

SSV KIT - Smart Locker Defender MY19

Part number (SKU) : 715005332

Product:	Side-by-side
Project no:	487802966
Instruction Sheet P/N:	487802966
Revision no:	
Revision date:	
Item covered:	Smart Locker Defender MY19

The following symbols may be used in this document:

⚠ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a hazard situation which, if not avoided, could result in minor or moderate injury.

NOTICE Indicates an instruction which, if not followed, could severely damage vehicle components or other property.

⚠ WARNING

- For safety reasons, this kit must be installed by an authorized BRP dealer.
- This kit is designed for specific applicable models only (authorized BRP dealers will confirm model(s)). It is not recommended for units other than the one (those) for which it was sold.
- Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one.
- Torque wrench tightening specifications must strictly be adhered to.
- Always wear EYE PROTECTION AND APPROPRIATE GLOVES when using power tools.

⚠ WARNING

Some important safety information and/or operating instructions dedicated to the end user might be included in this instruction sheet. Make sure to give the kit part number as well as the instruction sheet included with this kit to the customer. Verify that the customer has access to all the information required for proper use of the accessory.

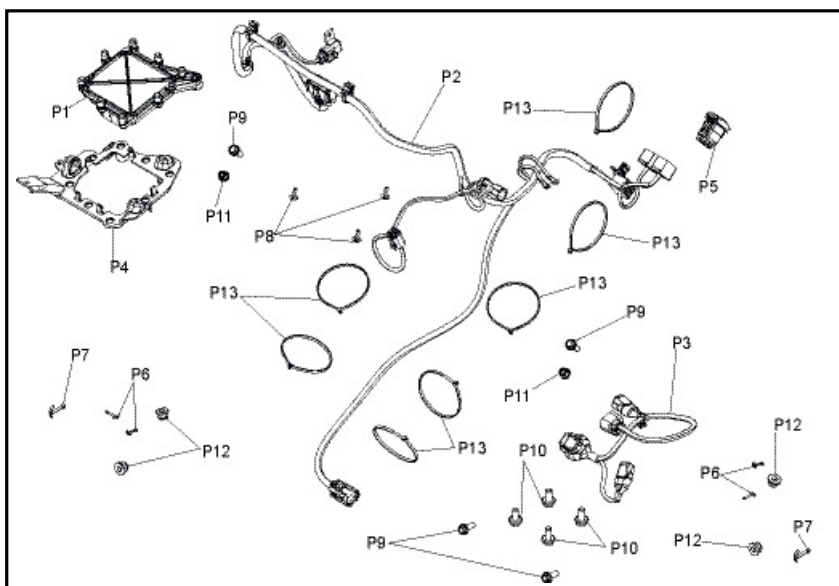
NOTE: USE TIGHTENING TORQUES IN THE FOLLOWING TABLE IF NOT OTHERWISE SPECIFIED.

	GRADE			
	5.8	8.8	10.9	12.9
M4	1.8 ± 0.2 N•m (16 ± 2 lbf•in)	2.8 ± 0.2 N•m (25 ± 2 lbf•in)	3.8 ± 0.2 N•m (34 ± 2 lbf•in)	4.5 ± 0.5 N•m (40 ± 4 lbf•in)
M5	3.3 ± 0.2 N•m (29 ± 2 lbf•in)	5 ± 0.5 N•m (44 ± 4 lbf•in)	7.8 ± 0.7 N•m (69 ± 6 lbf•in)	9 ± 1 N•m (80 ± 9 lbf•in)
M6	7.5 ± 1 N•m (66 ± 9 lbf•in)	10 ± 2 N•m (89 ± 18 lbf•in)	12.8 ± 2.2 N•m (113 ± 19 lbf•in)	16 ± 2 N•m (142 ± 18 lbf•in)
M8	15.3 ± 1.7 N•m (135 ± 15 lbf•in)	24.5 ± 3.5 N•m (18 ± 3 lbf•ft)	31.5 ± 3.5 N•m (23 ± 3 lbf•ft)	40 ± 5 N•m (30 ± 4 lbf•ft)
M10	29 ± 3 N•m (21 ± 2 lbf•ft)	48 ± 6 N•m (35 ± 4 lbf•ft)	61 ± 9 N•m (45 ± 7 lbf•ft)	73 ± 7 N•m (54 ± 5 lbf•ft)
M12	52 ± 6 N•m (38 ± 4 lbf•ft)	85 ± 10 N•m (63 ± 7 lbf•ft)	105 ± 15 N•m (77 ± 11 lbf•ft)	128 ± 17 N•m (94 ± 13 lbf•ft)
M14	85 ± 10 N•m (63 ± 7 lbf•ft)	135 ± 15 N•m (100 ± 11 lbf•ft)	170 ± 20 N•m (125 ± 15 lbf•ft)	200 ± 25 N•m (148 ± 18 lbf•ft)
M16	126 ± 14 N•m (93 ± 10 lbf•ft)	205 ± 25 N•m (151 ± 18 lbf•ft)	255 ± 30 N•m (188 ± 22 lbf•ft)	305 ± 35 N•m (225 ± 26 lbf•ft)
M18	170 ± 20 N•m (125 ± 15 lbf•ft)	273 ± 32 N•m (201 ± 24 lbf•ft)	330 ± 25 N•m (243 ± 18 lbf•ft)	413 ± 47 N•m (305 ± 35 lbf•ft)

