

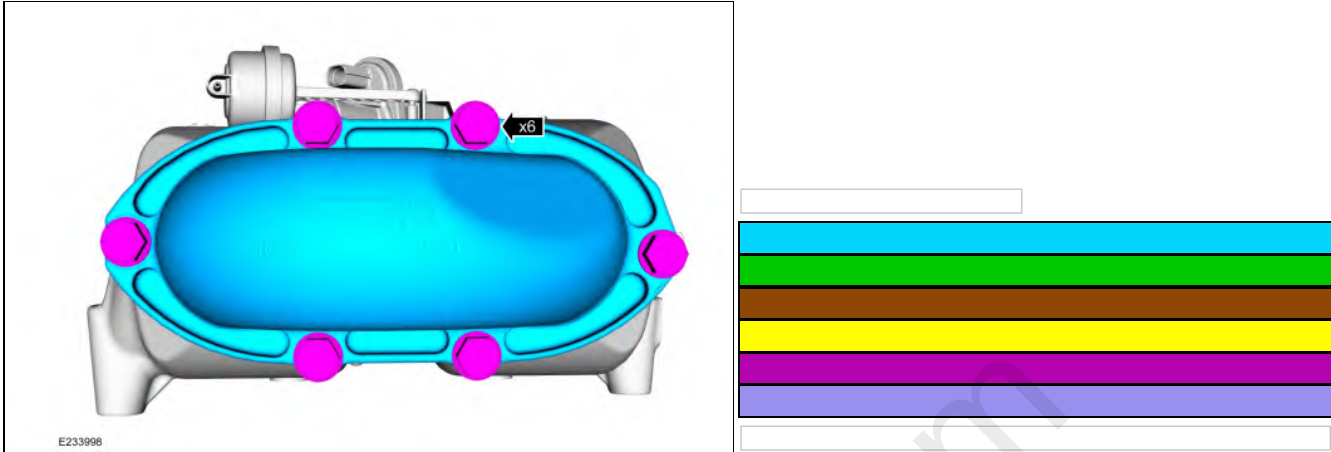
Exhaust Gas Recirculation (EGR) Cooler

DISASSEMBLY

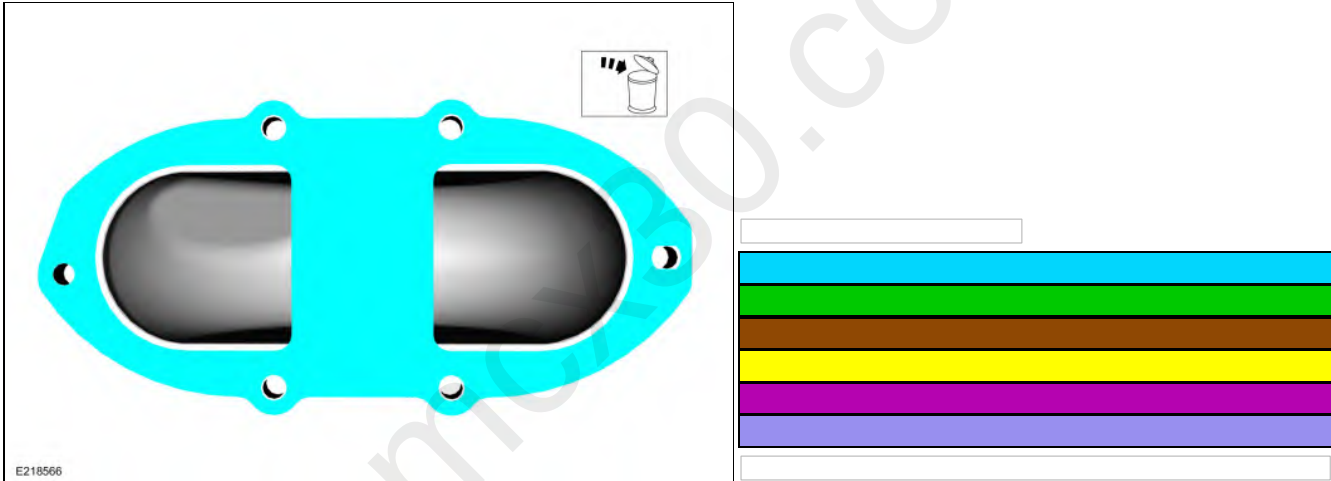
NOTICE: Caution must be observed when removing the EGR cooler core as to avoid sealing flange scratches or damage to the sealing surfaces may occur.

