

- ( ) Adjust the channel #5 Range control (that is in from the edge of the circuit board), counterclockwise until the rotary output post or rack gears are at their approximate center position.
- Now adjust the same channel #5 Range control counterclockwise until the rotary output post or rack gears are at the desired end position (refer to Figure 1-6). NOTE: The rack gears must not actually touch the end of the slots in the servo case.

TROUBLE	POSSIBLE CAUSE
Unable to obtain correct results.	1. Channel #5 Range control R23 or R22.

(	)	Set the channel $\#5$ switch so that the thumb knob is
		toward the rear panel.

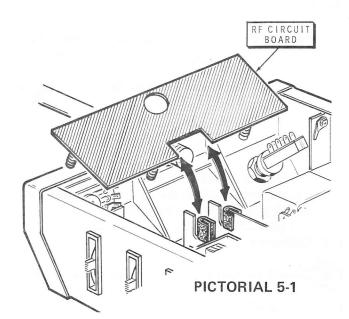
 Adjust the channel #5 Range control (that is near the edge of the circuit board) clockwise so the rotary output post or rack gears are at the desired end position the other way.

NOTE: If your system requires that the channel #5 Servo does not travel full in both directions, adjust these Range controls to obtain the desired amount of travel.

- ( ) Turn the Transmitter and Receiver Off.
- ( ) Check the thumb knobs to make sure they are tight on the shafts.

This completes the adjustments of your system. Proceed to "Final Assembly."

# FINAL ASSEMBLY



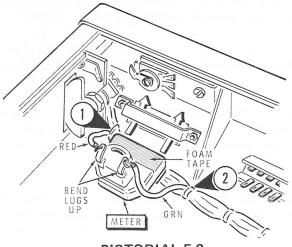
Refer to Pictorial 5-1 for the following steps.

- ( ) Extend the outer section of the antenna all the way out of the Transmitter as shown.
- Remove the rf circuit board by pulling up on it. Be careful that you do not break any wires connected to the circuit board.

Refer to Pictorial 5-2 for the following steps.

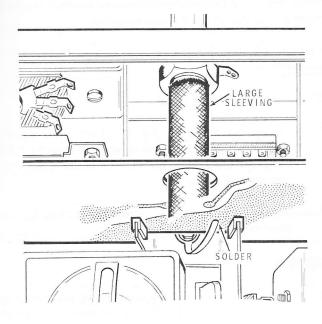
( ) Locate the test meter and unsolder both test leads from the meter lugs.

- ( ) Bend the meter lugs forward as shown.
- ( ) Cut a 1" length of foam tape. Then remove the protective backing from the tape and press the tape against the back of the meter as shown.
- Slide the meter under the meter bracket. It may be necessary to loosen the meter bracket. Be sure the wiring harness is clear.
- ( ) Connect the red wire coming from BO#1 to the plus(+) marked meter lug (S-1).
- ( ) Connect the green wire coming from BO#2 to the negative (—) marked meter lug (S-1).
- ( ) Replace the rf circuit board by sliding it down into the rf circuit board bracket.



PICTORIAL 5-2





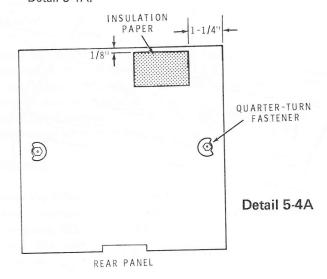
### PICTORIAL 5-3

- ( ) Refer to Pictorial 5-3 and push the #8 solder lug against the foil on the rf circuit board. Then solder it to the foil.
- ( ) Cut a 6-1/2" length of large sleeving.
- ( ) Place this length of large sleeving through the large hole in both circuit boards. Then push the antenna down into the sleeving.

Refer to Pictorial 5-4 for the following steps.

- ( ) Locate two panel fasteners, two 6-32 x 1/2" black screws, two 6-32 nuts, and two 6-32 locknuts.
- ( ) Refer to the inset drawing on Pictorial 5-4 and mount the panel fasteners to the rear panel. Use two  $6-32 \times 1/2$ " black screws and two 6-32 nuts. Tighten this hardware.
- ( ) Turn the locknuts all the way onto the 6-32 screws. Then, without turning the screws, loosen the locknuts one-half turn.