The illustrations in this document show typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts; however, they represent parts that have the same or similar function.

In the pictures below, parts may have been removed for clarity purposes.
 Installation time is approximately 3.0 hour.

PARTS TO BE INSTALLED



ITEM	DESCRIPTION	Part number	QTY
P1	FDM module	710006479	1
P2	Differential wiring harness	710006196	1
P3	Front differential wiring harness	710006201	1
P4	FDM support	710005532	1
P5	4x4 mode differential switch	710006040	1
P6	Cotter pin	211400017	4
P7	Cotter pin	250400084	2
P8	PT type K-50 x 16 Screw	250000959	3
P9	M12 Elastic flanged nut	207582044	4
P10	M10 x 20 Flanged screw	207502046	4
P11	M8 Elastic flanged nut	233281414	2
P12	M10 Elastic flanged nut	233201416	4
P13	368mm Locking tie	293750008	15

INSTRUCTIONS

Vehicle Preparation

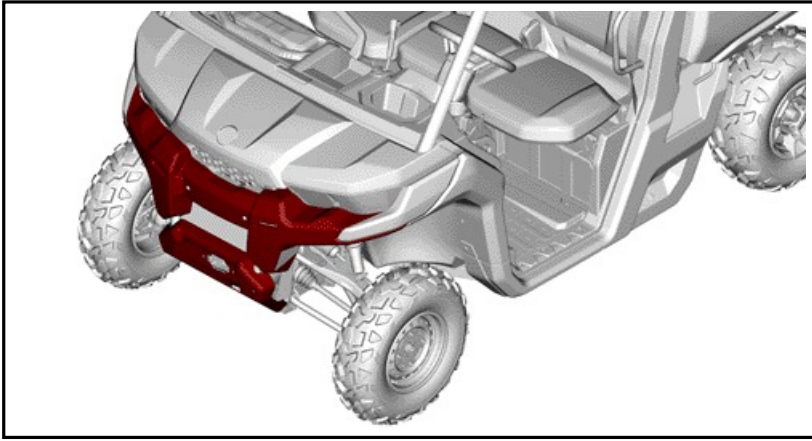
1. Disconnect the battery.

NOTICE Always disconnect battery before doing any electrical modifications. Do not place tools on battery. Proceed exactly in this specific order:

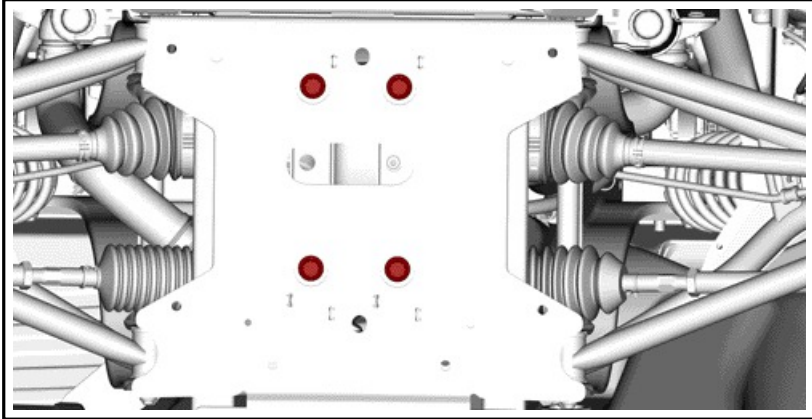
- Disconnect black cable (-) first.
- Disconnect red cable (+) after.

