thorough flushing, see a doctor immediately.

- Do not press too hard on the LCD screen.
- Do not use a pointy or sharp object, such as a pen or your fingernail, to operate the LCD screen.

Parent topic: General Printer Safety Instructions

## **Wireless Connection Safety Instructions**

Radio waves from this product may adversely affect the operation of medical equipment or automatically controlled devices, such as pacemakers, automatic doors or fire alarms. When using this product near such devices or inside a medical facility, follow the directions from authorized staff members at the facility, and follow all posted warnings and directions on the device to avoid causing an accident.

Parent topic: General Printer Safety Instructions

# **Cabinet Safety Instructions**

- Do not install any other product on the cabinet besides the printer and paper cassettes mentioned in this manual.
- Do not climb on the cabinet or place heavy objects on it.
- Make sure the stands are securely attached to the cabinet or the product may fall over.
- Make sure the casters on the cabinet are locked when using the printer.
- Do not move the cabinet when the casters are locked.
- Avoid rolling the cabinet over uneven or rough surfaces with the printer installed.

Parent topic: General Printer Safety Instructions

# **FCC Compliance Statement**

#### For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification or Declaration of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

#### For Canadian Users

CAN ICES-3(B)/NMB-3(B)

**Parent topic: Notices** 

### **Software Notice**

- 1. This printer product includes open source software programs according to the license terms of each open source software program.
- 2. We provide the source code of some of these open softwares until five (5) years after the discontinuation of same model of this printer product. If you desire to receive the source code above, please contact the customer support of your region. You shall comply with the license terms of each open source software program.
- 3. The open source software programs are WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. See the license agreements of each open source software program for more details, which are described below.

#### **GNU GENERAL PUBLIC LICENSE**

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to

using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

- 4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING. REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### **END OF TERMS AND CONDITIONS**

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.> Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989 Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

#### GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

# GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that

they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy. This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
- 8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- 9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
- 10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
- 11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### **END OF TERMS AND CONDITIONS**

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.> Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990 Ty Coon, President of Vice

That's all there is to it!

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable

copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

- 3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
- 4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall

supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

- 6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- 7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
- 8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- 9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

#### **END OF TERMS AND CONDITIONS**

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Copyright (c) 2003-2004, Apple Computer, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of Apple Computer, Inc. ("Apple") nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY APPLE AND ITS CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL APPLE OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

---- Part 1: CMU/UCD copyright notice: (BSD like) -----

Copyright 1989, 1991, 1992 by Carnegie Mellon University

Derivative Work - 1996, 1998-2000

Copyright 1996, 1998-2000 The Regents of the University of California

All Rights Reserved

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

---- Part 2: Networks Associates Technology, Inc copyright notice (BSD) -----

Copyright (c) 2001-2003, Networks Associates Technology, Inc All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- \* Neither the name of the Networks Associates Technology, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE. EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

---- Part 3: Cambridge Broadband Ltd. copyright notice (BSD) -----

Portions of this code are copyright (c) 2001-2003, Cambridge Broadband Ltd. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

\* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- \* The name of Cambridge Broadband Ltd. may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

---- Part 4: Sun Microsystems, Inc. copyright notice (BSD) -----

Copyright © 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Use is subject to license terms below.

This distribution may include materials developed by third parties.

Sun, Sun Microsystems, the Sun logo and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- \* Neither the name of the Sun Microsystems, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR

SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

---- Part 5: Sparta, Inc copyright notice (BSD) -----

Copyright (c) 2003-2004, Sparta, Inc All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- \* Neither the name of Sparta, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### LICENSE ISSUES

\_\_\_\_\_

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

OpenSSL License

-----

Copyright (c) 1998-2011 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
- 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
- 5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
- 6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

\_\_\_\_\_\_

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

-----

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com). The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgement: "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).
- 4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

Copyright 2002 Sun Microsystems, Inc. ALL RIGHTS RESERVED. ECC cipher suite support in OpenSSL originally developed by SUN MICROSYSTEMS, INC., and contributed to the OpenSSL project.

Copyright 2005 Nokia. All rights reserved.

The portions of the attached software ("Contribution") is developed by Nokia Corporation and is licensed pursuant to the OpenSSL open source license.

The Contribution, originally written by Mika Kousa and Pasi Eronen of Nokia Corporation, consists of the "PSK" (Pre-Shared Key) ciphersuites support (see RFC 4279) to OpenSSL.

