

## Service Parts Instructions

# POSITIVE PAD RETRACTION (PPR) SPRING INSTALLATION INSTRUCTIONS

## Hazard Alert Messages

Read and observe all hazard alert messages in this publication.

### DANGER

Indicates imminent danger. Failure to follow this instruction will result in death or serious injury.

### WARNING

Indicates a possibly impending danger. Failure to follow this instruction can result in death or serious injury.

### CAUTION

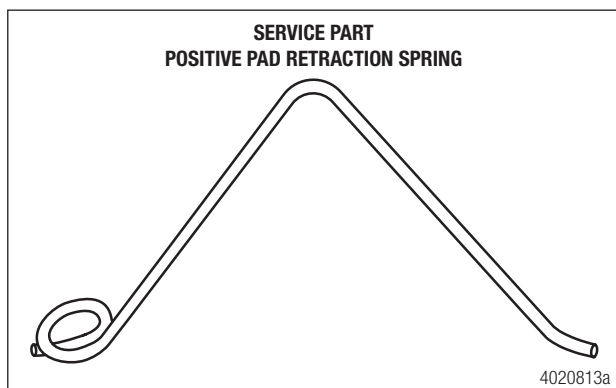
Indicates a hazardous situation or unsafe practice which, if not avoided, could result in injury or damage to components.

## How to Obtain Additional Maintenance, Service and Product Information

To access Meritor brake publications, visit  
[www.meritorpartsxpress.com/eu](http://www.meritorpartsxpress.com/eu)


## Positive Pad Retraction (PPR) Springs


This publication provides instructions to install positive pad retraction springs on Meritor air disc brakes.





## Safety Instructions

- Observe the manufacturers safety instructions for jacking up and securing the vehicle
- Only use genuine Meritor parts
- Use only the tools recommended
- Observe the following service instructions and notes
- Always ensure appropriate safety glasses and gloves are worn when carrying out the procedures detailed in this publication.
- When working on the brake you must ensure that it cannot be activated inadvertently
- Never use compressed air to remove brake dust or for the purpose of drying. Any type of dust can be injurious to health if inhaled. Use vehicle manufacturer recommended brake cleaner for cleaning the brake.
- When removing or fitting a complete brake, you should remember it has a dead weight of up to 108lbs (49 kg). Use a lifting system, taking care not to damage the brake.
- When the servicing has been completed, it is essential that you road test the vehicle and try out the brakes.

 **CAUTION:** Ensure any grease removed from the assembly/components, or contaminated cloth, is disposed of in accordance with local environmental regulations.

 **CAUTION:** You must always renew the brake pads on both wheels of an axle.

 **CAUTION:** Ensure any discarded friction product, or cloth contaminated with brake dust, is disposed of in accordance with local environmental regulations.

 **CAUTION:** You must always renew the disc on both wheels of an axle.

## INSTALLATION

### PPR Spring and Pad Assembly

Locate the ends of the PPR spring **(A)** and **(C)**. (Figure 1)

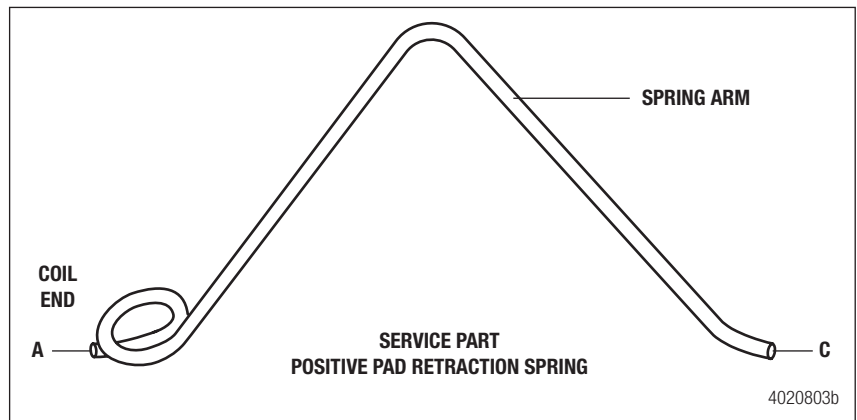


Figure 1

Set the new PPR pads on a flat surface and stand them upright so that the friction material faces that of the opposite pad.

