

CABLE DRAWING: MWA-3011

DRAWING TITLE:  
**5V & 12V Power Distribution Cable**

DRAWING NO.: <b>MWACAB-0011</b>	DRAWN BY: <b>DRC</b>	DATE: 2-Nov-10	REV: <b>B</b>
		SHEET: 1 of 2	

**Cable Detail:**

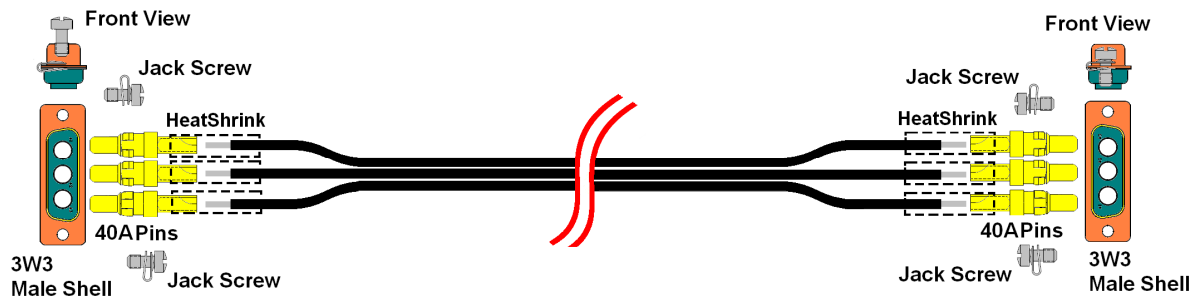
Connectors:	Description	Parts (Qty)
PSU & Module	3W3 Male (Plug) Solder Bucket	See Note1 Below(2)
	40A High Current Pin	See Note2 Below(6)
Conductors:		
Cable	PRO POWER - CBBR1541 - Wire, Tri Rated, Black, 10mm	See Note3 Below(240cm)
Misc:		
Jack Screws	For connectors	See Note4 Below(2 pairs)
Numbering	Attach Cable Numbers 1 & 1 (Supplier to specify)	See Note5 Below

Overall Length 770+/-5mm

**Notes:**

- 3W3 connector can be supplied from Element14 #120-7590. Any equivalent will be OK refer to data sheets supplied with this drawing.
- Connector Pins can be supplied from Element14 #120-0479. Any equivalent will be OK refer to data sheets supplied with this drawing
- The cable can be supplied from Element14 #117-8331. Any equivalent will be OK refer to data sheets supplied with this drawing.
- The connector Jack Screws can be supplied from Element14 #109-8377. Any equivalent will be OK refer to data sheets supplied with this drawing
- Cable numbering parts are left to the cable manufacture to decide, only the last two digits are required, for example "MWACAB-0011" is designated as "11" on the cable.

**Typical Drawing:**



**REVISION**

Date	Rev	Remarks
16/12/09	A	Draft
20/07/10	A	For Release
02/11/10	B	Salem Version Changed thumb screws to jack screws

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**Typical Photo:**



**Pinouts Table:**

Module-End		PSU-End
Pins(3)		Pins(3)
3	+5V	1
2	0V	2
1	+12V	3

**Connection Detail:**

From: (ASC2)      Module Front Panel Power Connector  
To:    (PSU)        PSU Front Panel Connector

