

SERVICE BULLETIN

REVISED

APPLICABILITY

ALL 1990 AND 1991 LEGACY MODELS
EQUIPPED WITH 4EAT

DATE

03-15-92

SUBJECT:

4EAT ATF AUXILIARY FILTER INSTALLATION

An Automatic Transmission Fluid Filter Kit has been introduced for installation on Legacy 4EAT models. The filter traps ATF contaminants and will eliminate the minute particles which can cause control valve problems. The filter is designed to be maintenance-free under normal conditions.

Owners of affected vehicles will be notified by mail to bring their vehicles to the dealers for this installation. The owner's letter is authorization for the dealer to submit a claim for reimbursement. This kit should also be installed on the affected vehicles if you are replacing or repairing the 4EAT Assy. There is no need to replace the radiator regardless of transmission failure.

TOOLS NEEDED:

No special tools are required, only the following hand tools: a pair of pliers, #2 Phillips screwdriver, 3/8" torque wrench, 3/8" ratchet wrench with a 14mm socket, 10mm socket, a 10mm combination wrench, funnel and a safety blow gun with a compressed air source.

NOTE: ALWAYS USE THE APPROPRIATE SAFETY EQUIPMENT. EXAMPLES: SAFETY GLASSES, GLOVES, ETC. WHEN PERFORMING THE FLUSHING AND FILTER INSTALLATION.

MATERIALS NEEDED:

- o 1 Quart of Automatic Transmission Fluid (Dexron II type)
- o Oil Filter Kit, Part Number 31099AA090 which consists of the following parts:
 - 1) Filter
 - 2) Filter clamp protector
 - 3) Filter clamp bracket
 - 4) Band clamp (retainer)
 - 5) Three (3) 6mm x 12mm bolts
 - 6) Two (2) hoses
 - 7) Four (4) hose clamps
 - 8) Hose chafe protector
 - 9) Ground wire extension
 - 10) Wiring Ty Wrap

INSTALLATION PROCEDURE

A. RADIATOR COOLER FLUSHING PROCEDURE BEFORE FILTER KIT INSTALLATION DO NOT BYPASS THIS PROCEDURE

NOTE: WHILE PERFORMING THIS PROCEDURE, THE ENGINE ASSEMBLY MUST BE COVERED TO GUARD AGAINST AUTOMATIC TRANSMISSION FLUID FROM POSSIBLY SPRAYING ON THE DRIVE BELT, CAM COVERS, SEALS, ETC. AND OTHER AREAS IN WHICH AUTOMATIC TRANSMISSION FLUID MAY HAVE A DETRIMENTAL EFFECT.

- o Remove the coolant reservoir tank from the radiator.
- o Remove the battery.
- o Remove and discard the cooler upper hose (inlet). See Figure 1.
- o Temporarily disconnect the cooler lower hose (outlet) for flushing. See Figure 1. Do not discard this hose and clamp.
- o Using the two (2) hoses supplied in the ATF Filter Kit, install and secure one hose and clamp to the upper cooler inlet nipple. Temporarily connect the remaining hose from the kit to the lower cooler outlet nipple. See Figure 1.

