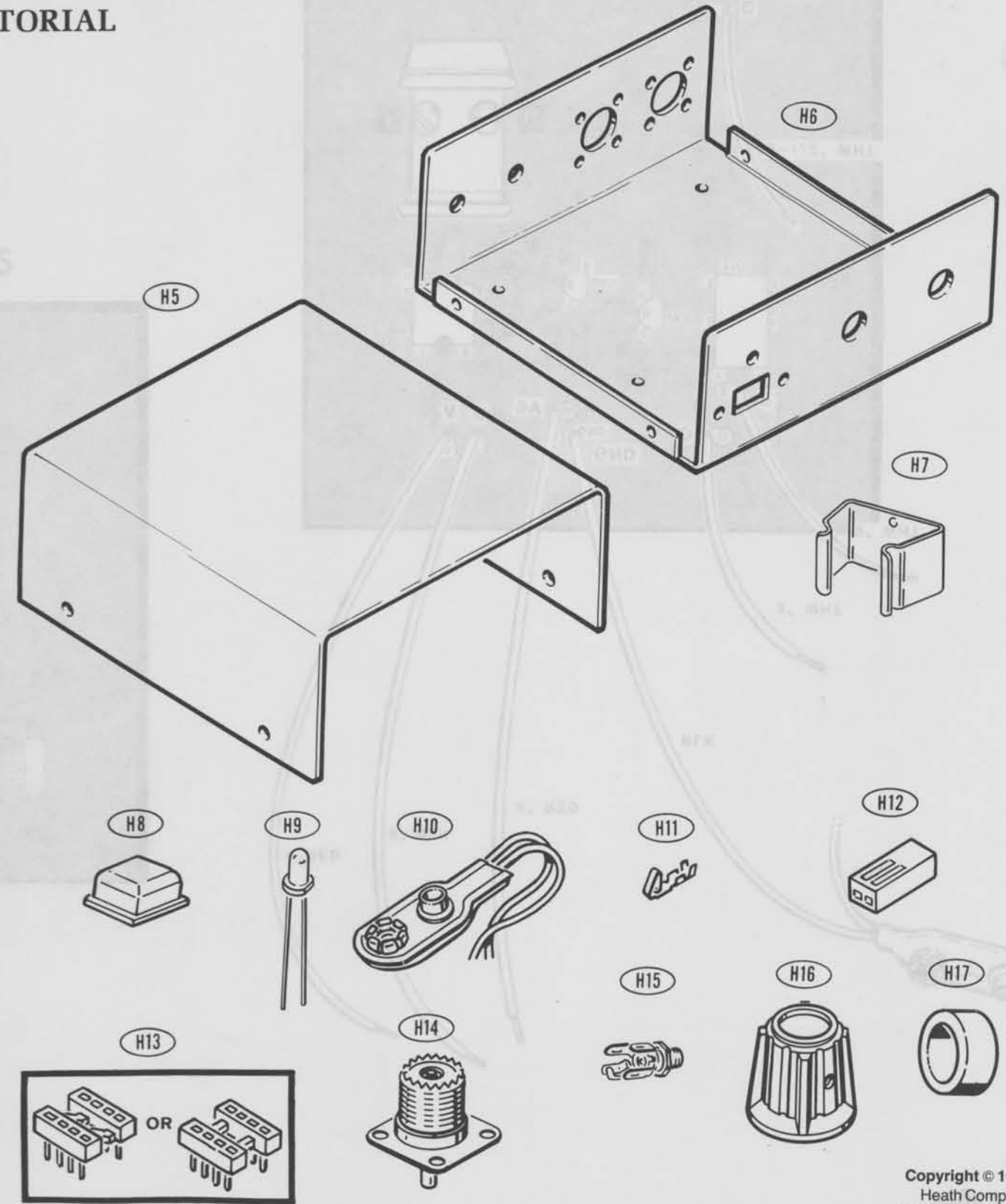
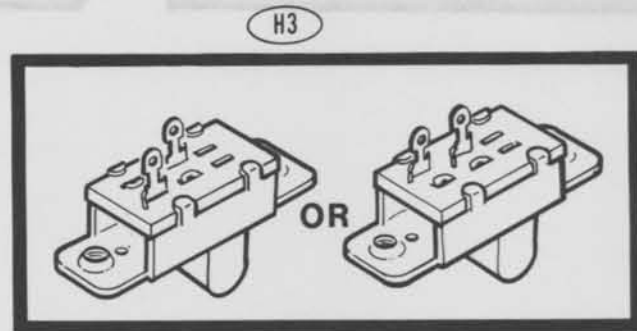
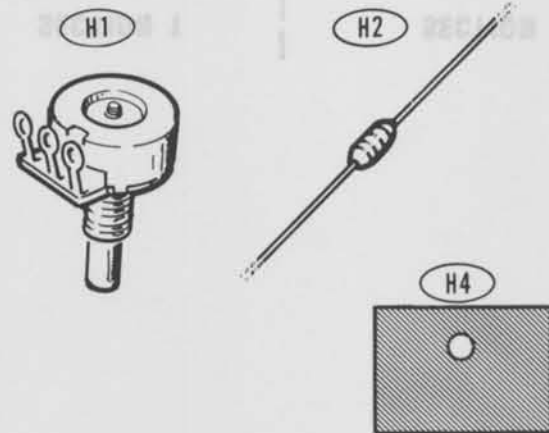
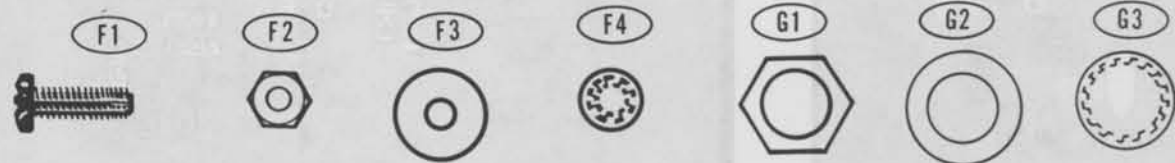
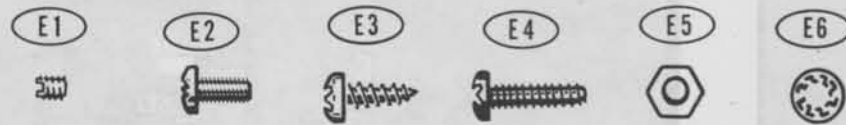
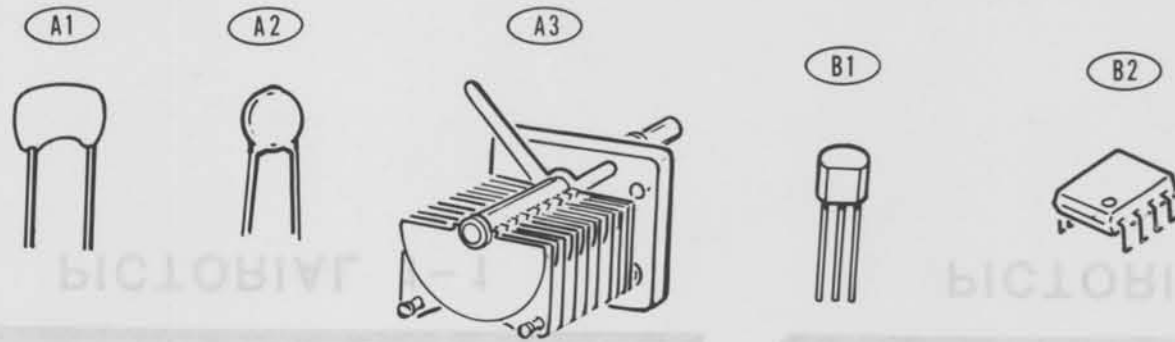


