

SB-10055206-9225

ISUZU

**IMPORTANT SERVICE
INFORMATION FOR:**
✓ SERVICE MANAGER
✓ SERVICE ADVISOR
✓ TECHNICIAN
✓ PARTS DEPARTMENT
✓ WARRANTY PERSONNEL

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ENGINE

P0087/SUPPLY PUMP FAILURE – CONTAMINATED DIESEL FUEL IMPROVED CHASSIS FUEL FILTER ASSEMBLY

AFFECTED VEHICLES

- 2011-2014MY Isuzu N-Series
Equipped with 5.2L 4HK1 Diesel Engine

INFORMATION

A recent investigation of some returned fuel supply pumps has identified an occurrence of pump malfunction due to fuel contamination. It has been determined that many of these pump failures are a result of fuel debris causing a sticking/seizing condition of the internal control mechanism. Isuzu has made available the following improved chassis fuel filter kits to help reduce overall operating expenses and costly replacement of supply pumps. These kits have been based on Isuzu testing, and can help increase the longevity of the fuel pump under conditions where fuel contamination may be present.

NOTE: Ensure that fuel filter maintenance is regularly performed as per the Owner's Manual.

IMPORTANT: SUPPLY PUMP FAILURE CAUSED BY CONTAMINATED FUEL IS NOT A WARRANTABLE REPAIR.

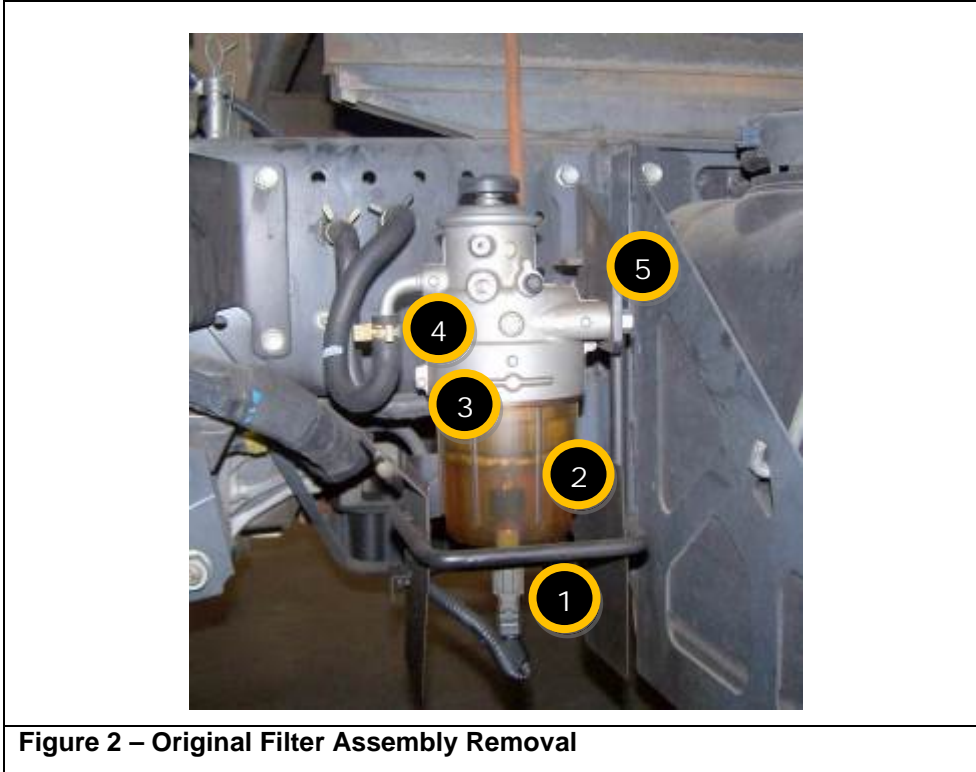
MAINTENANCE INTERVAL

Description	Fuel Filter Maintenance Interval	
	Miles (Km)	Time
Main Fuel Filter	15,000 (24,000)	Or every 12 months
Secondary Fuel Filter	15,000 (24,000)	Or every 12 months

