Scanner Parts

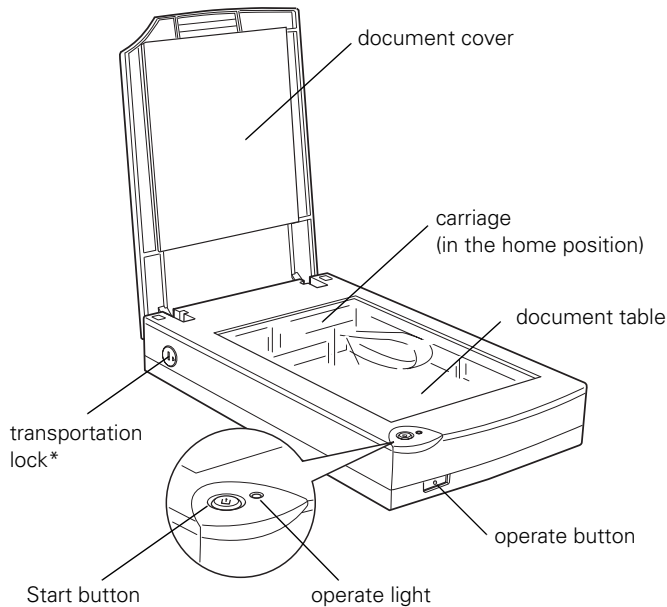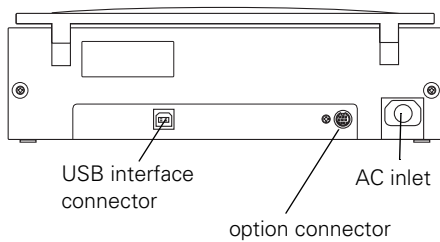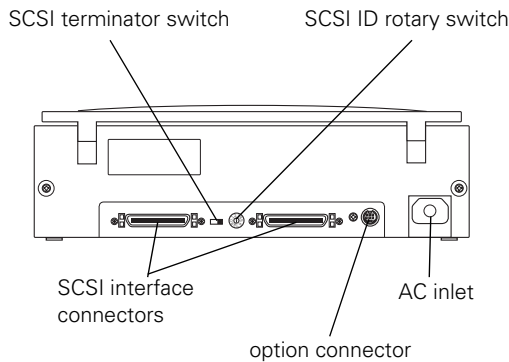**1200U/1200U PHOTO/1200S front view**

1200U/1200U PHOTO back view

1200S back view

* Before connecting the scanner to a power source, the transportation lock must be released (turned down to the unlock position).

Scanner Specifications

Basic Specifications

Scanner type	Flatbed, color
Photoelectric device	Color CCD line sensor
Effective pixels	10200×14040 pixels at 1200 dpi, 100% scaling
Maximum document size	US letter or A4 size (8.5×11.7 inches [216×297 mm]) Up to legal size if using the optional auto document feeder (the reading area can be specified from software.)
Optical resolution	1200 dpi
Maximum hardware resolution*	1200 dpi (main scan) $\times$ 2400 dpi (sub scan)

* The maximum hardware resolution of 1200×2400 dpi is achieved using EPSON's Micro Step Drive™ technology.

Maximum interpolated resolution	9600 dpi
Speed (1200 dpi, draft mode)	Color: 6.5 msec/line Monochrome (bi-level): 2.2 msec/line
Output resolution	50 to 9600 dpi (50 to 4800 dpi in 1 dpi increments)
Color separation	RGB color filters on CCD
Command level	ESC/I-B7
Reading sequence	Monochrome: One-pass scanning Color byte sequence: One-pass scanning (R, G, B) Color line sequence: One-pass scanning (R, G, B)
Zoom	50% to 200% in 1% increments
Pixel depth	12 bits per pixel (12 bits per pixel input, 1–8 bits per pixel output)
Brightness	7 levels
Line art settings	Fixed threshold TET (Text Enhancement Technology, enable/disable selectable)