Note the holes **(B)** in the top of the pad backing plate. (Figure 2)

For none PWWI pad kits fit the top retainer springs. For PWWI pad kits DO NOT fit top retainer springs at this stage, this will be carried out at later stage. (Figure 2)

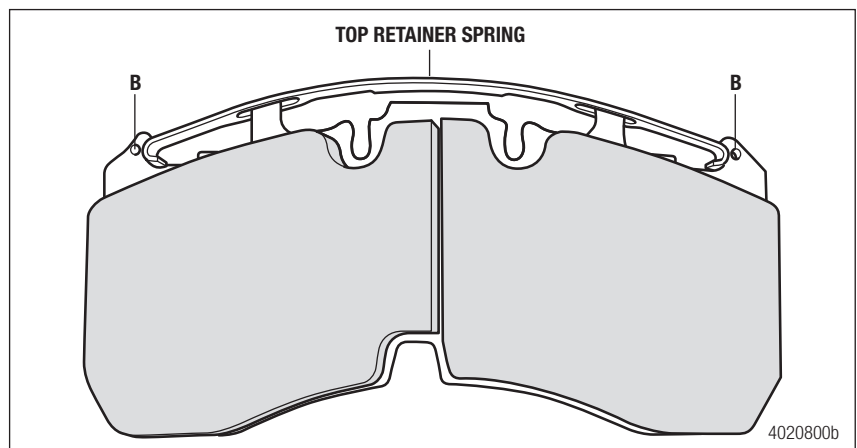


Figure 2

Insert the coil end **(A)** of each spring into the holes **(B)** in the top of the PPR pad, making sure the coils are positioned underneath the spring arm. (Figure 3)

**NOTE:** The springs will be difficult to install if they are upside down or backwards.

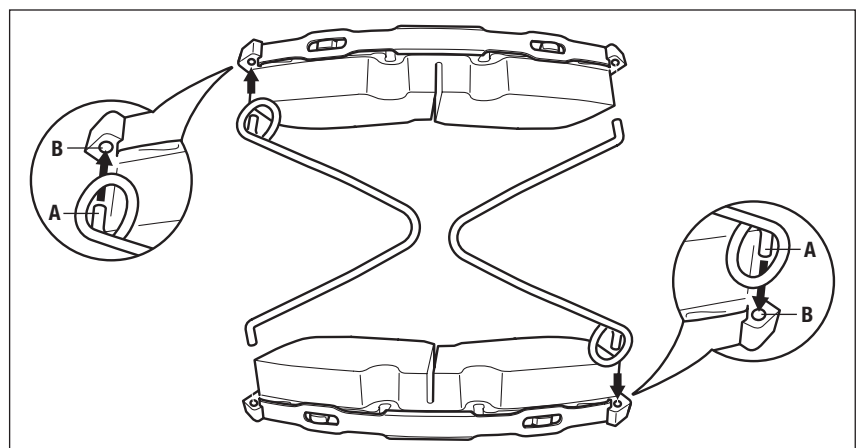


Figure 3

# SERVICE PARTS INSTRUCTIONS

## **⚠ WARNING**

Compressed springs can release unexpectedly. Use care and wear eye protection during installation to prevent injury.

