




**6P On-Board Diagnostics (OBDII),
With MQS 0.64(CB) Contact System.**

				DRW Pavan G 17APR2021			
				CHK Shivakumar H 19APR2021			
				APVD Gurumurthy CR 19APR2021	NO 114-94630	REV A	LOC -
A	INITIAL RELEASE	PG	19APR2021				
Rev	REVISION RECORD	APVD	DATE	PAGE 1 OF 12	Title 6P OBD II SEALED CONNECTOR		



APPLICATION SPECIFICATION

114-94630
Rev. A

6P OBD II CONNECTOR

CONTENT

1.	General.....	3
1.1	Purpose	3
1.2	Customer Drawing.....	3
1.3	Product Specification.....	3
1.4	Contact Systems	3
2.	Product Description	4
2.1	6P Receptacle Housing Assembly	4
2.2	Dust cap.....	5
3.	Application Description.....	6
3.1	Loading Contacts into 6P Receptacle Housing Assembly	6
3.1.1	6P Receptacle Housing assembly.....	6
3.2	Secondary Locking Device.....	7
3.2.1	Locking.....	7
3.2.2	Unocking.....	8
3.3	Extracting contacts from 6P Receptacle Housing Assembly.....	9
3.3.1	6P Receptacle Housing assembly.....	9
3.4	Mating and Unmating of 6P Receptacle Housing Assembly.....	10
3.4.1	Mating of 6P Receptacle Assembly with Dust cap	10
3.4.2	Unmating of 6P Receptacle Assembly with Dust cap	11
4.	Blind plug usage Instructions.....	12



1. General

1.1 Purpose

This specification includes the guidelines for application and mounting of subject connectors and their accessories.

1.2 Customer Drawing

For dimensions, materials and surface finishes etc. see the current customer drawings.
2327727
2327728

1.3 Product Specification

This application specification is valid for products specified in product specification 108-94755, which provides a description of the electrical and mechanical properties of 6pos. connector. Also see the current relevant contact systems product and application specifications.

1.4 Contact Systems

The connectors described in this specification are designed for receiving MQS 0.64 CB* contacts with Family seal Application. The maximal permitted wire size depends on the contact system. For more information about the contact system, see related valid customer drawings.

Performance information about the MQS 0.64 CB* contact systems and their applications are provided by the relevant product and application specifications:

MQS 0.64 Clean Body*

Customer drawing	:	1355900
Product specification	:	108-18030
Application specification	:	114-18021

6P OBD II CONNECTOR

2. Product Description

2.1 6P Receptacle Housing Assembly

6P Receptacle connector is shown as examples in figures 2.1.1.

Delivery condition:

6P Receptacle assembly delivered as Bulk packaging in plastic cover.
The secondary locking device of the 6P receptacle housing are delivered in the pre-lock position.
Dislocated Secondary lock are not deemed as fault. They should be relocated into the pre-locked Position as per figure 2.1.1.

There is an audible feedback click sound when the device is located into its final locked position.

