Keyboard and Mouse Ports

General Information

Some sytles of keyboards can be used on systems other than the ones they were originally shipped on. For this reason, this section identifies the keyboard and/or mouse system connection separately from any connections on the keyboard itself.

Types of Keyboard and Mouse System Connections

Keyboard and mouse connections to the system are either through a combined keyboard/mouse interface, or through PS/2 style keyboard and mouse interfaces, which are carried on separate cables. The connectors used are either a 15 pin D (DB-15), a 9 pin D (DB-9), a 6 pin mini-DIN or a PS/2 style 6 pin mini-DIN. The table below defines which chassis have which types of interfaces.

Chassis Type	Model	Combined Keyboard & Mouse			Separate Keyboard & Mouse
		15 Pin (DB-15)	9 Pin (DB-9)	6 Pin Mini-DIN	PS/2 Style (6 Pin Mini-DIN)
Twin Tower 12 Slot	All	X			
Twin Tower 15 Slot	All	X			
Predator Rack	All	X			
Diehard Single Tower	All	X			
Diehard2	All	X			
Personal IRIS	4D/20, 25		X		
	4D/30, 35			X	
Indigo	All			X	
Terminator Rack	All			X	
Eveready Deskside	All			X	
Indigo2	All				X
Indy	All				X

Table 9 Keyboard & Mouse System Connections on SGI Platforms

Keyboard and Mouse Voltages and Interfaces

The table below shows the supply voltage(s) and logic levels for the keyboard and mouse as well as the type of interface each device has.

Interface	Platform	Supply Voltage	Logic Levels Mark/Space	Interface
DB-15 Keyboard/Mouse	All Twin Tower, Single Tower, Predator Rack	+12 V/-12 V	-12/+12	EIA-232
DB-9 Keyboard/Mouse	4D/20, 25	+12 V/-12 V	-12/+12	EIA-232
6 Pin Mini-DIN Keyboard/Mouse	4D/30, 35,	+8 V		EIA-232
	Indigo R3K	+5 V		EIA-232
	Indigo R4K	+12 V		EIA-232
	Terminator, Eveready	+ 12 V	-12/+12	EIA-232
6 Pin Mini-DIN PS/2 Keyboard	Indigo^2, Indy	+5 V	0/+5	TTL
6 Pin Mini-DIN PS/2 Mouse	Indigo^2, Indy	+5 V	0/+5	TTL

Table 10 Keyboard & Mouse Voltages and Interfaces

Keyboard Styles

There are four styles of keyboards for the system.

4D Style - This keyboard has a captive cable with a DB-15 connector for the system. This keyboard has a DB-9 connector on each side of the keyboard for the mouse connection. This is the keyboard used from the inception of the 4D series up until the Diehard2 platform. The mouse intended for this keyboard was an optical mouse.

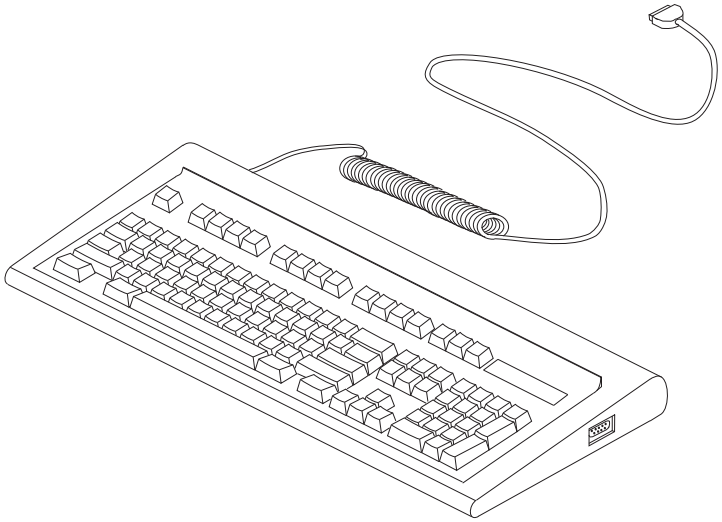

Figure 6 4D Style Keyboard

Personal IRIS Style - This keyboard has two DB-9 connectors. One is used for connecting to the system while the other is used to connect the mouse. This keyboard originally shipped first with the Personal IRIS. The mouse shipped with this keyboard was an optical mouse.