NOTICE: Do not attempt to remove the cooler core by prying between the header plate and housing or damage to the cooler core and housing will occur.

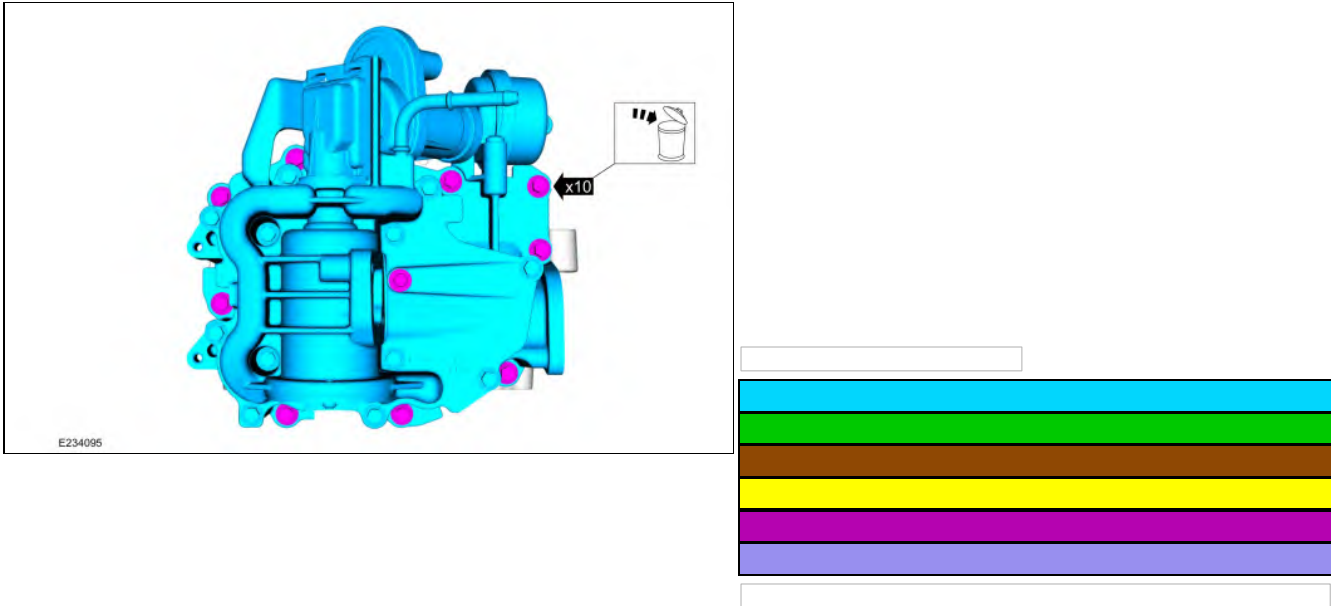
1. Remove the EGR cooler end tank retainers, then remove the EGR cooler end tank.



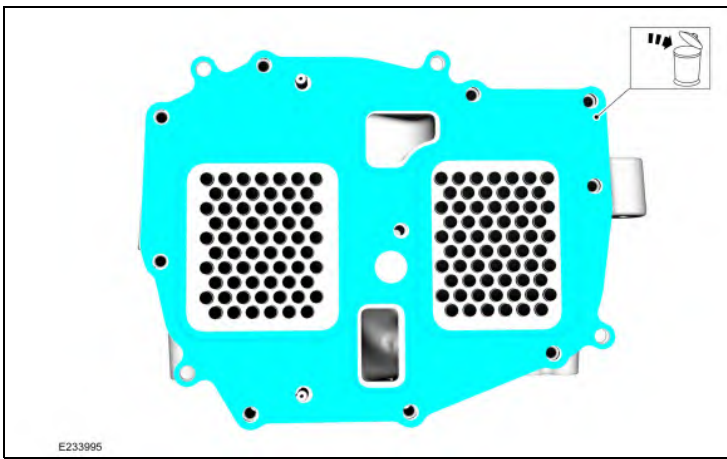
2. Remove and discard the EGR cooler end tank gasket.