Differential Installation

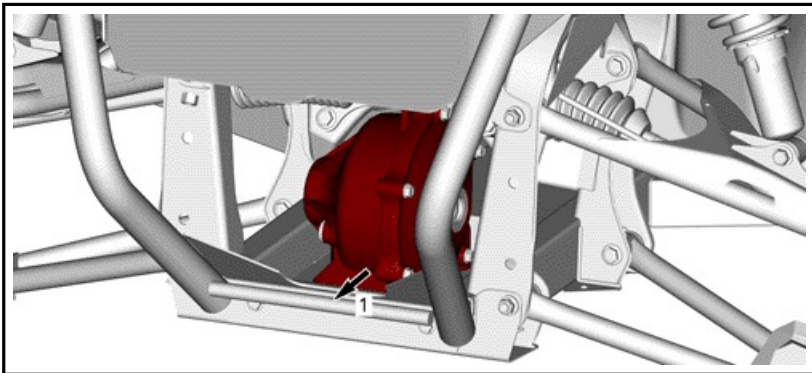
1. Drain the differential. Refer to *PERIODIC MAINTENANCE PROCEDURES* subsection in the shop manual.
2. Remove both drive shafts. Refer to *FRONT DRIVE* subsection in the shop manual.
3. Remove the front bumper. Refer to *FRAME* subsection in the shop manual.



4. Remove the four retaining screws from the bottom skid plate.



5. Remove the differential from the front of vehicle while disconnecting the propeller shaft.



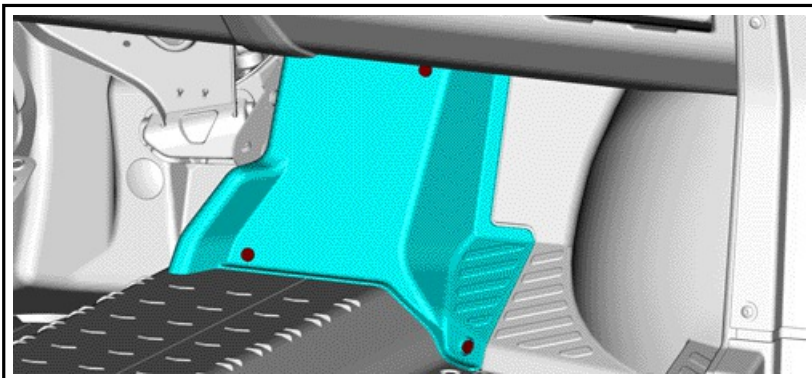
1. Remove

6. Install the new Smart-Lok differential and fix it with the four new bolts in this kit.

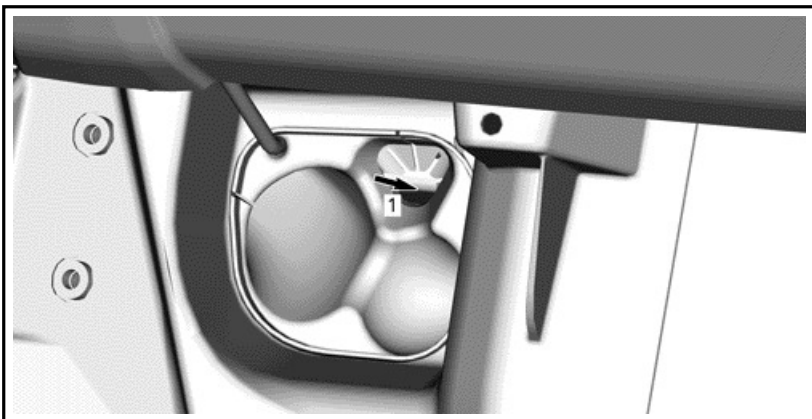
7. Install the new differential with associated half-shafts (sold separately) and reinstall all previously removed parts with provided hardware.