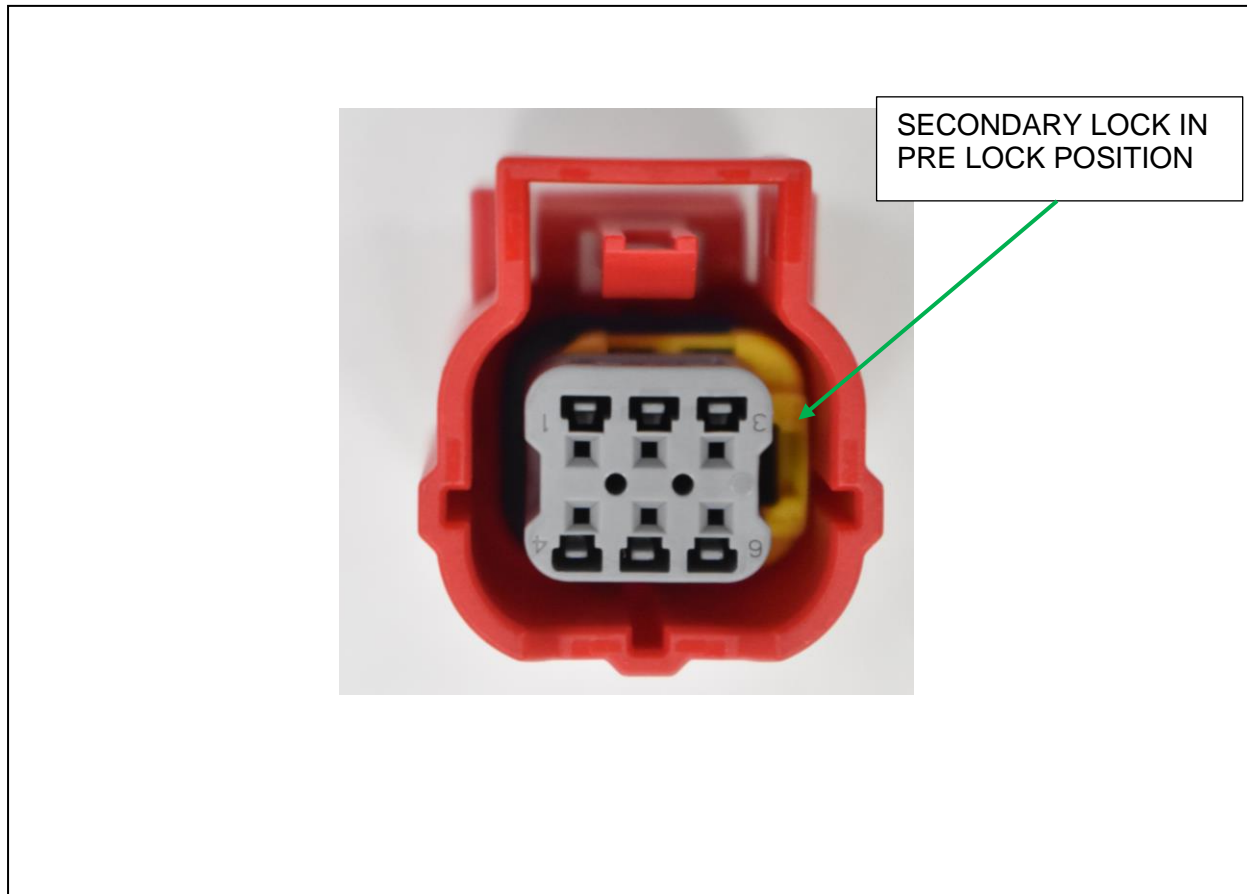


Figure 2.1.1
6P Receptacle Connector - Delivery condition

6P OBD II CONNECTOR

2.2 Dust Cap

Dust Cap versions are shown as examples in figures 2.2.1

Delivery condition:

The dust caps are delivered as Bulk packaging in plastic cover.



Figure 2.2.1
Dust Cap
2327728-2

6P OBD II CONNECTOR

3. Application Description

3.1 Loading Contacts into 6P Receptacle Housing Assembly

3.1.1 6P Receptacle Housing Assembly

Contacts can only be inserted when the secondary locking device is in the pre-locked position (see chapter 3.2). Correct orientation of the contacts as shown in Figure 3.1 must be ensured. If the orientation is incorrect, the contacts cannot be fully inserted. This will cause the crimp area protrudes from the housing.

If the orientation correct, the locking of the contacts in the cavity will be confirmed by an audible click.

