

4 Corner Retrofit Instructions

Note: The components inside this kit are for converting 2019 and older F53 rear kits from a 2 corner system to a 4 corner system.

IMPORTANT: Prior to disconnecting any wiring or hydraulics, you must follow the procedures outlined below for Depressurizing the system.

Depressurizing the Hydraulic System:

1. Turn LS system ON by depressing and releasing the On/Off button on the LS system driver interface. (Certain LED's on driver interface should be lit.)
2. Lower the suspension to the Low position by depressing and releasing the Down Arrow button for Height on the driver interface.
3. After the suspension has lowered to the Low position, press and hold the Down Arrow button for Height on the driver interface for about 3 minutes continuously. An audible "clicking" noise should be heard emitting from the power module after a few minutes of continuously depressing the Down Arrow.
4. Turn the chassis ignition Off and disconnect LS system lead from battery or remove the 80 Amp fuse.

Removal of 2 Corner, and Installation of 4 Corner Componentry:

5. Disconnect the wiring and hydraulic -4 hoses from the power module and remove the power module assembly and bracketry from the vehicle. Retain all fasteners.
6. Remove power module bracketry, enclosure covers, and ECU from the power module, and retain the screws.

IMPORTANT: Take note of ECU and enclosure orientation.

7. Remove and retain the two (2) Coils from the LH and RH Isolation valves. See Figure 1 for Coil identification.
8. Remove the four (4) M5 socket head screws holding the valve block to the power module assembly and retain the screws. See Figure 1 for fastener locations.

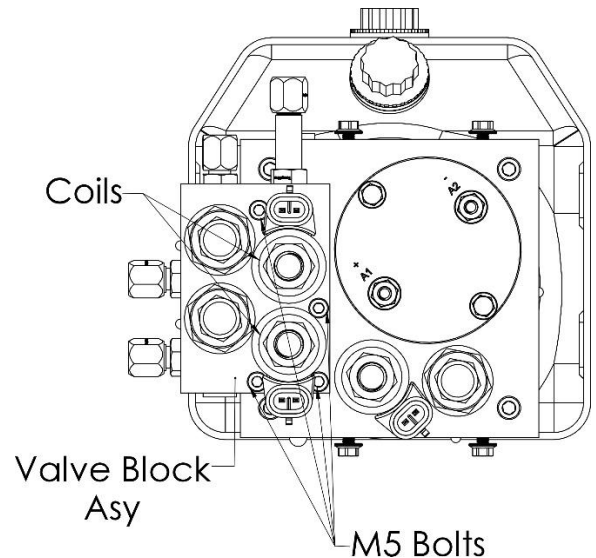


Figure 1: End View of Power Module

Note: Orientate Power Module to prevent fluid spillage once valve block is removed.

IMPORTANT: Do NOT remove the Dash harness.

9. Locate the components included in the retrofit kit. See Figure 3.
10. Install the Retrofit Valve Block, using the retained (4) M5 socket head screws and the two (2) O-rings provided in the kit to the power module assembly. Torque to 55 in-lbs in a "X" formation. See Figure 3.

IMPORTANT: Make sure O-rings are properly seated in the valve block reliefs. A small amount of petroleum jelly can be used to help properly seat and hold in place if needed.

11. Install the Isolation valve coils previously removed to the new Valve block and torque the nuts to 4-6 ft-lbs Max.
12. Unplug J16 and J17 connectors from ECU.
13. Re-attach the wiring harness, making sure to attach all the necessary wiring. Refer to Figure 4.
14. Install the Power Module Enclosure covers in the same orientation as removed with the supplied Cable

Tie securing the harness to enclosure cover. Attach the provided 4 Corner ECU.

Note: Figure 3 may not show the covers and ECU installed in the same orientation as your application.

15. Attach the Jumper Harness to the enclosure, refer to Figure 2

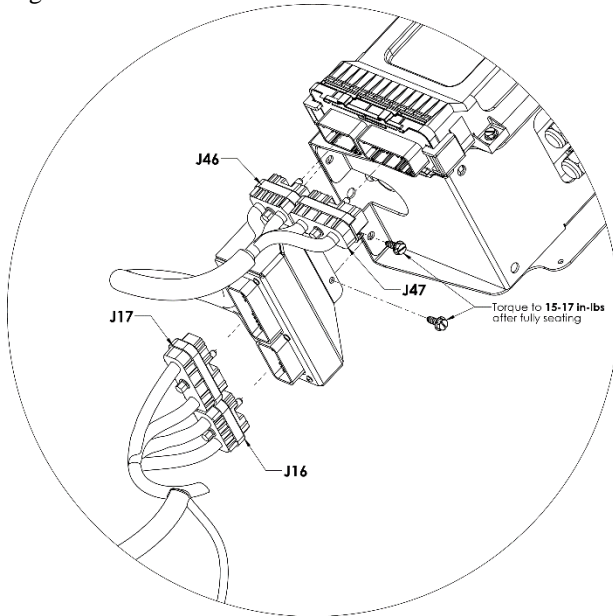


Figure 2: Jumper Harness Installation

IMPORTANT: The ECU must be replaced with the new 4 Corner ECU and in the correct orientation for the front suspension to operate.

