

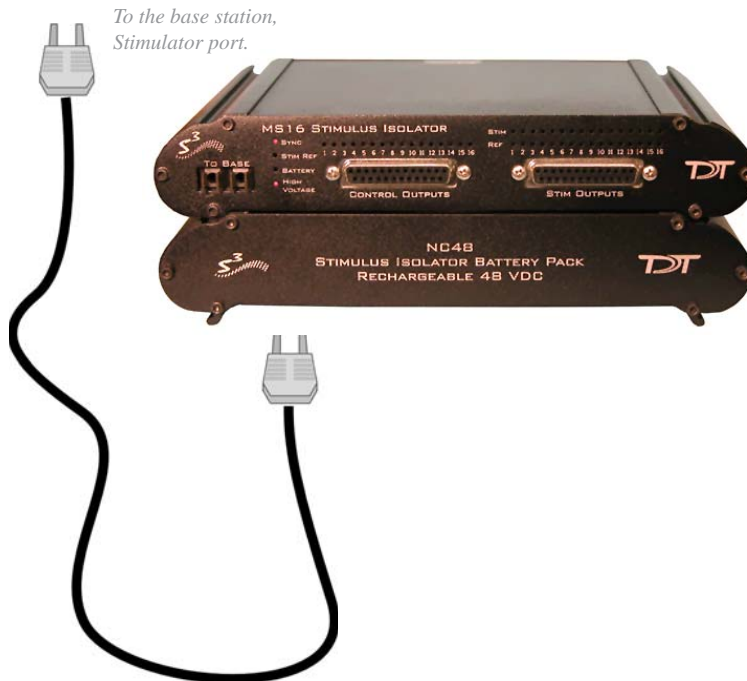
## RX7 MICROSTIMULATOR BASE STATION



This fast fact sheet provides basic reference information for this and related devices. *See the System 3 Manual for more detailed information.* **Note:** The RX7 is available with two or five processors. The number of status lights and fiber optic ports depends on the model purchased.

### Fiber Optic Output (Stimulator) Ports

The RX7 output port, labeled Stimulator, is used to transfer signal data to the Stimulus Isolator's 16 DAs or to control its 16 word-addressable digital output bits. Both ends of the fiber optic connection cable are the same but the two sides of the connector are different. See the illustrations to the right to determine the correct way to make the connection.



To the base station,  
Stimulator port.

### 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 Input (Amp-A and Amp-B) Ports

The RX7 can be purchased with one or two 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. *See the System 3 Manual for information on connecting to preamplifiers.*

Channels are numbered as follows:	Amp-A	1 - 16
	Five Processor Version Only   Amp-B	17 - 32

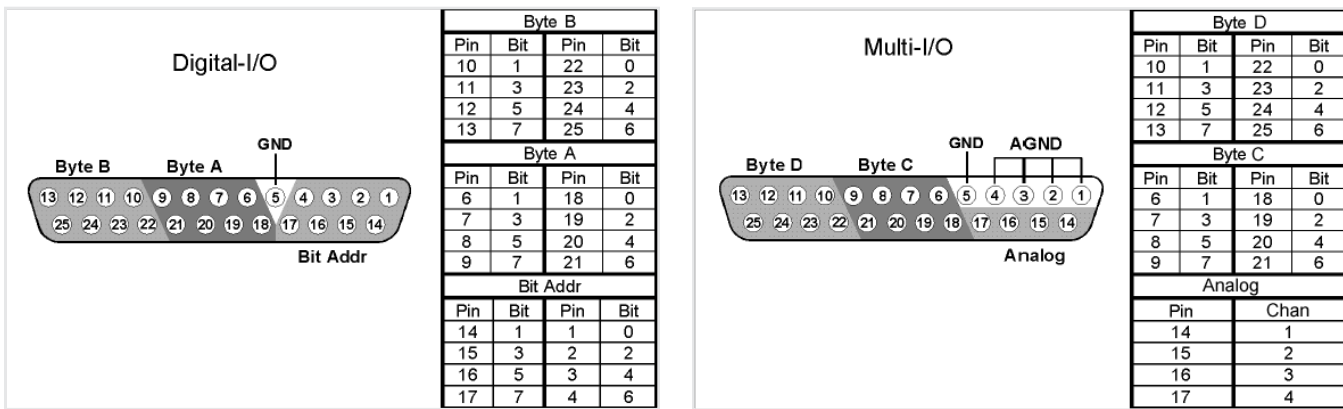
### Amp Status and Clip Lights for the RX7

