

***Part #9675
Diesel EGR
Tool Manual***



Part #9650



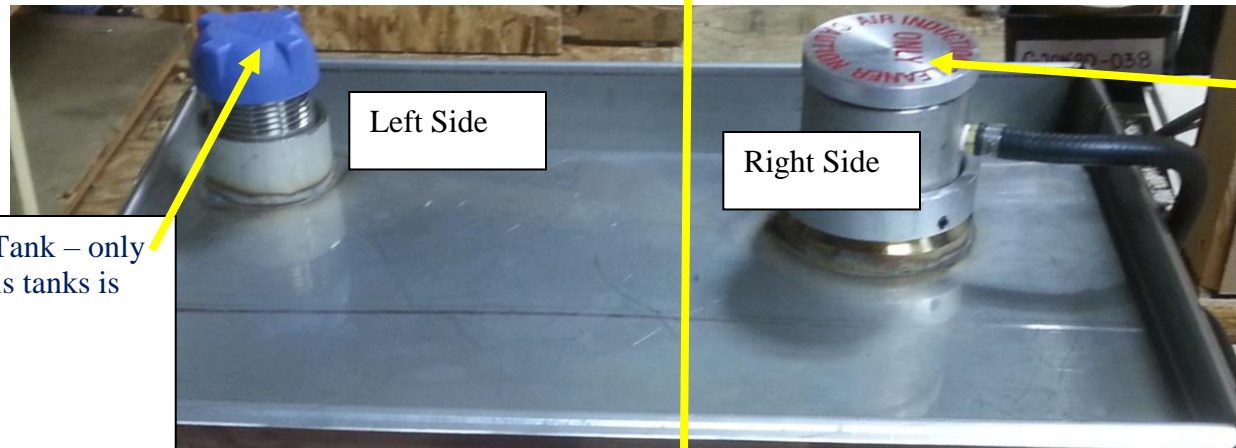
***For
Light
Duty
Truck
Operations***



Part #9675

C.A.T. Products, Inc. (RUN-RITE)

Part No. 9675 & 9650

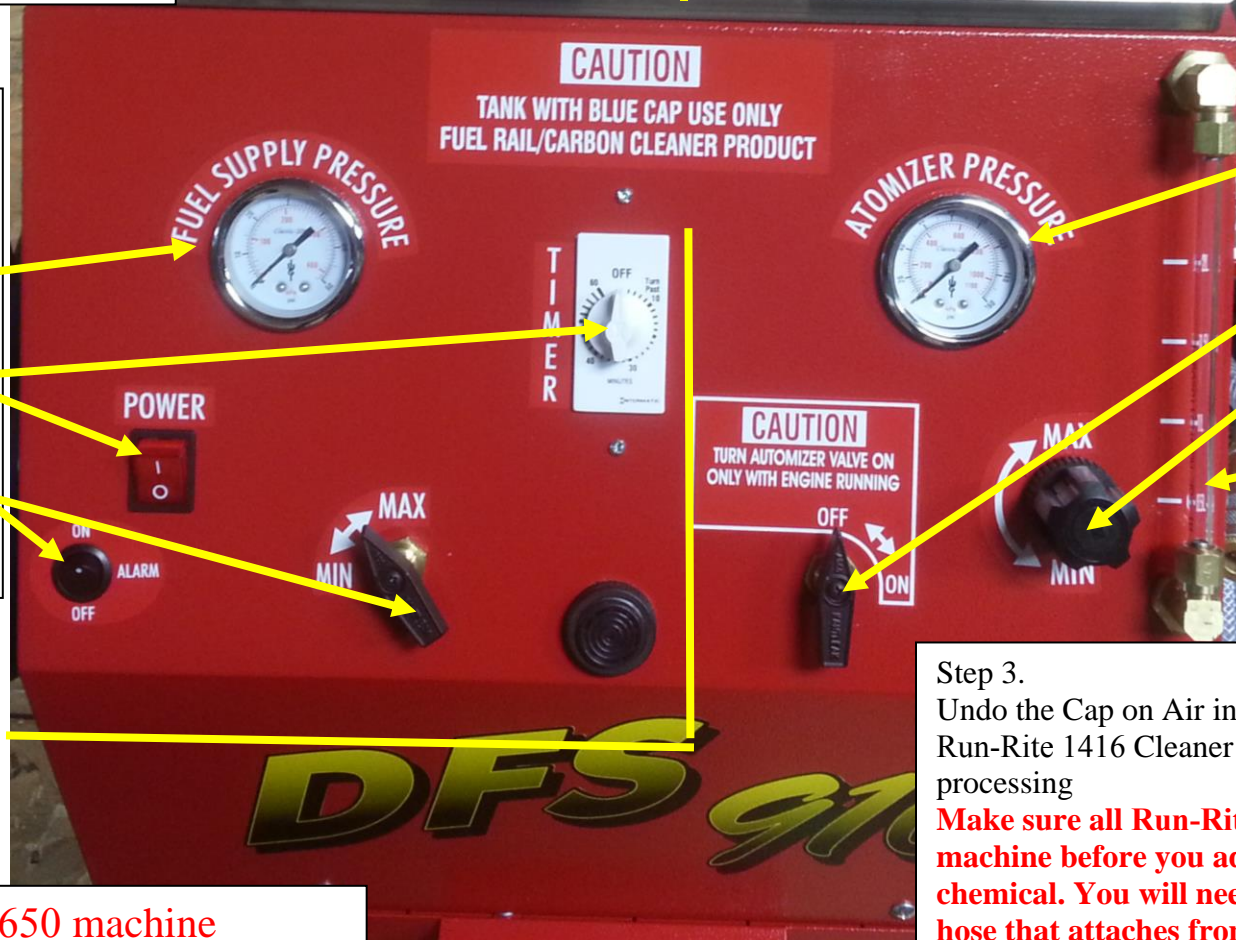


Diesel Carbon Clean Tank – only product that goes in this tanks is DES 925 Pour

Air Induction Tank – Run-Rite 1416 and 9658, only chemicals that go in this tank.

