The EPSON Perfection 1650 PHOTO has a transparency unit built into the scanner lid and holder for 35 mm film and slides:

EPSON Perfection 1650 owners can purchase an optional transparency unit (B813172):
Color correction 1 type for CRT display
3 types for printer output
1 type for user-defined (only user-defined color correction is available in EPSON TWAIN)

Interface USB (Type B receptacle connector)

Light source White cold cathode fluorescent lamp

Reliability 30,000 cycles of carriage movements (main unit MCBF)

Dimensions EPSON Perfection 1650
Width: 10.9 inches (27.6 cm)
Depth: 17.7 inches (45.0 cm)
Height: 3.7 inches (9.3 cm)

EPSON Perfection 1650 PHOTO
Width: 10.9 inches (27.6 cm)
Depth: 17.7 inches (45.0 cm)
Height: 4.6 inches (11.6 cm)

Weight EPSON Perfection 1650
Approx. 5.7 lb (2.6 kg)

EPSON Perfection 1650 PHOTO
Approx. 6.8 lb (3.1 kg)

**Safety Approvals**

**Safety Standards**
120 V model UL 1950
EMC FCC part 15 subpart B class B
CSA C108.8 class B

**USB Interface**

Interface type Universal Serial Bus Specification Revision 1.1

**Configuration**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| Configuration | Characteristics: Self-powered
Remote wake up feature: Not supported
Maximum power consumption from VBUS: 2mA (5V) |
| Interface | No alternate setting
Class: Vendor specific |
| Endpoint 1 | Bulk IN transfer
Maximum data transfer size: 64 bytes |
| Endpoint 2 | Bulk OUT transfer
Maximum data transfer size: 64 bytes |
| String Descriptor | Language ID: US English
1: Manufacturer: “EPSON”
2: Product: “EPSON Scanner” |

**Electrical**

Input voltage range DC 24 V

Rated input current 0.8 A

Power consumption EPSON Perfection 1650
Approx. 15 W operating
approx. 17 W with optional TPU
approx. 6 W in power saving mode

EPSON Perfection 1650 PHOTO
Approx. 15 W operating
approx. 6 W in power saving mode

**Environmental**

Temperature Operation: 41 to 95 °F (5 to 35 °C)
Storage: −13 to 140 °F (−25 to 60 °C)

Humidity (without condensation) Operation: 10% to 80%
Storage: 10% to 85%

Operating conditions Ordinary office or home conditions; avoid extreme dust, direct sunlight, and strong light sources.

**Note:** Check the label on the back of the scanner for voltage information.

**Weight**

Approx. 5.7 lb (2.6 kg)

EPSON Perfection 1650 PHOTO Approx. 6.8 lb (3.1 kg)

**Software initialization**

The scanner can be initialized (returned to a fixed set of conditions) in the following ways:

Hardware initialization
- The scanner is plugged in.
- The USB cable is unplugged, then plugged into the USB port on the scanner.

Software initialization
- Software sends the ESC @ (initialize the scanner) command.
- The scanner receives a Bus Reset from the USB interface.
AC Adapter Specifications

Basic Specifications

Temperature  Operation: 41 to 95 °F (5 to 35 °C)
Dimensions  2.3 × 4.3 × 3.4 inches (5.8 × 10.8 × 3.4 cm)

Electrical

Rated input voltage  100 to 120 V
Rated input current  0.7 A
Rated output voltage  DC 24 V
Rated output current  0.8 A (1.0 A max.)
Rated frequency  50 to 60 Hz
Input frequency range  49.5 to 60.5 Hz

Safety Approvals

Safety standards  UL 1950
UL 1310
CSA C22.2 No. 950, No 223
EMC  FCC part 15 subpart B class B
CSA C108.8 class B

Integrated Transparency Unit Specifications

If you have the EPSON Perfection 1650 PHOTO, the transparency unit is built into the scanner lid.

Electrical  Supply voltage: DC 24 V ±10% V
Rated current: 0.5 A

Temperature  Operation: 41 to 95 °F (5 to 35 °C)
Storage: –13 to 140 °F (–25 to 60 °C)

Humidity (without condensation)  Operation: 10% to 80%
Storage: 10% to 85%

Document specifications  35 mm strip film (negative, positive)
35 mm slides (negative, positive)
Readable area  1.9 × 9.1 inches (48.26 × 231.1 mm)

Optional Transparency Unit Specifications

If you have the EPSON Perfection 1650, you can purchase a separate transparency unit (B813172) to scan positive and negative transparent materials—35 mm slides, filmstrips, and film up to 4 × 5 inches in size.

This transparency unit is a separate piece; it is not part of the scanner lid as it is with the EPSON Perfection 1650 PHOTO.

