

GENERAL SOLDERING PROCEDURE

1. Clean both metal and solder with emery paper prior to soldering operation; remove any oil or finger prints.
2. True up faces to be soldered.
3. Apply anti-fire scale solution to metal surfaces by dipping.
4. Use soldering jig to hold parts in place. (54.025 Soldering Station or 54.095 Third Hand).
5. Apply solder and flux to seam to be joined.

SOLDERING PROBLEMS

A. SOLDER WON'T FLOW

- Surface of metal is not clean
- Torch tip is too small
- Not enough heat applied to the metal
- Too much flux on joint

B. SOLDER BALLS UP

- Too much heat applied to solder
- Not enough heat to the area around the joint to be soldered
- Too little solder

C. PITS IN SOLDER SEAM

- Metal not clean
- Solder not chemically clean
- Too much heat applied too long to the solder joint
- Repeated heating of the solder joint in multiple soldering operations, resulting in the decomposition of alloys in the solder.

D. SOLDER RUNS AWAY FROM JOINT

- Heating of the metal around the solder joint not uniform--solder flows toward the source of the heat.
- Metal dirty
- Not enough flux
- Too large a torch tip
- Too much heat from torch tip

E. GAPS IN JOINT

- Dirty solder or metal
- Parts fit poorly

F. SOLDER FLOWS UNEVENLY OVER METAL SURFACE

- Metal surface is dirty