****Keep threads and O-Ring greased on cap – Maintenance****

Fuel Injection cleaning you need to use the left side of the machine and following parts:
 Fuel Supply Pressure Gauge
 Power button
 On/Off alarm
 Timer
 Max/Min
 Sight tube on Side on machine



Step 1.
 Right side is for EGR Cleaning and Rinse
 Atomizer Pressure Valve – Set 60-80lbs depending on application

Caution On/Off – Turns pressure on the tank
 Max/Min – Sets atomizer pressure
 Sight tube – Cleaner and Rinse

Step 2
 Connect Shop air to side of machine

Step 3.
 Undo the Cap on Air induction Cap and pour 2-4L of Run-Rite 1416 Cleaner into the Tank. Now ready for processing

Make sure all Run-Rite 1416 Cleaner is out of machine before you add the Run-Rite 9658 Rinse chemical. You will need to check the clear long hose that attaches from the machine to DFS 910-5. Sight tubes don't show the full tank.

Then you will pour 2-4L of Run-Rite 9658 also in this tank after the EGR cleaning process is done

Step 4. **Run-Rite 9650 machine processes MUST have the truck idling every time before you start ***

Cummins 6.7 Liter 2007-2009 2500-3500

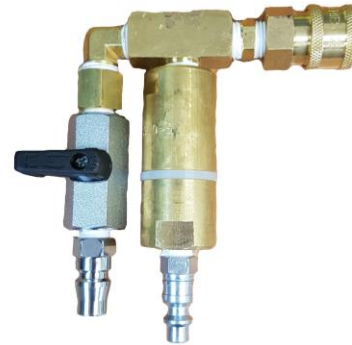


1. Remove Plastic Engine Cover
2. Remove the exhaust pipe from EGR valve as per picture.
3. Attach the DFS 910-17 & DFS 910-17-1 to DFS 910-5A. The DFS 910-17 attaches to the Exhaust side and the DFS 910-17-1 to the Intake side of the valve.
4. Attach the blue hose on adapter DFS 910-17-1 to the EGR valve and tighten clamp. Install the aluminum adapter DFS 910-17 to Exhaust pipe from EGR valve, using existing clamp as per picture.
5. Attach the DFS 910-5 to the DFS 910-5A. Install Black and clear hoses from DFS 910 machine to the DFS 910-5. The Black hose – to quick connect with ball valve. Install Clear hose – other quick connect.

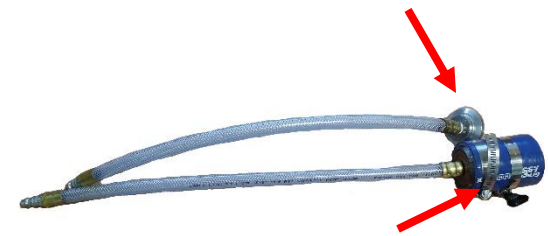
DFS 910-5A



DFS 910-5



DFS 910-17



Part# DFS 910-17-1



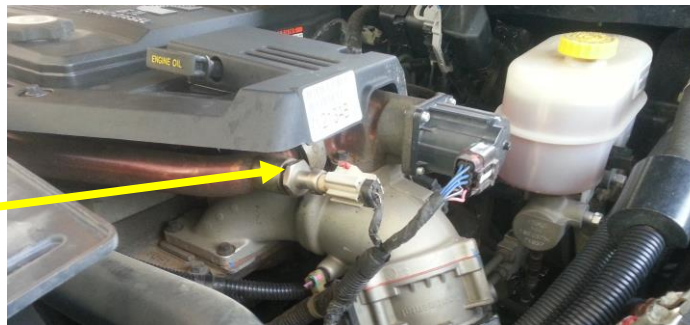
4. Refer to page 3 on how to set up machine
5. This shows by disconnecting wiring from motor of Cooler Bypass, you are forcing the product to go through the cooler instead of the bypass tube. Connecting and disconnecting the electrical connector from the EGR Cooler bypass motor opens and closed the EGR system.

Note - If EGR system or variable vain turbo is not operating properly. You will need to do a presoak by connecting the machine to vehicle and without the vehicle running spray cleaner in exhaust mode.

6. Start Engine of truck
7. Unplug EGR Cooler Bypass Motor
8. Run 2/4L of Run-Rite 1416 cleaner through the Exhaust side.
9. Turn valve on DFS 910-5A to Intake. Now Install Electrical Plug to EGR Cooler Bypass Motor, this will open EGR. Now run 2-4L of Run-Rite 1416 cleaner through the intake.
10. **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
11. Pour in machine 1L of Run-Rite 9658 rinse and again run 1/2L through the intake and 1/2L through exhaust.
12. Unhook the machine and fittings from the engine and restore engine to how it was prior the service.
13. Take vehicle for test drive or do a DPF Regen

