YD-702D-6639D

Product Specifications

3.5 FLOPPY DISK DRIVE
25.4 mm HEIGHT
2.0/1.6/1.0 MB   3 MODE TYPE

Y-E DATA

Revisions

Month/ Year	Revision	Reason for Revision	Revised Pages
Oct, 2002	Rev. A	1st edition	

This product specification describes the YD-702D series double-sided, 3.5 floppy disk drive for portable applications.

(1) In this manual, the term "drive" refers to the YD-702D series double-sided, 3.5 floppy disk drive.   The term "disk" refers to the 3.5 floppy disk.

*This specification may be revised without prior notice.
   Make sure to check the revision number when placing an order.
*Unauthorized duplication of this document is prohibited.

For the usage of this product for High Safety use
   This product is assumed for general uses, such as an object for general office work, personal and home use, and is not designed or manufactured supposing for High safety use. Make sure not to use this product without taking measures to ensure the safety required for the high safety use.

   High Safety Use means the use that requires extremely high security (see examples), and that accompanies a serious danger for the life and body directly, if security cannot be ensured.
   *Nuclear control, airplane flight control, air traffic control, mass transportation operation control, life support, weapon launch control, etc.

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Chapter 1. Introduction

The YD-702D-6639D series has been designed for 3.5 (90mm) floppy disk.

1. Full Read/ Write Compatibility

The YD-702D series provides total read/ write compatibility in both ISO standard 2.0MB (high density 2HD) and 1.0MB(double density 2DD) modes of operation.

2. Supports Three Capacity Modes

The YD-702D series provides for three capacity modes (2.0/1.6/1.0MB) to meet the requirements of worldwide standards. The drive provides full read/write compatibility across the 2.0/1.6/1.0MB standard capacities for the international market.

3. High Reliability

To guarantee high reliability, the YD-702D-6639D series employs a double-boxed structure so as to increase stiffness and decrease mounting strain caused by improper installation in a host system.
A lead screw stepping motor actuator and new excitation control sequence insure highly accurate heads positioning. In addition, a brushless direct drive motor is used for accuracy and stability in rotational speed.

4. Operation in a Variety of Environments

By equipping the YD-702D series drive with a lead screw head actuator, we have been able to greatly improve resistance to shock and vibration, thereby protecting the magnetic heads and media from the effects of adverse environmental conditions.

5. A Drive for Any Need

The YD-702D-6639D provides some shorting plug options to meet a variety of applications.

Chapter 2. Product Specifications

2.1 Performance

Item	2.0MB Mode	1.6MB Mode	1.0MB Mode
Capacity			
● Unformatted	2.0Mbytes	1.6Mbytes	1.0Mbytes
● Formatted			
1)Sectors/Track		26: 1025.0kBytes	16: 655.4kBytes
2)Sectors/Track	18: 1474.6kBytes	15: 1182.7kBytes	9: 737.3kBytes
3)Sectors/Track		8: 1261.6kBytes	5: 819.2kBytes
Recording Density	17434 BPI	14184 BPI	8717 BPI
Track Density	135 TPI	135 TPI	135 TPI
Cylinders	80 Cylinders	77 Cylinders	80 Cylinders
Tracks	160 Tracks	154 Tracks	160 Tracks
Encoding Method	MFM	MFM	MFM
Rotational Speed	300 RPM	360 RPM	300 RPM
Transfer Rate	500 kbps	500 kbps	250 kbps
Latency(Average)	100 ms	83 ms	100 ms
Access Time			
● Average	94 ms	91 ms	94 ms
● Track to Track	3 ms	3 ms	3 ms
● Settling Time	15 ms	15 ms	15 ms
● Turn Around Time	4 ms	4 ms	4 ms
Motor Start Time	0.5sec	0.5 ms	0.5sec

