Board number

U240B092-04 / U240B091HXX

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.

Jumpers DD, HR, DC and SR

The DD, HR, DC 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.

When only the DC jumper is placed the *Disk Change* signal, reset by the *Step* signal, will be used.

When the DC jumper and the DD jumper are placed the *Disk Change* signal, reset by the *Drive Select* signal, will be used.

For PC-AT interfaces the DC jumper should be placed, this is also 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.

Jumper IR

The IR jumper influences the behavior of the drives activity LED in the front panel.

When the IR jumper is not placed the drives activity LED will behave as set by jumpers IU, IS and IL.

When the RI jumper is placed the LED will only light up when the drive is ready in addition to the behavior set by jumpers IU, IS and IL.

This jumper is not placed in the default setting.

Jumpers IU, IS and IL

The IU, IS and IL jumpers determine the behavior of the drives activity LED in the front panel.

When no jumper is placed or both the IU and IL jumpers are placed the activity LED will light up with the *Drive Select* signal.

When only the IS jumper is placed the activity LED will never light up.

When only the IU jumper is placed the activity LED will light up with the *Drive Select* signal or the *In Use* signal.

When both the IU and IS jumpers are placed only the *In Use* signal will light up the activity LED.

When the IU, IS and IL jumpers are placed the activity LED will light up when the *In Use* signal was active before the *Drive Select* signal became active.

In the default setting no jumper is placed.

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 RD

The RD jumper influences the *Read Data* output signal.

When the RD jumper is not placed the *Read Data* output signal will always be sent.

When the RD jumper is placed the *Read Data* output signal will only be sent when the drive is ready.

This jumper is placed in the default setting.

Jumper RI

The RI jumper influences the *Index* output signal.

When the RI jumper is not placed the *Index* output signal will always be sent.

When the RI jumper is placed the *Index* output signal will only be sent when the drive is ready.

This jumper is placed in the default setting.

Jumpers SS, SB and ND

The SS, SB and ND jumpers control the drives rotational speed.

When only the SS jumper is placed the rotational speed will be 360 RPM when the drive is in high density mode and 300 RPM when the drive is in low density mode.

When only the SB jumper is placed the rotational speed will always be 360 RPM.

When both the the SS jumper and the ND jumpers are placed the rotational speed will always be 300 RPM.

For PC-AT interfaces the SS jumper can be placed. The SB jumper is placed in the default setting.

Jumper TD

The TD jumper connects or disconnects the 150Ohm termination resistor from the *Drive Select* input data line.

When TD is not placed the termination resistor is isolated from the *Drive Select* input data line.

When TD is placed the *Drive Select* input data line is pulled up to 5V via the termination resistor.

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