

FAS-1-4R REMOTE ANTENNA SELECTOR

The FAS-1-4R Remote Antenna Selector may be installed either at the feedpoints of the antennas or inside the FC-102 Antenna Tuner, providing selection between up to four antennas. Alternatively, the FAS-1-4R can be installed and operated independently from the FC-102 when a 12 VDC power source and switching means are provided. Heavy duty relays are used to enable good isolation at RF power levels up to 1.2 kW PEP.

Installation in the FC-102

1. Remove the subpanel on the rear of the FC-102 as shown in Figure 1.
2. Insert the FAS-1-4R module into the FC-102, and install the four mounting screws as shown in Figure 2.
3. Using the short coaxial jumper and 4-conductor interconnection cable, connect the ANT B terminal on the FC-102 to the INPUT coaxial terminal on the FAS-1-4R, and connect the wire ends of the 4-conductor cable to the terminal strip on the FC-102, securing the other end of this cable into the REMOTE jack on the FAS-1-4R as shown in Figure 3. Connect the antenna feedlines to jacks 1 through 4 on the FAS-1-4R.

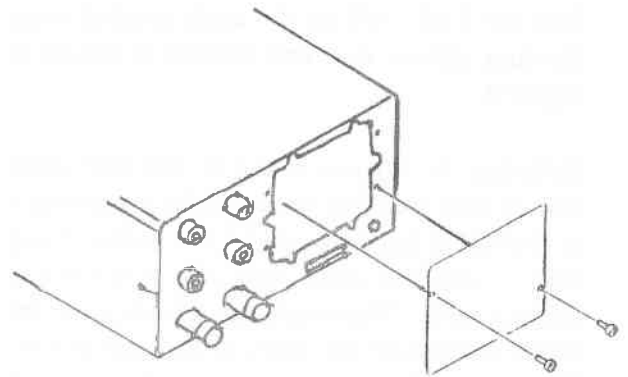


Figure 1

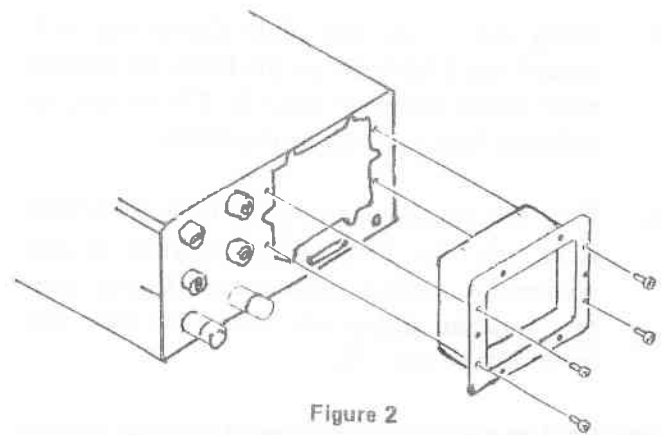


Figure 2

Installation in the FC-102

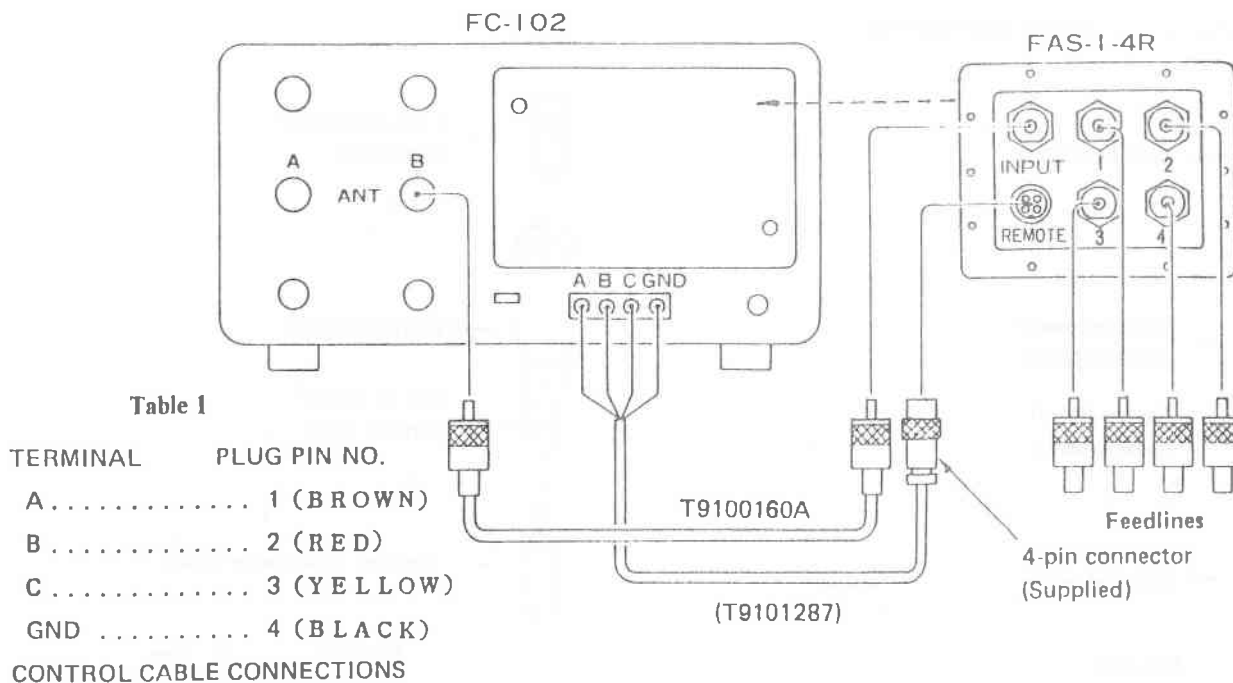


Figure 3

Installation at Remote Location

1. Bolt the FAS-1-4R to the angle bracket using the four screws, nuts and washers as shown in Figure 4.
