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## Appendix C. Jumpers, Switches, and Pin Assignments

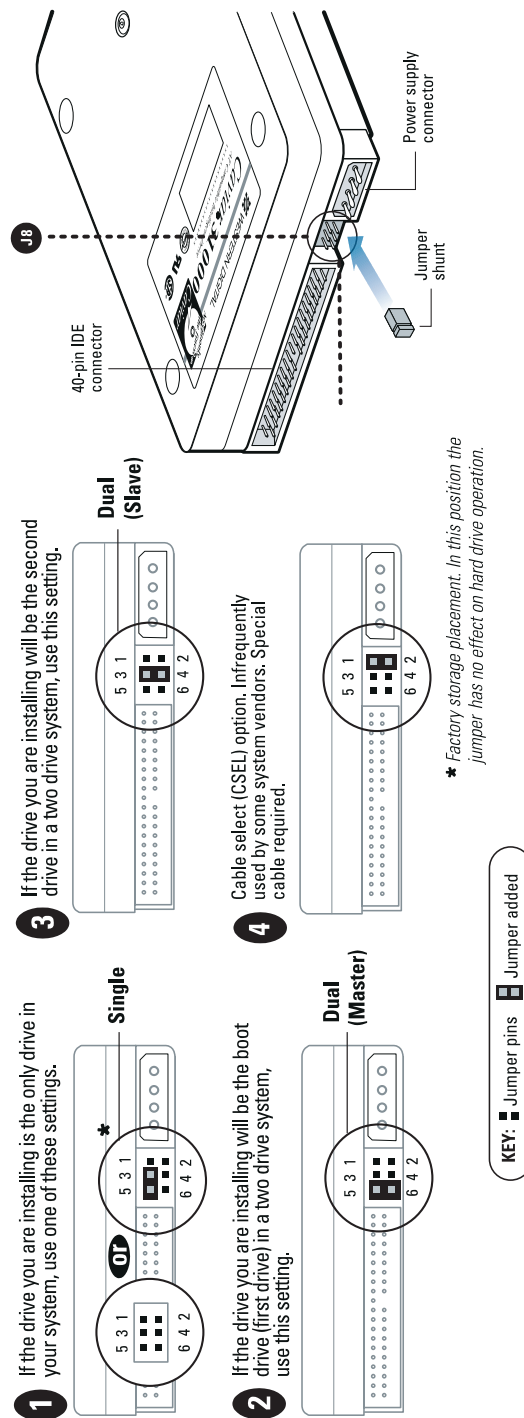
Jumpers and switches on the SBC and hard drives allow you to customize the operation of your computer.

Some jumpers cover two of three pins on a 3-pin block. Other jumpers are installed across two pins on a 2-pin block or are not installed. To change the position of a jumper on a 3-pin block, do the following.

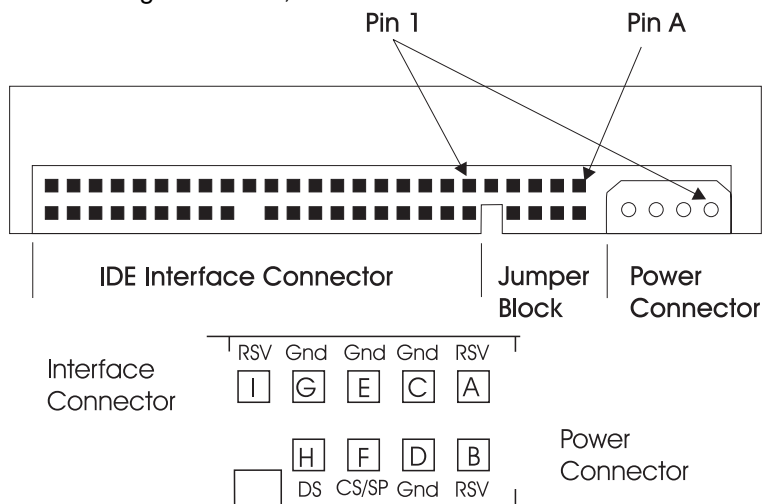
1. Turn off the computer and disconnect the power cord.
2. Remove the system unit cover.
3. Remove all components needed to gain access to the jumper.
4. Lift the jumper straight off the pin block.
5. Align the holes in the bottom of the jumper with the center pin and the pin that was not covered previously.
6. Slide the jumper fully onto these pins.
7. Reassemble the components that were removed, and install the system unit cover.
8. Reconnect the system unit power cord.