Table 2.1 Performance

2.2 Physical Specifications

DC Power Requirements	Refer to Table 3.8
Power Consumption	1.25W TYP
Environment	
● Operating	
Temperature	5°C to 50°C
Relative Humidity	20% to 80%
Maximum Wet Bulb	29°C
Vibration	$9.8m/s^2${1G}(10-200Hz)
	$4.9m/s^2${0.5G}(200-500Hz)
Shock	$49m/s^2${5G}
	(11ms half-sine wave)
● Non operating	
Temperature	-20°C to 60°C
Relative Humidity	No condensation
Vibration	$19.6m/s^2${2G}(10-500Hz)
Shock	$686m/s^2${70G}
	(11ms half-sine wave)
Acoustic noise	45dB(A)MAX(500mm)
	3ms or 6ms seek operation
Mechanical Dimensions	
Width	101.6mm
Height	25.4mm
Depth	149mm
Weight	390g(TYP)
Safety Approvals	UL, CSA, TÜV, CE
Mounting Recommendations	See figure 5.2

Table 2.2 Physical Specifications

2.3 Reliability and Maintenance

MTBF	30,000POH
PM*	None
MTTR	30 minutes
Component Life	5years or 20,000POH
Error Rates	
● Soft Errors	1 per 10^9 bits read
● Hard Errors	1 per 10^{12} bits read
● Seek Errors	1 per 10^6 seek operations

Table 2.3 Reliability

* Preventive maintenance

Note: Non-operating shock and vibration values are the same as above with or without disk in the drive.

The interface consists of two parts: Signal and Power.
Refer to figure 3.6 for all interface connections.

3.1 Interface Signals

3.1.1 Input signals

The YD-702D has input lines as shown below.
All lines are active (true) when "Low"

(1)	DRIVE SELECT 0 and 1
(2)	MOTOR ON
(3)	DIRECTION SELECT
(4)	STEP
(5)	WRITE DATA
(6)	WRITE GATE
(7)	SIDE ONE SELECT
(8)	MODE SELECT

Table 3.1 Input Signals

3.1.1.1 DRIVE SELECT 0 and 1

Two drives can be daisy chained by setting the shorting plugs on the PWB. By setting "DRIVE SELECT 0" to "Low" level, the user can select the drive set at DS0. The other drive in the chain can be selected in the same way. When "DRIVE SELECT" is "Low", the in use lamp will light and all input/ output signals except "MOTOR ON" will become valid.

If you wish to connect drives to IBM PC/AT or compatible system, please refer to "3.1.3.1 Daisy Chain Connection".

3.1.1.2 MOTOR ON

When "MOTOR ON" is "Low" and a disk is inserted into the drive, the spindle motor will start.   The spindle motor operates regardless of "DRIVE SELECT".   However if the disk is removed, the spindle motor will immediately stop.
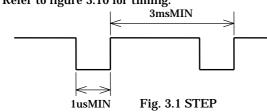
3.1.1.3 DIRECTION SELECT

This line determines the direction of read/ write heads movement when the "STEP" line is pulsed.

"HIGH" level	Out(away from the center of the disk)
"LOW" level	In(toward the center of the disk)

Table.3.2. DIRECTION SELECT

Any change on this line must be done at least 1 usec. before the leading edge of the step pulse, and at least 1 usec. after the trailing edge of the step pulse.
Refer to figure 3.9 for timing.
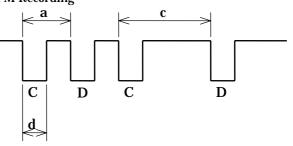
3.1.1.4 STEP

This signal moves the read/ write heads in the direction defined by the "DIRECTION SELECT" signal.
The access motion is initiated on each "Low" to "High" level transition, in other words, with the trailing edge of the signal pulse.   In a seek operation, an 18 ms delay following the last "STEP" pulse is required for settling time before any read/ write operation can be initiated. After completing seek operation, minimum 4 ms delay is required before initiating the next seek operation.
Please do not change the interval of step pulse during seek operation.   It will be cause of seek error.
Refer to figure 3.10 for timing.

3msMIN

1usMIN   Fig. 3.1 STEP

3.1.1.5 WRITE DATA

The "WRITE DATA" line provides the data to be written on the disk.   Each transition from "High" to "Low" on the line causes the current through the read/ write heads to be reversed, thereby writing a data bit.   This line is enabled when the "WRITE GATE" line is "Low" active. Refer to figures 3.2 and 3.12 for the timing information.
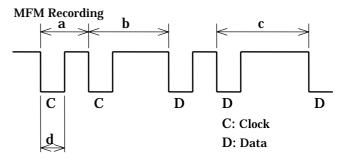
FM Recording

MFM Recording

C: Clock
D: Data

Fig.3.2 WRITE DATA

Notes:
1.