Harness Installation

1. Remove the inside cover of the deflector by removing the four retaining Tuflok plastic rivet.



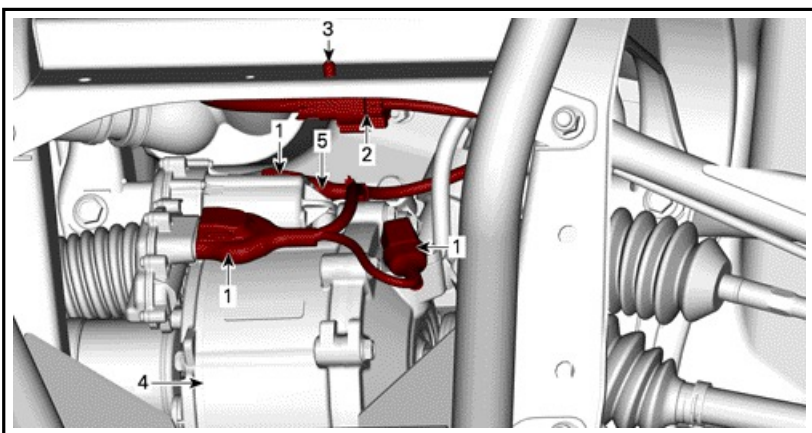
2. Insert the three connectors of the differential wiring harness [P2] inside the vehicle by the deflector.



1. Insert

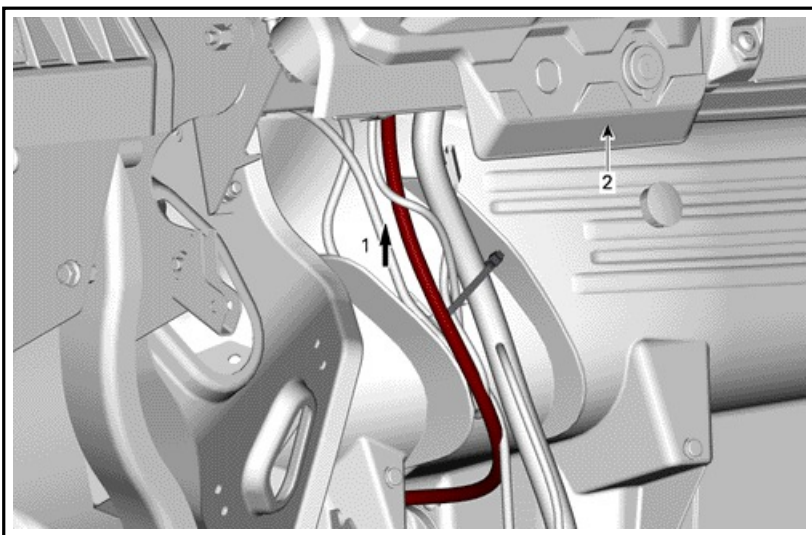
3. Fix the upper connector to the frame, connect the differential wiring harness [P2] to the front differential wiring harness [P3] and connect the three connectors to the Smart-Lok differential as shown.

NOTE: A connector is identified with a yellow tape as shown to avoid confusion and ensure proper wiring.



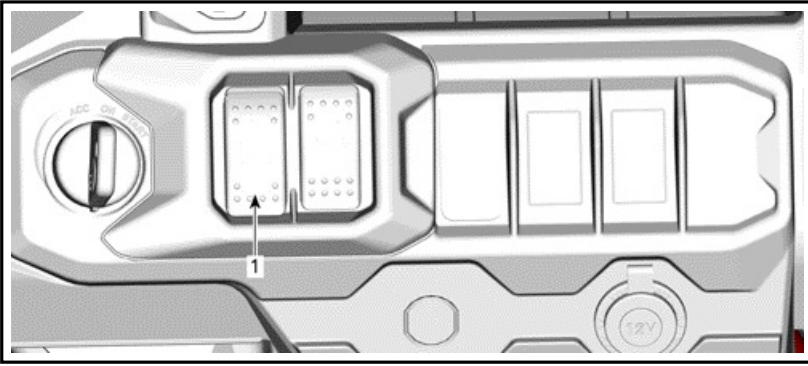
1. Connect
2. Connect the two harness
3. Fix to the frame
4. Smart-Lok differential
5. Connector with a yellow tape

