

107-1-0-1

THERMAL FREE SOLDER

A special solder is used in making connections in low level circuits where thermal emf against copper should be minimized. This solder is furnished in wire form with a square cross section of 1/16" x 1/16" or a rectangular cross section of .04" x .08".

The following procedures must be carried out in the use of this solder.

(1) Use a new soldering iron tip tinned with the thermal free solder. Do not use this tip for any purpose other than soldering with thermal free solder.

(2) The iron should be a standard 115 volt type, of a size and rating suitable to the job. For light connections, use a 30 to 40 watt size. For wire up to approximately #13 size, use a 100 watt (3/8" tip) iron. For heavier work, use a 200 watt iron.

(3) The flux must be pure rosin in alcohol, clean and uncontaminated. It must be applied with a non-metallic applicator.

(4) Wires, or wires and metal surfaces to be soldered, must be placed close together, must be clean, and must not be tinned with any mate-

rial other than thermal free solder.

(5) A minimum amount of solder must be used to insure close contact between wires or wires and surfaces to be joined.

(6) It has been found that satisfactory joints made with this solder lack the bright smooth appearance obtained with regular solder. They look somewhat like a cold joint, but are perfectly satisfactory, both mechanically and electrically.

(7) The iron should be disconnected after use to prevent contamination of the tinned tip. The tip should be retinned if solder becomes badly oxidized. It is suggested that this tip be used only for low emf solder.

(8) It is recommended that the finished joints be painted with a bright green paint to identify the type of solder used to insure that this joint will be made the same way if wiring changes are made in the future. This color identifies this solder in all Leeds & Northrup Company instruments.

When storing this solder, keep the cap screwed tightly on the tube, because the solder deteriorates when exposed to air.



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