



All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of ± 0.13 [$\pm .005$] and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of AMPMODU System 50 Ribbon Cable Receptacle Connectors. These connectors are double-row spaced on 1.27 x 2.54 mm [.050 x .100 in.] centerlines and accept 0.64 mm [.025 in.] centerline ribbon cable. They are available as individual receptacle assemblies or in cable assemblies. Also, they mate with AMPMODU System 50 Shrouded Through-Hole PC Board Connectors with end latches.

When corresponding with TE Connectivity Personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.

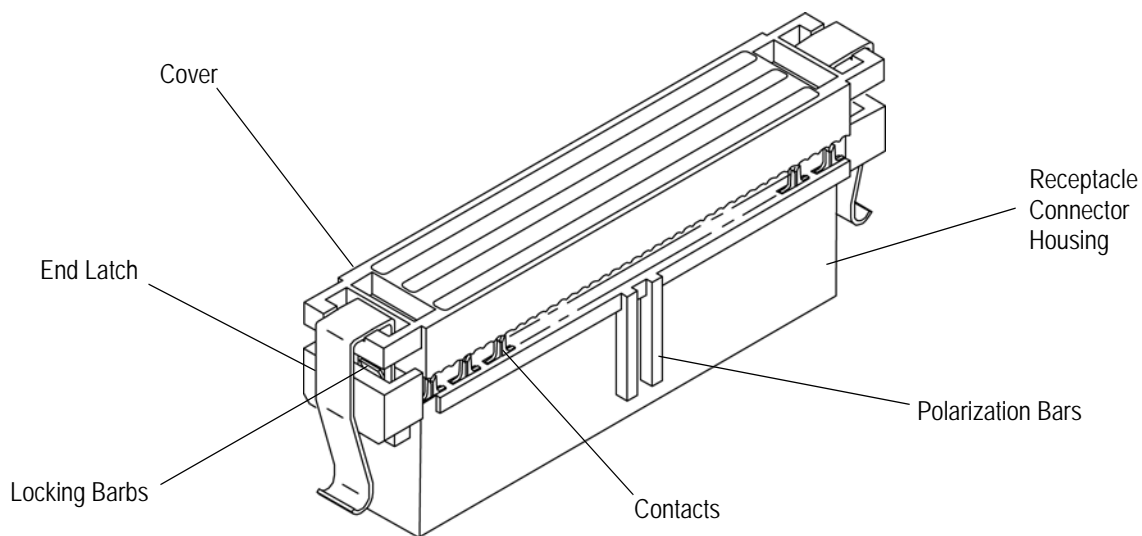


Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

This paragraph is reserved for a revision summary covering the most recent additions and changes made to this specification which include the following:

- Changed tolerance dimension in Figure 4

2.2. Customer Assistance

Reference Part Number 111196 and Product Code 5534 are representative numbers of AMPMODU System 50 Ribbon Cable Receptacle Connectors. Use of these numbers will identify the product line and expedite your inquiries through a service network established to help you obtain product and tooling information. Such information can be obtained through a local TE Representative or, after purchase, by calling the Tooling Assistance Center or the Product Information number at the bottom of this page.

2.3. Drawings

Customer Drawings for specific products are available from the service network. The information contained in Customer Drawings takes priority if there is a conflict with this specification or with any technical documentation supplied by TE.

2.4. Specifications

A. Product Specification

Product Specification 108-1109 provides performance requirements and test data.

B. Application Specifications

Application Specification 114-25031 provides information pertaining to the mating pc board connectors for AMPMODU System 50 Receptacle Connectors.

2.5. Instructional Material

The following list includes available instruction sheets (408-series) that provide assembly procedures for product, operation, maintenance and repair of tooling.

<u>Document Number</u>	<u>Document Title</u>
408-6732	Pneumatic Auto-Cycle Unit 91112-3
408-7777	Manual Arbor Frame Assembly 91085-2
408-9872	Connector Specific Kit 679167-1
408-9875	Base Assembly Universal Arbor Tool 768338-2

3. REQUIREMENTS

3.1. Material

AMPMODU System 50 connector housings are molded from high-temperature thermoplastic resins.

3.2. Polarization

Polarization of these connectors is achieved by bars on the receptacle housing and matching slots in the mating plug housing.