SERVICE PROCEDURE

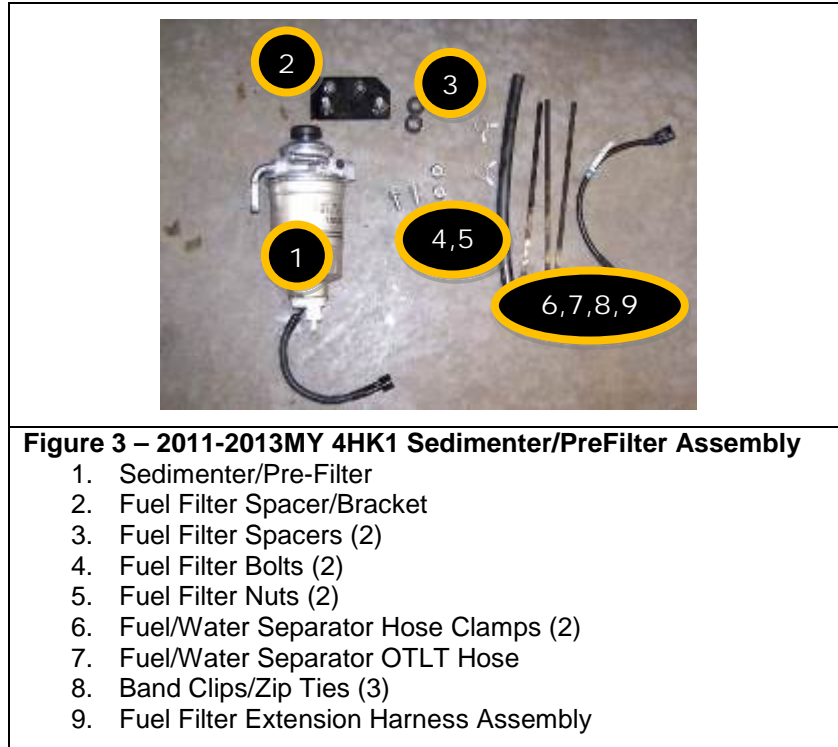
Note: Be sure to place a drain tray on the ground underneath the sedimenter/pre-filter assembly area.

REMOVAL OF ORIGINAL MESH FILTER ASSEMBLY (2011-2013MY 4HK1)



1. Disconnect the sedimenter sensor.
2. Drain fuel in sedimenter.
3. Loosen clamp and disconnect the fuel supply line at the filter housing.
4. Loosen clamps and disconnect the fuel sedimenter from the supply pump fuel hose at the sedimenter.
5. Loosen and remove bolts from mounting bracket and remove the fuel sedimenter assembly.

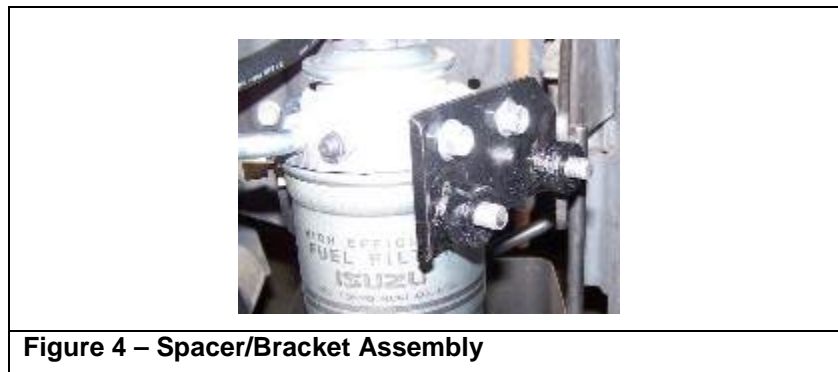
INSTALLATION (2011-2013MY 4HK1)



1. Install the new spacer/bracket (7940) on to the filter and torque as follows:

Tightening Torque	25 Nm (18 lb ft)
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2. Place the new spacers (7030) on to the spacer/bracket (7940).