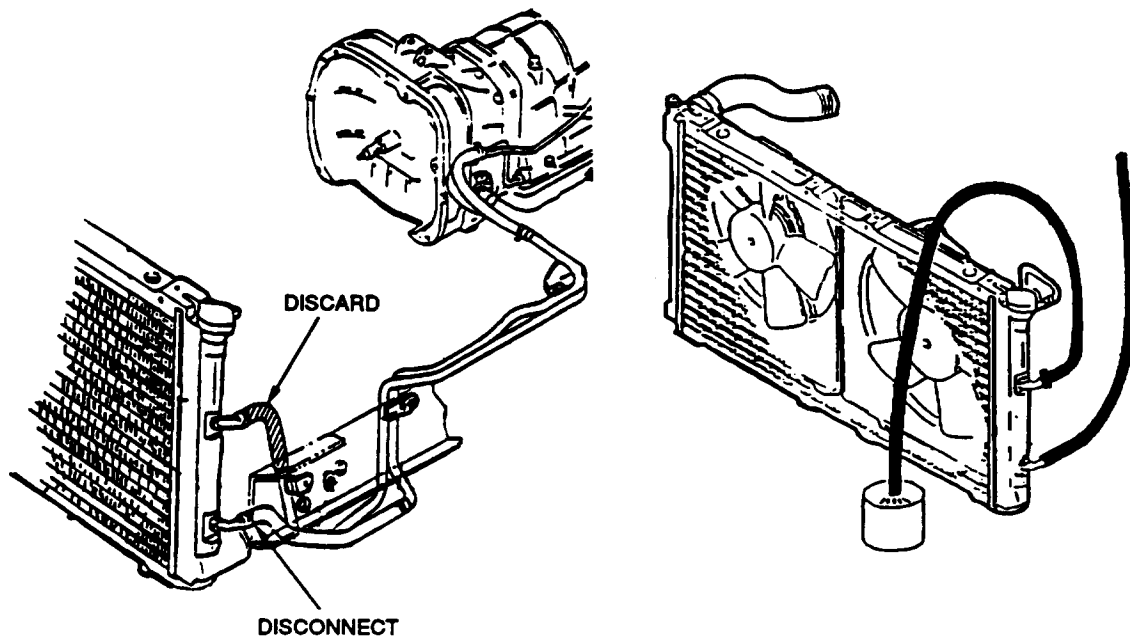


Figure 1

NOTE: BE CAREFUL WHEN REMOVING THE RADIATOR COOLER HOSES BECAUSE THE INLET AND OUTLET HOSE CONNECTIONS ARE MADE OF COPPER WHICH CAN BE EASILY DAMAGED BY TWISTING.

- o Using the can of ATF and a funnel, fill the hose that is connected to the lower cooler outlet nipple.
- o The hose from the upper cooler inlet should be aimed down to a catch pan. See Figure 1.
- o Apply compressed air using a safety blow gun to the cooler outlet hose to back flush.

- o Repeat the backflushing procedure a minimum of three times.
- o Remove the lower cooler outlet hose from the filter kit that was temporarily installed for the flushing procedure.
- o Reinstall the original hose that connects the transmission inlet pipe to the lower radiator cooler outlet nipple. See Figure 1.

B. ATF FILTER KIT INSTALLATION

o Pre-Filter Bracket Installation

Remove the three screws on the left frame rail which retain the harness ground wire and transmission inlet and outlet pipes. Discard the screws. See Figure 2.

o Filter Bracket Installation

Install the filter bracket on the left frame rail using the bolts supplied in the kit. Use the center securing bolt to attach the original ground wire and the ground extension wire from the kit. See Figure 2.

NOTE: USE A TORQUE WRENCH WHEN TIGHTENING THE BOLTS TO PREVENT OVERTIGHTENING OR THREAD STRIPPING WHILE ENSURING PROPER CONTACT.

TIGHTENING TORQUE = 6.5 - 8 (Ft. Lbs.)