16. Connect the J46 and J47 wiring connectors to the ECU.
17. Connect J16 and J17 connectors to Jumper.
18. Install the Power Module Reservoir Mount and Manifold Mount in place of the previously removed bracket(s).
19. Install the Power Module to the frame in the same location as removed. Refer to provided instructions.
20. Install the wiring harness in the same locations as removed. Re-use the Battery Fuse Lead containing the 80-amp fuse. Reference the installation manual for the rear suspension. Make sure to connect all the proper butt splices and connections.
21. Re-attach the -4 hydraulic hoses to the power module. Reference installation manual for the rear suspension for additional instructions.
22. The Power Module is now ready for the front suspension connections.

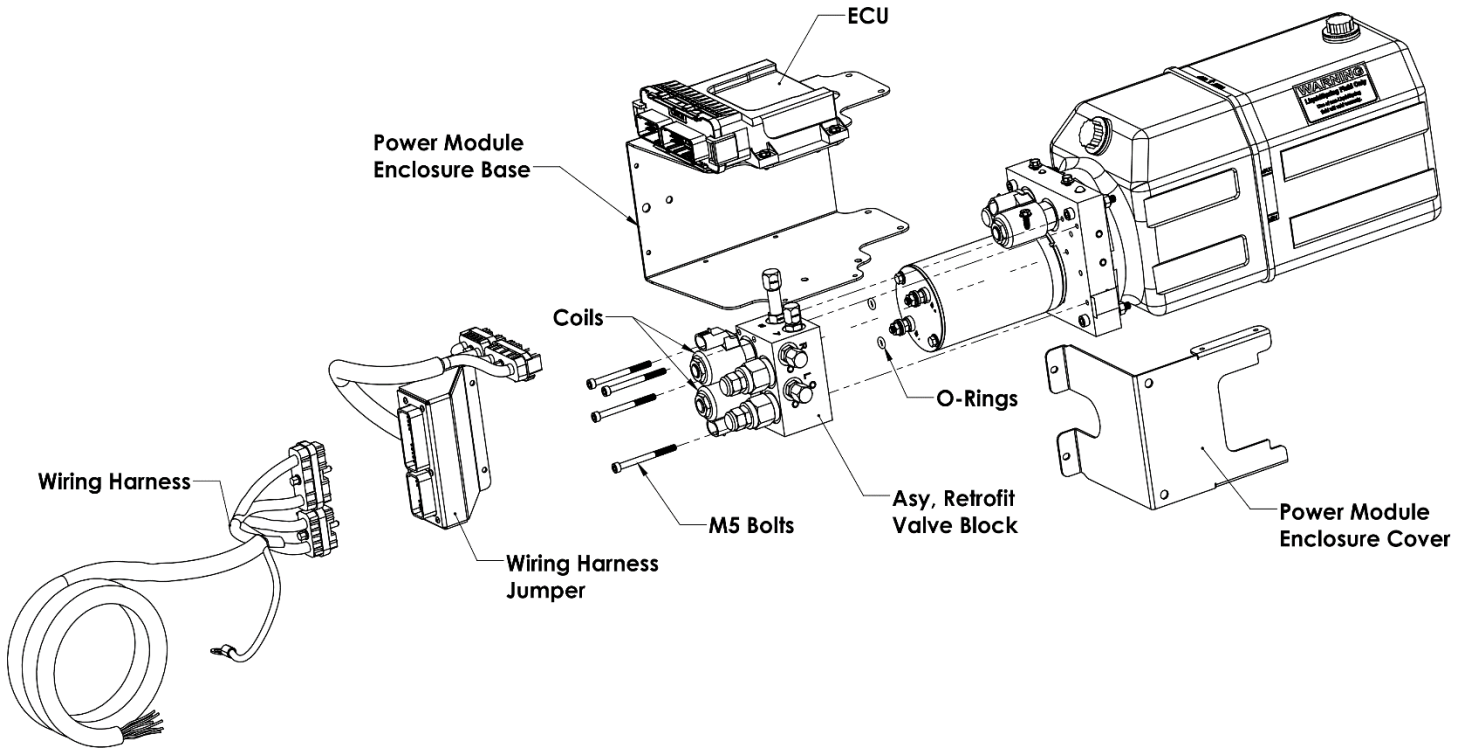


Figure 3: Power Module Retrofit Components

Detail of Connections Inside Power Module

Install Ring Terminals for Connection J19 and J20 to the (-) Negative side of the motor.