No patent licenses or other rights except those expressly stated in the OpenSSL open source license shall be deemed granted or received expressly, by implication, estoppel, or otherwise.

No assurances are provided by Nokia that the Contribution does not infringe the patent or other intellectual property rights of any third party or that the license provides you with all the necessary rights to make use of the Contribution.

THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. IN ADDITION TO THE DISCLAIMERS INCLUDED IN THE LICENSE, NOKIA SPECIFICALLY DISCLAIMS ANY LIABILITY FOR CLAIMS BROUGHT BY YOU OR ANY OTHER ENTITY BASED ON INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OR OTHERWISE.

Portions of the attached software ("Contribution") are developed by SUN MICROSYSTEMS, INC., and are contributed to the OpenSSL project.

Copyright (c) 2004, Richard Levitte < richard@levitte.org > All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Sun RPC is a product of Sun Microsystems, Inc. and is provided for unrestricted use provided that this legend is included on all tape media and as a part of the software program in whole or part. Users may

copy or modify Sun RPC without charge, but are not authorized to license or distribute it to anyone else except as part of a product or program developed by the user.

SUN RPC IS PROVIDED AS IS WITH NO WARRANTIES OF ANY KIND INCLUDING THE WARRANTIES OF DESIGN, MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE.

Sun RPC is provided with no support and without any obligation on the part of Sun Microsystems, Inc. to assist in its use, correction, modification or enhancement.

SUN MICROSYSTEMS, INC. SHALL HAVE NO LIABILITY WITH RESPECT TO THE INFRINGEMENT OF COPYRIGHTS. TRADE SECRETS OR ANY PATENTS BY SUN RPC OR ANY PART THEREOF.

In no event will Sun Microsystems, Inc. be liable for any lost revenue or profits or other special, indirect and consequential damages, even if Sun has been advised of the possibility of such damages.

Sun Microsystems, Inc. 2550 Garcia Avenue Mountain View, California 94043

Generic DES driver interface

Keep this file hardware independent!

Copyright (c) 1986 by Sun Microsystems, Inc.

Copyright 2002 Sun Microsystems, Inc. ALL RIGHTS RESERVED.

The Elliptic Curve Public-Key Crypto Library (ECC Code) included herein is developed by SUN MICROSYSTEMS, INC., and is contributed to the OpenSSL project.

The ECC Code is licensed pursuant to the OpenSSL open source license provided below.

In addition, Sun covenants to all licensees who provide a reciprocal covenant with respect to their own patents if any, not to sue under current and future patent claims necessarily infringed by the making, using, practicing, selling, offering for sale and/or otherwise disposing of the ECC Code as delivered hereunder (or portions thereof), provided that such covenant shall not apply:

- 1) for code that a licensee deletes from the ECC Code;
- 2) separates from the ECC Code; or
- 3) for infringements caused by:
- i) the modification of the ECC Code or
- ii) the combination of the ECC Code with other software or devices where such combination causes the infringement.

The software is originally written by Sheueling Chang Shantz and Douglas Stebila of Sun Microsystems Laboratories.

NOTE: This file is licensed pursuant to the OpenSSL license below and may be modified; but after modifications, the above covenant may no longer apply! In such cases, the corresponding paragraph ["In addition, Sun covenants ... causes the infringement."] and this note can be edited out; but please keep the Sun copyright notice and attribution.

Copyright Patrick Powell 1995

This code contains numerious changes and enhancements which were made by lots of contributors over the last years to Patrick Powell's original code:

o Patrick Powell <papowell@astart.com> (1995)

o Brandon Long <br/> <br/> slong@fiction.net> (1996, for Mutt)

o Thomas Roessler <roessler@guug.de> (1998, for Mutt)

o Michael Elkins <me@cs.hmc.edu> (1998, for Mutt)

o Andrew Tridgell <tridge@samba.org> (1998, for Samba)

o Luke Mewburn < lukem@netbsd.org> (1999, for LukemFTP)

o Ralf S. Engelschall <rse@engelschall.com> (1999, for Pth)

o ... (for OpenSSL)

Copyright (c) 2010-2010 Intel Corp.

Author: Vinodh.Gopal@intel.com

Jim Guilford

Erdinc.Ozturk@intel.com

Maxim.Perminov@intel.com

Ying.Huang@intel.com

Copyright (c) 2002 Bob Beck <beck@openbsd.org>

Copyright (c) 2002 Theo de Raadt

Copyright (c) 2002 Markus Friedl

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 2011 Google Inc.