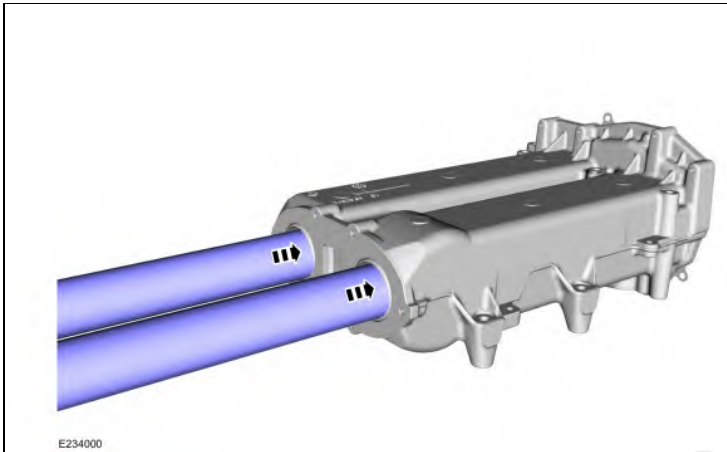
3. Remove the EGR valve and bypass assembly bolts and discard, then remove the EGR valve and bypass assembly.



4. Remove and discard the EGR bypass gasket.



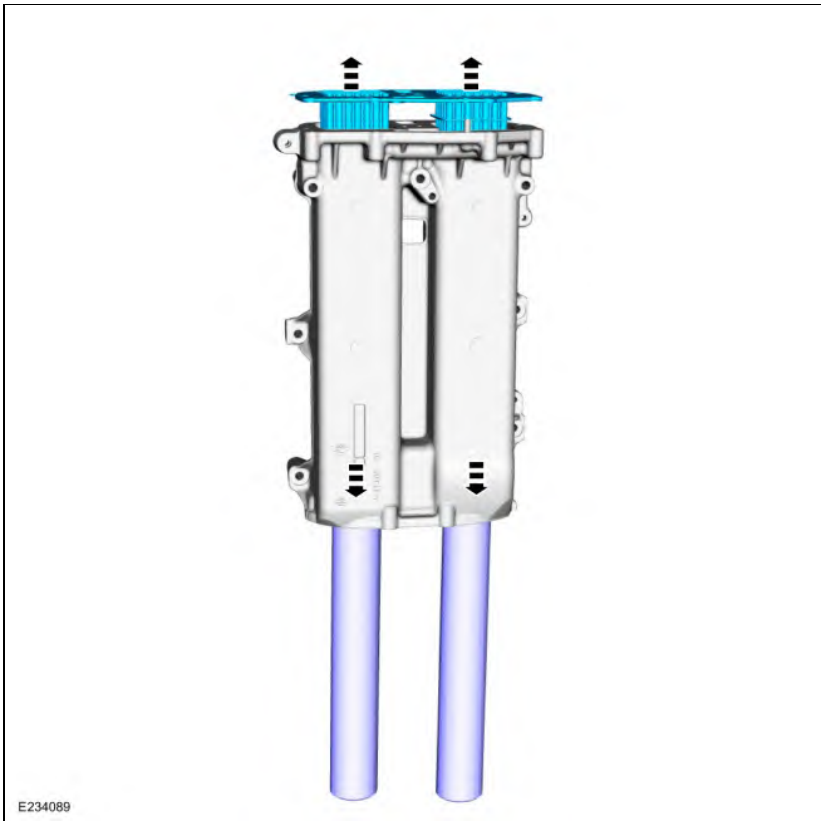
5. Using 2 equal lengths of wood dowels or 2 equal length hammer handles, insert them into the opening at the EGR cooler end tank until they touch the EGR cooler core.



