

SCOPE

This hardware specification applies to the TEAC CD-532S CD-ROM drive unit (hereinafter referred to as the unit or CD-ROM drive).

GENERAL

Table 2-1 shows the general specifications of this CD-ROM drive.

(Table 2-1) General specifications

Model name	CD-532S
TEAC P/N	19770351-02
Applicable safety standards	UL/CSA/TÜV
Data transfer rate	20M bytes/sec Max
Average access time	85msec typ, by TEAC standard
Disc rotational speed	Approx. 6,850rpm
Signal interface	Compatible with SCSI-2, and SCAM level 1
Power supplies	+5VDC, +12VDC
Loading mechanism	Disc tray
Starting time	9sec Type, by TEAC standard
Applicable disc	CD-DA, CD-ROM Mode 1, CD-ROM XA Mode 2 (Form 1, Form 2), Multi-session Photo CD, CD-I, Video CD, CD-PLUS, CD-RW
Front bezel and flap	Light gray
Eject button	Light gray
LED indicator color	Green
Audio headphone line-out	0.6 ±0.3V at 32Ω 0.8 ±0.3V at 47kΩ
Factory-preset strap setting : Drive setting	Refer to Table 7.2.5-1.

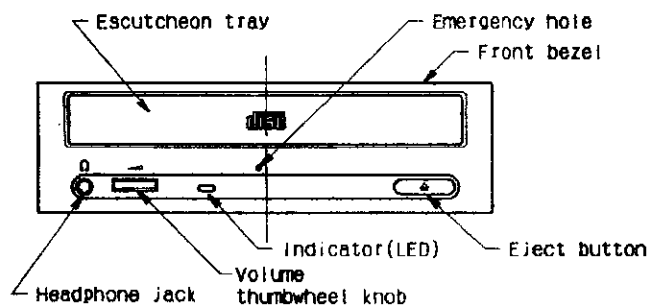
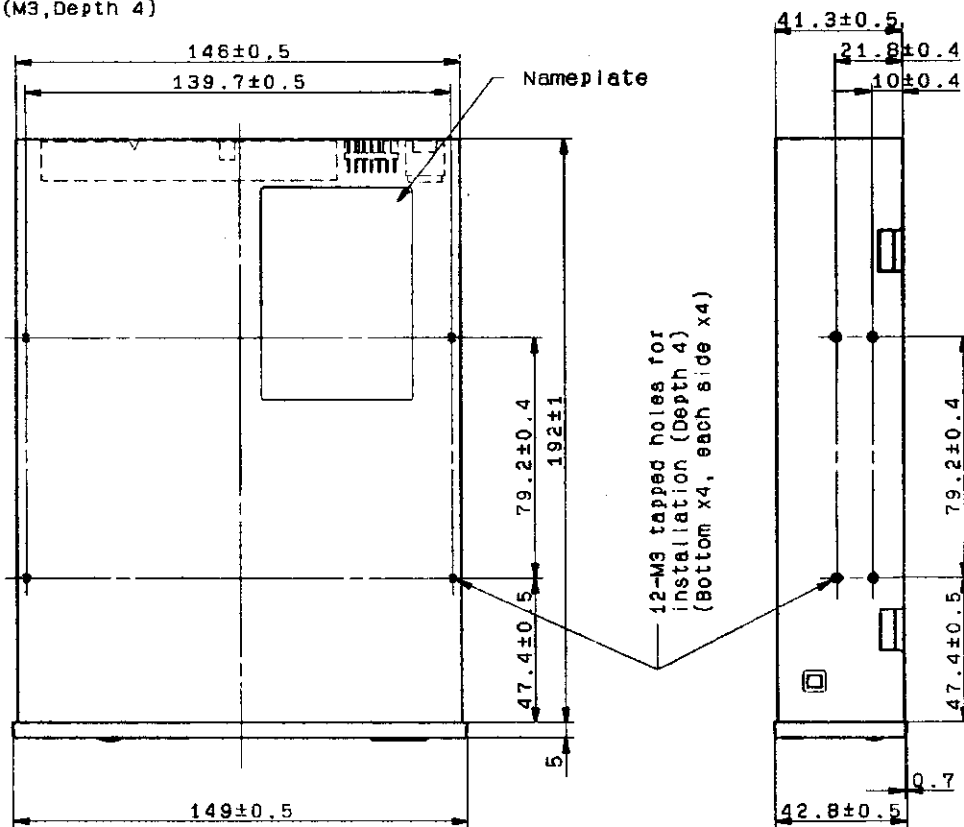
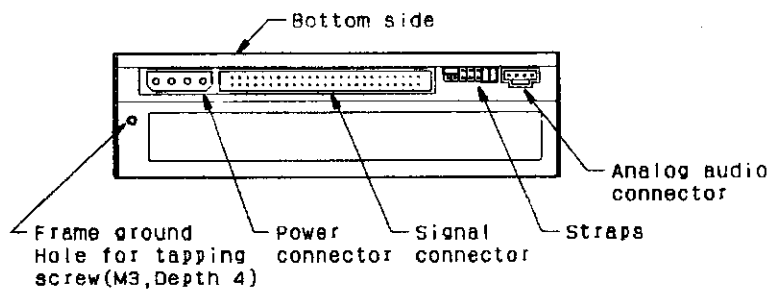
STRUCTURE