Cummins 6.7 Liter 2500-3500 2010-2014

1. Remove Temp sensor with a 1" wrench and install DFS 910-2.



DFS 910-5

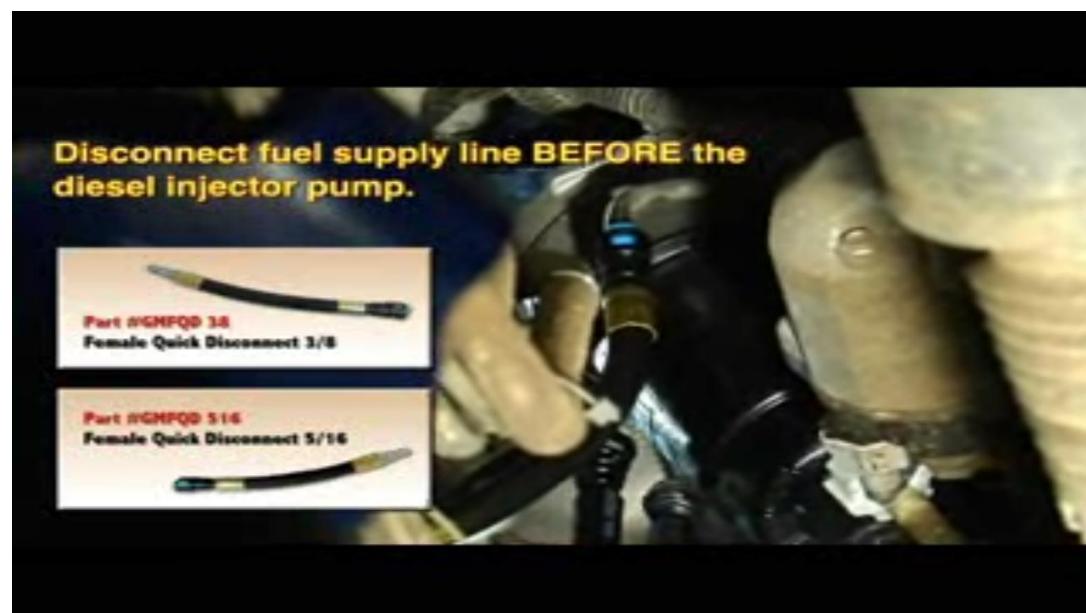


DFS 910-2

2. Attach DFS 910-5 to DFS 910-2
3. Install Black and clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to quick connect with ball valve. Install Clear hose – other quick connect.
4. Connect machine to shop air
5. Refer to page 3 on how to set up machine
6. Start the engine
7. Run 2-4L of Run-Rite 1416 cleaner through the intake.
8. To close EGR valve to go into Exhaust mode. Unplug EGR cooler bypass motor.
9. Run 2-4L through exhaust side.
10. Pour 1L of Run-Rite 9658 Rinse in the machine
11. Run 1/2L through exhaust
12. Plug back in the EGR Cooler bypass motor
13. Run 1/2L through intake.
14. Unhook the machine and fittings from the engine and restore engine to how it was prior the service.
15. Take vehicle for test drive or do a DPF Regen



1. Disconnect the fuel supply line before it reaches the diesel injector pump
2. You will find this under the driver's side wheel well, beside fuel filter.
3. Connect Part # GMFQD38 to the Supply Line
4. Connect Part# GMFQD516 to the Return line.
5. Attach Part# UMQD38 to the Supply coming from the tank
6. Attach Part# UMQD516 to the Return line coming from the tank.
7. Attach Part# LOOP to fittings to tie the fuel lines coming from the tank together.
8. From Run-Rite 9650 machine attach the Blue Supply line to the Part # GMFQD38
9. Then attach the Black Return Line from Run-Rite 9650 machine to part # GMFQD516.
10. Pour 4L of Run-Rite 1560 into tank with blue cap on machine
11. Hook up 12 volt battery supply
12. On the machine set the Fuel Supply Gauge to 6-10lbs
13. Check for leaks
14. Start Engine
15. Do process



Part # **LOOP**
Forms "tank to tank" loop on all vehicles. Used to extend vehicles return line during diagnostics.



Part# **GMFQD38**
Female Quick Disconnect 3/8



Part# **GMFQD516**
Female Quick Disconnect 5/16



Part# **UMQD516**



Part# **UMQD38**

Jeep with Mercedes Engine 2008-2010

1. Remove engine cover



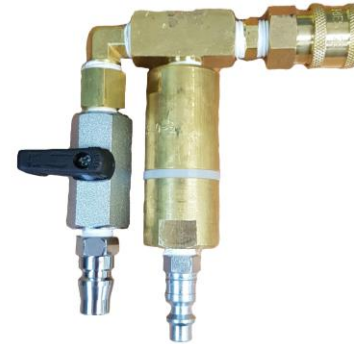
2. Remove turbo heat shield

3. Remove EGR Exhaust sensor. When removing sensor be careful not to lose aluminum washer



4. Install EGR tool DFS 910-25

DFS 910-25



DFS 910-5

5. Pour 2L of Run-Rite 1416 cleaner into air induction cleaner tank.

6. Refer to Page 3 on Run-Rite 9650 set up

7. Start Engine

8. Turn on air valve on adapter DFS 910-5

9. Turn atomizer valve on Run-Rite 9650 machine

10. At Idle EGR valve is open 11-16%. To check use scan tool

11. Run 2-4L of Run-Rite 1416 cleaner through the engine

12. Turn atomizer valve to off, open cap, pour in Run-Rite 9658 rinse. Run 1 liter through engine

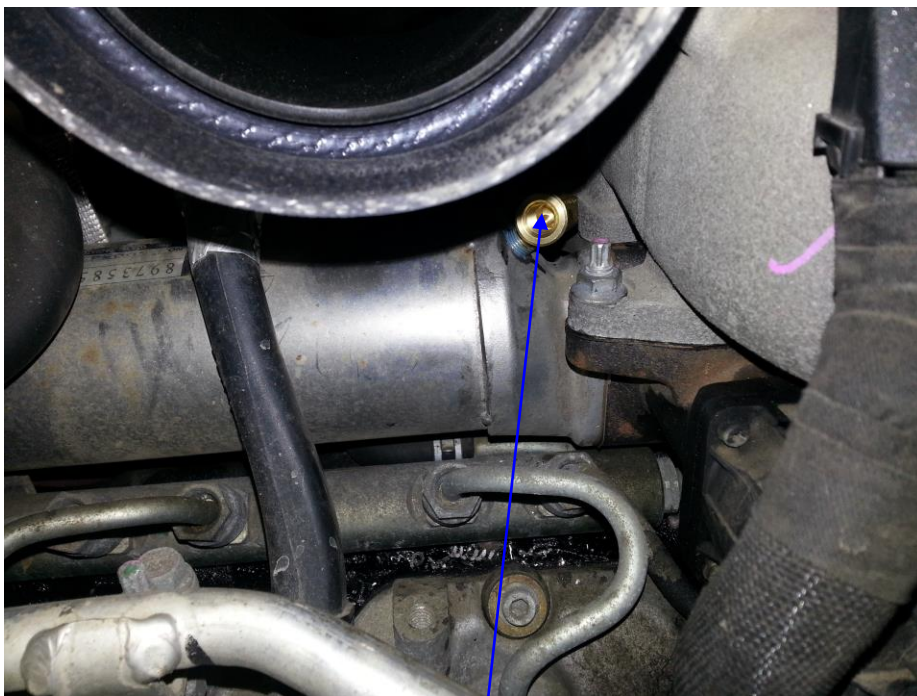
13. Disconnect Run-Rite 9650 machine and adapters and re-assemble the jeep back to original state.