## Hard Disk Drive Jumper Settings

Hard disk drives use jumpers to configure the drives as the master or the slave. If your drive matches the following illustration, use the information in the illustration to set the jumpers.

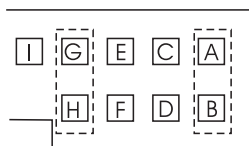


If your drive matches the following illustration, use the information in the illustration to set the jumpers.

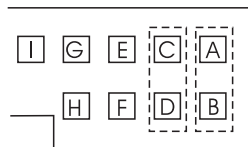


### 16 Logical Head

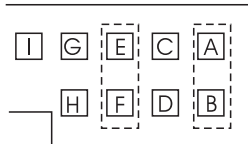
Device 0  
(Master)  
(Shipping  
Default)



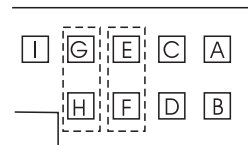
Device 1  
(Slave)



Cable  
Select

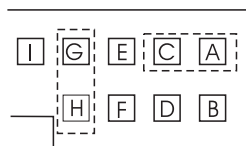


Device 1  
(Slave)  
Present

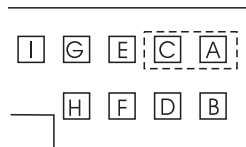


### 15 Logical Head

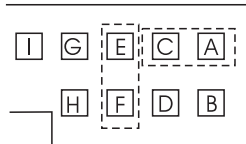
Device 0  
(Master)



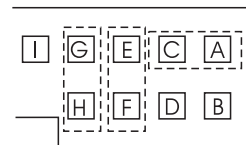
Device 1  
(Slave)



Cable  
Select

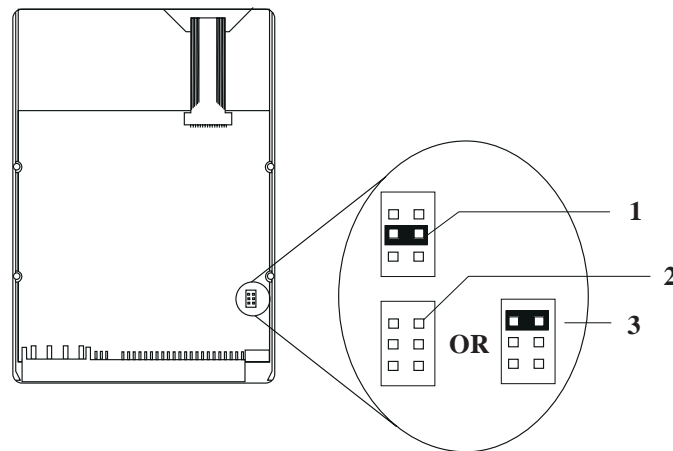


Device 1  
(Slave)  
Present



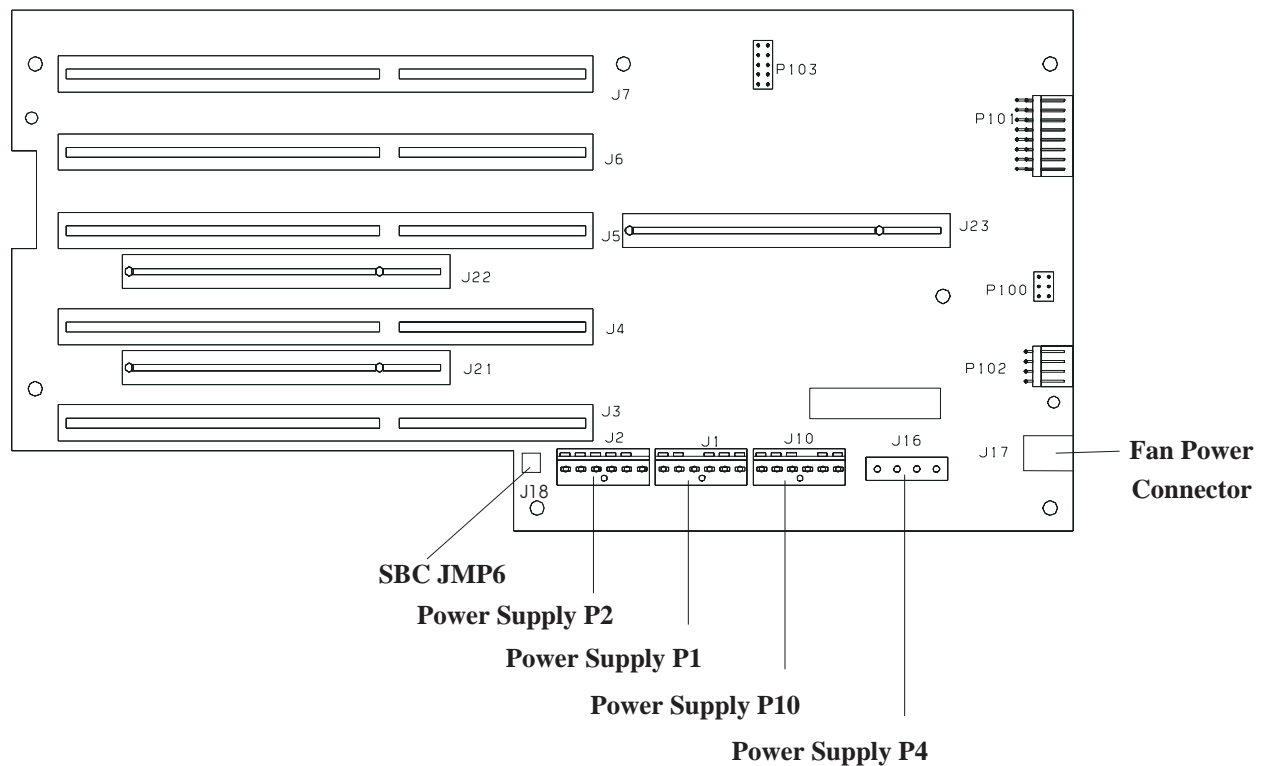
If your drive matches the following illustration and is operating as the master drive, set the jumper to setting 1.