Digital halftoning	AAS (Auto Area Segmentation, enable/disable selectable) 3 halftoning modes (A, B, and C) 4 dither patterns (A, B, C, and D) for bi-level and quad-level data 2 user defined patterns (A and B)
Gamma correction	2 types for CRT display 3 types for printer 1 type for user-defined
Color correction	1 type for CRT display 3 types for printer output (available in color byte sequence mode and color line sequence mode) 1 type for user-defined
Interface	USB (1200U, 1200U PHOTO: Type B receptacle connector) SCSI (1200S: Two half pitch 50-pin connectors)
Light source	White cold cathode fluorescent lamp
Reliability	30,000 cycles of carriage movements (main unit MCBF)
Dimensions	Width: 11.3 inches (287 mm) Depth: 16.7 inches (425 mm) Height: 3.4 inches (88 mm)
Weight	Approx. 9.9 lb (4.5 kg)

Electrical

Specification	100–120 V model	220–240 V model
Input voltage range	AC 90 to 132 V	AC 198 to 264 V
Rated frequency	50 to 60 Hz	
Input frequency	49.5 to 60.5 Hz	
Rated current	0.5 A	0.3 A
Power consumption	Approx. 25 W operating Approx. 12 W stand by	

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

Environmental

Temperature	Operation: 41 to 95 °F (5 to 35 °C); 50 to 90 °F (10 to 32 °C) when using the auto document feeder Storage: –13 to 140 °F (–25 to 60 °C)
Humidity (without condensation)	Operation: 10% to 80%; 20% to 80% when using the auto document feeder Storage: 10% to 85%

Operating conditions	Ordinary office or home conditions; avoid extreme dust, direct sunlight, and strong light sources. Make sure the outlet provides enough power.

Safety Approvals

120 V model

Safety standards	UL 1950 with D3 CSA C22.2 No. 950 EMC FCC part 15 subpart B class B CSA C108.8 class B

230 V model

Safety standards	EN 60950 EMC EN 55022 (CISPR Pub 22) class B AS/NZS 3548 class B

CE marking

230 V model	Low Voltage Directive 73/23/EEC
	   EN 60950
	EMC Directive 89/336/EEC
	   EN 55022 Class B
	   EN 61000-3-2
	   EN 61000-3-3
	   EN 50082-1
	      IEC 801-2
	      IEC 801-3
	      IEC 801-4

USB Interface

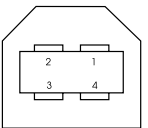|	
Interface type	Universal Serial Bus Specification Revision 1.0

Configuration

Element	Description
Configuration	Characteristics: Self-powered Remote wake up feature: Not supported Maximum power consumption from VBUS: 2mA (5V)
Interface	No alternate setting Number of endpoints used by this interface (excluding endpoint 0): 2 Class: Vendor specific
Endpoint 1	Bulk IN transfer Maximum data transfer size: 64 byte
Endpoint 2	Bulk OUT transfer Maximum data transfer size: 64 byte
String Descriptor	Language ID: US English 1: iManufacturer: "EPSON" 2: iProduct: "Perfection1200"

Electrical standard Full Speed mode (12Mbit/s) of Universal Serial Bus Specification Revision 1.0

Connector type One receptacle (series B)

Connector pin arrangement

Pin number	Signal	Connector
1	VCC	
2	−DATA	
3	+DATA	
4	GND	

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

Hardware initialization	* The scanner is turned on. * The USB cable is unplugged from 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.

SCSI Interface

Interface type ANSI X3T9.2/375R Revision 10L (SCSI-2)

Functions BUS FREE phase
ARBITRATION phase
SELECTION/RESELECTION phase
COMMAND phase
(the Logical Unit Number is fixed to 0 and the command link function is not supported)
DATA phase
   Data in phase
   Data out phase
STATUS phase
MESSAGE phase
   MESSAGE IN phase
   MESSAGE OUT phase
ATTENTION condition
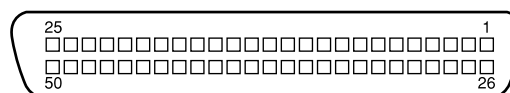RESET condition