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

Light 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



## DB25 Connector Pinouts

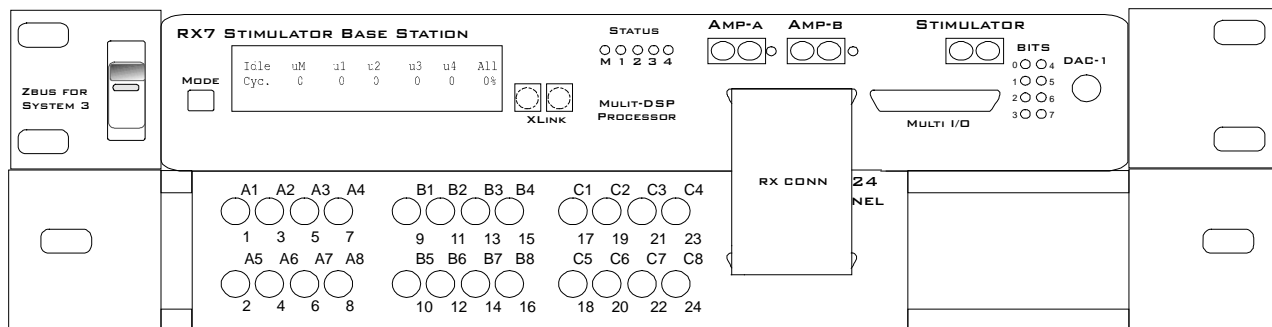


## Digital I/O

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 RX7. By default the Bits lights indicate the logic level (light when high) for the eight bit-addressable digital I/O lines.

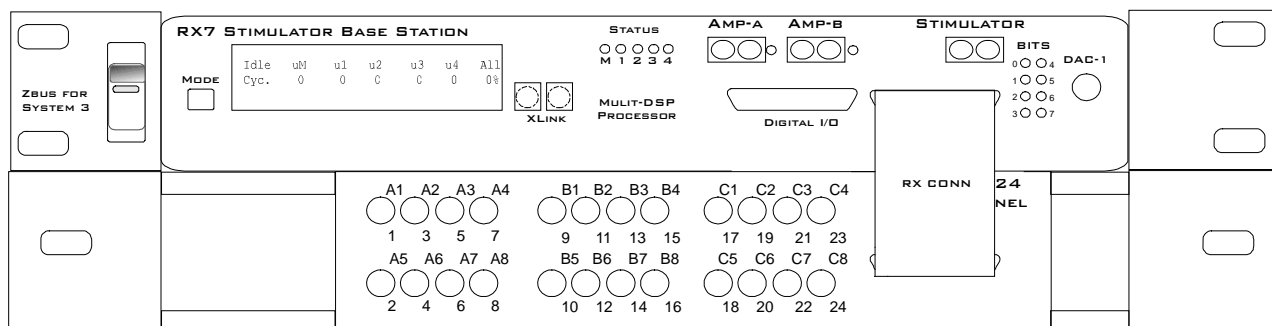
## Using the PP24 for I/O

### Digital I/O Connector



Device	A1-A8	B1-B8	C1-C8
RX7	Bit Addressable Digital I/O	Digital I/O, Byte A	Digital I/O, Byte B
Digital I/O Connector	Channels 0-7	Channels 0-7	Channels 8-15

### Multi I/O Connector



Device	A1-A8	B1-B8	C1-C8
RX7	Analog Outputs	Digital I/O, Byte C	Digital I/O, Byte D
Multi I/O Connector	A2, A4, A6, A8 = Channels 1-4 A1, A3, A5, A7 = Not Used	Channels 16-23	Channels 24-31

## Analog Output

The RX7's four channels of 16-bit, PCM D/A channels can be accessed via pins 14 - 17 of the DB25 Multi I/O connector. Channel one analog output can also be accessed via a front Panel BNC (DAC-1).

