



This Service Information bulletin supersedes SI B16 01 09 **dated March 2010**.

**NEW** designates changes to this revision

## SUBJECT

### DEF Extraction and Refill

## MODEL

E70 and E90 with M57Y

## SITUATION

The vehicle is in for scheduled maintenance or warranty repair, which requires evacuation and refilling of the SCR (Selective Catalyst Reduction) emissions system.

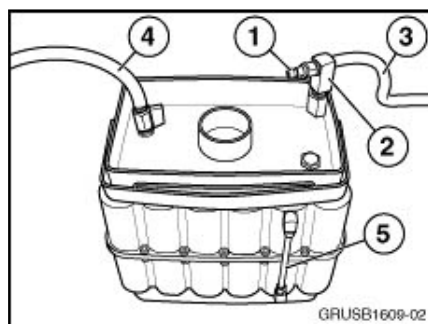
## INFORMATION

**NEW** Note: It is no longer necessary to drain the active and passive tanks during an oil service. Topping up of both tanks is now the approved method of refilling the system during a scheduled service even if the remaining DEF in the system is over twelve months old. The extraction tool should still be utilized when draining the SCR system during related repairs.

### Overview of DEF (Diesel Exhaust Fluid) Extractor

Always refer to the latest Repair Instructions: RA16 19 006 (E70 Active), RA16 19 060 (E70 Passive), or RA16 19 070 (E90) for important safety considerations when working with DEF.

The DEF Extractor/Filler unit (refer to [SI B04 14 09](#) from 05/09) removes DEF from the system, using compressed air to create a vacuum using the Venturi principle. The extractor can hold 11 liters of DEF fluid.

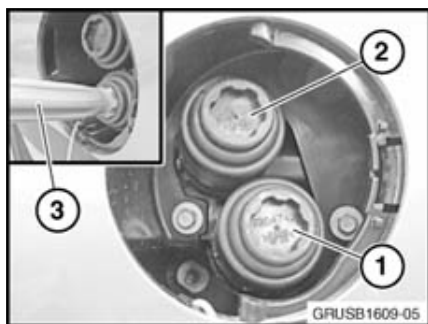


DEF Extractor (P/N 81 39 2 153 908)

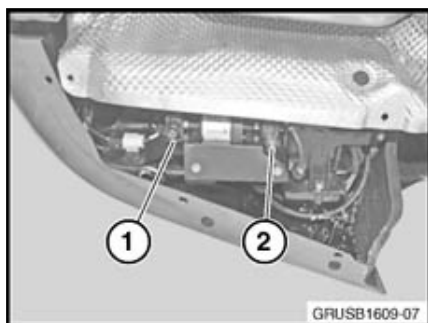
1. Shop air connection
2. Venturi valve block
3. Exhaust hose for the valve block
4. Extraction line to service the port on the SCR system
5. DEF level indicator

### Draining DEF E90

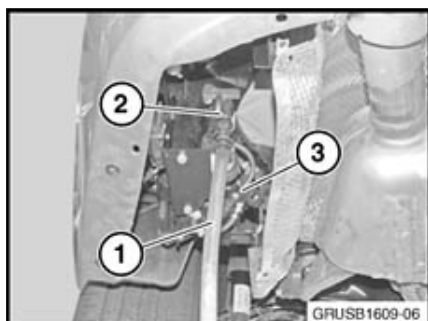
1. Remove the filler connection cap on the left rear bumper.
2. When draining the active tank, remove the filler cap (1); for the passive reservoir, remove the filler cap (2).



3. If necessary, use the screwdriver handle (3) from the onboard vehicle tool kit to open the filler caps.



4. Remove the cover under the left rear bumper to access the service ports for the active (1) and passive tanks (2).

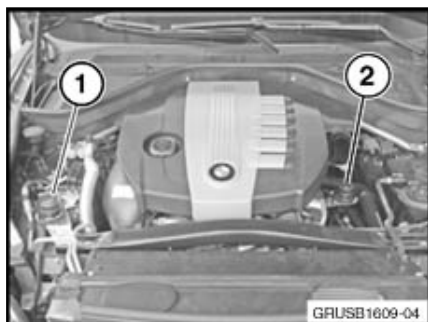


5. Connect the extraction line (1) from the tool (P/N 81 39 2 153 908) to the active (2) or the passive (3) service ports.