If your drive is operating as the slave drive, set the jumper to either setting 2 or setting 3. (Setting 3 is recommended because it allows you to store the jumper for use in the future.)



## Backplane Connectors

The following illustration shows the cable connectors on the IBM 7587 Computer backplane.



## SBC Connectors

The following illustration shows the connectors on the SBCs used in the 7587 Computer.

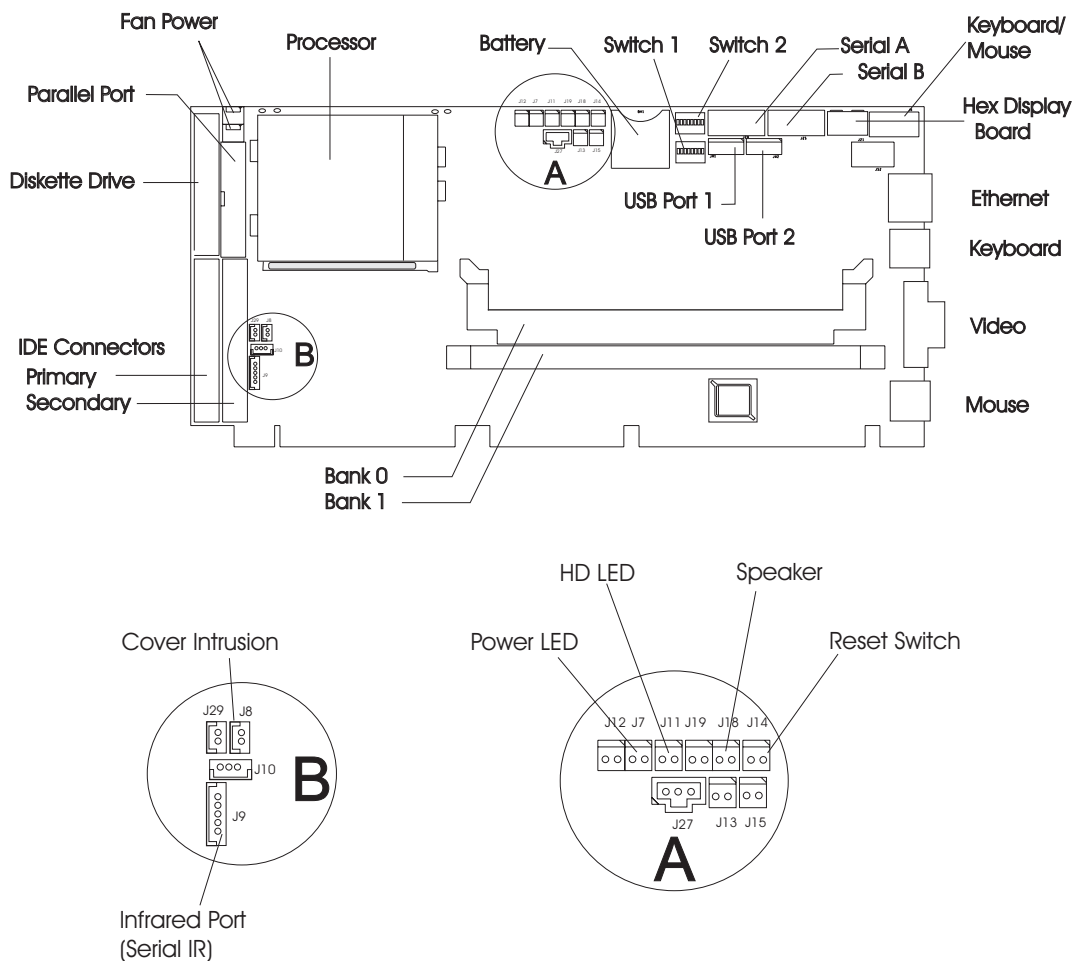


Figure C-1. Connectors on the SBC

## SBC Settings

The following shows the default switch settings for each of the processors provided by IBM. The standard settings are:

- Auto boot disabled (switch 8, block 2)
- Serial port B as RS-232 (switch 4, block 2)
- Video enabled (switch 2, block 1)
- Keyboard and mouse ports enabled (switch 1, block 1)

To maintain these options, change only the switches in the non-shaded columns of Table C-1. For an example, see “Switch Setting Example.”

For a detailed definition of each switch setting, see “Configuration Switches” on page 6-12.

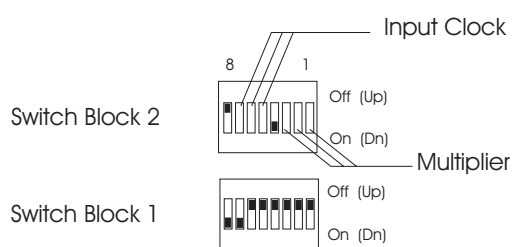


Figure C-2. Configuration Switch Blocks

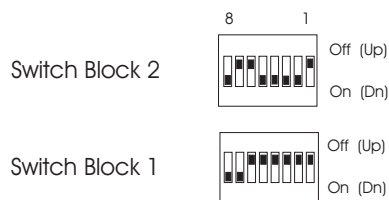
Table C-1. Switch Settings by Processor								
Switch Block 2 Switch Positions								Processor
8	Input Clock			4	Multiplier			
	7	6	5		3	2	1	
Up	Up	Up	Dn	Up	Dn	Dn	Dn	Pentium 233 MHz (with MMX) (66 MHz)
Up	Dn	Up	Up	Up	Up	Dn	Up	AMD K6-2 300 MHz (75 MHz)
Up	Up	Up	Dn	Up	Dn	Dn	Up	AMD K6-3 400 MHz (66 MHz)
Up	Dn	Up	Dn	Up	Dn	Dn	Up	AMD K6-3 500 MHz (83 MHz)
