Jumpers and Switch Settings

Place the hard-tab page labeled "Jumpers and Switch Settings" in place of this page, then discard this page.

JUMPERS AND SWITCH SETTINGS

Notes:

Option Compatibility

Certain option adapters conflict when used in the same system. The following adapters should not be installed together in your system unit:

- Synchronous Data Link Control (SDLC) adapter.
- Alternate Binary Synchronous Communications (Alt. BSC) adapter.

BIOS ROM Identification

To determine the date of the BIOS ROM module, run the following BASIC program. Type the program exactly as shown.

```
10 DEF SEG=&HF000
20 FOR X=&HFFF5 TO &HFFFF
30 PRINT CHR$(PEEK(X));
40 NEXT
RUN
```

The date that is displayed is the date of your BIOS ROM module.

Using the Switch Charts

The following legend applies to the charts in this section.

Symbol	Meaning
*	Not Used by this Application
↑	On/Closed Position Of A Switch
↓	Off/Open Position Of A Switch
N/A	Not Allowed Or Not Applicable

Note: For some options, the customer must supply information for correct setting of jumpers or switches.

To set a rocker switch, press the rocker down to the desired position; to set a slide switch, slide the lug of the switch to the desired position.
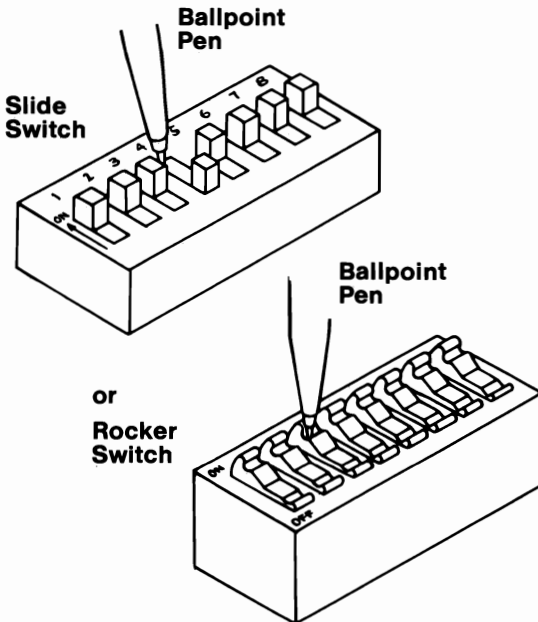
System Board (Diskette Drives, Displays, Coprocessor, and POST Loop)

Function	System Board Switches		
	PC		PCXT & Portable
	Sw. Block 1	Sw. Block 2	Sw. Block 1
	12345678	12345678	12345678
0-Diskette Drives	↑*****↑↑	********	N/A
1-Diskette Drive	↓*****↑↑	********	******↑↑
2-Diskette Drives	↓*****↓↑	********	******↓↑
3-Diskette Drives	N/A	N/A	******↑↓
4-Diskette Drives	N/A	N/A	******↓↓
No Display Adapter	****↑↑**	N/A	****↑↑**
Enhanced Graphics Adapter (Primary: See Note 1)	****↑↑**	N/A	****↑↑**
Color/Graphics Adapter (40 X 25 Primary)	****↓↑**	N/A	****↓↑**
Color/Graphics Adapter (80 X 25 Primary)	****↑↓**	N/A	****↑↓**
Professional Graphics Controller (Primary)	N/A	N/A	****↑↓**
Monochrome/Printer Adapter (Primary: See Note 2	****↓↓**	N/A	****↓↓**
Math Coprocessor Installed	*↓******	N/A	*↓******
Math Coprocessor Not Installed	*↑******	N/A	*↑******
POST Loop (Allows Continuous Running)	N/A	N/A	↑*******
No POST Loop (Normal Operation)	N/A	N/A	↓*******

Notes:
1) If the Enhanced Graphics Adapter (EGA) is installed with another display adapter, set the system board switches as shown for the EGA.
2) The IBM Monochrome Display and Printer Adapter is not supported in the *Portable* Personal Computer.

System Board (Memory)

Total Memory	System Board Switch Settings	256K Card Or 64/256K Option With 256K (See Note)	64/256K Option With 192K (See Note)	64/256K Option With128K (See Note)	64/256K Option With 64K (See Note)
	12345678	12345678	12345678	12345678	12345678
256K	**↓↓****	N/A	N/A	N/A	N/A
320K	**↓↓****	N/A	N/A	N/A	↑↓↑↑↑↓↓↓
384K	**↓↓****	N/A	N/A	↑↓↑↑↓↑↓↓	N/A
448K	**↓↓****	N/A	↑↓↑↑↓↓↑↓	N/A	N/A
512K	**↓↓****	↑↓↑↑↓↓↓↑	N/A	N/A	N/A
576K	**↓↓****	↑↓↑↑↓↓↓↑	N/A	N/A	↓↑↑↑↑↓↓↓
640K	**↓↓****	↑↓↑↑↓↓↓↑	N/A	↓↑↑↑↓↑↓↓	N/A

Note: The 64/256KB Memory Expansion Option and the 256KB Memory Expansion Option are the only memory options supported in the IBM *Portable* Personal Computer.

To use the following chart, first find the column under "System Board Type" that matches your system. Follow this column down to the switch settings for the total amount of memory in your system. Set the system board switches to match those in the chart. Then go to the "Switch Set" listed and set the switches on the memory adapters in your system. These sets of memory adapter switch settings start on page 11.

Note: If memory above 544K is to be installed on a 16/64KB system board, the BIOS ROM must be dated 10/27/82 or later. See "BIOS ROM Identification."