3. Install the filter/spacer assembly onto the vehicle chassis bracket with the new bolts and torque as follows:



Figure 5 – Assembly Installation and Torque Specifications

Tightening Torque: 41.4 Nm (37 lb ft)

4. Connect the fuel tank to the fuel supply line and clip into place.
5. Remove and discard the old hose and clamps. Drain fuel as necessary. Install the new fuel hose to the filter assembly and clip into place with the new hose clamps at the (2) two points.

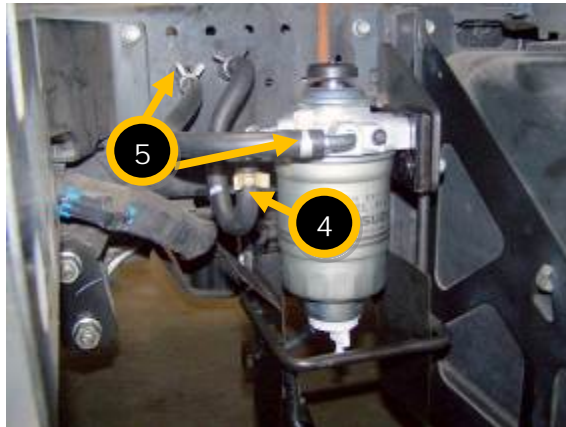


Figure 6 – Secure Hose Lines

6. Connect the new wiring harness at the (2) two points (see Figure 7).
7. Secure the wiring harness with the new band clips/zip ties underneath the sedimenter mounting bracket (see Figure 7).

