

SOLDERING TECHNIQUES

by J. Holbrook

<u>SOLDER :</u>	HARD;	Silver Alloy	800°+
	SOFT;	Lead / Tin	327° - 450°
		Rosin Core 60/40 Eutecic	360°
		Acid Core	"
		Silver Bearing, Rosin Core	
		60/38/2 used for Electronics Paste (Low Temp)	200°

WORK

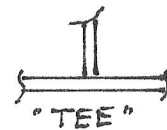
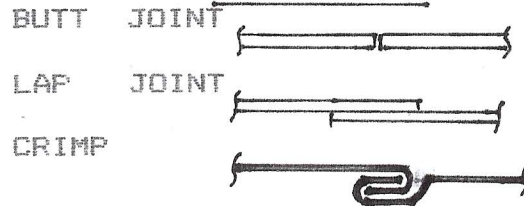
- PREPARATION:
- * STEP #1. CLEAN, * Step #2 CLEAN, * Step #3 CLEAN
 - * Free From Dirt, Rust, Corrosion, and Impurities...
 - * Use Correct Type of SOLDER
 - * HEAT, MUST "Flow" Solder
 - * Flux or Paste may help

HEAT :

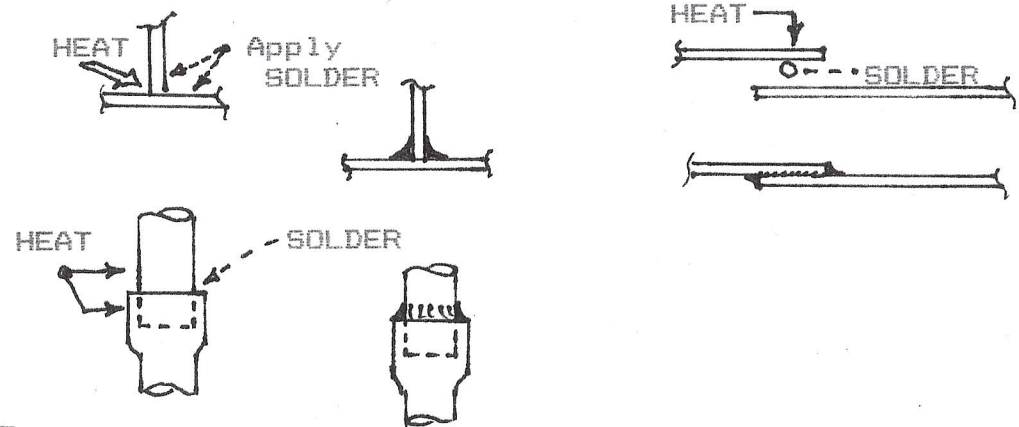
- Electric "GUN" -- Used on Wiring, some small items
- IRON -- General Purpose, note wattage
- FLAME -- Heavy Stock
- RESISTANCE -- Quick Intense Heat

JOINTS :

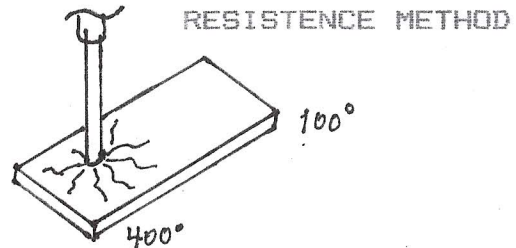
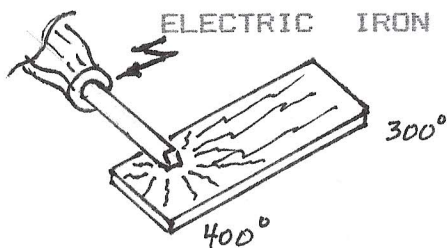
MECHANICAL...



BONDING :

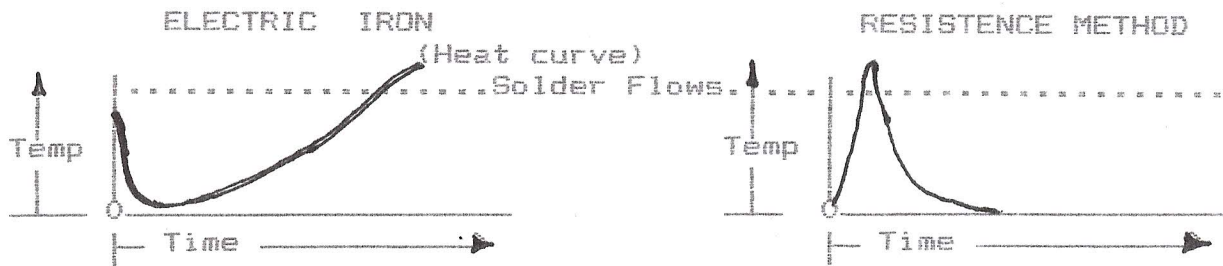


HEAT SINK EFFECT :