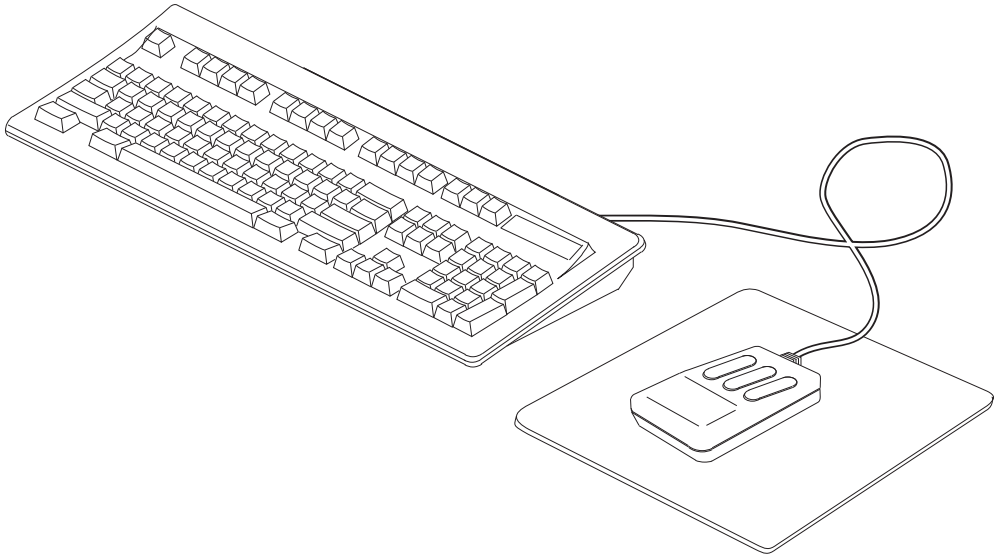

Figure 7 Personal IRIS Style Keyboard and Mouse

Indigo Style - This keyboard has two 6 pin mini-DIN connectors. One is used for connecting to the system while the other is used to connect the mouse. The two connectors are wired identically. The mouse originally shipped with the Indigo was a mechanical mouse. With the appropriate cable (DB-9 to 6 pin mini-DIN) this keyboard can be used on an older style Personal IRIS. Starting with the Eveready/Terminator chassis this style of keyboard was shipped with the high-end systems.

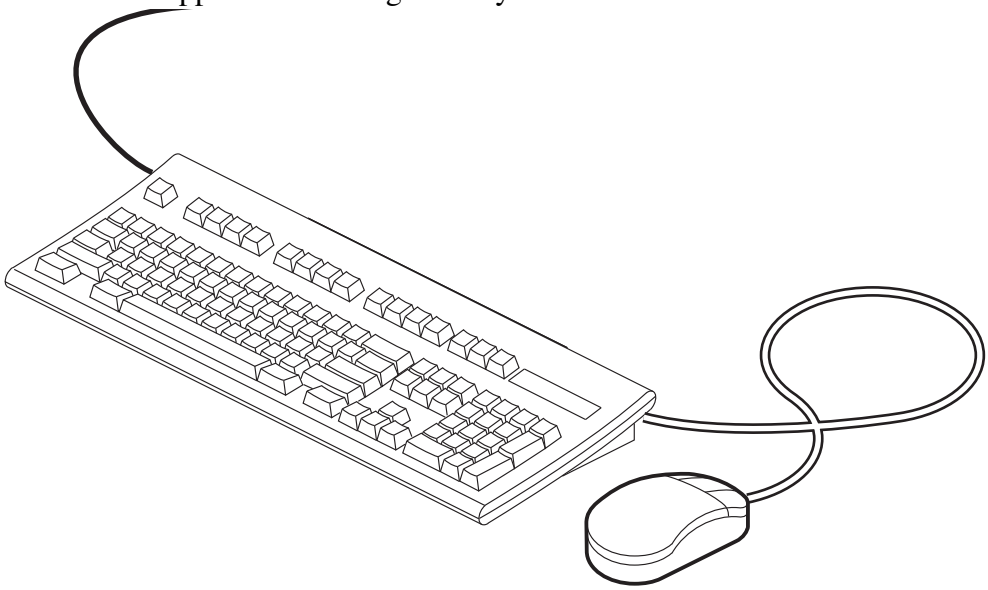

Figure 8 Indigo Style Keyboard & Mouse

PS/2 Style - This keyboard style has a captive cable for connecting to the system. There are no connectors available on this keyboard for connecting the mouse. This keyboard was originally shipped with the Indigo^2 and Indy.