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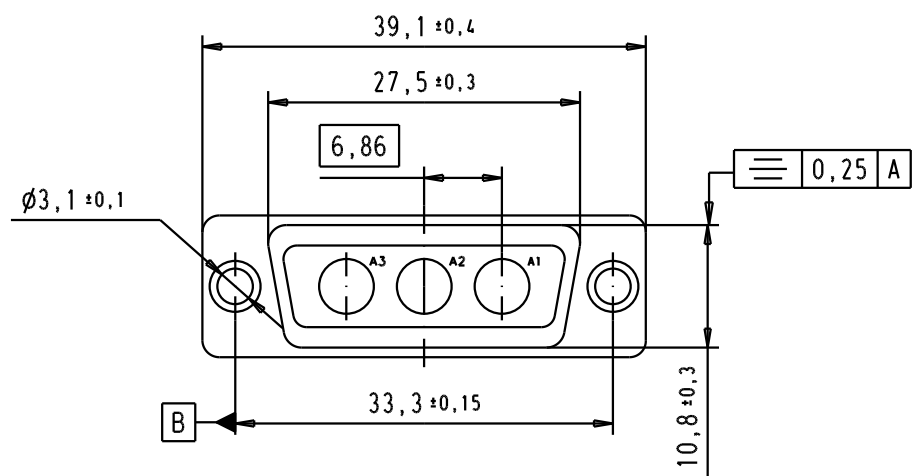
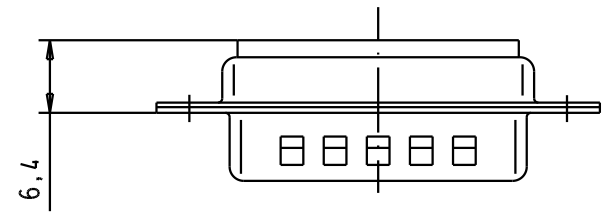
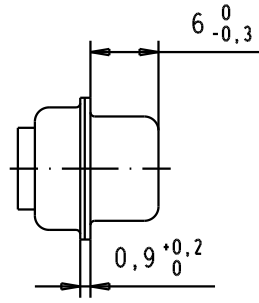
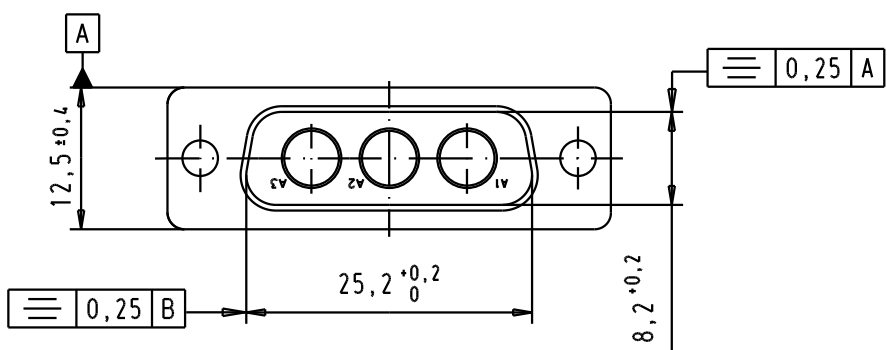
5

4

3

2

1

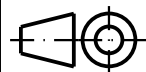



D

C

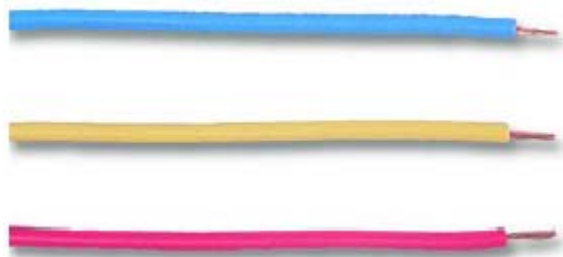
B

A

09 69 210 0033.500	Non magnetic				Detail.	Dat.	Name	 All Dim. in mm Orig. Size DIN A 4	D-Sub, male, 3W3 without contacts, with tin plated shell and dimples.	Maßstab/ Scale 1,5:1
					Insp.					
		32119	23/06/04	AC	Stand.					
		31519	03/07/03	TCP						
09 69 210 0033		29742	12/11/01	AF	HARTING EURL F-95972 Paris			TB 09 69 210 0033	Blatt / Page 1 / 1	
Part number		Mod.	Dat.	Name			Sub.			



# Tri Rated 10MM



## Features:

- Heat resisting PVC insulated.
- CK type.
- UL style 1028; CSA type TEW; BS6231.

## Specifications:

### Conductor:

10mm<sup>2</sup> (8AWG) (80/0.4mm\*) plain annealed copper bunch meeting the requirements of BS6360, class 5. UL subject 758, CSA standard C22.2 no.127.

Minimum cross-sectional area : 8.20mm<sup>2</sup>.  
Maximum lay of bunch : 76mm.  
Maximum resistance at 20°C : 1.91Ω/km.

### Insulation:

PVC compound meeting the requirements of type T13 to BS EN 50363.

Class 43 PVC to UL1581, class 28 to CSA standard C22.2 no.127.

