

NUMBER OF POSITIONS	TAB HOUSING	RECEPTACLE HOUSING	SPRING	COUPLING RING	2.8 mm TAB CONTACT	AMP MCP 2.8 mm RECEPTACLE CONTACT	WIRE SEAL
10	1443962-1	1443967-1	No	1443966-1	1394886-1	As per group product customer drawing 1355036, wire size 0.35-2.5 mm ² , insulation diameter 1.2-3.0 mm	828904-1 or 828905-1
9	1443962-2	1443967-2					
8	1443962-3	1443967-3					
6	1443962-4	1443967-4					
10	1443962-5	1443967-5	Yes	1443966-1	1394886-1		
9	1443962-6	1443967-6					
8	1443962-7	1443967-7					
6	1443962-8	1443967-8					

Figure 1

1. INTRODUCTION

This instruction sheet covers the assembly of the 10-Position Circular Through Wall Connector Assembly which is intended for use in diesel engines, for under valve harness applications. This connector assembly is available in 6-, 8-, 9-, and 10-positions. Part numbers for the tab and receptacle housing, coupling ring, tab and receptacle contacts, and wire seals are referenced in Figure 1.

Reason for revision is given in Section 4, REVISION SUMMARY.

2. INTERFACE DRAWING REFERENCE

The connector orientation is horizontal, with the top of the flange for square flange models facing up, or corner flange for spring retention version in the lower right corner as shown in Interface Customer Drawing 1443990 and Figure 1 above.

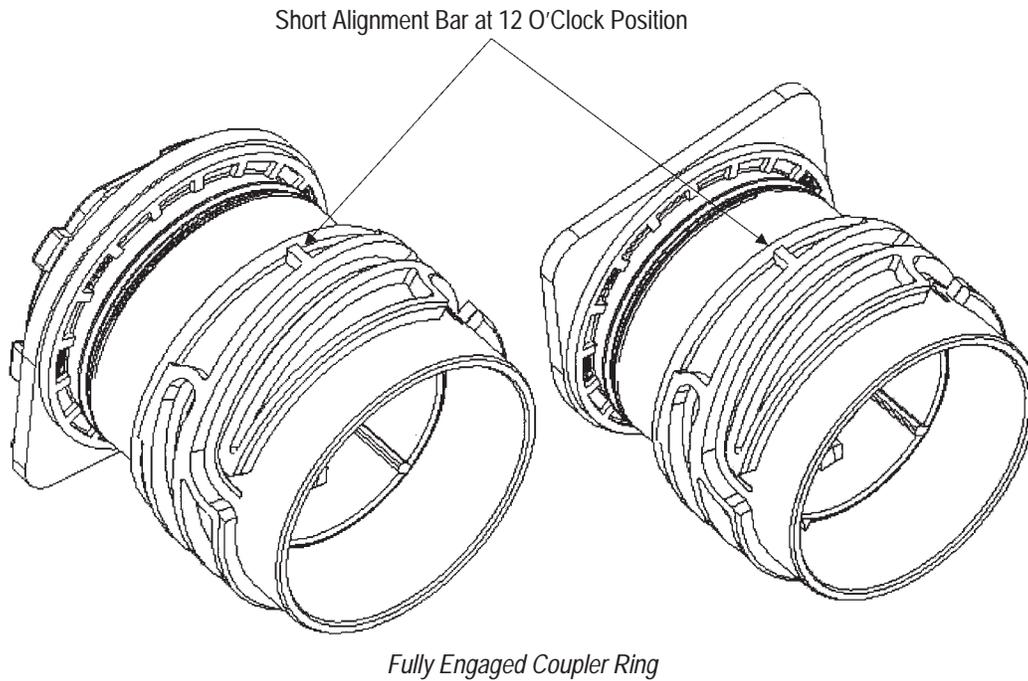


Figure 2

3. ASSEMBLY PROCEDURES

3.1. Tab Housing Assembly

The tab housing assembly is pressed into the engine mounting hole so that the tab housing seal flange rests against the machined engine mating surface, and the tab housing flange is located in the machined engine locating slot. This configuration exposes the tab housing, (printed WHITE alignment mark), located at the high point of the housing at the 12 o'clock position.

NOTE

For spring versions, the spring is seated in corresponding locating depressions, as referenced in Interface Customer Drawing 1443990.