	2.0 / 1.6 MB	1.0MB
a	2.00us±10ns	4.00us±20ns
b	3.00us±15ns	6.00us±30ns
c	4.00us±20ns	8.00us±40ns
d	150-1100ns	150-2100ns

2. All timings indicate the values without write pre-compensation.
3. The write precompensation value in 2.0MB is 125 ns on all tracks, and in other capacities as below:

Capacity	2.0MB	1.6MB	1.0MB
WPC value	125 ns	0-125 ns	0-250 ns

4. The recommended condition during read operation is to not input "WRITE DATA".

3.1.1.6 WRITE GATE

A "Low" active level on this line allows "WRITE DATA" to be written on the disk.   A "High" inactive level enables read data logic and stepping logic.   Refer to figure 3.12 for the timing information.   Activation of "DRIVE SELECT" and "MOTOR ON", changing "SIDE ONE SELECT" and/ or activation of "STEP" must be delayed at least the values indicated (see the following READ RECOVERY TIME table 3.3) following deactivation of "WRITE GATE" because the erase heads remain active during this period.

Capacity	2.0MB	1.6MB	1.0MB
RRT MIN	650 us	590us	1000 us

Table 3.3 Read Recovery Time

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3.1.1.7 SIDE ONE SELECT

This line defines which side of a two sided disk will be used for reading or writing. A "High" level on this line selects the read/ write head on side 0 surface on the disk. A "Low" level on this line selects the read/ write head on the side 1 surface. When switching heads, a 100 usec. delay is required before any read or write operation can be initiated.

3.1.1.8 MODE SELECT

The YD-702D series has an internal circuit that performs the switching of the drive's three (2.0/1.6/1.0MB) capacity modes on using various ways, depending on the individual model purchased. The switching is carried out as described in table 3.4 according to the setting of the shorting plug on the drive's PWB. YD-702D-6639D drive are shipped with shorting plugs in the standard setting. Please refer to below and table 6.1 .

Short Plug Setting	Capacity Mode	Switching Method	Specifications
IF-OPEN T2-OPEN	2 Mode (2.0/1.0MB)	Automatic Switching	Automatic switching is performed according to the media type in the drive. The drive is in 2.0MB mode with high density media (2HD) and in 1.0MB mode with double density media (2DD).
IF-SHORT T2-OPEN	3 Mode (2.0/1.6/1.0MB)	Automatic Switching with Interface Signal	The drive is in 1.0MB mode with double density media and independent of the "MODE SELECT" signal (J1-2). If high density media is inserted with the "MODE SELECT" signal is "LOW" when the drive is in 1.6MB mode. If high density media is inserted with the "MODE SELECT" signal is "HIGH" when the drive is in 2.0MB mode.
IF-SHORT T2-SHORT	3 Mode (2.0/1.6/1.0MB)	Automatic Switching with Interface Signal	The drive is in 1.0MB mode with double density media and independent of the "MODE SELECT" signal (J1-2). If high density media is inserted with the "MODE SELECT" signal is "HIGH" when the drive is in 1.6MB mode. If high density media is inserted with the "MODE SELECT" signal is "LOW" when the drive is in 2.0MB mode.
IF-OPEN T2-SHORT	2 Mode (1.6/1.0MB)	Automatic Switching	Automatic switching is performed according to the media type in the drive. The drive is in 1.6MB mode with high density media (2HD) and in 1.0MB mode with double density media (2DD).