Licensed under the Apache License, Version 2.0 (the "License");

you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Created 960901 by Gertjan van Oosten, gertjan@West.NL, West Consulting B.V.

Code adapted from

<URL:http://support.microsoft.com/default.aspx?scid=kb;[LN];97193>;

the original copyright message is:

(C) Copyright Microsoft Corp. 1993. All rights reserved.

You have a royalty-free right to use, modify, reproduce and distribute the Sample Files (and/or any modified version) in any way you find useful, provided that you agree that Microsoft has no warranty obligations or liability for any Sample Application Files which are modified.

Copyright (c) 2004 Kungliga Tekniska Högskolan

(Royal Institute of Technology, Stockholm, Sweden).

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the Institute nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE INSTITUTE AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE INSTITUTE OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 2005 Nokia. All rights reserved.

The portions of the attached software ("Contribution") is developed by Nokia Corporation and is licensed pursuant to the OpenSSL open source license.

The Contribution, originally written by Mika Kousa and Pasi Eronen of Nokia Corporation, consists of the "PSK" (Pre-Shared Key) ciphersuites support (see RFC 4279) to OpenSSL.

No patent licenses or other rights except those expressly stated in the OpenSSL open source license shall be deemed granted or received expressly, by implication, estoppel, or otherwise.

No assurances are provided by Nokia that the Contribution does not infringe the patent or other intellectual property rights of any third party or that the license provides you with all the necessary rights to make use of the Contribution.

THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. IN ADDITION TO THE DISCLAIMERS INCLUDED IN THE LICENSE, NOKIA SPECIFICALLY DISCLAIMS ANY LIABILITY FOR CLAIMS BROUGHT BY YOU OR ANY OTHER ENTITY BASED ON INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OR OTHERWISE.

Copyright (C) 2006, Network Resonance, Inc.

Copyright (C) 2011, RTFM, Inc.

Copyright@2001 Baltimore Technologies Ltd.

THIS FILE IS PROVIDED BY BALTIMORE TECHNOLOGIES "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL BALTIMORE TECHNOLOGIES BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 2000 Broadcom Corporation

This file is Copyright 1998-2000 nCipher Corporation Limited.

Redistribution and use in source and binary forms, with opr without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the copyright notice, this list of conditions, and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the following disclaimer, in the documentation and/or other materials provided with the distribution

IN NO EVENT SHALL NCIPHER CORPORATION LIMITED (`NCIPHER') AND/OR ANY OTHER AUTHORS OR DISTRIBUTORS OF THIS FILE BE LIABLE for any damages arising directly or indirectly from this file, its use or this licence. Without prejudice to the generality of the foregoing: all liability shall be excluded for direct, indirect, special, incidental, consequential or other damages or any loss of profits, business, revenue goodwill or anticipated savings; liability shall be excluded even if nCipher or anyone else has been advised of the possibility of damage. In any event, if the exclusion of liability is not effective, the liability of nCipher or any author or distributor shall be limited to the lesser of the price paid and 1,000 pounds sterling. This licence only fails to exclude or limit liability for death or personal injury arising out of negligence, and only to the extent that such an exclusion or limitation is not effective.

NCIPHER AND THE AUTHORS AND DISTRIBUTORS SPECIFICALLY DISCLAIM ALL AND ANY WARRANTIES (WHETHER EXPRESS OR IMPLIED), including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, satisfactory quality, and/or non-infringement of any third party rights.

US Government use: This software and documentation is Commercial Computer Software and Computer Software Documentation, as defined in sub-paragraphs (a)(1) and (a)(5) of DFAR 252.227-7014, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation." Use, duplication or disclosure by the Government is subject to the terms and conditions specified here.

By using or distributing this file you will be accepting these terms and conditions, including the limitation of liability and lack of warranty. If you do not wish to accept these terms and conditions, DO NOT USE THE FILE.

The actual dynamically loadable plugin, and the library files for static linking, which are also provided in some distributions, are not covered by the licence described above. You should have received a separate licence with terms and conditions for these library files; if you received the library files without a licence, please contact nCipher.

Copyright (c) 2005-2006 Cryptocom LTD

Written by Corinne Dive-Reclus(cdive@baltimore.com)

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.OpenSSL.org/)"
- 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact licensing@OpenSSL.org.
- 5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
- 6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.OpenSSL.org/)"

Written by Corinne Dive-Reclus(cdive@baltimore.com)

Copyright@2001 Baltimore Technologies Ltd. All right Reserved.