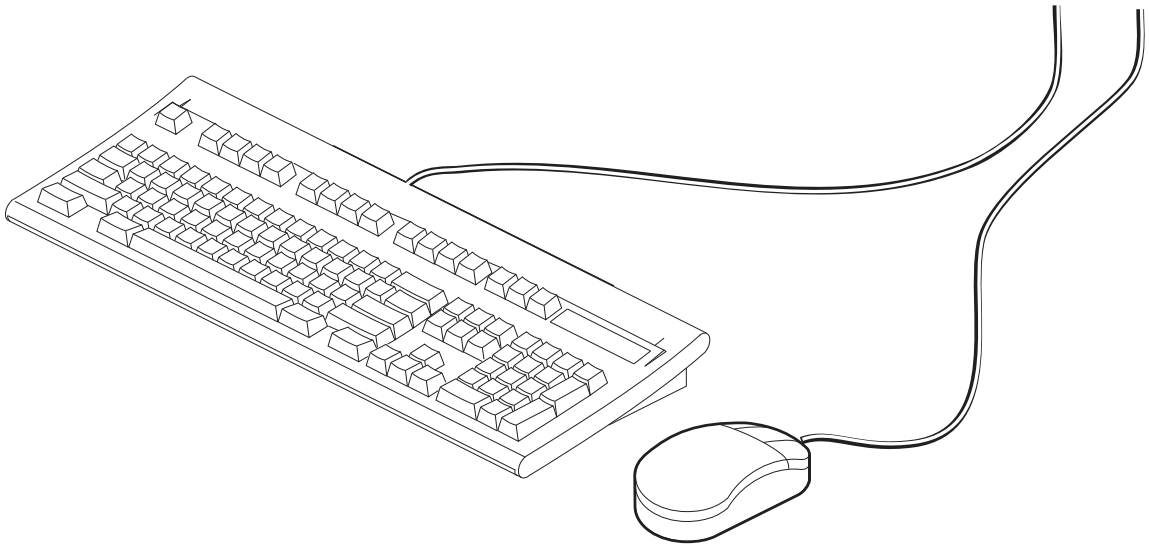

Figure 9 PS/2 Style Keyboard & Mouse

DB-15 Keyboard/Mouse System Connection

Connector Drawing

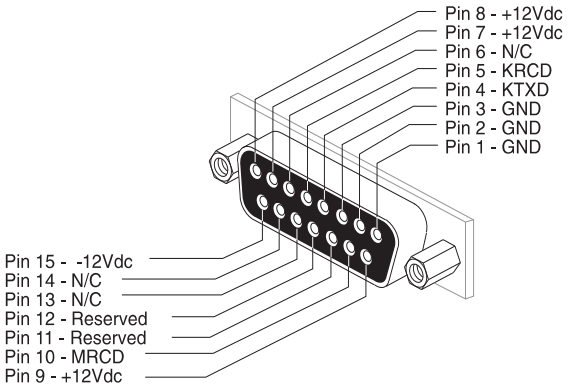

Figure 10 DB-15 Keyboard/Mouse Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	GND	Ground	-
2	GND	Ground	-
3	GND	Ground	-
4	KTXD	Keyboard Transmit Data	Output
5	KRCD	Keyboard Receive Data	Input
6	N/C	No Connection	-
7	+12Vdc	Power	Output
8	+12 Vdc	Power	Output
9	+12 Vdc	Power	Output
10	MRCD	Mouse Transmit Data	Input
11	RES	Reserved	-
12	RES	Reserved	-
13	N/C	No Connection	-
14	N/C	No Connection	-
15	-12 Vdc	Power	Output

Table 11 DB-15 Keyboard/Mouse System Connector Pinout

Notes:

1. Maximum current draw on the +12 Vdc lines is 1 amp.
2. Maximum current draw on the -12 Vdc line is 1 amp.

DB-9 Keyboard/Mouse System Connection

Connector Drawing

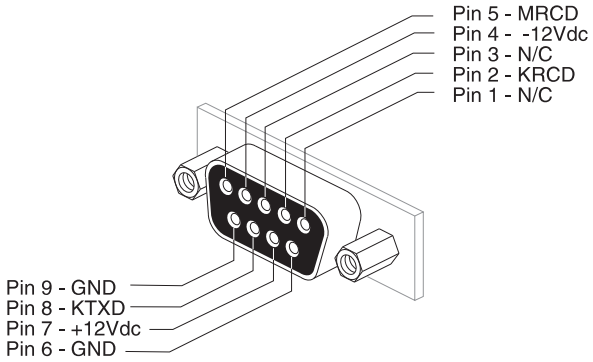

Figure 11 DB-9 Keyboard/Mouse Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	N/C	No Connection	-
2	KRCD	Keyboard Receive Data	Input
3	N/C	No Connection	-
4	-12 Vdc	Power	Output
5	MRCD	Mouse Receive Data	Input
6	GND	Ground	-
7	+12 Vdc	Power	Output
8	KTXD	Keyboard Transmit Data	Output
9	GND	Ground	-

