

RX5 PENTUSA BASE STATION



This fast fact sheet provides basic reference information for this RX5 Pentusa Base Station and related devices. *See the System 3 Manual for more detailed information.* **Note:** The RX5 is available with two or five processors. The number of status lights and fiber optic ports depends on the model purchased.

Connecting the Base Station to the Preampifiers

The base station acquires digitized signals from a preamplifier over a fiber optic cable. Both ends of the cable are the same but the two sides of the connector are different. See the illustration to the right to determine the correct way to make the connection.



Status Lights

Pattern	DSP Status
Steady glow	Device on
Rapid flash	DSP cycle usage > 99%

Front Panel VFD Screen

The front panel VFD can display a variety of status indicators. Cycle through the options using the Mode button to the left of the display. Push and release the button to manually change the display options or push and hold the button for one second then release to automatically cycle through each of the following display options:

Cyc:	cycle usage
Ovr:	processor cycle overages
Bus%:	percentage of internal device's bus capacity used
I/O%:	percentage of data transfer capacity used

The VFD Screen may also report system status such as booting status (Booting DSP) or alert the user when the device's microcode needs to be reprogrammed (Firmware Blank).

Fiber Optic Ports

The RX5 can be purchased with either two or four fiber optic ports. The channel numbers for each port begin at a fixed offset regardless of the number of channels available on the connected device.

Channels are numbered as follows:	Amp-A	1 - 16
	Amp-B	17 - 32
	Amp-C	33 - 48
	Amp-D	49 - 64

Five Processor Version Only

Amp Status and Clip Lights for the RX5

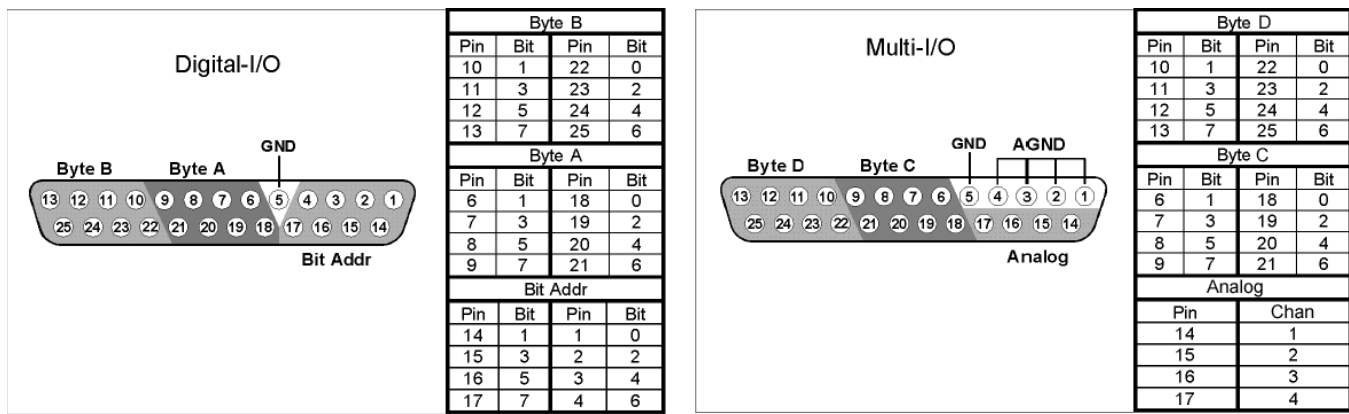
Amp Lights (one for each Amp port) are located to the right of the fiber optic port. These lights are used to indicate the power or clipping status of the connected amplifiers.

Pattern	Amplifier Status
Solid	Connected
Very slow flash (~1 every two seconds)	Not connected
Slow flash (~1 per second)	Connected and charging
Rapid flash	Battery low
Very rapid flash	Clipping

Important Note!: The Li-ion battery's voltage decreases rapidly once the battery low light pattern is displayed. Data acquisition will suffer if the battery is not charged soon after the light goes on.