External Structure

- (1) Dimensions
 - (a) Height : 41.3mm (1.63 in), Typ
 - (b) Width : 146mm (5.75 in), Typ
 - (c) Depth : 192mm (7.56 in), Typ
- Note: With (a) to (c), the front bezel is not included.
- (2) Weight : 1,150g (2.53lbs), Typ
- (3) External view : Refer to Fig.3.2-1.

Installation

- (1) Installation direction: Should be the following Three.
 - (a) Direction in which the disc is horizontal
 - Direction in which the indicator on the front panel should come to the right. Parallelism should be within 10° in all directions.
 - (b) Direction in which the disc is vertical (Both directions)
 - Parallelism should be within 10° in all directions.
- (2) Installation method : Use the fixing holes in the sides or bottom of the CD-ROM drive.



(Units:mm)

External view of the unit

ENVIRONMENTAL CONDITIONS

The environmental conditions mentioned in this section are for the CD-ROM drive without a disc. The environmental conditions of the disc should comply with the standards specified for the applicable disc.

(1) Ambient temperature

- (a) Operating : 5 ~ 45°C (41 ~ 113°F)
- (b) Storage and transportation (packed) : -30 ~ 55°C (-22 ~ 131°F)

(2) Temperature gradient

- (a) Operating : 12°C (53.6°F) or less per hour (non-condensing)
- (b) Storage and transportation : 25°C (77°F) or less per hour (non-condensing)

(3) Relative humidity

- (a) Operating : 20 ~ 80% (non-condensing)
Max wet bulb temperature; 29°C (84.2°F) or less
- (b) Storage : 10 ~ 80% (non-condensing)
- (c) Transportation (packed) : 5 ~ 90% (non-condensing)
Max wet bulb temperature; 32°C (89.6°F) or less

(4) Vibrations

- (a) Operating : 0.3G or less (5 ~ 300Hz)
- (b) Storage : 2G or less (5 ~ 100Hz)
- (c) Transportation (packed) : 0.75G or less (JIS Z 0200)

(5) Shock

- (a) Operating : 5G or less (half-sine wave, 11msec)
excepting CD-DA play mode.
No read error under retry operation.
Intervals between shocks should be 10sec or more.
- (b) Storage : 50G or less (half-sine wave, 11msec)
- (c) Transportation (packed) : 50G or less

(6) Acoustic noise

- (a) Operating : 45dBA or less (at distance of 0.5m)
(except at eject and loading operation)

(7) The transportation conditions should comply with JIS-Z0200 appropriate transport packaging test method level II when the specified packaging box is used.

(8) Dust

Should be as in an ordinary office environment.

(9) Cleaning

The wet-type lens cleaner should not be used as it may cause damage.