Minimum thickness at any one point : 1.02mm(UL/CSA).  
Minimum average thickness : 1.14mm (BS).  
Minimum overall diameter : 5.7mm (BS).  
Maximum overall diameter : 7.2mm (BS)  
Lay up : Not applicable.  
Screen : Not applicable.  
Sheath : Not applicable.

\* This is a nominal number of strands.

\* All wires made to meet minimum cross-sectional area and maximum resistance as set in BS specification.

## Part Number Table

Description	Part Number
Wire, Tri Rated, Black, 10mm, 100m	CBBR1541
Wire, Tri Rated, Red, 10mm, 100m	CBBR1542
Wire, Tri Rated, Green/Yellow, 10mm, 100m	CBBR1543
Wire, Tri Rated, Blue, 10mm	T/RATED 10MM BLU
Wire, Tri Rated, Grey, 10mm, 100m	T/RATED 10MM GRY 100M
Wire, Tri Rated, Brown, 10mm, 100m	T/RATED 10MM BRN 100M

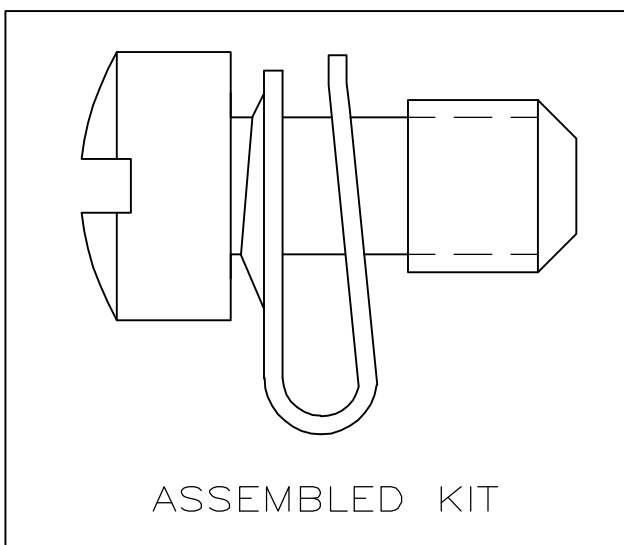
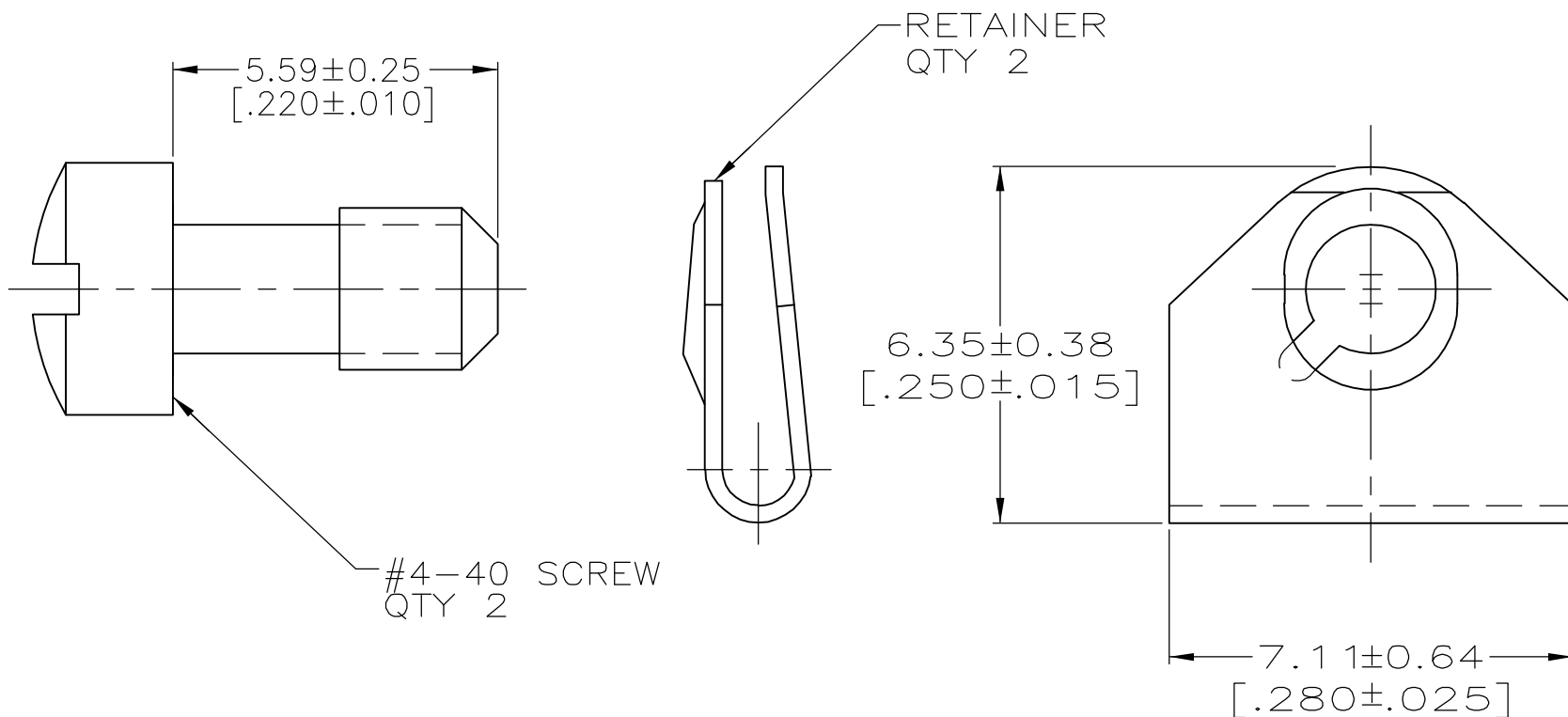
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LOC	DIST	REVISIONS			
P	LTR	DESCRIPTION	DATE	DWN	APVD
GP	00	0	RELEASED PER EC 0S13-0207-05	27JUN05	SW JG