Total Memory	System Board Switch-Settings & Adapter Switch Sets	System Board Type (Note)		
		PC		PC XT
		16K-64K	64K-256K	64K-256K
		12345678	12345678	12345678
16K	Switch 1	**↑↑****	N/A	N/A
	Switch 2	↑↑↑↑↑↓↓↓	N/A	N/A
	Set	N/A	N/A	N/A
32K	Switch 1	**↓↑****	N/A	N/A
	Switch 2	↑↑↑↑↑↓↓↓	N/A	N/A
	Set	N/A	N/A	N/A
48K	Switch 1	**↑↓****	N/A	N/A
	Switch 2	↑↑↑↑↑↓↓↓	N/A	N/A
	Set	N/A	N/A	N/A
64K	Switch 1	**↓↓****	**↓↓****	N/A
	Switch 2	↑↑↑↑↑↓↓↓	↑↑↑↑↑↓↓↓	N/A
	Set	N/A	N/A	N/A

Note: The system board's identifier is located on its left edge.

(Part 1 of 4)

Total Memory	System Board Switch Settings & Adapter Switch Sets	System Board Type		
		PC		PC XT
		16K-64K	64K-256K	64K-256K
		12345678	12345678	12345678
96K	Switch 1	**↓↓****	N/A	N/A
	Switch 2	↓↑↑↑↑↓↓↓	N/A	N/A
	Set	1	N/A	N/A
128K	Switch 1	**↓↓****	**↓↓****	**↓↑****
	Switch 2	↑↓↑↑↑↓↓↓	↑↓↑↑↑↓↓↓	N/A
	Set	3	N/A	N/A
160K	Switch 1	**↓↓****	N/A	N/A
	Switch 2	↓↓↑↑↑↓↓↓	N/A	N/A
	Set	5	N/A	N/A
192K	Switch 1	**↓↓****	**↓↓****	**↑↓****
	Switch 2	↑↑↓↑↑↓↓↓	↑↑↓↑↑↓↓↓	N/A
	Set	7	N/A	N/A
224K	Switch 1	**↓↓****	N/A	N/A
	Switch 2	↓↑↓↑↑↓↓↓	N/A	N/A
	Set	9	N/A	N/A
256K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↑↓↓↑↑↓↓↓	↑↓↓↑↑↓↓↓	N/A
	Set	11	N/A	N/A
288K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↓↓↓↑↑↓↓↓	↓↓↓↑↑↓↓↓	N/A
	Set	13	2	2

(Part 2 of 4)

8   Switches (PC, XT, Portable PC)

Total Memory	System Board Switch Settings & Adapter Switch Sets	System Board Type		
		PC		PC XT
		16K-64K	64K-256K	64K-256K
		12345678	12345678	12345678
320K	Switch 1	** ↓↓ ****	** ↓↓ ****	** ↓↓ ****
	Switch 2	↑↑↑↓↑↓↓↓	↑↑↑↓↑↓↓↓	N/A
	Set	15	4	4
352K	Switch 1	** ↓↓ ****	** ↓↓ ****	** ↓↓ ****
	Switch 2	↓↑↑↓↑↓↓↓	↓↑↑↓↑↓↓↓	N/A
	Set	17	6	6
384K	Switch 1	** ↓↓ ****	** ↓↓ ****	** ↓↓ ****
	Switch 2	↑↓↑↓↑↓↓↓	↑↓↑↓↑↓↓↓	N/A
	Set	19	8	8
416K	Switch 1	** ↓↓ ****	** ↓↓ ****	** ↓↓ ****
	Switch 2	↓↓↑↓↑↓↓↓	↓↓↑↓↑↓↓↓	N/A
	Set	21	10	10
448K	Switch 1	** ↓↓ ****	** ↓↓ ****	** ↓↓ ****
	Switch 2	↑↑↓↓↑↓↓↓	↑↑↓↓↑↓↓↓	N/A
	Set	23	12	12

(Part 3 of 4)

Total Memory	System Board Switch Settings & Adapter Switch Sets	System Board Type		
		PC		PC XT
		16K-64K	64K-256K	64K-256K
		12345678	12345678	12345678
480K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↓↑↓↓↑↓↓↓	↓↑↓↓↑↓↓↓	N/A
	Set	25	14	14
512K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↑↓↓↓↑↓↓↓	↑↓↓↓↑↓↓↓	N/A
	Set	26	16	16
544K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↓↓↓↓↑↓↓↓	↓↓↓↓↑↓↓↓	N/A
	Set	27	18	18
576K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↑↑↑↑↓↓↓↓	↑↑↑↑↓↓↓↓	N/A
	Set	28	20	20
608K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↓↑↑↑↓↓↓↓	↓↑↑↑↓↓↓↓	N/A
	Set	29	22	22
640K	Switch 1	**↓↓****	**↓↓****	**↓↓****
	Switch 2	↑↓↑↑↓↓↓↓	↑↓↑↑↓↓↓↓	N/A
	Set	30	24	24

(Part 4 of 4)

Memory Adapter Switch Sets

Listed below are the switch settings for all allowed memory adapter configurations. Once you have set the system board switches, find the correct switch set for your system under the "Memory Adapter Switch Sets" column; then identify the row of switch settings for your adapter configuration.

