HL
HM
HS
MM
MS

DS3 MX DS0 DS1 DS2

IU SR HR

FG

Board number

U241B937

Jumpers DS0, DS1, DS2 and DS3

The DS0 to DS3 jumpers determine the *Drive Select* signal the drive should react to.

Only one of the jumpers must be placed.

For PC-AT interfaces only DS0 and DS1 will function, for Shugart interfaces DS0 to DS3 will work.

When using the drive in a system with PC-AT interface, it should be noted that the *Motor Enable* input signal is only taken from pin number 16. There are two options to handle this issues. The first option is to use a ribbon

cable with a twist and place the DS1 jumper on all drives. In this case the drive that is connected behind the twist will be drive 0 and the drive that is connected before the twist will be drive 1. The second option is to use a untwisted ribbon cable and shorting the pin number 10 and pin number 16 together, the DS0 or DS1 jumper of the connected drives can then be placed.

When using the drive in a systems with Shugart interface DS0, DS1, DS2 or DS3 can be placed to make it drive 0, drive 1, drive 2 or drive 3 respectively.

The jumper DS1 will be placed in the default setting.

Jumper FG

The FG jumper connects or disconnects the metal frame of the drive from the electrical ground line.

When FG is not placed the metal frame is isolated from electrical ground.

When FG is placed the metal frame is connected to the electrical ground via a 100kOhm resistor.

This jumper is placed in the default setting. When the FG header is not soldered, the default setting is implemented with a breakable trace on the topside of the PCB.

Jumpers HM, HL and HS

The HM, HL and HS jumpers determine the source of the internal *Head Load* signal.

When the HM jumper is placed the signal will be derived from the *Drive Select* signal and the *Motor Enable* signal.

When the HL jumper is placed the signal will be derived from the *Drive Select* signal and the *Ready* signal.

When the HS jumper is placed the signal will be derived from the *Drive Select* signal.

In the default setting no jumper is set.

Jumpers HR and SR

The HR and SR jumpers select what signal shall be output on pin number 34.

When only the SR jumper is placed the *Ready* signal will be used.

When the SR jumper and the HR jumper are placed the *Hold Ready* signal will be used.

The jumper SR will be placed in the default setting.

Jumpers MM and MS

The MM and MS jumpers control under what conditions the drive motor should turn on.

When the only the MM jumper is placed the motor will only turn on when the *Motor Enable* signal is active.

When the only the MS jumper is placed the motor will only turn on when the *Drive Select* signal is active.

When neither jumper is placed the motor will only turn on when both the *Motor Enable* signal and the *Drive Select* signal is active.

When both the MM jumper and the MS jumper are placed the motor will only turn on when the *In Use* signal was active before the *Drive Select* signal became active.

For PC-AT interfaces the MM jumper should be placed, this is also the default setting.

Jumper MX

The MX jumper defines if the drive is in multiplex mode or if it is in regular drive select mode. In multiplex mode the drive is permanently active, as if its *Drive Select* signal was active.

When the MX jumper is not placed the drive will function in regular drive select mode, only being active when its *Drive Select* signal is active.

When the MX jumper is placed the drive will always be active regardless of its *Drive Select* signal.

For PC-AT interfaces the MX jumper should not be placed, this is also the default setting.

Jumper IU

The IU jumper controls whether or or not the input on pin number 4 should be interpreted as *In Use* signal.

When the IU jumper is not placed the signal will not be interpreted as *In Use* signal.

When the IU jumper is placed the signal will be interpreted as *In Use* signal.

If it is interpreted as *In Use* signal, an active *In Use* signal will turn the activity LED in the front panel on, no matter how ID might be placed.

This jumper should only be placed when the floppy controller generates a valid *In Use* signal. This jumper is placed in the default setting. When the IU header is not soldered, the default setting is implemented with a breakable trace on the topside of the PCB.