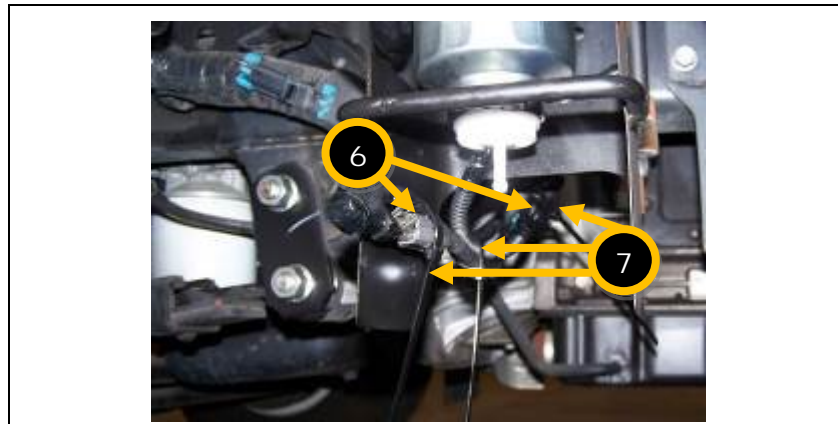


Figure 7 – Secure Wiring Harness

8. Bleed the fuel system.
 - a. Remove the rubber air bleed plug cover (set aside) and loosen the air bleed plug bolt.



Figure 8 – Prepping Air Bleed Plug to Bleed System

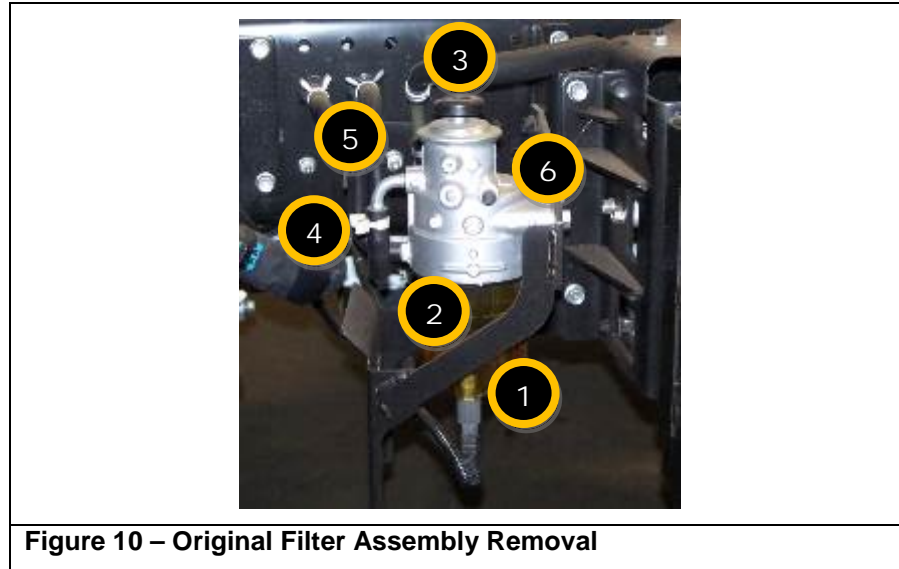
- b. Pump the priming pump up and down (about 20-25 times) until fuel easily goes through the air bleed plug.



Figure 9 – Complete System Bleed

- c. Tighten the air bleed plug bolt and replace the rubber air bleed plug cover.
 - d. Start the engine and allow it to run for 3-5 minutes, then turn engine off.

REMOVAL OF ORIGINAL MESH FILTER ASSEMBLY (2014MY 4HK1)



1. Disconnect the sedimenter sensor.
2. Drain fuel in sedimenter.
3. Remove clip from DEF line and set aside to reuse.
4. Loosen the clamp and disconnect the fuel supply line at the filter housing. Save this hose to reuse.
5. Loosen clamps and disconnect the fuel sedimenter from the supply pump fuel hose at the sedimenter.
6. Loosen and remove bolts from mounting bracket and remove the fuel sedimenter assembly along with old bracket.

INSTALLATION (2014MY 4HK1)

1. Install the new filter to the new mounting bracket (7920) and torque as follows:

Tightening Torque	25 Nm (18 lb ft)
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2. Mount the new filter/bracket assembly on to the vehicle chassis bracket and torque as follows (see Figure 11).

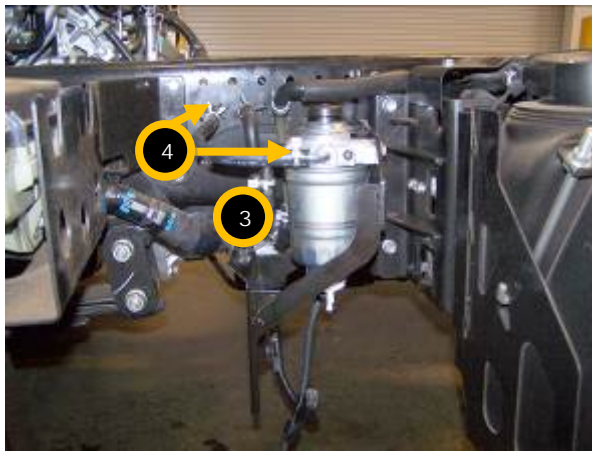


Figure 11 – Install Assembly and Torque Specifications
Tightening Torque: 41.4 Nm (37 lb ft)

3. Connect fuel tank to fuel supply line and clip into place.
4. Remove and discard the old hose and clamps. Drain fuel as necessary. Install the new fuel hose to the filter assembly and clip into place with the new hose clamps at the (2) two points.
5. Reattach the DEF clip into place.
6. Secure the wiring harness with the new band clips/zip ties tucked against the sedimenter mounting bracket (see Figure 12).

