

SCOPE

This specification applies to the TEAC SD-340-04 3.5-Inch Rigid Disk Drive (hereinafter referred to as HDD).

OUTLINE

The outlined specifications of the HDD are listed in Table 1.

(Table 1) Outlined Specifications

Model name	SD-340-04	
TEAC Part No.	19307370-04	19307371-04
Safety standard	-	UL/CSA/TÜV
Formatted data capacity	43.01M Bytes	
Data transfer rate	Max. 2.0M Bytes/sec	
Track density	1,500tpi	
Required power	DC +5V, DC +12V	
Average seek time	23msec	
Disk rotational speed	2,358rpm	
Front bezel	Black, Part No. 16145890-00	
LED indicator color	Green	
Signal interface	In compliance with SCSI (ANSI X3.131-1986).	
Specification of parity strap at shipping	Execution of parity check (S3: shorted)	
Specification of SCSI ID at shipping	SCSI ID = 0 (S0, S1, S2: shorted)	
Terminator	Equipped	

CONSTRUCTION

External Construction

(1) Outside dimensions

- (a) Height : 25.4mm (1.00 in), Nom.
- (b) Width : 101.6mm (4.00 in), Nom.
- (c) Depth : 146mm (5.75 in), Max.

- (2) Weight : 520g (1.15 lbs), Nom.
540g (1.19 lbs), Max.

- (3) External view : Refer to Fig.1.

- (4) Cooling : Natural air cooling

Installation

- (1) Direction of installation: As mentioned below.

- (a) Such direction that the disk is placed horizontally.
- (b) Such direction that the disk is placed vertically.

However, the front bezel should be placed vertically in this direction.

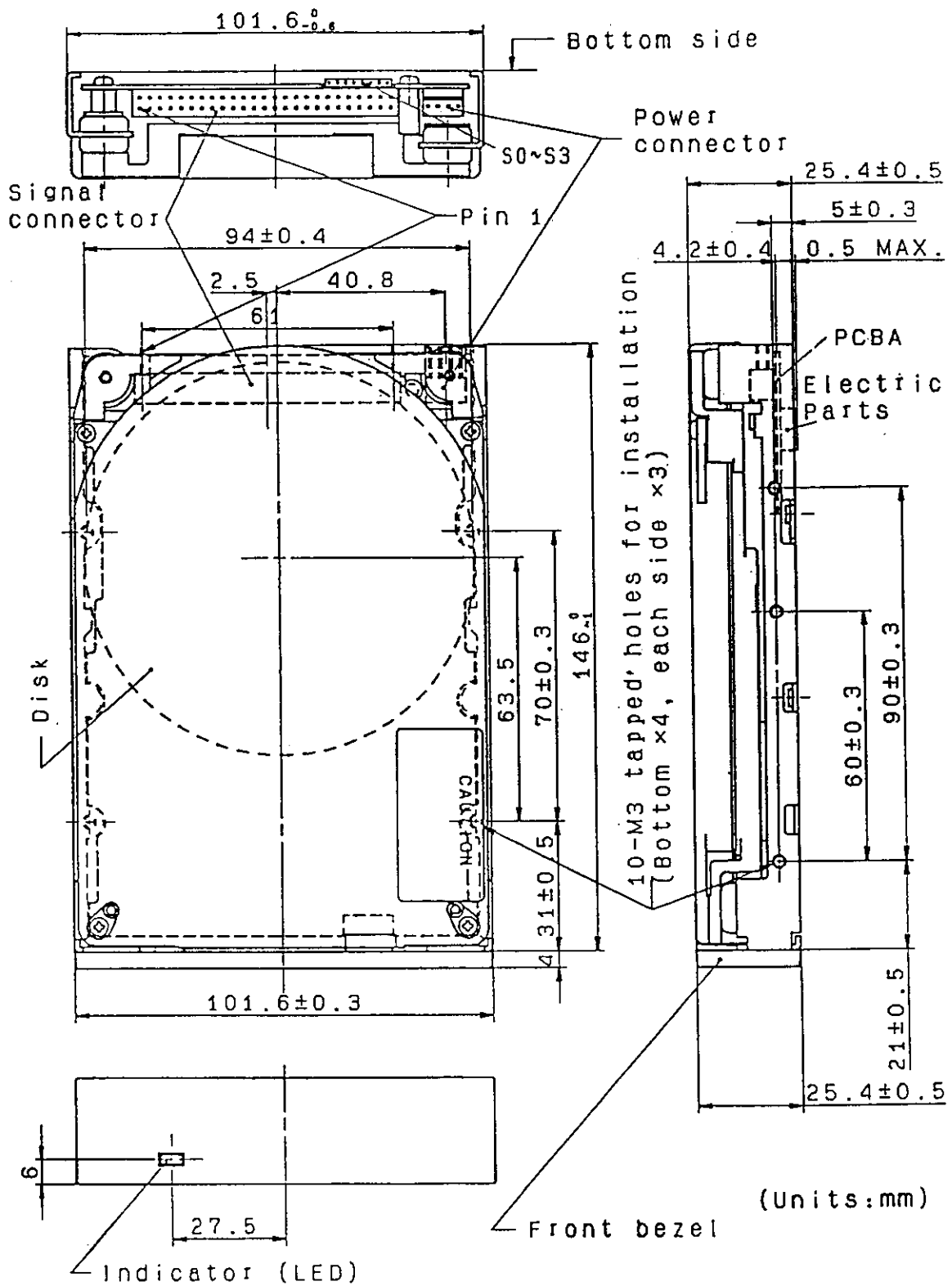
- (c) In each item of (a) and (b), the horizontality should be within 30 degrees of the direction perpendicular to the front bezel.