Note: Positive side/weep hole should be facing down.

Torque to 30-36 in-lbs.

Install Ring Terminal of Connection J18 to the (+) Positive side of the motor.

Torque to 30-36 in-lbs

LEFT (J13)
Pink-Grey/Blk
 Connect Plug on **Left ISO Valve** to J13 Receptacle on Harness

Left Volume Pressure Relief Valve
 Typical 4500 PSI

Pump Pressure Relief Valve
 Typical 3500/4000 PSI

DUMP (J15)
Violet-Grey/Blk
 Connect Plug on **Dump Valve** to J15 Receptacle on Harness

RIGHT (J14)
Blue-Grey/Blk
 Connect Plug on **Right ISO Valve** to J14 Receptacle on Harness

Right Volume Pressure Relief Valve
 Typical 4500 PSI

Left -4
 Hose Fitting

Right -4
 Hose Fitting

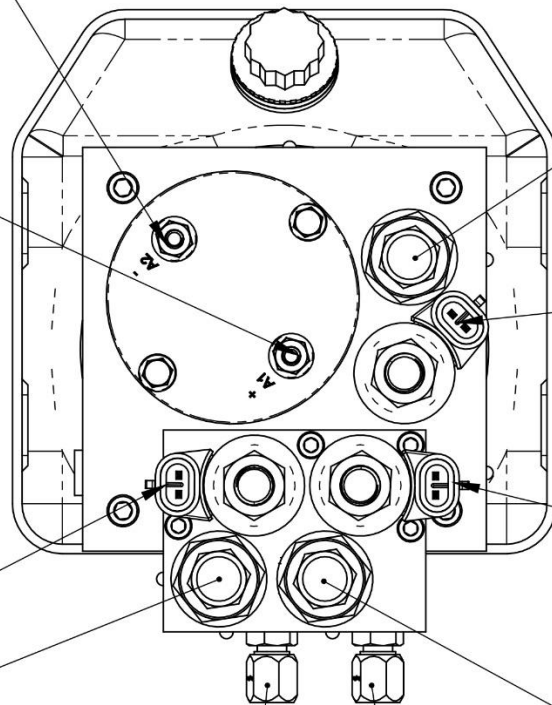
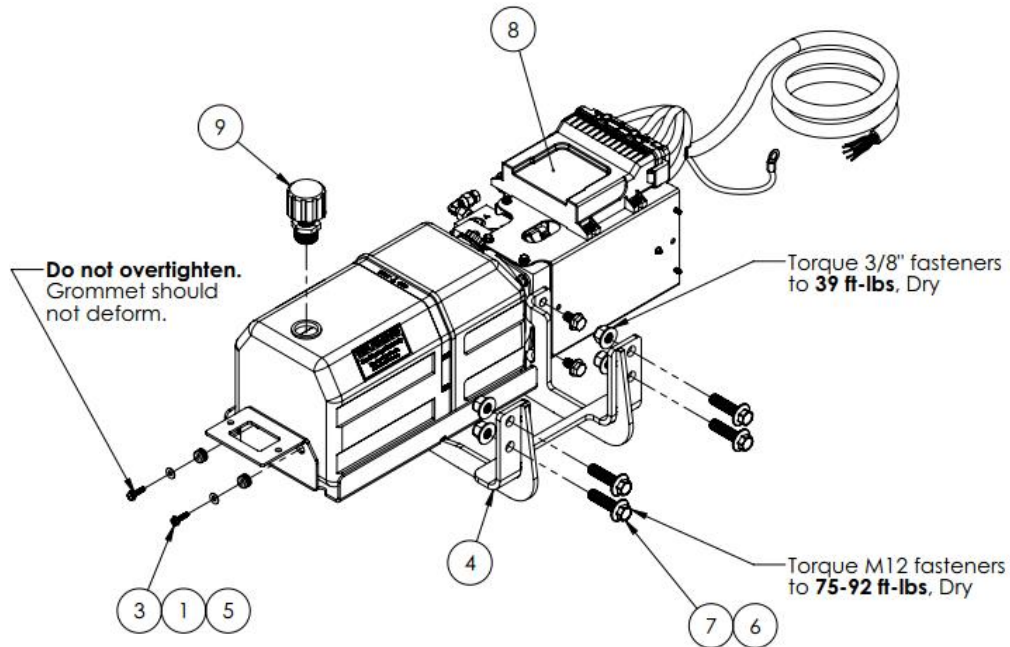