3.2. Coupler Engagement

Align the coupler printed (WHITE, longer) bar with the tab housing bar. Engage the helix and turn clockwise until the second coupler alignment (WHITE, short) bar is at the 12 o'clock position. At this point, the torque required to fully engage the coupler will slightly decrease, when the coupler assumes the seated position in the tab housing depressions. Figure 2 illustrates a fully mated coupler with the (short) bar located in the 12 o'clock position.

3.3. Receptacle Housing Assembly

A. Insertion of Contacts and Locking the Secondary Lock

The receptacle housing secondary lock is pre-positioned by the factory in contact insertion

ready position. For verification of the insertion position, ensure that the red secondary lock pins which are visible on the connector mating surface are positioned away from the housing slot wall. The pin to slot clearance should be visible on both sides of the pins as referenced in Figure 3.

All AMP MCP 2.8 mm receptacle contacts should be inserted into the housing assembly polarized with the tab slot in the front mating surface. After the contacts are seated, insert a thin bladed screwdriver or similar speciality tool in the front housing opening and slide the secondary lock in the direction of the arrow.

NOTE

The red secondary lock pins will be positioned against the wall of the housing slot, and the clearance will be visible on one side of the pins only.

Difficulty in sliding the secondary lock into the operating position indicates that one or more receptacle contacts are not fully seated in their respective cavities.

Slide the secondary lock back into the insertion ready position and verify that all contacts are fully inserted. Figure 3 illustrates the secondary lock is pre-positioned as shipped and in the operating position.

NOTE

The receptacle assembly will not engage with the tab housing assembly if the secondary lock is not positioned in the operating position.

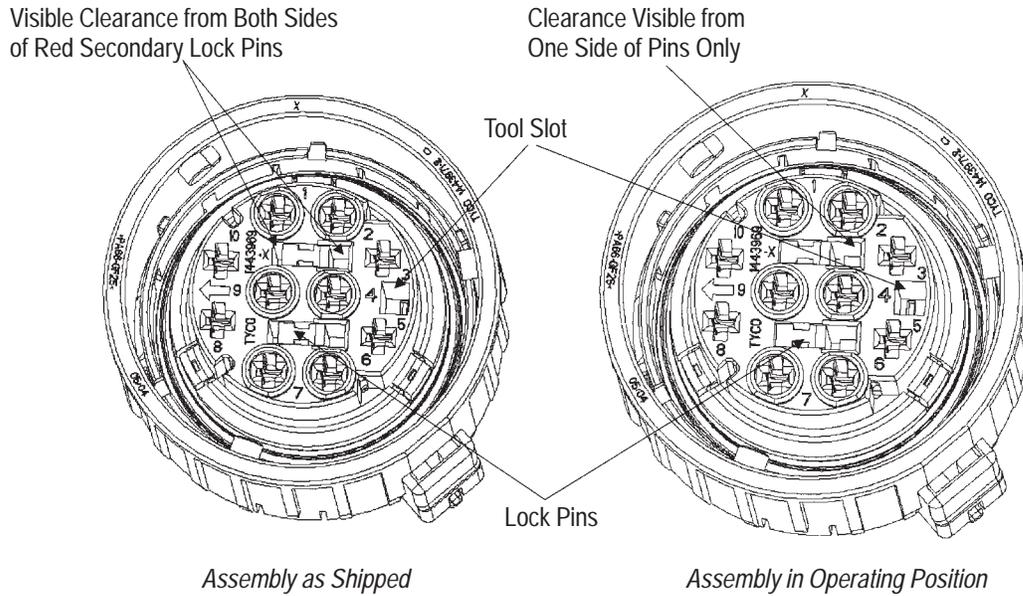


Figure 3

B. Engagement and Locking of the Receptacle Housing Assembly

NOTE Ensure that the receptacle ring GREEN bar is aligned with the GREEN marking on the back of the housing.

Position the receptacle housing so that the receptacle housing ring alignment ORANGE printed bar is in line with the coupler ORANGE short alignment bar.

Engage and rotate the ring clockwise until the torque required to fully engage the receptacle housing slightly decreases, when the ring assumes the seated position in the coupler depressions. At this point, the index finger at the back of the connector housing will fall into the end of travel detent. See Figure 4.

CAUTION When mating, do not press near the ring GREEN mark area to avoid high mating torque.