# ILLUSTRATION BOOKLET

Part of 595-3467

## PARTS PICTORIAL

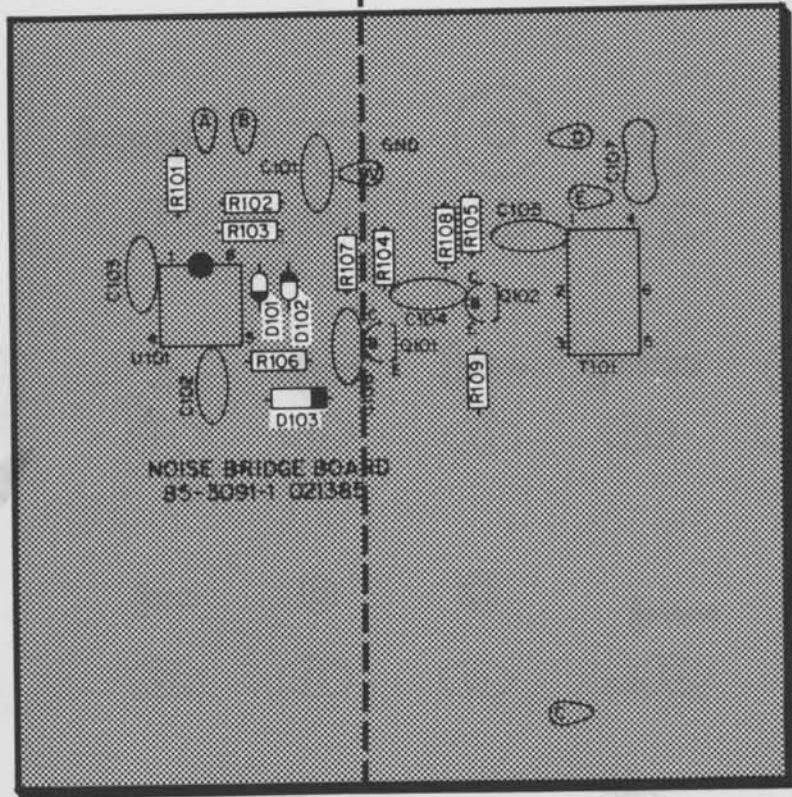


Model HD-1422

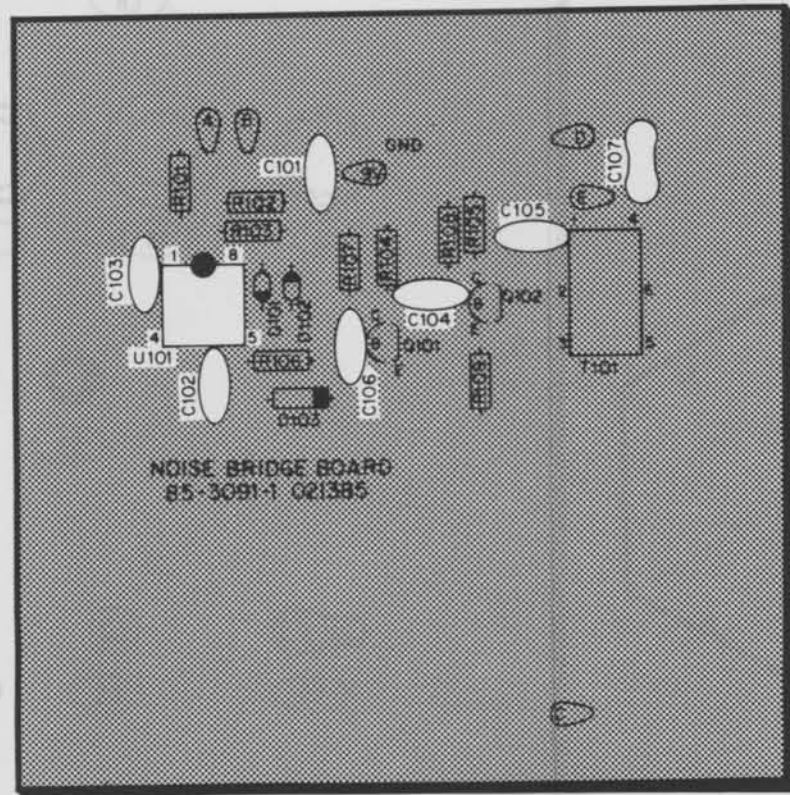
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SECTION 1

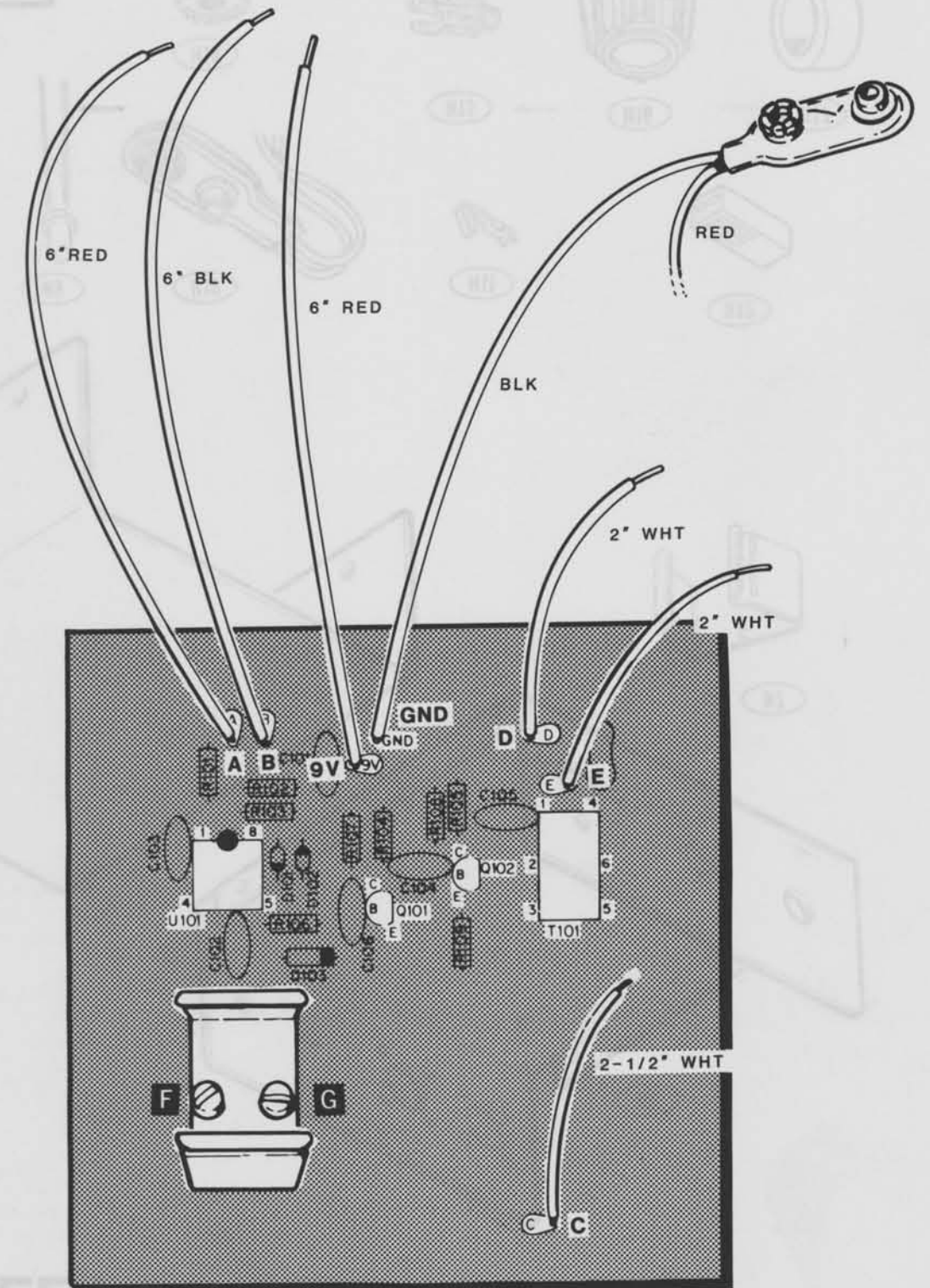
SECTION 2



PICTORIAL 1-1



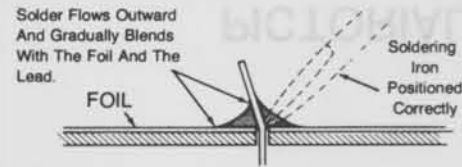
PICTORIAL 1-2



PICTORIAL 1-3

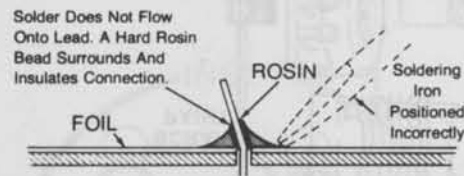


### A GOOD SOLDER CONNECTION

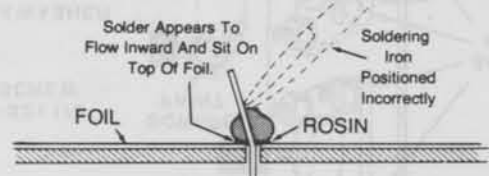


When you heat the lead and the circuit board foil at the same time, the solder will flow evenly onto the lead and the foil. The solder will make a good electrical connection between the lead and the foil.