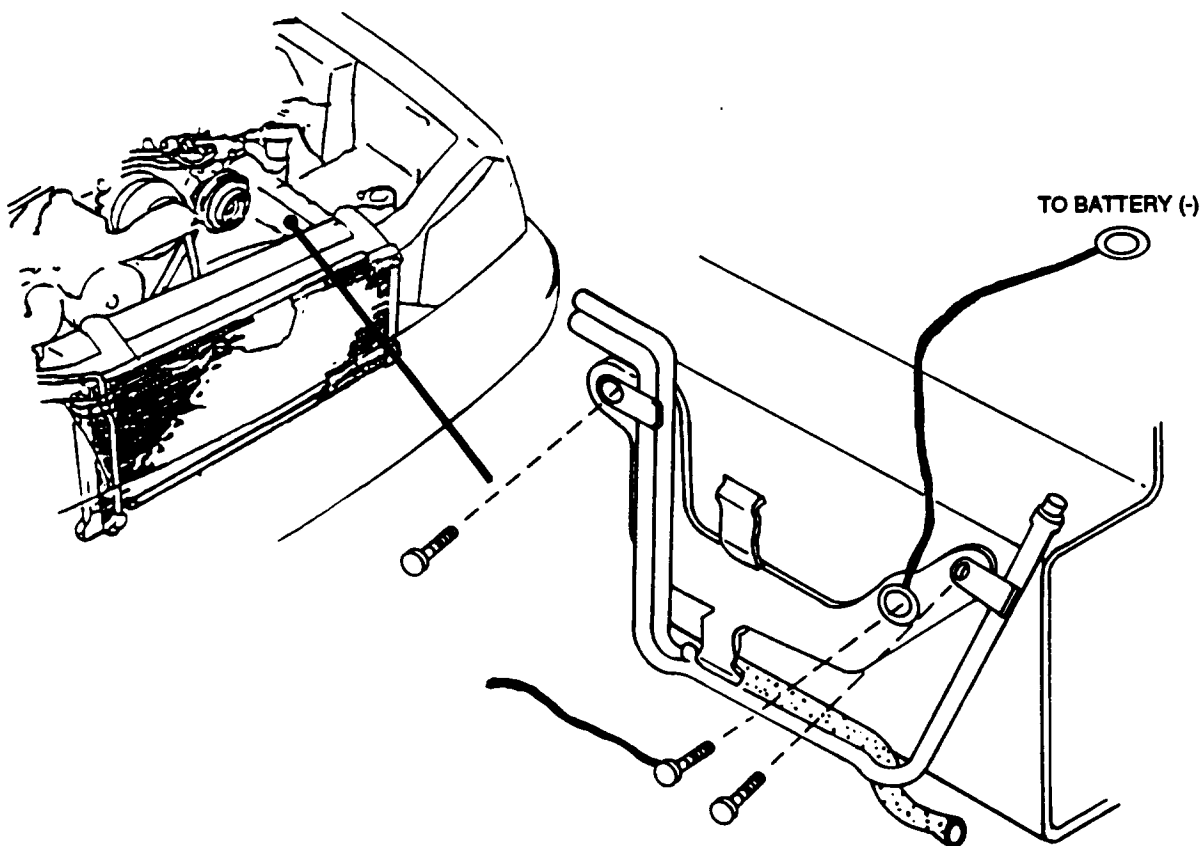


Figure 2

NOTE: ROUTE THE GROUND WIRE TERMINALS ACCORDING TO FIGURE 2.

- o Transmission Outlet Pipe Hose Installation
Install the remaining kit hose on the transmission outlet pipe (this is the pipe mounted to the frame rail facing up) and secure using a hose clamp provided in the kit.
- o Hose Chafe Protector Sleeve Installation
While holding both hoses together, slide the sleeve in place. See Figure 3.
- o Filter Outlet Hose Installation
Using a hose clamp provided, secure the hose from the upper radiator cooler inlet to the ATF filter outlet. See Figure 3.
- o Filter Inlet Hose Installation
Using a hose clamp, secure the hose from transmission line outlet pipe to the ATF filter inlet. See Figure 3.
- o Filter to Bracket Installation
Position the filter with the top facing the firewall. The inlet hose must be at the top. The arrow on the filter top must point to the frame rail. Clamp filter to bracket. Make sure the clamp is around the rubber protector on the filter. See Figure 3.