Table 3.4 MODE SELECT

Notes: (1)To switch capacity mode is effected by a signal level on the "MODE SELECT" signal.
(2)It is necessary to wait 0.5 sec. before executing a read/write operation after motor revolutional speed is switched for capacity mode change. "READ DATA", "INDEX", signals are inhibited to output during this term.
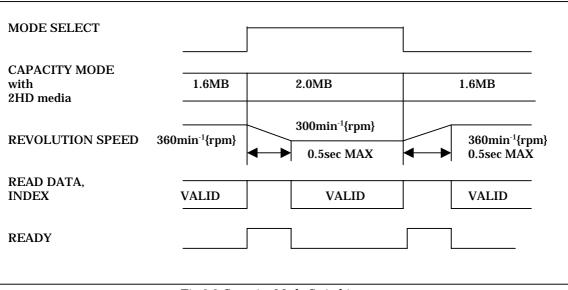

Fig.3.3 Capacity Mode Switching

3.1.2 Output signals

Output signals are shown below. All lines are active when the "DRIVE SELECT" signal is "Low".

```
(1)TRACK 00
(2)INDEX
(3)WRITE PROTECT
(4)READ DATA
(5)DISK CHANGE
(6) READY
(7) HIGH DENSITY
```

Table 3.5 Output Signals

3.1.2.1 TRACK 00

A "Low" active level on this line indicates that the read/ write heads are positioned at track 00(the outermost track).   The line goes "High" inactive when the heads are positioned elsewhere. Refer to Fig.3.9 for the timing information.

3.1.2.2 INDEX

One index pulse is output at each revolution of the disk when the drive is ready to read/ write.   Normally this signal is at "High" level, and makes the transition to "Low" level when a pulse is generated.   This signal is inhibited to output during seek and not ready.   The controller should detect "INDEX" with the leading edge
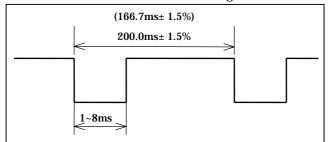of the transition rather than with the signal level.

Fig.3.4 INDEX

3.1.2.3 WRITE PROTECT

A "Low" active level on this line indicates that a disk with a write protect notch is loaded.   During normal operation the drive will prevent writing when a protected disk has been inserted.
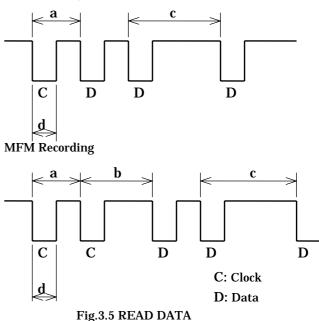
3.1.2.4 READ DATA

This line provides the "READ DATA"(clock and data together) as detected by the drive electronics. Normally this signal is "High" level and becomes "Low" level for each flux reversal.
The transition from "High" to "Low" level should be used for separation of data bits from read data.
This signal is inhibited to output during seek and not ready.
The different value between the leading edge of each bit pulse and its nominal position is below note 2.
Timing characteristics are shown in figure 3.11.

FM Recording

MFM Recording

C: Clock

D: Data

Fig.3.5 READ DATA

Notes:
1.

	2.0/1.6MB	1.0MB
a	2.00us NOM	4.00us NOM.
b	3.00us NOM.	6.00us NOM.
c	4.00us NOM.	8.00us NOM.
d	150-1100ns	150-2100ns

2.

Capacity	2.0/1.6MB	1.0MB
Difference	±350ns	±700ns

3.1.2.5 DISK CHANGE

The "DISK CHANGE" signal indicates that the disk has been removed.   This signal becomes "Low" after power has been applied to the drive and the disk has been removed.   This signal remains active until the following conditions have satisfied:
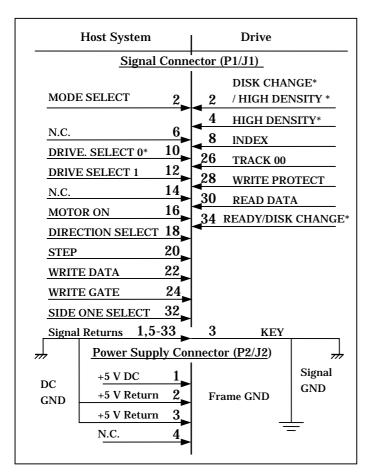 (1) A disk is correctly inserted.
 (2) A drive has been selected and a step pulse has been applied.