14. Take vehicle for test drive or do a DPF Regen



DFS 910-25

Chevy Duramax 2002-2006



1. Remove the Intake from the engine to be able to drill bit size 21/64 and tap 1/8 pipe tread as per picture.
2. Thread 1/8 pipe thread and Install 90 degree service port elbow



This is
what you
need

3. Install adapter #7112

4. Install DFS 910-5 to the #7112

5. Install Black and clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to quick connect with ball valve. Install Clear hose – other quick connect.

6. Turn air valve on DFS 910-5

7. Refer to page 3 on how to set up machine and product.

9. With scan tool, open EGR valve to 20% run 2-4L of Run-Rite 1416 cleaner through the intake side.

10. Then with scan tool, close the EGR valve and Run 2-4L of Run-Rite 1416 cleaner through the Exhaust side

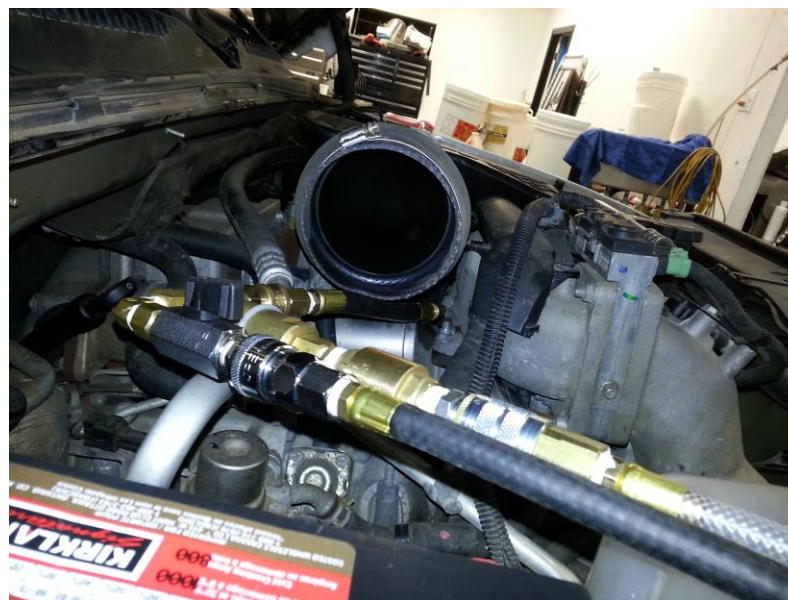
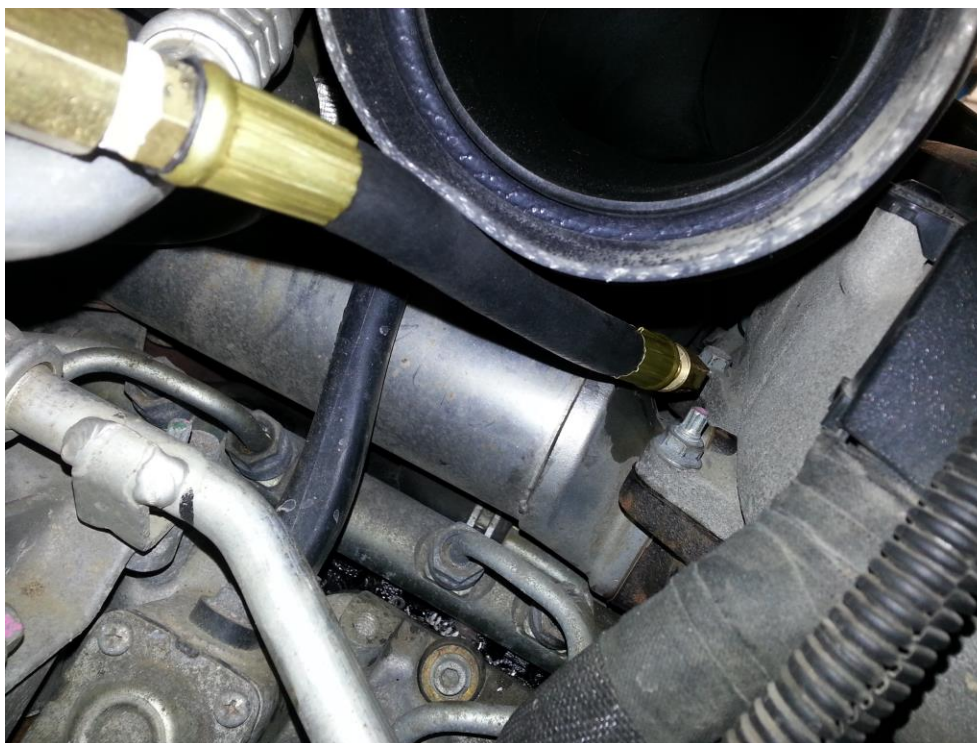
10. Pour 2-4L of Run-Rite 9658 Rinse in machine