Table 12 DB-9 Kayboard/Mouse System Connector Pinout

6 Pin Mini-DIN Keyboard/Mouse System Connection

Connector Drawing

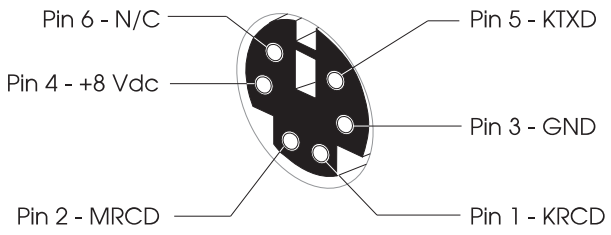

Figure 12 6 Pin Mini-DIN Keyboard/Mouse Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	KRCD	Keyboard Receive	Input
2	MRCD	Mouse Receive	Input
3	GND	Ground	-
4	+5/8/12 Vdc[1]	Power	Output (1 Amp Max)
5	KTXD	Keyboard Transmit	Output
6	N/C	No Connection	-

Table 13 6 Pin Mini-DIN Keyboard/Mouse System Connector Pinout

Notes:

1. Consult the table on page 55 to determine the supplied voltage.

PS/2 Keyboard System Connection (6 Pin Mini-DIN)

Connector Drawing

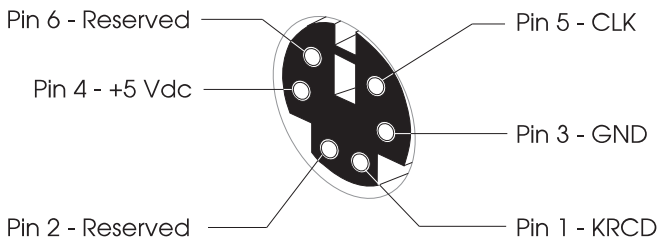

Figure 13 PS/2 Keyboard Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	KRCD	Keyboard Receive	Input
2		Reserved	-
3	GND	Ground	Output
4	+5 Vdc	Power	Output (1 Amp Max)
5	CLK	Keyboard Clock	Output
6		Reserved	-

Table 14 6 Pin Mini-DIN Keyboard/Mouse System Connector Pinout

PS/2 Mouse System Connection (6 Pin Mini-DIN)

Connector Drawing

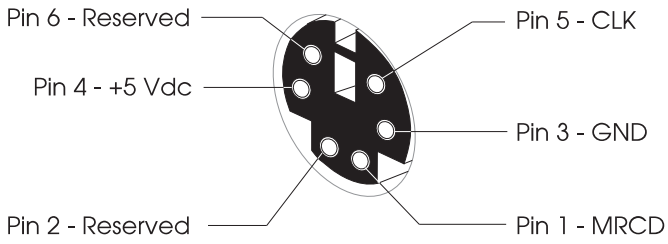

Figure 14 PS/2 Mouse Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	MRCD	Mouse Receive	Input
2	-	Reserved	-
3	GND	Ground	Output
4	+5 Vdc	Power	Output (1 Amp Max)
5	CLK	Mouse Clock	Output
6	-	Reserved	-

Table 15 DB-9 Kayboard/Mouse System Connector Pinout

DB-9 Mouse Connection (4D Style Keyboard)

This mouse is not a device that sends its information in the form of a serial stream of data including the codes for button presses. This mouse connection was part of the custom keyboard used for the original 4D series of systems.

Connector Drawing

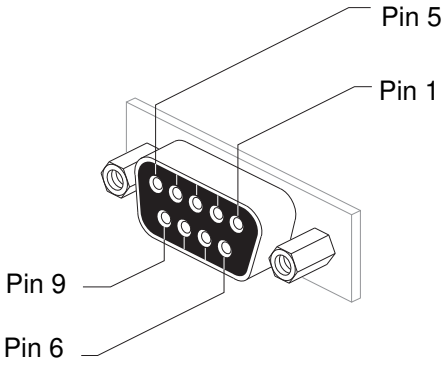

Figure 15 DB-9 Mouse Connector

Pinout

Pin	Signal Name	Description	Input/Output
1	VCC	+12 Volts	-
2	XA		Input
3	XB or -5V		Input/-
4	YA		Input
5	YB or MTXD		Input
6	Left Button		Input
7	Middle Button		Input
8	Right Button		Input
9	GND	Ground	-

Table 16 DB-9 Kayboard/Mouse System Connector Pinout