3.1.2.6 READY

This signal remains "Low" for a maximum 0.5 sec after the media is inserted and "MOTOR ON" signal is activate.

3.1.2.7 HIGH DENSITY

This signal indicates an inserted media type. This signal becomes "HIGH" when 2DD media is inserted, and "LOW" when 2HD media is inserted or no media.

Host System | **Drive**

Signal Connector (P1/J1)

MODE SELECT	2	2	DISK CHANGE* / HIGH DENSITY *
		4	HIGH DENSITY*
N.C.	6	8	INDEX
DRIVE. SELECT 0*	10	26	TRACK 00
DRIVE SELECT 1	12	28	WRITE PROTECT
N.C.	14	30	READ DATA
MOTOR ON	16	34	READY/DISK CHANGE*
DIRECTION SELECT	18		
STEP	20		
WRITE DATA	22		
WRITE GATE	24		
SIDE ONE SELECT	32		
Signal Returns	1,5-33	3	KEY

Power Supply Connector (P2/J2)

+5 V DC	1	
DC GND	+5 V Return	2	Frame GND
+5 V Return	3	
N.C.	4	

Signal GND

Notes:
(1) Main frame and connector fittings have been shorted. Refer to "4.1.3 Frame Ground" for details.
(2) Marking "*" on the signal name indicates an optional signal.
Please refer to "6.4 Shorting Plug Functions".

Fig.3.6 Interface Connection

3.1.3 Interface Circuits

The YD-702D series uses open collector drivers as output line drivers, and TTL level gates as input line receivers. The input of each receiver is terminated in 1 k ohms pulled up to Vcc (+5V). Input/ output circuit electrical specifications are as shown below.

Inactive	"High" Level	2.0 V to Vcc
Active	"Low" Level	0 to 0.8 V
Input Impedance		1 k ohms pulled up to Vcc

Table 3.6 Input Circuit Electrical Specifications

Inactive	"High" Level	Open
Active	"Low" Level	0 to 0.4V Sink current: 40mA MAX

Table 3.7 Output Circuit Electrical Specifications

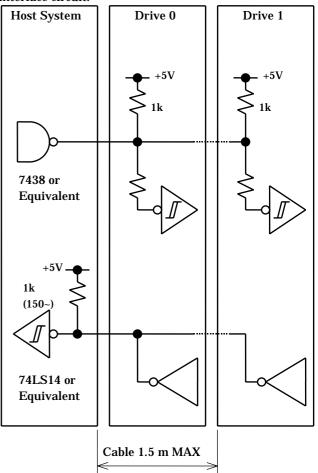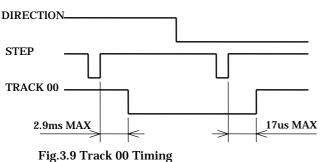The illustration below shows the recommended controller interface circuit.

Fig.3.7 Interface Circuit

3.1.3.1 Daisy Chain Connection

When using two drives connected in a daisy chain, it is inadvisable to leave any of them unpowered.
Each drive should receive power from the host system.

3.1.3.2 Host System Terminal Resistor

Because the line driver of the drive is an open collector output, please use a terminal resistor on the host system side.

3.1.4 Timing
3.1.4.1 Track 00 Timing

DIRECTION

STEP

TRACK 00

2.9ms MAX   17us MAX

Fig.3.9 Track 00 Timing

3.1.4.2 Seek Timing

In order to reduce the peak current, we recommended that no seek operation be performed for 0.2 seconds after motor start. Figure 3.10 shows the preferred timing.
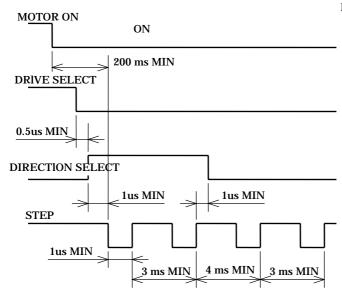
MOTOR ON   ON