### POOR SOLDER CONNECTIONS



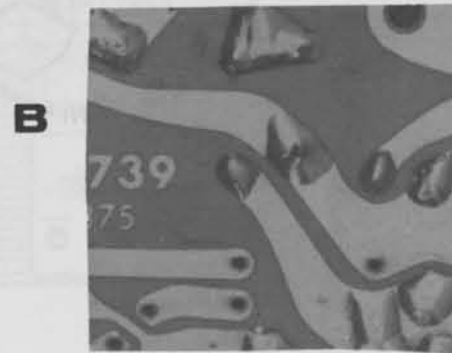
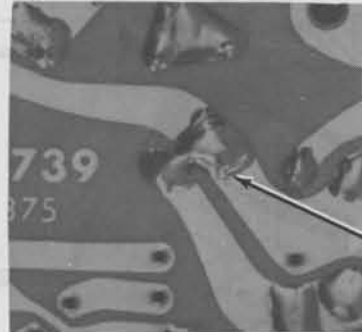
When the lead is not heated sufficiently, the solder will not flow onto the lead as shown above. To correct, reheat the connection and, if necessary, apply a small amount of additional solder to obtain a good connection.



When the foil is not heated sufficiently the solder will blob on the circuit board as shown above. To correct, reheat the connection and, if necessary, apply a small amount of additional solder to obtain a good connection.

### SOLDER BRIDGES

A solder bridge between two adjacent foils is shown in photograph A. Photograph B shows how the connection should appear. A solder bridge may occur if you accidentally touch an adjacent previously soldered connection, if you use too much solder, or if you "drag" the soldering iron across other foils as you remove it from the connection. A good rule to follow is: always take a good look at the foil area around each lead before you solder it. Then, when you solder the connection, make sure the solder remains in this area and does not bridge to another foil. This is especially important when the foils are small and close together. NOTE: It is alright for solder to bridge two connections on the same foil.



Use only enough solder to make a good connection, and lift the soldering iron straight up from the circuit board. If a solder bridge should develop, turn the circuit board foil-side-down and heat the solder between connections. The excess solder will run onto the tip of the soldering iron, and this will remove the solder bridge. NOTE: The foil side of most circuit boards has a coating on it called "solder resist." This is a protective insulation to help prevent solder bridges.

DETAIL 1-1A

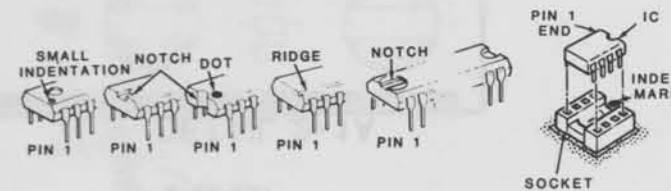
The pins on the IC are bent out at an angle, so they do not line up with the holes in the IC socket. Do **NOT** try to install an IC without first bending the pins as described below. To do so may damage the IC pins or the socket, causing intermittent contact.



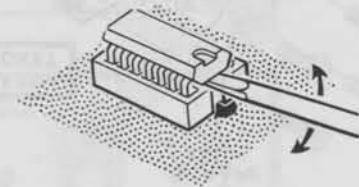
Before you install the IC, lay it down on its side as shown below and very carefully roll it toward the pins to bend the lower pins into line. Then turn the IC over and bend the pins on the other side in the same manner.



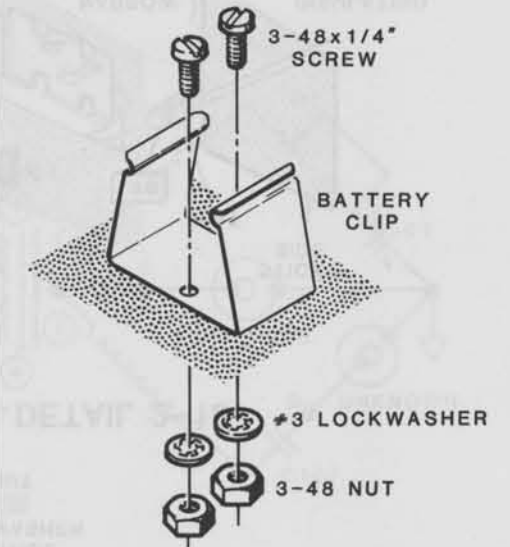
Refer to the illustration below to identify the pin 1 end of the IC. Then, make sure that the pin 1 end is positioned over the index mark on the circuit board as shown. Also, make sure that all of the pins are started into the socket. Then press the IC firmly into the socket. NOTE: An IC pin can become bent under the IC and it will appear as though it is correctly installed in the socket.



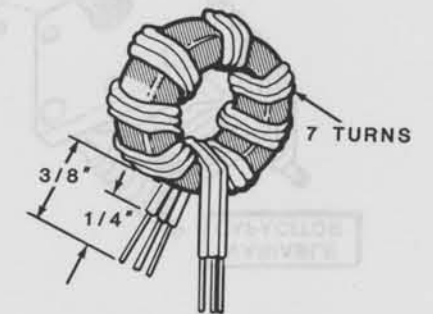
Use a small screwdriver to remove the IC from its socket should it ever become necessary. Push the blade of the screwdriver in between the IC and the socket and carefully lift up on the screwdriver to lift the IC free. Do the same at the opposite end of the IC to free the remaining pins.