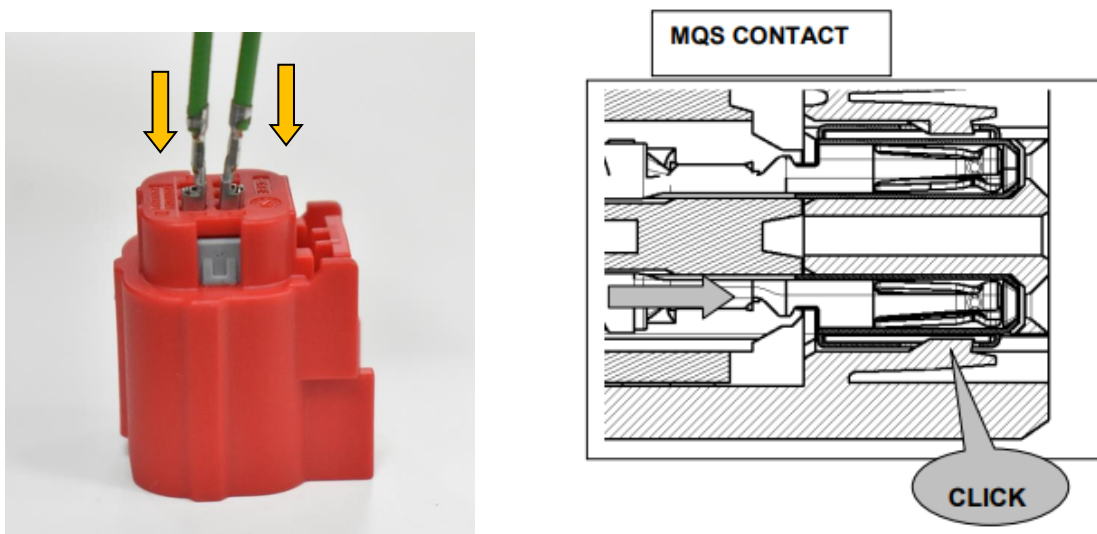


Figure 3.1.1

Contact loading into a 6pos. Receptacle housing

3.2 Secondary Locking Device

3.2.1 Locking

The housing in this specification are equipped with a pre-assembled secondary locking device.

The secondary locking device provides an additional retaining force for the terminals if the primary lock fails.

In this position the contacts can be loaded (see chapter 3.1). After that the secondary locking device has to be moved manually with the help of a simple aid or tool (e.g. Screw driver) into the final locked position (see figure 3.2.1.1).

Reaching the correctly locked position is signaled by an audible click sound.

Note:

The secondary locking device does not stringently detect the correct position of the terminal in the cavity. Correct contact location must be assured before the secondary locking device is activated.

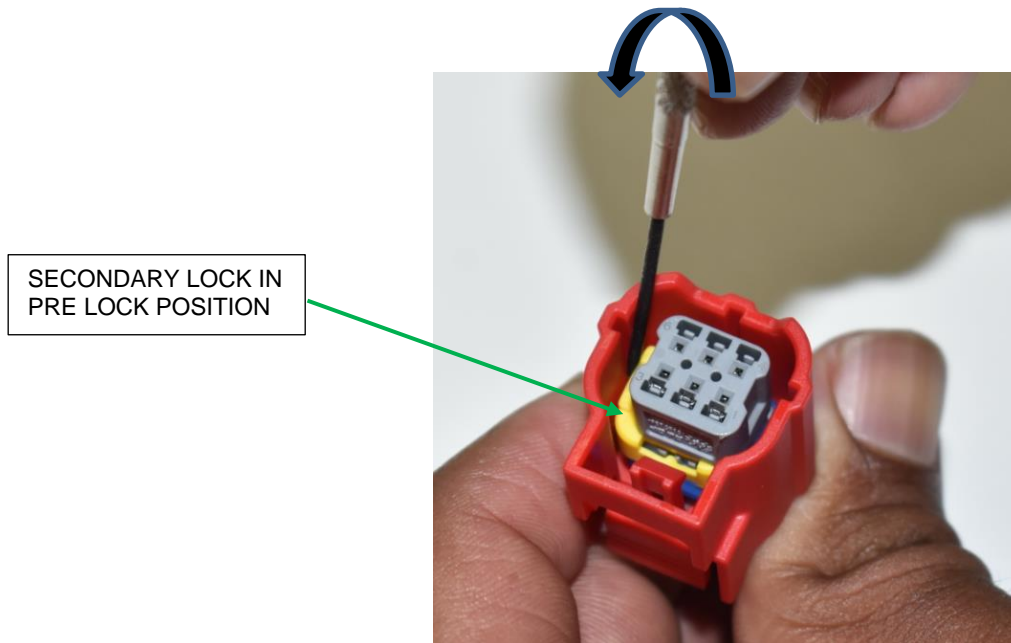


Figure 3.2.1

6P OBD II CONNECTOR

3.2.2 Unlocking

Extraction tool (3-1579007-6) has to be inserted into the provided recess (see figures 3.2.2.1) to unlock the secondary locking device. With a small force, the locking device can be moved into the pre-locked position.