11. With scan tool, open EGR valve to 20% and run 2-4L of Run-Rite 9658 rinse through the Intake side.

12. Then with scan tool, close the EGR valve and run 2-4L of Run-Rite 9658 through the Exhaust side.

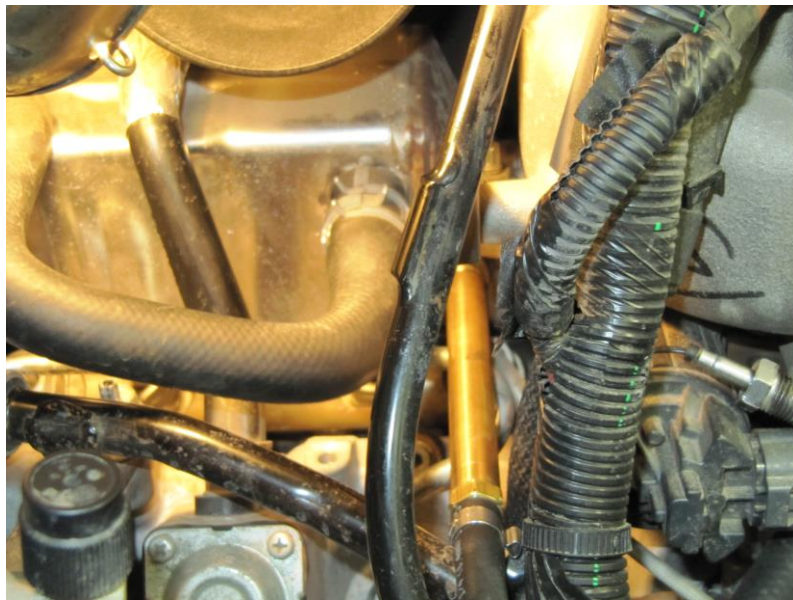
If you do not have a scan tool, with truck idling, unplug EGR valve to close EGR. And plug back in EGR valve to open EGR*

13. Take vehicle for test drive or do a DPF Regen



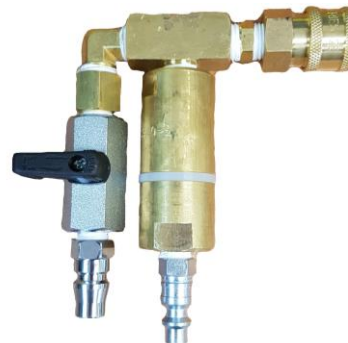
7112

Chevy Duramax 2007-2011



1. Remove Temp Sensor from EGR cooler
2. Install the DFS 910-6 into the where you removed Temp sensor as per pictures.
3. Connect the DFS 910-5 to the DFS 910-6.
4. Install Black and Clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to quick connect with ball valve. Install Clear hose – other quick connect
5. Refer to page 3 on how to set up the machine
6. Turn Air valve on DFS 910-5
7. Fill Run-Rite 9650 machine with 2L of Run-Rite 1416 cleaner.
8. Start Engine
9. Run 2-4L of Run-Rite 1416 through the Intake using a scan tool and opening the EGR 20-40% Max
10. Close EGR Valve with scan tool and run 2-4L of Run-Rite 1416 through the Exhaust side.
11. **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
12. Pour 1L of Run-Rite 9658 rinse in the machine.
13. Run 1/2L of Run-Rite 9658 through the Intake using a scan tool and opening the EGR 20-40% Max
14. Close EGR using the scan tool and run 1/2L of Run-Rite 9658 rinse through the Exhaust side.
15. Unhook the machine and fittings from the engine and restore engine to how it was prior the service
16. Take vehicle for test drive or do a DPF Regen.

DFS 910-5

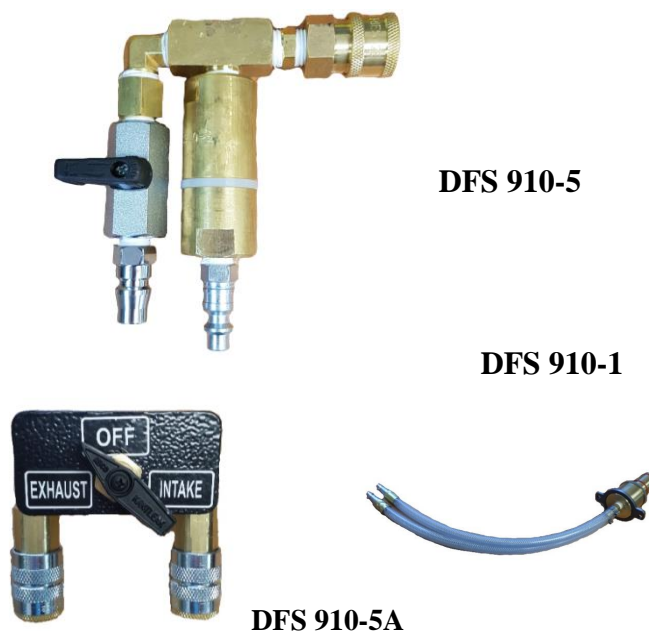
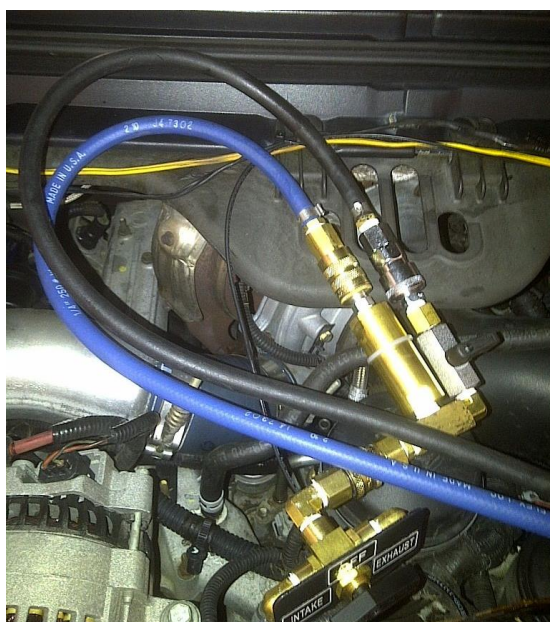