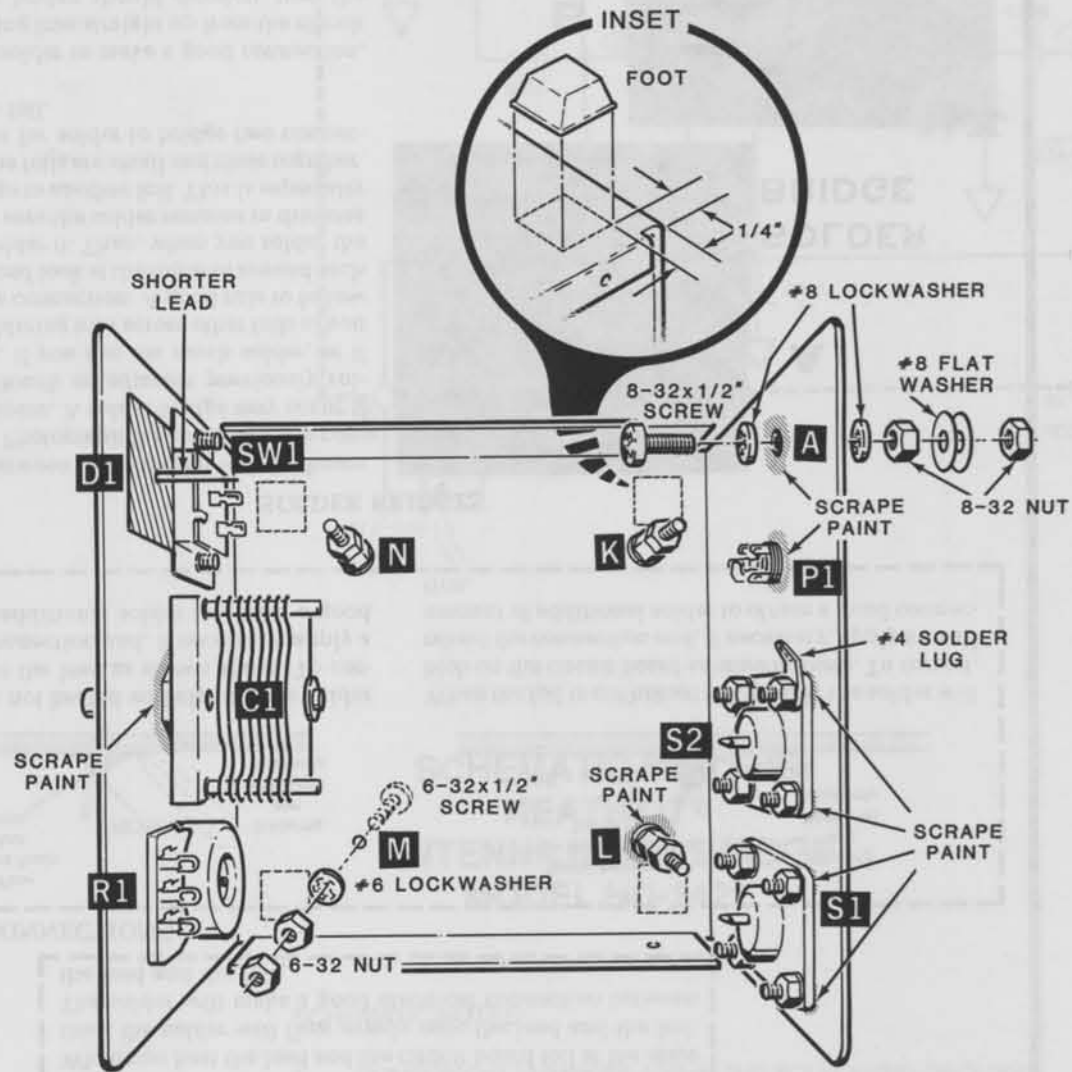
DETAIL 1-3A



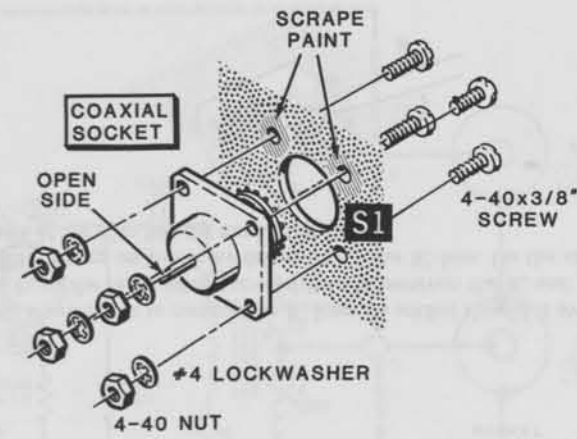
DETAIL 1-3B



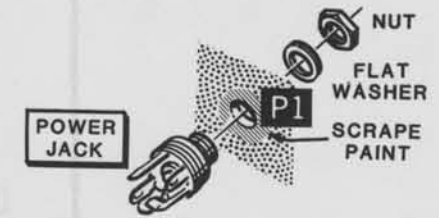
DETAIL 1-3C



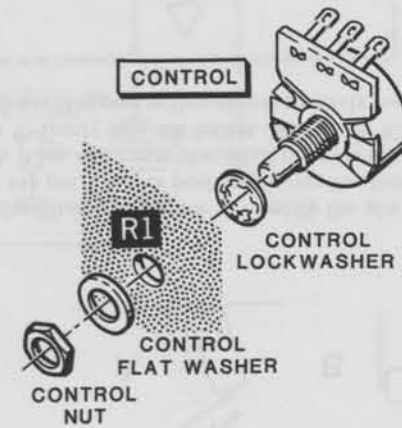
PICTORIAL 2-1



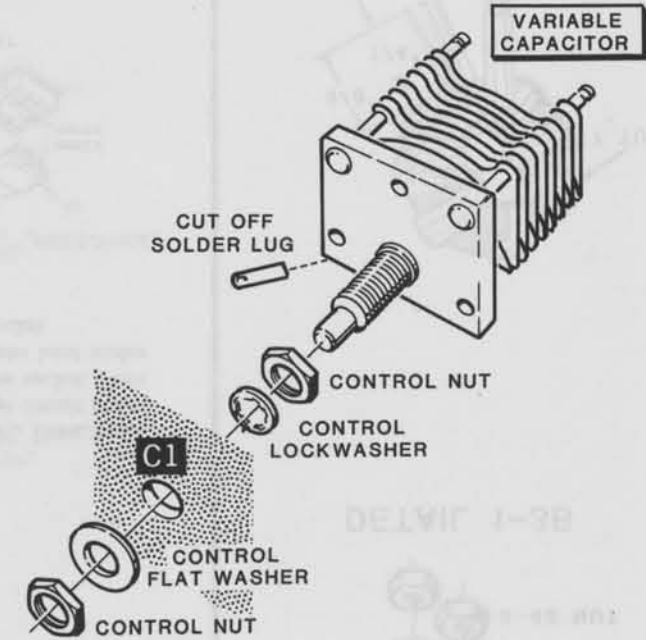
DETAIL 2-1A



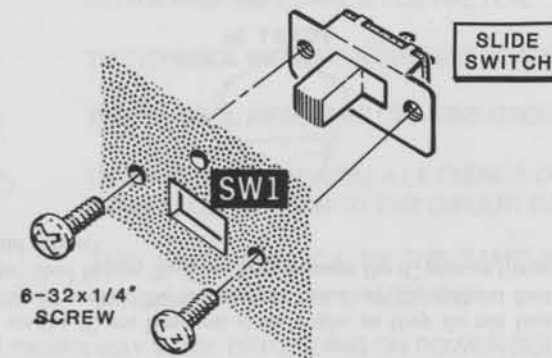
DETAIL 2-1B



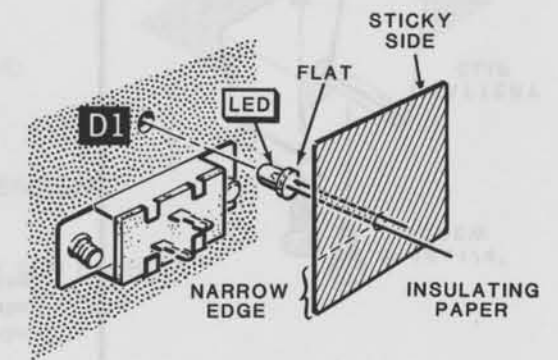