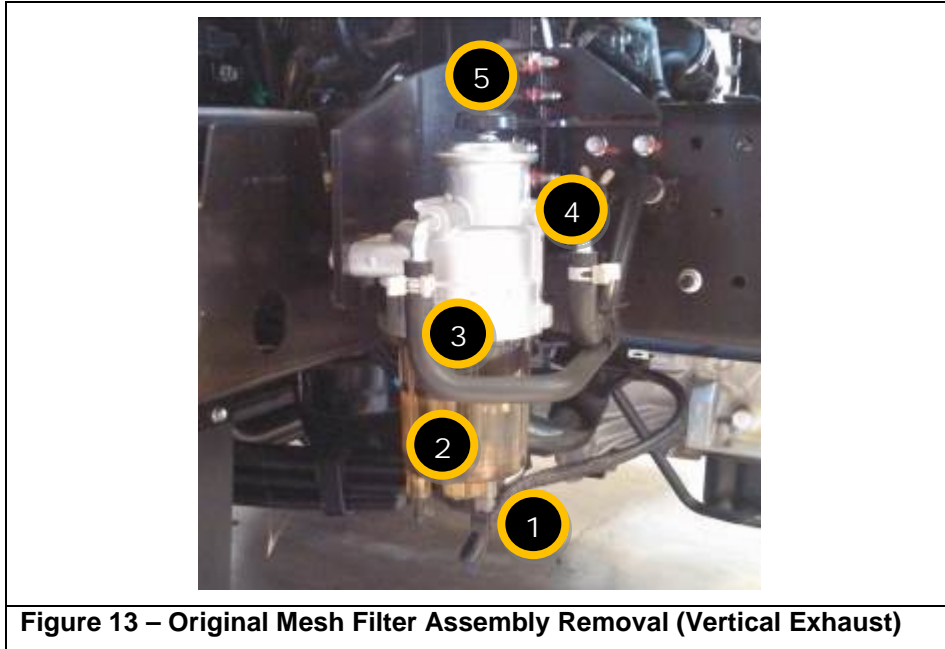


Figure 12 – Secure Harness Assembly

7. Bleed the filter as previously outlined in Step 8 of the install procedure for 2011-2013MY 4HK1.

REMOVAL OF ORIGINAL MESH FILTER ASSEMBLY (VERTICAL EXHAUST 4HK1)

Note: It will be necessary to save the bracket hardware during the removal process.



1. Disconnect the sedimenter sensor.
2. Drain fuel in sedimenter.
3. Loosen clamps and disconnect the fuel supply line at the filter housing.
4. Loosen clamps and disconnect the fuel sedimenter from the supply pump fuel hose at the sedimenter.
5. Loosen and remove the bolts from the sedimenter bracket frame (8 points). Save for reuse.
6. Remove the fuel sedimenter assembly and bracket.

INSTALLATION (VERTICAL EXHAUST 4HK1)