THIS FILE IS PROVIDED BY BALTIMORE TECHNOLOGIES "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL BALTIMORE TECHNOLOGIES BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF

LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (c) The Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) Sun Microsystems, Inc.

Sun RPC is a product of Sun Microsystems, Inc. and is provided for unrestricted use provided that this legend is included on all tape media and as a part of the software program in whole or part. Users may copy or modify Sun RPC without charge, but are not authorized to license or distribute it to anyone else except as part of a product or program developed by the user or with the express written consent of Sun Microsystems, Inc.

SUN RPC IS PROVIDED AS IS WITH NO WARRANTIES OF ANY KIND INCLUDING THE WARRANTIES OF DESIGN, MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE.

Sun RPC is provided with no support and without any obligation on the part of Sun Microsystems, Inc. to assist in its use, correction, modification or enhancement.

SUN MICROSYSTEMS, INC. SHALL HAVE NO LIABILITY WITH RESPECT TO THE INFRINGEMENT OF COPYRIGHTS, TRADE SECRETS OR ANY PATENTS BY SUN RPC OR ANY PART THEREOF.

In no event will Sun Microsystems, Inc. be liable for any lost revenue or profits or other special, indirect and consequential damages, even if Sun has been advised of the possibility of such damages.

Sun Microsystems, Inc. 2550 Garcia Avenue Mountain View, California 94043

Copyright (c) 2001-2006, Gerrit Pape All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 1989 - 1991, Julianne Frances Haugh <jockgrrl@austin.rr.com> All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of Julianne F. Haugh nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY JULIE HAUGH AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JULIE HAUGH OR CONTRIBUTORS BE LIABLE FOR ANY

DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

### The Clarified Artistic License

### Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

#### Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder as specified below.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Distribution fee" is a fee you charge for providing a copy of this Package to another party.

"Freely Available" means that no fee is charged for the right to use the item, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

- 1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.
- 2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain, or those made Freely Available, or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.
- 3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:
- a) place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major

network archive site allowing unrestricted access to them, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.

- b) use the modified Package only within your corporation or organization.
- c) rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.
- d) make other distribution arrangements with the Copyright Holder.
- e) permit and encourage anyone who receives a copy of the modified Package permission to make your modifications Freely Available in some specific way.
- 4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:
- a) distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.
- b) accompany the distribution with the machine-readable source of the Package with your modifications.
- c) give non-standard executables non-standard names, and clearly document the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.
- d) make other distribution arrangements with the Copyright Holder.
- e) offer the machine-readable source of the Package, with your modifications, by mail order.
- 5. You may charge a distribution fee for any distribution of this Package. If you offer support for this Package, you may charge any fee you choose for that support. You may not charge a license fee for the right to use this Package itself. You may distribute this Package in aggregate with other (possibly commercial and possibly nonfree) programs as part of a larger (possibly commercial and possibly nonfree) software distribution, and charge license fees for other parts of that software distribution, provided that you do not advertise this Package as a product of your own. If the Package includes an interpreter, You may embed this Package's interpreter within an executable of yours (by linking); this shall be construed as a mere form of aggregation, provided that the complete Standard Version of the interpreter is so embedded.
- 6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whoever generated them, and may be sold commercially, and may be aggregated with this Package. If such scripts or library files are aggregated with this Package via the so-called "undump" or "unexec" methods of producing a binary executable image, then distribution of such an image shall neither be construed as a distribution of this Package nor shall it fall under the restrictions of Paragraphs 3 and 4, provided that you do not represent such an executable image as a Standard Version of this Package.

- 7. C subroutines (or comparably compiled subroutines in other languages) supplied by you and linked into this Package in order to emulate subroutines and variables of the language defined by this Package shall not be considered part of this Package, but are the equivalent of input as in Paragraph 6, provided these subroutines do not change the language in any way that would cause it to fail the regression tests for the language.
- 8. Aggregation of the Standard Version of the Package with a commercial distribution is always permitted provided that the use of this Package is embedded; that is, when no overt attempt is made to make this Package's interfaces visible to the end user of the commercial distribution. Such use shall not be construed as a distribution of this Package.
- 9. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.
- 10. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The End

Copyright (C) 1991, 1992, 1993 by Chris Thewalt (thewalt@ce.berkeley.edu)

Permission to use, copy, modify, and distribute this software for any purpose and without fee is hereby granted, provided that the above copyright notices appear in all copies and that both the copyright notice and this permission notice appear in supporting documentation. This software is provided "as is" without express or implied warranty.