Figure 4: Connections to Power Module

Power Module Installation



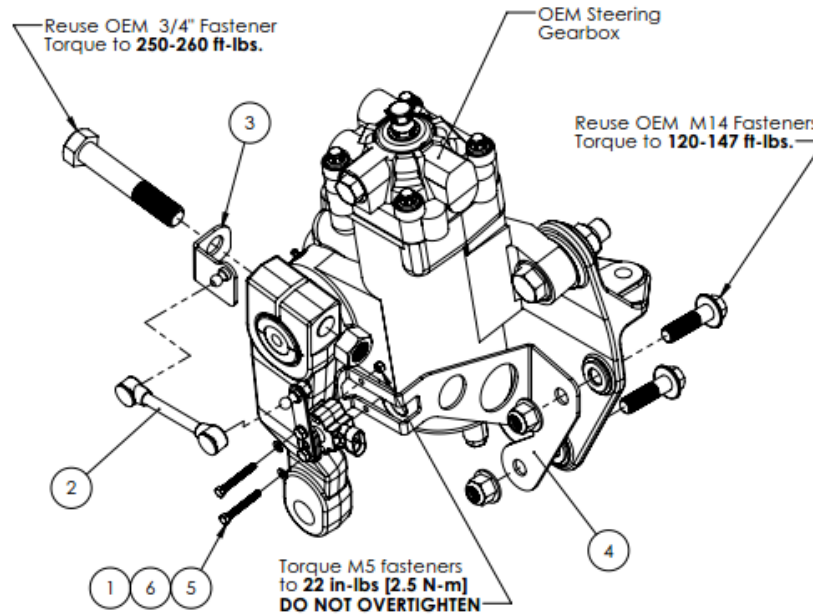
1. Locate the new Power Module Mount.
2. Attach the PM Mount to the frame with (4) M12 fasteners.

Note: You might have to re-drill the holes 1" rearward so that -4 hoses will fit on front isolation block.

3. Insert the grommets into the small holes in the PM Mount.

4. Place Power Module into the pan of the PM Mount and align the holes.
5. Use the 3/8" bolts to attach PM to the Mount.
6. Use the #10 fasteners and washers to attach the PM Reservoir to the Mount.
7. Tighten the reservoir screws until they contact the grommets. Do not overtighten.
8. Torque the (2) 3/8" fasteners to **36 ft-lbs, Dry.**
9. Torque the (4) M12 fasteners to **75-92 ft-lbs, Dry.**

Steering Sensor



ITEM	QTY	PART	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	10232-006	LHN M5-0.8 CL 10	5	4	11639-040	HCS M5-0.8 x 40 Stainless
2	2	10587-005	Linkage, 3.938" SS	6	4	11641-001	FW M5 Stainless
3	1	10733-013	Pitman Arm Bracket	7	2	11675-002	Steering Sensor, HW
4	1	11336-012	Steering Sensor Bracket				

1. Remove OEM 3/4" bolt from Pitman Arm.
2. Install Pitman Arm Bracket and then re-install 3/4" bolt. Torque to **250-260 ft-lbs.**
3. Install Height Sensor on to Steering Sensor Bracket using M5 hardware.
4. Torque all M5 hardware to **22in-lbs. DO NOT OVERTIGHTEN.**
5. Remove (2) OEM M14 nuts from OEM gearbox mount bolts
6. Install Steering Sensor Bracket as shown. Torque M14 nuts to **120-147 ft-lbs.**
7. Remove the caps from Linkage Assemblies.
8. Snap the Linkage body onto the ball studs attached to the upper control arms and to the ball studs on the Height Sensor arms.
9. Re-install locking clips as shown in Figure 5.

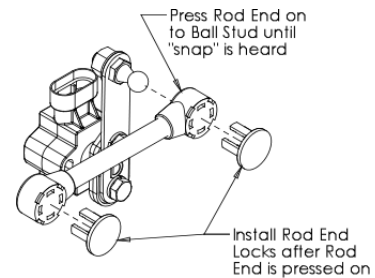


Figure 5. Steering Sensor Linkage Installation

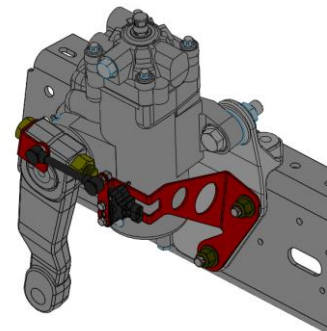


Figure 6. Completed Steering Sensor

Updating Steering Harness:

1. Go into the cab of the motorhome and unplug the steering sensor (J35) from underneath the steering wheel along the steering column.
2. Cut the 3 wires roughly an inch behind the J35 connector.
3. Strip ends of wire attached to new harness and align matching colors. Butt splice wires with J35 connection as shown in **Figure 7**.

Note: Make sure to heat shrink splices



Figure 7: Butt Spliced New Harness

4. Route the new harness to the steering gear box and connect the harness to the steering sensor.