CD-ROM Drive

Experience True 6X Performance

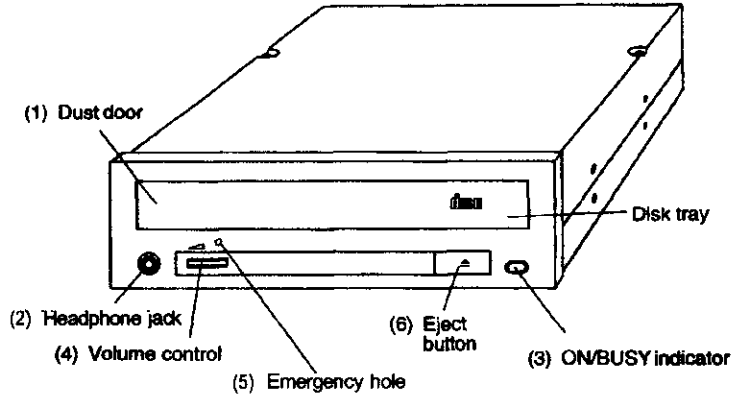*SCSI Interface*

Installation Guide — CD-56S

Figure A

TEAC 6X Speed CD-ROM Drive

(1) Dust Door: Opens and closes in interlocked movement with the disk tray during loading and unloading. **DO NOT OPEN OR CLOSE THE DUST DOOR DIRECTLY WITH YOUR FINGERS. DOING SO MAY CAUSE DAMAGE OR OPERATIONAL FAILURE.**

(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 Hole: When power is switched OFF and 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 disk. **Do this only when the ON/BUSY indicator is NOT lit.**

(6) Eject Button: Press this button to open or close the disk tray.

Introduction

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

Thank you for purchasing the TEAC 6X Speed CD-ROM drive. Please refer to the Recommended System Configuration section below for use in IBM® PC/AT@' compatible computers.

The TEAC 6X Speed CD-ROM Drive can read certain data 6 times faster than the conventional speed CD-ROMs and transfer data at 900KB/sec. It also plays 4X, 2X and 1X titles at their respective speeds. It is easy to operate, dust proof, and has a convenient power tray for disk 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 Configuration:

- **486 DX2** or higher-model IBM PC or equivalent,
  with ISA connector, or 100%-compatible.
- 850KB hard disk drive capacity for software installation.
- DOS version 6.0 or higher.
- Windows version 3.1 or higher, Windows 95 or Windows NT.
- Compatible SCSI adapter card or compatible sound card with SCSI interface adapter.

Drive Installation Directions

The TEAC 6X 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 installations, make sure the eject button is located at the top of the unit.
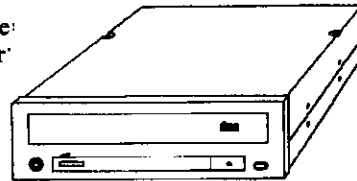
Figure B

1

Preparing your Personal Computer for the TEAC 6X Speed CD-ROM Drive Installation

> CAUTION: TURN OFF YOUR COMPUTER AND UNPLUG IT FROM THE AC POWER SOURCE BEFORE INSTALLING THE CD-56S. 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 cover from your computer. Refer to your computer system manual for this procedure.
4. Insert the CD-56S into an available drive bay. Secure the drive to your computer by inserting two 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.

    Note: Be sure that Pin #1, indicated on the inter&ace, power and audio cable connectors, matches with Pin #1 on all drive and card connectors. See Figure C.
7. Configure your CD-ROM drive to an available SCSI ID setting. See Figure D.

    Note: After you install the CD-56S, be sure to run the software installation provided by the SCSI host adapter or sound card manufacturer.
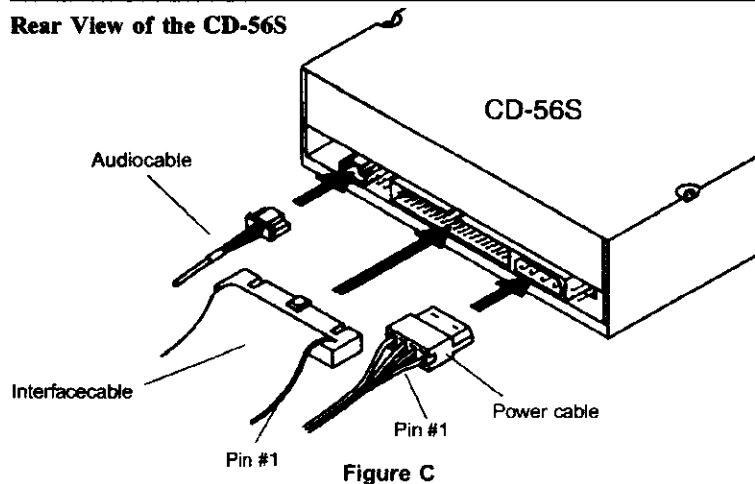

