

PT-SS30-IDE

User's Manual

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Peripheral Technology

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The SS30-IDE board interfaces IDE or SD/IDE adapters for use in SS50 systems. A connector is included on the board so that an SD/IDE adapter may be directly plugged into the SS30-IDE board without the use of a cable. The SD/IDE adapter socket uses the index connection of the 40 pin IDE cable to supply power to the SD/IDE board. PT supplies modified SD/IDE adapters that have a power connection using the index pin. There is a power connector on the SS30-IDE board that can be used to power an unmodified SD/IDE adapter. The power connector could also be used to power a GoTek floppy emulator. It does not provide enough power to power a real floppy drive. Only one of the 40 pin connectors on the SS30-IDE can be used at a time. The SD/IDE adapter does not support master/slave selection so only one SD/IDE adapter may be used. To date all SD/IDE adapters are configured as master. If you need two drives, they will have to be older mechanical drives that have a master/slave jumper. The SATA/IDE adapter does not allow for use of two drives either. Even the SATA/IDE adapters that have a master/slave jumper do not work with two drives attached. The SS30-IDE board can be configured to work with either 4 or 16 addresses per IO slot. There are modified SWTBUG and SBUG monitors that will boot from the SS30-IDE board. There are also modified versions of 6800 or 6809 FLEX that support the SS30-IDE. Support for OS9 is being developed. A program "FloppyMaintenance" is available that allows floppy drive images to be loaded on an SD memory card from your PC. You should download the Floppy Maintenance from the FLEX users group since it is often updated.

Installation - 6800 - 4 Addresses per Slot

The SS30-IDE is plugged into slot 2 for a 6800 system, assuming 4 addresses per slot. Set jumpers JP3 and JP5 to 4. If you have a PT-B2 REV 1 or higher motherboard place a jumper in JP10. Make certain you have no jumpers on JP8. If you don't have a PT-B2 REV1 or higher motherboard it will be necessary to run a wire on your motherboard to use the board select of slot 3. Slot 3 is not usable after this modification. The location of the wire is shown on the next page. The green wire is for the SS30-IDE. The blue wire is necessary to use a floppy controller in slot 6. You should solder the jumper on the back side of the board.

Installation - 6809 - 16 Addresses per Slot

The SS30-IDE is plugged into slot 6 for a 6809 system, assuming 16 addresses per slot. Set jumpers JP3 and JP5 to 16.

IDE Register Address Map

	6800	6809
Data Register	8008	E058
Error Register	8009	E059
Sector Count	800A	E05A
LBA 0-7	800B	E05B
LBA 8-15	800C	E05C
LBA 9-23	800D	E05D
Mode,device,LBA 24-26	800E	E05E
Status/Command	800F	E05F

Parts List SS30-IDE

Quantity	Designation	Description
1	R1	5600 1/4 Watt Resistor
3	R2-R4	10K 1/4 Watt Resistor
3	C1-C3	0.1 uf Disc Cap
2	C9,C11	100uF 16 V Electrolytic Capacitor
1	U3	74F245
1	U4	74LS02
1	U5	74F00
1		7805
1		Small heat sink for 7805
		Hardware, #4 screw, washer, nut for heat sink
1		20 pin IC socket
2		14 pin IC socket
1	J1	4 pin Header J1 TE Connectivity AMP 171826-4 (Floppy Power)
1		40 Pin socket for SD/IDE board Hirose - HIF3FB-40DA-2.54DSA
1		2x20 Pin Shoulder header Adam Tech - BHR-40-VUA
2		Shorting Plugs as needed
1		Index Pin for Molex Connector Molex 0015040219
3		Molex Connector - 0009482101
1		SS30-IDE Board

Parts Placement SS30-IDE