<b>Note:</b> The switches in the shaded columns control the auto boot (switch 8) and RS-422/485 or RS-232 (switch 4) options. They are shown in the default position.								

### Attention

Because the IBM 586VE Single Board Computer establishes the correct input voltage for the processor automatically, no switch settings are required for processor voltage.

## Switch Setting Example

The following shows the switch settings for a remote server with an AMD K6-3 400 MHz processor.



Switch	Option	Selection
<b>Switch Block 2 (upper switch block)</b>		
8	Auto boot	Enabled—This setting is not the default setting. Auto-boot allows the remote server to reboot without an operator being present.
7-5	Input frequencies	Processor and host bus: 66 MHz PCI bus: 33 MHz
4	Serial port B	RS-232—This is the default setting.
3-1	Multiplier	Factor = 6.0
<b>Switch Block 1 (lower switch block)</b>		
8-3	Reserved	These switches are reserved and must be set as shown.
2	Video	Enabled—This is the default setting.
1	Keyboard Mouse	Enabled—This is the default setting.

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## Serial Port Pin Assignments

<i>Table C-2. Serial Port Pin Assignments</i>		
<b>RS-232 Serial A, Serial B</b>		<b>RS-422/485 Serial B</b>
Pin 1	Carrier detect	Transmit data (–)
Pin 2	Receive data	Receive data (–)
Pin 3	Transmit data	Transmit data (+)
Pin 4	Data terminal ready	Receive data (+)
Pin 5	Ground	N/C
Pin 6	Dataset ready	N/C
Pin 7	Request to send	N/C
Pin 8	Clear to send	N/C
Pin 9	Ring indicate	N/C

