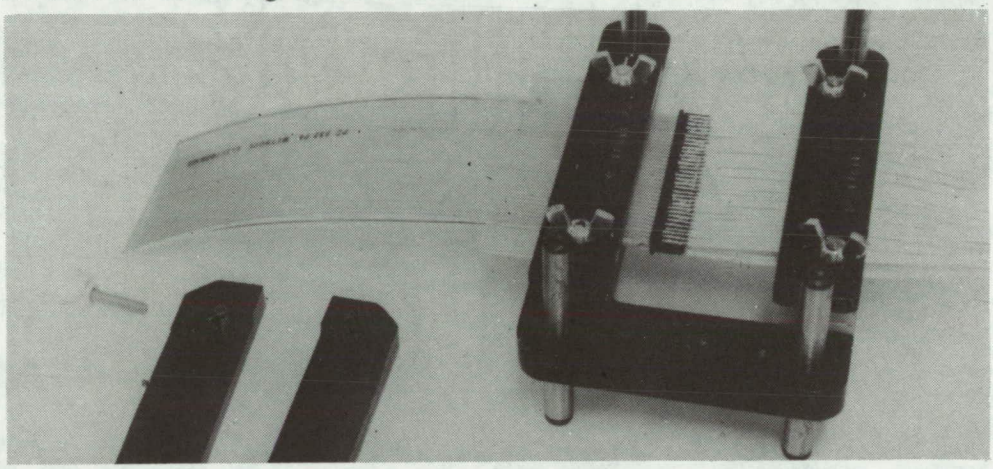
NASA TECH BRIEF

Marshall Space Flight Center

Handling Fixture for Soldering Round Wires to FCC

A handling fixture or frame facilitates the soldering of flat conductor cabling to round wires. The fixture holds both the FCC and the round wires in position until after the contacting conductor ends have been soldered and the junctions have been potted. It provides for proper spacing of the wires and adequate access for soldering, prevents excessive stressing of the soldered joints during fabrication, and positions the mold halves during the potting operation.



The FCC ends to be soldered are stripped and fitted with a conventional window piece, a conductor spacer, and an insulator. Conductors of the terminated assembly are tinned and the assembly is clamped into position from the right side of the fixture. Upon completion of the soldering process, the assembly, still clamped in the holding fixture, is positioned between mold halves and encapsulated with the desired potting resin. The mold halves and handling fixture are removed after the potting material has fully cured.

Accessories are provided with the basic handling fixture to enable soldering of the following FCC-to-round-wire transitions: (1) all unshielded wires to two cables; (2) all shielded wires to two cables (alternate conductors must be skipped); (3) all unshielded wires to one cable and all shielded wires to a second cable; and (4) combination of unshielded and shielded wires to either one or both of two cables.

Note:

Requests for further information may be directed to:

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Patent status:

No patent action is contemplated by NASA.

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