Insert the free, non-coil ends of the springs **(C)**, into the corresponding holes **(B)** of the opposite pads. The pads and springs are now ready to be fitted. (Figure 4)

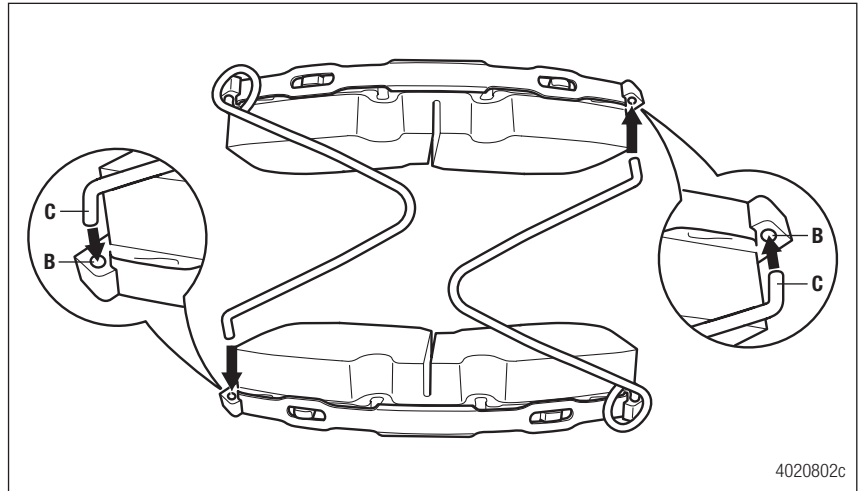


Figure 4

Springs correctly installed. (Figure 5)

Ensure the ends of the springs are fully inserted through the holes **'B'**.

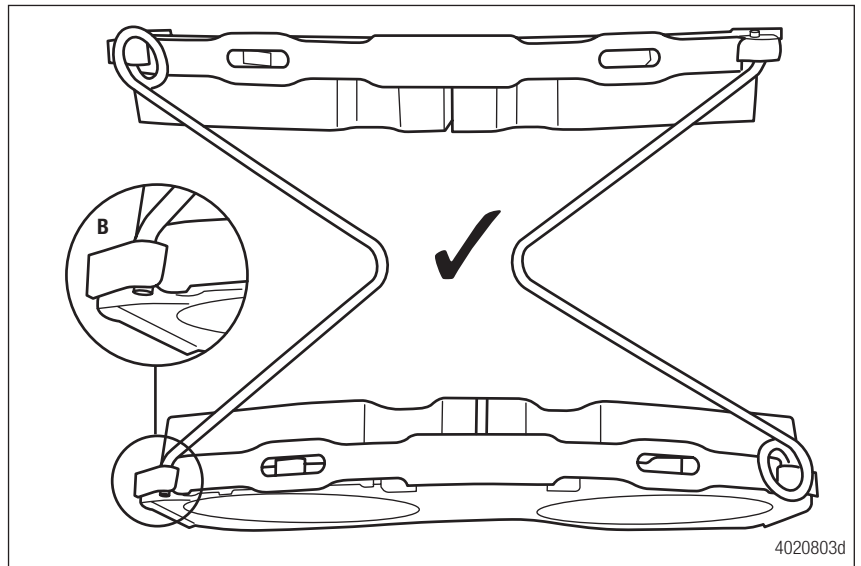


Figure 5

Fully de-adjust the brake.

Hold pads in hands and squeeze together to install in caliper. Do not hold by the pad retraction springs. (Figure 6)

Fit pad and PPR assembly to caliper. (Figure 7)

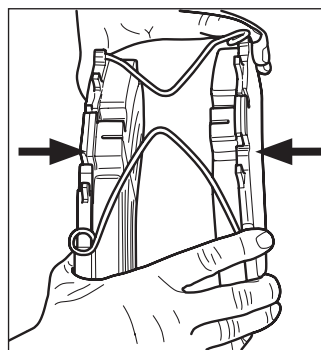


Figure 6

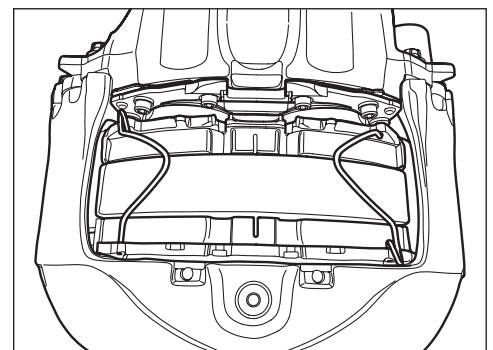


Figure 7

For none PWWI pad kits, fit pad retainer, fit pad retainer bolt and tighten to 33-40Nm. (Figure 8)