Copyright (C) The Internet Society (2001). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This is version 2007-Mar-4 of the Info-ZIP license. The definitive version of this document should be available at ftp://ftp.info-zip.org/pub/infozip/license.html indefinitely and a copy at http://www.info-zip.org/pub/infozip/license.html.

Copyright © 1990-2007 Info-ZIP. All rights reserved.

For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals:

Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-Ioup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White.

This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the above disclaimer and the following restrictions:

- 1. Redistributions of source code (in whole or in part) must retain the above copyright notice, definition, disclaimer, and this list of conditions.
- 2. Redistributions in binary form (compiled executables and libraries) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.
- 3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, versions with modified or added functionality, and dynamic, shared, or static library versions not from Info-ZIP--must be plainly marked as such and must not be misrepresented as being the original source or, if binaries, compiled from the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP will provide support for the altered versions.
- 4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

Copyright (C) The Internet Society 1999. All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organisations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process shall be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns. This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Copyright (c) 2005 JSON.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

The Software shall be used for Good, not Evil.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (C) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

Copyright (c) 1998-2008, Brian Gladman, Worcester, UK. All rights reserved.

### LICENSE TERMS

The redistribution and use of this software (with or without changes) is allowed without the payment of fees or royalties provided that:

- 1. source code distributions include the above copyright notice, this list of conditions and the following disclaimer;
- 2. binary distributions include the above copyright notice, this list of conditions and the following disclaimer in their documentation:
- 3. the name of the copyright holder is not used to endorse products built using this software without specific written permission.

### **DISCLAIMER**

This software is provided 'as is' with no explicit or implied warranties in respect of its properties, including, but not limited to, correctness and/or fitness for purpose.

The OpenLDAP Public License Version 2.8, 17 August 2003

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions in source form must retain copyright statements and notices,
- 2. Redistributions in binary form must reproduce applicable copyright statements and notices, this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution, and
- 3. Redistributions must contain a verbatim copy of this document.

The OpenLDAP Foundation may revise this license from time to time. Each revision is distinguished by a version number. You may use this Software under terms of this license revision or under the terms of any subsequent revision of the license.

THIS SOFTWARE IS PROVIDED BY THE OPENLDAP FOUNDATION AND ITS CONTRIBUTORS "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OPENLDAP FOUNDATION, ITS CONTRIBUTORS, OR THE AUTHOR(S) OR OWNER(S) OF THE SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT,

INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The names of the authors and copyright holders must not be used in advertising or otherwise to promote the sale, use or other dealing in this Software without specific, written prior permission. Title to copyright in this Software shall at all times remain with copyright holders.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

Copyright 1999-2012 The OpenLDAP Foundation, Redwood City, California, USA. All Rights Reserved. Permission to copy and distribute verbatim copies of this document is granted.

Copyright (C) 2000 Pierangelo Masarati, <ando@sys-net.it> All rights reserved.

Permission is granted to anyone to use this software for any purpose on any computer system, and to alter it and redistribute it, subject to the following restrictions:

- 1. The author is not responsible for the consequences of use of this software, no matter how awful, even if they arise from flaws in it.
- 2. The origin of this software must not be misrepresented, either by explicit claim or by omission. Since few users ever read sources, credits should appear in the documentation.
- 3. Altered versions must be plainly marked as such, and must not be misrepresented as being the original software. Since few users ever read sources, credits should appear in the documentation.
- 4. This notice may not be removed or altered.

Copyright 2004, 2005, 2011 Howard Chu, Symas Corp. All rights reserved.

Copyright (c) 2009, 2010 Martin Hedenfalk <martin@bzero.se>

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Portions Copyright (c) 1990-1996 Regents of the University of Michigan. All rights reserved.

Redistribution and use in source and binary forms are permitted provided that this notice is preserved and that due credit is given to the University of Michigan at Ann Arbor. The name of the University may not be used to endorse or promote products derived from this software without specific prior written permission. This software is provided "as is" without express or implied warranty.

Copyright (c) 2009 by Matthew Backes, Symas Corp. All rights reserved.

