TEAC FD-55xxx - Jumper settings

DS0, DS1, DS2, DS3 These give the drive address in a daisy chain configuration; determine the logical address of the drive (A, B, C or D). By default DS1 is jumpered (if you use a twisted cable).

MX Enables / disables the use of D0..D3. When the jumper is ON, the drive is always selected regardless of the position of the jumpers D0 ... D3. This does not affect the motor and the LED. Use only when one FDD is connected to the system.

U0, U1 Used to select turn-on condition of front bezel light (see below).

U2 (55GFV-17U) is ON

HL The jumper HL together with the jumper IU determines which function will be performed by the line #4 of the interface connector:
- IU = ON: line #4 will function as IN USE
- HL = ON: line #4 will perform the function HEAD LOAD
- IU and HL = ON: Line #4 will simultaneously perform both functions IN USE and HEAD LOAD
- IU and HL = OFF: Line #4 will not perform any functions at all.

IU Jumper to make the signal interface line #4 be used for the IN-USE input signal. When strap is removed, the input circuit is open and the IN-USE signal ineffective.

#	Selection	Jumper combination			Indicator LED turn-on condition
1		-	-	-	Drive Select
2		IU	-	-	Drive Select + In-Use
3		IU	U0	-	In Use (see IU strap)
4		-	U0	U1	Drive Select * Ready
5		IU	U0	U1	In Use + (Drive select * Ready

(+) means OR condition (*) means AND condition (-) means off

- It is best to use selection #1 for an AT system.

ML Selects spindle action according to host command. When OFF, spindle rotates only by MOTOR ON input signal. When jumper is ON motor rotates when (a) MOTOR ON input signal is TRUE (b) front bezel indicator turns on.

RY and DC Used to select function of READY/DISK CHANGE signal on terminal 34. When RY jumper ON, signal on line #34 functions as ready signal, and it functions as DISK CHANGE signal when the DC jumper is ON.

- RY is usually required on XT systems!
- DC is usually required on AT systems!

Note: Line #34 is a dead end on many old floppy controllers, e.g. the standard 8 bit IBM PC FDC

XT F, BV series drives. When the XT strap is on-state, the line #34 will maintain open condition.

- Caution: Never set both of the RY and the XT straps to ON-state. Be sure to set either of them ON.

LG

Used to select meaning of HIGH/NORMAL DENSITY input signal. When ON, LOW level of HIGH/NORMAL DENSITY signals high density mode. When OFF, LOW level of HIGH/NORMAL DENSITY signal designates normal/low density mode.

Tells the drive what signal level on line #2 of the interface connector (Density Mode) will be perceived as HD, and what level as DD.
- If +5V comes to line 2, then the closed jumper switches on the DD mode, when open to HD;
- If GND comes to line 2, then the closed jumper turns on HD mode, when open to DD;

- *For an AT compatible system the LG strap shoud be set to the OFF; the jumper must be removed! So Pin 2 LOW/OFF means low density.*

HG

(55GFV-17U) HG is ON, LG is OFF

I and IS

GF/V/R series drives

I is used to select drive speed. All drives have a speed of 300 rpm, except for 5-inch HD-drives. They have 360 rpm. IS is used to set the READY signal.
- I = ON: Dual speed mode designated. (360 rpm High Density, 300 rpm Low Density). Ready state reset once synchronizing with a level change of the HIGH/NORMAL DENSITY signal.
- IS = ON: READY signal is always set.
- IS = OFF: READY signal is reset when the DENSITY signal changes.
- I = ON, IS = OFF: The speed is set by the density signal, READY is reset when the density signal changes.

- I and IS = OFF: Single speed mode designated. Speed is 360 rpm regardless of HIGH/NORMAL DENSITY signal.
- I and IS = ON: Dual speed mode is activated but FDD remains in ready state, regardless of level change of HIGH/NORMAL DENSITY signal.

- *For an AT compatible system set I to ON and IS to OFF state to tell the drive to operate in dual speed mode.*

- *For an CP/M compatible system set I to ON and IS to OFF state if you want to use a TEAC FD-55GFV or -GFR as quad-density drive with 80 tracks and 300 RPM.*

E2

Strap to select the output condition of the INDEX and the READ DATA pulses. Allows the issuance of signals reading and Index to complete the movement of the head:

OFF state:
Index - Index hole detection * DRIVE selected * Ready state * Seek complete
READ DATA - Read data detection * DRIVE selected * Ready state * Not writing * Seek complete

ON state:
Index - Index hole detection * DRIVE selected * Ready state
READ DATA - Read data detection * DRIVE selected * Ready state * Not writing

- *Set the E2 strap to the ON state only if your computer requires MASKING THE INDEX. (i.e. PC and older PC/XT that do not give the drive enough time to reach a ready state when the disk replaced.*

HS and HM

Select the conditions for loading the head.
- HS = ON: The head is selected by the DRIVE select signal.

- HM = ON: The head is selected by the signal MOTOR ON.

- You can not put both jumpers at once!

SM In addition to the previous jumpers: SM allows the use of jumpers HS or HM.

RE For G series drives only. Controls the mode of returning the head to track 0 when the power is turned on:
- RE = OFF: At power up the head unit does not change its position.
- RE = ON: At power on, the head unit is positioned on track 0. Positioning takes no more than 255 ms, while in the process of positioning the Ready signal is in an inactive state.

PM Control of the spindle motor when inserting a floppy disk into the drive:
- PM = OFF: When inserting a floppy disk into the drive, the spindle motor does not rotate.
- PM = ON: The spindle motor will rotate at the time the floppy is installed.

FG Connects the FDD frame to DC 0V. Closes the drive case and the "ground" of the circuit.

Special features

FD-55A-00-U

DS It's a 3-point jumper with either **ST** or **WT**; I have the jumper plugged into the ST; drives uses 40 tracks. If you set the jumper to WT, then the drive uses 80 tracks and the floppy is not usable. The 55A has a „wide" head and can only r/w 40 tracks!