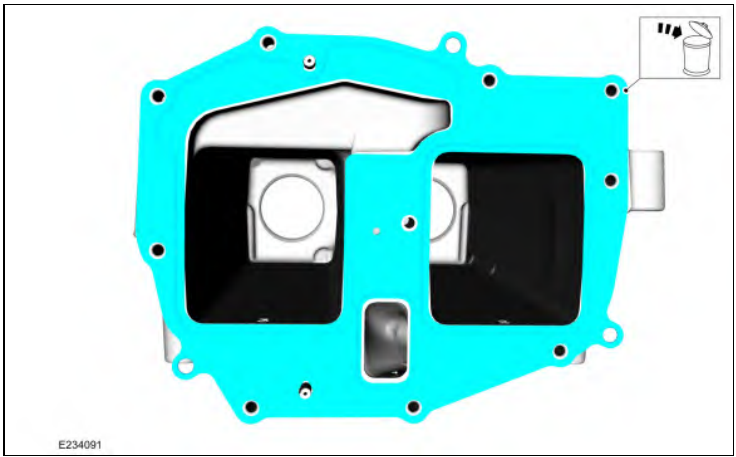
6. **NOTE:** A snug fit of the wood will keep the wood from falling out of the EGR cooler and will aid in the removal of the EGR cooler core.

NOTE: The EGR cooler O-ring seals are very robust and will hold the cooler core very tight in the EGR cooler housing.

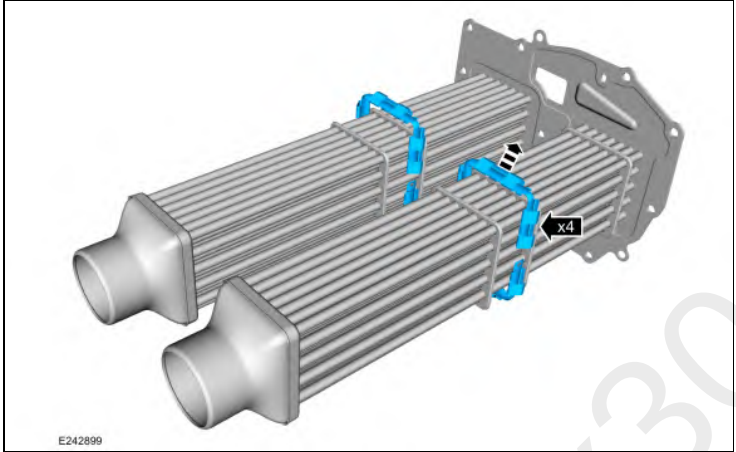
Holding the EGR cooler housing, strike the EGR cooler housing down on the wood forcing the EGR cooler core out of the housing.



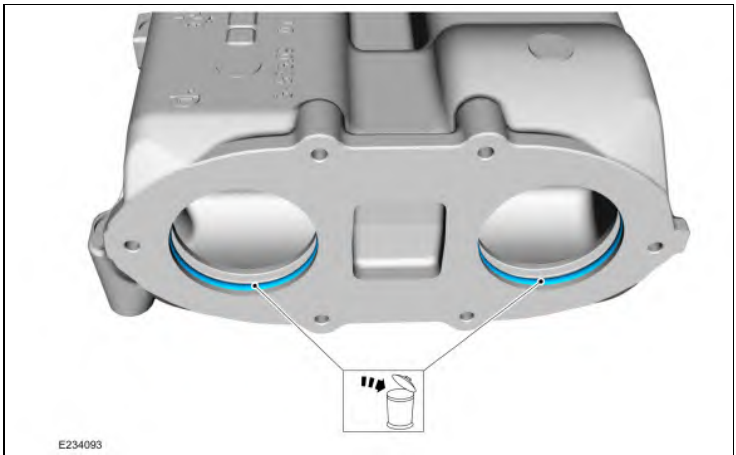
7. Remove and discard the EGR cooler core gasket.



