

**TYPICAL EUROCARD CONNECTOR PART NUMBERS:**  
535043 535070 535089 535097 650470 650473 650478 650906

Figure 1

## 1. INTRODUCTION

These instructions cover soldering and cleaning of Eurocard Connectors. Some typical connector part numbers are listed with the illustration in Figure 1. Read these instructions carefully before soldering or cleaning any connectors.

Reason for revision is given in Section 5, REVISION SUMMARY.

### NOTE



*Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures and illustrations are for reference only and are not drawn to scale.*

## 2. CONNECTOR INSERTION

### NOTE



*Make sure that all printed circuit (pc) boards being used are prepared according to the dimensions given in Application Specification 114-9014, Catalog 82721 (for Eurocard Connectors), or the appropriate Customer Drawing.*

Insert each connector into the pc board, making sure all contacts are fully bottomed. Follow the instructions provided with the application tooling to properly insert the

connector into the pc board. Use care to avoid damaging the contacts.

## 3. SOLDERING

### 3.1. Wave Soldering

#### CAUTION



*Plastic housing material that will be exposed directly to the soldering wave must be protected by using heat tapes. For tin-lead soldering, use 3M No.5491 TEFLON Film Tape, or equivalent. For tin (lead-free) soldering, use 3M No. 5413, 5419, or 363 TEFLON Film Tape, or equivalent. Heat tape must be applied to the connector mating face and to all exposed areas that will contact the solder wave. An alternative to heat tape is to make TEFLON or phenolic pc board end covers to mask the connector housing from the solder wave.*

1. Preheat the top side of the pc board to a maximum of 94°C (201°F).
2. Refer to Figure 2, select the appropriate flux from the two recommended types, and apply flux to the bottom of the pc board. Do NOT allow flux to flow over the top of the pc board.
3. After heating the wave solder to a maximum temperature of 260°C (500°F), solder the bottom of the pc board using the wave soldering process.

FLUX	ACTIVITY	RESIDUE	COMMERCIAL DESIGNATION	
			KESTER	ALPHA
RMA (Mildly Activated)	Mild	Noncorrosive	197	611
RA (Activated)	Medium	May be Corrosive	1544, 1545, 1547	711, 809, 811

Figure 2



*Dwell time for exposure to the solder wave should NOT exceed 3.0 seconds, and wave height should NOT exceed one-half the pc board thickness.*

### 3.2. Hand Soldering

If hand soldering the connector, use a hot soldering iron to simultaneously apply heat and solder to both the pc board and contact tines.

### 4. CLEANING THE PC BOARD

Remove flux and contaminants from the soldered components with an organic solvent or aqueous (detergent and water) cleaner. Figure 3 lists several recommended cleaners of both types.

If using an organic solvent, it must be free of dissolved flux and other contaminants. Vapor cleaning (with the pc board on edge) is preferred to immersion in a liquid cleaner.

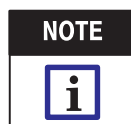


*Do NOT use FREON TMC on connectors made of polycarbonate material or the connector(s) will be damaged.*

If using an aqueous cleaner, clean the connectors in standard cleaning equipment, such as a soak tank or in-line automatic machine.



*Consideration must be given to toxicity and other safety requirements recommended by the solvent manufacturer. Refer to the manufacturer's Material Safety Data Sheet (MSDS) for characteristics and handling of cleaners. Trichloroethylene and Methylene Chloride is not recommended because of harmful occupational and environmental effects. Both are carcinogenic (cancer-causing).*



*Additional suitable fluxes and cleaners are also available. Omission of a specific product does not necessarily reflect unacceptable characteristics. Contact your local Tyco Electronics Representative for details on these fluxes and cleaners.*

### 5. REVISION SUMMARY

The following changes have been made to this document.

- Updated document to corporate requirements
- Deleted part numbers from Figure 1
- Added new text to CAUTION in Paragraph 3.A

CLEANER		TIME (Minutes)	TEMPERATURE (Maximum)
NAME	TYPE		
ALPHA 2110	Aqueous	1	132°C [270°F]
BIOACT EC-7	Solvent	5	100°C [212°F]
Butyl CARBITOL	Solvent	1	Ambient Room
Isopropyl Alcohol	Solvent	5	100°C [212°F]
KESTER 5778	Aqueous	5	100°C [212°F]
KESTER 5779	Aqueous	5	100°C [212°F]
LONCOTERGE 520	Aqueous	5	100°C [212°F]
LONCOTERGE 530	Aqueous	5	100°C [212°F]
Terpene Solvent	Solvent	5	100°C [212°F]

Figure 3