ELECTRIC SOLDERING IRON
100, 200, AND 300 WATT COPPER TIP

1. GENERAL

1.01 This practice provides information on the description and use of soldering irons used for central office, PBX and PABX installations.

2. DESCRIPTION

2.01 As shown in Figure 1, the electric soldering irons covered in this practice consist of a molded handle, 2-conductor cord and plug, a 100, 200, or 300 watt heat element within the casing assembly, an air gap insulator safety shield, a replaceable nickled copper tip and two set screws.

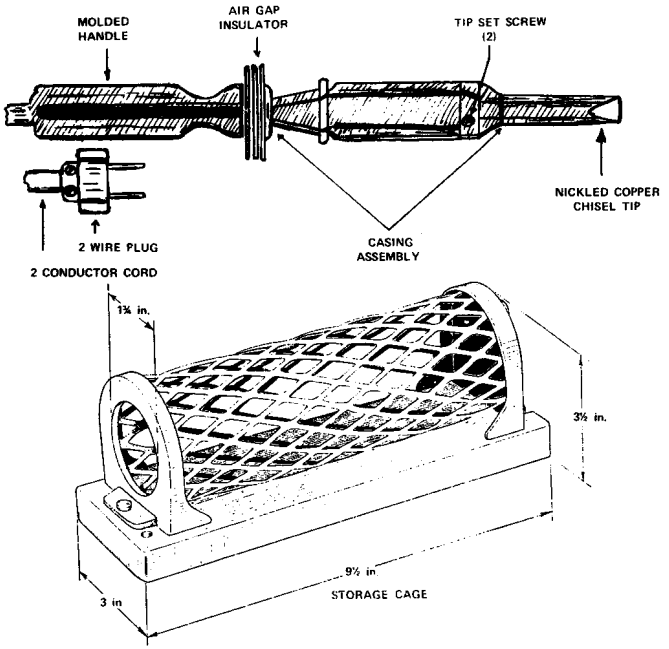

Figure 1.

2.02 These irons have been designed to operate on 115 volt house current or that supplied by a portable generator.

3. USE

3.01 The 100, 200, and 300 watt soldering irons as medium duty tools, will be utilized for soldering a number of cross connections, strapping DTA's and similar work which requires a more constant heat than the light weight iron (described in practice 405-700-001) furnishes.

3.02 New soldering tips will have to be tinned before initial use. To tin a tip proceed as follows:

a. Scruff flat surfaces of (chisel) tip lightly with a file.

b. Obtain working temperature of point.

c. Using rosin core solder, apply a light coat of solder to the working surfaces of the iron. A wiping cloth may be required during this process to wipe excess solder off tip. Only a slight glaze (coat) of solder is required.

3.03 When soldering proceed as follows:

a. Place the tinned tip of the iron upon the wire or connection.

b. Place rosin core solder on the wire or connection until the rosin flows.

c. The rosin will clean the oxides from the metals to be soldered and allow the solder to run smoothly on the connection.

d. A heavy film of solder between the working face of the tip and the joint being soldered eliminates the need for pressure as the solder conducts heat from the tip to the work.

e. Solder should be applied to the joint and should flow onto the metal and into the joint.

f. Do not use excess solder. Slide the iron from the work, do not lift it. This insures an even soldered surface.

g. Avoid a fracture in the joint by preventing movement of the connection until the metal is cooled below the freezing point of the solder.

h. The finished connection should be bright and free of pits.

4. MAINTENANCE

4.01 For maximum efficiency, be sure that the tip is clean at all times. A tip containing foreign residue will not heat properly.

4.02 The soldering iron tip will generally require an occasional touchup with a wiping cloth at working temperature.

4.03 As the tip is used it will become pitted and solder buildup will generally be heavier and require more frequent cleanings.

4.04 It may also be necessary to file away excess solder (cold tip) between periods of use.

4.05 After filing tip, re-tin as outlined in paragraph 3.02.

4.06 If an iron is not functioning properly, check tip for cleaning or replacement. If this does not solve the problem, return the unit to the storeroom.

4.07 When not in use, the soldering iron shall be stored in its associated cage (Figure 1) with the cord wrapped around and firmly secured to the handle.

4.08 The iron should be stored in the workman's truck in such a manner that it will not come in contact with any other hard object that would rupture the cord insulation.

5. SAFETY PRECAUTIONS

5.01 During a work operation, the hot iron shall always be placed in the cage (Figure 1) when not in use, and the complete unit kept clear of any combustible material.

5.02 In checking the iron for heat, never use fingers or hand. Check tip of iron for heat with solder.