2. Referring to Figures 5 and 6, cut the small end of each weather sleeve to the correct size to provide a tight fit around the cables being used – one for each coax and one for the control cable. Then slide the sleeves over the cables and solder the wires to the connectors. The wiring of the 4-pin connector is indicated in Table 1 (previous page).
3. Using the U-bolt and Mast Clamp supplied, mount the FAS-1-4R on the tower or support mast (mast diameter must be 37–64 mm, or different hardware will be required).
4. Mate the connectors, one at a time, with their jacks on the FAS-1-4R, applying sealing compound around each mated fitting after the weather sleeve has been slid over the connector (Figure 7).

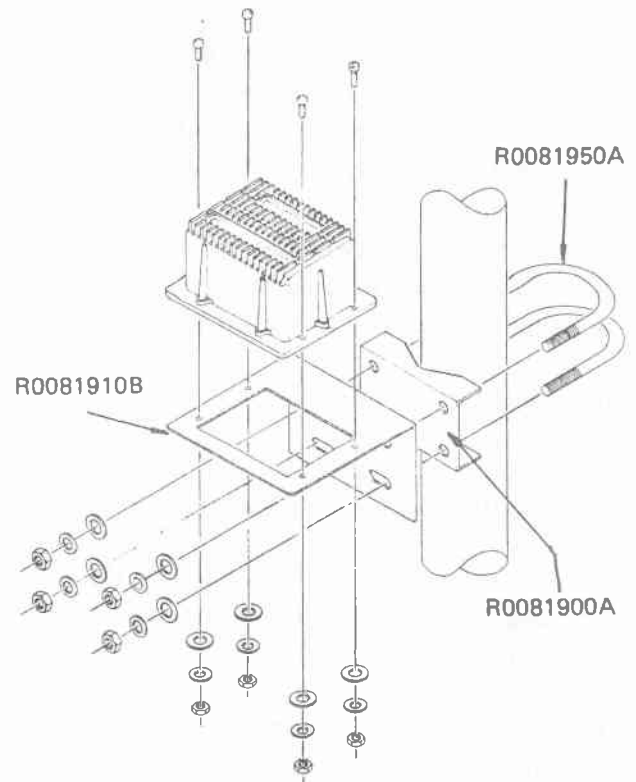


Figure 4

NOTE: Use short feeder lengths of 50-ohm coaxial cable to connect the antenna feedpoints to the FAS-1-4R. The antenna feedpoints should be unbalanced (using baluns, if necessary), and as close as possible to 50-ohms at the intended operating frequencies for best results.

See page 4 for interconnection instructions.

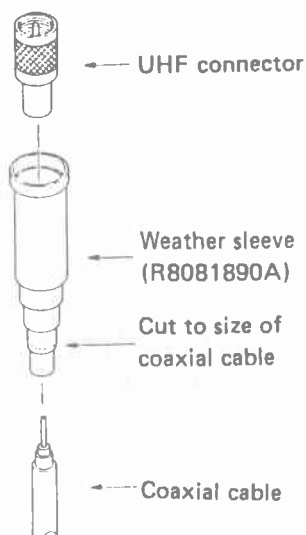


Figure 5

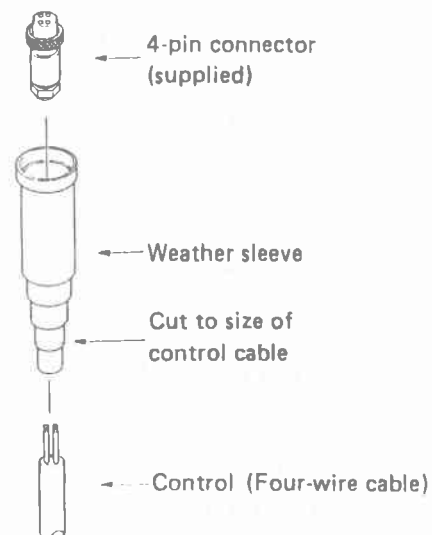


Figure 6

Interconnection without FC-102

1. When 12 V DC at 100 mA is provided, along with a 1P4T switch, the FAS-1-4R can be operated either at the station or a remote location. Refer to Table 2 and Figure 9 for the required interconnections.