DFS 910-6



Ford 6.0 Liter Engine 2003-2007

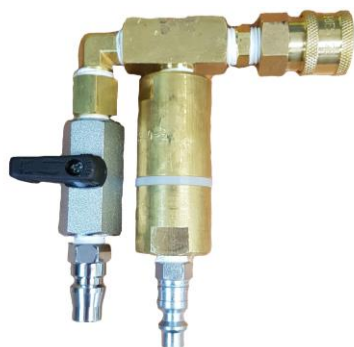
1. Remove EGR valve (2 bolts).
2. Install DFS 910-1, turn valve to Intake position and attach DFS 910-5A to DFS 910-5. Then connect DFS 910-5 to DFS 910-1.
3. Install Black and clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to quick connect with ball valve. Install Clear hose – other quick connect. As per picture.
4. Refer to page 3 on how to set up machine.
5. Set air Pressure on Atomizer Tank to 80 psi.
6. Start Engine
7. On the machine turn Atomizer valve to ON position and open the Air valve on the DFS 910-5.
8. Run 2-4L of Run-Rite 1416 cleaner through the Intake side.
9. Then turn valve on DFS 910-1 to Exhaust and run 2-4L of Run-Rite 1416 cleaner through the Exhaust side of engine.
10. **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
11. Pour Run-Rite 9658 Rinse into the machine
12. Turn the valve on the DFS 910-1 back to Intake Position.
13. Run 1/2L of Run-Rite 9658 Rinse through the Intake side.
14. Turn the valve on DFS 910-1 to Exhaust and run another 1/2L of Run-Rite 9658 rinse through the Exhaust.
15. Unhook the machine and fittings from the engine and restore engine to how it was prior the service
16. Take vehicle for test drive or do a DPF Regen.



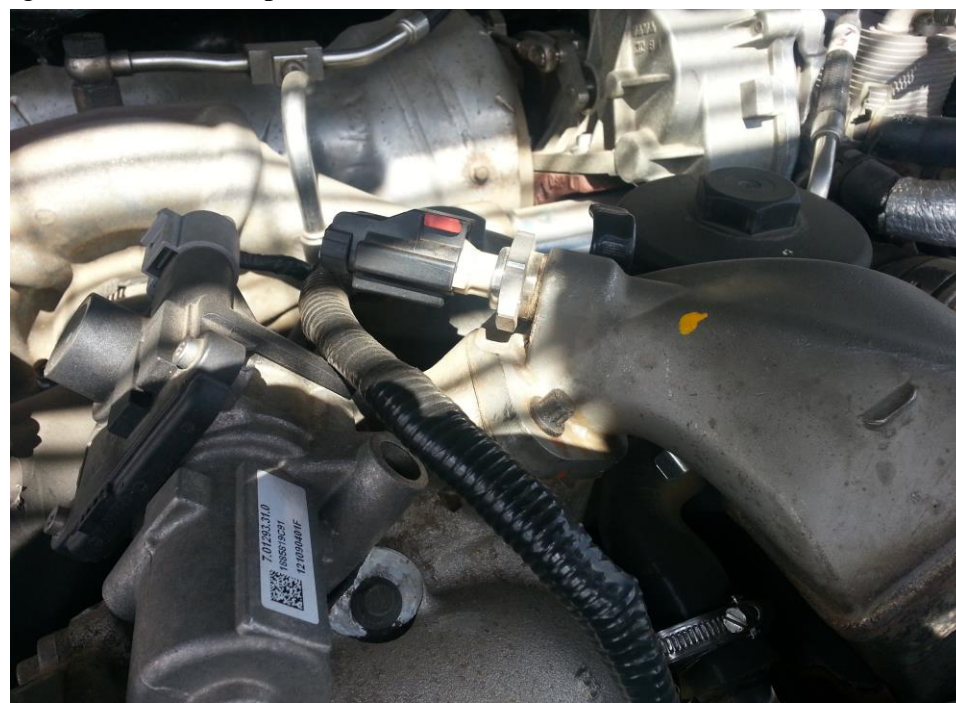
Ford 6.4 Liter Engine 2008-2009

1. Remove Temperature sensor on the EGR cooler.
2. Install adapter DFS 910-2 to the EGR cooler.
3. Attach the DFS 910-2 to the DFS 910-5 opening the ball valve.
4. Install Black and Clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to the quick connect with ball valve.
Install Clear hose – other quick connect
5. Refer to page 3 for machine set up
6. Set air Pressure on Atomizer Tank to 80 psi.
7. On the machine turn Atomizer valve to ON position.
8. Start the engine
9. Run 2-4L of Run-rite 1416 through the Intake using a scan tool and opening the EGR 20-40% Max
10. Close EGR Valve with scan tool and run 2-4L of Run-rite 1416 through the Exhaust side.
11. **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
12. Pour 1L of Run-Rite 9658 rinse in the machine.
13. Run 1/2L of Run-Rite 9658 through the Intake using a scan tool and opening the EGR 20-40% Max
14. Close EGR using the scan tool and run 1/2L of Run-Rite 9658 rinse through the Exhaust side.
15. Unhook the machine and fittings from the engine and restore engine to how it was prior the service
16. Take vehicle for test drive or do a DPF Regen.

DFS 910-5

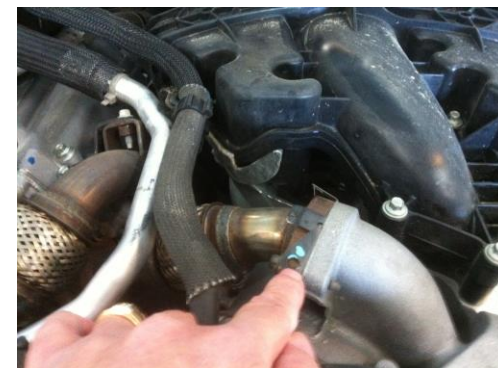


DFS 910-2



Ford 6.7 Liter Engine 2010-2014

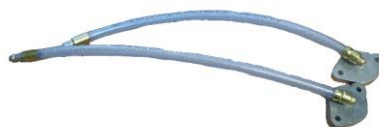
- 1) Remove tube shown in picture (both ends)
- 2) Install DFS 910-18 adapter in place of the tube making sure that the intake and exhaust sides of the adapter are on the correct side. Screwing the adapter in with screws you took out with existing adapter
- 3) Attach DFS 910-5A to DFS 910-18 then attach to the DFS 910-5
- 4) Install Black and Clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to the quick connect with ball valve. Install Clear hose – other quick connect.
- 5) Refer to page 3 on how to set up machine.
- 6) Set air Pressure on Atomizer Tank to 80 psi.
- 7) Start Engine
- 8) On the machine turn Atomizer valve to ON position and open the Air valve on the DFS 910-5.
- 9) Run 2-4L of Run-Rite 1416 cleaner through the Intake side.
- 10) Then turn valve on DFS 910-18 to Exhaust and run 2-4L of Run-Rite 1416 cleaner through the Exhaust side of engine.
- 11) **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
- 12) Pour Run-Rite 9658 Rinse into the machine
- 13) Turn the valve on the DFS910-18 back to Intake Positon.
- 14) Run 1/2L of Run-Rite 9658 Rinse through the Intake side.
- 15) Turn the valve on DFS 910-18 to Exhaust and run another 1/2L of Run-Rite 9658 rinse through the Exhaust.
- 16) Unhook the machine and fittings from the engine and restore engine to how it was prior the service
- 17) Take vehicle for test drive or do a DPF Regen.