Memory Adapter Switch Sets	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 1	N/A	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑
Set 2	N/A	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑
Set 3	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	N/A	N/A
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑
						↑↑↑↓↓↑↑↑
Set 4	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	N/A	N/A
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑
						↑↓↑↑↓↑↑↑

(Part 1 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 5	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	N/A	↑↑↓↑↑↑↑↑
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑	↑↑↓↑↑↑↑↑
	N/A	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑
						↑↑↑↓↓↑↑↑
						↑↑↓↑↑↑↑↑
Set 6	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	N/A	↑↓↑↓↑↑↑↑
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑	↑↓↑↓↑↑↑↑
	N/A	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑
						↑↓↑↑↓↑↑↑
						↑↓↑↓↑↑↑↑
Set 7	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	↑↑↓↑↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑ ↑↑↓↑↑↑↑↑	N/A
	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	N/A	↑↑↓↑↑↑↑↑ ↑↑↓↑↓↑↑↑
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑	↑↑↓↑↑↑↑↑ ↑↑↓↑↓↑↑↑
	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	N/A	N/A

(Part 2 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 8	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	↑↓↑↓↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑ ↑↓↑↓↑↑↑↑	N/A
	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	N/A	↑↓↑↓↑↑↑↑ ↑↓↑↓↓↑↑↑
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑	↑↓↑↓↑↑↑↑ ↑↓↑↓↓↑↑↑
	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	N/A	N/A
Set 9	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	↑↑↓↑↑↑↑↑	↑↑↓↓↑↑↑↑
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑ ↑↑↓↑↑↑↑↑	↑↑↓↓↑↑↑↑
	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	N/A	↑↑↓↓↑↑↑↑
Set 10	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	↑↓↑↓↑↑↑↑	↑↓↓↑↑↑↑↑
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑ ↑↓↑↓↑↑↑↑	↑↓↓↑↑↑↑↑
	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	N/A	↑↓↓↑↑↑↑↑

(Part 3 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 11	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	N/A	N/A
	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	↑↑↓↓↑↑↑↑	N/A
	N/A	N/A	N/A	↑↑↑↓↑↓↓↓	↑↑↓↑↑↑↑↑ ↑↑↓↓↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	↑↑↑↓↑↑↑↑ ↑↑↓↑↑↑↑↑ ↑↑↓↓↑↑↑↑	N/A
	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	N/A	↑↑↓↓↑↑↑↑ ↑↑↓↓↓↑↑↑
Set 12	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	N/A	N/A
	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	↑↓↓↑↑↑↑↑	N/A
	N/A	N/A	N/A	↑↓↑↑↑↓↓↓	↑↓↑↓↑↑↑↑ ↑↓↓↑↑↑↑↑	N/A
	N/A	N/A	N/A	N/A	↑↓↑↑↑↑↑↑ ↑↓↑↓↑↑↑↑ ↑↓↓↑↑↑↑↑	N/A
	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	N/A	↑↓↓↑↑↑↑↑ ↑↓↓↑↓↑↑↑

(Part 4 of 8)

| Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 13	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	N/A	↑↓↑↑↑↑↑↑
	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	↑↑↓↓↑↑↑↑	↑↓↑↑↑↑↑↑
Set 14	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	N/A	↑↓↓↓↑↑↑↑
	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	↑↓↓↑↑↑↑↑	↑↓↓↓↑↑↑↑
Set 15	N/A	N/A	↑↑↑↓↓↑↓↓	N/A	↑↑↓↓↑↑↑↑ ↑↓↑↑↑↑↑↑	N/A
	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	↑↓↑↑↑↑↑↑	N/A
	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	N/A	↑↓↑↑↑↑↑↑ ↑↓↑↑↓↑↑↑
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	N/A	N/A
Set 16	N/A	N/A	↑↓↑↑↓↑↓↓	N/A	↑↓↓↑↑↑↑↑ ↑↓↓↓↑↑↑↑	N/A
	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	↑↓↓↓↑↑↑↑	N/A
	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	N/A	↑↓↓↓↑↑↑ ↑↓↓↓↓↑↑↑
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	N/A	N/A
Set 17	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	↑↓↑↑↑↑↑↑	↑↓↑↓↑↑↑↑
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	N/A	↑↓↑↓↑↑↑↑

(Part 5 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 18	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	↑↓↓↓↑↑↑↑	↓↑↑↑↑↑↑↑
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	N/A	↓↑↑↑↑↑↑↑
Set 19	N/A	↑↑↑↓↓↓↑↓	N/A	N/A	↑↓↑↑↑↑↑↑ / ↑↓↑↓↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑	N/A	N/A	↑↓↑↓↑↓↓↓	N/A	N/A
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	↑↓↑↓↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	N/A	↑↓↑↓↑↑↑↑ / ↑↓↑↓↓↑↑↑
Set 20	N/A	↑↓↑↑↓↓↑↓	N/A	N/A	↑↓↓↓↑↑↑↑ / ↓↑↑↑↑↑↑↑	N/A
	↑↓↑↑↓↓↓↑	N/A	N/A	↓↑↑↑↑↓↓↓	N/A	N/A
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	↓↑↑↑↑↑↑↑	N/A
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	N/A	↓↑↑↑↑↑↑↑ / ↓↑↑↑↓↑↑↑
Set 21	↑↑↑↓↓↓↓↑	N/A	N/A	↑↓↑↓↑↓↓↓	N/A	↑↓↓↑↑↑↑↑
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	↑↓↑↓↑↑↑↑	↑↓↓↑↑↑↑↑
Set 22	↑↓↑↑↓↓↓↑	N/A	N/A	↓↑↑↑↑↓↓↓	N/A	↓↑↑↓↑↑↑↑
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	↓↑↑↑↑↑↑↑	↓↑↑↓↑↑↑↑

