

## SYSTEM INSTALLATION

- Use a volt-ohmmeter (or continuity checker) to verify that no short circuit exists between the center conductor and the shield of the coaxial connectors after you attach it. You should measure about 2-K ohms at the antenna connector.

### INSTALLING THE RECEIVER

#### General

Because of its compact size and light weight, you have lots of flexibility in how and where you install your MX 4200. An adjustable mounting platform lets you mount the receiver in any orientation, even on the overhead. To ensure a precise installation, each receiver comes with an installation template.

You'll, however, want to choose both a physically safe environment (including a safe distance from the compass) and an electromagnetically safe environment.

**Choosing a Safe Physical Environment**—Locate an installation site away from excessive heat sources, such as heating vents or equipment heat exhausts. Also avoid sites (examples would be port holes and hatches that open to the outside) where the flow of humid salt air might corrode internal components.

Despite the sturdiness of the MX 4200, don't subject it to hard, continuous vibration. If you think vibration is a problem, order the Vibration Isolation Kit (P/N 819807-801).

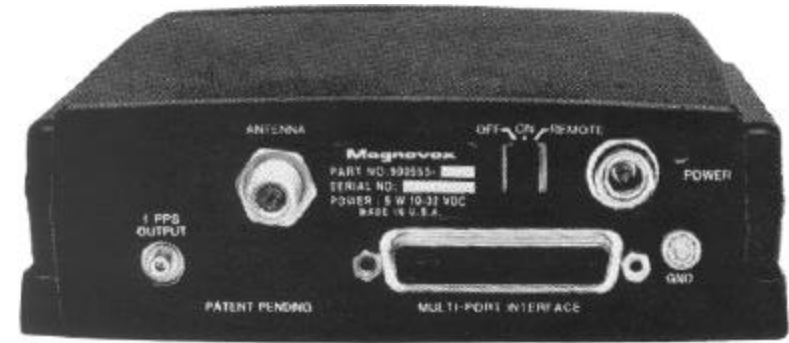
**Allowing for Proper Distances**—Give some thought to the distance of the receiver. You may need to visually monitor the three status indicators on the front panel (green, red, and yellow light-emitting diodes called traffic lights). You'll also want to allow a safe distance from the receiver to the navigation compass to minimize compass deviation. For this, use Table 3 as your guide.

Table 3. Compass Safe Distances			
Equipment	POSSIBLE COMPASS DEVIATION		
	0.25	1	2
Receiver:	170cm (67 inch)	105 cm (67 inch)	75 cm (67 inch)
Antenna:	15 cm (6 inch)	16 cm (6 inch)	15 cm (6 inch)

**Allowing Access to Rear Panel**—You'll want to get at the ANTENNA input connector, the I PPS OUTPUT connector (perhaps), and the MULTI-PORT

## SYSTEM INSTALLATION

INTERFACE DB 25S connector (Figure 4). (Note that the I PPS f I pulse each second OUTPUT connector on the rear panel provides an optional timing source; the I-second timing pulses are accompanied by an ASCII message giving you the precise time of each pulse.)



391-BB1  
41391-1

Figure 4. Rear Panel Of MX 4200

When installing, leave 5 inches (about 13 centimeters) of more of clearance between the back panel of the receiver and the bulkhead. You'll need that much room for dressing the cables and getting at the rear panel parts.

**Power and Backup**—Your MX 4200 requires a minimum of 10 Vdc and a maximum of 32 Vdc. It consumes an average of 250 milliamps at 15-Vdc (average: 3.5 watts; maximum: 5 watts).

An ON/OFF/REMOTE switch on the back panel determines whether receiver power gets controlled locally or remotely. To control receiver power remotely, you must have the power switch set to the REMOTE position and the ability to apply 5Vdc to a relay switch in the receiver. Remote power is controlled through the DB 25P connector, pins I and 25; see the schematic in Figure 6).

#### **CAUTION**

*For reliable operation, you must provide dc power to the MX 4200 within the 10 to 32Vdc range. Never apply voltages outside this range.*

The MX 4200 power supply does provide under- and over-voltage protection. In addition, an internal lithium battery gives you backup power protection for random access memory (RAM). Yet another safeguard is an internal thermal