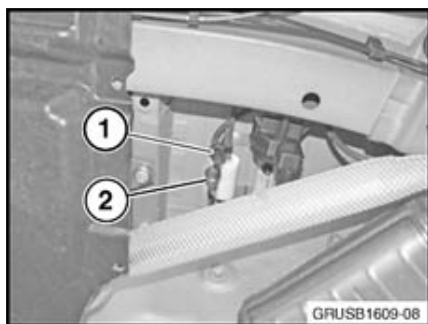
Note: Clean the caps for the service ports with water before reinstalling. Make sure the caps lock back onto the service ports.

6. Connect the shop air to the vacuum block, and open the valve at the vacuum block on the canister for vacuum supply. Slowly open the valve of the suction line at the canister and draw off the DEF. Watch the level through the level tube. Make sure the exhaust hose off the vacuum block is situated so that it will drain into a suitable catch pan, in case the DEF extractor canister gets overfilled.

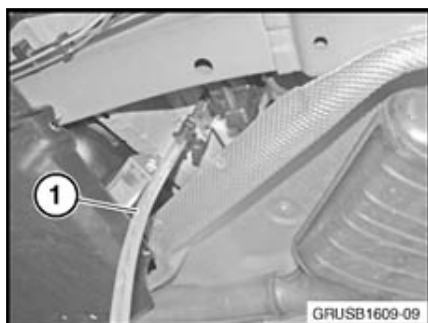
### Draining DEF E70



1. Remove the filler cap of the active reservoir (1) or the passive reservoir (2).



2. Service ports for the active (1) or the passive reservoirs (2) are located under the right side of the vehicle.

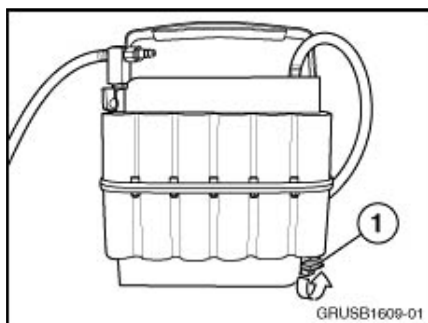


3. Remove the cap from the service port being drained, and attach the extractor hose (1) to the port.

Note: Clean the caps for the service ports with water before reinstalling. Make sure the caps lock back onto the service ports.

4. Connect the shop air to the vacuum block, and open the valve at the vacuum block on the canister for vacuum supply. Slowly open the valve of the suction line at the canister and draw off the DEF. Watch the level through the level tube. Make sure the exhaust hose off the vacuum block is situated so that it will drain into a suitable catch pan, in case the DEF extractor canister gets overfilled.

### Emptying the DEF Extractor



1. To empty the canister; open the drain valve (1) on the bottom of the canister.

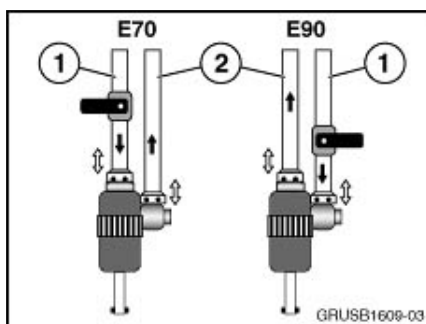
Note: The extractor will not function properly if the drain is opened while the vacuum is applied to the system.

Consult with your local municipality on proper disposal of used DEF. Never reuse the DEF that is evacuated from a vehicle. Always refill the SCR system with new DEF (2.5 gallon service bottles, P/N 83 19 0 440 158).

### Filling the SCR system

Refer to Repair Instruction RA16 19 006 (E70 Active), RA16 19 060 (E70 Passive), or RA16 19 070 (E90) for proper installation and operation of the DEF Extractor/Filler Tool, P/N 81 39 2 153 909 (refer to SI B04 14 09 from May 2009).

Warranty will only reimburse the use of 2.5 gallon service bottles (P/N 83 19 0 440 158) when draining and refilling the SCR system.



Note: The filling (1) and vent (2) lines at the filler adapter are switched, depending on the application.

### DEF Fill Capacities

<b>E70</b>	<b>Capacity (Service)</b>	<b>Capacity (New Part)</b>
Active	5.5 liters	5.7 liters
Passive	15.8 liters	16.0 liters
<b>E90</b>	<b>Capacity (Service)</b>	<b>Capacity (New Part)</b>
Active	7.4 liters	7.6 liters
Passive	12.7 liters	12.95 liters

### Proper maintenance for DEF Extractor/Filler Tools (P/N 81 39 2 153 908/909)

Always rinse the tools, lines, and fittings with water after each use.

### WARRANTY INFORMATION

For information only

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