(Part 6 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 23	↑↑↑↓↓↓↓↑	N/A	N/A	↑↓↑↓↑↓↓↓	↑↓↓↑↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑	N/A	N/A	N/A	↑↓↑↓↑↑↑↑ / ↑↓↓↑↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑	N/A	↓↑↑↓↓↑↓↓	N/A	N/A	N/A
Set 24	↑↓↑↑↓↓↓↑	N/A	N/A	↓↑↑↑↑↓↓↓	↑↑↑↓↑↑↑↑	N/A
	↑↓↑↑↓↓↓↑	N/A	N/A	N/A	↓↑↑↑↑↑↑↑ / ↓↑↑↓↑↑↑↑	N/A
	↑↓↑↑↓↓↓↑	N/A	↓↑↑↑↑↓↑↓↓	N/A	N/A	N/A
Set 25	↑↑↑↓↓↓↓↑	N/A	↑↓↑↓↓↑↓↓	N/A	N/A	↑↓↓↓↑↑↑↑
Set 26	↑↑↑↓↓↓↓↑	N/A	↑↓↑↓↓↑↓↓	N/A	↑↓↓↓↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑	↑↓↑↓↓↓↓↑↓	N/A	N/A	N/A	N/A
Set 27	↑↑↑↓↓↓↓↑	↑↓↑↓↓↓↓↑↓	N/A	N/A	N/A	↓↑↑↑↑↑↑↑
Set 28	↑↑↑↓↓↓↓↑	↑↓↑↓↓↓↓↑↓	N/A	N/A	↓↑↑↑↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑ / ↑↓↑↓↓↓↓↑	N/A	N/A	N/A	N/A	N/A

(Part 7 of 8)

Adapter Memory Switch Set	256K Card or 64/256K Option W/256K	64/256K Option W/192K	64/256K Option W/128K	64/256K Option W/64K	64K Option	32K Option
	12345678	12345678	12345678	12345678	12345678	12345678
Set 29	↑↑↑↓↓↓↓↑ ↑↓↑↓↓↓↓↑	N/A	N/A	N/A	N/A	↓↑↑↓↑↑↑↑
Set 30	↑↑↑↓↓↓↓↑ ↑↓↑↓↓↓↓↑	N/A	N/A	N/A	↓↑↑↓↑↑↑↑	N/A
	↑↑↑↓↓↓↓↑ ↑↓↑↓↓↓↓↑	N/A	N/A	↓↑↑↓↑↓↓↓	N/A	N/A

(Part 8 of 8)

Extender Card Switch Settings

System Memory	Extender Card Switch Block	Memory Segment
	1234	
16K to 64K	↑↑↑↓	1
96K to 128K	↑↑↓↑	2
160K to 192K	↑↑↓↓	3
224K to 256K	↑↓↑↑	4
288K to 320K	↑↓↑↓	5
352K to 384K	↑↓↓↑	6
416K to 448K	↑↓↓↓	7
480K to 512K	↓↑↑↑	8
544K to 576K	↓↑↑↓	9
608K to 640K	↓↑↓↑	A

Cluster Adapter

Switch Block 1
Switch Block 2
Jumper Required
(Top) IRQ 7
(Bottom) IRQ 3
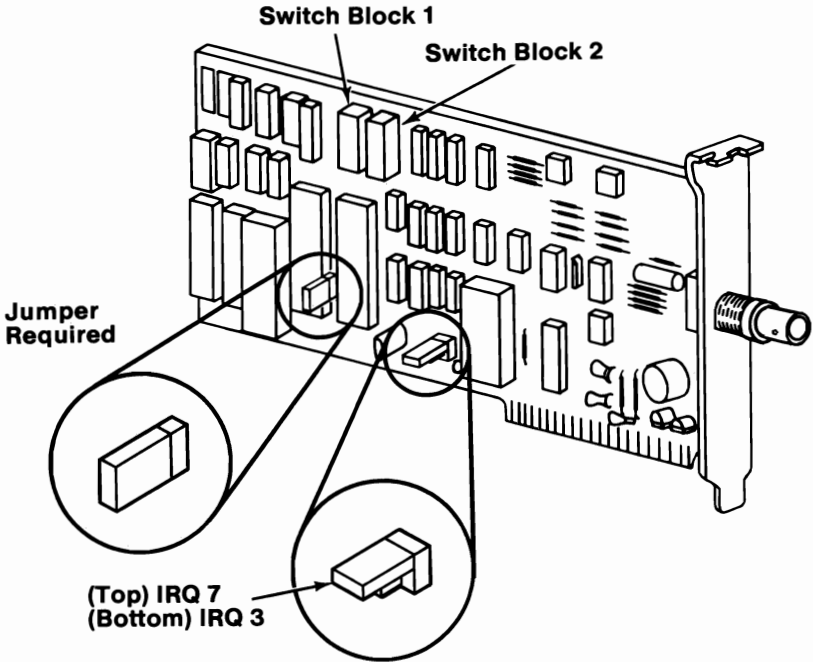
Station Address

Station Address	Switch Block 1 12345678	Station Address	Switch Block 1 12345678	Station Address	Switch Block 1 12345678
0	↓↓↓↓↓↓↓↓*	6	↓↑↑↓↓↓↓↓*	12	↓↓↑↑↓↓↓↓*
1	↑↓↓↓↓↓↓↓*	7	↑↑↑↓↓↓↓↓*	13	↑↓↑↑↓↓↓↓*
2	↓↑↓↓↓↓↓↓*	8	↓↓↓↑↓↓↓↓*	14	↓↑↑↑↓↓↓↓*
3	↑↑↓↓↓↓↓↓*	9	↑↓↓↑↓↓↓↓*	15	↑↑↑↑↓↓↓↓*
4	↓↓↑↓↓↓↓↓*	10	↓↑↓↑↓↓↓↓*	16	↓↓↓↓↑↓↓↓*
5	↑↓↑↓↓↓↓↓*	11	↑↑↓↑↓↓↓↓*	17	↑↓↓↓↑↓↓↓*

(Part 1 of 2)

