

Induction Soldering satellite antennas

United Induction Heating Machine Limited

We are experienced in Induction Heating, induction heating machine, Induction Heating equipment. They are widely used in induction heating service, induction heat treatment, induction brazing, induction hardening, induction welding, induction forging, induction quenching, induction soldering induction melting and induction surface treatment applications
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Soldering satellite antennas Objective Soldering steel onto GPS body for phone antenna

Material Thin copper foil 0.3mm (0.01 in) thick Ceramic body 12mm (0.47 in.) long x 7mm (0.28 in.) wide

Temperature 200° C (392° F)

Frequency 371 kHz

Process Time 5 seconds

Equipment • Power of 6 kW induction heating system, equipped with a remote workhead containing (2).33μF capacitors (for a total of .66 μF).

- Two coils (one for each stage of process) designed and developed specifically for this application. The first stage uses a two-turn solenoid coil with a 15mm (0.6 in) ID and the second stage uses a plate coil, 25 mm (1 in.) dia. with a 6mm (0.24 in.) hole.

Process

Stage 1: A two-turn solenoid coil is used to heat the top end of a GPS antenna. Solder paste is used to solder the walking stick loop to the copper foil.

Stage 2: A plate coil is used to heat the bottom part of the GPS to solder a top hat to the copper foil and also the bottom part of the walking stick.

Results/Benefits Induction heating benefits:

- increased production rate due to speed of heating
 - higher quality vs. a soldering iron due to precision and repeatability
 - cost savings due to reduced scrap and higher quality production
- Soldering satellite antennas**

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