



Board number
FPK05810B3(X)

Jumpers DS1, DS2, DS3 and DS4

The DS1 to DS4 jumpers determine the *Drive Select* signal the drive should react to.

Only one of the jumpers must be placed.

For PC-AT interfaces only DS1 and DS2 will function, for Shugart interfaces DS1 to DS4 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 DS2 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 DS1 or DS2 jumper of the connected drives can then be placed.

When using the drive in a systems with Shugart interface DS1, DS2, DS3 or DS4 can be placed to make it drive 0, drive 1, drive 2 or drive 3 respectively.

The jumper DS2 will be placed in the default setting.

Jumpers 1M and OP

The 1M and OP jumpers determine the density mode of the drive.

When the 1M jumper is placed the drive will always be in low density mode.

When the OH jumper is placed a high signal on the *Density Select* pin switches the drive into low density mode and a low signal switches the drive into high density mode.

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

Jumper 1E

The 1E solder jumper determines the tracks per inch of the drive. To set the jumper a 6.8kOhm resistor has to be soldered.

When the 1E jumper is not placed the drive will operate in 48 TPI mode.

When the 1E jumper is placed the drive will operate in 96 TPI mode.

In the default setting this jumper is set.

Jumper AT

The AT jumper enables or disables the drive.

When the AT jumper is not placed the drive will be disabled.

When the AT jumper is placed the drive will be enabled.

This jumper is placed in the default setting.

Jumper AX

The AX jumper determines how changes to the *Density Select* should be handled.

When the AX jumper is not placed the *Density Select* can be switched at any time.

When the AX jumper is placed the *Density Select* can only be switched when the *Drive Select* signal is inactive, otherwise the changes to the *Density Select* signal will be ignored.

This jumper is not placed in the default setting.

Jumper BX

The BX jumper controls whether or not the drives rotational speed should depend on the density mode.

When the BX jumper is not placed the rotational speed will always be 360 RPM.

When the BX 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.

For PC-AT interfaces the BX jumper can be placed. This jumper is not placed in the default setting.

Jumpers DC, RDY and DD

The DC, RDY and DD jumpers select what signal shall be output on pin number 34. The DD jumper is a solder jumper. To set DD a 15kOhm resistor has to be soldered.

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

When RDY is placed the *Ready* signal will be used.

When DD is 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.

Jumpers DA and HA

The DA and HA jumpers determine the behavior of the drives activity LED in the front panel.

When the DA jumper is placed the activity LED will light up with the *Drive Select* signal.

When the HA jumper is placed the activity LED will light up with either the *Drive Select* signal or the *Ready* signal.

In the default setting the DA jumper is placed.

Jumper EX

The EX solder jumper enabled or disables the internal track counting. To set the jumper a 6.8kOhm resistor has to be soldered.

When the EX jumper is not placed the internal track counting is disabled.

When the EX jumper is placed the internal track counting is enabled.

In the default setting this jumper is not placed.

Jumper GX

The GX solder jumper influences the *Read Data* signal. To set the jumper a 15kOhm resistor has to be soldered.

When GX is not placed the *Read Data* signal is enabled by the *Drive Select* signal.

When GX is placed the *Read Data* signal is enabled by the *Write Gate*, *Write Protect*, *Drive Select* signals and the head being on a track.

In the default setting this jumper is placed.

Jumpers HL and HS

The HL and HS solder jumpers determine the source of the internal *Head Load* signal. To set HL a 6.8kOhm resistor has to be soldered. To set HS a 15kOhm resistor has to be soldered.

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 both HL and HS are placed.

Jumper MS

The MS jumper controls under what conditions the drive motor should turn on.

When the MS jumper is not placed the motor will only turn on when the *Motor Enable* signal is active.

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

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

Jumper RY

The RY jumper connects the output for pin number 34 to the internal driver.

When the RY jumper is not placed pin number 34 will not be driven.

When the RY jumper is placed pin number 34 will be driven.

In the default setting this jumper is set via a solder bridge.

Jumper TH

The TH solder jumper controls whether or not the output on pin number 34 should always be driven or only when the *Drive Select* signal is active. To set the jumper a 6.8kOhm resistor has to be soldered.

When TH is not placed the output on pin number 34 should will only be driven when the *Drive Select* signal is active.

When TM is placed the output on pin number 34 will always be driven.

This jumper is not placed in the default setting.

Jumper TM

The TM jumper connects or disconnects the 150Ohm termination resistors from the input data lines.

When TM is not placed the termination resistors are isolated from the input data lines.

When TM is placed the input data lines are pulled up to 5V via the termination resistors.

This jumper is placed in the default setting.