

The following information was derived from a Drake company service bulletin for the TR7 transmitter/receiver.

Due to the unavailability of RRM7 and RTM7 programming modules from the manufacturer, the R. L. Drake Co. can no longer provide these items for the TR7. Instead, the following modification is offered to replace the modules. Part 1 of the modification enables the TR7 transmitter on all frequencies between 1.5 at 30 MHz, while Part 2 allows reception in the 0-1.5 MHz range. The two parts are not related, thus you may elect to perform only the part that satisfies your requirement.

Caution: transmission outside the allocated Amateur band frequencies will require a license, other than an amateur radio operator license, and may also require an FCC certified transmitter. The TR7/TR7A is not an FCC certified transmitter/receiver.

If, after reviewing these instructions, you would prefer to have the modifications performed by the R. L. Drake company for a nominal fee, Contact:

Service manager R. L. Drake company 230 Industrial Drive Franklin, Ohio 45005 Telephone (513) 746-6990

## PART 1

1. Unplug all interconnecting cables from the TR7.
2. Place the radio upside down, with the front panel facing you.
3. Remove the bottom cover plate by removing ten screws and sliding the plate to the rear.
4. Refer to be attached photograph and figures and identify connector pin rows 1, 2 and 3 on the front right-hand corner of the parent board. Carefully identify pin 11 in rows 2 and 3.
5. Note that a foil trace connects pin 11 in rows 2 and 3. Using a sharp knife, cut this trace in two. Use caution, and do not disturb any other circuits.
6. If part 2 will not be performed, reinstall the bottom cover plate and reconnect all associated stationed equipment. Otherwise, procede to part 2.

7. Your TR7 will now transmit on any frequencies between 1.5 and 30 MHz. Be sure to observe all applicable rules and regulations regarding out of band operation.

## PART 2

1. If the TR7 has not been disconnected from all accessories and the bottom cover removed, do so at this time. Turn the radio upside down with the front panel facing you.

2. Refer to be attached photograph and figures and identify connector row 1 on the front right-hand corner of the parent board.

3. Carefully label connector pins 1, 2, 3, 16, 17, 18, and 19 in row 1.

4. Refer to be attached figures and prepare one group of two diodes and two groups of three diodes. Use 1N4148 or equivalent diodes. Connect the anodes of the diodes in each group together and attach a length of insulated hook-up wire to the common anodes connection of each group.

5. Carefully solder the diode groups in position per the attached figures. Connect the cathodes of the diodes to the indicated foils and the free end of each line of hook-up wire to the indicated connector pin. To avoid shorts, use insulated sleeving as necessary, and dress the leads neatly. Position the TR7 wiring harness away from areas to be soldered to avoid damage to the harness.