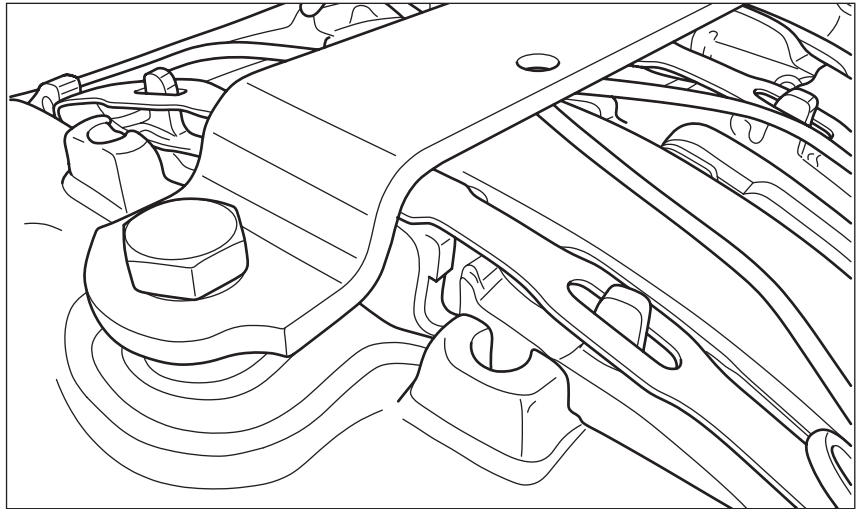


Figure 8

**For PWWI pad kits  
please follow additional  
instructions below:**

### Pad Retainer Assembly

New PWWI supplied in pad kit must be fitted and old PWWI discarded.

Fit PWWI assembly to pad retainer. (Figure 9)

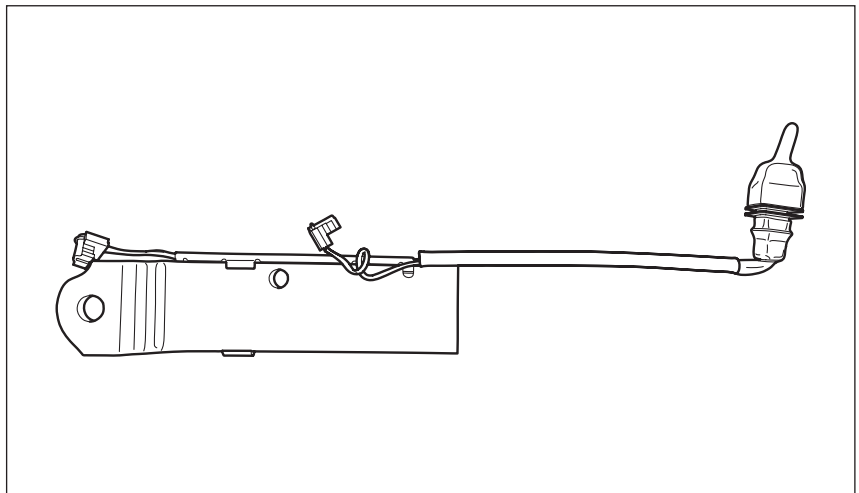


Figure 9

Install the pad retainer with the centre of the springs captured underneath. (Figure 10)