| Antenna Switch Terminal | FAS-1-4R Remote Plug Pin Number |
|-------------------------|---------------------------------|
| 2 | 1 |
| 3 | 2 |
| 4 | 3 |
| ⊖ | 4 |

Table 2

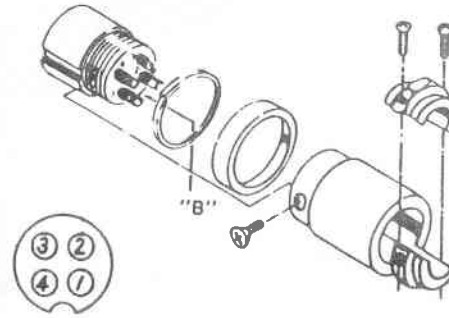
CAUTION

WHEN CONTROLLING THE FAS-1-4R WITH THE FC-102, THE ANT SWITCH MUST BE SET TO THE B (DEPRESSED) POSITION TO ENABLE ANTENNA SELECTION. IF THE ANT SWITCH IS NOT DEPRESSED THE TRANSCEIVER WILL BE CONNECTED TO THE A ANT TERMINAL ON THE REAR PANEL OF THE FC-102 AS LONG AS POWER IS SUPPLIED TO THE FC-102.

WHENEVER POWER IS REMOVED FROM THE FC-102 AND/OR FAS-1-4R THE INPUT TERMINAL OF THE FAS-1-4R WILL BE CONNECTED TO ANTENNA 1. THE CENTER CONTACTS OF ANTENNA JACKS 2, 3 AND 4 ARE CONNECTED TO GROUND WITHIN THE FAS-1-4R WHEN NOT SELECTED. THE CENTER CONTACT OF JACK 1 HAS NO CONNECTION UNLESS POWER IS OFF OR ANT 1 IS SELECTED. IN BOTH CASES JACK 1 IS CONNECTED TO AN FC-102 INPUT TERMINAL VIA THE TUNER.

FC-102 Interconnection at Remote Location

Connect the FAS-1-4R to the FC-102 as described in step 3 of "Installation in the FC-102" and shown in Figure 3, using the interconnecting coaxial cable as the feedline, and cutting or extending the 4-conductor control cable as necessary.



Viewed from "B" side

Interconnection without FC-102

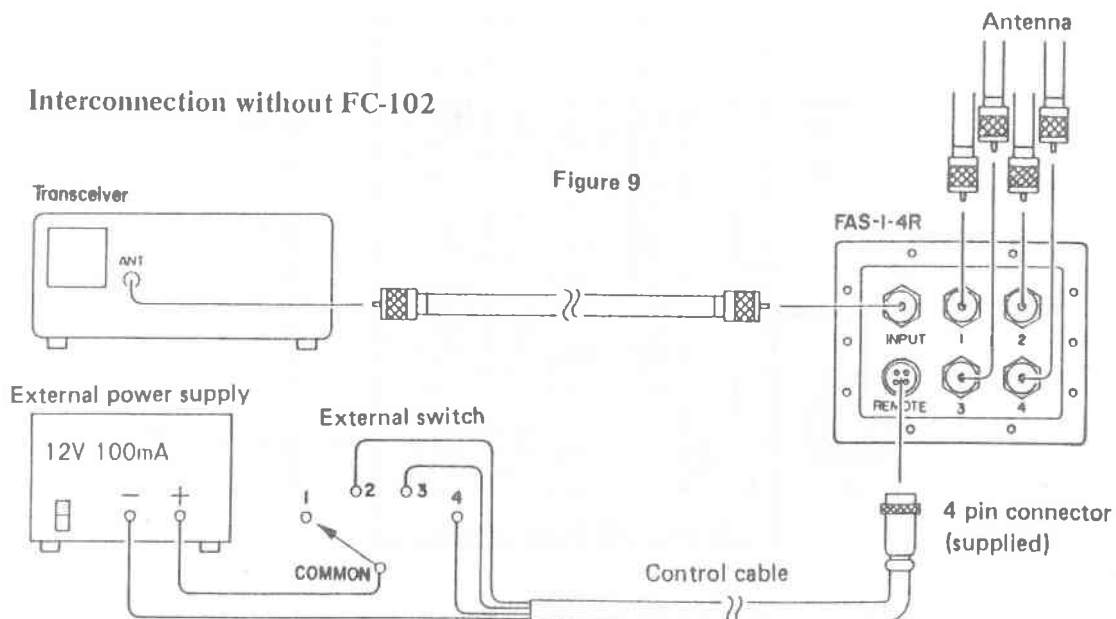


Figure 9