Logic level TTL compatible

Electrical standard ANSI X3T9.2/375R Revision 10L (SCSI-2)

ID Setting Selectable from 0 to 7 (factory setting: 2)

Terminator Internal terminator selectable (enable/disable)

Connector type Two half pitch 50-pin connectors

Connector pin arrangement

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

Hardware initialization	* The scanner is turned on. * The scanner receives a SCSI Reset signal from the SCSI interface.
Software initialization	* Software sends the ESC @ (initialize the scanner) command. * The scanner receives a SCSI Bus Device Message.

Optional Transparency Unit Specifications

The transparency unit (B813172) allows you to scan positive and negative transparent materials—35 mm slides, filmstrips, and film up to 4×5 inches in size.

Note The transparency unit comes bundled with the EPSON Perfection 1200U PHOTO.

Basic Specifications

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.

Safety approvals	UL 1950
	CSA C22.2 No. 950
	EN 60950
	IEC 950
EMC	FCC Part 15 subpart B class B
	CSA C108.8 class B
	AS/NZS3548 Class B
CE Marking	Low voltage directive 73/23/EEC
	EN60950
	EMC Directive 89/336/EEC
	EN55022 Class B
	EN50082-1
	IEC 801-2/801-3/801-4
Resistance to electrical noise (static electricity)	Panel: 10 kV
	Metal: 7 kV/150 pF, 150 ohm
Document specifications	Transparencies up to 4 × 5-inch film (negative film, positive film)
	35 mm strip film (negative, positive)
	35 mm slides (negative, positive)
	Brownie size strip film

Optional Auto Document Feeder Specifications

The auto document feeder (B813142) allows you to automatically load multi-page documents into your scanner. This document feeder is particularly useful for OCR (optical character recognition) scanning. You can load up to 20 legal size (8 1/2 × 14-inches) pages in the auto document feeder.

Basic Specifications

Dimensions	Width: 12.6 inches (319 mm)
	Depth: 17.8 (451 mm)
	Height: 5.4 inches (137 mm)
Weight	4.9 lb (2.2 kg)
Feeder type	Sheet through, face up loading, face down ejecting, roller friction
Loading position	Left side of paper against left side of feeder
Connector	8-pin DIN male
Temperature	Operation: 50 to 90 °F (10 to 32 °C)
	Storage: –4 to 140 °F (–20 to 60 °C)
Humidity (without condensation)	Operation: 20% to 80%
	Storage: 10% to 85%