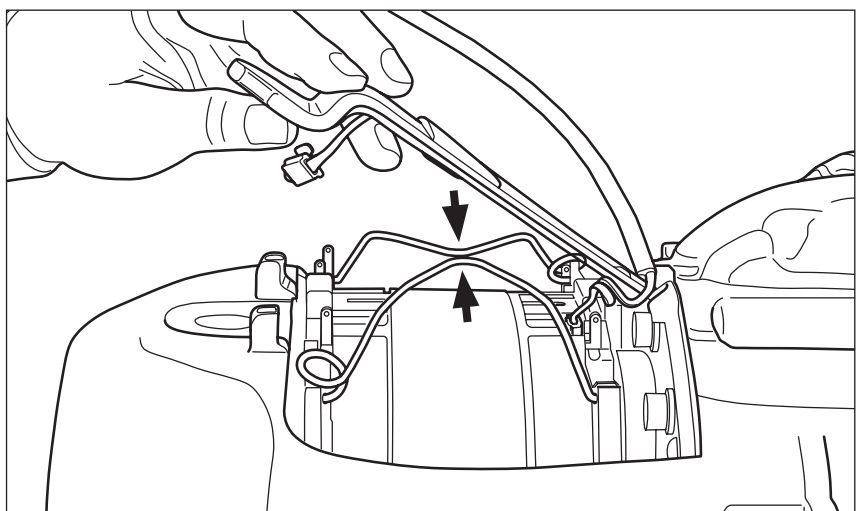


Figure 10

Offer pad retainer assembly to caliper, ensure PPR springs are positioned correctly under retainer. (Figure 11)

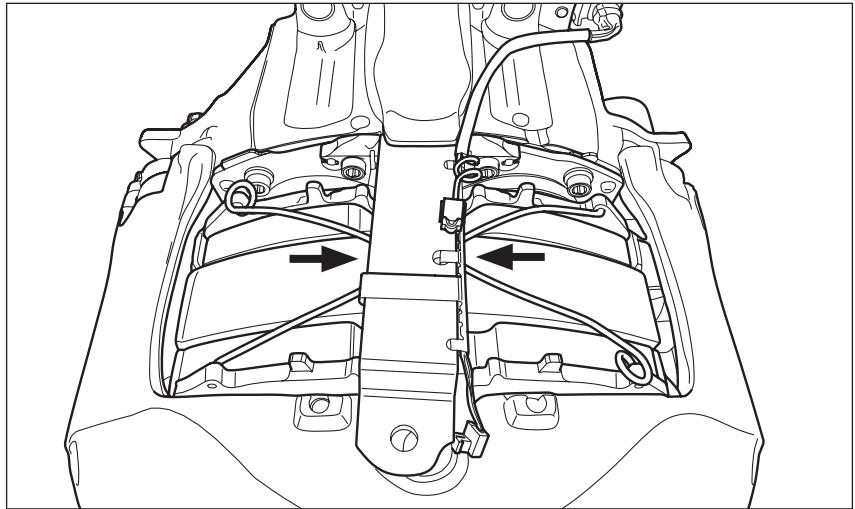


Figure 11

## PWWI (short) CS.50050 Cable Assembly

1. Fit PWWI plug to fixing bracket, check correct orientation of cable and plug elbow. (Figure 12)

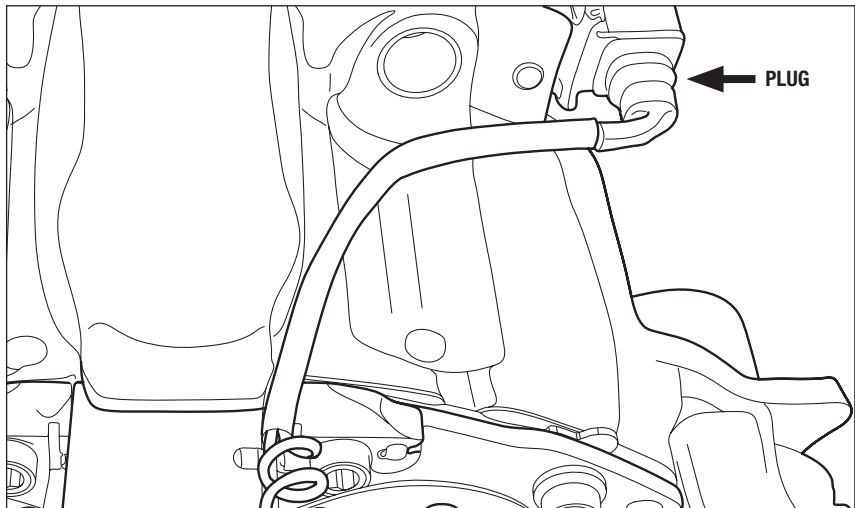


Figure 12

2. Fit inboard PWWI sensor to pad slot. (Figure 13)
3. Fit inboard pad top retainer spring. Ensure coiled cable is routed around inboard side of top retainer spring as shown.