RELIABILITY

- (1) Mean time between failures (MTBF)
 - : 100,000POH or more (for operating duty 10%)
- (2) Mean time to repair (MTTR) : 30 minutes, typical
- (3) Error rate
 - (a) Data read error rate : Block/ 10^{12} bit (MODE 1 and MODE 2 Form 1)
Block/ 10^9 bit (MODE 2 Form 2 and CD-DA)
- (4) Safety standards
 - (a) Approved by the UL standards.
 - (b) Approved by the CSA standards.
 - (c) Approved by the TÜV standards.
 - (d) UL 94 Flame class : UL 94-5V (Front bezel)

TEAC

CD-ROM DRIVE
32X

Installation Guide Model CD-532S

SCSI Interface

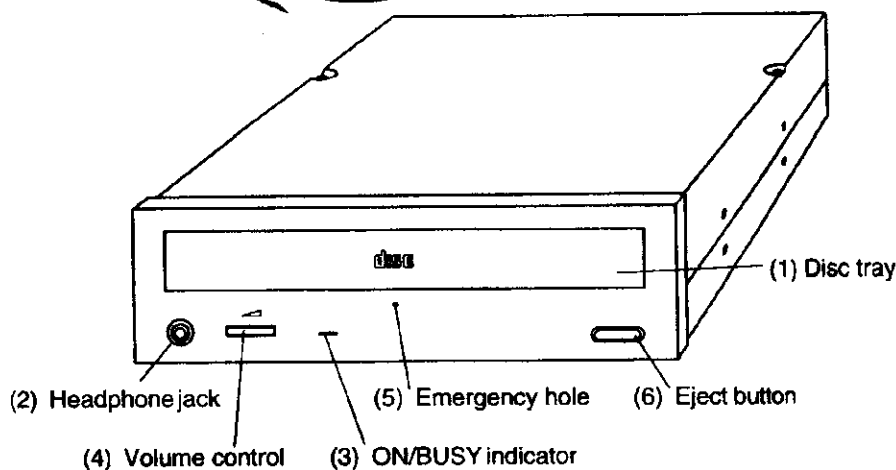


Figure A

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- (1) **Disc Tray:** Opens and closes during loading and unloading.
 - (2) **Headphone Jack (3.5mm):** Audio output jack for stereo headphone or external speakers. Use a 3.5mm-diameter stereo mini-plug.
 - (3) **ON/BUSY Indicator:** Indicates Seek, Play or Read operation.
 - (4) **Volume Control:** Adjusts headphone's volume.
Right to increase — Left to decrease.
 - (5) **Emergency Eject Hole:** When power is switched OFF or the eject button does NOT function, insert a metal rod (an extended large paper clip with diameter of 1.2mm or less is suitable) into this hole at a right angle to the front panel, then push the rod to eject the disc. **Do this only when the ON/BUSY indicator is NOT lit.**
 - (6) **Eject Button:** Press this button to open or close the disc tray.

Introduction

PLEASE READ THE ENTIRE INSTALLATION GUIDE THOROUGHLY BEFORE YOU BEGIN THE INSTALLATION.

Thank you for purchasing the TEAC 32X speed CD-ROM drive. This product is designed to provide maximum CD-ROM playback performance, enjoyment and ease of use. Refer to Recommended System Requirements to insure the drive's proper 32X Max performance.

The TEAC 32X speed CD-ROM Drive can read certain data 12 to 32 times faster than conventional speed CD-ROMs. It also plays 8X, 4X and 2X titles at their respective speeds. It is easy to operate, dust proof, and features a convenient power tray for disc loading.

Note: Performance may vary depending on system CPU speed and system settings.

Tools You May Need

Depending on the design of your computer, you may need the following tools to complete the installation.

- ☒ a flat blade screwdriver
- ☒ a Phillips screwdriver
- ☒ needle-nosed pliers



Recommended System Requirements:

- Pentium® 133MHz or higher model IBM PC compatible.
- Intel Triton or compatible chip set with PIO mode 4 or DMA mode 2 settings.
- 8MB RAM-minimum.
- Available half-height drive bay.
- Compatible SCSI adapter card or compatible sound card with SCSI interface adapter.
- DOS version 6.0 or higher.
- MSCDEX.EXE 2.23 or higher if not running MS-DOS 6.0 or higher.
- Windows® 3.1x, Windows 95 or Windows NT.

