Figure 13-2. *continued*

Service	Interrupt	Register Input	Output	Notes
Enable/disable watchdog timer.	15H	AH = C3H BX = timer count (01H–FFH) *To enable:* AL = 01H *To disable:* AL = 00H	CF = 0 if successful	PS/2 models 50, 60, 80 only.
Programmable Option Select (POS) interface.	15H	AH = C4H *To get POS register base address:* AL = 00H *To enable slot for POS setup:* AL = 01H *To enable an adapter:* AL = 02H	*If called with AL = 00H:* AL = 00H DX = base POS register address *If called with AL = 01H:* AL = 01H BL = slot number *If called with AL = 02H:* AL = 02H	PS/2 models 50, 60, 80 only.

Keyboard Services

Service	Interrupt	Register Input	Output	Notes
Read next keystroke.	16H	AH = 00H	AH = scan code AL = ASCII character code	
Report whether keystroke ready.	16H	AH = 01H	ZF = 0 if keystroke available AH = scan code (if ZF = 0) AL = ASCII character code (if ZF = 0)	
Get shift status.	16H	AH = 02H	AL = shift status bits	*Shift status bits:* bit 7 = 1: Insert state active bit 6 = 1: Caps Lock active bit 5 = 1: Num Lock active bit 4 = 1: Scroll Lock active bit 3 = 1: Alt pressed bit 2 = 1: Ctrl pressed bit 1 = 1: left Shift pressed bit 0 = 1: right Shift pressed

(continued)

Figure 13-2. *continued*

Service	Interrupt	Register		Notes
		Input	*Output*	
Set typematic rate and delay.	16H	AH = 03H AL = 05H BL = typematic rate BH = delay value	None	PC/AT (BIOS dated 11/15/85 and later) and PS/2s only. See Chapter 11 for rate and values.
Write to keyboard buffer.	16H	AH = 05H CH = scan code CL = ASCII character code	AL = 00H (success); AL = 01H (keyboard buffer full)	PC/XT (BIOS dated 01/10/86 and later), PC/AT (BIOS dated 11/15/85 and later), and PS/2s only.
Extended keyboard read.	16H	AH = 10H	AH = scan code AL = ASCII character code	PC/XT (BIOS dated 01/10/86 and later), PC/AT (BIOS dated 11/15/85 and later), and PS/2s only.
Extended keyboard status.	16H	AH = 11H	*If no keystroke available:* ZF = 1 *If keystroke available:* ZF = 0 AH = scan code AL = ASCII character code	PC/XT (BIOS dated 01/10/86 and later), PC/AT (BIOS dated 11/15/85 and later), and PS/2s only.
Extended shift status.	16H	AH = 12H	AL = shift status (as above) AH = extended shift status: bit 7: Sys Req is pressed bit 6: CapsLock is pressed bit 5: NumLock is pressed bit 4: ScrollLock is pressed bit 3: right Alt is pressed bit 2: right Ctrl is pressed	PC/XT (BIOS dated 01/10/86 and later), PC/AT (BIOS dated 11/15/85 and later), and PS/2s only.

(continued)

Figure 13-2. *continued*

Service	Interrupt	Register Input	Output	Notes
Extended shift status, *continued.*			bit 1: left Alt is pressed bit 0: left Ctrl is pressed	
Printer Services				
Send 1 byte to printer.	17H	AH = 00H AL = character DX = printer number	AH = success/ failure status flags	*Status bit settings:* bit 7 = 1: not busy bit 6 = 1: acknowledge bit 5 = 1: out of paper bit 4 = 1: selected bit 3 = 1: I/O error bit 2 = unused bit 1 = unused bit 0 = time out
Initialize printer.	17H	AH = 01H DX = printer number	AH = status code	Status code bit settings as above.
Get printer status.	17H	AH = 02H DX = printer number	AH = status code	Status code bit settings as above.
Miscellaneous Services				
Switch control to ROM BASIC.	18H	None	N/A	No return, so no possible output.
Reboot computer.	19H	None	N/A	No return, so no possible output.
Time-of-Day Services				
Read current clock count.	1AH	AH = 00H	AL > 00H if time of day has passed midnight CX = tick count, high word DX = tick count, low word	Timer-tick frequency is about 18.2 ticks/second, or about 65,543 ticks/hour.