Station Address	Switch Block 1 12345678	Station Address	Switch Block 1 12345678	Station Address	Switch Block 1 12345678
18	↓↑↓↓↑↓↓*	34	↓↑↓↓↓↑↓*	50	↓↑↓↓↑↑↓*
19	↑↑↓↓↑↓↓*	35	↑↑↓↓↓↑↓*	51	↑↑↓↓↑↑↓*
20	↓↓↑↓↑↓↓*	36	↓↓↑↓↓↑↓*	52	↓↓↑↓↑↑↓*
21	↑↓↑↓↑↓↓*	37	↑↓↑↓↓↑↓*	53	↑↓↑↓↑↑↓*
22	↓↑↑↓↑↓↓*	38	↓↑↑↓↓↑↓*	54	↓↑↑↓↑↑↓*
23	↑↑↑↓↑↓↓*	39	↑↑↑↓↓↑↓*	55	↑↑↑↓↑↑↓*
24	↓↓↓↑↑↓↓*	40	↓↓↓↑↓↑↓*	56	↓↓↓↑↑↑↓*
25	↑↓↓↑↑↓↓*	41	↑↓↓↑↓↑↓*	57	↑↓↓↑↑↑↓*
26	↓↑↓↑↑↓↓*	42	↓↑↓↑↓↑↓*	58	↓↑↓↑↑↑↓*
27	↑↑↓↑↑↓↓*	43	↑↑↓↑↓↑↓*	59	↑↑↓↑↑↑↓*
28	↓↓↑↑↑↓↓*	44	↓↓↑↑↓↑↓*	60	↓↓↑↑↑↑↓*
29	↑↓↑↑↑↓↓*	45	↑↓↑↑↓↑↓*	61	↑↓↑↑↑↑↓*
30	↓↑↑↑↑↓↓*	46	↓↑↑↑↓↑↓*	62	↓↑↑↑↑↑↓*
31	↑↑↑↑↑↓↓*	47	↑↑↑↑↓↑↓*	63	↑↑↑↑↑↑↓*
32	↓↓↓↓↓↑↓*	48	↓↓↓↓↑↑↓*		
33	↑↓↓↓↓↑↓*	49	↑↓↓↓↑↑↓*		

(Part 2 of 2)

Notes:

1. Switches 1 through 6 of Switch Block 1 are for station addresses 0 to 63.
2. Position 7 of Switch Block 1 is always set to the Off position.
3. Position 8 of Switch Block 1 is the Remote Initial Program Load (RIPL) switch (see the next figure).

Remote Initial Program Load

When switch 8 is On, the Personal Computer will request a
Remote Initial Program Load (RIPL) from another station in the
Cluster. This delays the POST by 30 seconds. The recommended
setting is Remote IPL Off.

Condition	Switch Block 1
	12345678
Remote IPL On	****** ↓↑
Remote IPL Off	****** ↓↓

Note: Position 7 of Switch Block 1 is always set to the
Off position.

Adapter Number

The following figure shows the setting of switches 1 through 4 of
Switch Block 2 for adapters 1 through 4.

Switches 5 through 8 of Switch Block 2 are always set to the Off
position.

Condition	Switch Block 2
	12345678
Select Adapter 1:	↑↓↓↓↓↓↓↓
Select Adapter 2:	↓↑↓↓↓↓↓↓
Select Adapter 3:	↓↓↑↓↓↓↓↓
Select Adapter 4:	↓↓↓↑↓↓↓↓

Note: If only one Cluster Adapter is installed in an IBM
Personal Computer, it must be set as adapter 1. Each
additional adapter must have a different Cluster Adapter
number.

Enhanced Graphics Adapter (EGA)

Warning: Damage to the graphics adapter, the display, or both may result if these jumpers are not in the correct position.
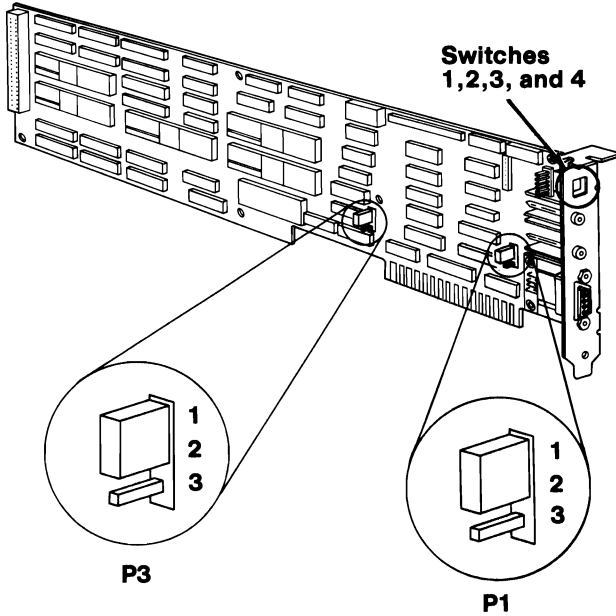
Type of Display	P1	P3
IBM Color Display or IBM Monochrome Display	2 and 3	1 and 2
IBM Enhanced Color Display	1 and 2	1 and 2

If an EGA is the only display adapter installed, or an EGA and a Monochrome Display and Printer Adapter are installed in the system, refer to Figure 1 to set the EGA switches.

If an EGA is installed with a Color/Graphics Monitor Adapter, refer to Figure 2 to set the EGA Switches.

Type of Display Attached to the Enhanced Graphics Adapter	EGA as Primary Switch 1234	EGA as Secondary Switch 1234
No Display	N/A	↓↑↑↑
Monochrome Display	↓↓↑↓	N/A
Color Display (40 X 25 Mode)	↑↓↓↑	↑↑↑↑
Color Display (80 X 25 Mode)	↓↓↓↑	↓↑↑↑
Enhanced Color Display (Normal Color Mode)	↑↑↑↓	↑↓↑↑
Enhanced Color Display (Enhanced Color Mode)	↓↑↑↓	↓↓↑↑

Figure 1

Type of Display Attached to the Color/Graphics Monitor Adapter	EGA as Primary Switch 1234	EGA as Secondary Switch 1234
Color Display (40 X 25 Mode)	↑↓↑↓	↑↑↓↑
Color Display (80 X 25 Mode)	↓↓↑↓	↓↑↓↑
No Display (80 X 25 Mode)	↓↓↑↓	N/A

Figure 2

Notes:

1. Mode selection can be changed by programming.
2. A maximum of two displays can be attached to the system, one color display and one monochrome display.