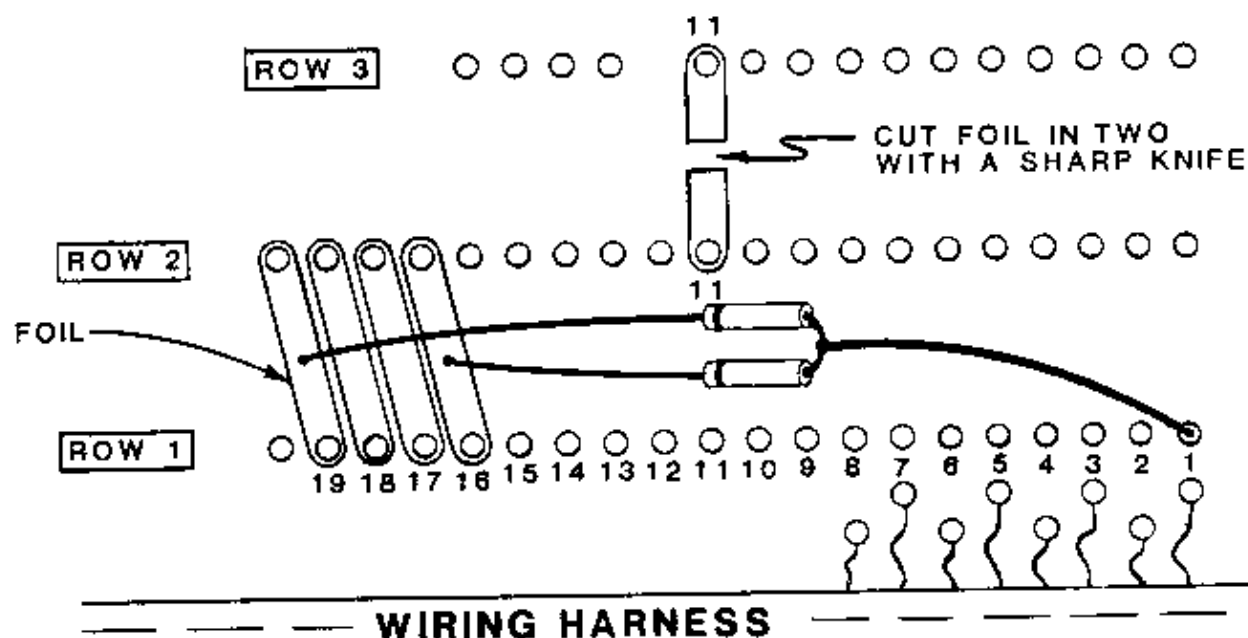
6. If your TR7 has an AUX7 card installed, be sure that positions 1, 2, and 3 are blank.

7. Check again for shorts, reinstall the bottom cover and reconnect the TR7 to the other station components.

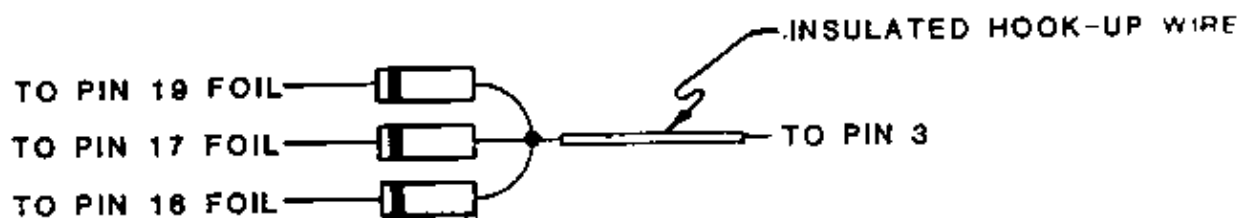
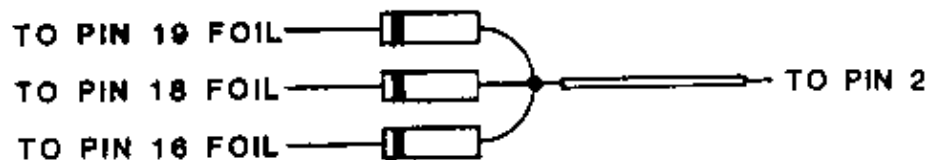
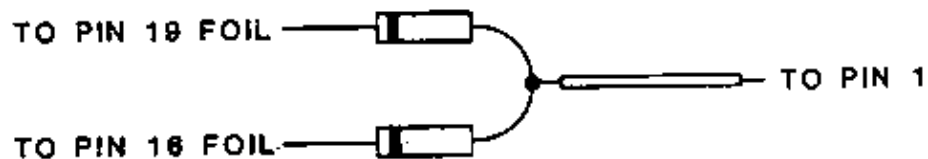
8. Your TR7 will now receive 0-500KHz in AUX position 3, 500-1000KHz in position 2 and 1000-1500KHz in position 1. It is normal for the SET BAND lamp to glow in this mode. Use the 1.5 MHz bandswitch position for 0-1500KHz reception.

**NOTE:**

USE 1N4148, 1N914 OR EQUIVALENT DIODES.



FRONT RIGHT HAND SIDE OF PARENT BOARD (BOTTOM).  
ONLY IMPORTANT FOIL TRACES ARE SHOWN. ONE DIODE  
GROUP SHOWN INSTALLED.



**DIODE GROUPS**