

ADJUSTMENTS AND INTERCONNECTIONS

The adjustments to the R*I*C*K are the same for the "normal" and "VLC" repeater configurations. The interconnecting of the R*I*C*K and the radios is different for the "VLC" and the "normal" configurations.

R*I*C*K Dip Switch S2

1. Remove the R*I*C*K board from the housing if this has not been done already. Removal is accomplished by loosening the two screws at the back of the R*I*C*K and pulling off the front panel. If there are any cables attached to the R*I*C*K, they must be disconnected before the R*I*C*K board may be removed from the rear housing.
2. Set the 12 positions of dip switch S2 according to the information from the "Repeater Examples" or the "R*I*C*K Worksheet" section of this manual.

R*I*C*K and Radios Interconnection

The interconnecting of the R*I*C*K and the Radius radios depends upon whether the repeater is "normal" or VLC.

"Normal" Repeater Interconnection

1. Remove the 16-pin connector from the accessory jack, J3, of the "receiver" radio. Place the 16-pin connector on the "J4-ACC" jack of the R*I*C*K to activate the speaker of the "receiver" radio. Connect one of the 16-conductor cables, 3080137S01, between J3 of the "receiver" radio and "J5-RX" of the R*I*C*K.
2. Remove the 16-pin connector from the accessory jack, J3, of the "transmitter" radio. One of the following two methods may be used to interconnect the R*I*C*K and the "transmitter" radio:
 - a) Connect the other 16-conductor cable, 3080137S01, between J3 of the "transmitter" radio and "J3-TX" of the R*I*C*K. (With early versions of the R*I*C*K, if the speaker must be active in the "transmitter" radio, then remove the wires from pins 15 and 16 at the radio end of the 3080137S01 cable. Remove the jumper wire between pins 15 and 16 of the original 16-pin connector and place it between pins 15 and 16 of the 3080137S01 cable. Make sure the locking tabs on the terminals are facing down toward the strain relief tab and that the terminals click into place. Later versions of the

R*I*C*K have pins 15 and 16 of "J3-TX" connected together.)

-or-

- b) For a unidirectional repeater that uses an M100 radio for the "transmitter" radio, connect the coiled cord, 3080043N05, between the front panel microphone jack (J11) of the radio and "J2-TX", the 6-pin modular (telco) jack of the R*I*C*K.

"VLC" Repeater Interconnection

The "VLC" (Very Limited Capability) repeater configuration is not recommended for normal situations. The capability to use two M100 Radius radios has been included for those situations that might warrant the very short term use of a unidirectional repeater (e.g., an emergency). The VOX operation is not as positive as the COR operation that was previously described. The VOX responds to deviations of 0.8 kHz or greater from the handset audio line if the audio line-up in the M100 has a nominal output of 600 mV rms. Older radios do not have sufficient audio available to reliably activate the VOX and must be modified if a unidirectional "VLC" repeater is to be used.

1. Connect the coiled cord, 3080043N05, between the front panel microphone jack (J11) of the "receiver" radio and "J1-RX" of the R*I*C*K.
2. Connect a suitable cable (such as the microphone replacement coiled cord, 3080043N05/HLN5301A) between the front panel microphone jack (J11) of the "transmitter" radio and "J2-TX" of the R*I*C*K.
3. The DC power for the R*I*C*K should be applied to "J5-RX" to insure that the fuse, F1, of the R*I*C*K can provide protection for the associated wiring. The power may be obtained from the "receiver" radio with a suitable cable (HKN9792A, not supplied in this kit) to connect between the 5-pin accessory jack on the radio and "J5-RX" on the R*I*C*K. The power may be also obtained directly from the terminals of the power supply. In either case, the cable connects the + supply terminal to pin 13 of "J5-RX" and the - supply terminal to pin 7 of "J5-RX".

R*I*C*K Adjustments

The following steps should be performed with a dummy load connected to the antenna jack of the transmitter and a Deviation Meter monitoring the output of the transmitter. An RF Signal Generator should be connected to the antenna jack of the receiver. NOTE: the definitions of transmitter and