PC Network Adapter

Jumper Position (See figure)	Function
W1	Automatic Remote Program Load (RPL)
W2	Not Used
W3	Sets Adapter to use Interrupt Level 2
W4	Sets Adapter to use Interrupt Level 3
W5 & W7	Sets Adapter as Alternate Adapter
W6	Sets Adapter as Primary Adapter
W8	Enables ROM on Adapter (See Note)

Note: Do not enable the ROM on more than one adapter.
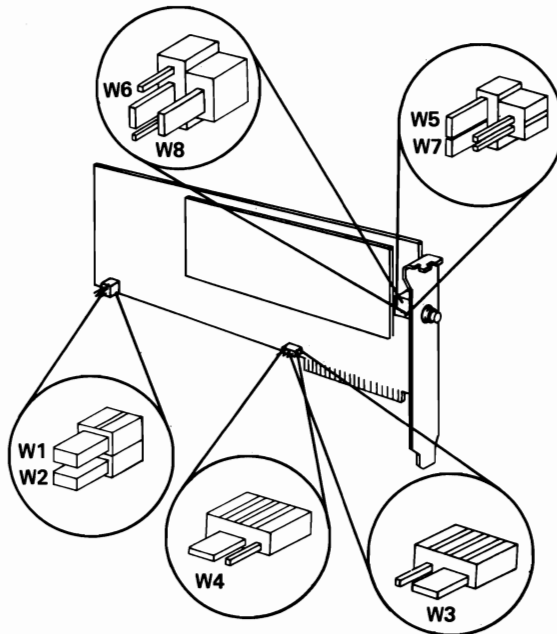
Asynchronous Communications Adapter

Module Position for "Primary Asynchronous Adapter"

Module Position for "Alternate Asynchronous Adapter"

Pluggable Module

J13

25 Pin Connector

Module Position for Current Loop Interface

Module Position for RS232-C Interface
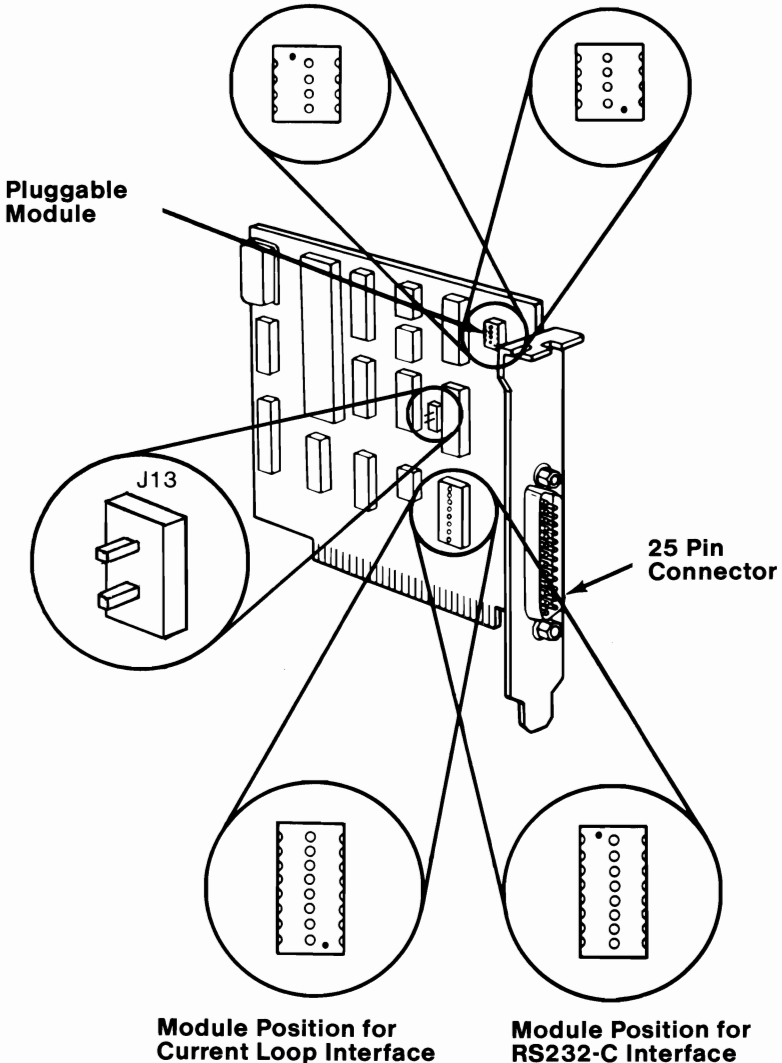
Note: A jumper must be installed on J13 if the adapter is installed in slot 8 of an IBM Personal Computer XT.

Binary Synchronous Communications (BSC) Adapter

Connectors P1 and P2 must have jumpers as shown for correct operation of the adapter.