200 ms MIN

DRIVE SELECT

0.5us MIN

DIRECTION SELECT

1us MIN   1us MIN

STEP

1us MIN

3 ms MIN   4 ms MIN   3 ms MIN

Fig.3.10 Seek Timing

3.1.4.3 Read Timing

MOTOR ON   ON

500 ms MAX

DRIVE SELECT

SIDE ONE SELECT

100us MAX   100us MAX

STEP

18 ms MAX   Xus MAX

WRITE GATE

READ DATA (VALID)

VALID   VALID

Note:

Capacity	2.0MB	1.6MB	1.0MB
X us MIN	650 us	590 us	1000 us

Fig.3.11 Read Timing

3.1.4.4 Write Timing

MOTOR ON   ON

500 ms MIN

DRIVE SELECT

SIDE ONE SELECT   Xus MIN

100us MIN   Xus MIN

STEP

18 ms MIN   Xus MIN

WRITE GATE

WRITE DATA

Yus MAX   Yus MAX

Note:

Capacity	2.0MB	1.6MB	1.0MB
X us MIN	650 us	590 us	1000 us
Y us MAX	4 us	4 us	8 us

Fig.3.12 Write Timing

3.2 Power Interface

3.2.1 Power Supply Specifications

Voltage		Operating Mode	TYP(mA)	MAX(mA)
+5VDC ±10% (Ripple: 100 mVp-p MAX)		Standby	3	5
		Read	250	350
		Write	250	350
		Seek	400	550
	Peak	Motor Start	700	850
		Seek	600	800

Table 3.8 Power Supply Specifications

Notes:
(1) "MAX" values reflect measurement taken at maximum voltage; "TYP" values reflect measurement taken at nominal voltage.
(2) "Standby" refers to the state where all input signals are inactive.
(3) "Read" and "Write" refer to the state where the heads are at track 40, side 1 and the In Use Lamp is on.
(4) "Seek" refers to the average current with the drive continuously seeking at 3 ms and the spindle motor rotating.
(5) When the spindle motor starts, "Motor Start" current will continue for approximately 200 ms.
(6) Peak current of "Seek" refers to the state of maximum seek current when the spindle motor is rotating and the heads are stepping at 6 ms.
The above specifications must be met when voltages are measured at power connector on PWB.
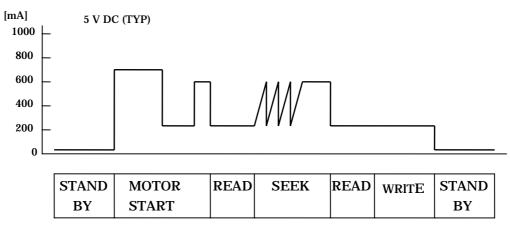
3.2.2 Current Waveform

Fig.3.13 Current Waveform

The connection with the host system is made with two connectors, signal connector P1/J1 and power connector P2/J2.

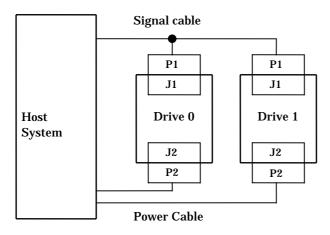Figure 4.1 shows the cable connections.
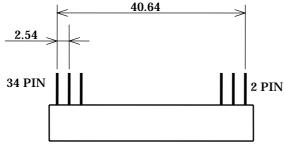

Fig.4.1 Cable Connections

4.1 Connector and Cable

4.1.1 Signal Connector and cable(J1/P1)

4.1.1.1 Connector (J1)

The J1 connector is a 34 pin male connector (JAE:PS-34PE-D4LT1-P1 or equivalent) located at the rear of the drive.

The row of pins closest to the PWB is the odd numbered pins.

Refer to figure 4.2 for the J1 connector dimensions.

Unit: mm

Fig.4.2 J1 Connector Dimensions

4.1.1.2 Flat Cable Connector(P1)

P1 is a mating connector which connects J1 and the flat
cable of the host system.

Recommended connector:
JAE PS-34SEN-D4P1-1C(Closed End)
JAE PS-34SEN-D4P1-1D(Daisy Chain)
Cable: 3M 3365-34(1.5 m MAX)

4.1.2 DC Power Connector and Cable(J2/P2)

The J2 connector is a four pin male connector(AMP: 171826-4 or equivalent) located at the rear of the drive.