Portions Copyright 1995, 2001-2003 IBM Corporation. All rights reserved.

Portions Copyright (c) 1996, 1998 by Internet Software Consortium.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND INTERNET SOFTWARE CONSORTIUM DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL INTERNET SOFTWARE CONSORTIUM BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Copyright 1997, 1998, 1999, 2001 Computing Research Labs, New Mexico State University

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE COMPUTING RESEARCH LAB OR NEW MEXICO STATE UNIVERSITY BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

UCD Terms of Use (http://www.unicode.org/Public/UNIDATA/UCD.html)

Disclaimer

The Unicode Character Database is provided as is by Unicode, Inc. No claims are made as to fitness for any particular purpose. No warranties of any kind are expressed or implied. The recipient agrees to determine applicability of information provided. If this file has been purchased on magnetic or optical media from Unicode, Inc., the sole remedy for any claim will be exchange of defective media within 90 days of receipt.

This disclaimer is applicable for all other data files accompanying the Unicode Character Database, some of which have been compiled by the Unicode Consortium, and some of which have been supplied by other sources.

Limitations on Rights to Redistribute This Data

Recipient is granted the right to make copies in any form for internal distribution and to freely use the information supplied in the creation of products supporting the Unicode (TM) Standard. The files in the Unicode Character Database can be redistributed to third parties or other organizations (whether for profit or not) as long as this notice and the disclaimer notice are retained. Information can be extracted from these files and used in documentation or programs, as long as there is an accompanying notice indicating the source.

Portions Copyright (C) 1999, 2000 Novell, Inc. All Rights Reserved.

THIS WORK IS SUBJECT TO U.S. AND INTERNATIONAL COPYRIGHT LAWS AND TREATIES. USE, MODIFICATION, AND REDISTRIBUTION OF THIS WORK IS SUBJECT TO VERSION 2.0.1 OF THE OPENLDAP PUBLIC LICENSE, A COPY OF WHICH IS AVAILABLE AT HTTP://WWW.OPENLDAP.ORG/LICENSE.HTML OR IN THE FILE "LICENSE" IN THE TOP-LEVEL DIRECTORY OF THE DISTRIBUTION. ANY USE OR EXPLOITATION OF THIS WORK OTHER THAN AS AUTHORIZED IN VERSION 2.0.1 OF THE OPENLDAP PUBLIC LICENSE, OR OTHER PRIOR WRITTEN CONSENT FROM NOVELL, COULD SUBJECT THE PERPETRATOR TO CRIMINAL AND CIVIL LIABILITY.

Copyright 1999, Juan C. Gomez, All rights reserved. This software is not subject to any license of Silicon Graphics Inc. or Purdue University.

Redistribution and use in source and binary forms are permitted without restriction or fee of any kind as long as this notice is preserved.

Portions Copyright (c) 1987 Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms are permitted provided that the above copyright notice and this paragraph are duplicated in all such forms and that any documentation, advertising materials, and other materials related to such distribution and use acknowledge that the software was developed by the University of California, Berkeley. The name of the University may not be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Copyright (c) 1991, 1993 The Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 4. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions Copyright 2008 Pierangelo Masarati. All rights reserved.

Copyright (c) 2000-2001, Aaron D. Gifford All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the copyright holder nor the names of contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTOR(S) "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTOR(S) BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;

LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 2011 Devin J. Pohly

Portions Copyright 2008, 2009, 2011 Howard Chu

Copyright 2008 Emmanuel Dreyfus. All rights reserved.

Copyright 2009 Jonathan Clarke < jonathan @phillipoux.net>. All rights reserved.

Portions Copyright 2004 by IBM Corporation. All rights reserved.

Copyright 2004 Sang Seok Lim, IBM Corp. All Rights Reserved.

Portions Copyright 2007 Micha? Szulczy?ski. All rights reserved.

Copyright 1991-1996 Karl Lehenbauer and Mark Diekhans.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies. Karl Lehenbauer and Mark Diekhans make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

Copyright (c) 1993 The Regents of the University of California.

Copyright (c) 1994-1995 Sun Microsystems, Inc.

Copyright (c) 1998-1999 NeoSoft, Inc. All Rights Reserved.

This software may be used, modified, copied, distributed, and sold, in both source and binary form provided that these copyrights are retained and their terms are followed.

Under no circumstances are the authors or NeoSoft Inc. responsible for the proper functioning of this software, nor do the authors assume any liability for damages incurred with its use.