4. Route the harness toward the location of the vehicle 4x4 switch.



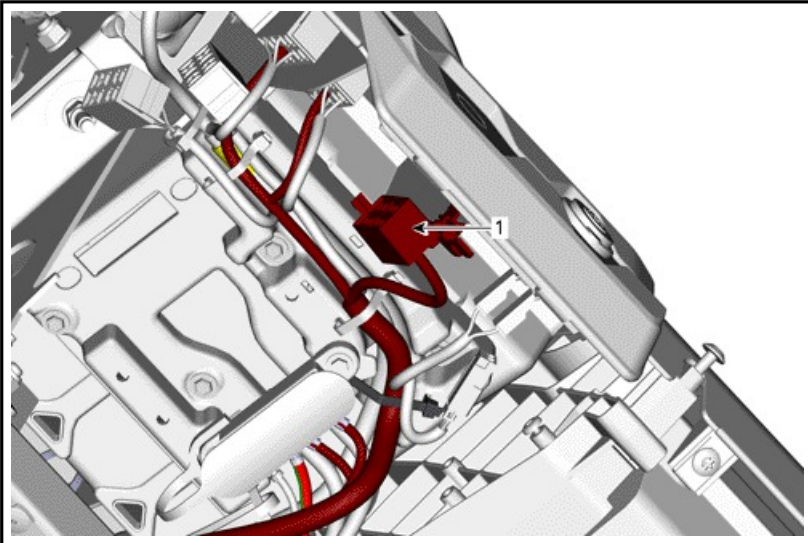
1. Send to the console
2. Console

5. Disconnect and discard the factory installed 4x4 switch from the console.



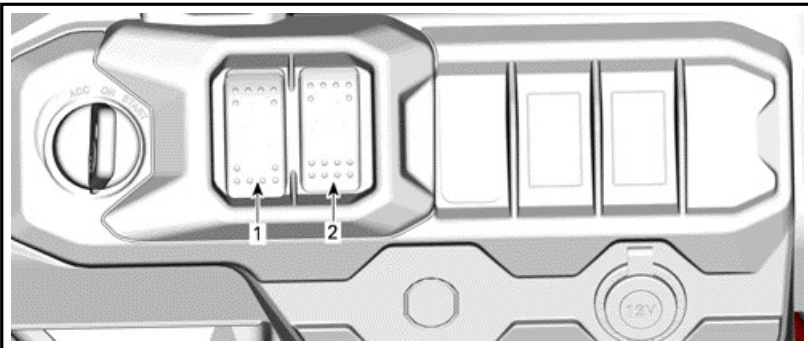
1. 4x4 switch

6. Connect the vehicle 4x4 mode connector to the Smart-Lok harness [P2].



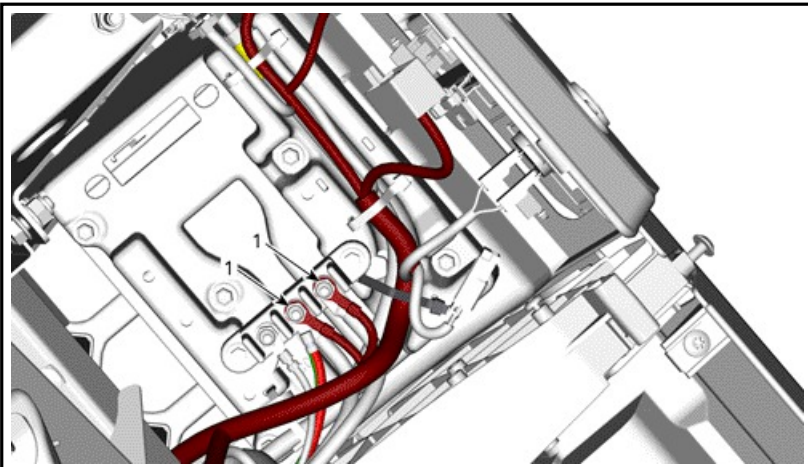
1. Connect the 4x4 mode connector from the vehicle