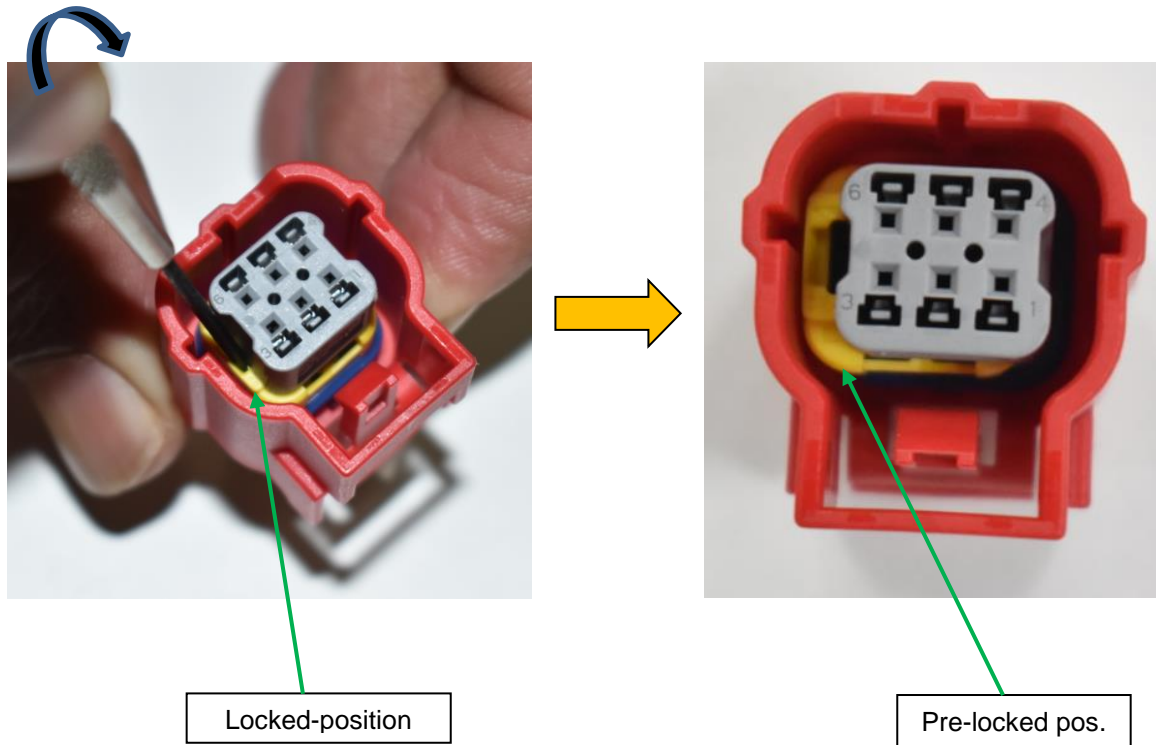


Figure 3.2.2

3.3 Extracting Contacts from 6P Receptacle Housing assembly

3.3.1 Receptacle Housing assembly

The secondary locking device must be in the pre-locked position before extracting contacts. See the application specification of contact for extracting tool details. The tool remains in position and the contact can now be extracted by pulling on the cable.

Note:

Do not pull the cable before unlocking the contact. By pushing the cable gently against the cable release direction, the unlocking procedure will be easier, because the contact lances will not be restricted by the housing.

- A - POSITION**
The Extraction tool 3-1579007-6 to locking finger
- B - ROTATE**
Rotate Extraction to release the locking finger
- C - PULL OUT**
Pull out the terminals while locking finger is released

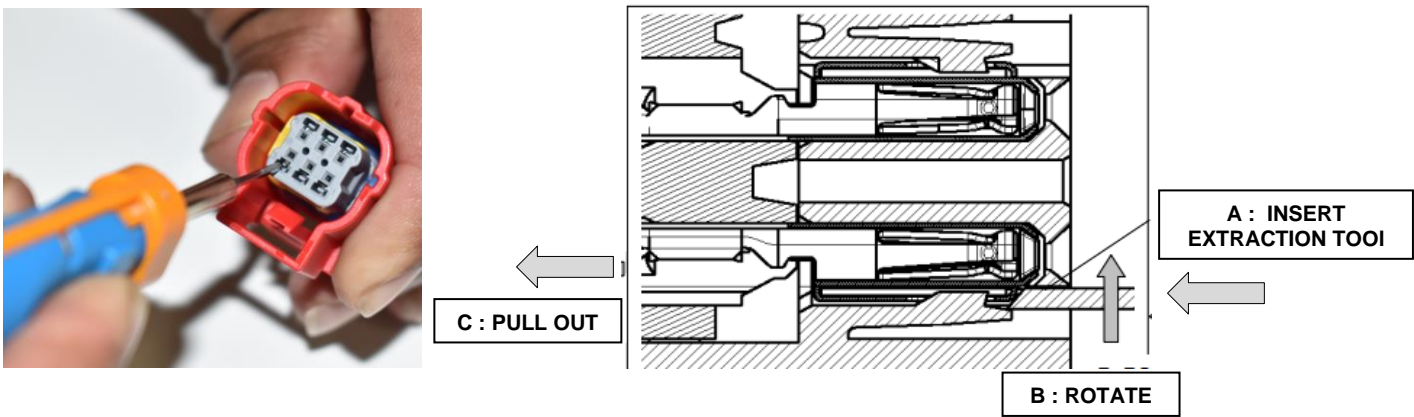
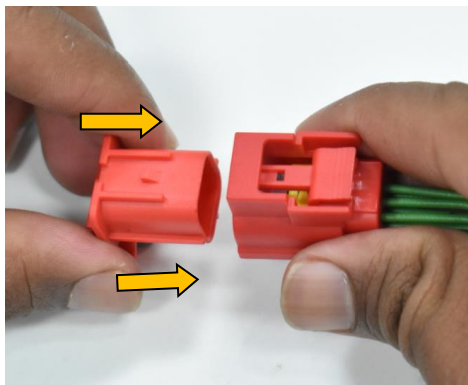