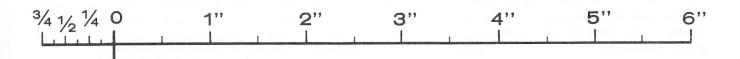
- ( ) Grip each panel fastener with a pair of pliers and loosen the 6-32 x 1/2" screw until the 6-32 nut is against the locknut. The panel fastener should not be tight against the panel now.
- ( ) Remove the protective paper backing from the insulation paper. Then press the paper to the inside of the rear panel (same as the fasteners) as shown in Detail 5-4A.

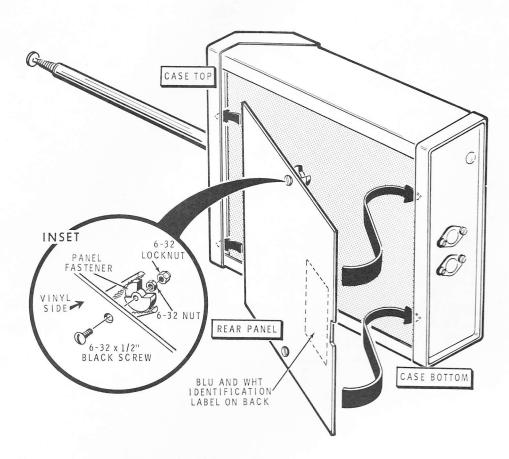


NOTE: The blue and white identification label that will be installed in the following step shows the model number and production series number of your kit. Refer to these numbers in any communications with the Heath Company.

- ( ) Carefully peel the backing paper from the blue and white identification label and press the label to the rear panel. Do this on the side of the rear panel with the quarter-turn fasteners.
- ( ) Position the panel fasteners in line with the edge of the rear panel. Then push the panel under the lip of the case top and slide it down under the lip of the case bottom.
- ( ) Turn the screws in the rear panel until they are tight.

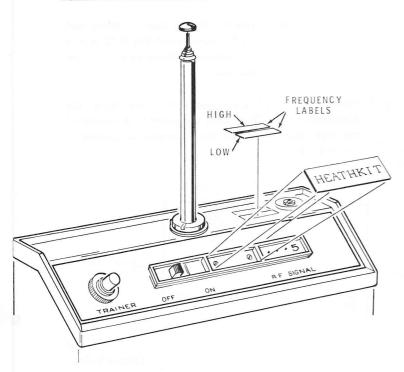
NOTE: To remove the rear panel, turn the rear panel screws out until they stop. Then push the rear panel toward the case top to release the bottom of the panel from the case bottom. Then lift out the rear panel.





PICTORIAL 5-4





#### PICTORIAL 5-5

Refer to Pictorial 5-5 for the following steps.

( ) Peel the protective backing paper from the back of the Heathkit nameplate. Then press the nameplate into place on the top of the Transmitter.

Refer to the crystal frequencies that you wrote on the back cover of this Manual for the following steps.

Perform the steps for the band that your Transmitter is operating on.

#### 27 MHz and 53 MHz Band

- Locate the higher of the two frequencies on the frequency label sheet. Then remove this label from the sheet and press it into place on top of the Transmitter near the rear of the top.
- ( ) Locate the other crystal frequency label and press it in place on the top of the Transmitter.

#### 72 MHz Band

- Multiply both of the frequencies that you wrote on the back cover of this Manual by two. This number will be the frequency of your Transmitter.
- Locate the higher of these two frequencies on the frequency label sheet. Then remove this label from the sheet and press it into place on top of the Transmitter near the rear of the top.
- ( ) Locate the other frequency label and press it in place on the top of the Transmitter.

This completes the assembly of your Transmitter. Proceed to the "Operations" section.

# **OPERATION**

### PREFLIGHT CHECKS

### **Binding**

After the Receiver and Servos have been installed, operate all the controls to see that the Servos function properly and without binding. This will keep Servo overload and battery drain to a minimum.

## Vibration

To be sure your mechanical connections and construction do not fail during flight, you should have someone hold your model so it will not fly, and then start the engine. Run a couple tanks of fuel through the engine. At the same time, operate all the controls to see that they perform faultlessly at all engine speeds.

#### Meter

Place the Power switch in the On position and observe the meter. With the antenna fully extended and the Transmitter being held, the meter should read between 4 and 5. If the meter reads less than 3, recharge the batteries before you operate the Transmitter. See "Battery Charging" on Page 38.

## Range Check

If the range shown in the following chart cannot be achieved, recheck the Receiver antenna to be sure it is placed as directed in the Receiver-Antenna section on Page 42 of the Receiver Manual. The Receiver antenna should be fully extended. The indoor range may be greatly increased or reduced from this figure due to reflections from metal objects.