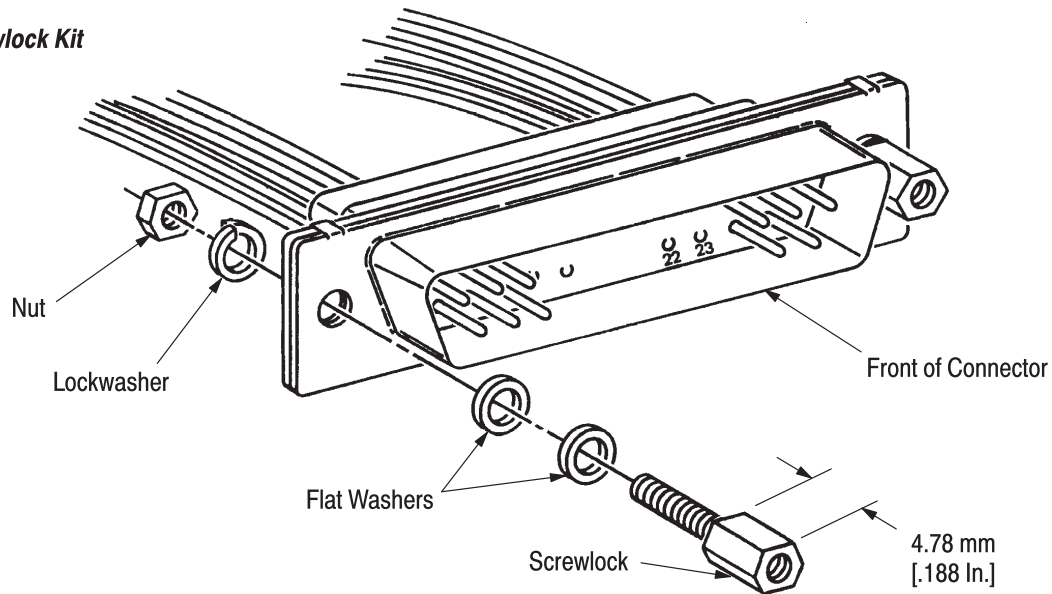


- 1. PARTS PACKAGED UNASSEMBLED.
- 2. STAINLESS STEEL PER ASTM A666.
- 3. PACKAGING MARKED WITH TYCO, PART NO & DATE CODE.
- 4. ZINC PLATED .000200-.000400 THICK YELLOW CHROMATE COATING.
- 5. ZINC PLATED .000200-.000400 THICK CLEAR CHROMATE COATING.
- 6. PARTS INDIVIDUALLY BULK PACKED AND SHIPPED AS A UNIT PACKAGE.
- 7. PARTS PACKAGED AS A UNIT KIT.