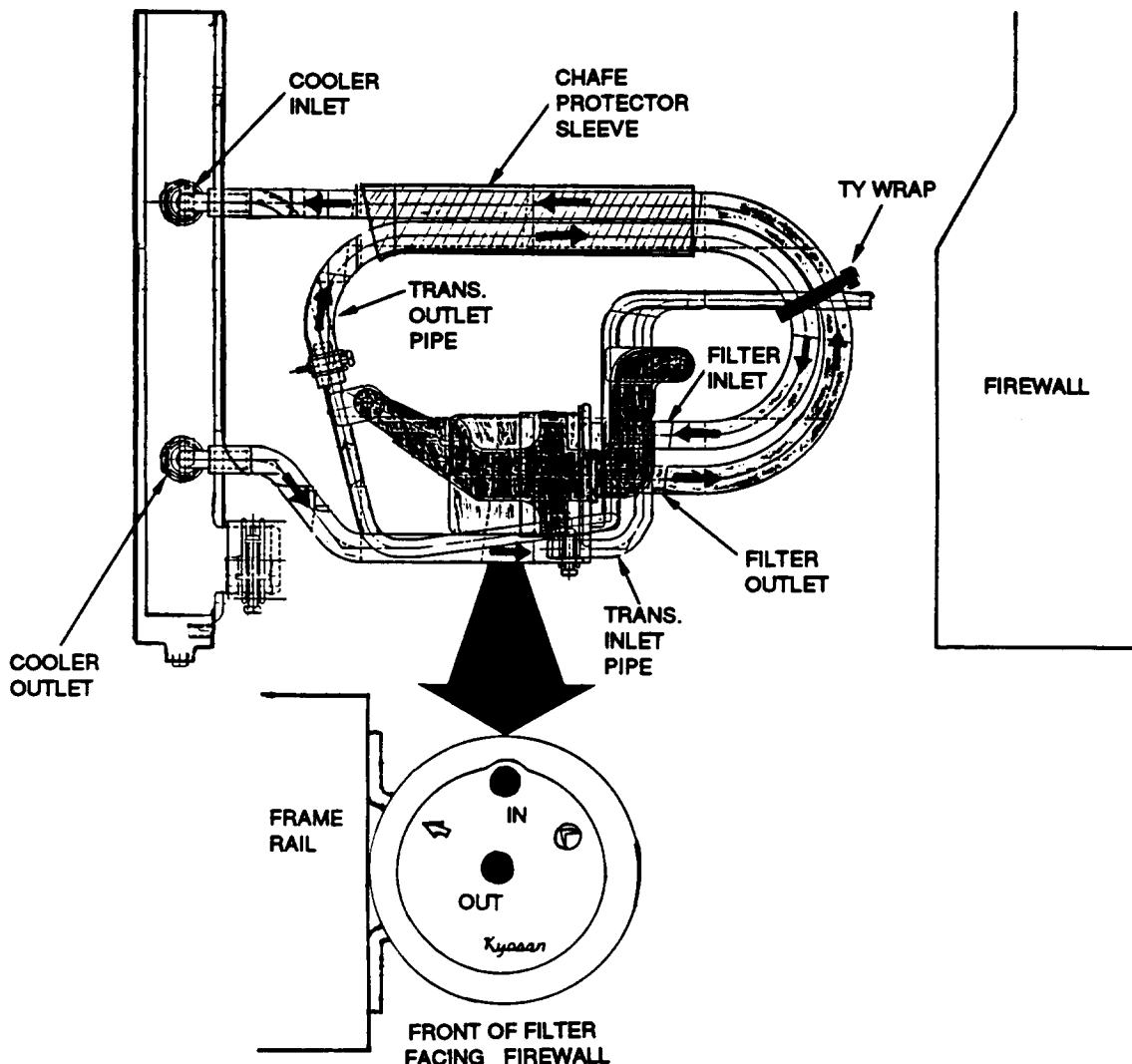


Figure 3

NOTE: THE HOSES MUST BE PARALLEL TO THE FRAME RAIL.

- o Ty-Wrap Installation
Secure the hoses to the transmission pipes using the Ty-Wrap provided. See Figure 3. Make sure the hoses do not touch the engine.
- o Battery and Ground Wire Installation
Reinstall the battery. Route the ground wire extension between the front hold down bolt and the battery case. Install the wire end to the negative cable. See Figure 4.

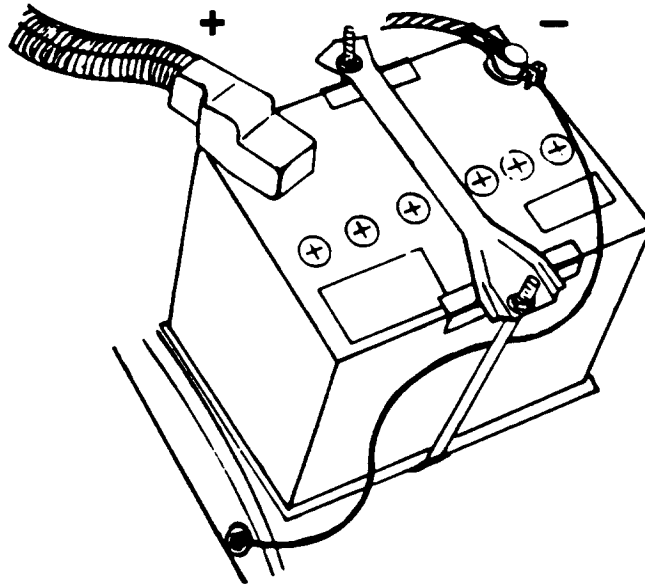


Figure 4

NOTE: ON SIA BUILT VEHICLES, THE BATTERY AND TRAY MUST BE PUSHED TOWARD THE LEFT FENDER TO ALLOW CLEARANCE BETWEEN THE HOSES AND COOLANT RESERVOIR.

- o Coolant Reservoir Tank and Post Inspection
Reinstall the coolant reservoir tank in reverse order of removal. Start the engine and examine the filter and hose connections for leaks and tighten hose clamps as necessary. With the engine at operating temperature, check the transmission fluid level on a level surface and add ATF if necessary.

ITEM DESCRIPTION/ FAILURE CODE	OPERATION NUMBER	LABOR DESCRIPTIONS	TIME
4EAT FILTER KIT ATK-50	A138-301	4EAT FILTER KIT INSTALLATION (INCLUDES TRANSMISSION COOLER BACK FLUSH AND REFILLING OF TRANSMISSION FLUID.)	0.7

CAUTION

VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.