DFS 910-5



DFS 910-5A



DFS 910-18

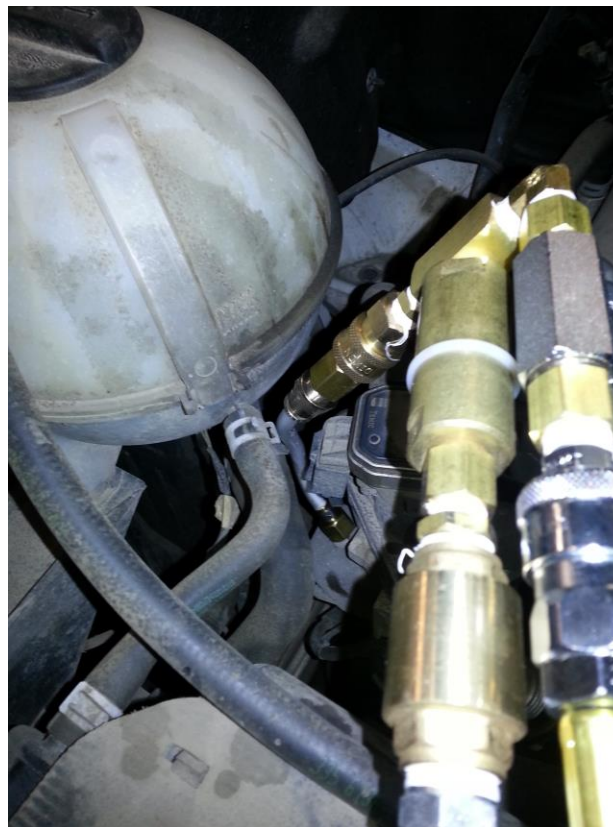


Mercedes – Sprinter 3.0L



Temp Sensor

1. Locate Temperature sensor beside EGR valve.
2. Remove Temperature sensor and install Part# DFS 910-20. Then install DFS 910-5 to the DFS 910-20. Install clear and black hoses from machine to the DFS 910-5.
3. Refer to Page 3 for machine set up.
4. Pour 2L of Run-Rite 1416 EGR Cleaner into Induction EGR Tank on machine.
5. Start the Vehicle, if you have a scan tool you will see at idle EGR valve will be open. Now turn atomizer valve on Run-Rite 9650 and run 2-4L of Run-Rite 1416 Cleaner into intake.
6. Close EGR valve with scan tool or if no scan tool, unplug EGR Valve and this will close EGR Valve. Then Run 2-4L of Run-Rite 1416 Cleaner through exhaust.
7. Turn Atomizer Valve off to relieve pressure on the atomizer tank, open up cap and pour 1L of Run-Rite 9658 rinse into Atomizer tank.
8. Turn atomizer valve on and run ½ L in Exhaust and then open EGR valve with scan tool or if you do not have a scan tool plug EGR valve back in. Run ½ L through the intake.
9. Take vehicle for test drive or do a DPF Regen.