DETAIL 2-1C



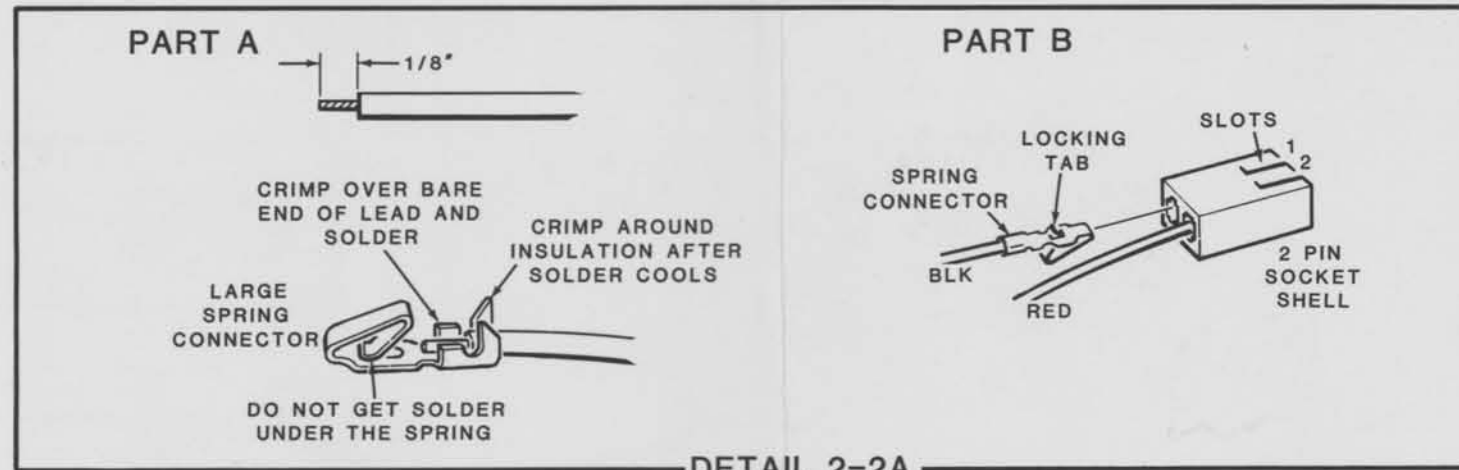
DETAIL 2-1D



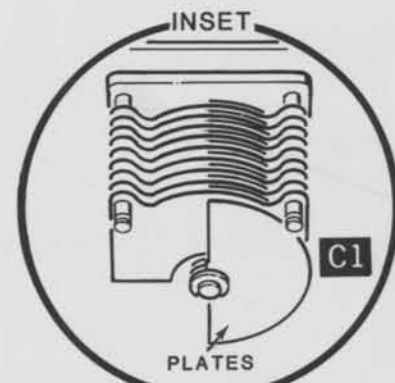
DETAIL 2-1E



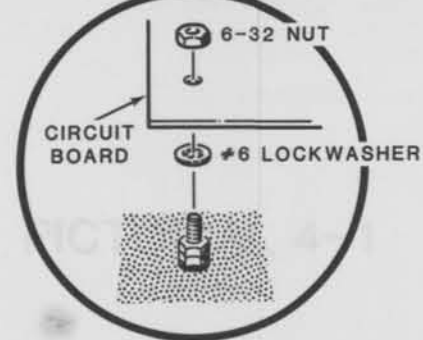
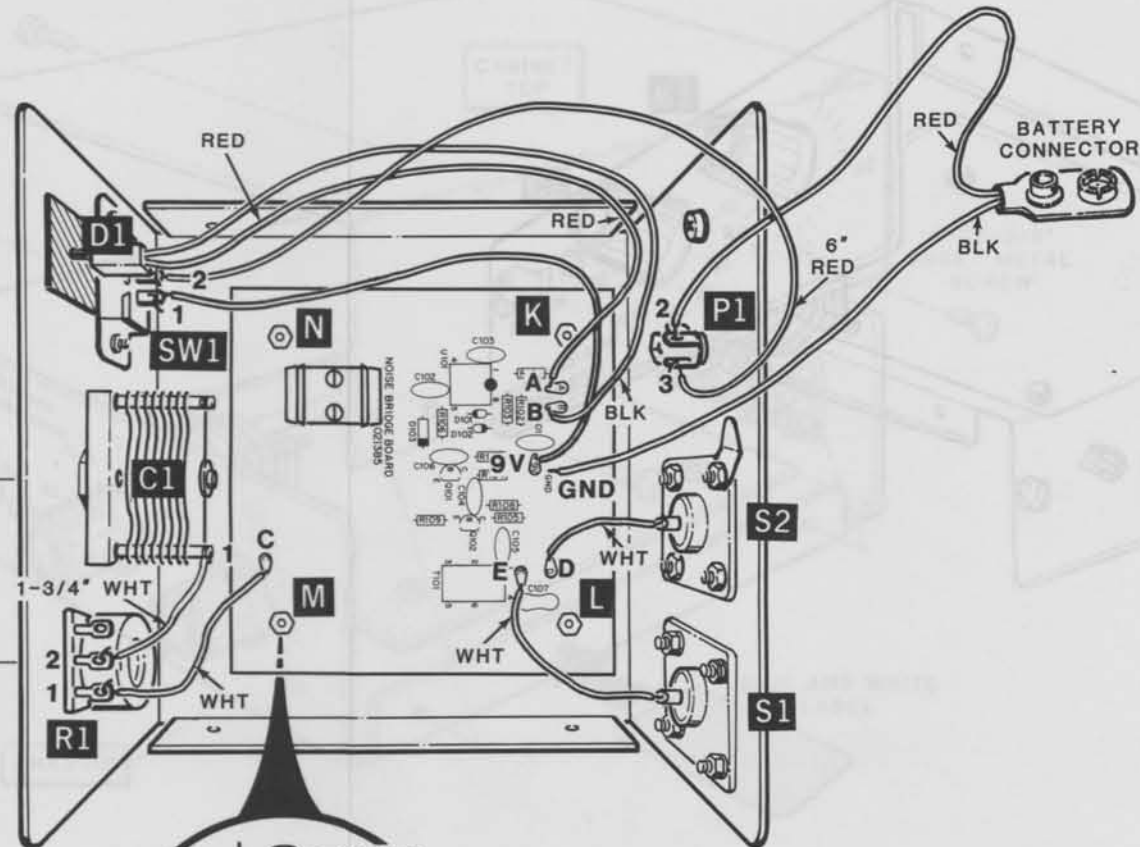
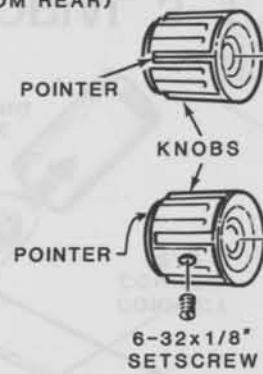
DETAIL 2-1F



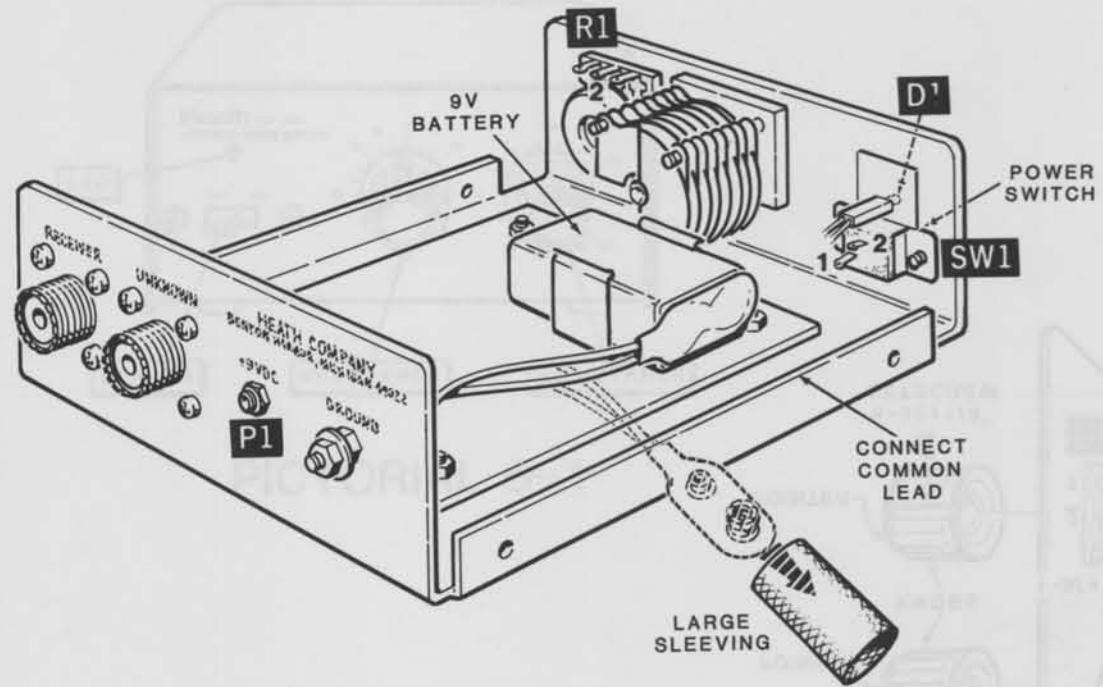
DETAIL 2-2A



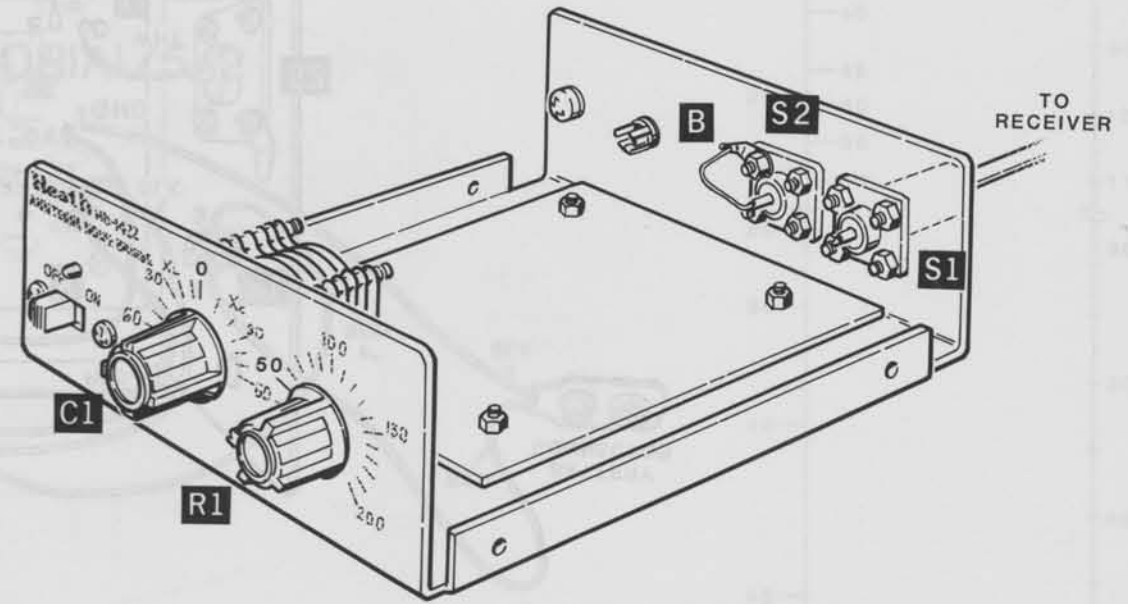
(VIEWED FROM REAR)