Recommended components:
Receptacle(4 pin): AMP 171822-4
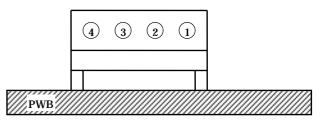Contact: AMP 170204-2
Cable: AWG20

Fig.4.3 J2 Connector Position

4.1.3 Frame Ground

The internal circuit ground on the PWB has been connected with the frame for shielding purposes. The frame ground of the system will be connected to the signal ground through the drive when the drive is installed into the system.

4.2 Connector Pin Assignments

4.2.1. Signal Connector Pin Assignments

Return Pin #	Signal Pin #	Signal name
1	2	MODE SELECT / DISK CHANGE* / HIGH DENSITY*
(3)	4	HIGH DENSITY*
5	6	N.C.
7	8	INDEX
9	10	DRIVE SELECT 0
11	12	DRIVE SELECT 1 *
13	14	N.C.
15	16	MOTOR ON
17	18	DIRECTION SELECT
19	20	STEP
21	22	WRITE DATA
23	24	WRITE GATE
25	26	TRACK 00
27	28	WRITE PROTECT
29	30	READ DATA
31	32	SIDE ONE SELECT
33	34	READY / DISK CHANGE*

Table 4.1 Signal Connector Pins

Note: (3) is used as a key pin.
Marking "*" on the signal name indicates an optional signal.
Refer to "6.4 Shorting Plug Functions" for details.

4.2.2 DC Power Connector Pin Assignments

Pin #	Name
1	+5V DC
2	+5V RETURN
3	+5V RETURN
4	NO CONNECTION

Table 4.2 Power Supply Connector Pins

4.3 Terminators

All input lines on the drive are terminated with non-removable resistors of 1k ohms. Terminator resistance values are changed with the number of connected drives, with one drive: 1 k ohms, and two drives: 500 ohms.

The color for front is as allow:
Ivory (Munsell 6Y8.5/ 0.5 equivalent)

In use lamp (LED) color is green.

<u>YD-702D DIMENSIONS</u>
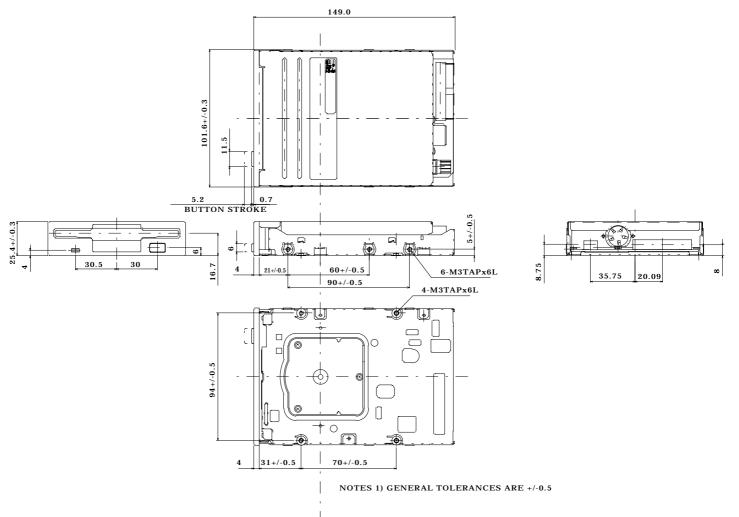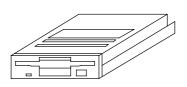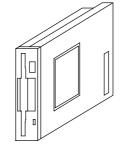

NOTES 1) GENERAL TOLERANCES ARE +/-0.5

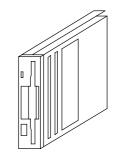**Fig. 5.1 Mechanical Dimensions**

Fig. 5.2 Recommended Mounting

5.1 Caution on Mounting

1) Mounting screws should be tightened by 0.5 ~ 0.6Nm{5 ~ 6 kgf•cm} in torque.
2) Mounting bracket is recommended not to make contact with the drive except the mounting spots, and should not be designed that any portion on the drive except the mounting spots is pressed and/ or crushed.
3) Recommended to fasten the drive at 3 mounting spots with screws (4 spots available).
4) Mounting bracket should be provided structure to absorb strain.
5) The drive should be separated or shielded from noise sources.