3.3. Cavity Identification

A recess in the connector housing provides a means of circuit identification. Typically this recess is used to locate the number one circuit.

3.4. Cable Requirements

A. Cable Preparation

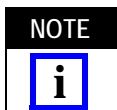
Ribbon cable must be cut straight and perpendicular to the edge of the cable. No other cable preparation is necessary. Refer to Figure 2.

B. Cable Wire Size

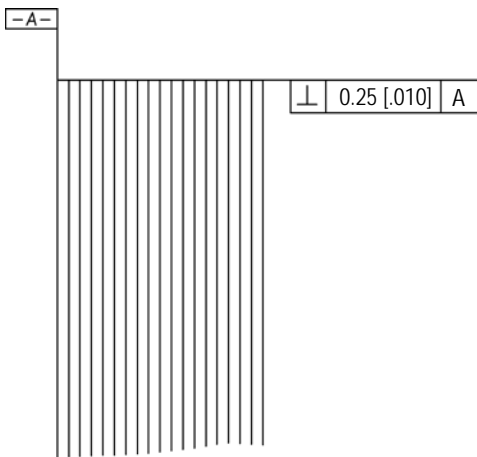
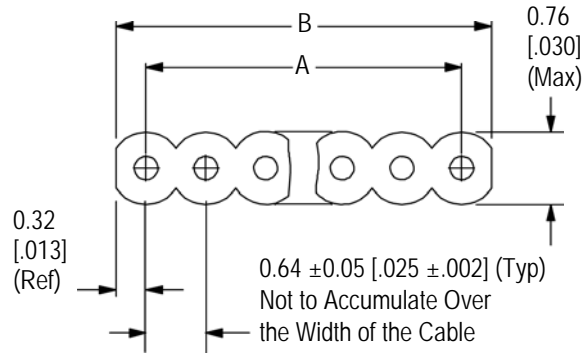
Ribbon cable wire size must be No. 30 AWG solid or stranded copper conductor or No. 32 AWG stranded tinned copper conductors with PVC insulation.

C. Cable Conductors

Ribbon cable must contain the appropriate number of conductors to match the particular receptacle connector being used, and must meet the requirements of Figure 2



30 AWG solid (TE engineering drawing number 57013) and 30 AWG stranded (engineering drawing number 57131) PVC insulated ribbon cable that meets or exceeds the requirement of Figure 2 is available from TE. 32 AWG stranded ribbon cable is not available from TE.

Cable Preparation

Cable Dimensions


NUMBER OF CONDUCTORS (X)	DIMENSION A	DIMENSION B
10-60	$(N-1) \times 0.64 \pm 0.18$ [0.025 ± 0.007]	$(N \times) 0.64 \pm 0.13$ [0.025 ± 0.005]
61-72	$(N-1) \times 0.64 \pm 0.20$ [0.025 ± 0.008]	
73-100	$(N-1) \times 0.64 \pm 0.23$ [0.025 ± 0.009]	

Figure 2

3.5. Terminated Connector Requirements
A. Cable Applications

The receptacle connectors are pre-assembled including a pre-positioned cover for end terminations or daisy-chain applications, as shown in Figure 3.

NOTE

Care must be taken when aligning cable prior to termination to maintain perpendicularity between the length of the cable and the length of the connector.


B. Connector Components

1. The cable must be properly positioned between the cover and the housing, as shown in Figure 3.
2. The cover must be firmly held to the housing by the end latches. Refer to Figure 4.
3. The end latches must be held firmly to the cover by the locking bars, as shown in Figure 4.
4. The assembly must meet the dimensional requirements of Figure 4.