7. Connect the 4x4 mode differential switch [P5] and the Smart-Lok mode switch (if bought) to the new connectors.



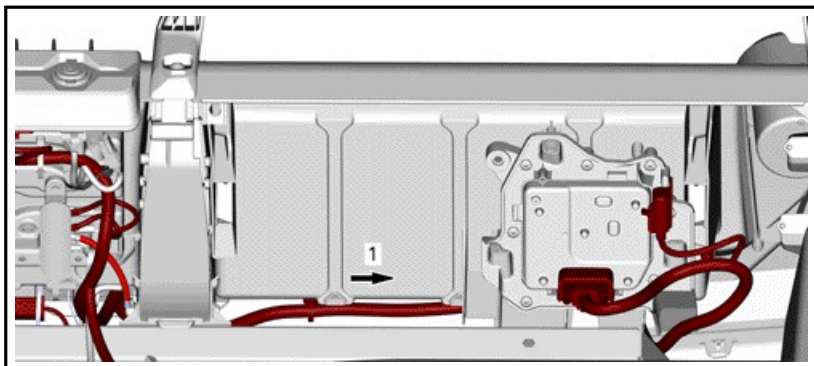
1. 4x4 mode differential switch [P5]
2. Smart-Lok mode switch

8. Connect the two ring terminals on the vehicle junction block under the dash. Respect the polarity of the harness.



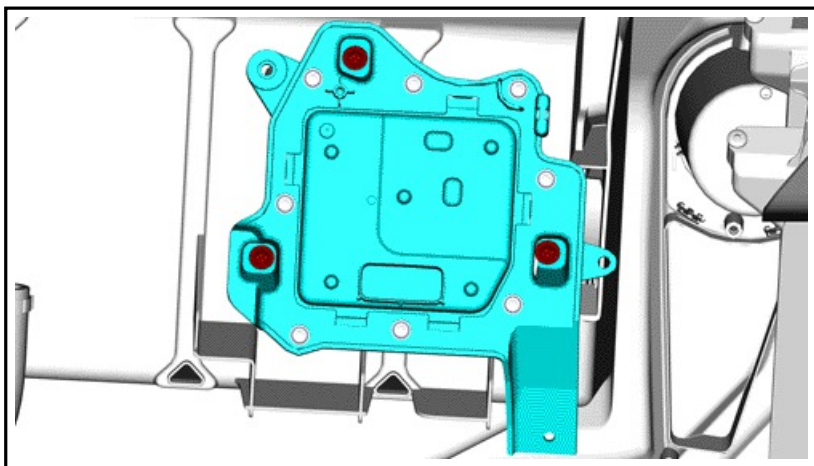
1. Connect supply connector

9. Move the fuse box and the FDM connector toward the vehicle glove box.



1. Move under the glove box

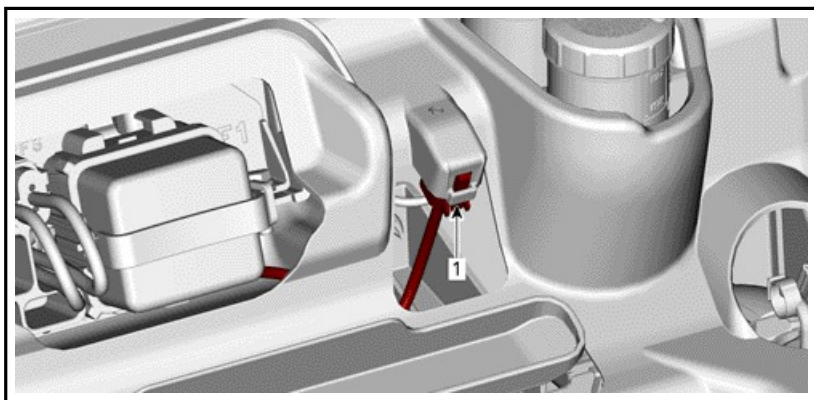
10. Apply pressure to the FDM module [P1] to clip on the FDM support [P4] and install the assembly under the dash with three PT type K-50 x 16 screw [P8].