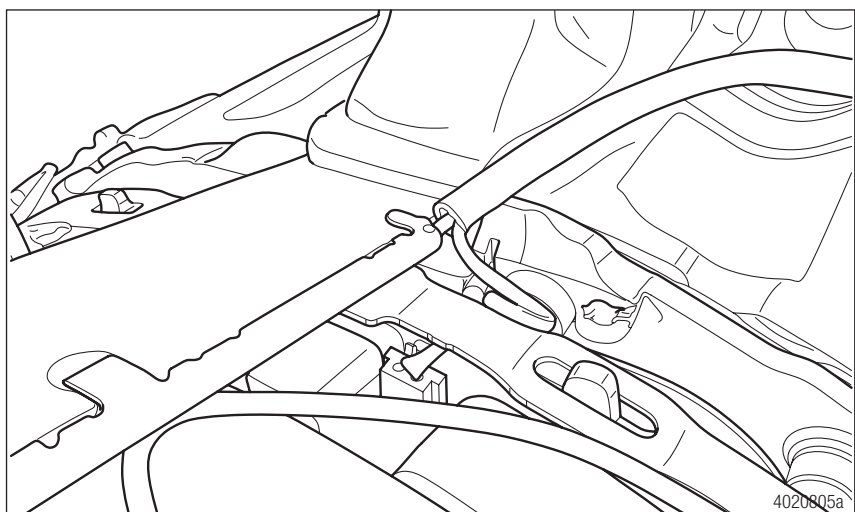


Figure 13

4. Fit outboard PWWI sensor into pad slot.
5. Fit outboard pad top retainer spring. Ensure correct cable routing.
6. Ensure PWWI cable is routed around outboard side of pad top retainer spring as shown.