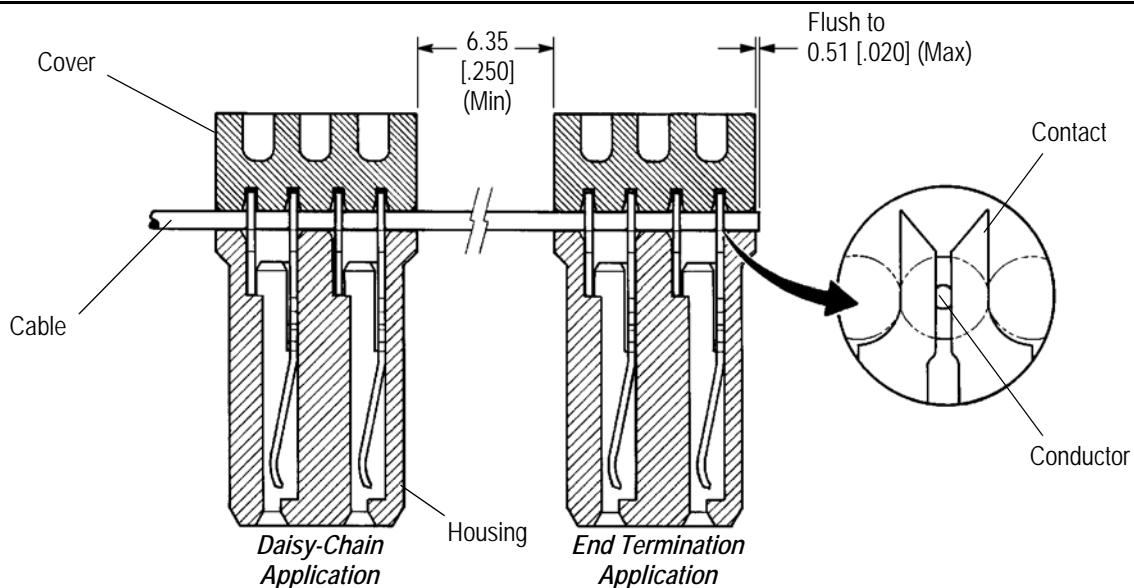


Figure 3

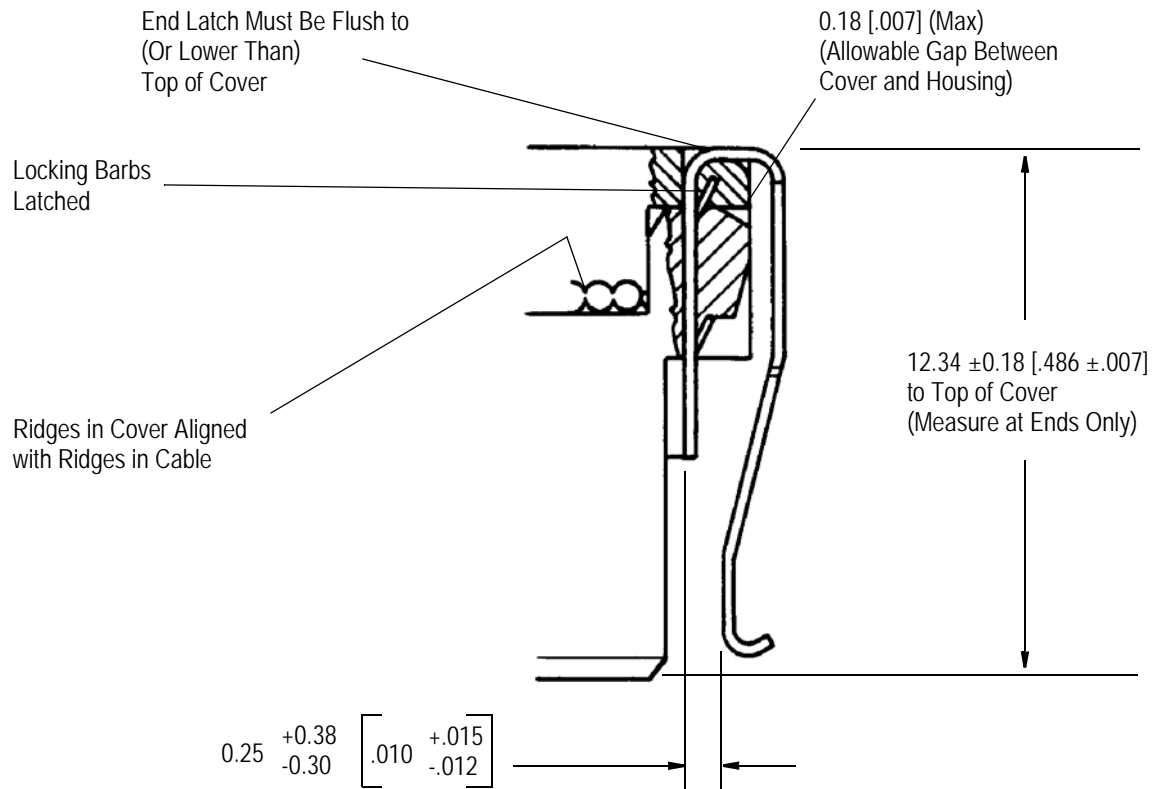


Figure 4

3.6. Workmanship

The following workmanship standards apply to the terminated receptacle connector:

1. There shall be no exposed copper chips or broken conductor strands.
2. The receptacle connector housing and cover must not be damaged by the termination process.