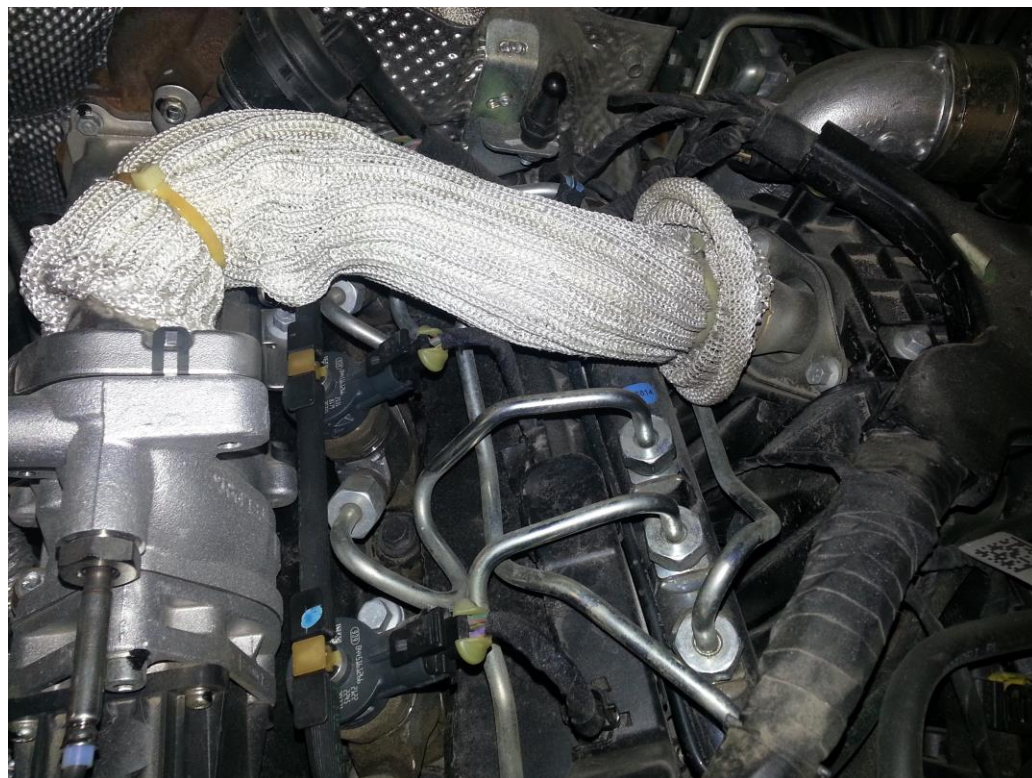


Part# DFS 910-20

Part # DFS 910-5



Grand Cherokee Jeep and ECO Diesel Truck 1500 2014 & Up



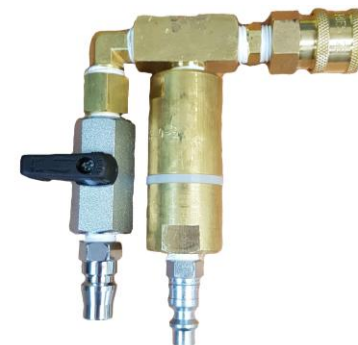
1. 1 Remove the Exhaust Pipe. As shown in picture above.
2. Install the DFS 910-31 to the Intake side and DFS 910-31-1 to the Exhaust side to where the Exhaust Pipe was removed.
3. Install the DFS 910-31 & DFS 910-31-1 to the DFS 910-5A. DFS 910-31 to Intake and DFS 910-31-1 to Exhaust.
4. Install Black and Clear hoses from Run-Rite 9650 machine to the DFS 910-5. The Black hose – to the quick connect with ball valve. Install Clear hose – other quick connect.
5. Attach the DFS 910-5 to the DFS 910-5A
6. Refer to page 3 for machine setup.



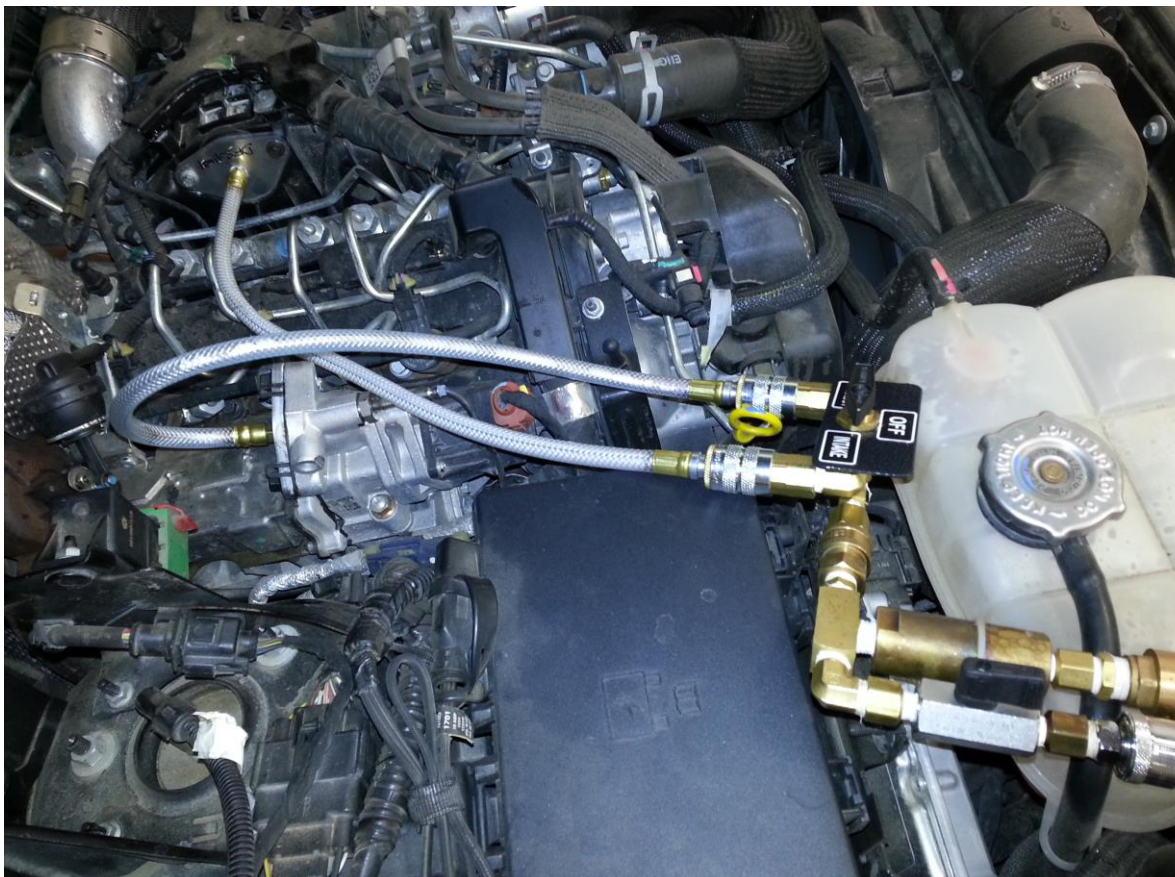
Part # DFS 910-31 & DFS 910-31-1



Part # DFS 910-5A



Part # DFS 910-5



7. Start the Vehicle
8. On the machine turn Atomizer valve to ON position and open the Air valve on the DFS 910-5.
9. Turn the DFS 910-5A to Intake and run 2-4L of Run-Rite 1416 cleaner through the Intake side.
10. Then turn valve on DFS 910-5A to Exhaust and run 2-4L of Run-Rite 1416 cleaner through the Exhaust side of engine.
11. **Before adding Run-Rite 9658 rinse make sure all Run-Rite 1416 Cleaner is out of the machine, by checking the clear long hose that attaches from the machine to the DFS 910-5 fitting.**
12. Pour Run-Rite 9658 Rinse into the machine.
13. Turn the valve on the DFS910-5A back to Intake Position.
14. Run 1/2L of Run-Rite 9658 Rinse through the Intake side.
15. Turn the valve on DFS 910-5A to Exhaust and run another 1/2L of Run-rite 9658 rinse through the Exhaust.
16. Unhook the machine and fittings from the engine and restore engine to how it was prior the service
17. Take vehicle for test drive or do a DPF Regen.



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