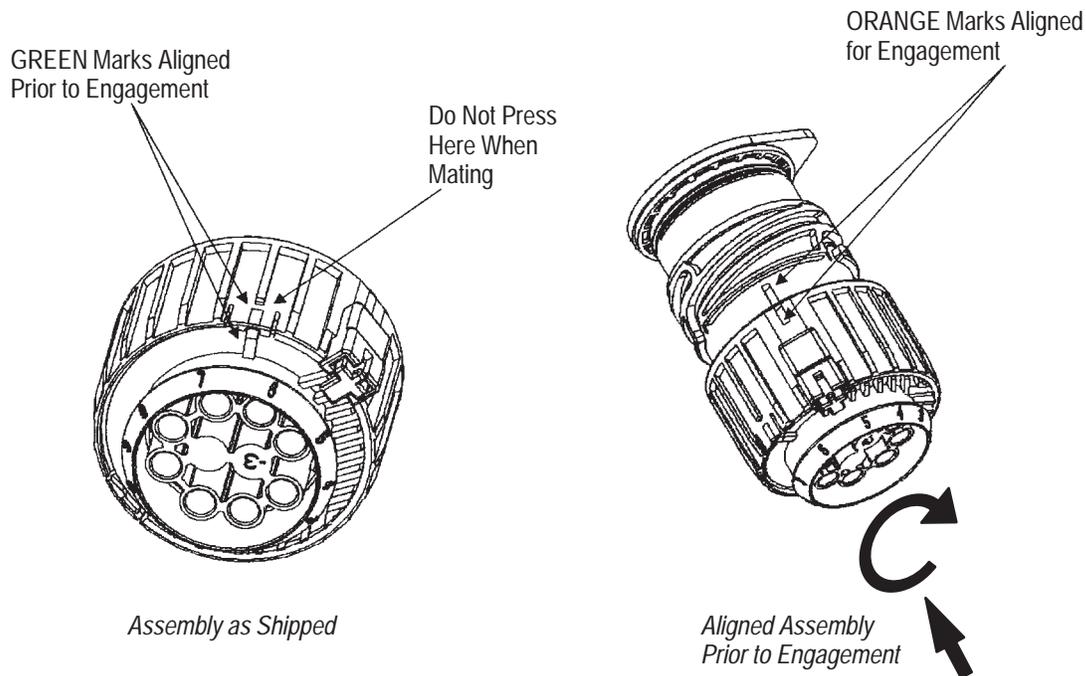


Figure 4

3.4. Fully Assembled Connector

NOTE

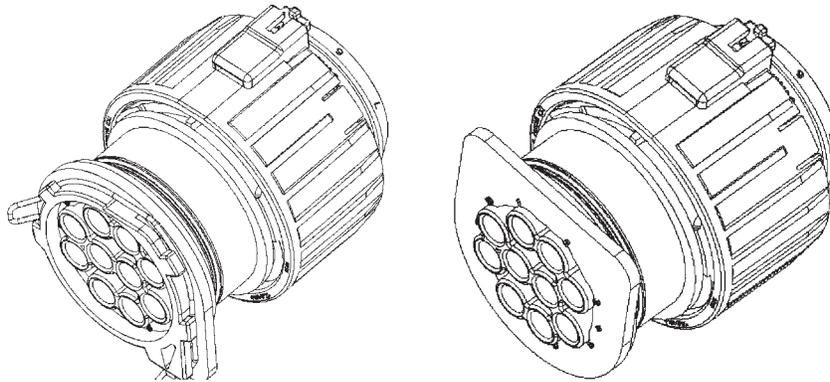
The red safety pin should be pressed inward to assume the locking position between the last pair of ribs.

Resistance of safety pin sliding flash with the top surface of the ring, between the last pair of ribs, indicates that the receptacle housing is not fully seated within the tab housing coupler assembly, or the coupler ring is not fully seated within the tab housing assembly. See Figure 5.

4. REVISION SUMMARY

Per EC: 0990-0753-04

- Updated document to corporate requirements
- Changed columns in table in Figure 1
- Re-wrote text in Section 1, INTRODUCTION
- Added new text to Paragraphs 3.1, 3.2,
- Added new note, caution, and text to Paragraph 3.3.B
- Added new Figure 4 and renumbered
- Added new Paragraph 3.4 and deleted text



Ring Fully Engaged and Safety Pin Locked

Figure 5