3	6	5	5205980-5
3	7	5	5205980-4
3	6	4	5205980-3
3	7	4	5205980-1
MARKING	PACKAGING	SCREW FINISH	PART NO

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S.WAITMAN 27JUN05	Tyco Electronics Corporation Harrisburg, Pa 17105-3608		
DIMENSIONS: mm [INCHES]		CHK C.ROHDE 27JUN05			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M.WALMSLEY 27JUN05	NAME KIT, SCREW RETAINER		
0 PLC ± - 1 PLC ± - 2 PLC ± 0.13 [.005] 3 PLC ± - 4 PLC ± - ANGLES ± -		PRODUCT SPEC -	RESTRICTED TO -		
MATERIAL SCREWS: CARBON STEEL		APPLICATION SPEC -	SIZE A3	CAGE CODE 00779	DRAWING NO C-5205980
RETAINERS: 2		FINISH SCREWS: -SEE TABLE	WEIGHT -	SCALE 8:1	SHEET 1 OF 1
CUSTOMER DRAWING			REV 0		

**Female Screwlock Kit**



FEMALE SCREWLOCK KIT	THREAD SIZE	THREAD LENGTH	CONNECTORS USED WITH	FEMALE SCREWLOCK KIT	THREAD SIZE	THREAD LENGTH	CONNECTORS USED WITH
5205817-[]	4-40	7.92 [.312]	HDP or HDF Metal Shell or All-Plastic Plugs & Receptacles	5207952-[]	4-40	6.35 [.250]	HD All-Plastic Right-Angle Plugs and Receptacles
5207719-[]	4-40	14.22 [.560]	HD or HDF All-Plastic Plugs & Receptacles with Integral standoffs	5745563-[]	4-40	6.35 [.250]	HDE Metal Shell or All-Plastic Plugs & Receptacles
5207872-[]	M3 x 0.5	7.92 [.312]	HDP or HDF Metal Shell or All-Plastic Plugs & Receptacles	5747223-[]	2-56 (Male) x 4-40 (Female)	14.22 [.560]	HD or HDF All-Plastic Plugs & Receptacles with Integral standoffs

**NOTE:** Kits used on plastic shell connectors have square nuts instead of hex nuts and lockwashers.

Figure 1

**1. INTRODUCTION**

This instruction sheet covers the assembly of the Female Screwlock Kits and the Male Screw Retainer Kits onto AMPLIMITE\* connectors.

These kits are designed to secure mating connectors in panel-mounted or free-hanging applications. For panel-mount applications, it is recommended that the female screwlock kit be assembled on the panel-mounted connector. Read these instructions thoroughly before assembling either kit.

**NOTE** All dimensions on this document are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reasons for reissue are provided in Section 7, REVISION SUMMARY.