8. Remove the EGR cooler core insulators.



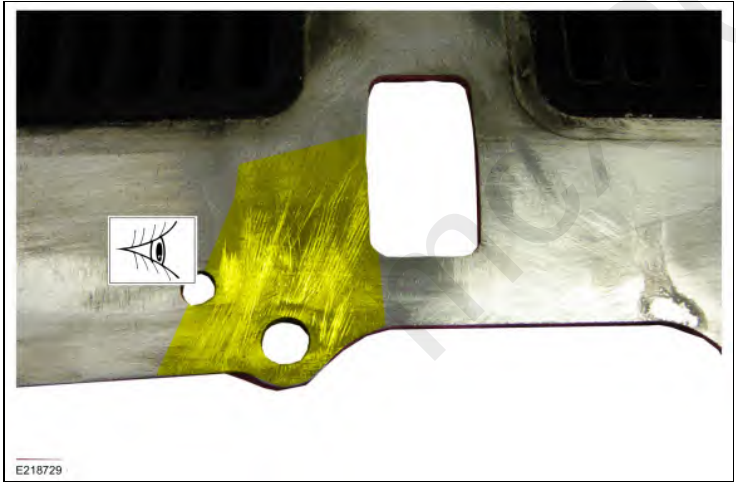
9. Remove and discard the EGR cooler O-ring seals and then clean O-ring seal seat on the EGR cooler housing.



10. **NOTE:** Gaskets are sensitive to debris and surface defects, sealing surfaces must be cleaned before new gaskets are installed.

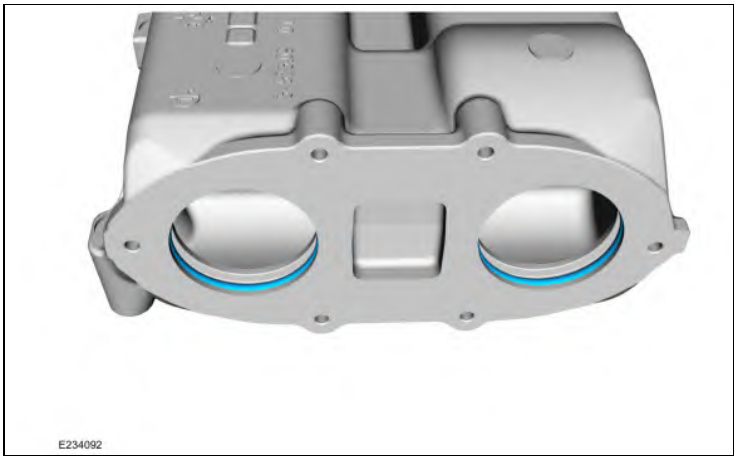
NOTE: Scratches as shown may lead to leaks.

Thoroughly clean the sealing surfaces. Inspect all cooler sealing surfaces for defects that may lead to a leak path. If defects are found, replace the components as required.

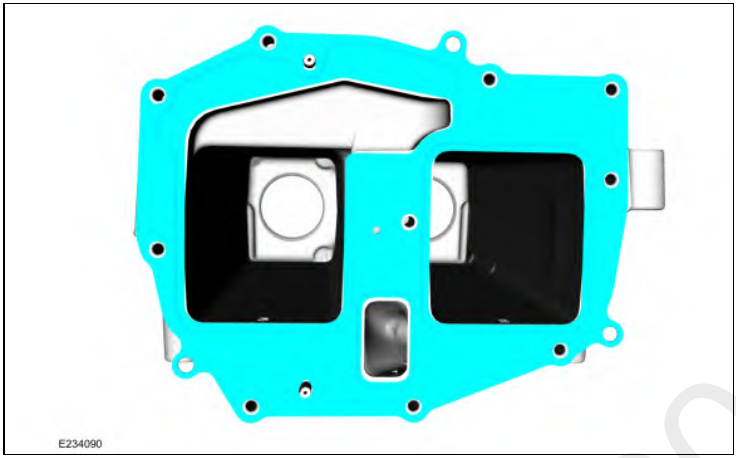


ASSEMBLY

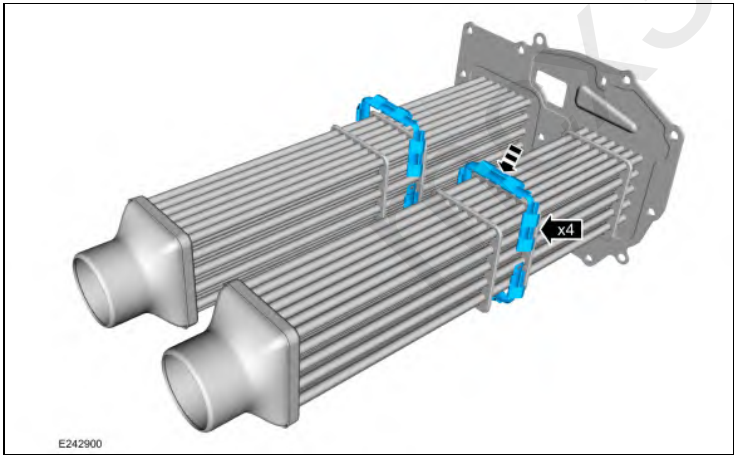
1. Install the new O-ring seals in the EGR cooler housing and then lube the O-ring seals with clean engine coolant to ease installation. Refer to: Specifications (303-03B Engine Cooling - 6.7L Power Stroke Diesel, Specifications).