Dimensions  Width: 8.7 inches (222 mm)
Depth: 12.0 inches (305 mm)
Height: 1.4 inches (36 mm)

Weight  1.5 lb (0.7 kg)

Maximum readable area  3.6 × 4.6 inches ([93 × 118 mm] size of 4 × 5-inch film holder opening)

Electrical  Supply voltage: DC 24 V ±10% V
Rated current: 0.5 A

Reliability  10,000 hours for light source

Temperature  Operation: 41 to 95 °F (5 to 35 °C)
Storage: –13 to 140 °F (–25 to 60 °C)

Humidity (without condensation)  Operation: 10% to 80%
Storage: 10% to 85%

Operating conditions  Ordinary office or home conditions; avoid extreme dust, direct sunlight, and strong light sources.

Document specifications  Transparencies up to 4 × 5 inches (negative film, positive film)
35 mm strip film (negative, positive)
35 mm slides (negative, positive)
Brownie size strip film (120/220 size, 6 × 9 cm)

Scanner Buttons

The scanner’s buttons let you perform one-touch scanning with EPSON Smart Panel™. The buttons are described below:

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🖼️ Start</td>
<td>Press the 🖼️ Start button on the scanner to start EPSON Smart Panel (default).</td>
</tr>
<tr>
<td>📸 Photo Print</td>
<td>Press the 📸 Photo Print button to automatically scan and print a photo.</td>
</tr>
<tr>
<td>📧 E-Mail</td>
<td>Press the 📧 E-Mail button to scan your image and send it as an e-mail attachment.</td>
</tr>
<tr>
<td>🌐 Scan to Web</td>
<td>Press the 🌐 Scan to Web button to scan an image and upload it to the EPSON photo-sharing site, EPSON PhotoCenter™.</td>
</tr>
</tbody>
</table>
Using EPSON Smart Panel

Follow these steps to use EPSON Smart Panel to scan documents or photos:

1. Place the original document(s) face down on the document table.

2. Do one of the following to open the Smart Panel:
   - Press the Start button on your scanner.
   - Click the Smart Panel icon on the desktop.
   - On a Macintosh, you can also open the Apple menu and select EPSON SMART PANEL.

   The Start button is set to open EPSON Smart Panel by default. However, you can assign the Start button to automatically open any of the Smart Panel applications.

3. Click the icon for your desired scanning application. The window for that option appears and lets you adjust settings for your scan. Follow the on-screen steps for each option.

Keep the following in mind when using Smart Panel:

- If you select Copy or Photo Print, make sure your printer is turned on and the correct paper type and size is loaded in your printer.
- Scan to E-mail requires a MAPI-compliant e-mail program (AOL is not MAPI compliant).

For instructions on using each of the Smart Panel applications, see the electronic manual for EPSON Smart Panel.

Selecting TWAIN Settings

The illustration below shows the different settings you can adjust in the EPSON TWAIN window, and the preferred order you should adjust them in. Detailed descriptions are given in the electronic Reference Guide. Manually adjust settings in the EPSON TWAIN window in the following order:

1. Select the basic settings: Document Source, Image Type, Destination, Resolution

2. Preview your image (default)

3. Automatically set the scan area for your image using Auto Locate

4. Size or scale the image

5. Customize your settings and configuration, and use color management

6. Scan the image into your application

7. Close EPSON TWAIN

The most important thing to remember when scanning is to select the correct image type and best resolution for your scan. For more detailed information on making settings in EPSON TWAIN driver, see the electronic Reference Guide.
Scanner Light

The scanner has one indicator light. (The indicator light is part of the Start button.)

The light indicates the status of the scanner, as described below.

<table>
<thead>
<tr>
<th>Light</th>
<th>Color</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Green</td>
<td>The scanner is ready to scan images.</td>
</tr>
<tr>
<td>Flashing</td>
<td>Green</td>
<td>The scanner is initializing or is busy scanning.</td>
</tr>
</tbody>
</table>
| Flashing| Red   | If you are using the EPSON Perfection 1650 PHOTO and are scanning transparencies, make sure you've removed the reflective document mat.  
          |       | The scanner may not be properly connected to the computer. Unplug the scanner from its power source, remove the USB cable, and then plug them back in.  
          |       | If this does not eliminate the error, one of the following may be the problem and you need to consult your dealer or EPSON:  
          |       | ❏ The fluorescent lamp needs to be replaced.                           
          |       | ❏ The scanner is malfunctioning.                                       |
| Off     | —     | The scanner or AC adapter is unplugged.                               |

Related Documentation

CPD-12466 EPSON Perfection 1250/1650 Start Here poster
CPD-12467 EPSON Perfection 1250/1650 Scanner Basics
CPD-12468 EPSON Perfection 1250/1650 scanner software CD-ROM
— Reference Guide (HTML)
— EPSON Smart Panel User's Manual (HTML)
TM-PERF1650 EPSON Perfection 1650/1650 PHOTO Service Manual
PL-PERF1650 EPSON Perfection 1650 Parts List
PL-PHOTO1650 EPSON Perfection 1650 PHOTO Parts List
PL-B813172 Optional Transparency Unit Parts List