Redistribution and use in source and binary forms are permitted provided that this notice is preserved and that due credit is given to NeoSoft, Inc.

NeoSoft, Inc. may not be used to endorse or promote products derived from this software without specific prior written permission. This software is provided "as is" without express or implied warranty.

Requests for permission may be sent to NeoSoft Inc, 1770 St. James Place, Suite 500, Houston, TX, 77056.

Portions Copyright 1998-2003 Kurt D. Zeilenga.

Portions Copyright 1998-2001 Net Boolean Incorporated. All rights reserved.

Portions Copyright 2008 Pierangelo Masarati, SysNet All rights reserved.

Copyright (C) 1995, 1996, 1997, 1998, and 1999 WIDE Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2004-2006 Emmanuel Dreyfus All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING

NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.

Copyright (C) 2008 Timo Teras <a href="mailto:timo.teras@iki.fi">timo.teras@iki.fi</a>. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright 2000 Wasabi Systems, Inc. All rights reserved.

This software was written by Frank van der Linden of Wasabi Systems for Zembu Labs, Inc. http://www.zembu.com/

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. The name of Wasabi Systems, Inc. may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY WASABI SYSTEMS, INC. "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL WASABI SYSTEMS, INC BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2004 SuSE Linux AG, Nuernberg, Germany.

Contributed by: Michal Ludvig <mludvig@suse.cz>, SUSE Labs All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2004 SuSE Linux AG, Nuernberg, Germany.

Contributed by: Michal Ludvig <mludvig@suse.cz>, SUSE Labs All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.

Copyright (C) 2008 Timo Teras. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2005 International Business Machines Corporation

Copyright (c) 2005 by Trusted Computer Solutions, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE PROJECT AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE PROJECT OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

**Parent topic: Notices** 

### **Trademarks**

EPSON<sup>®</sup> and Supplies Central<sup>®</sup> are registered trademarks, EPSON Exceed Your Vision is a registered logomark, and Epson Connect<sup>™</sup> is a trademark of Seiko Epson Corporation.

Epson Store<sup>SM</sup> is a service mark of Epson America, Inc.

Epson iPrint<sup>™</sup> and Remote Print<sup>™</sup> are trademarks of Seiko Epson Corporation.

Apple, iPad, iPhone, iPod touch, Mac, and OS X are trademarks of Apple Inc., registered in the U.S. and other countries. AirPrint and the AirPrint logo are trademarks of Apple Inc.

Google is a registered trademark and Android, Chromebook, Google Chrome, Google Cloud Print, and Google Drive are trademarks of Google Inc.

Wi-Fi Direct® is a registered trademark of Wi-Fi Alliance®.

General Notice: Other product names used herein are for identification purposes only and may be trademarks of their respective owners. Epson disclaims any and all rights in those marks.



Parent topic: Notices

# **Copyright Notice**

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation. The information contained herein is designed only for use with this Epson product. Epson is not responsible for any use of this information as applied to other products.

Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.

Seiko Epson Corporation shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

Seiko Epson Corporation shall not be held liable for any damage resulting from electromagnetic interference that occurs from the use of any interface cables other than those designated as Epson approved Products by Seiko Epson Corporation.

This information is subject to change without notice.

libTIFF Software Acknowledgment

A Note Concerning Responsible Use of Copyrighted Materials Default Delay Times for Power Management for Epson Products Copyright Attribution

**Parent topic: Notices** 

## libTIFF Software Acknowledgment

Copyright © 1988-1997 Sam Leffler

Copyright © 1991-1997 Silicon Graphics, Inc.

Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (I) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics.

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Parent topic: Copyright Notice

## A Note Concerning Responsible Use of Copyrighted Materials

Epson encourages each user to be responsible and respectful of the copyright laws when using any Epson product. While some countries' laws permit limited copying or reuse of copyrighted material in certain circumstances, those circumstances may not be as broad as some people assume. Contact your legal advisor for any questions regarding copyright law.

Parent topic: Copyright Notice

## **Default Delay Times for Power Management for Epson Products**

This product will enter sleep mode after a period of nonuse. This is to ensure that the product meets Energy Star standards of energy efficiency. More energy savings can be achieved by setting the time to sleep to a shorter interval.

Parent topic: Copyright Notice

## **Copyright Attribution**

© 2015 Epson America, Inc.

1/15

CPD-40369R1

Parent topic: Copyright Notice