2. **NOTICE:** Inspect the new EGR cooler core gasket for correct location, it is marked **COOLER SIDE** on the upper left hand corner. Incorrect installation of this gasket could result in an internal coolant leak to the exhaust and severe engine damage.
- Using a new EGR cooler core gasket, marked "cooler side", install the EGR cooler gasket.

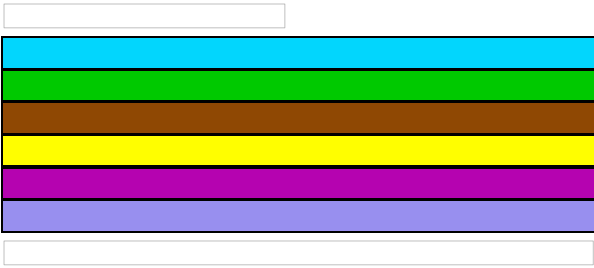
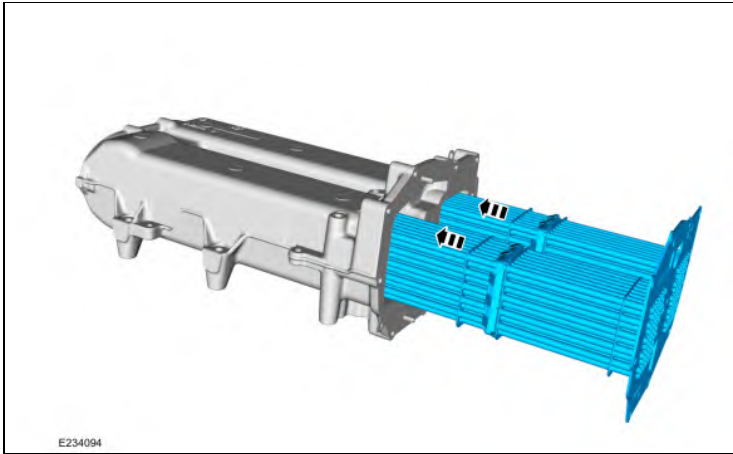


3. Install the EGR cooler core insulators.



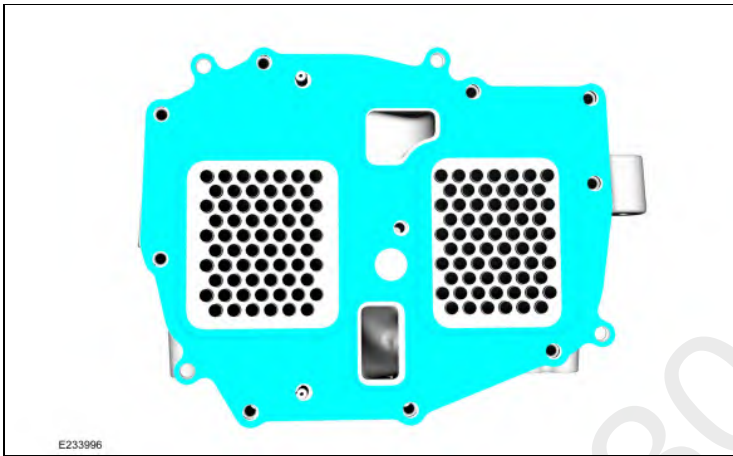
4. **NOTICE:** Handle the EGR cooler core and housing assembly carefully as the EGR cooler core could slide out of the housing and damage to the EGR cooler core may occur.

Install the EGR cooler core into the EGR cooler housing, using even pressure to seat on the O-ring seals.