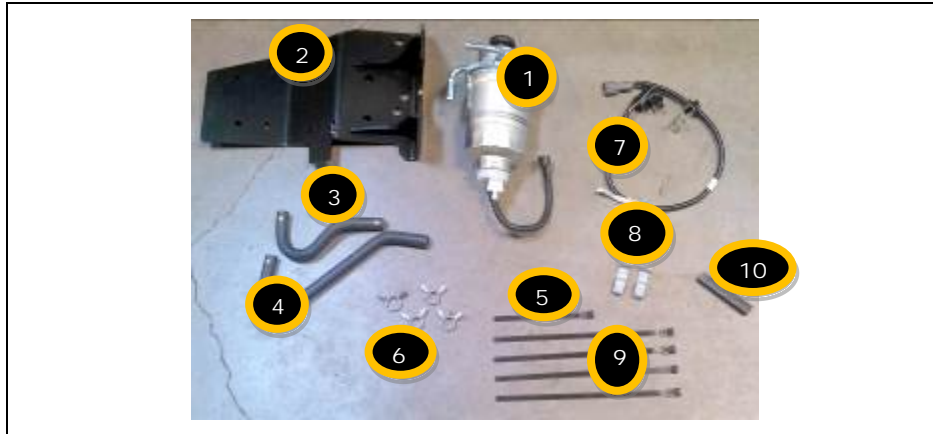


Figure 14 – Vertical Exhaust 4HK1 Sedimenter/Pre-Filter Assembly

1. Sedimenter/Pre-Filter
2. Fuel Filter Bracket
3. Fuel/Water Separator OTLT Hose
4. Fuel/Water Separator INL Hose
5. Fuel/Water Hose Strap
6. Fuel/Water Separator Hose Clamps (4)
7. Harness Adapter Extension
8. Spring Clips (2)
9. Band Clips/Zip Ties (4)
10. Edge Protector

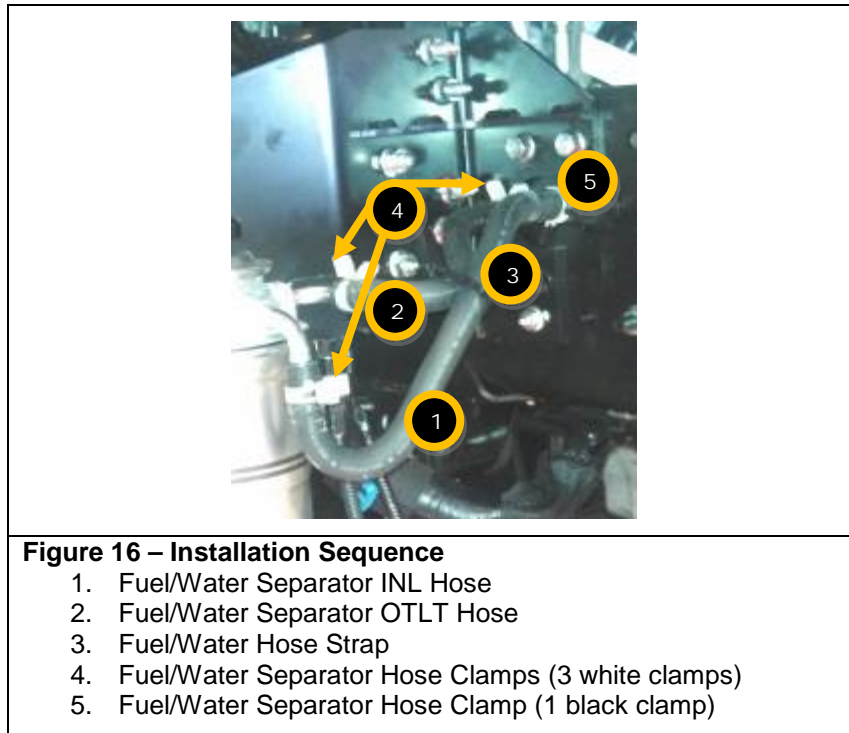
1. Install the new filter to the new mounting bracket (5860) and hand-tighten with the new bolts.
2. Mount the new filter/bracket assembly onto the vehicle chassis bracket and torque as follows (see Figure 15). Be sure to start with the last bolt point removed to replace assembly bracket. Apply final torque to filter to bracket.



Figure 15 – Install Assembly and Torque Specifications

1. Bracket to Chassis Tightening Torque: 41.4 Nm (37 lb ft)
2. Filter to Bracket Final Tightening Torque: 25 Nm (18 lb ft)

3. Install hoses, strap and clamps in the following sequence:



4. Connect wiring harness extension and clip to bracket (see Figure 17).
5. Band clip/zip tie harnesses into place at two (2) points (see Figure 17).
6. Route the extension harness along the chassis frame securing into place with the two (2) metal spring clips and the harness chassis clip (see Figure 18).
7. Band clip/zip tie remaining points and insert the edge protector (see Figure 18).