Do not strain the drive. Do not install the drive in large electromagnetic fields.
Otherwise, failure may result.

5.2 Caution on handling

1) Strong vibration and shock can damage the drive. It may cause an error. Do not use or store the drive under such conditions.
2) We recommend handling the drive on side frame, portion of mounting spots, of the drive as well as possible. If you handle like pressing the top or the bottom of the drive, it may cause damage of heads and PWB.
3) Do not disassemble the drive by yourself because of an adjusted product.   If you do so, we can not assure you of adjusted accuracy.

Chapter 6. Other Functional Characteristics

6.1 Standby Mode

The YD-702D includes standby mode to reduce the load on the host system power supply when the drive is not actually in use.   When the spindle motor stops, power to the read/ write and spindle motor control systems is cut off, and power to the stepper is cut off when the stepper is not seeking.
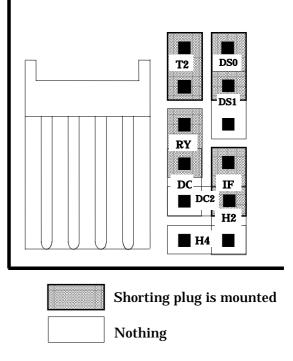
6.2 Mask Function

"READ DATA" and "INDEX" signals are inhibited to output during seek (includes 18 ms MAX after the last step pulse) and not ready (500 ms MAX after motor start).

6.3 Automatic Motor On/Off

When the disk is inserted or removed, the spindle motor is controlled as follows:

1) When the disk is inserted, the spindle motor will start to rotate regardless of the "MOTOR ON" signal condition. The spindle motor will stop approximately 400 ms later if the "MOTOR ON" signal is not active, but will continue to rotate if it is active.

2) When the disk is removed, the spindle motor will stop.

6.4 Shorting Plug Functions
6.4.1 Shorting Plugs Setting

YD-702D-6639D-021051

Shorting plug is mounted

Nothing

Pin Name	Function
IF	Selection of the way that capacity mode is switched. 	lF	T2	Function
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O	O	**2 Mode (2.0 / 1.0MB)**
		Automatic switching
		  2.0MB:If high density media is inserted.
		  1.0MB:If double density media is inserted.

S	O	**3 Mode (2.0 / 1.6 / 1.0MB)**
		Automatic switching with "MODE SELECT"
		  2.0MB:If high density media is inserted with "MODE SELECT" is "High".
		  1.6MB:If high density media is inserted with "MODE SELECT" is "Low".
		  1.0MB:If double density media is inserted with "MODE SELECT" is not available.

S	S	**3 Mode (2.0 / 1.6 / 1.0MB)**
		Automatic switching with "MODE SELECT"
		  2.0MB:If high density media is inserted with "MODE SELECT" is "Low".
		  1.6MB:If high density media is inserted with "MODE SELECT" is "High".
		  1.0MB:If double density media is inserted with "MODE SELECT" is not available.

O	S	**2 Mode (1.6 / 1.0MB)**
		Automatic switching
		  1.6MB:If high density media is inserted.
		  1.0MB:If double density media is inserted.
			
			Note: Logical level of "MODE SELECT" is valid for switching a capacity mode.

H2 H4	Selection of pin for "HIGH DENSlTY" output. 	H2	H4	Function
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S	O	J1-2 pin
O	S	J1-4 pin
O	O	Not output on interface	
DC DC2 RY	Selection of pin for "Ready and Disk change" output. | DC	DC2	RY	Function
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O	O	S	READY signal to J1-34pin
S	O	O	DISK CHANGE signal to J1-34pin
O	S	O	DISK CHANGE signal to J1-2pin
O	S	S	DISK CHANGE signal to J1-2pin READY signal to J1-34pin
O	O	O	Not output	
DS0,1	Selection of the drive.

Table 6.1　　Shorting Plug Functions

Note: Shorting plugs are IRISO IMSA-9215H-T or equivalent (2mm pitch).