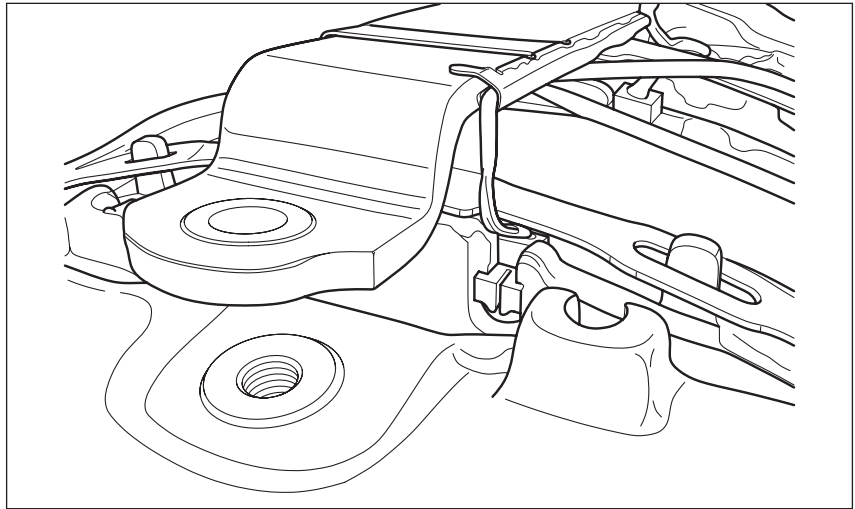


Figure 14

7. Fit pad retainer bolt and tighten to 33-40Nm. (Figure15)

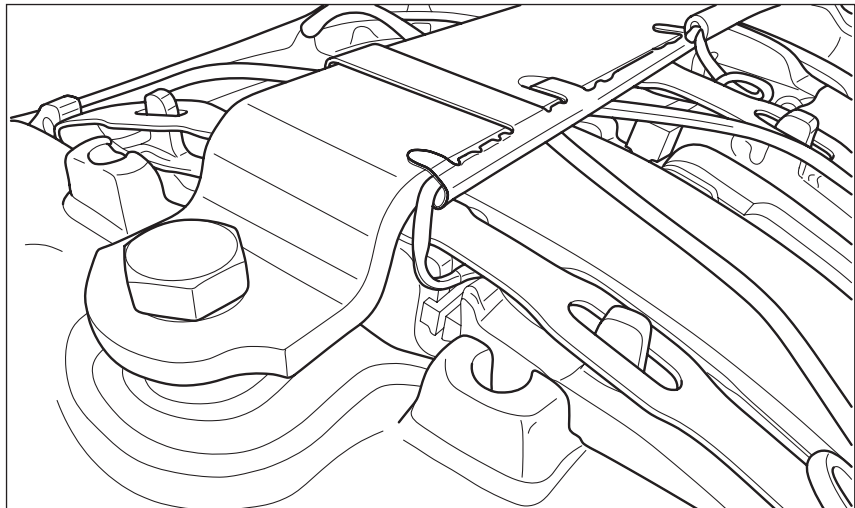


Figure 15

## PWWI (long) CS.50052 Cable Assembly

1. Follow steps for PPR Spring & Pad Assembly (page 2) and Pad Retainer Assembly (page 4).
2. Fit inboard PWWI sensor to pad slot. Ensure PWWI trailing lead to plug is routed under pad retainer. (Figure 16)
3. Fit inboard pad top retainer spring.