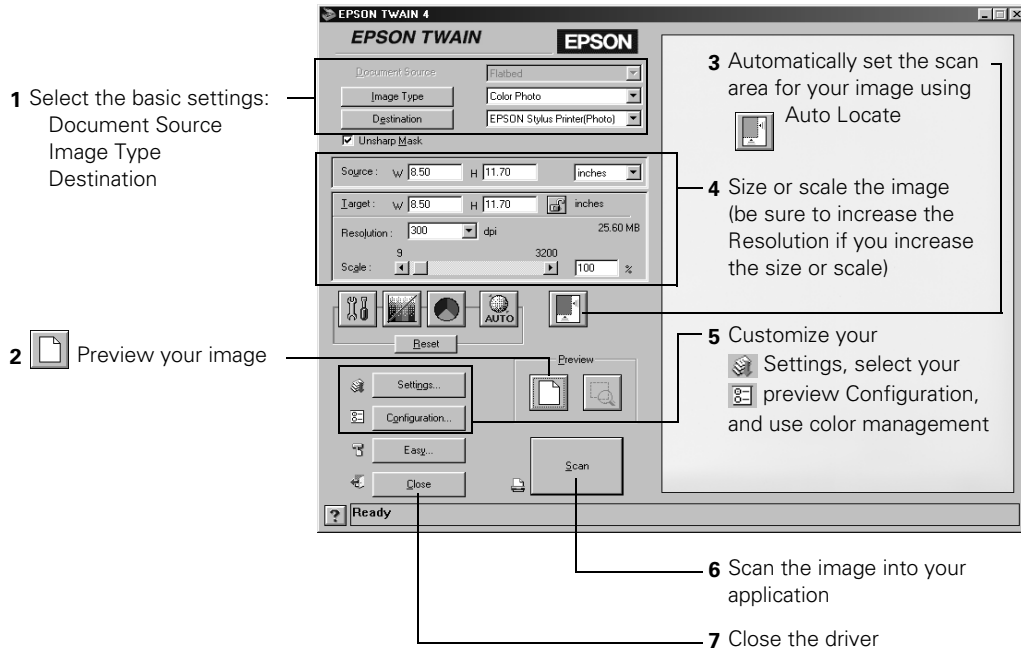| Operating conditions	Ordinary office or home conditions; avoid extreme dust, direct sunlight, and strong light sources.
Reliability	Load/eject: MCBF 20,000 sheets
	Hinge: MCBF 12,000 cycles
Electrical	Input voltage: DC 24 V ±10%
	DC 5 V ±5%
	Input current: 24 V: 0.8 A
	5 V: 0.2 A
Safety approvals	UL 1950
	CSA C22.2 No. 950
	EN60950 (VDE)
	IEC950 (ROSTEST, PSB)
EMC	FCC Part 15 Subpart B Class B
	CSA C108.8 Class B
	AS/NZS3548 Class B
	CISPR Pub 22 Class B
	CNS13438 Class B
CE Marking	Low voltage directive 73/23/EEC
	EN60950
	EMC Directive 89/336/EEC
	EN55022 Class B
	EN50082-1
	IEC 801-2/801-3/801-4
Resistance to electrical noise (static electricity)	Casing: 10 kV
	Metal: 7 kV/150 pF, 150 ohm

ADF Document Specifications

Feeder capacity	20 sheets of maximum weight 55 gm paper, total thickness less than 0.16 inch (4 mm)
Size	Width: 3.3 to 8.5 inches (85 to 216 mm)
	Length: 5 to 14 inches (127 to 356 mm)
Thickness	0.0028 to 0.0063 inch (0.07 to 0.16 mm)
Ream weight	110 to 231 lb (50 to 105 kg)
Paper quality	High-quality paper, bond paper, check paper, recycled paper
Applied color	Color and monochrome
Document type	Documents printed with impact printers, laser printers, or fax machines

Note — Don't use the following paper types: transparencies, film, coated paper, labels, carbon paper, or paper with staples, holes, rips, curls, or folds.

Selecting a Driver and Settings

When you select **EPSON TWAIN 4** as your scanner source, you see the EPSON TWAIN window. This is the Advanced window in Windows (the Macintosh steps are the same); there is also an Easy window with just the basic settings.

1 Select the basic settings:
  Document Source
  Image Type
  Destination

2 Preview your image

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

4 Size or scale the image (be sure to increase the Resolution if you increase the size or scale)

5 Customize your Settings, select your preview Configuration, and use color management

6 Scan the image into your application

7 Close the driver

Here are some recommended settings for different types of scans.

Image type	Recommended bundled application	Recommended Image Type	Scanning resolution for printing [1, 2]
Photograph	PhotoDeluxe	Color Photo	300 dpi
Small photograph to be enlarged	PhotoDeluxe	Color Photo	300 dpi to 2400 dpi
Magazine	PhotoDeluxe	Color Photo	300 dpi
Newspaper (text only)	PageManager	OCR	400 dpi
Text for OCR	PageManager	OCR	400 dpi
Text with images	PageManager	Copy & Fax	400 dpi
Line art	PhotoDeluxe	Line Art	300 to 2400 dpi
35 mm film (negative)	PhotoDeluxe	TPU for neg.Film	300 to 2400 dpi
4 x 5 or Brownie film (negative)	PhotoDeluxe	TPU for neg.Film	300 to 2400 dpi
35 mm slide or 4 x 5 transparency	PhotoDeluxe	TPU for pos.Film	300 to 2400 dpi

[1] If your final output is for on-screen viewing (for example, on a web page), select 72 dpi for your resolution.