Drive Installation Directions

The TEAC 32X CD-ROM drive can be mounted into your personal computer either horizontally or vertically. Install the drive horizontal so that the eject button is located on the right side of the unit. See Figure B. For vertical installation, the drive unit can be installed in both directions.

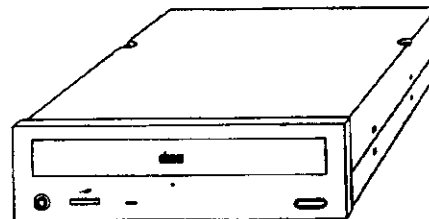


Figure B

Preparing your Personal Computer for the TEAC 32X Speed CD-ROM Drive Installation

**CAUTION: TURN OFF YOUR COMPUTER AND UNPLUG IT FROM THE AC POWER SOURCE BEFORE INSTALLING THE CD-ROM DRIVE.
FAILURE TO DO SO MAY RESULT IN ELECTRIC SHOCK.**

1. Unplug your computer.
2. Detach all input and output devices from your computer, such as printer, keyboard, monitor, etc.
3. Remove the cover from your computer. Refer to your computer system manual for this procedure.
4. Insert the CD-532S into an available drive bay. Secure the drive to your computer by inserting two 3mm mounting screws to each side of the unit.
5. Connect your CD-ROM drive to the SCSI interface connector or sound card SCSI connector, using a standard 50-pin, flat ribbon SCSI cable.
6. Connect the power cable to the drive and the optional audio cable from the sound card to the drive.
7. Configure your CD ROM drive to an available SCSI ID setting. See Figure D.

Note: Be sure that Pin #1, indicated on the interface, power and audio cable connectors, matches with Pin #1 on all drive and card connectors. See Figure C.

Note: After you install the CD-532S, be sure to run the software installation provided by the SCSI host adapter or sound card manufacturer.

Rear View of the CD-532S

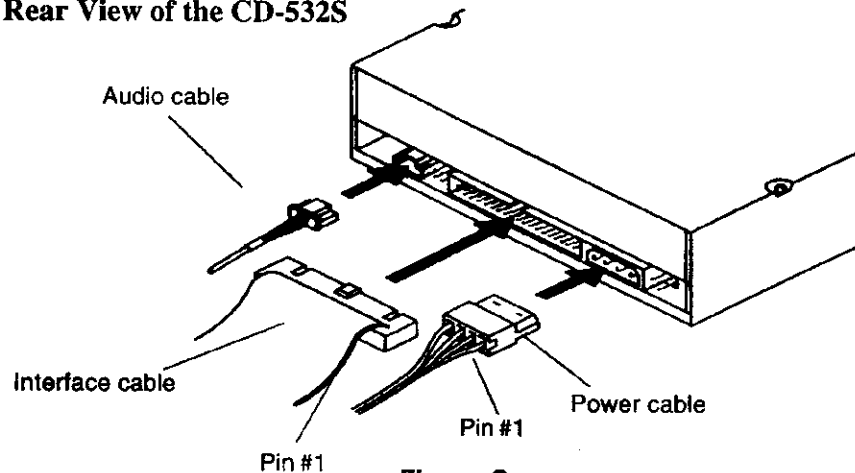


Figure C

Strap Jumper Settings

Default Setting: S0, S1, and bottom of S5 & S6 are ON (BLOCKED).

1. S0, S1 and S2 jumpers are to determine SCSI ID settings.

Note: Default SCSI ID setting is 3.

SCSI ID	S0	S1	S2
0	OFF	OFF	OFF
1	ON	OFF	OFF
2	OFF	ON	OFF
3	ON	ON	OFF
4	OFF	OFF	ON
5	ON	OFF	ON
6	OFF	ON	ON
7	ON	ON	ON

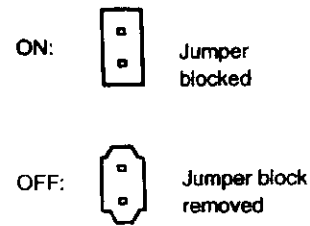


Figure D

Note: To avoid conflict, be sure to set the SCSI ID to a setting that is currently not being used by other SCSI devices in the system.