PICTORIAL 2-2



PICTORIAL 3-1



PICTORIAL 3-2



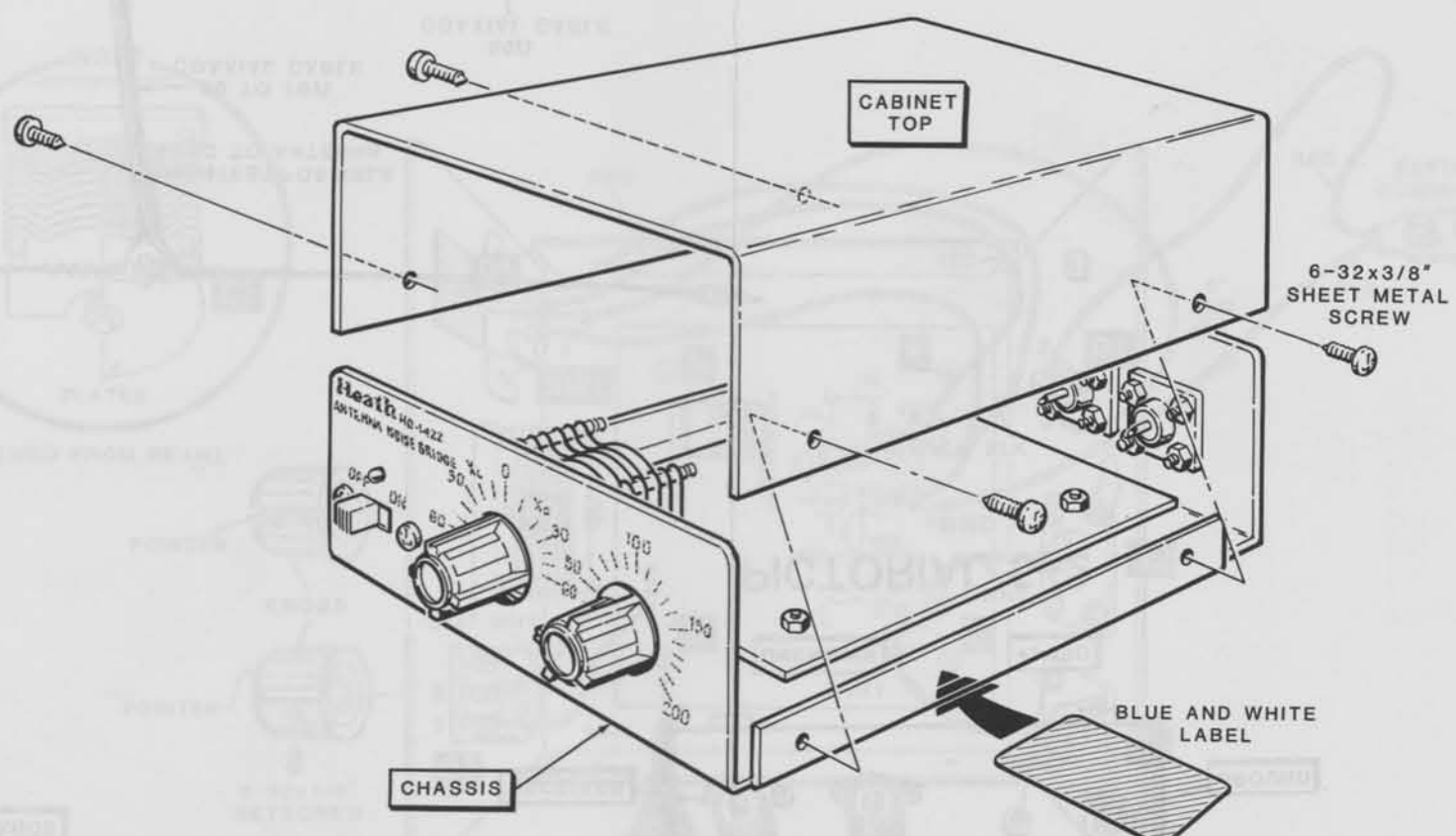
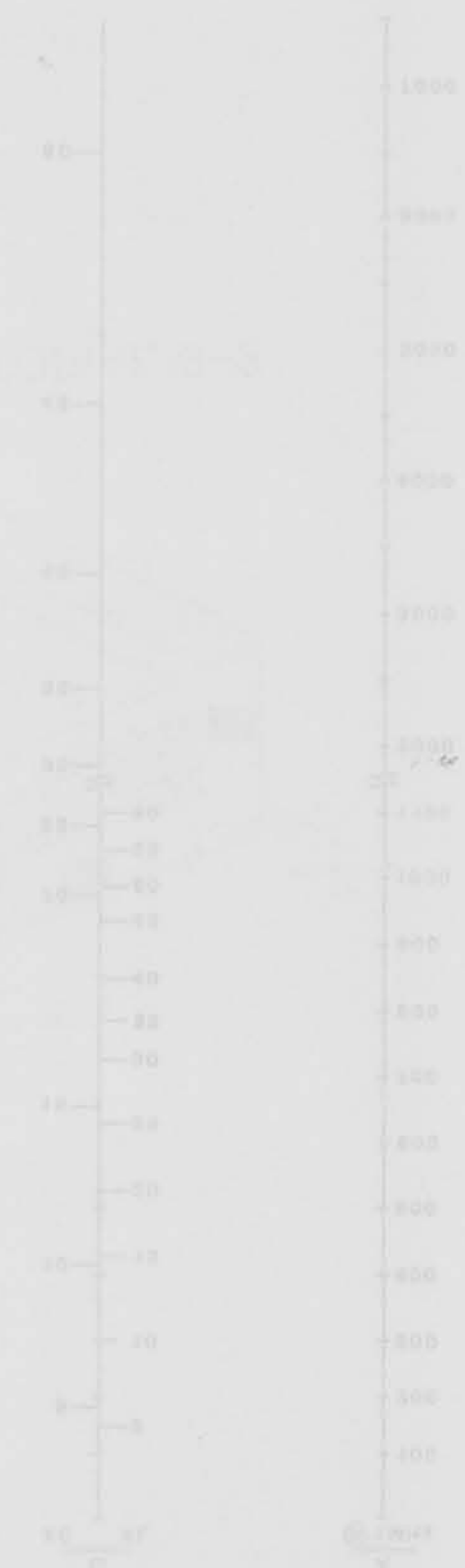
PICTORIAL 5-3