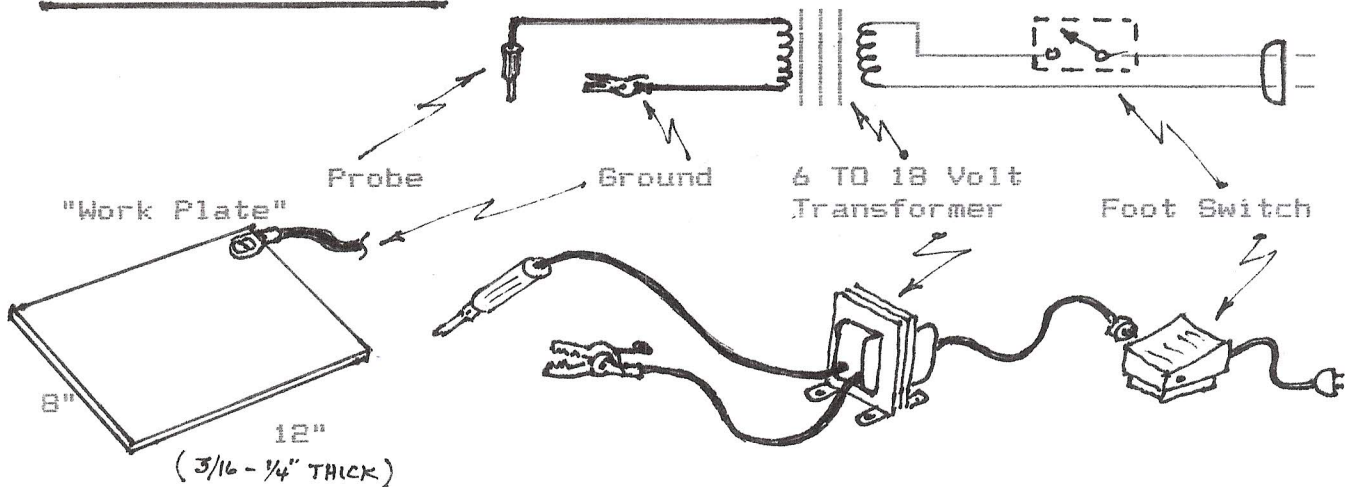


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HEAT SINK EFFECT Cont:



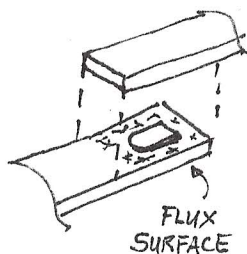
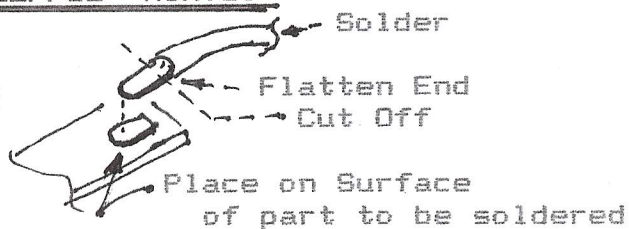
RESISTANCE SYSTEM :



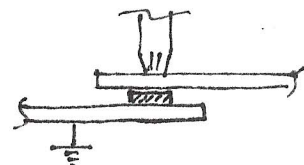
Recommend # 8 or # 10 Gage Wire for Probe and Ground leads. Use wire with lots of "small strands" for better flexibility.

Note; Volts X Amps (Current) = Watts at the Probe..... We will see high current in these leads and IF Wire Size is Small, 1. the leads will get hot and, 2. the solder won't melt properly...

HELPFUL HINTS:



Hold down,
Apply Heat *



* Turn off current Before releasing probe from part.

