

Figure 2 Signal interface connector external view

### 3. USER SELECTABLE STRAPS

The FDD is equipped with the following selectable straps on the main PCBA. Insertion of a short bar onto the post pin is defined as the on-state of the strap.

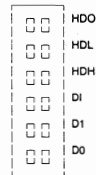


Figure 3

#### 3.1 D0 and D1 Straps

- In the multiplex control by daisy chain connection, these straps designate the address of the FDD.
- By the combination with the DRIVE SELECT 0 and 1 signals, two addresses can be designated. Refer to Fig. 3 and Item 8.3.1.

#### 3.2 HDH, HDL, DI and HDO Straps

- Table 3 shows the combination of the straps. Four designating methods are offered for selection.
  - Selection No.1**  
The FDD switches the density mode according to the HD IN input signal from the host controller. HIGH level corresponds to high density mode.
  - Selection No.2**  
The FDD switches the density mode according to the HD IN input signal from the host controller. LOW level corresponds to high density mode.
  - Selection No.3**  
The FDD switches the density mode automatically by detecting the existence of the HD hole of the inserted diskette.
  - Selection No.4**  
The host controller switches the density mode according to the HD OUT output signal from the FDD. HIGH level corresponds to high density mode.

| Selection Nos. | Strap Setting |     |    |     | Signal on pin No. 2 | Density mode designation |                             |
|----------------|---------------|-----|----|-----|---------------------|--------------------------|-----------------------------|
|                | HDH           | HDL | DI | HDO |                     | Host side                | FDD                         |
| 1              | ON            | -   | -  | -   | HD IN (HIGH:HD)     | Key-in or software       | HD IN signal from host side |
| 2              | -             | ON  | -  | -   | HD IN (LOW:HD)      | Key-in or software       | HD IN signal from host side |
| 3              | -             | -   | ON | -   | OPEN                | Key-in or software       | Automatic by HD hole sensor |
| 4              | -             | -   | ON | ON  | HD OUT (HIGH:HD)    | HD OUT signal from FDD   | Automatic by HD hole sensor |

Note :

- "-" mark indicates off-state of the strap.
- Never set any strap combinations other than the above.

Table 3 Function selection for interface pin No. 2

# ERGO MD-21 MICRO FLOPPY DISK DRIVE USER MANUAL REV 2.1

# 1. Power Interface Connector and Cable

## (1) Power interface connector

- (a) pin numbers : 4 pins
- (b) Connector external view : See Fig. 1.
- (c) Power interface connections : See Table 1.

## (2) Power interface cable

Any appropriate cables capable of taking the maximum power consumption of the FDD will be acceptable.

| Power voltage   | Pin numbers |
|-----------------|-------------|
| DC +5V          | 1           |
| 0V              | 2           |
| (0V)            | 3           |
| (No connection) | 4           |

Table 1 DC Power Connector pin-assignment

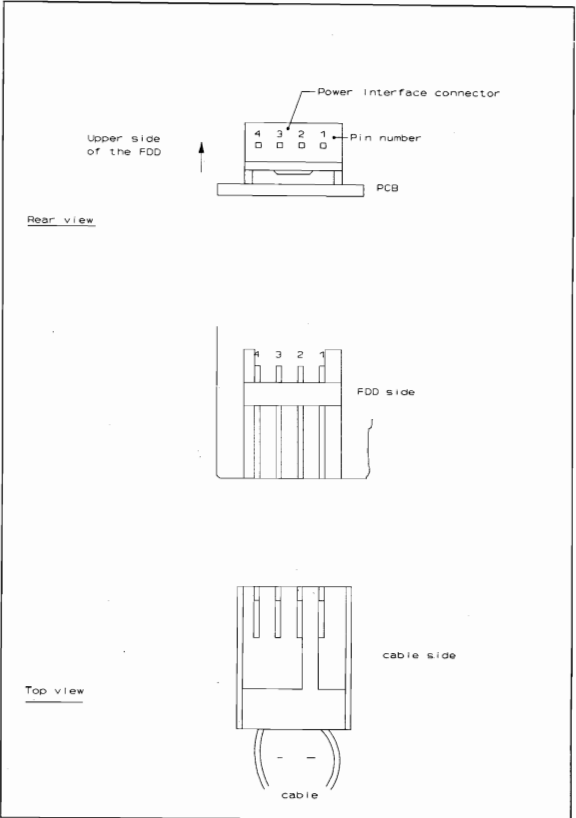


Figure 1 Power interface connector external view

## 2. Signal Interface Connector and Cable

- (1) Signal interface connector
  - (a) Pin numbers and pin pitch : 2.54 mm (0.1 in) pitch, 34 pins block header (17 pins double rows, even number pins are upper side of the FDD)
  - (b) Connector external view : See Fig.2.
  - (c) Interface connection : See Table 2.
- (2) Signal interface cable
  - Maximum cable length : 1m (3.3 feet), at 1KΩ terminator (For daisy chain connection, the cable length should be less than 1m).

| Pin Nos. | Signals | Pins nos. | Singals           | Directions |
|----------|---------|-----------|-------------------|------------|
| 1        | 0V      | 2         | HD IN/OPEN/HD OUT | IN/OUT     |
| 3        | 0V      | 4         | OPEN              | -          |
| 5        | 0V      | 6         | RESERVED          | INPUT      |
| 7        | 0V      | 8         | INDEX             | OUTPUT     |
| 9        | 0V      | 10        | DRIVE SELECT 0    | INPUT      |
| 11       | 0V      | 12        | DRIVE SELECT 1    | INPUT      |
| 13       | 0V      | 14        | RESERVED          | INPUT      |
| 15       | 0V      | 16        | MOTOR ON          | INPUT      |
| 17       | 0V      | 18        | DIRECTION SELECT  | INPUT      |
| 19       | 0V      | 20        | STEP              | INPUT      |
| 21       | 0V      | 22        | WRITE DATA        | INPUT      |
| 23       | 0V      | 24        | WRITE GATE        | INPUT      |
| 25       | 0V      | 26        | TRACK 00          | OUTPUT     |
| 27       | 0V      | 28        | WRITE PROTECT     | OUTPUT     |
| 29       | 0V      | 30        | READ DATA         | OUTPUT     |
| 31       | 0V      | 32        | SIDE ONE SELECT   | INPUT      |
| 33       | 0V      | 34        | DISK CHANGE       | OUTPUT     |

Note : Refer to item 11.2 as to the output signal selection of pin No. 2  
 Table 2 Signal interface pin-assignment