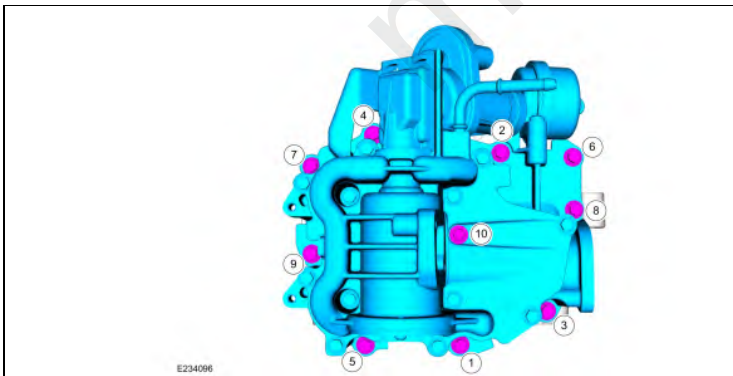
5. **NOTICE:** Inspect the new bypass gasket for correct location, it is marked **BYPASS SIDE** on the upper right hand corner. Incorrect installation of this gasket could result in an internal coolant leak to the exhaust and severe engine damage.

Install the new bypass gasket.

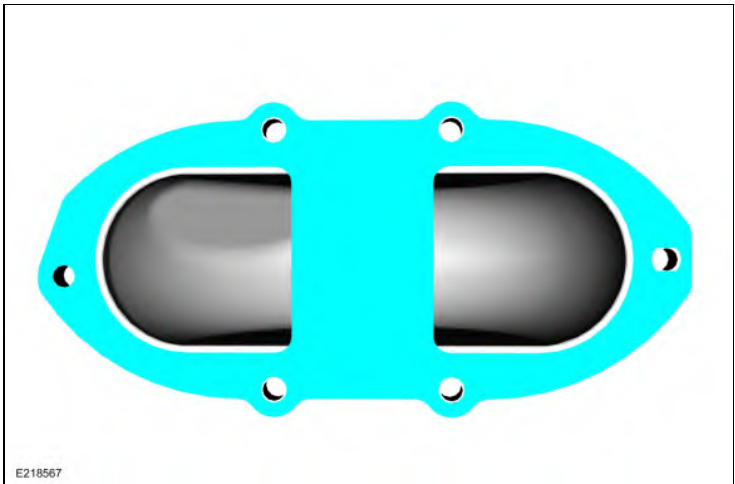


6. Using the new bypass assembly bolts and the new EGR valve long center bolt, install the EGR valve and bypass assembly. Tighten the bolts in the 4 stages and in the sequence shown.

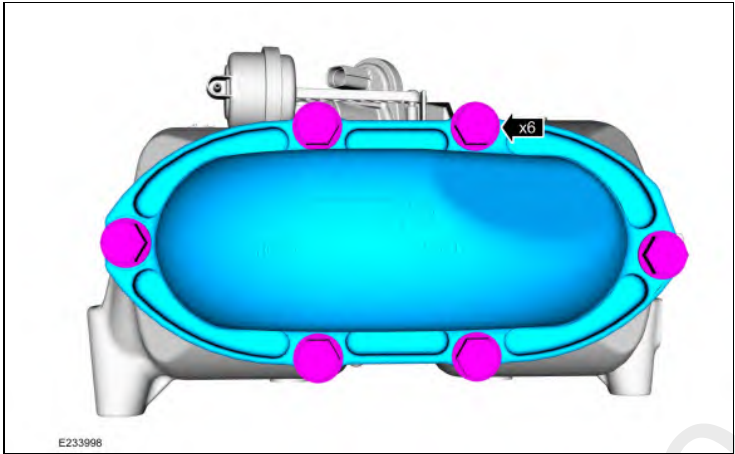
Torque:
Stage 1: 89 lb.in (10 Nm)
Stage 2: 106 lb.in (12 Nm)
Stage 3: 106 lb.in (12 Nm)
Stage 4: 90°



7. Install the new EGR cooler end tank gasket.



8. Install the EGR cooler end tank, then install the EGR cooler end tank retainers.



9. Tighten EGR cooler end tank retainers in the 2 Stages and in the sequence shown.

Torque:
Stage 1: 133 lb.in (15 Nm)
Stage 2: 133 lb.in (15 Nm)

