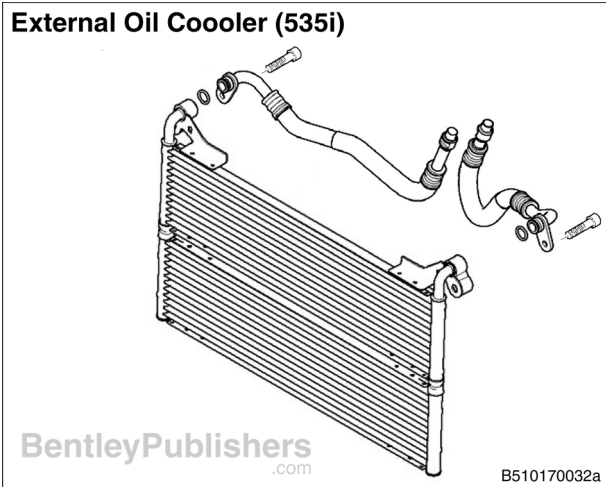


170-12 Radiator and Cooling System

Engine oil cooler

External Oil Cooler (535i)



Engine oil cooler

- On 535i and 550i models, an additional external engine oil cooler is fitted between the radiator and the electric cooling fan. Cars with this external cooler can be identified by the oil lines passing through the cooling fan shroud.

The oil cooler is removed together with the electric cooling fan. Once the fan is removed, the cooler can be unclipped from the fan shroud. See **Electric cooling fan and cowl, removing and installing**.

Electric cooling fan and cowl, removing and installing

- Working above radiator remove center panel fasteners (**arrows**).
- Lift center panel towards engine. Be careful not to kink hood release bowden cable. Lay center panel to one side.

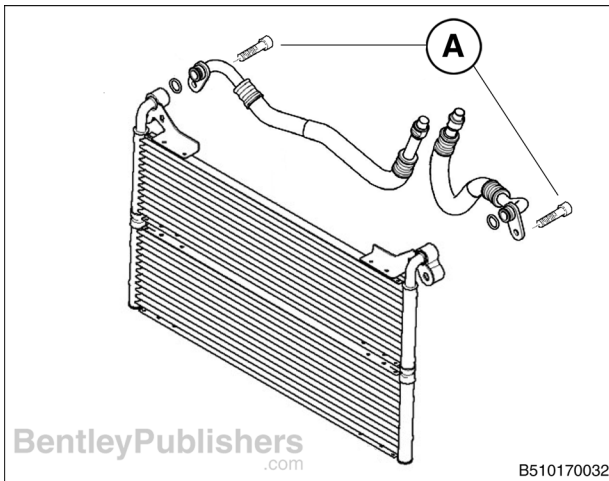
WARNING—

- Do not place center panel on or near jump start terminals.

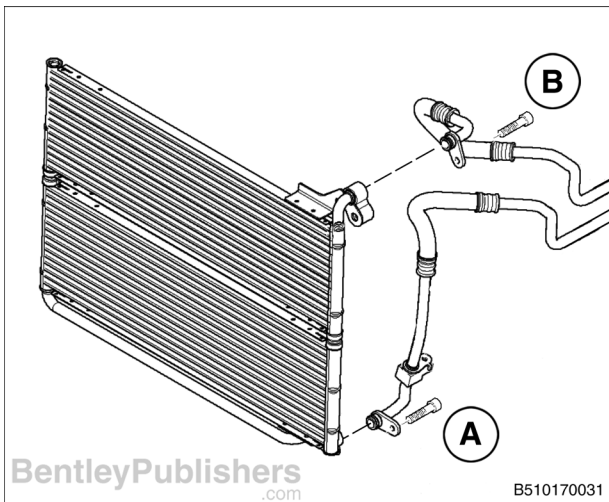


- Remove Torx screws (**arrows**) from radiator cover and pull radiator cover up and off.

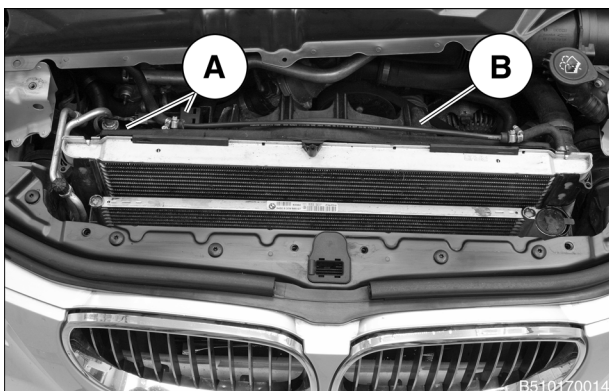




- ◀ **535i models:** If equipped with external oil cooler.
 - Working at front of fan shroud, remove bolts (**A**) and pull oil lines from oil cooler. Use shop towels to catch any oil that spills from cooler or lines.



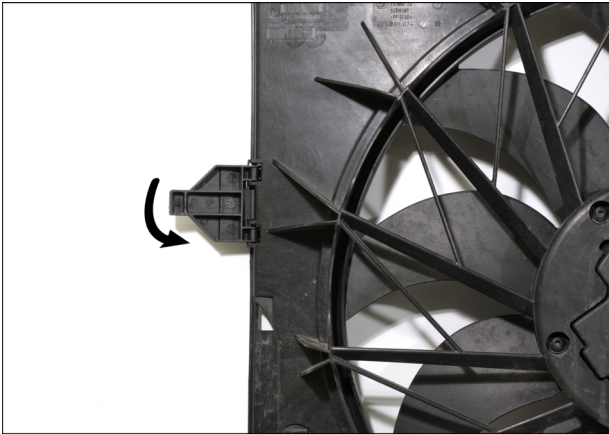
- ◀ **550i models:** If equipped with external oil cooler.
 - Working beneath vehicle, remove engine lower cover (splash shield). See **020 Maintenance**.
 - Place drain pan under vehicle and remove bolt (**A**) and pull oil line from oil cooler. Allow cooler and lines to fully drain.
 - Working at top of fan shroud, remove bolt (**B**) and pull oil line from cooler.



- ◀ Disconnect electrical connectors from AUC sensor (where applicable) and fan motor (**A**).
 - Raise cooling fan cowl (**B**) 3 cm (1.1 in)

170-14 Radiator and Cooling System

Electric cooling fan and cowl, removing and installing



- ◀ Fold in retaining tab (**arrow**) on left (driver's) side of fan housing.
- Remove cooling fan cowl by lifting up and out.
 - If equipped with external oil cooler, oil cooler will come out with fan housing.
- Installation is reverse of removal. Remember to:
 - Cars with external engine oil cooler, replace o-rings at oil line fittings.
 - Correctly route all electric harnesses.
 - Check and clear fault codes from ECM memory.
 - Check and top off engine oil if external cooler was removed.