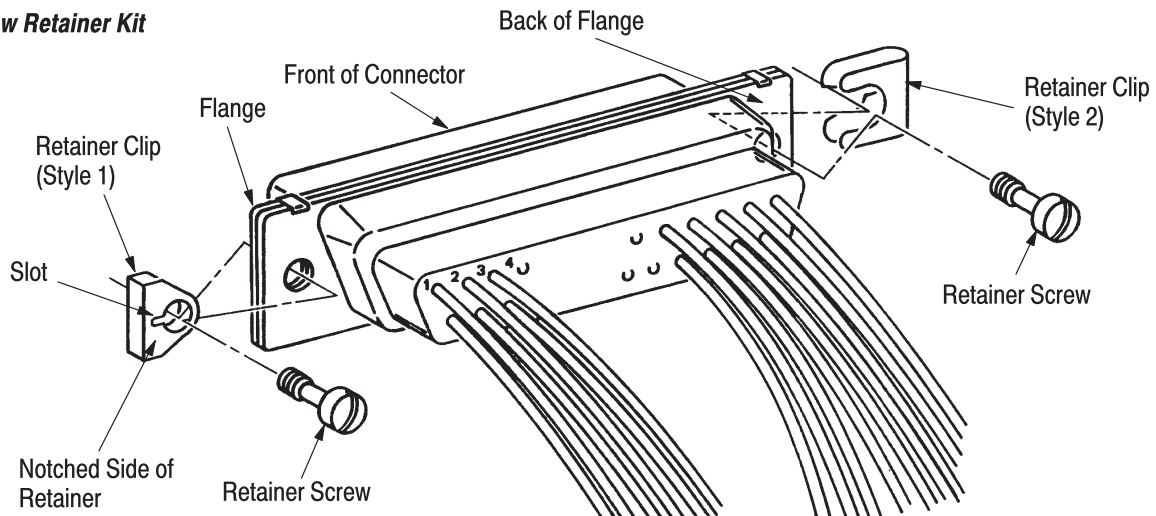
**2. DESCRIPTION**

The screwlock kit contains two identical screwlock component assemblies. Each assembly consists of one screwlock, two flat washers, one lockwasher, and one nut (see Figure 1).

The screw retainer kit contains two identical screw retainer component assemblies. Each assembly consists of one retainer and one retainer screw.

The screwlock kits and the corresponding screw retainer kits are available in various dimensions, with applications for a full range of contact sizes on both metal and plastic connector shells. See Figure 1 table for female screwlock kits and Figure 2 table for male screw retainer kits.

**Male Screw Retainer Kit**



SCREW RETAINER KIT	THREAD SIZE	CONNECTORS USED WITH	STYLE RETAINER CLIP	SCREW RETAINER KIT	THREAD SIZE	CONNECTORS USED WITH	STYLE RETAINER CLIP
5205980-[]	4-40	Metal Shell HDP & HDE	1	5745136-[]	4-40	Metal Shell HDP & HDE	2
5207871-[]	M3 x 0.5	Metal Shell HDP & HDE	1	5745647-[]	4-40	HDE All-Plastic	1
5746881-[]	4-40	HDF Metal Shell & All-Plastic	1	5787354-[]†	4-40	Metal Shell HDP & HDE	1

†Has Phillips head retainer screw

Figure 2

**3. ASSEMBLING SCREWLOCK KITS**

Screwlock component assemblies must be installed on the connectors as follows:

**NOTE** *Recommended torque for the screwlock assemblies is .45 N•m [4 in.-lb.].*

- For free-hanging application, install two flat washers on the screwlock and insert the screwlock through the connector flange. Secure the assembly with lockwasher and nut.
- For front-mounted panel applications, install two flat washers on the screwlock and insert the screwlock through the connector flange and panel. Secure assembly with a lockwasher and nut.
- For rear-panel mounted applications, install as follows: NO flat washers on screwlock if panel thickness is 1.52 mm [.060 in.] or greater; ONE flat washer if panel is 0.66 to 1.52 mm [.026 to .060 in.] thick; TWO flat washers if panel thickness is less than 0.64 mm [.025 in.]. Insert screwlock (with appropriate number of flat washers installed) through the panel and the connector flange. Secure with lockwasher and nut.

**4. ASSEMBLING SCREW RETAINER KIT** (Figure 2)

Both screw retainer component assemblies must be installed on the connector. Install each assembly as follows:

**Style 1 Retainer:**

- Align the slotted side of the retainer with the BACK of connector flange.
- Slide retainer onto flange and align holes.
- Thread retainer screw through retainer from BACK of flange.

**Style 2 Retainer:**

- Align the notched side of the retainer with the FRONT of connector flange.
- Mount retainer screw onto connector flange.
- Slide retainer clip around the connector flange and the mounting screw.

**NOTE** *The clip will snap in place when properly assembled.*

**5. ENGAGING CONNECTORS**

Align connector mating faces. Push connectors together until retainer screws are started into



screwlocks. Alternately thread the retainer screws **CLOCKWISE** into screwlocks until connectors are fully engaged. Recommended torque is .22 N•m [2 in.-lb.].

## 6. DISENGAGING CONNECTORS

Alternately thread the retainer screws **COUNTERCLOCKWISE** until released from screwlocks. Pull connectors straight apart.

## 7. REVISION SUMMARY

Since the previous release of this sheet, the following additions were made:

- Updated document to corporate requirements
- Changed tables in Figures 1 and 2 including part numbers