2. S3: Parity Check (Default is strap jumper OFF)

Strap jumper ON	The drive does NOT perform parity check
Strap jumper OFF	The drive performs parity check

3. S4: Logical Block size (Default is strap jumper OFF)

Strap jumper ON	The drive operates at 512 bytes per logical block
Strap jumper OFF	The drive operates at 2048 bytes per logical block

4. S5: Terminator (Default is strap jumper OFF)

Strap jumper ON	Terminator is activated
Strap jumper OFF	Terminator is NOT activated

5. S6: (Default is strap jumper OFF) This strap jumper is reserved for factory use only.

Note: Strap jumper S4 should always be OFF for normal usage.

Rear View of the CD-532S

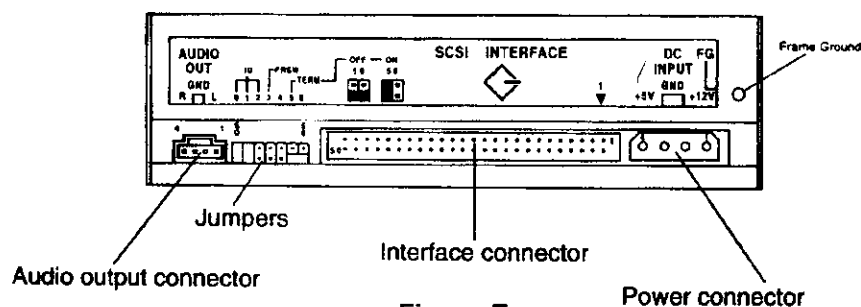


Figure E

Audio Output Connector (For stereo audio signal output)

When driving external speakers, connect this connector to the audio input connector on the sound card or interface card using the audio cable. Pin assignments are as follows:

Pin No.	Audio signal
1	L signal
2	L ground
3	R ground
4	R signal

CD-ROM Disc Handling

When removing a CD-ROM disc from its protective case or loading a disc to a drive, hold it by its center hole and outer edge. Avoid touching the disc's data surface (non-labeled side).

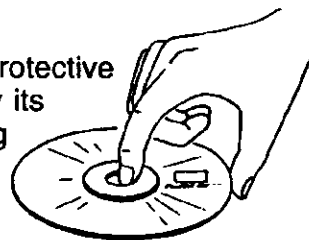


Figure F

To protect the disc against scratches and dirt when not in use, keep it in its protective case.

CD-ROM Disc Loading

- (1) Press the eject button on the CD-ROM drive to eject the disc tray.
- (2) Place the disc on the tray with its labeled side facing up.
- (3) Press the eject button or gently press the front of the disc tray to retract the tray back into the drive.

CD-ROM Disc Ejection

- (1) Press the eject button on the CD-ROM drive to eject the disc tray.
- (2) Remove the disc from the tray and put it in its protective case.
- (3) Press the eject button or gently press the front of the disc tray to retract the tray back into the drive.

TECHNICAL SUPPORT:

North America

TEAC America, Inc (USA)
Monday - Friday, except for holidays.
From 8:00am to 5:00pm PST

VOICE: (323)727-4860
FAX: (323)869-8751
E-mail Support: dspdtsg@teac.com
Home page: <http://www.teac.com/>

Europe

**TEAC Deutschland GmbH ICP
Division (Germany)**

VOICE: (611)71-580
FAX: (611)71-5892
BBS: (611)71-5851
Home page: <http://www.teac.de>

TEAC UK Ltd.

VOICE: 923-225235
FAX: 923-23690
Home page: <http://www.teac.co.uk/>

TEAC France, S.A.

VOICE: (1)42-37-01-02
FAX: (1)42-37-65-45

Japan, Asia, & Middle East

TEAC Corporation, 3-7-3 Nakacho,
Musashino-sji, Tokio 180-0006 Japan
Field Service & Technical Support
Data Storage Products Sales and
Marketing Division

VOICE: (0422)52-5048
FAX On Demand: (0422)55-2554
BBS: (0429)62-7498 (8N1, LHA
compressed)
Home page: <http://www.teac.co.jp>

TEAC Australia PTY LTD

VOICE: (03)9644-2442
FAX: (03)9646-9187
Home page: <http://www.teac.com.au>