[2] If you are enlarging your image, you must manually increase the resolution (dpi) proportionally to maintain the resolution of your original.

Light and Buttons

The scanner has one indicator light and two buttons. Light status and button functions are described in the tables below.
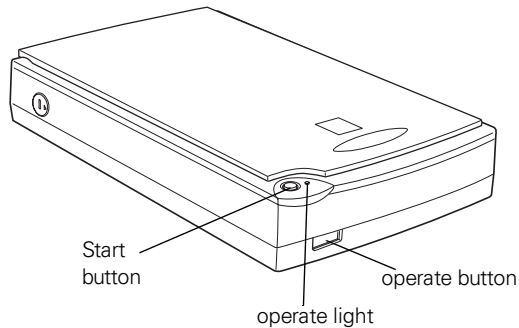
Scanner operate light

Light status	Color	Scanner status
Ö (slowly flashing)	Green	Initializing or busy scanning
○	Green	Ready to scan images
Ö (rapidly flashing)	Red	The scanner is locked. Turn off the scanner, unlock the transportation lock, then turn the scanner on.
●	N/A	The scanner is turned off

○ = on, ● = off, Ö = flashing

Scanner buttons

Button	Function
⏻ Operate	Turns the scanner on and off.
◇ Start	Lets you scan directly to an application with one touch. You must set up the scanner monitor and a compatible application to use this button. See the *EPSON TWAIN User's Guide* for more information.

Scanner Models

The scanner is available in three different models.

EPSON Perfection 1200U includes:

❏ EPSON Perfection 1200U scanner

❏ USB cable

❏ Windows® and Macintosh™ CD-ROMs that include: EPSON TWAIN Driver
Adobe® PhotoDeluxe® Business Edition (Windows) or Adobe PhotoDeluxe version 2.0 (Macintosh)
Brøderbund® The Print Shop® PressWriter™
NewSoft™ Presto!™ PageManager for EPSON
Electronic manuals (pdf)

❏ *Scanner Basics* guide

EPSON Perfection 1200U PHOTO includes:

❏ EPSON Perfection 1200U scanner

❏ Transparency unit

❏ USB cable

❏ Windows and Macintosh CD-ROMs that include: EPSON TWAIN Driver
Adobe PhotoDeluxe Business Edition (Windows) or Adobe PhotoDeluxe version 2.0 (Macintosh)
Brøderbund The Print Shop PressWriter
NewSoft Presto! PageManager for EPSON
Electronic manuals (pdf)

❏ Photo Print CD-ROM

❏ *Scanner Basics* guide

EPSON Perfection 1200S includes:

❏ EPSON Perfection 1200S scanner

❏ SCSI adapter card

❏ SCSI cable

❏ Windows and Macintosh CD-ROMs that include: EPSON TWAIN Driver
Adobe PhotoDeluxe Business Edition (Windows) or Adobe PhotoDeluxe version 2.0 (Macintosh)
Brøderbund The Print Shop PressWriter
NewSoft Presto! PageManager for EPSON
Electronic manuals (pdf)

❏ *Scanner Basics* guide

Related Documentation

CPD 8881	EPSON Perfection 1200U, 1200U PHOTO *Scanner Basics*
CPD 8880	EPSON Perfection 1200S *Scanner Basics*
ET0799-00	*EPSON TWAIN User's Guide* (pdf)
TM-PERF1200	EPSON Perfection 1200 Technical Manual (applies to 1200U/ 1200U PHOTO/1200S)
TM-PRF636OPT	EPSON Perfection 1200 TPU/ADF Technical Manual
PL-PERF1200S	EPSON Perfection 1200S Parts List
PL-PERF1200U	EPSON Perfection 1200U Parts List
PL-PERF1200P	EPSON Perfection 1200U PHOTO Parts List
PL-B813172	EPSON Perfection 1200 TPU Parts List
PL-B813142	EPSON Perfection 1200 ADF Parts List