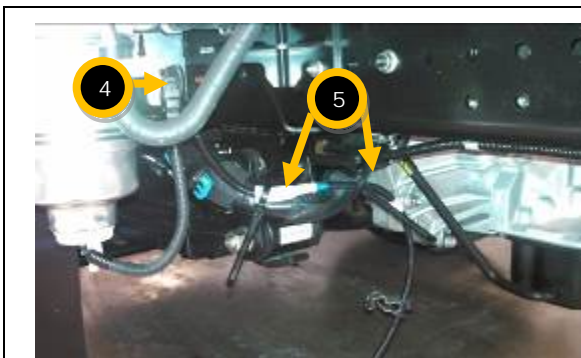


Figure 17 – Wiring Harness Connection and Routing

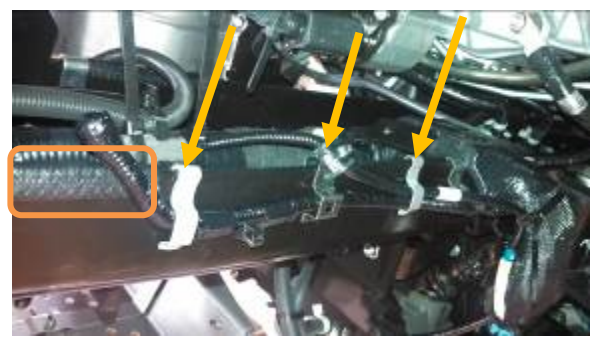


Figure 18 – Spring Clips and Edge Protector

8. Bleed the filter as previously outlined in Step 8 of the install procedure for 2011-2013MY 4HK1.

PARTS INFORMATION

The following new parts are available from AIPDN:

Application	Part Number	Description	Quantity
2011-2013MY 4HK1	0-01809-300-0	Fuel/Water Sep OTLT Hose	1
	8-98008-098-0	Fuel/Water Sep Hose Clamps	2
	8-98244-953-0	Fuel Filter Extension Harness Assembly	1
	5-09707-030-1	Band Clips/Zip Ties	3
	8-98246-793-0	Fuel Filter Spacers	2
	8-98246-794-0	Fuel Filter Spacer/Bracket	1
	0-28650-820-0	Fuel Filter Bolts	2
	0-91180-110-0	Fuel Filter Spacer Nuts	2
	8-98244-035-0	Filter Assembly	1
2014MY 4HK1	0-01809-300-0	Fuel/Water Sep OTLT Hose	1
	8-98008-098-0	Fuel/Water Sep Hose Clamps	2
	8-98244-953-0	Fuel Filter Extension Harness Assembly	1
	5-09707-030-1	Band Clips/Zip Ties	3
	8-98246-792-0	Fuel Filter Bracket	1
	0-28650-820-0	Fuel Filter Bolts	2
	8-98244-035-0	Filter Assembly	1
Vertical Exhaust 4HK1	8-98245-176-0	Fuel/Water Sep Hose INL	1
	8-98245-177-0	Fuel/Water Sep Hose OLTL	1
	5-09707-031-1	Fuel Feed & Return Hose Strap	1
	8-98008-098-0	Fuel/Water Sep Hose Clamp (white)	3
	8-98150-356-0	Fuel/Water Sep Hose Clamp (black)	1
	8-98244-953-0	Fuel Filter Extension Harness Assembly	1
	5-09707-030-1	Band Clips/Zip Ties	4
	8-97371-948-0	Spring Clamps	2
	0-28650-820-0	Fuel Filter Bolts	2
	8-98244-035-0	Filter Assembly	1
	8-98246-586-0	Bracket – Vertical Exhaust	1

WARRANTY INFORMATION

The above noted condition is not a defect from manufacturing. The parts and labor associated with the installation of the Chassis Fuel Filter Kit are not covered under any Isuzu warranty.