Tightening torque	
PT type K-50 x 16 screw [P8]	6 to 6.5 N•m (53 to 58 lbf•in)

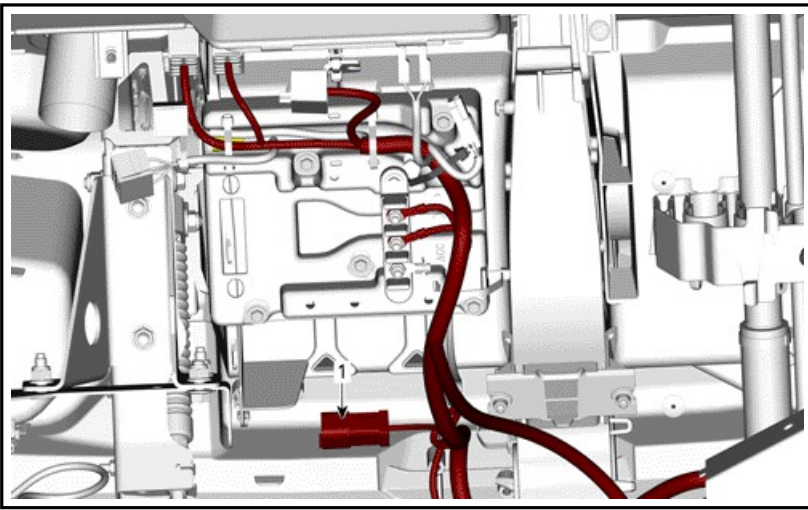
11. Connect the connector on the FDM module [P1] and fix the fuse box to the FDM support [P4].

12. Lift the front service cover and disconnect the diagnostic connector.



1. Diagnostic connector

13. Bring the diagnostic connector of the vehicle inside and connect it to the front differential wiring harness [P2].



1. Connect diagnostic connector of the vehicle

14. Install the diagnostic connector of the harness in the original location of the differential connector of the vehicle.
15. Secure all wires using locking ties.
16. Reconnect battery.

NOTICE Connect **RED** cable (+) first then **BLACK** cable (-).

17. Turn on the vehicle.
18. Verify on the multifunction dial for any error message.
19. Put the switch in 4x4 position. The switch should lit up.
20. Verify on the multifunction dial for any new error message.
21. If the switch doesn't light up:
 - 21.1 Turn off the vehicle.
 - 21.2 Verify all connections (module, switches, differential, power, etc.)
 - 21.3 Turn the vehicle back on.
 - 21.4 Repeat step 11 and 12. If switch doesn't turn on, contact your local BRP dealer fore a more in-depth troubleshooting.

NOTICE Make sure power harness does not come into contact with any sharp edge, mobile parts and hot surfaces before securing it in place.

Use

This switch selects 2 wheel drive or 4 wheel drive mode when the vehicle is stopped and the engine is running. The front diff. lock can be activated on the fly, no need to stop the vehicle to engage. To deactivate, push again on the switch. When the vehicle is turned off, the front diff lock will be deactivated.

NOTICE The vehicle must be stopped to engage or disengage the 2WD/4WD switch. Mechanical damage may occur if switch is engaged or disengaged while driving. ALWAYS unlock the front diff. before disengaging 4WD.

The front differential is fully locked when the switch is pushed upward. It's a momentary position. When the front diff is locked, the switch light will illuminate and a message will appear in the cluster for 2 seconds to say "DIFFLOCK". The light will turn off when the differential is unlocked and a message in the cluster will appear and show "SMARTLOK", meaning that you are back in the automatic mode.

When the front differential is locked, the effort to turn the steering wheel might be higher and the response might be slower.

WARNING

Abruptly changing direction can cause loss of control or injury. Never engage Front Diff Lock before entering a turn or when turning.

The 4WD mode is engaged when the switch is in the middle position.

The 2WD mode is engaged when the switch is pushed downwards. The vehicle is then rear wheel drive only.