3.7. Product Inspection

Inspections of the receptacle connector must be conducted routinely both prior to and after termination, to ensure that the requirements of this specification are met.

3.8. Repair

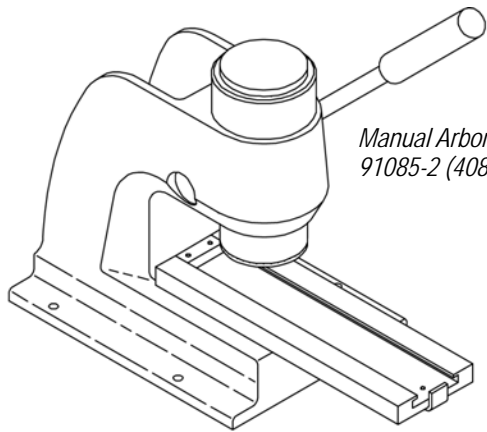
Damaged receptacle connectors must be removed, discarded, and replaced.

4. QUALIFICATIONS

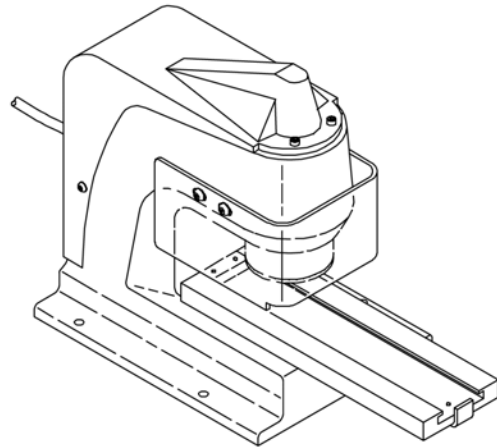
AMPMODU System 50 Ribbon Cable Receptacle Connectors are Recognized by Underwriters Laboratories Inc. (UL) in File No. E28476, and Certified by the Canadian Standards Association (CSA) in File No. LR7189.

5. TOOLING

The receptacle connectors are designed to be terminated to ribbon cable using either a manual or pneumatic frame unit equipped with the proper application tooling assembly. For part numbers and instruction sheet material numbers, see Figure 5.

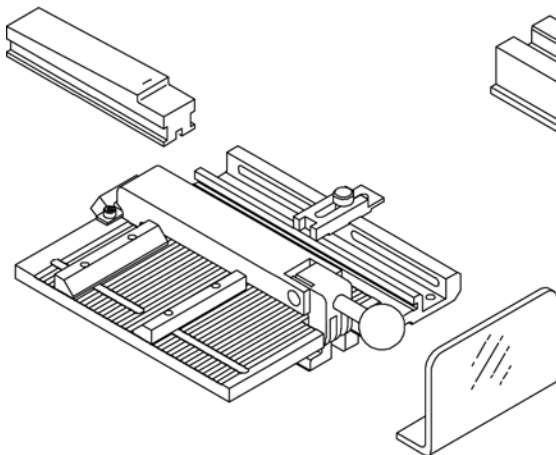


*Manual Arbor Frame Assembly
91085-2 (408-7777)*



*Pneumatic Auto-Cycle Unit
91112-3 (408-6732)*

*Base Assembly Universal
Arbor Tool 768338-2
(408-9875)*



*Connector-Specific Kit 679167-1
for AMP-LATCH® System 50 Receptacle
Connectors (408-9872)*

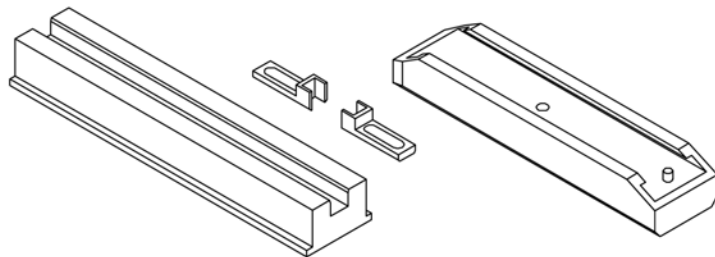


Figure 5

6. VISUAL AID

The illustration below shows a typical application of this product. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

