

## THIS KIT MUST BE PROPERLY SOLDERED!

**WITHOUT GOOD SOLDERING, AN ELECTRONIC UNIT WILL NOT WORK . . .** just as a suit of clothing will fall apart if the stitches are loose . . . no matter how excellent the material.

### USE ENOUGH HEAT

This is the main idea of good soldering. The purpose of soldering is to join metal parts, making an **UNBROKEN** metal path over which electricity can travel. To do this you must apply enough heat to the metal surfaces to make the solder spread freely on them, until the contour (shape) of the connection shows under the solder. If the solder barely melts and forms a rounded ball, you are *not* using enough heat. If you do not use enough heat, there may be no electrical connection, although it appears soldered.

### HERE'S HOW TO DO IT . . .

1. Join bare metal to bare metal. Insulation must be removed.
2. Coat the tip of a hot iron with solder.
3. **FIRMLY PRESS THE FLAT SIDE OF THE TIP OF A HOT IRON FLAT** against the parts to be soldered together. Keep it there while you apply the solder **BETWEEN THE IRON TIP AND THE METAL TO BE SOLDERED**. Use only enough solder for it to flow over **ALL** the surfaces of the connection. Remove the iron.
4. **DO NOT MOVE PARTS UNTIL THE SOLDER HARDENS**. If you accidentally move the wires as the solder is hardening, apply your iron and reheat.

Compare your soldering with the pictures on this page. You have a good connection if your solder has flowed over all surfaces to be connected, following the shape of the surfaces. It should appear smooth and bright.

**YOU HAVE NOT USED ENOUGH HEAT:** If your connection is rough and flaky-looking, or if the solder has formed a round ball instead of spreading.

The difference between good soldering (enough heat) and poor soldering (not enough heat) is just a few extra seconds with a hot iron **FIRMLY** applied. Remember, larger metal surfaces take a longer time to heat.

### USE A 100-WATT IRON

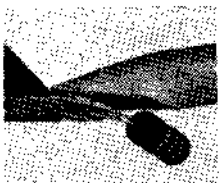
A 100-watt soldering iron with a clean, chisel-shaped tip will supply the right amount of heat when used correctly. Notice how the iron is held in the picture. Heat the iron for 10 minutes before you start soldering. Keep the tip brightly coated with solder. When necessary, wipe the hot tip clean with a cloth. (If you use a soldering gun, be sure the tip reaches full heat before you solder.)

### USE ONLY ROSIN CORE SOLDER

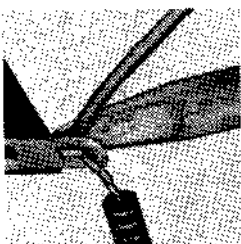
We supply the right kind of solder (*rosin core solder*). Do not use any other kind of solder! **USE OF ACID CORE SOLDER, PASTE, OR IRONS CLEANED ON A SAL. AMMONIAC BLOCK WILL RUIN ANY ELECTRONIC UNIT AND WILL VOID THE GUARANTEE.**



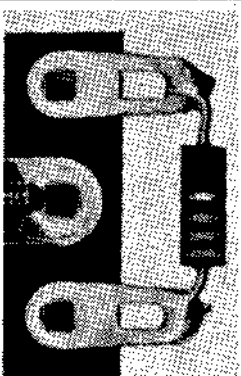
1. Join bare metal to bare metal



2. Press **FLAT** side of a **HOT** iron



3. Apply solder **BETWEEN** iron and connection



Compare your soldering with these pictures.

### THE ONE-TWO-THREE OF GOOD SOLDERING.