Figure 3.3.1

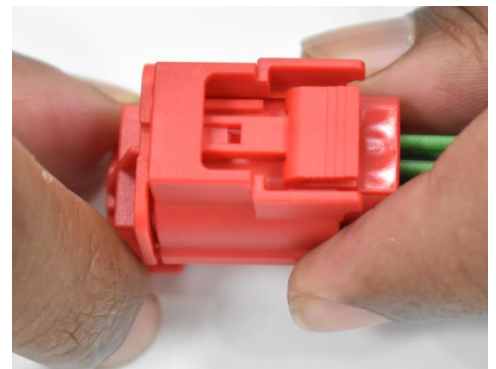
3.3.1 Mating and Unmating of 6P Receptacle assembly with Dust caps

3.4.1 Mating of 6P Receptacle assembly with Dust cap

During mating of 6P receptacle assembly with Dust cap, ensure secondary lock is in final lock condition. Mating of 6P Receptacle assembly with Dust cap (2327728-2) is shown below by ensuring click sound.



Mating direction



Dust cap mated with 6P assembly

Figure 3.4.1. Mating of 6P Receptacle assembly with Dust cap (2327728-2)

3.5.2 Unmating of 6P Receptacle assembly with Dust caps

Force need to be applied on push direction until it disengages with cap variant.
Unmating of 6P Receptacle assembly with Dust cap (2327728-2) is shown below