DB25 Connector Pinouts

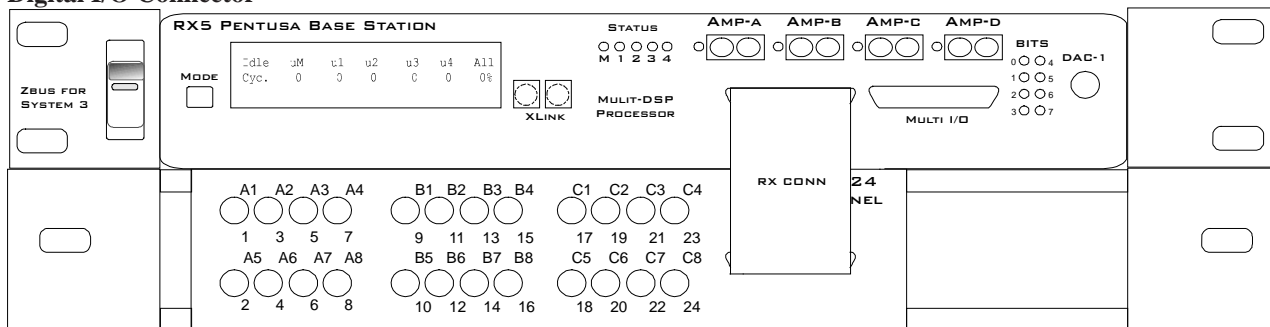


Digital I/O and Bits Lights

The TTL I/O circuits include 40 bits of programmable I/O (32-bits word-addressable and 8-bits bit-addressable). Digital I/O lines are accessed via the two 25-pin connectors on the front of the Pentusa. By default the user configurable Bits lights indicate the logic level (light when high) for the eight bit-addressable digital I/O lines. See the System 3 Manual for more information on configuring Bits Lights for other uses.

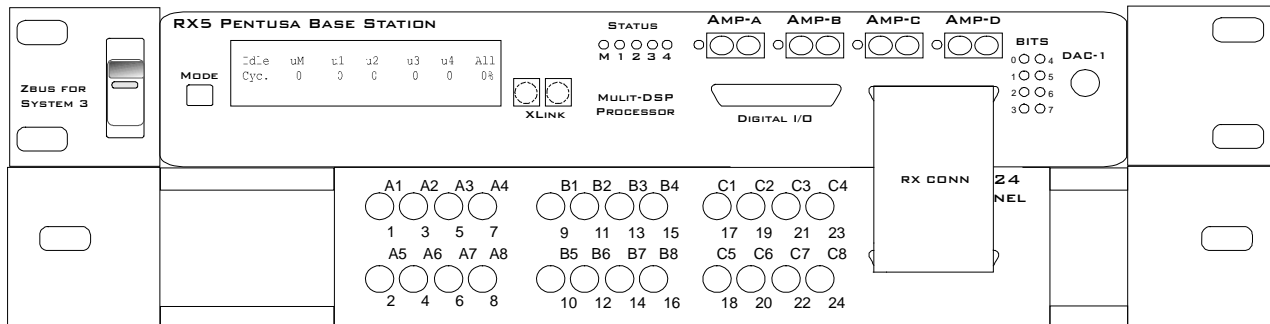
Using the PP24 for I/O

Digital I/O Connector



Device	A1-A8	B1-B8	C1-C8
RX5 Digital I/O Connector	Bit Addressable Digital I/O Channels 0-7	Digital I/O, Byte A Channels 0-7	Digital I/O, Byte B Channels 8-15

Multi I/O Connector



Device	A1-A8	B1-B8	C1-C8
RX5 Multi I/O Connector	Analog Outputs A2, A4, A6, A8 = Channels 1-4 A1, A3, A5, A7 = Not Used	Digital I/O, Byte C Channels 16-23	Digital I/O, Byte D Channels 24-31