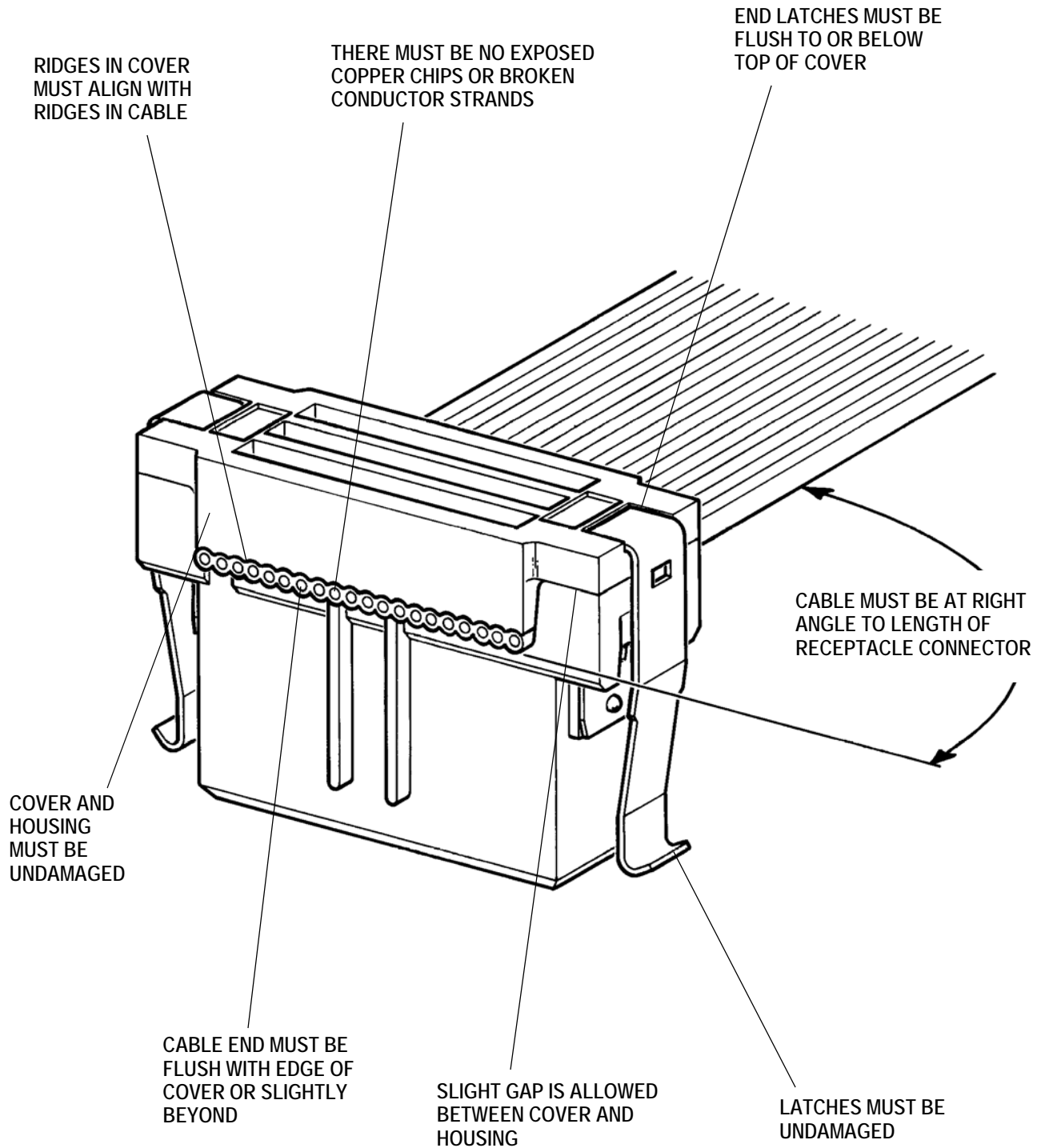


FIGURE 6. VISUAL AID