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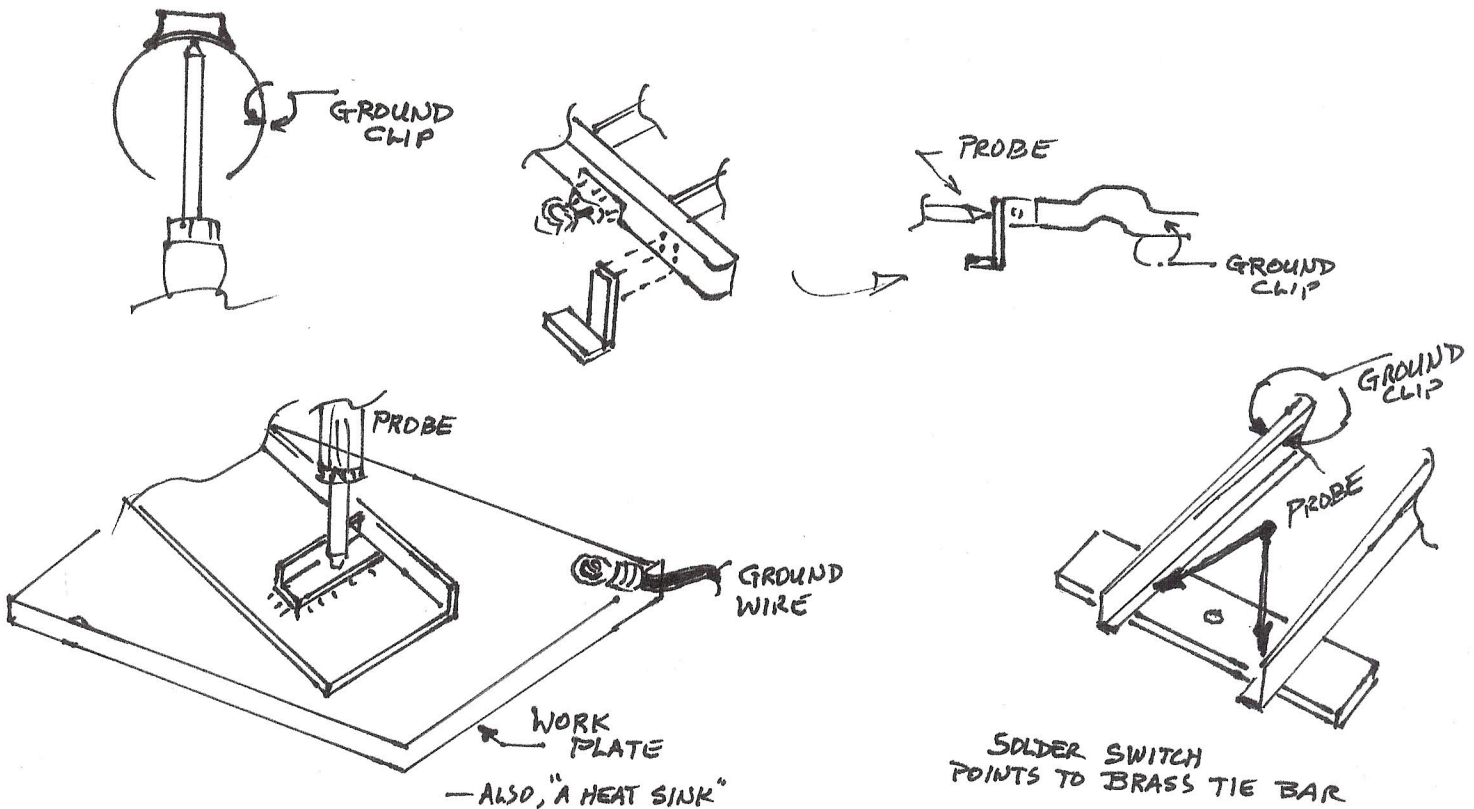
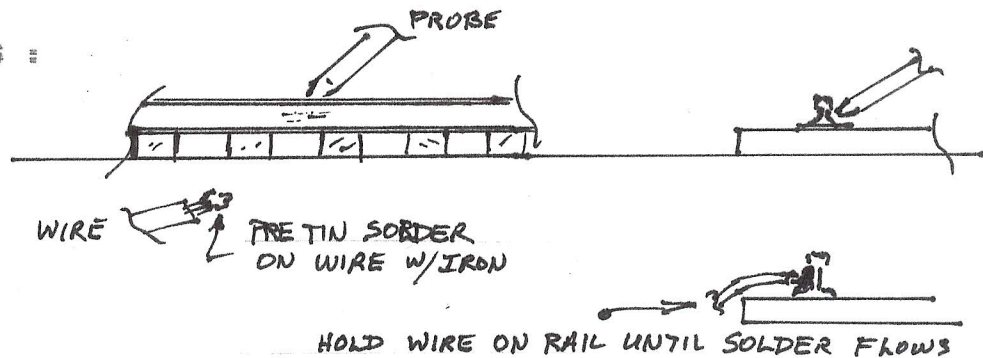
HELPFUL HINTS Cont :

HEAT Required or "Time" to melt and flow solder will depend on the mass or thickness of the part and the stock to be soldered. ALWAYS try to apply heat to the larger part or stock to avoid destruction of the smaller part.

REMEMBER, Release the Foot Switch first, BEFORE Removing the Probe.. or else, you will draw an electrical arc at the probe tip....

Holding the part with the probe until the solder hardens is a nice feature...and not at all like using an iron. This takes a "lot of getting use.to"...

SOLDERING TIPS :



Joe Holbrook
702 Seattle Dr.
Lexington, KY 40503-2127