PICTORIAL 5-4





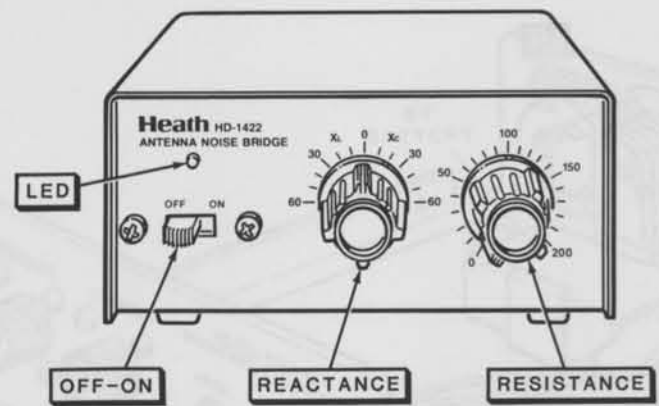
PICTORIAL 2-4



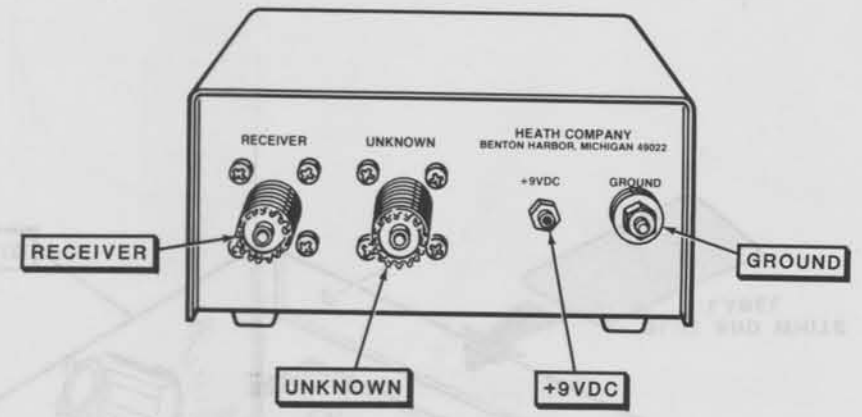
PICTORIAL 4-1



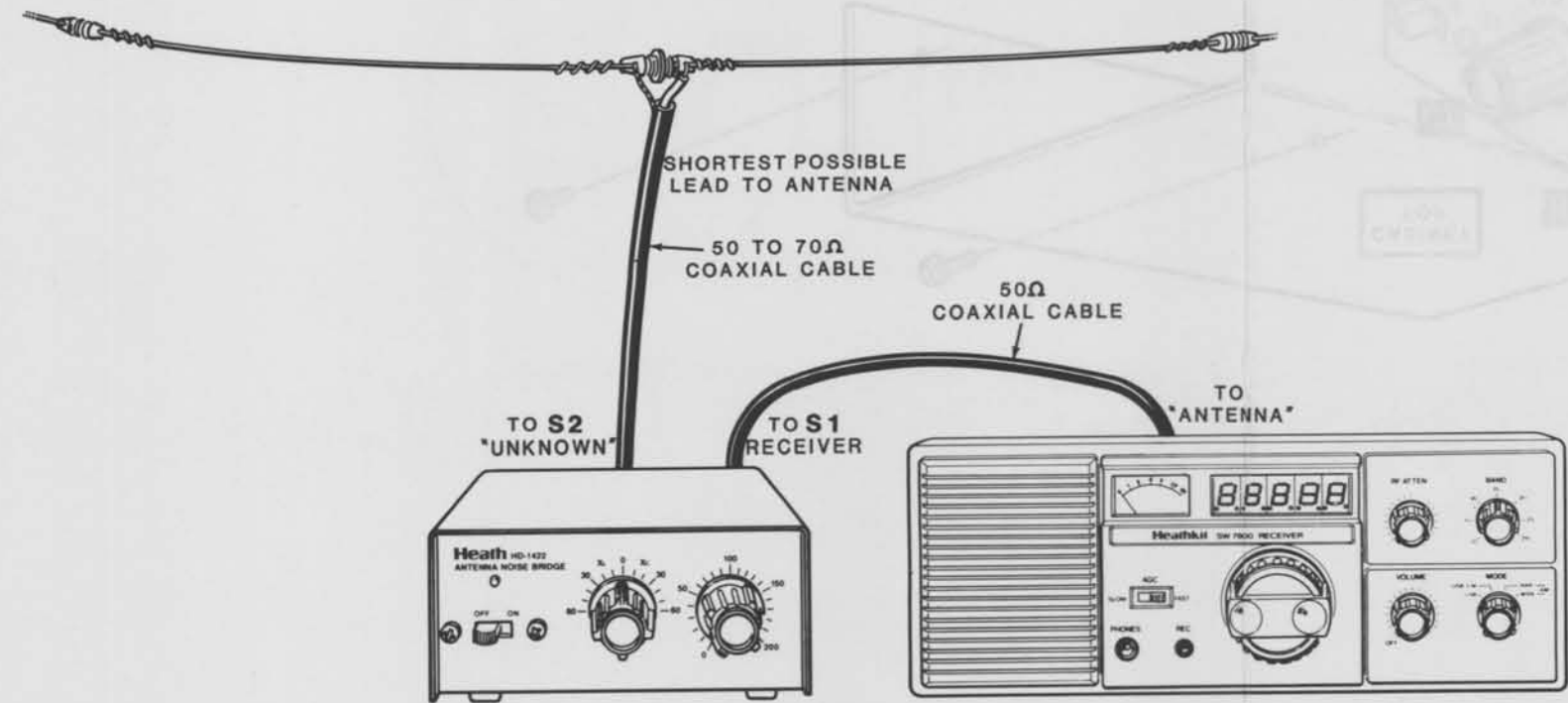
PICTORIAL 2-2



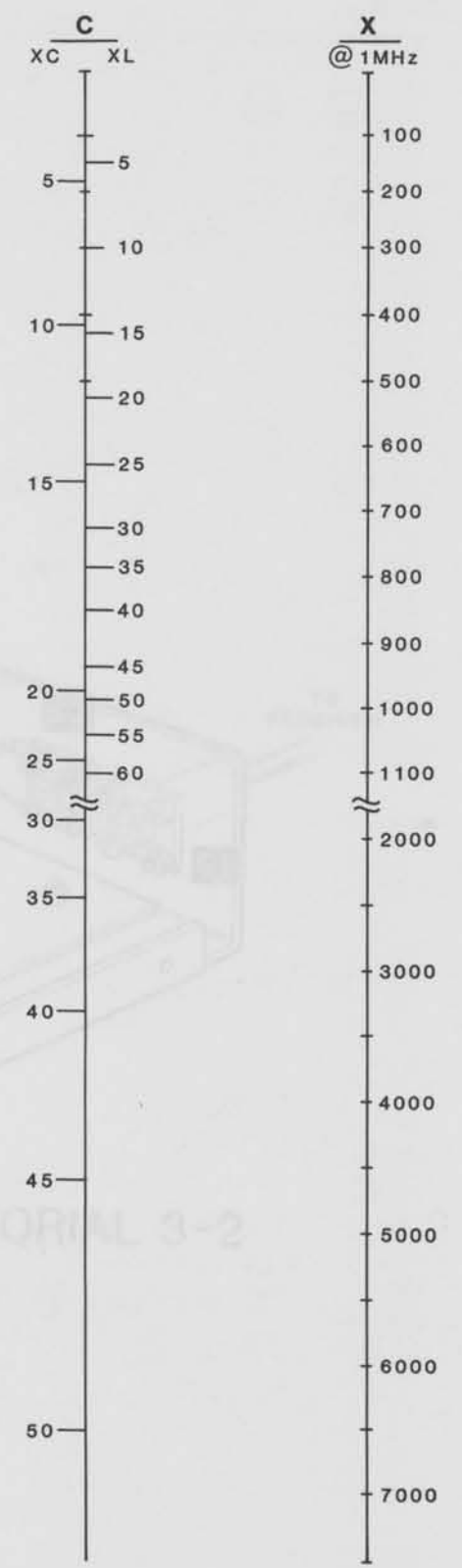
PICTORIAL 5-1



PICTORIAL 5-2

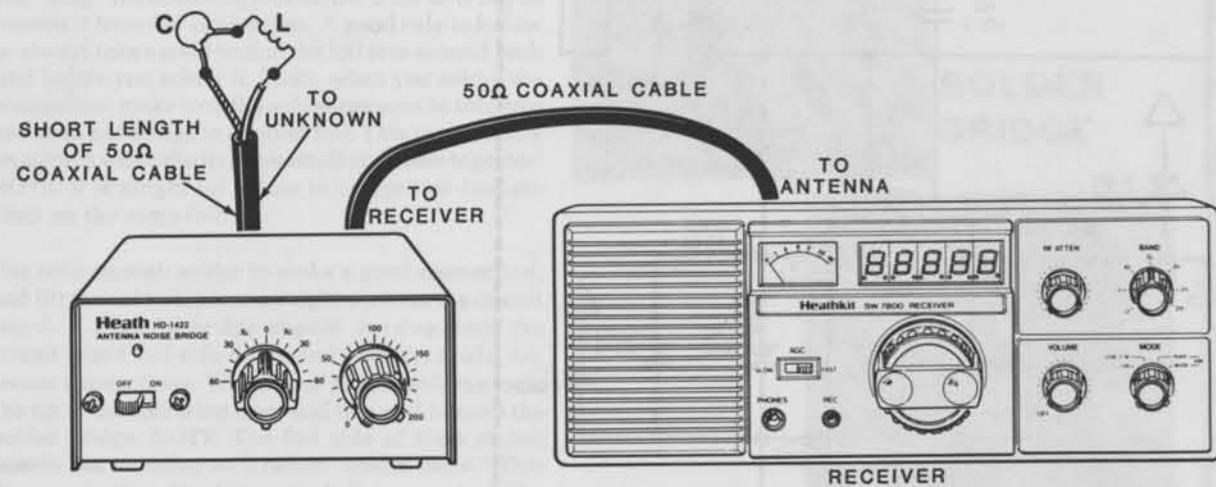
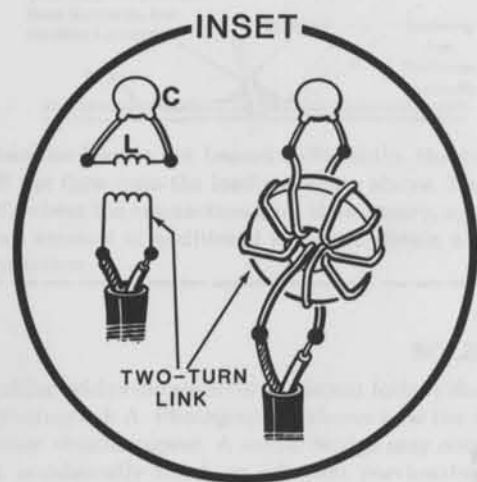