Jumper Position for Primary Mode

Jumper Position for Alternate Mode

P3

P3

P1   P2

4

1

4

1

4

1

4

1

25-Pin Connector
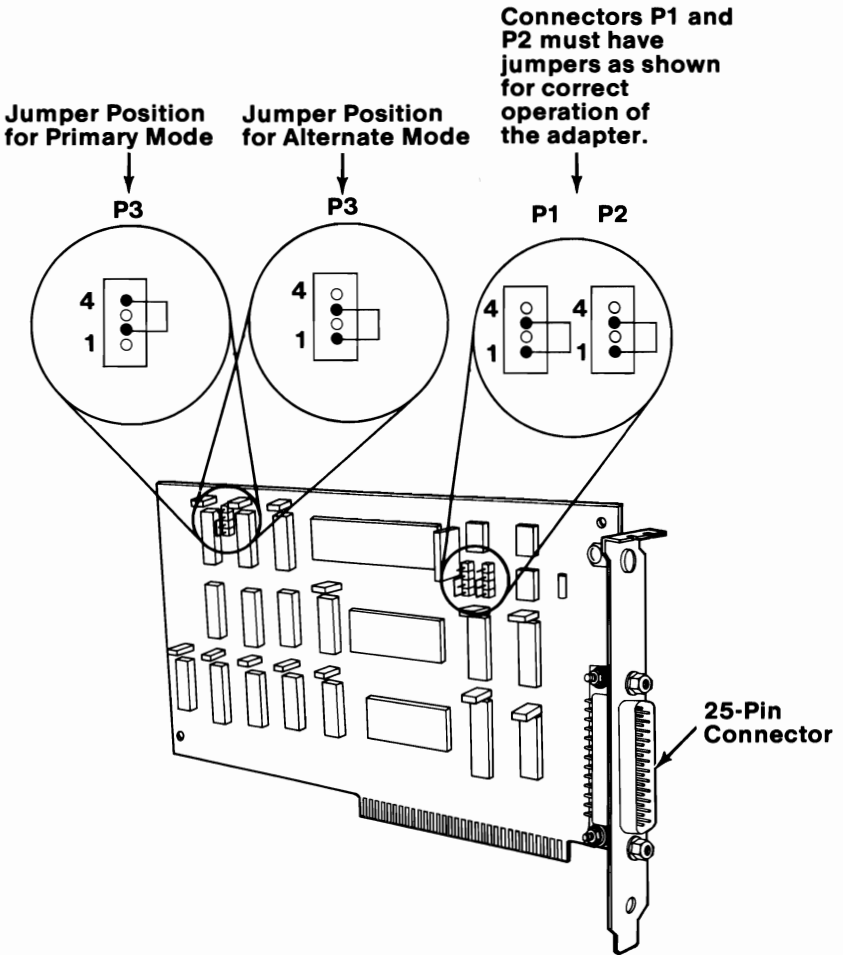
Data Acquisition and Control (DAC) Adapter

Switch Block S2

Switch Block S1

Switch Block S3

Switch Block S4   Switch Block S5
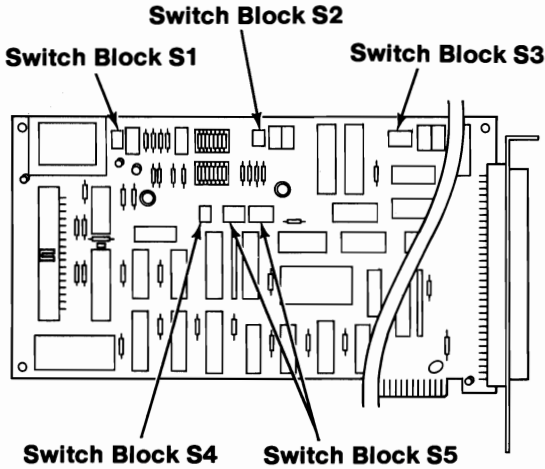
Analog Output Range

Analog Output Range (D/A) Channel 0	Switch Block S1
	1 2
−5 to +5 Volts	↑↑
−10 to +10 Volts	↓↑
0 to +10 Volts	↑↓

Analog Output Range (D/A) Channel 1	Switch Block S2
	1 2
−5 to +5 Volts	↑↑
−10 to +10 Volts	↓↑
0 to +10 Volts	↑↓

Note: Only the switch settings shown may be used.

Analog Input Range

Analog Input Range (A/D)	Switch Block S3
	1 2 3 4
−5 to +5 Volts	↓ ↓ ↑ ↑
−10 to +10 Volts	↓ ↑ ↓ ↑
0 to +10 Volts	↓ ↓ ↑ ↓

Note: Only the switch settings shown may be used.

Adapter Number

Adapter Number (Note)	Switch Block S4
	1 2
0	↓↓
1	↑↓
2	↓↑
3	↑↑
Note: Each DAC adapter installed in a system must have its own adapter number.	

Note: Only the switch settings shown may be used.

Interrupt Request (IRQ) Level

IRQ Level	Switch Block S5	
	1 2 3 4 5	1 2 3 4 5
7	↓↓↓↓↓	↓↓↓↑↑
6	↓↓↓↓↓	↓↑↑↓↓
5	↓↓↓↓↑	↑↓↓↓↓
4	↓↓↑↑↓	↓↓↓↓↓
3	↑↑↓↓↓	↓↓↓↓↓

Note: The DAC adapter can share its IRQ level with other adapters that can use shared interrupts.

Note: Only the switch settings shown may be used.

General Purpose Interface Bus (GPIB) Adapter

Adapter Number Jumpers

Interrupt Acknowledge (INT ACK) Level Jumpers

Interrupt Request (IRQ) Level Jumpers

DMA Channel Jumpers
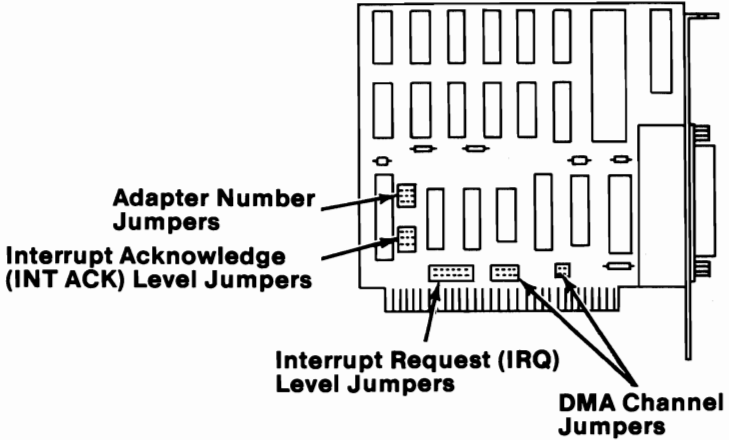
Adapter Number

Each GPIB adapter installed in the same system must have its own adapter number.