Note: Any direction of installation other than the above should be determined separately by arrangement.

- (2) Mounting method: The HDD is fixed with screws through the mounting holes at the sides and bottom (refer to Fig.1).

- (3) Cautions in installation

- (a) If large shocks are given to the chassis of the HDD, the HDA and



External View

FUNCTIONAL SPECIFICATIONS

Data Capacity

(1) Formatted data capacity

- (a) Per drive : 43.01M Bytes
- (b) Per track : 20.48K Bytes
- (c) Per logical block : 512 Bytes. However, 256 Bytes or 1,024 Bytes can be specified by the MODE SELECT command.
- (d) Per physical block : 512 Bytes (fixed)

(2) Number of logical data blocks

- (a) Per drive : 84,000 (512 Bytes/block)
168,000 (256 Bytes/block)
42,000 (1,024 Bytes/block)
- (b) Per track : 40 (512 Bytes/block)
80 (256 Bytes/block)
20 (1,024 Bytes/block)

(3) Number of physical sectors

- (a) Per track : 41 (fixed)

(4) Recording/Reading system

- (a) Recording method : 2-7 RLL code
- (b) Bit density (innermost track)
: 32,155bpi

ENVIRONMENTAL CONDITIONS

(1) Ambient temperature

- (a) Operating : 5 ~ 50°C (41 ~ 122°F)
- (b) Nonoperating : -40 ~ 60°C (-40 ~ 140°F)

(2) Temperature gradient

- (a) Operating : 20°C (36°F) /hour or less (non-condensing)
- (b) Nonoperating : 30°C (54°F) /hour or less (non-condensing)

(3) Relative humidity

- (a) Operating : 8 ~ 80% (non-condensing)
Maximum wet-bulb temperature shall be 29°C (84.2°F)
- (b) Nonoperating : 8 ~ 80% (non-condensing)
Maximum wet-bulb temperature shall be 29°C (84.2°F)

(4) Altitude

- (a) Operating : -300 ~ 3,000m (-1,000 ~ 10,000 ft)
- (b) Nonoperating : -300 ~ 12,000m (-1,000 ~ 40,000 ft)

(5) Vibration

- (a) Operating : 1G or less (5 ~ 500Hz, Sweep time: 1 OCT/min)
- (b) Nonoperating : 2G or less (5 ~ 500Hz, Sweep time: 1 OCT/min)

(6) Shocks

- (a) Operating : 5G or less (Half sine pulse, 11msec duration)
- (b) Nonoperating : 70G or less (Half sine pulse, 11msec duration)

(7) Transport condition

: The general rules of performance testing for packaged freights level II in JIS-Z0200 is satisfied when the specified packing case is used.

(8) Acoustic noise : 45dBA Max. (distance: 0.5m)

RELIABILITY

- (1) MTBF : 30,000 POH or more (for typical usage)
- (2) MTTR : 10 minutes, Nom.
- (3) Preventive maintenance : Not required
- (4) Components life : 5 years
- (5) Error rate
Unrecoverable read error (In the event of error, retry is performed
to 16 times automatically.)
: Once per 10^{12} bits or less
- (6) CSS durability : 100,000 times or more
- (7) Safety standards (applied to the model P/N 19307371-XX only)
 - : UL approved (standard UL478)
 - CSA approved (standard C22.2 No.220)
 - TÜV approved (standard VDE0806/IEC380)
 - International CSA approved (standard IEC380/
IEC435)

How to set the SCSI ID for SD340 SCSI I/F

The SCSI ID shall be set with the individual straps of S0, S1 and S2 on the PCBA.

The following table shows the relations between SCSI ID and S0, S1 and S2 states.

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

Note: The strap states are as follows:

1: Strap open

0: Strap short