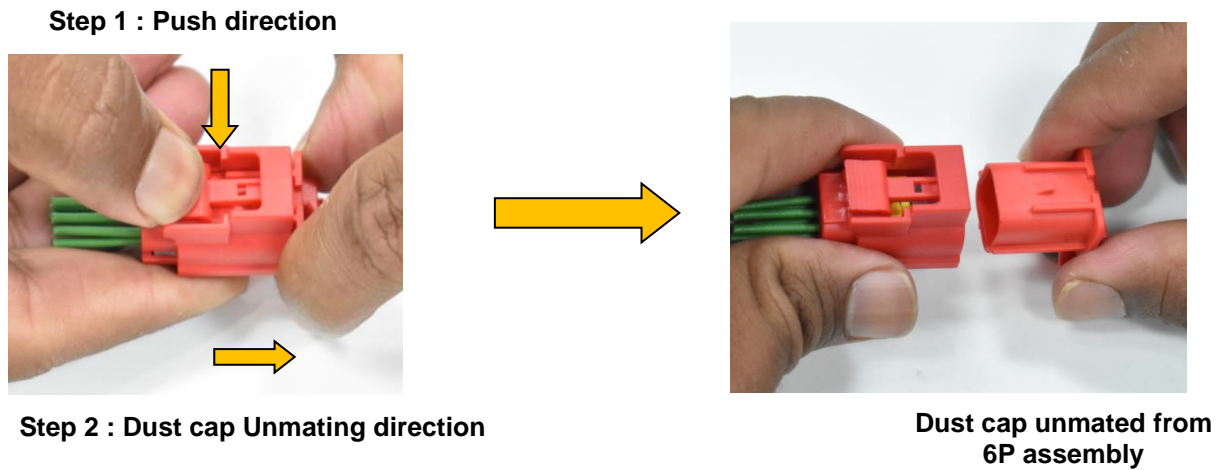
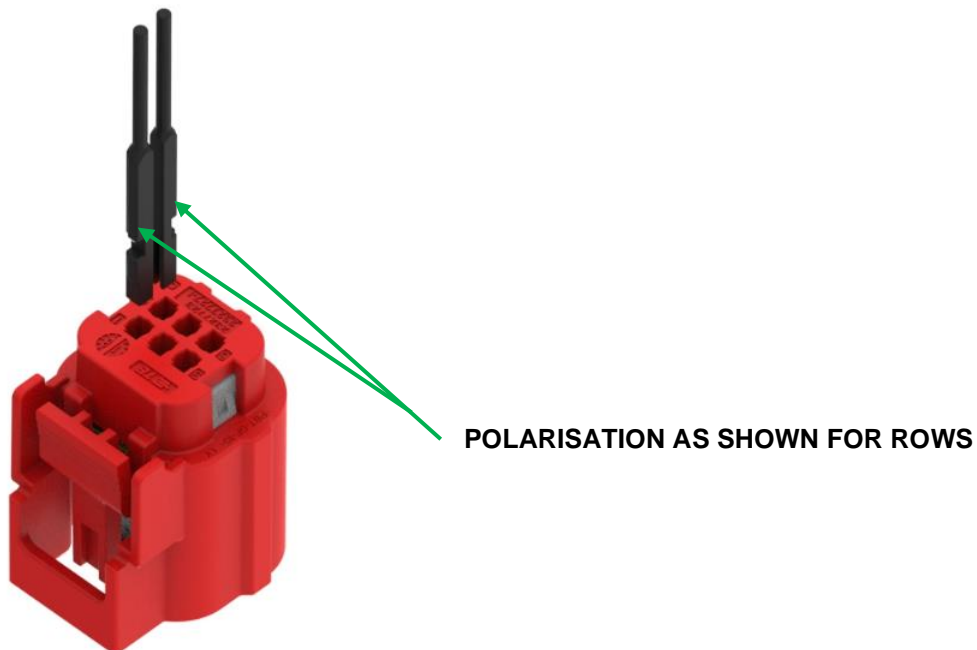
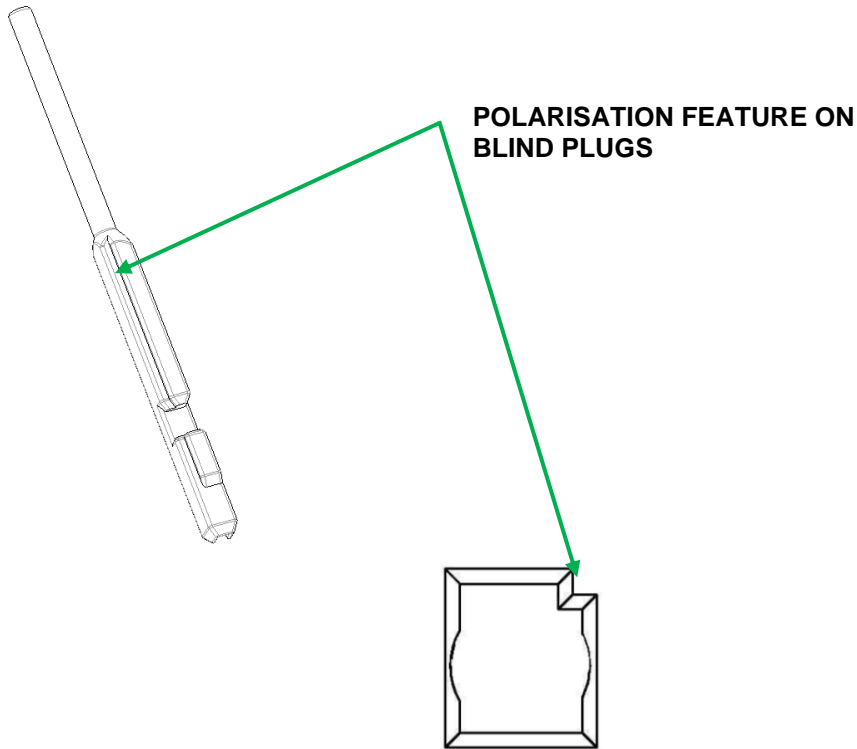


Figure 3.4.2. Mating of 6P Receptacle assembly with Dust cap (2327728-2)

4. Blind plug usage instructions

BLACK
0-1394871-1
FOR MQS CAVITIES
0.35 - 0.75 mm²



Insert Blind plugs as shown above into 6P Receptacle Housing assembly.