Rear View of the CD-56S

Figure C

2

Strap Jumper Settings

Default Setting: SO, S1, S4 and S5 are ON (BLOCKED)

1. SO, S 1 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

ON: Jumper blocked

OFF: Jumper block removed

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: Terminator (Default is strap jumper ON)

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

4. S5: Eject (Default is strap jumper ON)

Strap jumper ON	Tray eject will be enabled
Strap jumper OFF	Tray eject will be disabled

5. S6: Phase Change Wait (Default is strap jumper OFF)

   When the SCSI bus phase is changed, the drive changes the control signal (MSG,C/D I/O) with a minimum:

Strap jumper ON	$25\mu s$ from the leading edge of last ACK signal
Strap jumper OFF	$\emptyset\mu s$ from the leading edge of last ACK signal

6. *S7:* 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

Note: The number of bytes per sector can be changed by issuing Mode Select Command
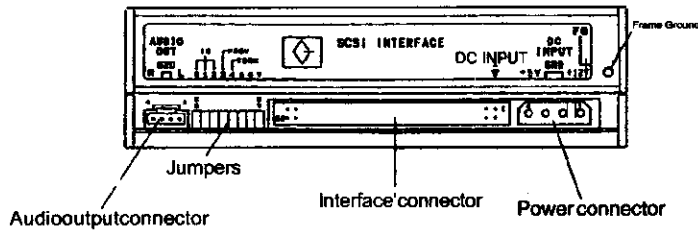
3

Rear View of the CD-56S

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 using the audio cable. Pin assignments are as follows:

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

CD-ROM Disk Handling

When removing a CD-ROM disk from its protective case or loading a disk to a drive, hold it by its center hole and outer edge. NEVER touch the disk's data surface (non-labeled side).
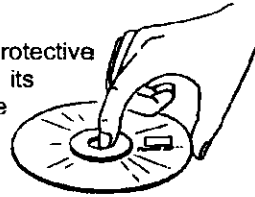
Figure F

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

CD-ROM Disk Loading

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

CD-ROM Disk Ejection

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

4

CD-56S Specifications

1. Disk

CD-ROM Formats Supported	Audio CD; CD-ROM (Mode- 1, Mode-2); XA ready; CDI (Mode2/Form1, Form2); Multi-Session Photo CD; Video CD
Disk Diameter	12cm or 8cm
Rotational Speed	Inner tracks: 3 180 rpm Outer tracks: 1200 rpm

2. Drive Performance

Data Transfer Rate	Sustained: 900KB/sec Burst: 10MB/sec
Seek Time	110msec
Access Time	140msec (1/3 Stroke) typical
Data Buffer Cauacitv	256KB
Optical Pickuo	Semiconductor laser
Slide Mechanism	Gear motor
Spindle Motor	Brushless motor
Error Rate	Mode-1: 1 block/10^{12} bits, Mode-2: 1 block/10^9 bits

3. Front Panel

Button	Auto eject or Auto inject
Indicator (LED)	POWER ON/BUSY
Headphone Output	Stereo mini-jack (3.5mm) 0.8 ± 0.3V; 32Ω

4. Rear Panel

Required Power	+5VDC, 0.3A, +12VDC, 0.6A (average)
Interface Connector	SCSI-2 SCAM-Level 1
Audio Output	Line out 1.0 ± 0.3V; 47Ω

5. Operating Environment

Place of Operation	Temperature 5" to 40°C, Humidity 20 to 80% (non-condensing)
Place of Storage	Temperature -30" to 55°C, Humidity 10 to 80% (non-condensing)

6. Dimensions/Weight

Dimensions(WHD)	5.75" X 1.6" X 7.56"
Weight	1.9 lbs. (900g)

7. Reliability

MTBF	50,000POH (Duty 10%)
Disk Tray Loaded	15,000 times

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