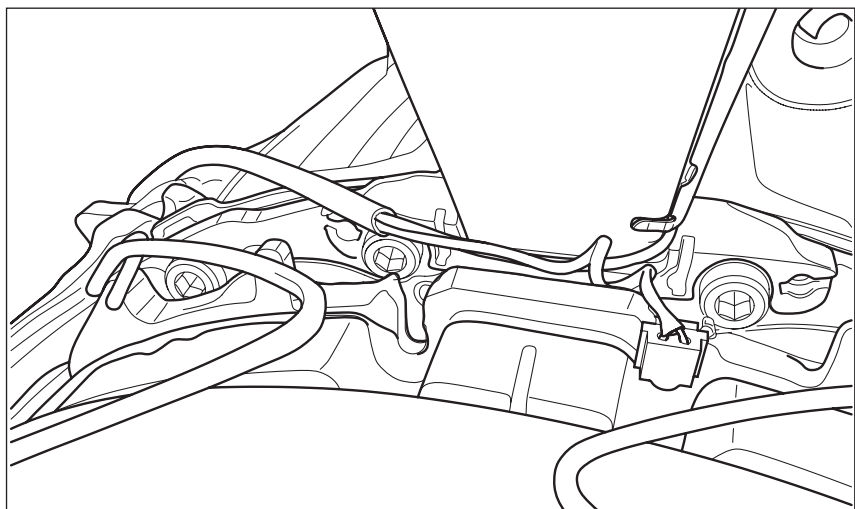


Figure 16

# SERVICE PARTS INSTRUCTIONS

4. Observe correct routing of PWWI cable. (Figure 17)
5. Follow steps 4-7 as for short cable.

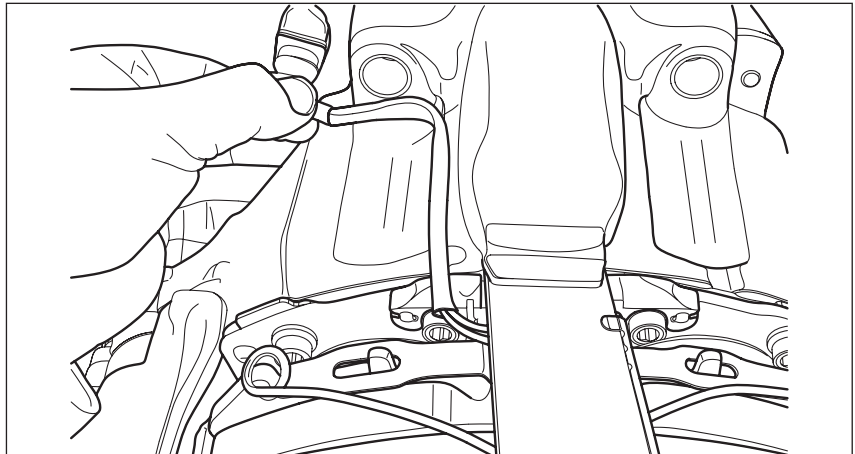


Figure 17

PWWI (short) CS.50050 finished cable assembly. (Figure 18)

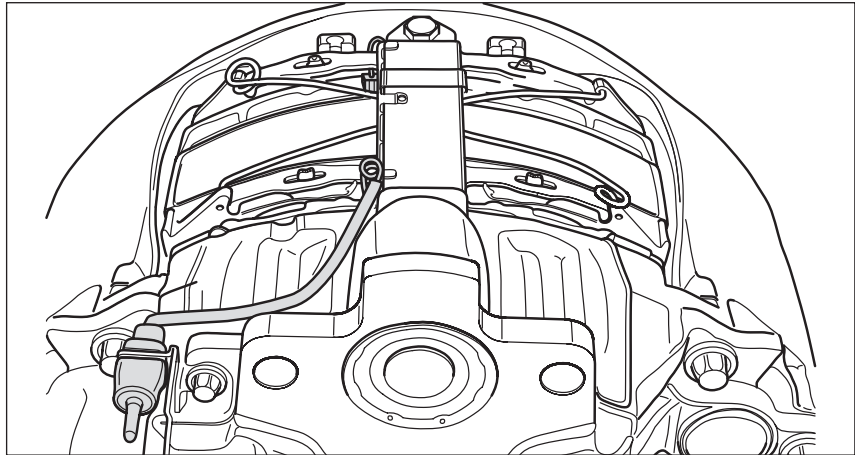


Figure 18

PWWI (long) CS.50052 finished cable assembly. (Figure 19)

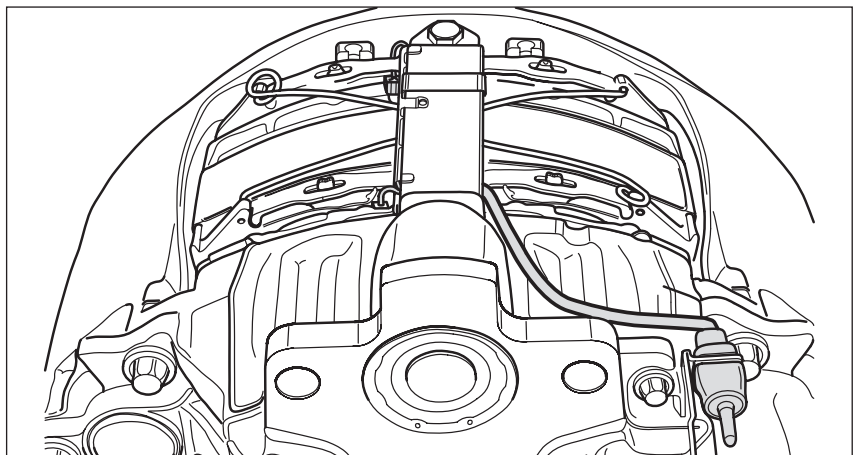


Figure 19



**Meritor HVBS (UK) Ltd.**  
Unit 1 Broad Ground Road  
Lakeside Industrial Estate, Redditch  
Worcestershire B98 8YS, U.K.  
+44 (0) 1527 506300  
meritor.com

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TP-2233EU  
Issued 08-23  
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