PICTORIAL 5-3

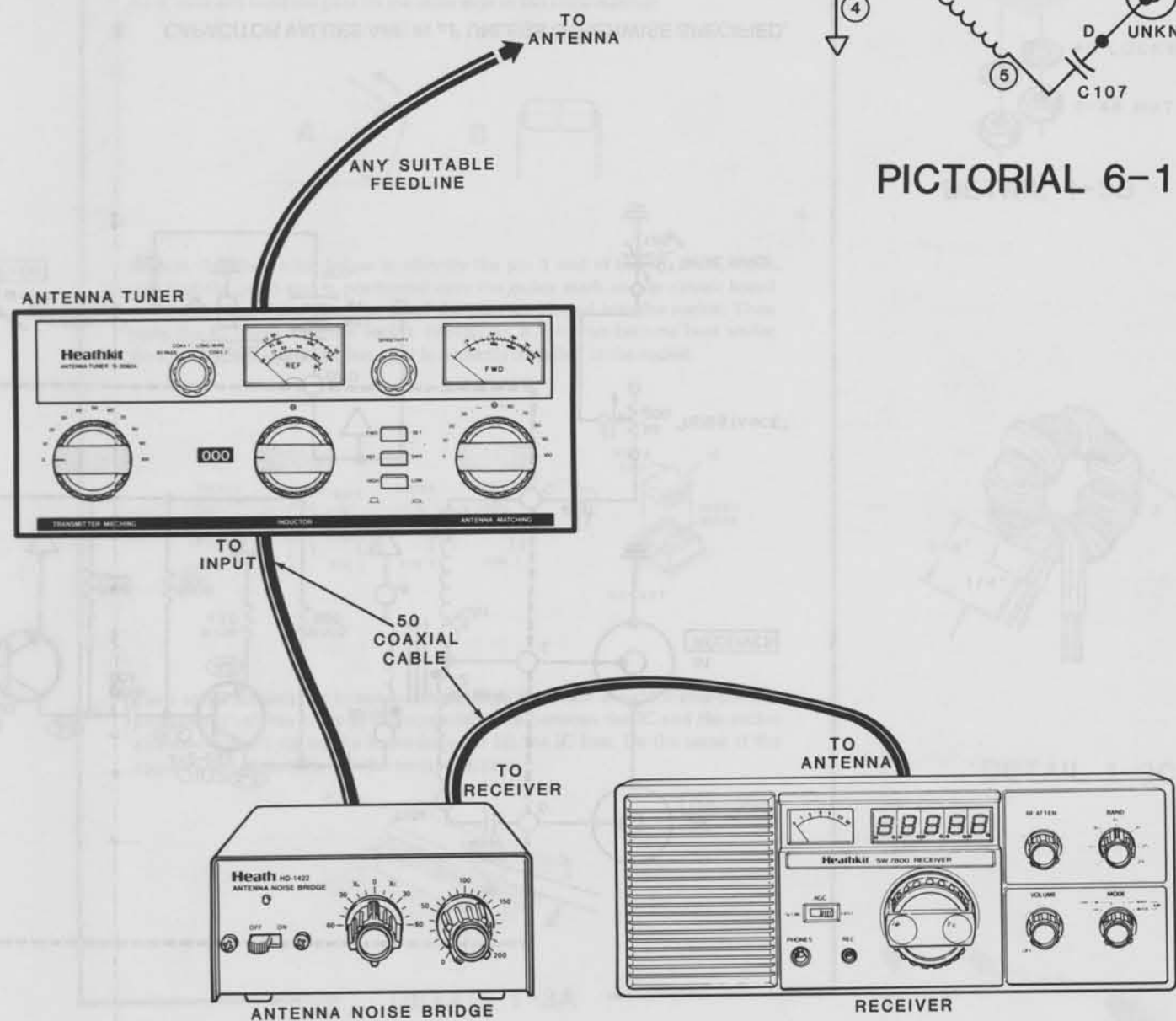


PICTORIAL 5-4

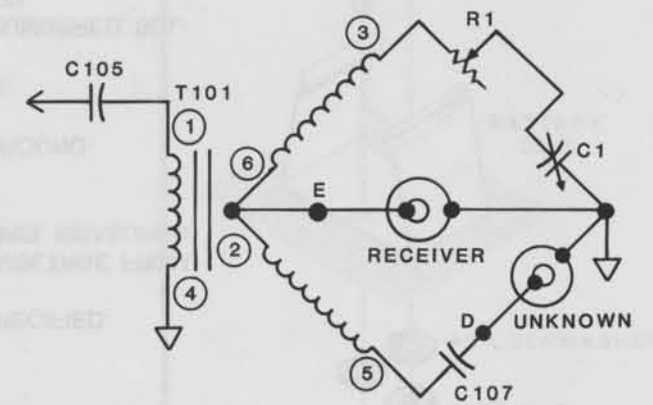




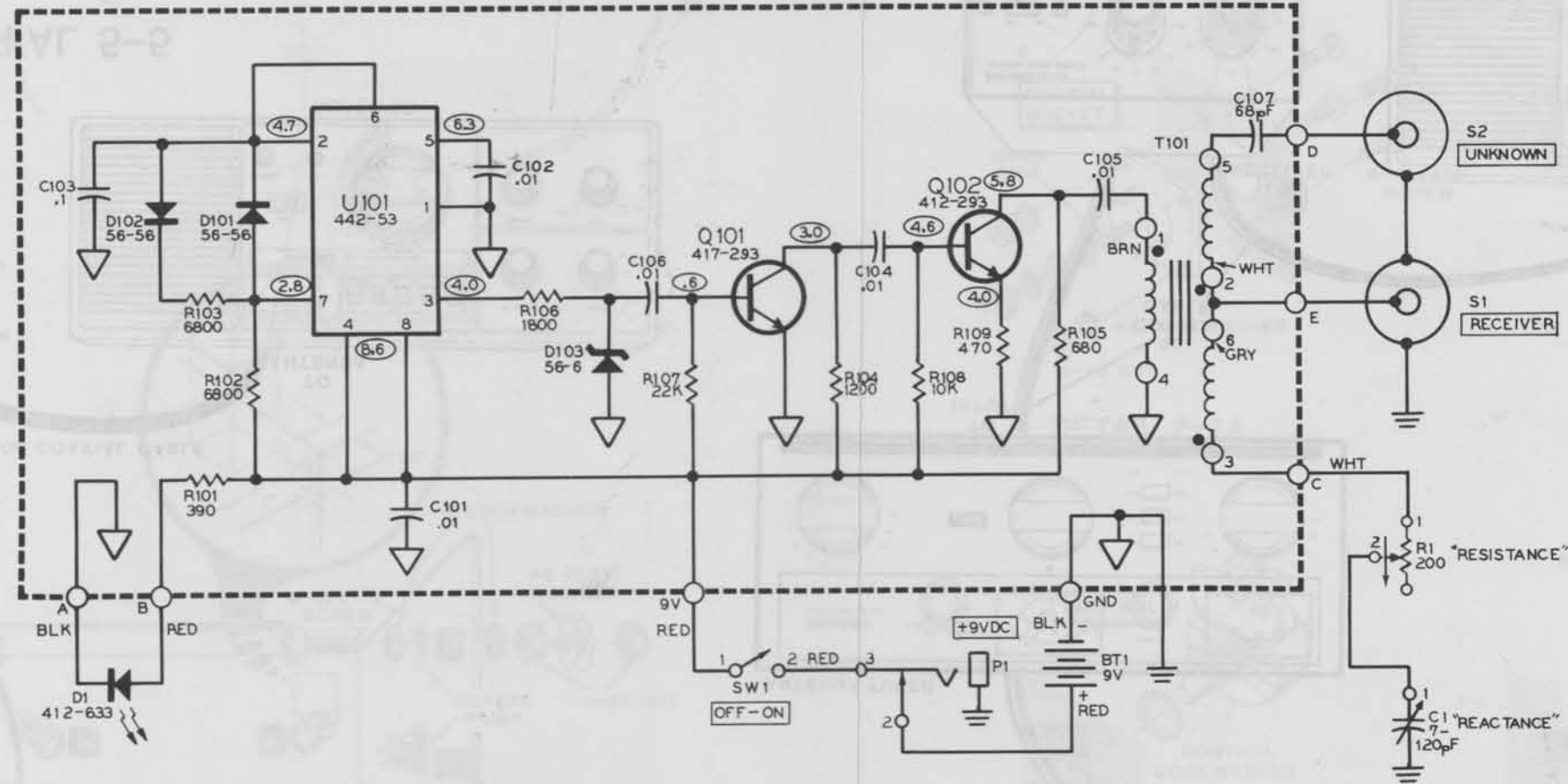
PICTORIAL 5-5



PICTORIAL 5-6



PICTORIAL 6-1



**SCHEMATIC FOR THE  
HEATHKIT®  
ANTENNA NOISE BRIDGE  
MODEL HD-1422**

**SCHEMATIC NOTES:**

1. COMPONENT NUMBERS ARE IN THE FOLLOWING GROUPS:  
1 - 100 PARTS MOUNTED ON THE CHASSIS.  
100 - 199 PARTS MOUNTED ON THE CIRCUIT BOARD.
2. ALL RESISTORS ARE 1/4 WATT, 5%. RESISTOR VALUES ARE IN OHMS (K=1,000).

3. CAPACITOR VALUES ARE IN  $\mu\text{F}$  UNLESS OTHERWISE SPECIFIED.
4. ○ THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE FROM THE POINT INDICATED TO CHASSIS GROUND, MEASURED WITH A HIGH IMPEDANCE VOLTMETER.
5. ▽ THIS SYMBOL INDICATES CIRCUIT BOARD GROUND.
6. ≡ THIS SYMBOL INDICATES CHASSIS GROUND.
7. (A) THIS SYMBOL INDICATES A LETTERED OR NUMBERED, SOLDERED CONNECTION TO THE CIRCUIT BOARD.
8. ● THIS SYMBOL INDICATES THE SAME POLARITY FOR EACH WINDING OF TRANSFORMER T101.
9. VOLTAGES MAY VARY, DEPENDING ON POWER SOURCE.