

**Manufacturing
Procedure**

Procedure #:

MFG004 Rev. A

Date:

05/13/99

Page #:

Page 1 of 3

Title:

2nd Operation**Revision**

A

Description of Change

Initial Release

Date Effective

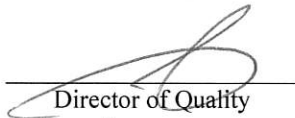
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Title:

2nd Operation**1.0 Purpose**

- 1.1 To outline the requirements for the 2nd Operation process.

2.0 Scope

- 2.1 This procedure applies to Meritronics.

3.0 Reference

- 3.1 SOP22 ESD Control Procedure
- 3.2 SOP11 First Article Procedure
- 3.3 IPC-R-700 Guidelines for Modification, Rework & Repair of Printed Circuit Board Assembly.
- 3.4 IPC-A-610 Acceptability of Electronic Assemblies

4.0 Definitions

- 4.1 PCA - Printed Circuit Assembly

5.0 Responsibilities

- 5.1 It is everyone's responsibility to follow the ESD procedure and safety rules described in this procedure.
- 5.2 Operators are responsible for following the documentation to ensure quality product.
- 5.3 Line supervisors will ensure that operators are trained to this procedure and follow the requirements of First Article Procedure SOP11.

6.0 Equipment

- 6.1 Soldering iron and appropriate tips to provide tip temperatures from 600 - 900 degrees F.
- 6.2 Various hand tools
- 6.3 Air Vac

7.0 Materials

- 7.1 Wire - 30AWG or as specified by customer requirements
- 7.2 No-clean solder: Alpha Cleanline 7000 or as specified by customer requirements.
- 7.3 Water soluble flux: Kester 2331-ZX or specified by customer.

Title:

2nd Operation

- 7.4 Loctite Tak Pak 444 or 414 Instant Adhesive
- 7.5 Loctite Tak Pak 712 Accelerator
- 7.6 Loctite X-NMS 76820 Debonder

8.0 Records

- 8.1 MFG021 Hand Soldering Operation Procedure
- 8.2 MFG019 Air Vac Set-Up and Operation Procedure
- 8.3 MEP004 Aqueous Cleaner Operation

9.0 Procedures

- 9.1 Hand solder components per Hand Solder Operation Procedure MFG021. Remove water soluble flux residues manually or use no-clean solder for unwashable components per customer requirement.
- 9.2 Jumper Wiring
 - 9.2.1 Prepare and solder wire, then attach it to the PCA with TakPak specified per MPI and/or customer documentation in accordance with IPC-A-610.
- 9.3 All rework shall be performed in accordance with IPC-R-700.
- 9.4 After installation of jumper wires, wash the PCA in an in-line aqueous cleaner before the end of the shift if aqueous flux is used per MEP004 or if necessary, remove water soluble flux residues manually from the PCA using a brush, water, and disposable wipes. Thoroughly dry the board.