Adapter Number	Jumper Positions
0	
1	
2	
3	
4	
5	
6	
7	

Interrupt Request (IRQ) Level

The GPIB adapter can share its IRQ level with other adapters that use shared interrupts. All adapters sharing an IRQ level must be installed in the same unit.

Interrupt Request Level	Jumper Positions
7	`:::::∎`
6	`::::∎:`
5	`:::∎::`
4	`::∎:::`
3	`:∎::::`
2	`∎:::::`

Interrupt Acknowledge (INT ACK) Level

The interrupt acknowledge (INT ACK) and interrupt request (IRQ) levels must be the same.

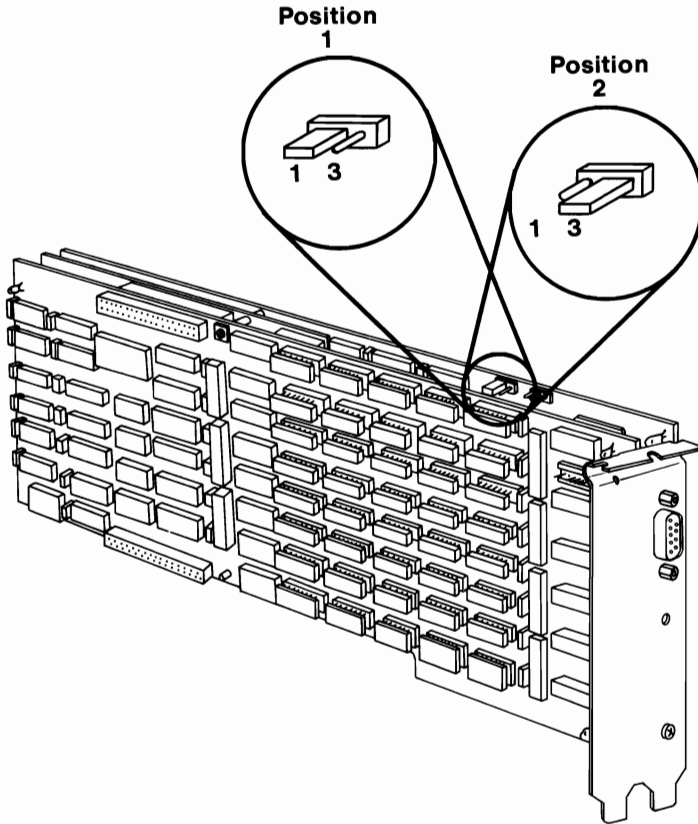| INT ACK level	Jumper positions
7	
6	
5	
4	
3	
2	

Direct-Memory Access (DMA) Channel

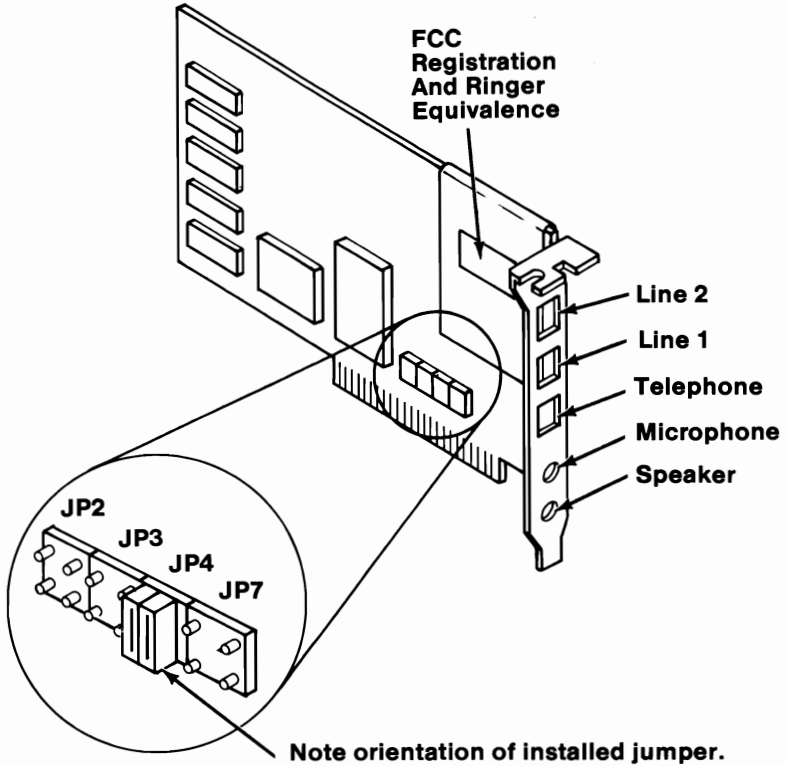| DMA channel	Jumper positions
1	
2	
3	

Professional Graphics Controller

If an IBM Color/Graphics Monitor Adapter is installed in the system, the emulator jumper must be in position 2.

When the jumper is installed in position 1, the Professional Graphics Controller can emulate an IBM Color/Graphics Monitor Adapter.

Voice Communications Adapter

Note orientation of installed jumper.

Note: The jumper block is usually set to position JP4. It must be installed at an interrupt level that does not conflict with other options.

IRQ Level	Jumper Position
2	JP2
3	JP3
4	JP4
7	JP7

Notes: