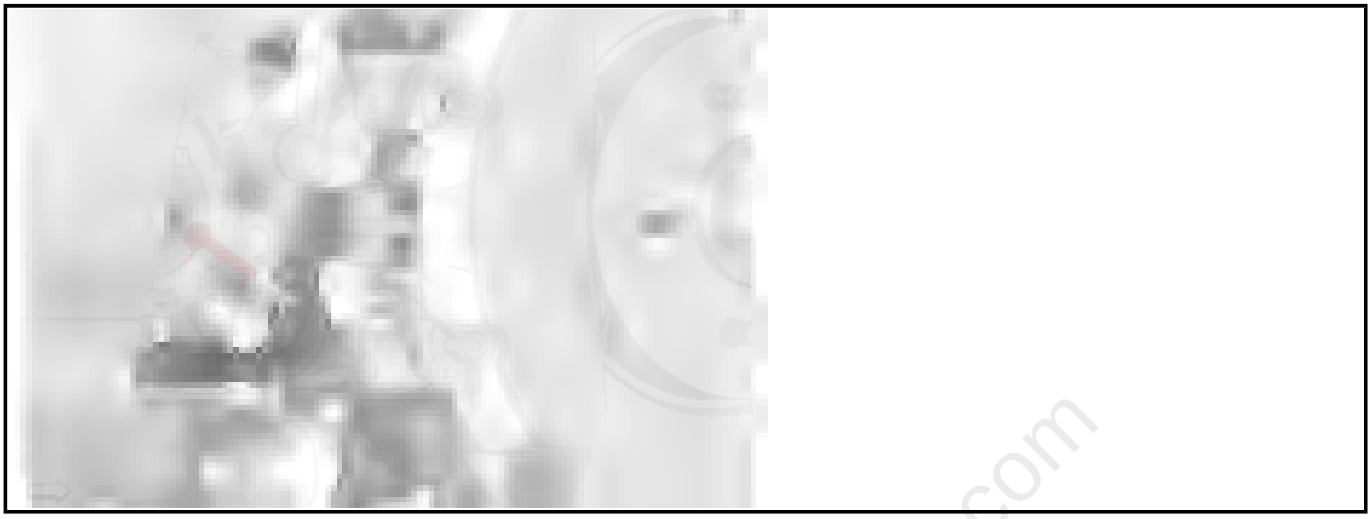
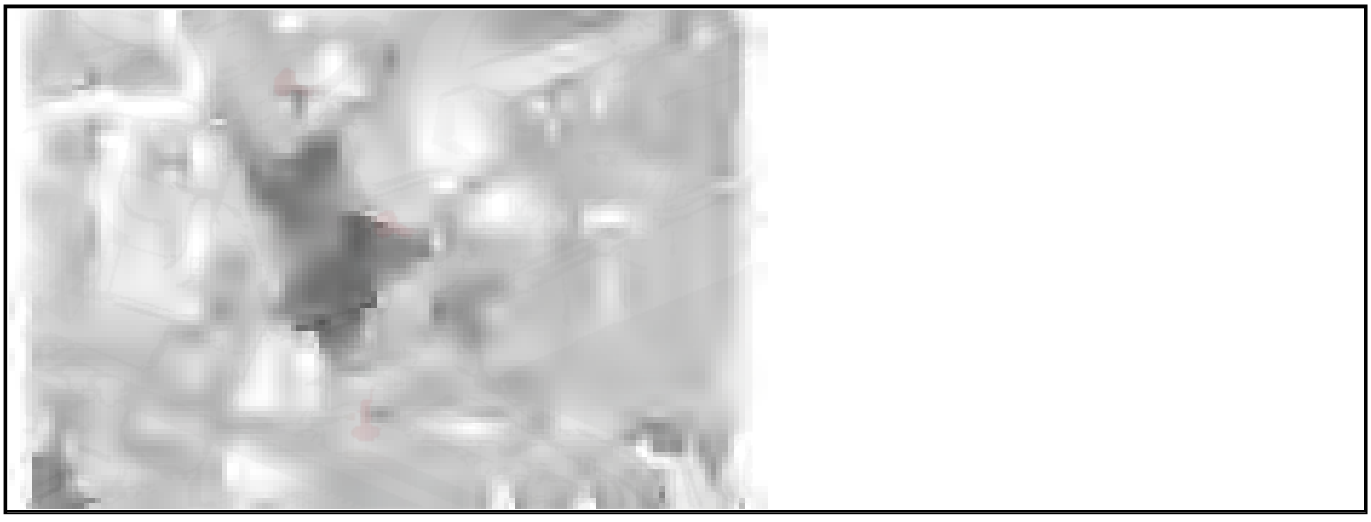
SPECIFICATIONS

FASTENER SPECIFICATIONS



L3B, AWD, Fastener @ Right Wheelhouse

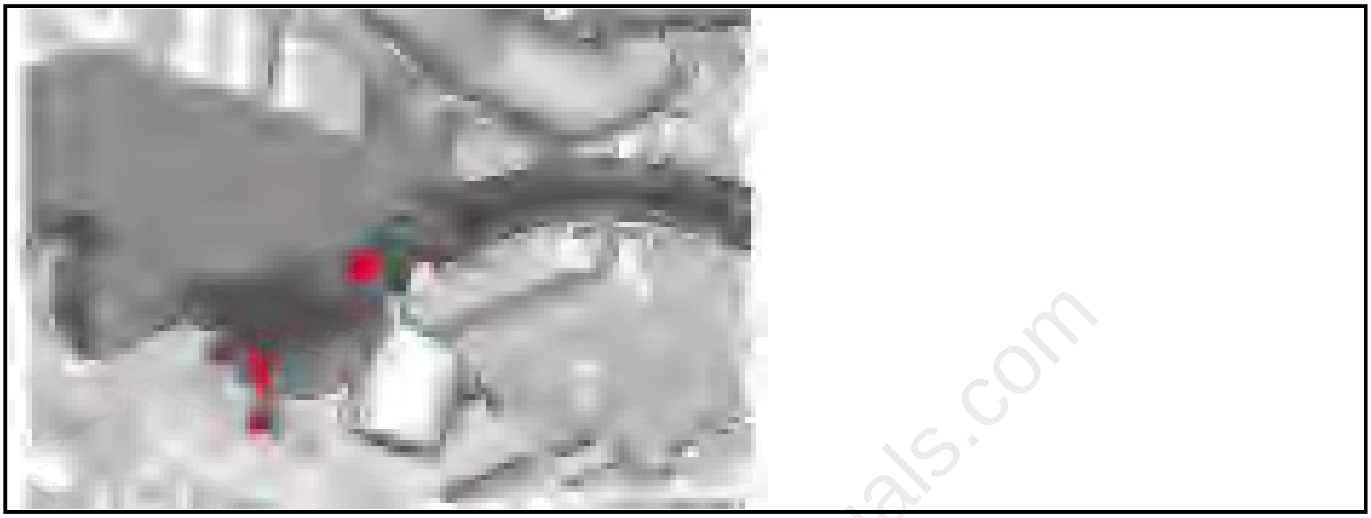
Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Clip Bolt	-	-	9 N.m (80 lb in)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)



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L3B, AWD, Fasteners @ Automatic Transmission Fluid Cooling Exchanger

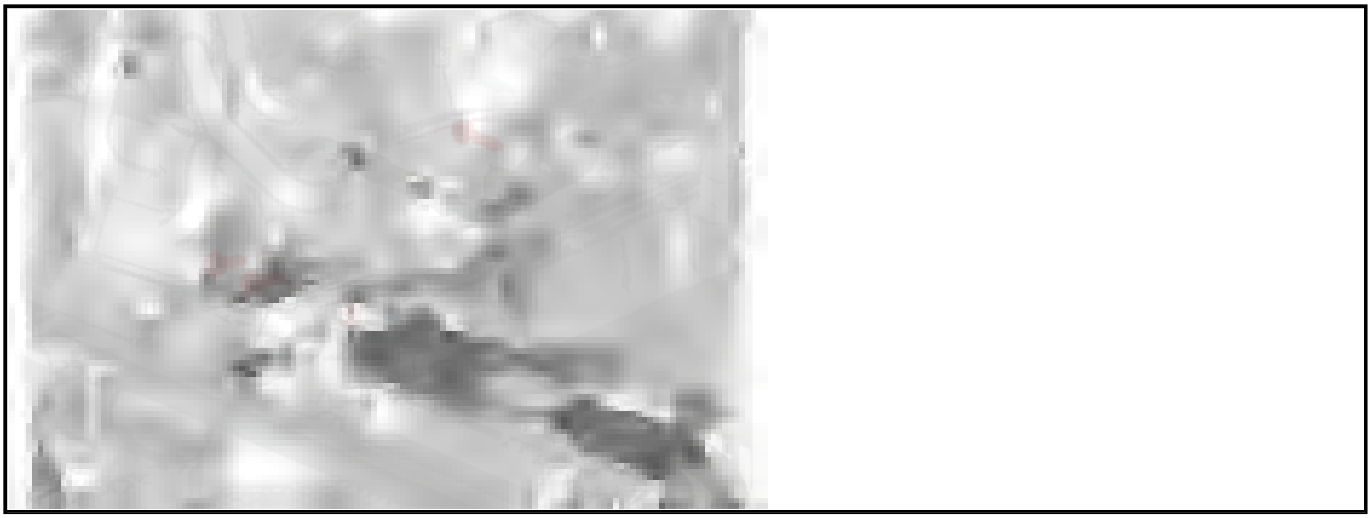
Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Automatic Transmission Fluid Cooling Exchanger Bolt [3x]	-	-	22 N.m (16 lb ft)	Automatic Transmission Fluid Cooling Exchanger Replacement (L3B, AWD)



L3B, AWD, Fasteners @ Transmission Cooler Bypass Valve

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Nut	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
2	Transmission Fluid Cooler Thermal Bypass Valve Bolt	-	-	9 N.m (80 lb in)	Transmission Cooler Bypass Valve Replacement (L3B, AWD)

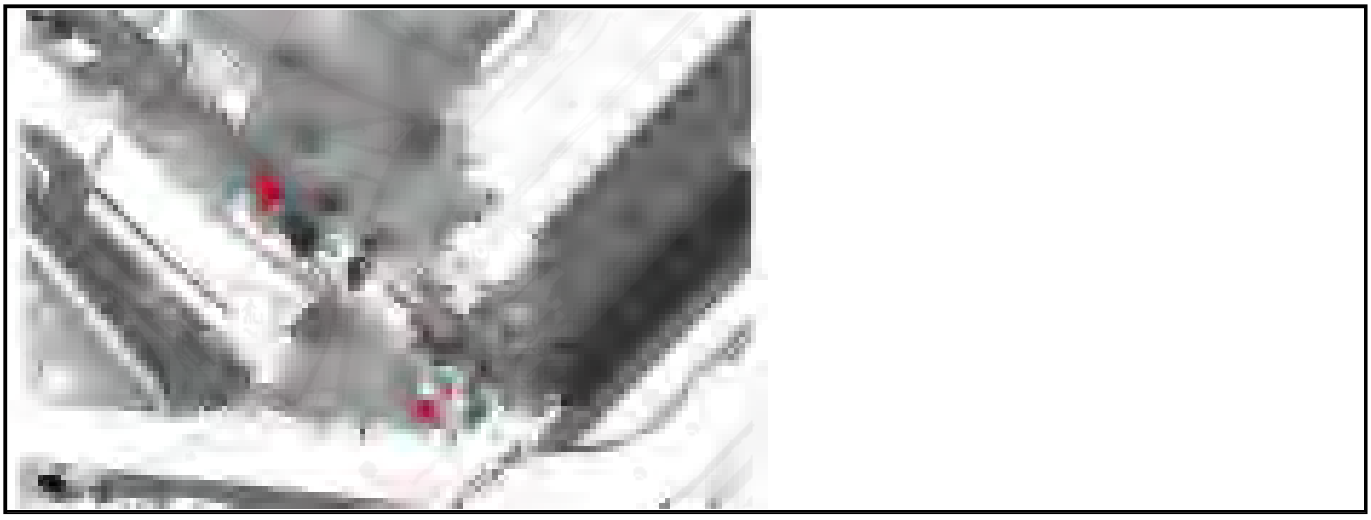
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L3B, AWD, Fasteners @ Transmission Side, Transmission Cooler Bypass Valve

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Connector Bolt [2x]	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
2	Transmission Fluid Cooler Pipe Nut	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
3	Transmission Fluid Cooler Pipe Bolt	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)

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L3B, AWD, Fasteners, Seal @ Transmission Fluid Auxiliary Cooler

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Bracket Bolt	-	-	6 N.m (53 lb in)	Transmission Fluid Auxiliary Cooler Replacement (LSY, RWD, with V03)
2	Transmission Fluid Cooler Pipe Nut	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
3	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)

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L3B, AWD, Seals

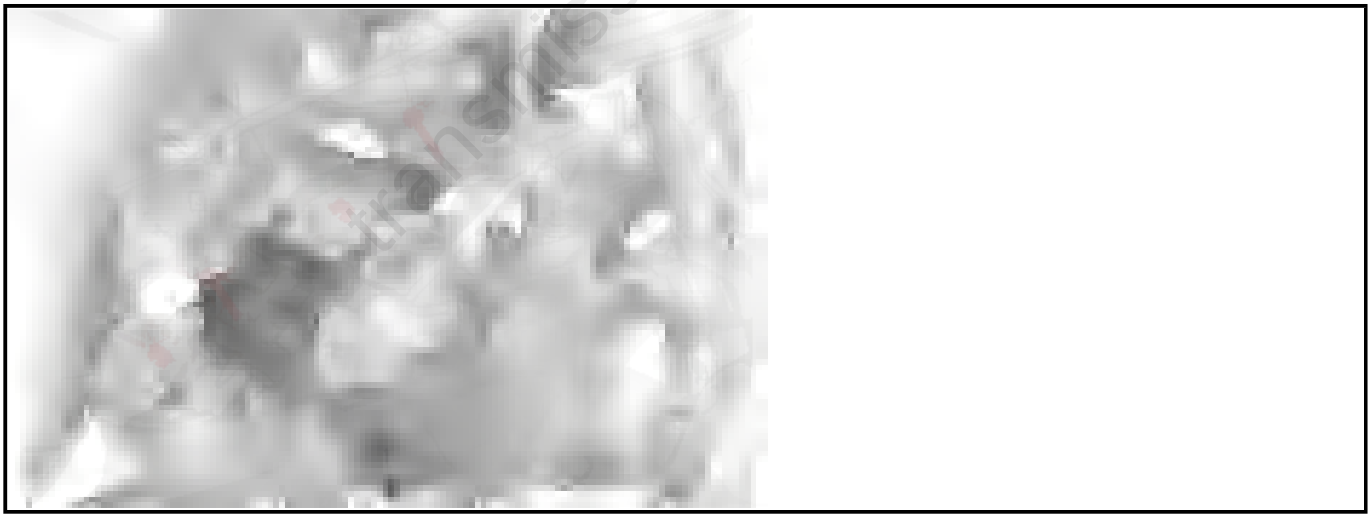
Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
2	Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)
3	Transmission Fluid Cooler Pipe Seal [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)

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L3B, AWD, Seals

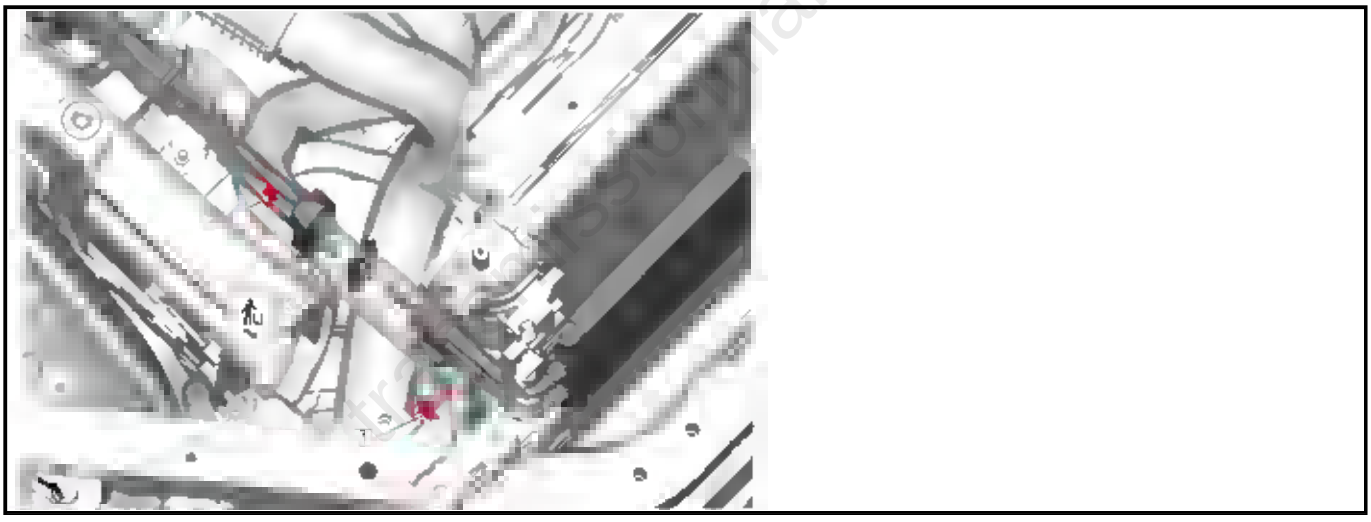
Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, AWD, ATOC Side)



L3B, RWD, Fasteners @ Transmission Cooler Bypass Valve

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Clip Bolt	-	-	9 N.m (80 lb in)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD,

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
					Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
2	Transmission Fluid Cooler Pipe Nut [2x]	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
3	Transmission Fluid Cooler Thermal Bypass Valve Bolt	-	-	9 N.m (80 lb in)	Transmission Cooler Bypass Valve Replacement (L3B, RWD)



L3B, RWD, Fasteners, Seal @ Transmission Fluid Auxiliary Cooler

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Bracket Bolt	-	-	6 N.m (53 lb in)	Transmission Fluid Auxiliary Cooler Replacement (LSY, RWD, with V03)
2	Transmission Fluid Cooler Pipe Nut	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
					Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
3	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)



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L3B, RWD, Fasteners, Seal @ Transmission Side

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Bolt	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
2	Transmission Fluid Cooler Pipe Connector Bolt [2x]	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
3	Transmission Fluid Cooler Pipe Clip Bolt	-	-	9 N.m (80 lb in)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
4	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)
5	Transmission Fluid Cooler Pipe Seal [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission

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Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
					Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)



L3B, RWD, Seals

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Seal [4x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (L3B, RWD, ATOC Side)

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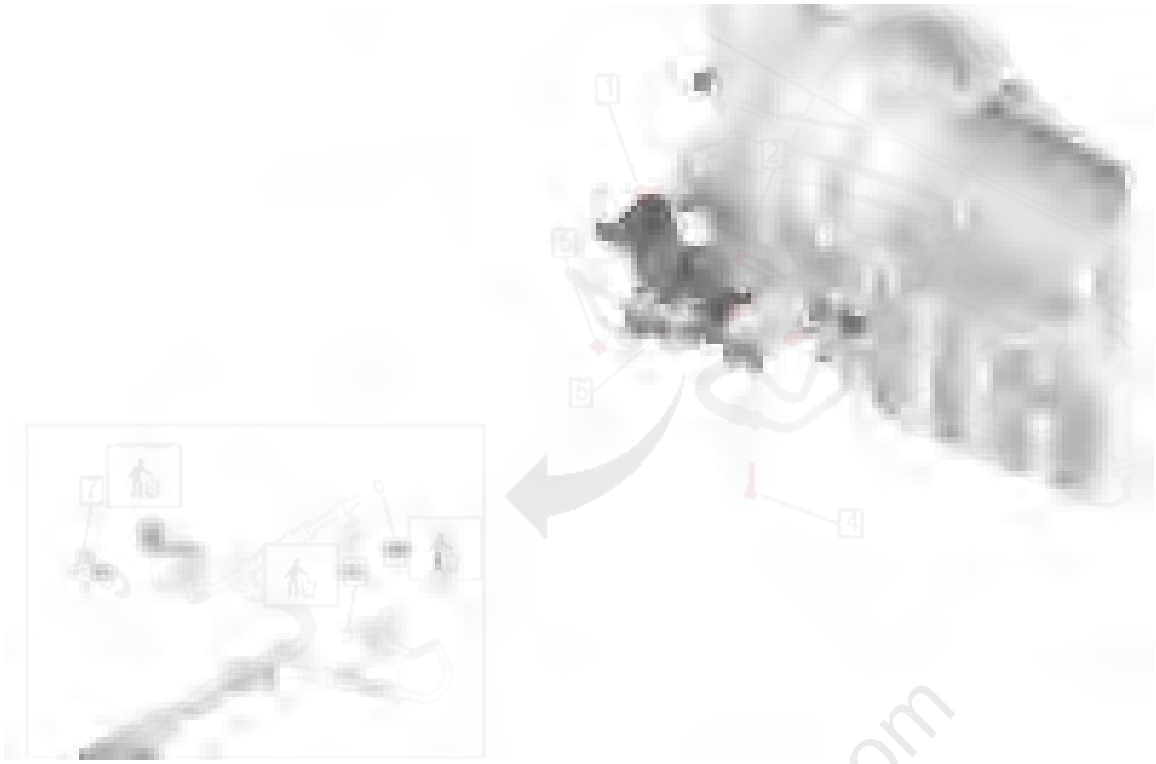


Fig. 1: Identifying Fasteners & Seals At Automatic Transmission Fluid Cooling Exchanger - Transmission Side (LSY - RWD With V03)
Courtesy of GENERAL MOTORS COMPANY

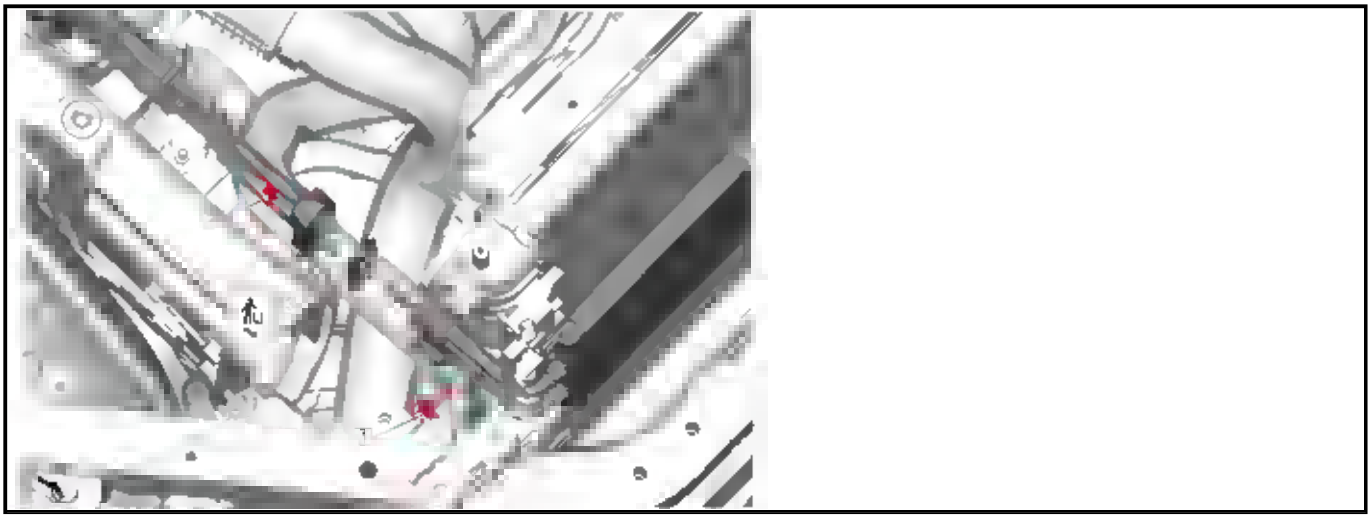
LSY, RWD, with V03, Fasteners @ Automatic Transmission Fluid Cooling Exchanger, Transmission Side

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Automatic Transmission Fluid Cooling Exchanger Bolt [2x]	-	-	22 N.m (16 lb ft)	Automatic Transmission Fluid Cooling Exchanger Replacement (LSY, RWD, with V03)
2	Transmission Fluid Auxiliary Cooler Bracket Nut	B	-	22 N.m (16 lb ft)	Automatic Transmission Fluid Cooling Exchanger Replacement (LSY, RWD, with V03)
3	Transmission Fluid Cooler Pipe Bolt	B	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
4	Transmission Fluid Cooler Pipe Clip Bolt	B	-	9 N.m (80 lb in)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03,

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Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
					Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
5	Transmission Fluid Cooler Pipe Nut [2x]	B	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
6	Transmission Fluid Cooler Pipe Seal [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
7	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)

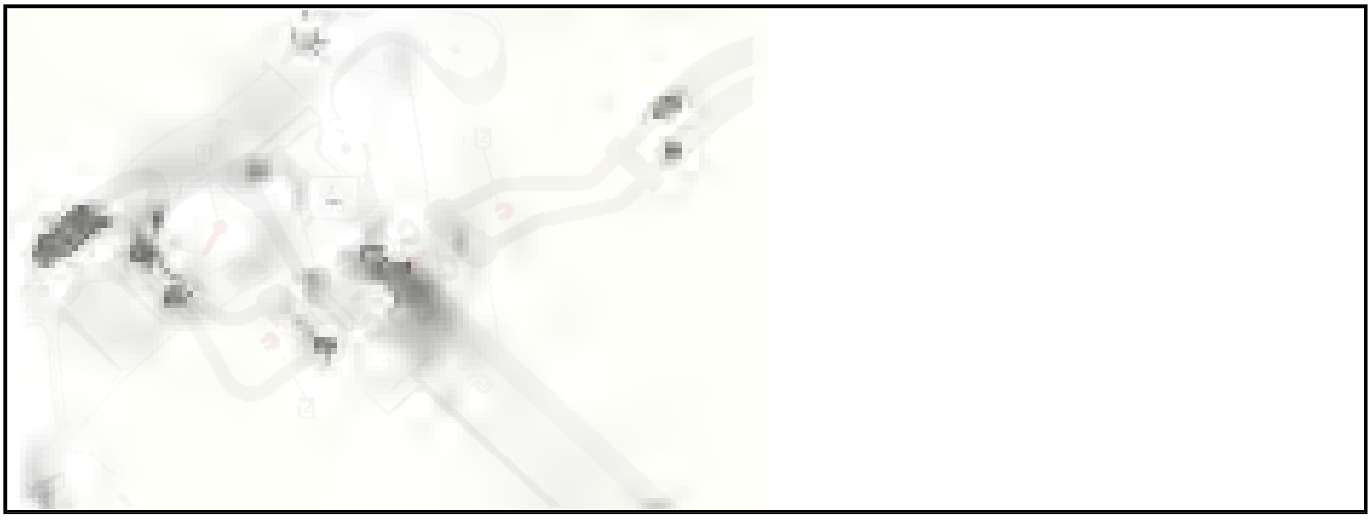
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LSY, RWD, with V03, Fasteners, Seal @ Transmission Fluid Auxiliary Cooler

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Bracket Bolt	-	-	6 N.m (53 lb in)	Transmission Fluid Auxiliary Cooler Replacement (LSY, RWD, with V03)
2	Transmission Fluid Cooler Pipe Nut	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
3	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)

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LSY, RWD, with V03, Fasteners, Seals @ Transmission Cooler Bypass Valve

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Cooler Pipe Clip Bolt	-	-	9 N.m (80 lb in)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
2	Transmission Fluid Cooler Pipe Nut [2x]	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)
3	Transmission Fluid Cooler Thermal Bypass Valve Gasket [4x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, Transmission Side), or Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, with V03, ATOC Side)

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Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
4	Transmission Fluid Cooler Thermal Bypass Valve Bolt	-	-	9 N.m (80 lb in)	Transmission Cooler Bypass Valve Replacement (LSY, RWD, with V03)



Fig. 2: Identifying Fasteners & Seals At Automatic Transmission Fluid Cooling Exchanger - Transmission Side (LSY - RWD Without V03)
Courtesy of GENERAL MOTORS COMPANY

LSY, RWD, without V03, Fasteners, Seals @ Automatic Transmission Fluid Cooling Exchanger, Transmission Side

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
1	Transmission Fluid Auxiliary Cooler Bolt [2x]	-	-	22 N.m (16 lb ft)	Automatic Transmission Fluid Cooling Exchanger Replacement (LSY, RWD, without V03)
2	Transmission Fluid Auxiliary Cooler Nut	-	-	22 N.m (16 lb ft)	Automatic Transmission Fluid Cooling Exchanger Replacement (LSY, RWD, without V03)
3	Transmission Fluid Cooler Pipe Bolt	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY,

Callout	Component Name [Component Quantity]	Single Use Fastener/Component	Thread Locking Adhesive Required	Specification	Procedure Link
				Metric (English)	
					RWD, without V03)
4	Transmission Fluid Cooler Pipe Nut [2x]	-	-	22 N.m (16 lb ft)	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, without V03)
5	Transmission Fluid Cooler Pipe Seal [2x]	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, without V03)
6	Transmission Fluid Cooler Seal	Yes	-	-	Transmission Fluid Cooler Inlet and Outlet Pipe Replacement (LSY, RWD, without V03)

REPAIR INSTRUCTIONS

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER INLET HOSE REPLACEMENT (LSY, RWD, WITHOUT V03)

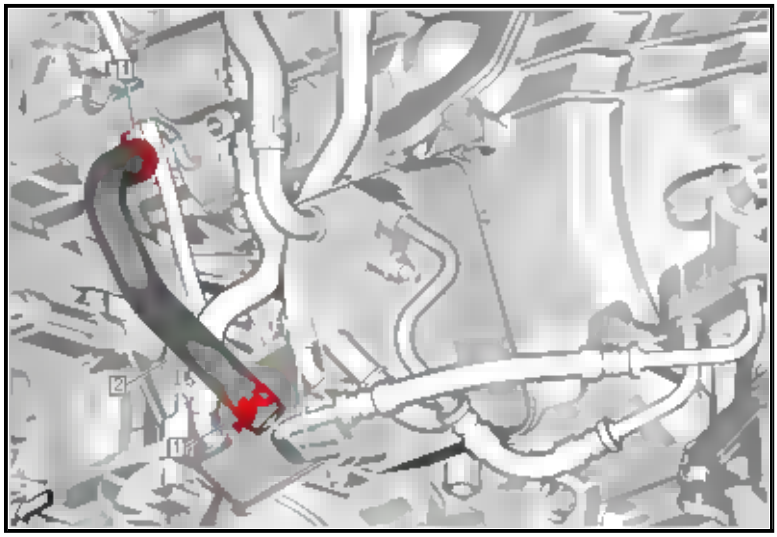
Removal Procedure

1. Drain the cooling system. Cooling System Draining and Filling (LSY GE 47716) , or Cooling System Draining and Filling (LSY Static Fill)
2. Raise and support the vehicle. Lifting and Jacking the Vehicle
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage [2x] - Hose Clamp Replacement Guidelines - Spring Type
4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Remove

Installation Procedure

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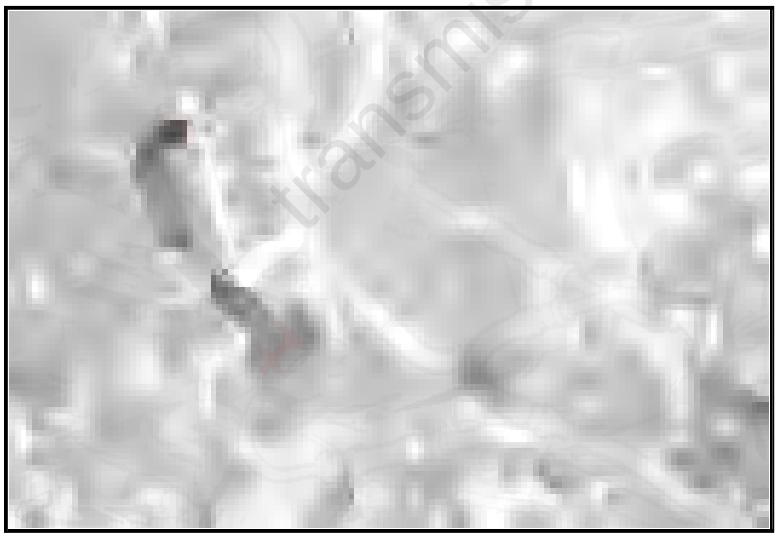
1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (LSY GE 47716)** , or **Cooling System Draining and Filling (LSY Static Fill)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER INLET HOSE REPLACEMENT (LSY, RWD, WITH V03)

Removal Procedure

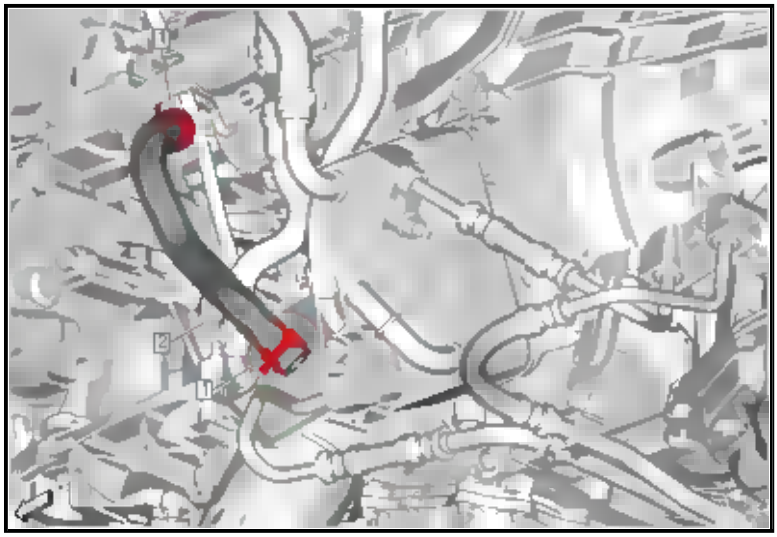
1. Drain the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Remove

Installation Procedure

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1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER INLET HOSE REPLACEMENT (L3B, RWD)

Removal Procedure

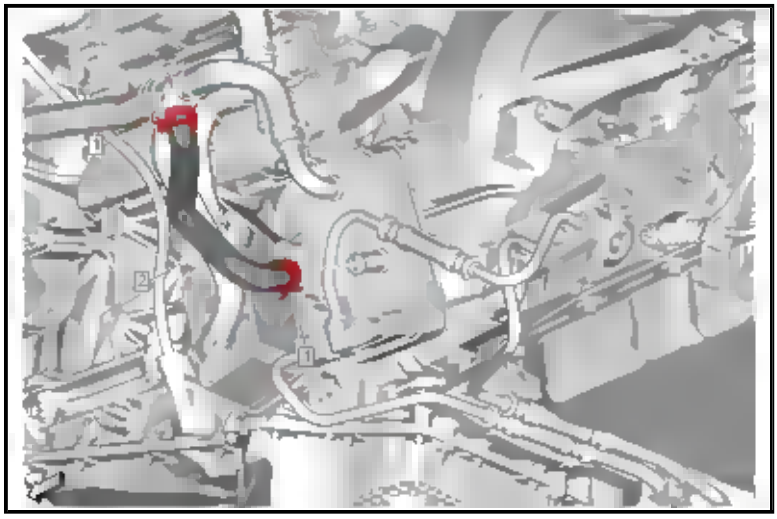
1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Remove

Installation Procedure

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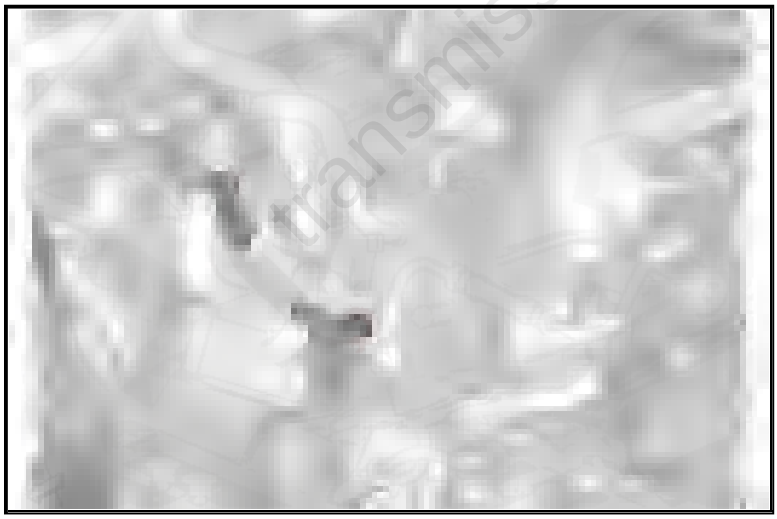
1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER INLET HOSE REPLACEMENT (L3B, AWD)

Removal Procedure

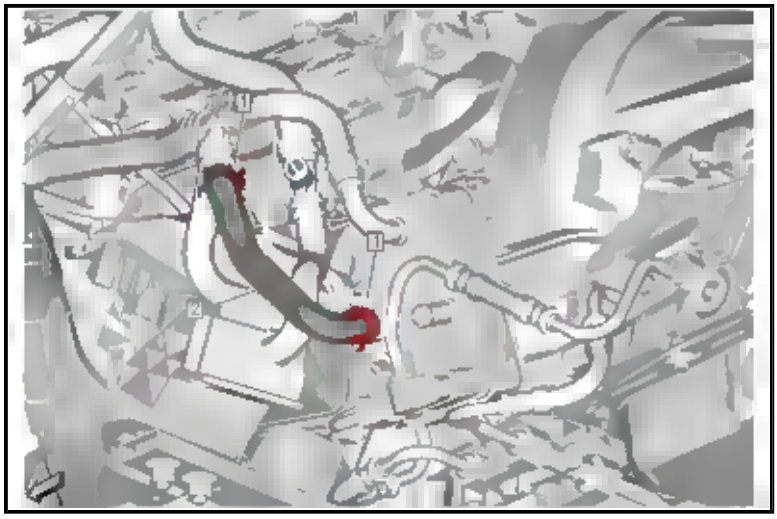
1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Remove

Installation Procedure

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1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER OUTLET HOSE REPLACEMENT (LSY, RWD, WITHOUT V03)

Removal Procedure

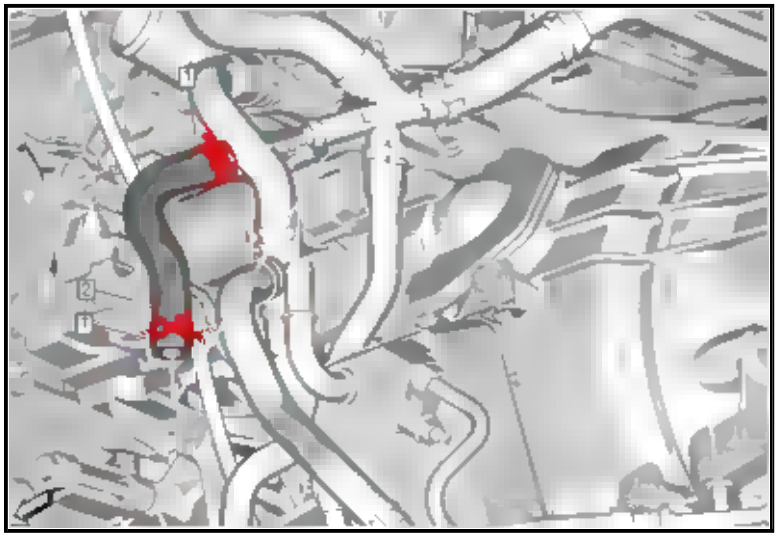
1. Drain the cooling system. **Cooling System Draining and Filling (LSY GE 47716)** , or **Cooling System Draining and Filling (LSY Static Fill)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Remove

Installation Procedure

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1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (LSY GE 47716)** , or **Cooling System Draining and Filling (LSY Static Fill)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER OUTLET HOSE REPLACEMENT (LSY, RWD, WITH V03)

Removal Procedure

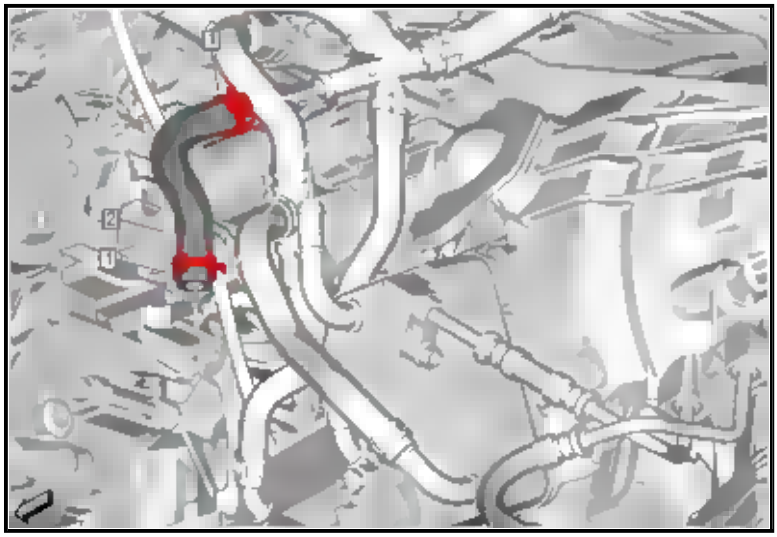
1. Drain the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Remove

Installation Procedure

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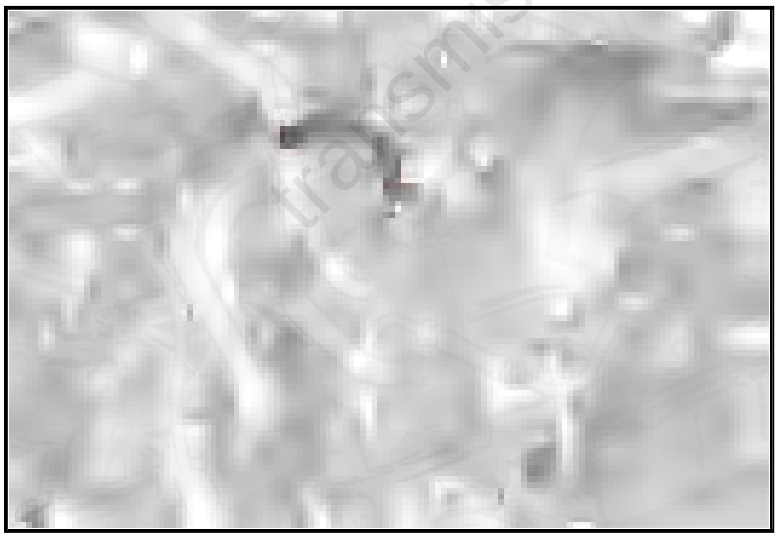
1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER OUTLET HOSE REPLACEMENT (L3B, RWD)

Removal Procedure

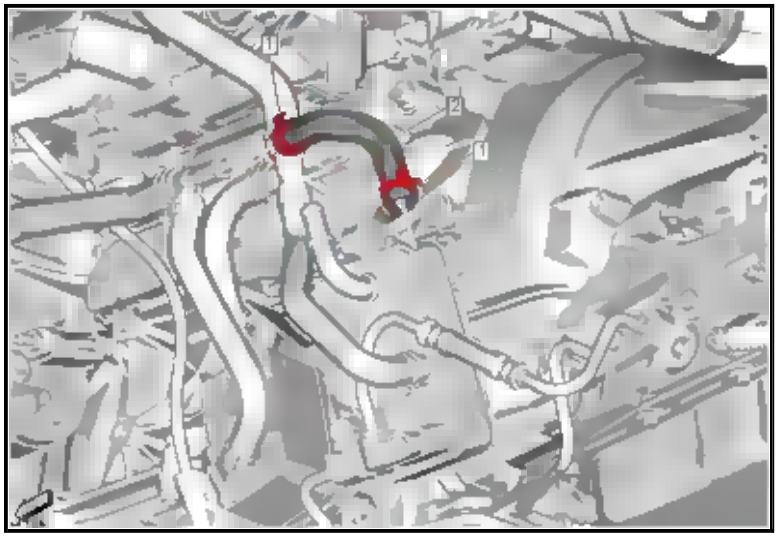
1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Remove

Installation Procedure

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1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Install

2. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
5. Check the cooling system for leaks.

AUTOMATIC TRANSMISSION FLUID COOLING HEAT EXCHANGER OUTLET HOSE REPLACEMENT (L3B, AWD)

Removal Procedure

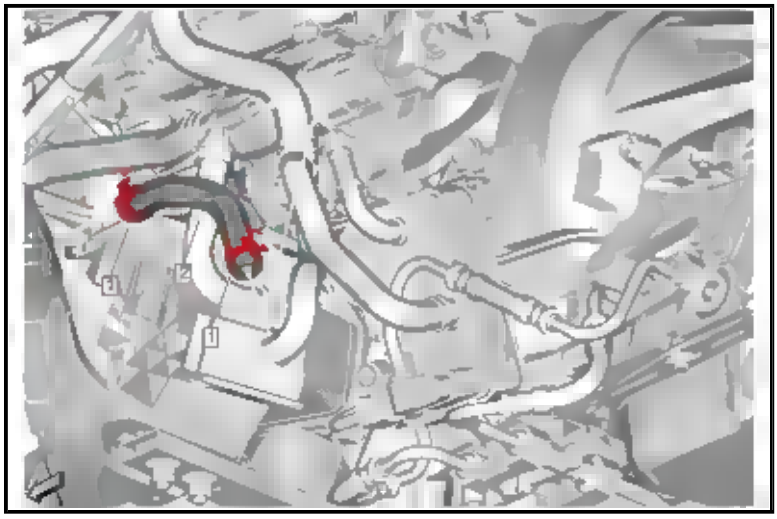
1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Disengage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Remove

Installation Procedure

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1. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) - Install

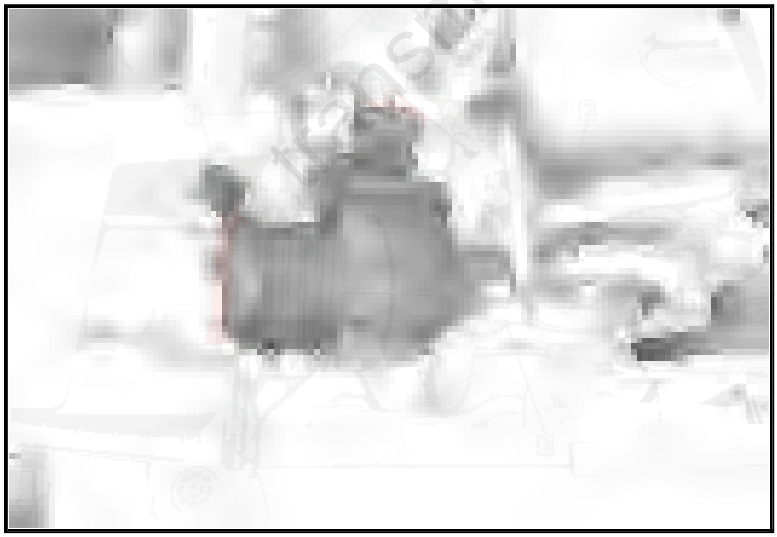
2. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) - Engage [2x] - **Hose Clamp Replacement Guidelines - Spring Type**
3. Lower the vehicle.
4. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
5. Check the cooling system for leaks.

TRANSMISSION FLUID AUXILIARY COOLER REPLACEMENT (LSY, RWD, WITH V03)

Single Use Fasteners and Components

- Air Conditioning Sealing Washer [2x]
- Transmission Fluid Cooler Seal

Removal Procedure

1. Recover the refrigerant. **Refrigerant Recovery and Recharging**
2. 

   Air Cleaner Outlet Duct Clamp (1) - Loosen [2x]

3. Evaporative Emission Canister Purge Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
4. Positive Crankcase Ventilation Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
5. Disconnect the electrical connector.

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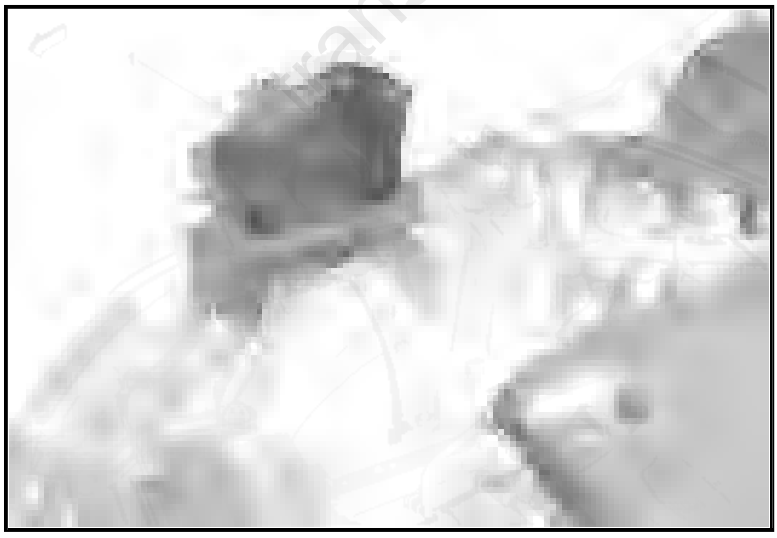
6. 

   Air Cleaner Outlet Duct (1) - Remove

7. Disconnect the electrical connector and remove all wiring harnesses from the air cleaner assembly.

8. 

   Air Cleaner Bolt (1) - Remove

9. 

   Air Cleaner Assembly (1) - Remove

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10. 

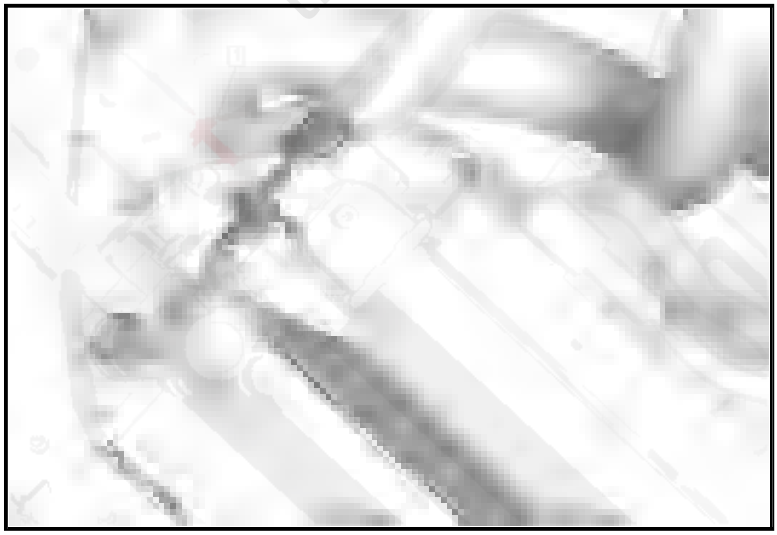
Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

11. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Fluid Auxiliary Cooler - Remove

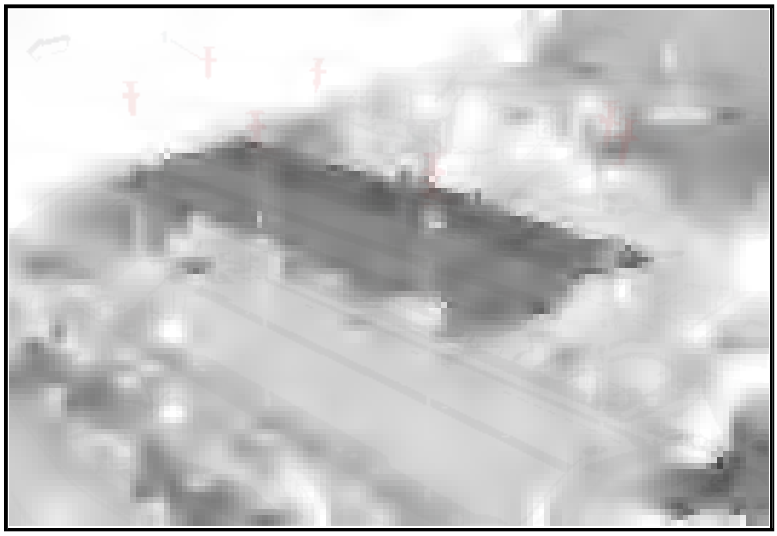
12. 

Transmission Fluid Cooler Seal (1) - Remove and DISCARD

13. 

Transmission Fluid Cooler Pipe Bracket Bolt (1) - Remove

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14. 

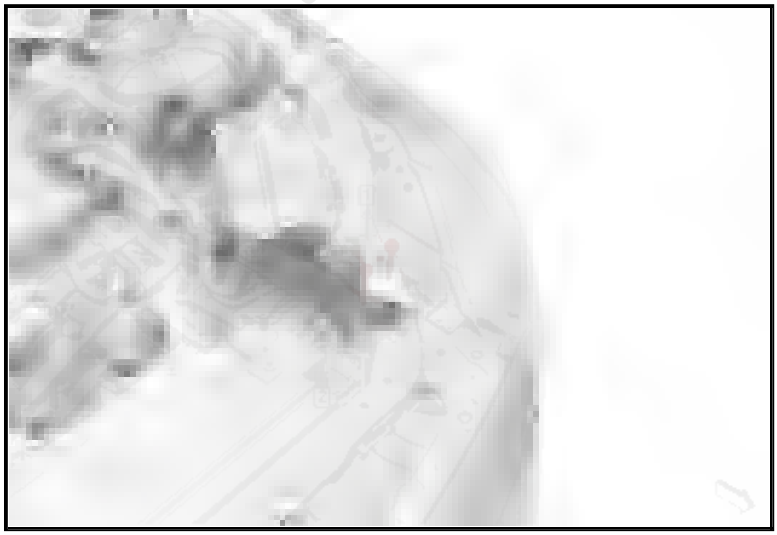
    Radiator Air Upper Deflector Retainer (1) - Remove [7x]

15. Radiator Air Upper Baffle (2) - Remove

16. 

    Retainer (1) - Remove

17. Radiator Upper Bracket Bolt (2) - Remove [2x]
18. Radiator Upper Bracket - Right Side (3) - Remove

19. 

    Radiator Upper Bracket Bolt (1) - Remove [2x]

20. Radiator Upper Bracket - Left Side (2) - Remove

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21. 

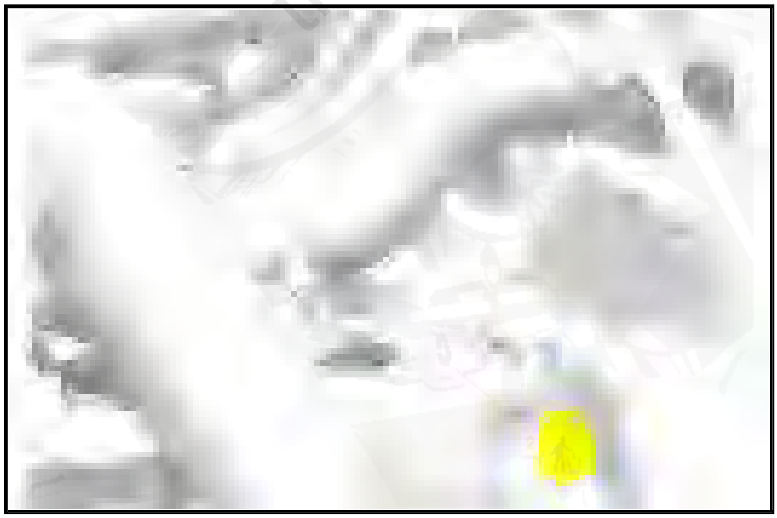
    Air Conditioning Compressor Hose Nut (1) @ Air Conditioning Condenser - Remove

22. Air Conditioning Condenser Tube Clip (2) - Remove

23. 

    Air Conditioning Evaporative Connector Hose/Tube and Compressor Hose (1) @ Air Conditioning Condenser - Remove

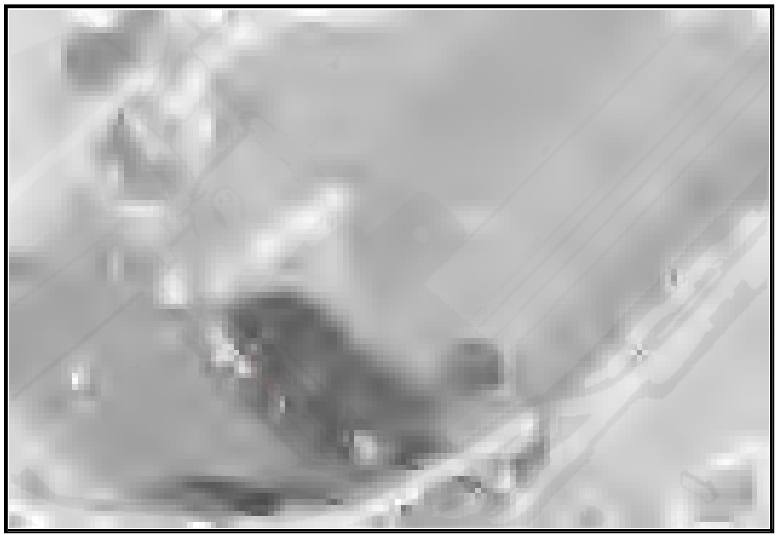
24. Air Conditioning Sealing Washer (2) - Remove and DISCARD

25. 

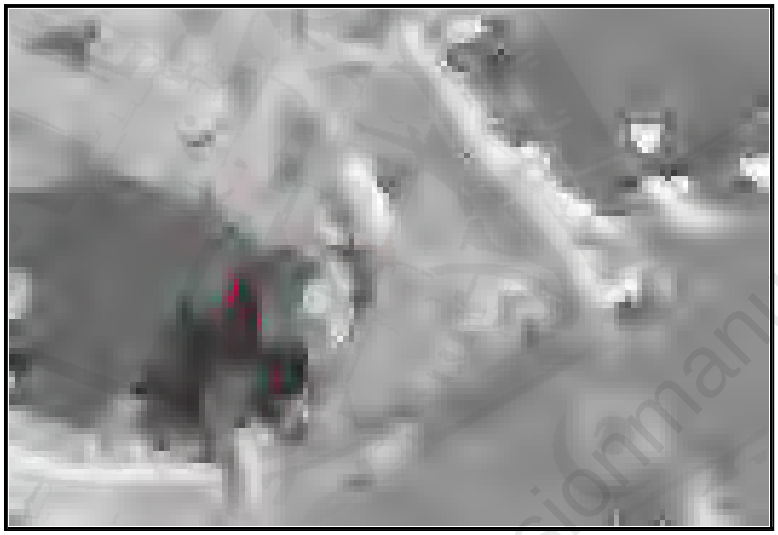
    Air Conditioning Refrigerant Heat Exchanger (1) @ Air Conditioning Condenser - Remove

26. Air Conditioning Sealing Washer (2) - Remove and DISCARD

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27. 

Radiator Air Seal Retainer (1) - Remove [2x]

28. 

Air Conditioning Condenser Tube Bolt (1) - Remove

29. Radiator Air Seal Retainer (2) - Remove [2x]

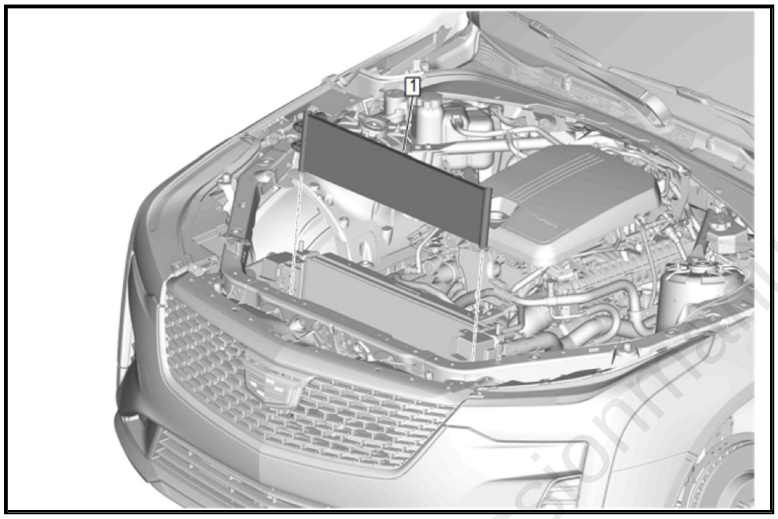
30. 

Air Conditioning Condenser Bracket Bolt (1) - Remove

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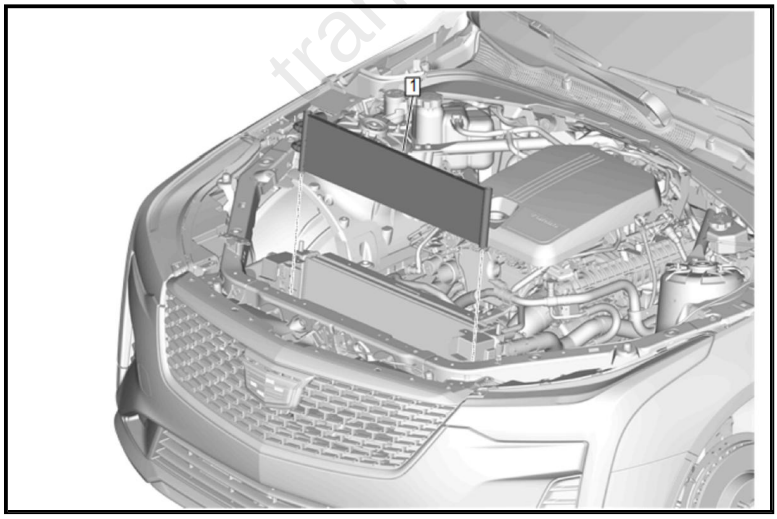
31. 

Lift the air conditioning condenser (1) up and out of the engine compartment by tilting the left and right side radiator air side baffles outwards, maneuvering the condenser past the baffles.

32. 

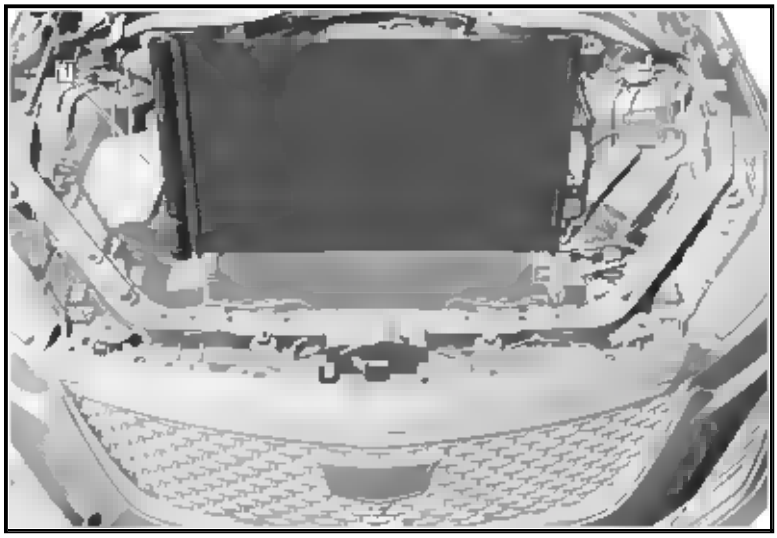
Transmission Fluid Auxiliary Cooler (1) - Remove

Installation Procedure

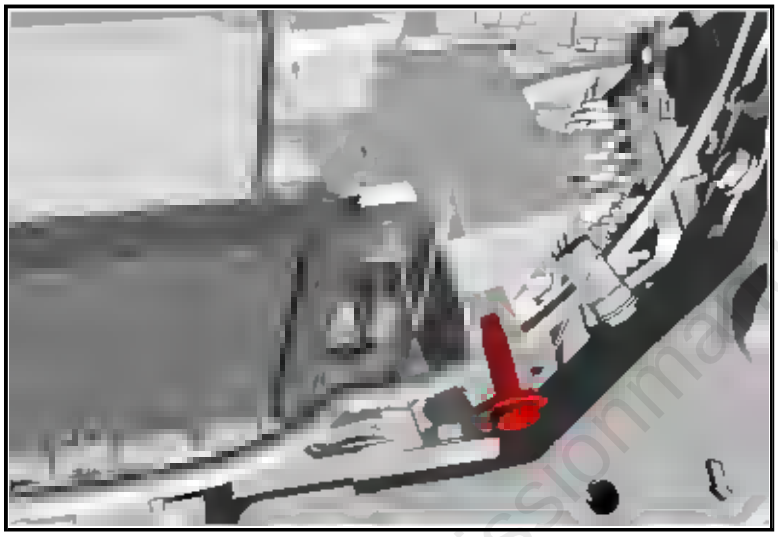
1. 

Transmission Fluid Auxiliary Cooler (1) - Install

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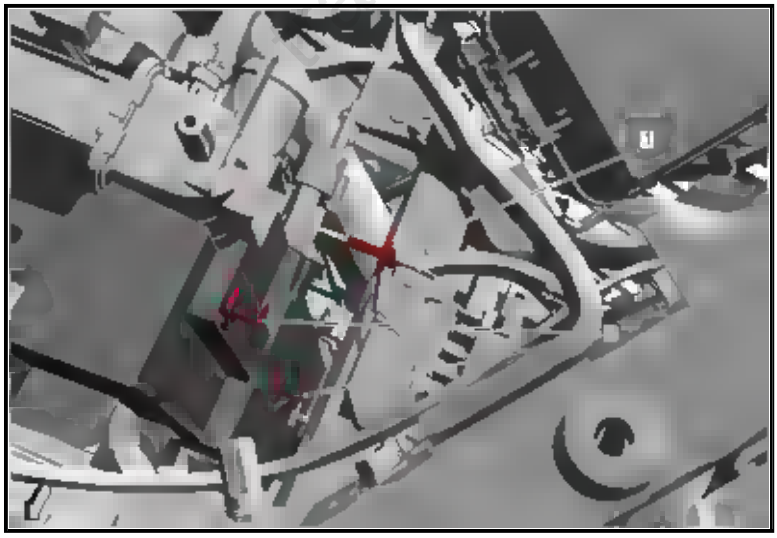
2. 

Install the air conditioning condenser (1) back into the engine compartment by tilting the left and right side radiator air side baffles outwards, maneuvering the condenser past the baffles.

3. 

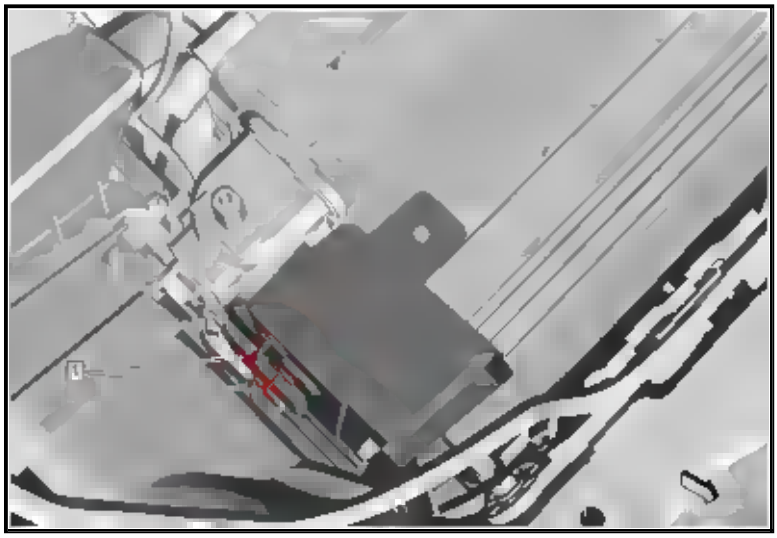
CAUTION: **Refer to Fastener Caution .**

Air Conditioning Condenser Bracket Bolt (1) - Install and tighten - **Fastener Specifications**

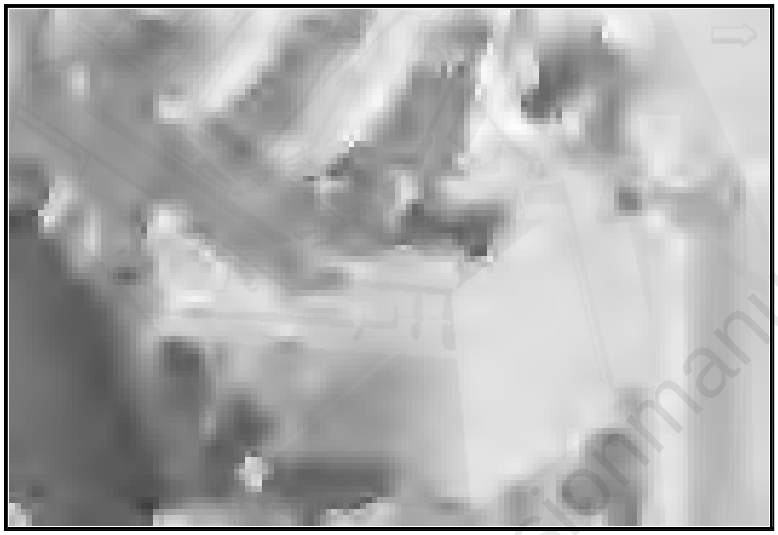
4. 

Radiator Air Seal Retainer (2) - Install [2x]

5. Air Conditioning Condenser Tube Bolt (1) - Install and tighten - **Fastener Specifications**

6. 

   Radiator Air Seal Retainer (1) - Install [2x]

7. 

   Air Conditioning Sealing Washer (2) - Install NEW

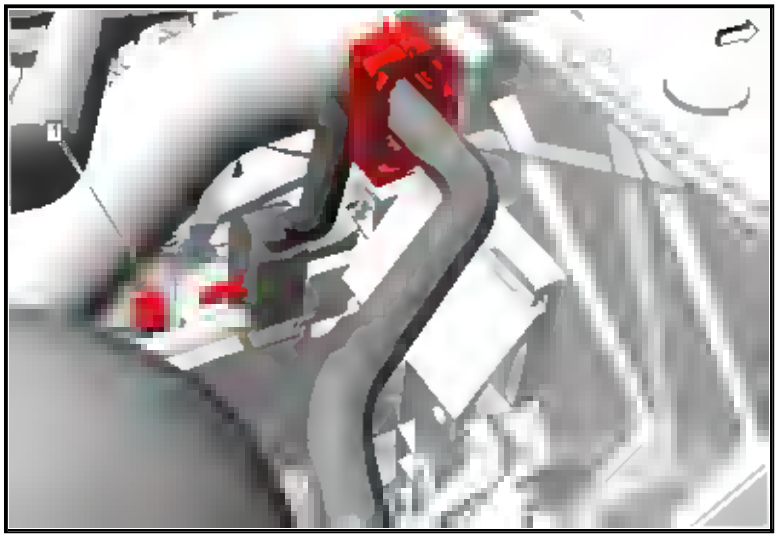
8. Air Conditioning Refrigerant Heat Exchanger (1) @ Air Conditioning Condenser - Install

9. 

   Air Conditioning Sealing Washer (2) - Install NEW

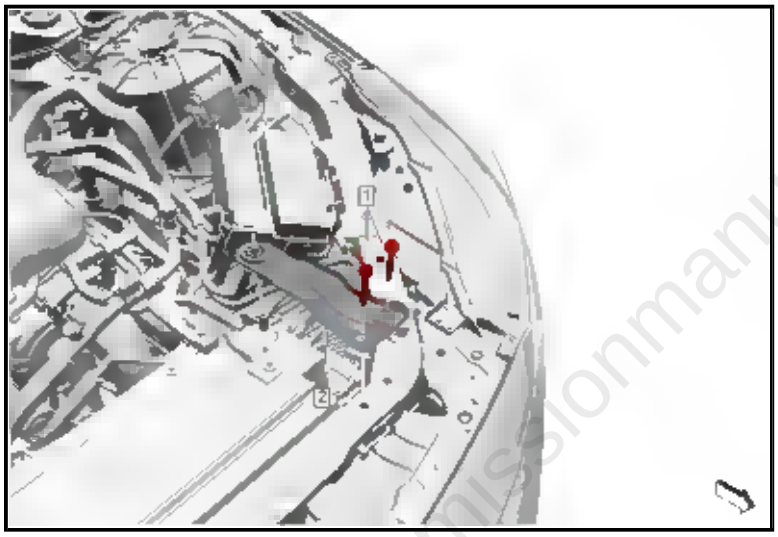
10. Air Conditioning Evaporative Connector Hose/Tube and Compressor Hose (1) @ Air Conditioning Condenser - Install

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11. 

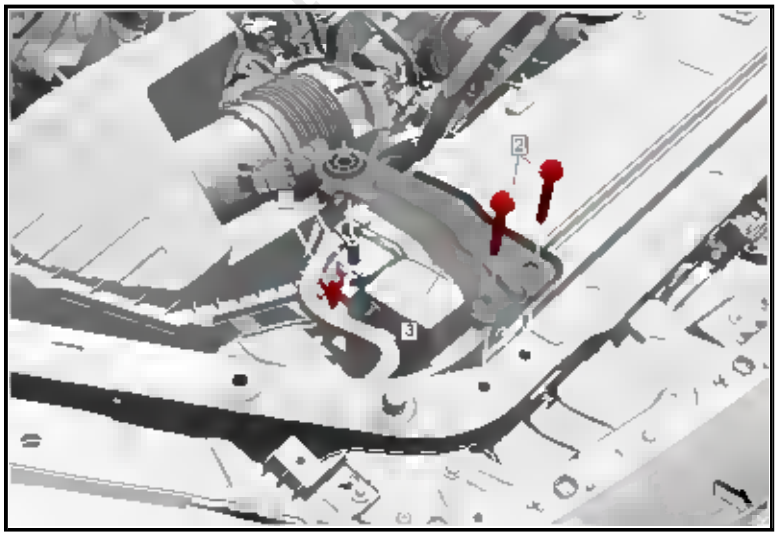
    Air Conditioning Condenser Tube Clip (2) - Install

12. Air Conditioning Compressor Hose Nut (1) @ Air Conditioning Condenser - Install and tighten - **Fastener Specifications**

13. 

    Radiator Upper Bracket - Left Side (2) - Install

14. Radiator Upper Bracket Bolt (1) - Install and tighten [2x] - **Fastener Specifications**

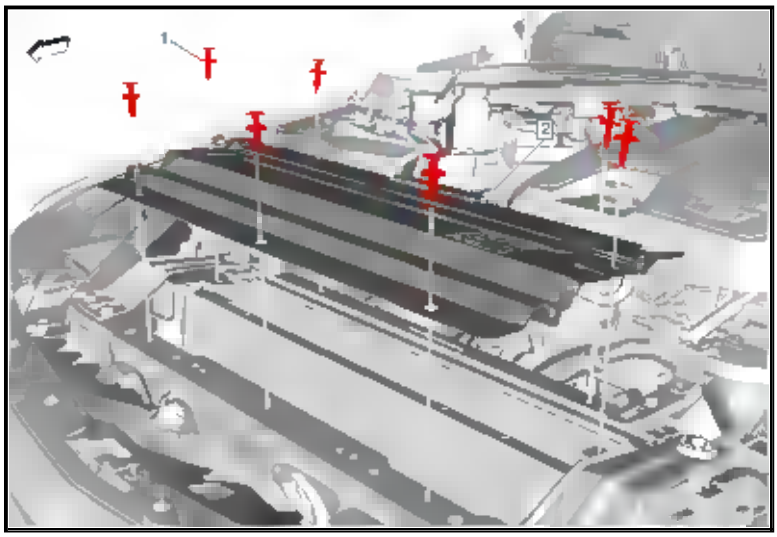
15. 

    Radiator Upper Bracket - Right Side (3) - Install

16. Radiator Upper Bracket Bolt (2) - Install and tighten [2x] - **Fastener Specifications**

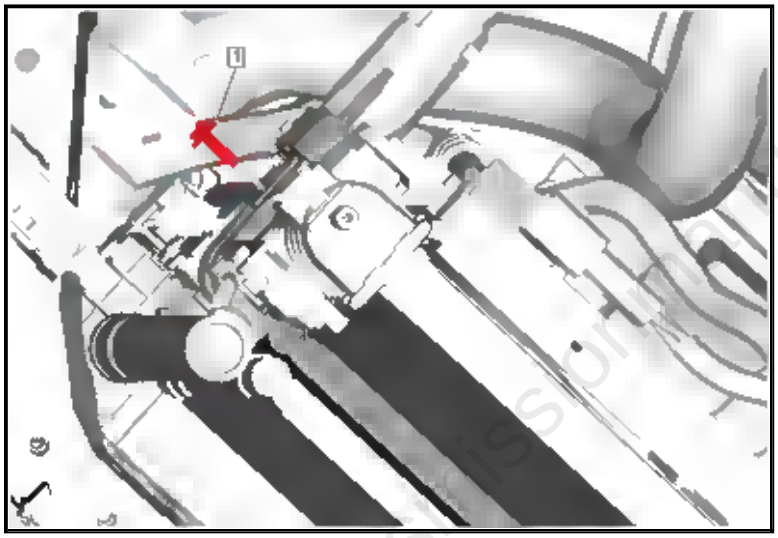
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17. Retainer (1) - Install

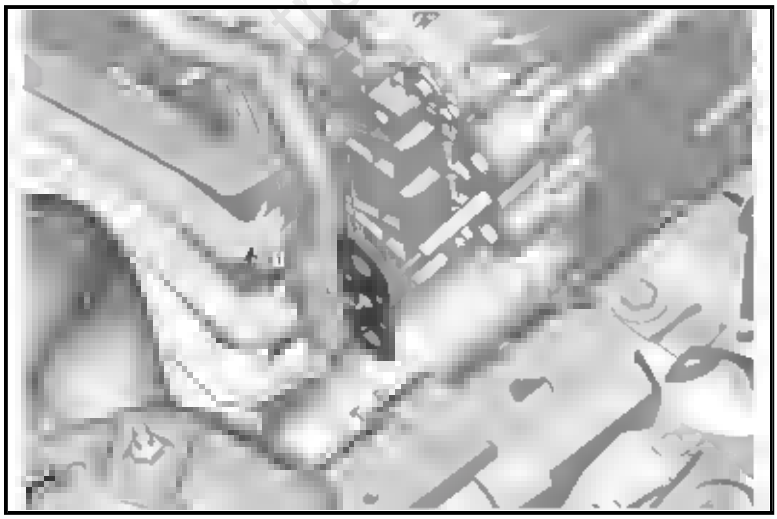
18. 

    Radiator Air Upper Baffle (2) - Install

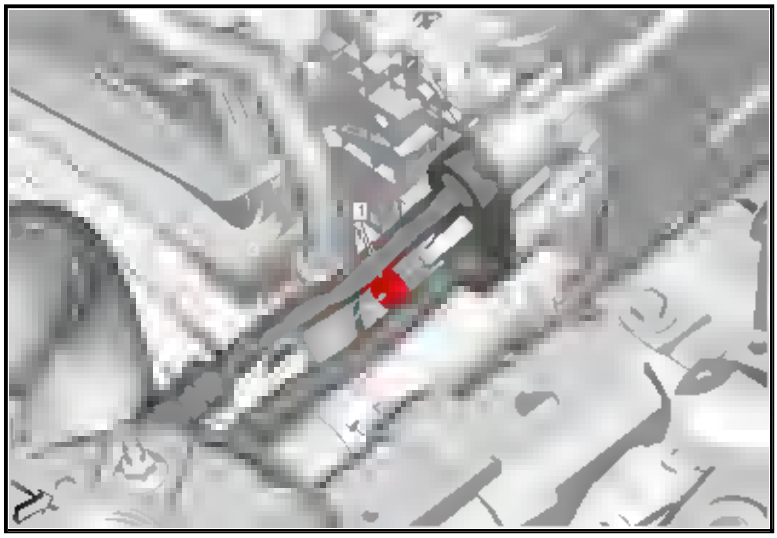
19. Radiator Air Upper Deflector Retainer (1) - Install [7x]

20. 

    Transmission Fluid Cooler Pipe Bracket Bolt (1) - Install and tighten - **Fastener Specifications**

21. 

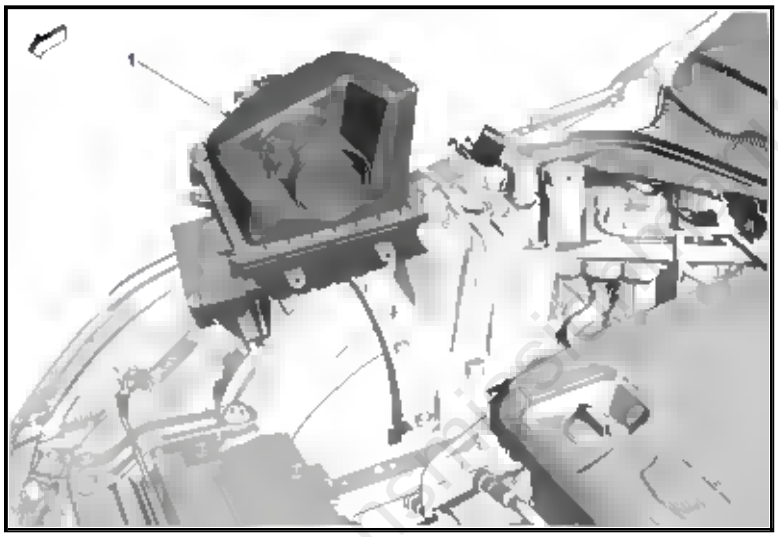
    Transmission Fluid Cooler Seal (1) - Install NEW

22. 

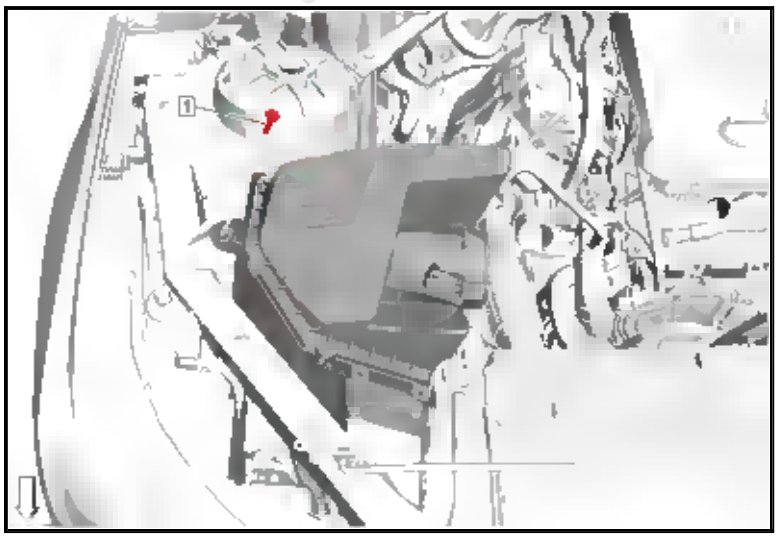
NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Fluid Auxiliary Cooler - Install

23. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

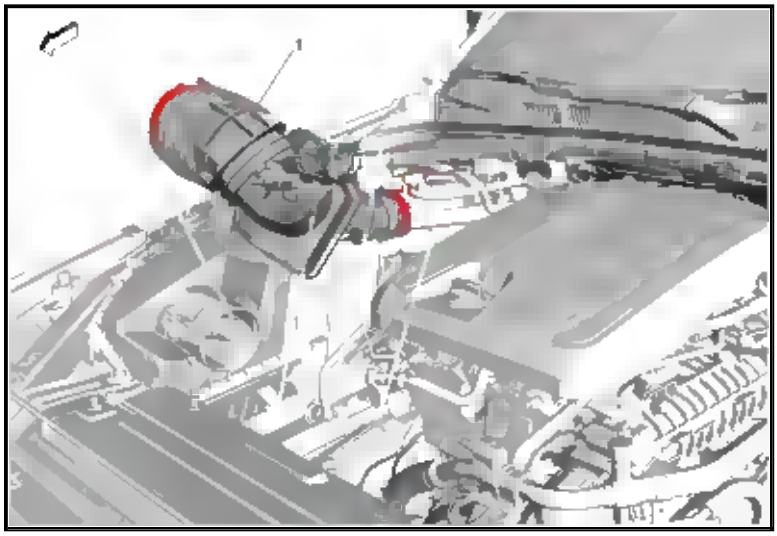
24. 

Air Cleaner Assembly (1) - Install

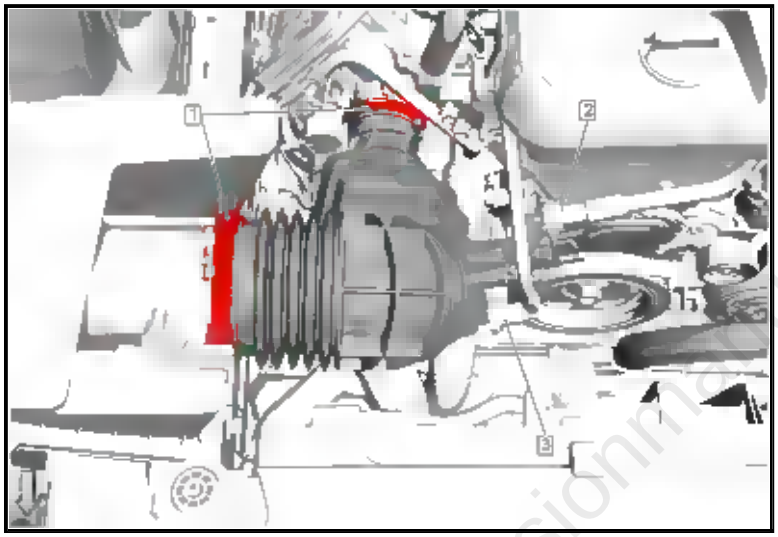
25. 

Air Cleaner Bolt (1) - Install and tighten - **Fastener Specifications**

26. Connect the electrical connector and install all wiring harnesses to the air cleaner assembly.

27. 

Air Cleaner Outlet Duct (1) - Install

28. 

Connect the electrical connector.

29. Positive Crankcase Ventilation Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**
30. Evaporative Emission Canister Purge Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
31. Air Cleaner Outlet Duct Clamp (1) - Tighten [2x] - **Fastener Specifications**
32. Recharge the refrigerant. **Refrigerant Recovery and Recharging**
33. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
34. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

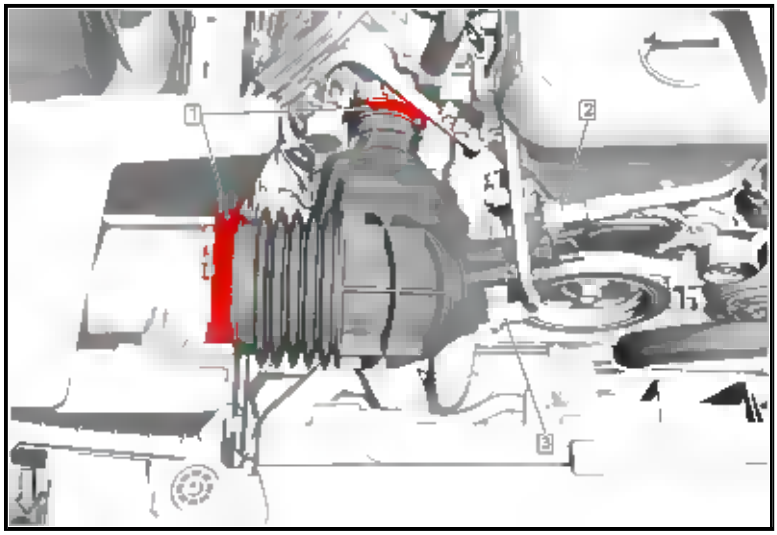
TRANSMISSION COOLER BYPASS VALVE REPLACEMENT (LSY, RWD, WITH V03)

Single Use Components and Fasteners

Transmission Fluid Cooler Thermal Bypass Valve Gasket [4x]

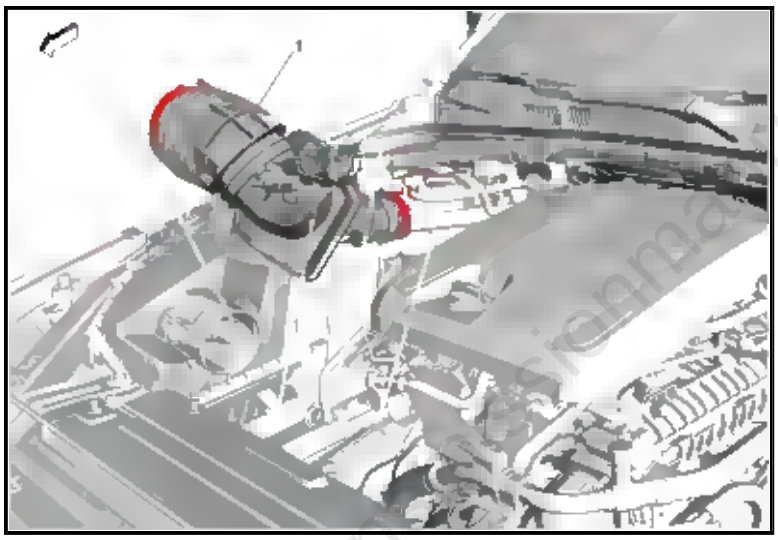
Removal Procedure

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1. 

   Air Cleaner Outlet Duct Clamp (1) - Loosen [2x]

2. Evaporative Emission Canister Purge Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
3. Positive Crankcase Ventilation Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
4. Disconnect the electrical connector.

5. 

   Air Cleaner Outlet Duct (1) - Remove

6. 

   Transmission Fluid Cooler Pipe Clip Bolt (1) - Remove

7. Transmission Fluid Cooler Pipe Nut (2) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

8. Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Transmission Cooler Bypass Valve - Remove
9. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
10. 

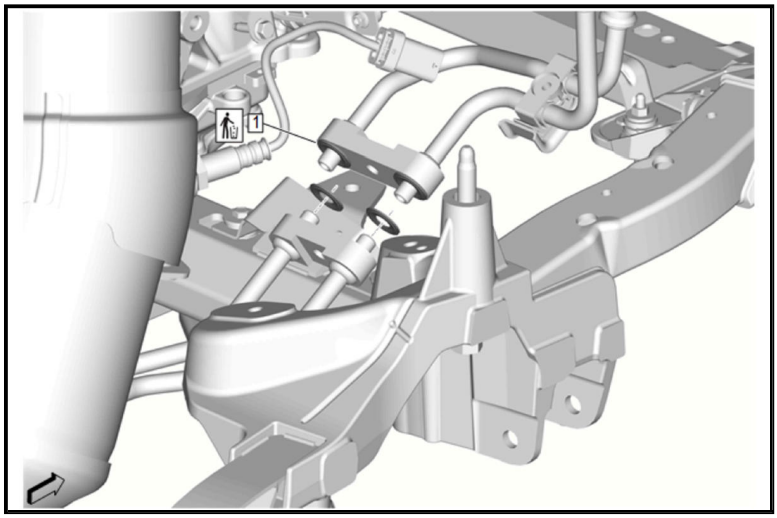
    Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

11. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove
12. 

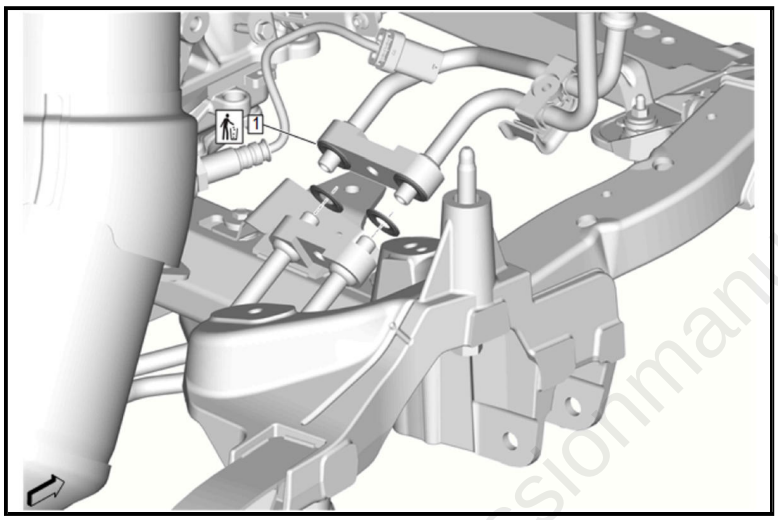
    Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Remove
13. Transmission Cooler Bypass Valve (2) - Remove

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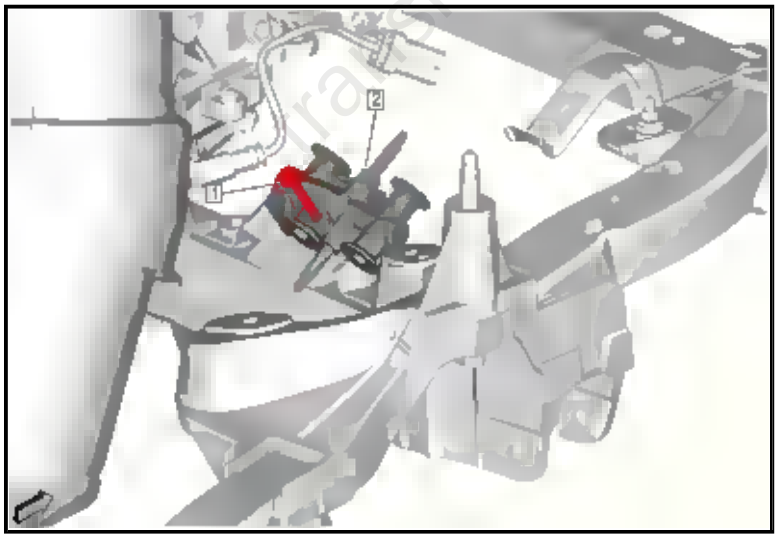
14. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [4x]

Installation Procedure

1. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [4x]

2. 

Transmission Cooler Bypass Valve (2) - Install

CAUTION: **Refer to Fastener Caution .**

3. Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Install and tighten - **Fastener Specifications**

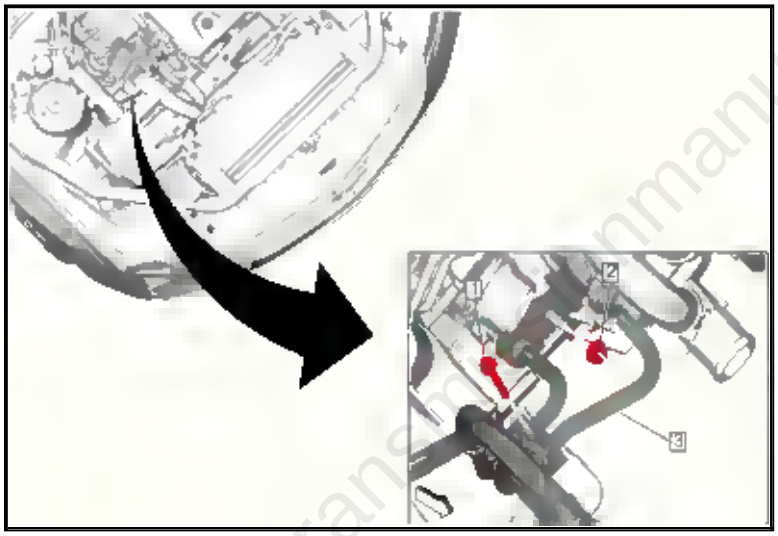
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4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

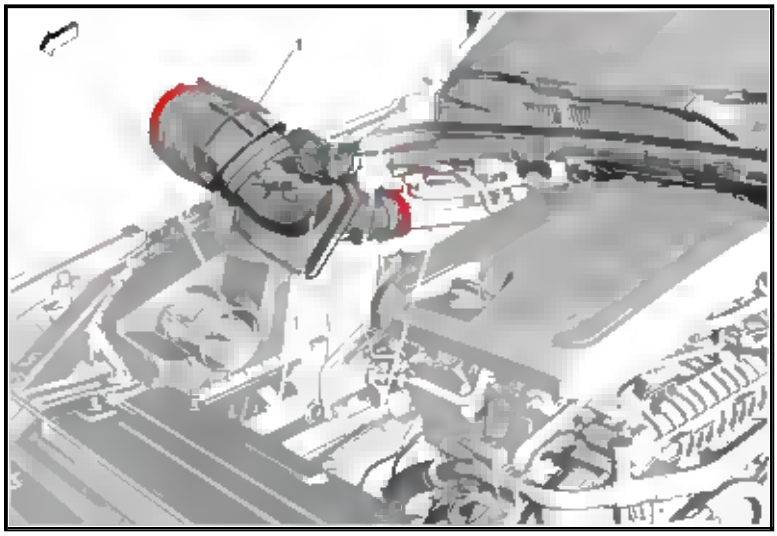
5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**
6. Lower the vehicle.

7. 

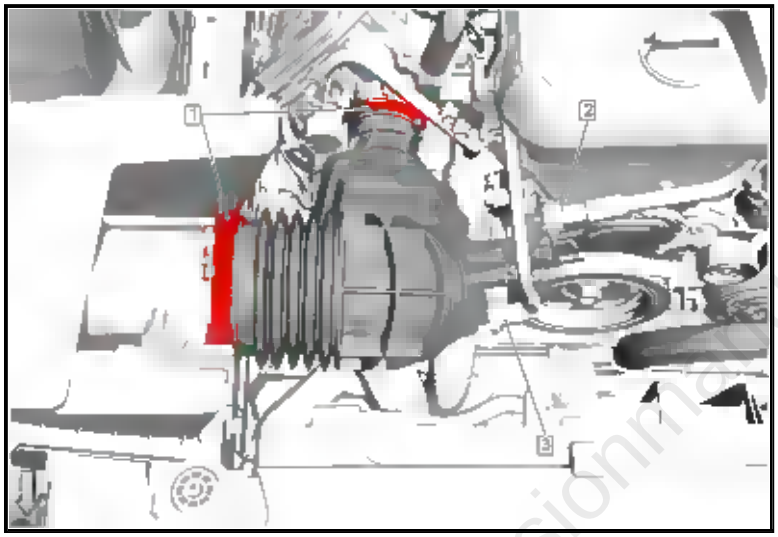
NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Transmission Cooler Bypass Valve - Install

8. Transmission Fluid Cooler Pipe Nut (2) - Install and tighten - **Fastener Specifications**
9. Transmission Fluid Cooler Pipe Clip Bolt (1) - Install and tighten - **Fastener Specifications**

10. 

    Air Cleaner Outlet Duct (1) - Install

11. 

    Connect the electrical connector.

12. Positive Crankcase Ventilation Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**
13. Evaporative Emission Canister Purge Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
14. Air Cleaner Outlet Duct Clamp (1) - Tighten [2x] - **Fastener Specifications**
15. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
16. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

TRANSMISSION COOLER BYPASS VALVE REPLACEMENT (L3B, RWD)

Single Use Components and Fasteners

Transmission Fluid Cooler Thermal Bypass Valve Gasket [4x]

Removal Procedure

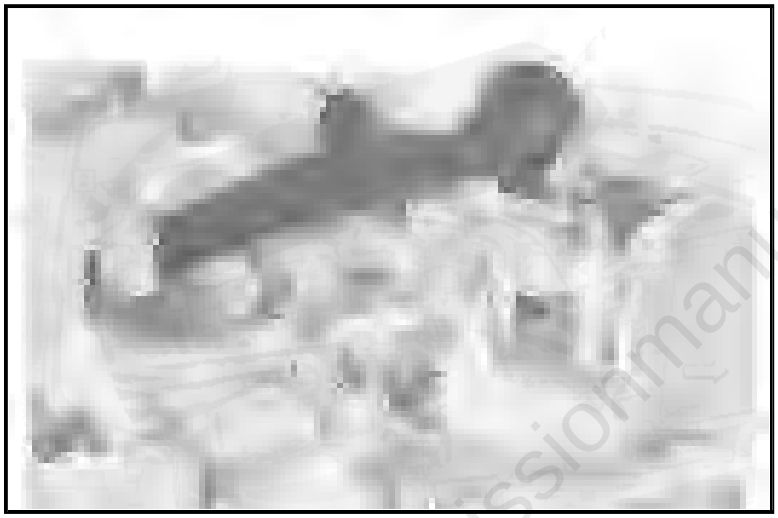
1. Remove the oil fill cap.

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2. 

   Intake Manifold Cover Bolt (1) - Remove [2x]

3. Lift up on the front of the intake manifold cover (2).

4. 

   Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Remove

5. 

   Air Cleaner Outlet Duct Clamp (1) - Loosen [2x]

6. Evaporative Emission Canister Purge Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
7. Positive Crankcase Ventilation Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
8. Disconnect the electrical connector.

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9. 

Air Cleaner Outlet Duct (1) - Remove

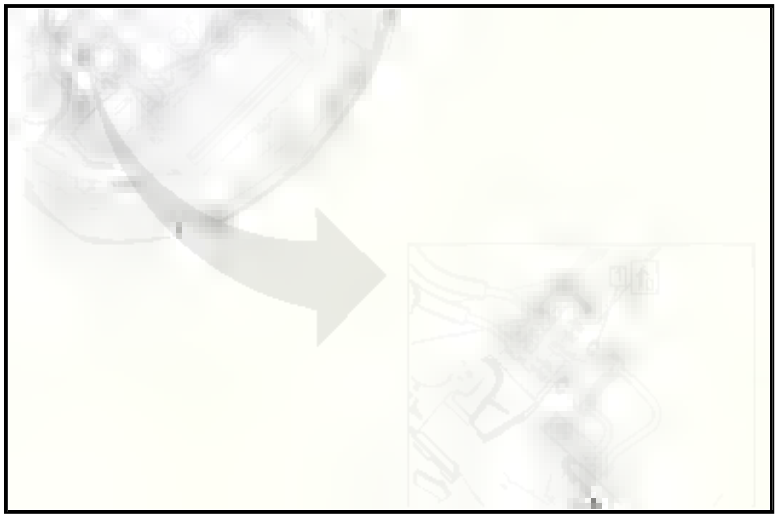
10. 

Transmission Fluid Cooler Pipe Clip Bolt (1) - Remove

11. Transmission Fluid Cooler Pipe Nut (2) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

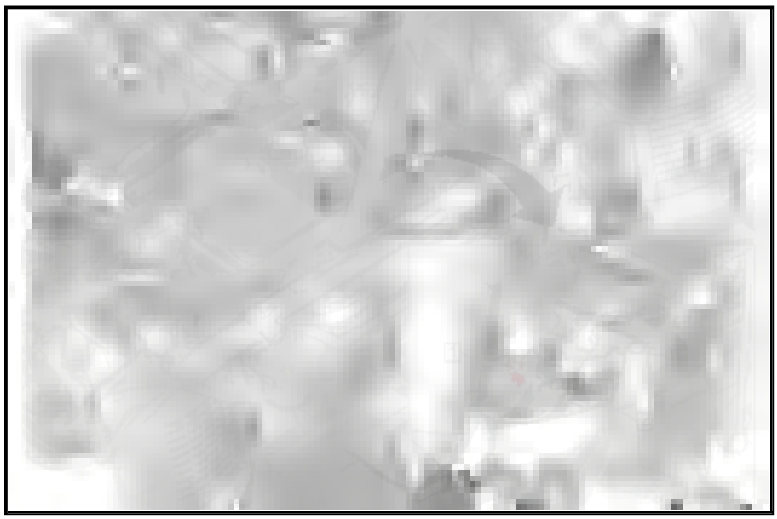
12. Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Transmission Cooler Bypass Valve - Remove

13. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

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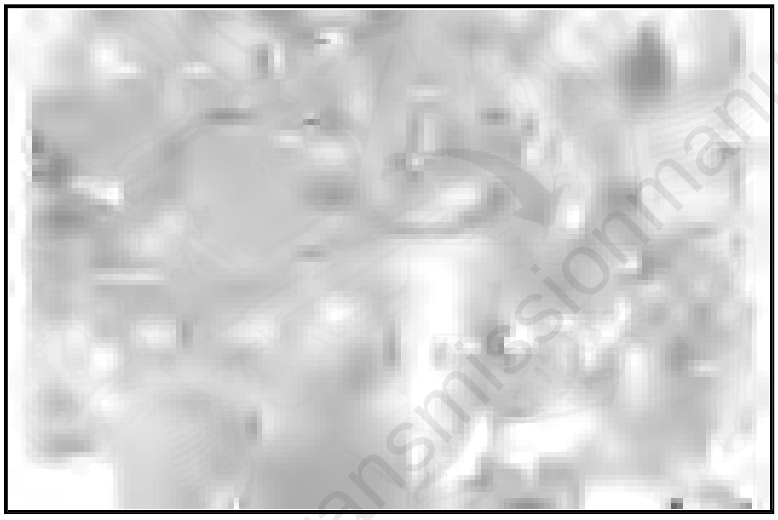
14. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

15. 

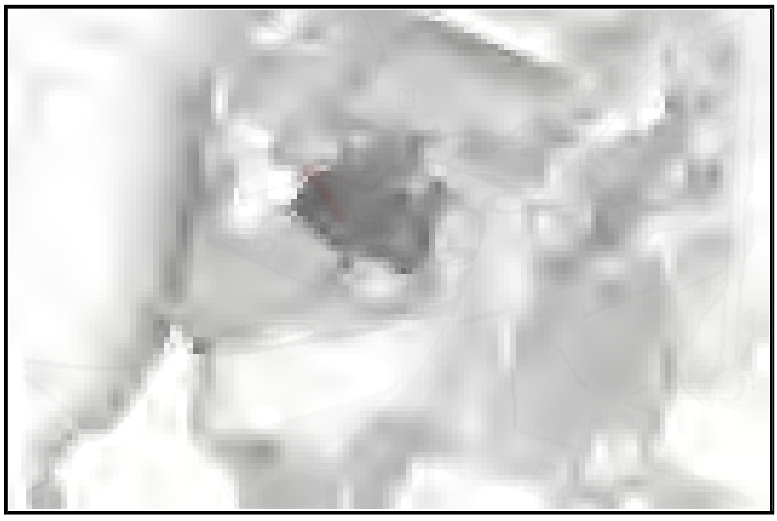
Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

16. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove

17. 

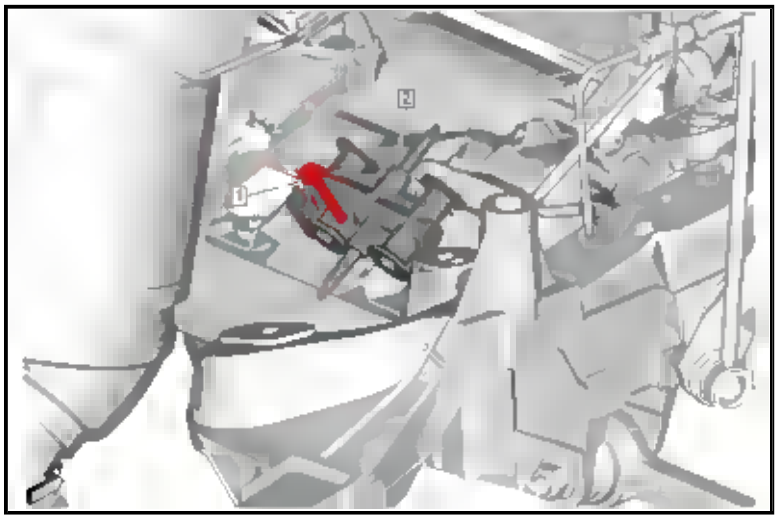
Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

18. 

Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Remove

19. Transmission Cooler Bypass Valve (2) - Remove

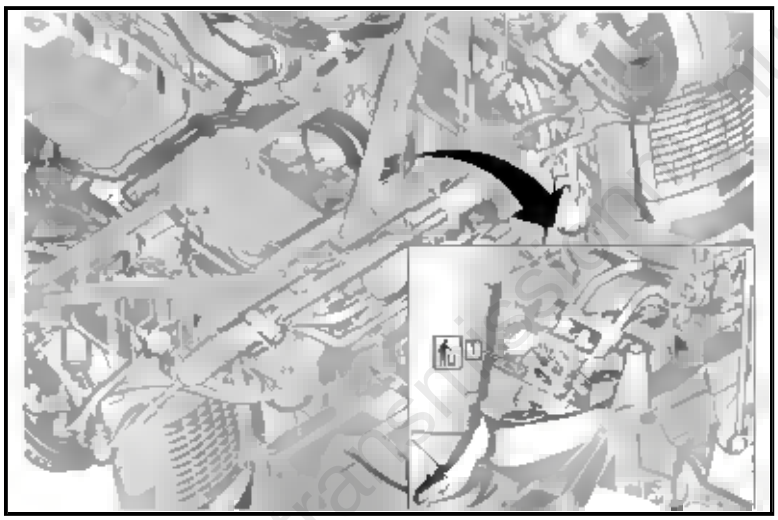
Installation Procedure

1. 

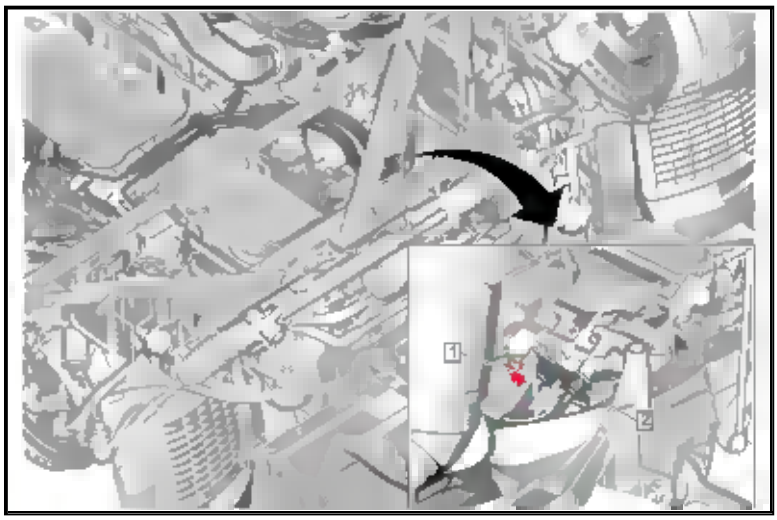
Transmission Cooler Bypass Valve (2) - Install

CAUTION: **Refer to Fastener Caution .**

2. Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Install and tighten - **Fastener Specifications**

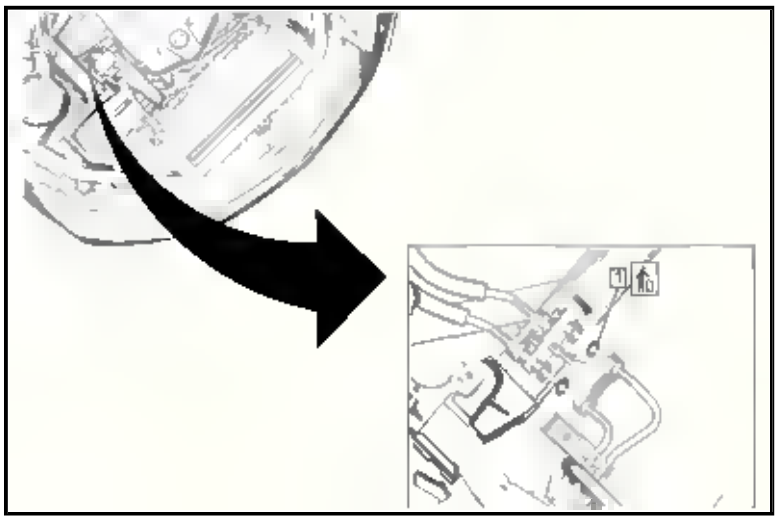
3. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

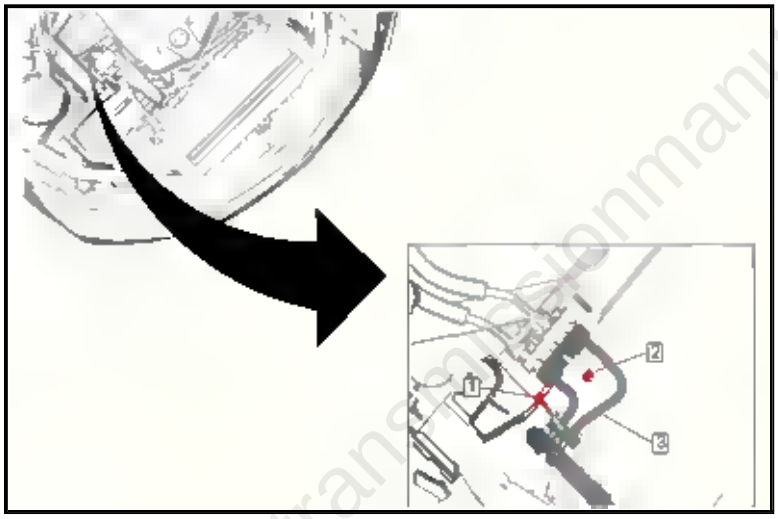
4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**
6. Lower the vehicle.
7. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

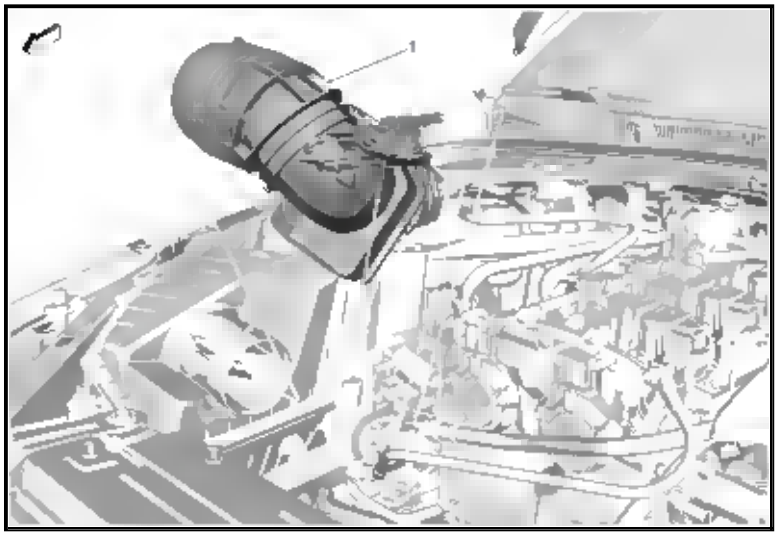
8. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Transmission Cooler Bypass Valve - Install

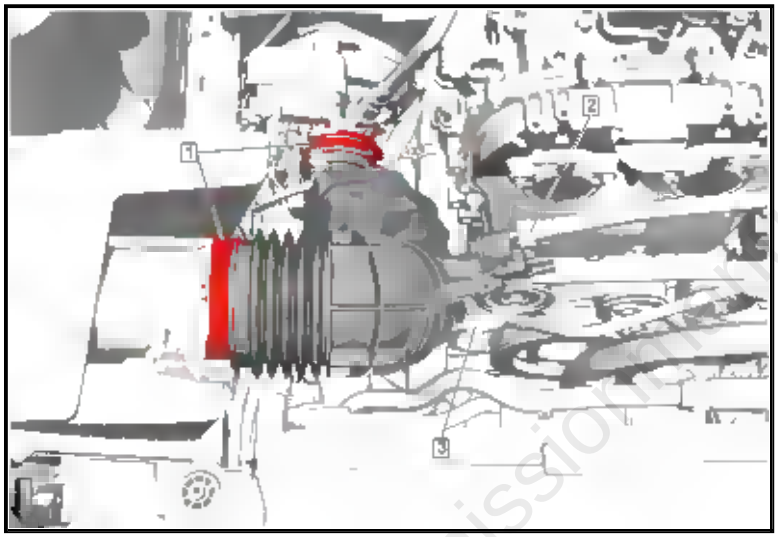
9. Transmission Fluid Cooler Pipe Nut (2) - Install and tighten - **Fastener Specifications**
10. Transmission Fluid Cooler Pipe Clip Bolt (1) - Install and tighten - **Fastener Specifications**

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11. 

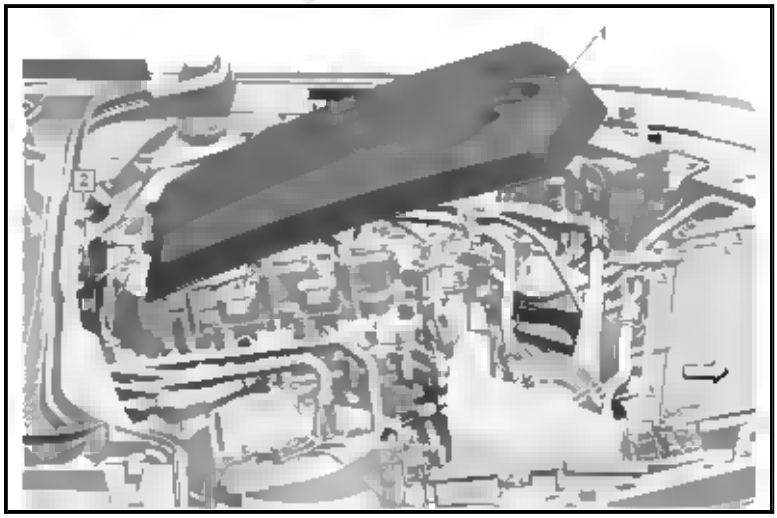
    Air Cleaner Outlet Duct (1) - Install

12. Connect the electrical connector.

13. 

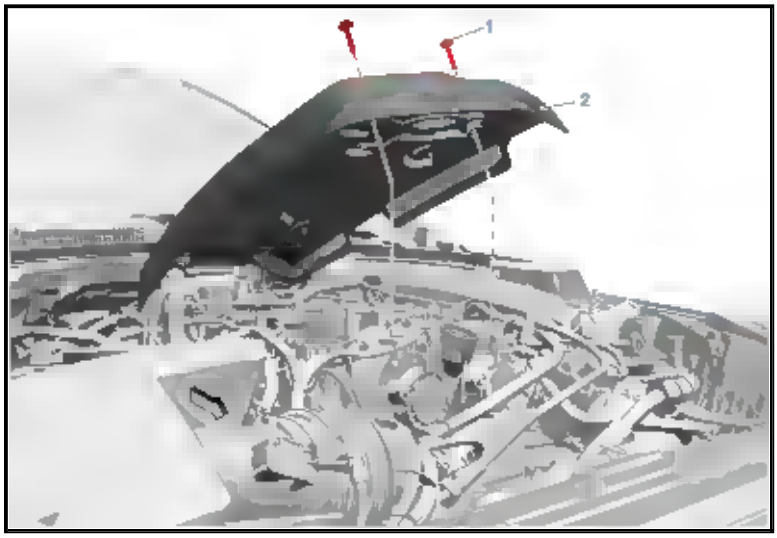
    Positive Crankcase Ventilation Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**

14. Evaporative Emission Canister Purge Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
15. Air Cleaner Outlet Duct Clamp (1) - Tighten [2x] -

16. 

    Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Install

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17. 

    Push down on the front of the intake manifold cover (2).

18. Intake Manifold Cover Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
19. Install the oil fill cap.
20. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
21. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

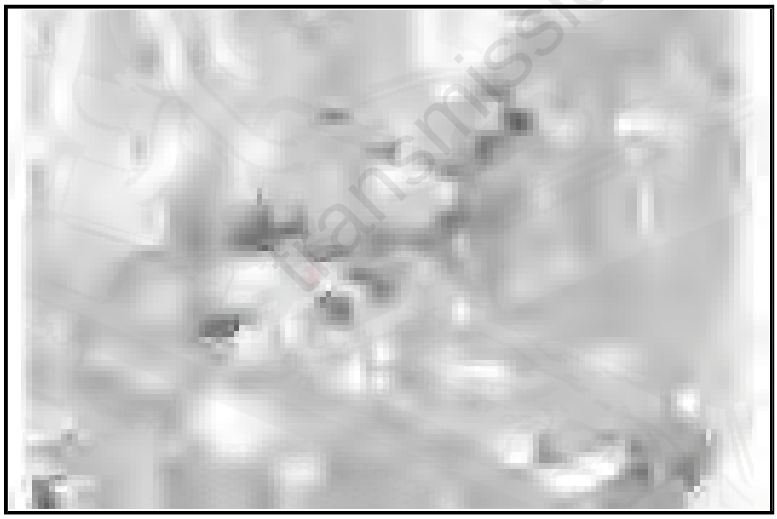
TRANSMISSION COOLER BYPASS VALVE REPLACEMENT (L3B, AWD)

Single Use Components and Fasteners

Transmission Fluid Cooler Thermal Bypass Valve Gasket [4x]

Removal Procedure

1. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

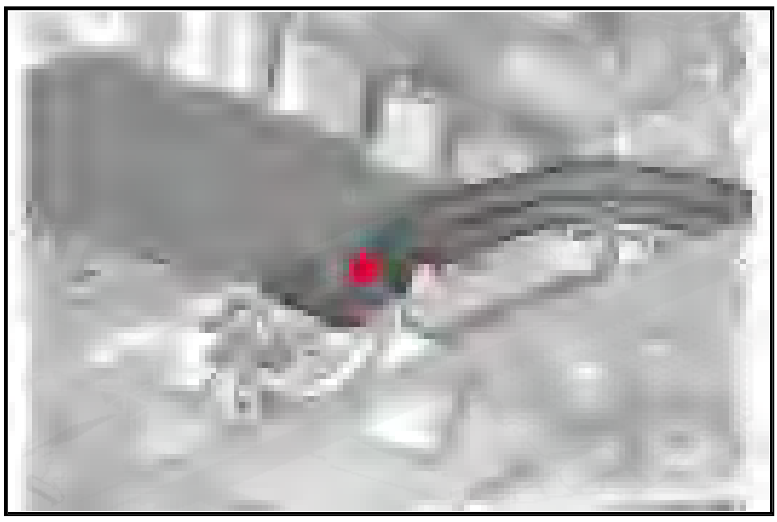
2. 

    Transmission Fluid Cooler Pipe Nut (1) - Remove

    NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

3. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove

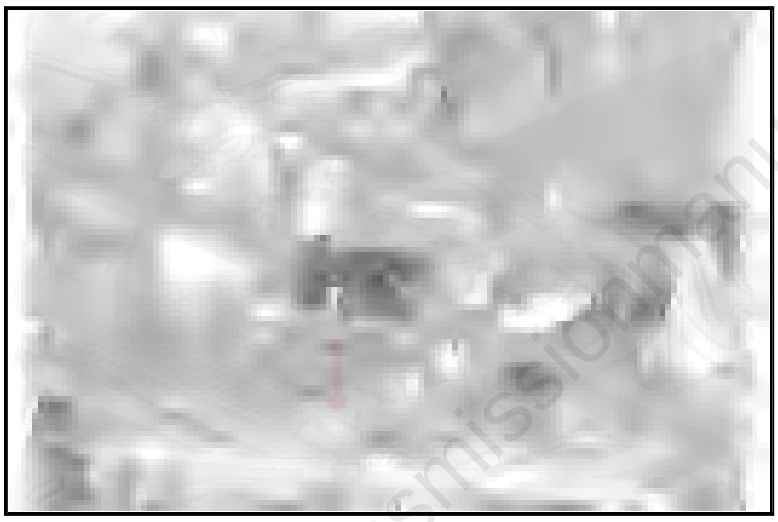
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4. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

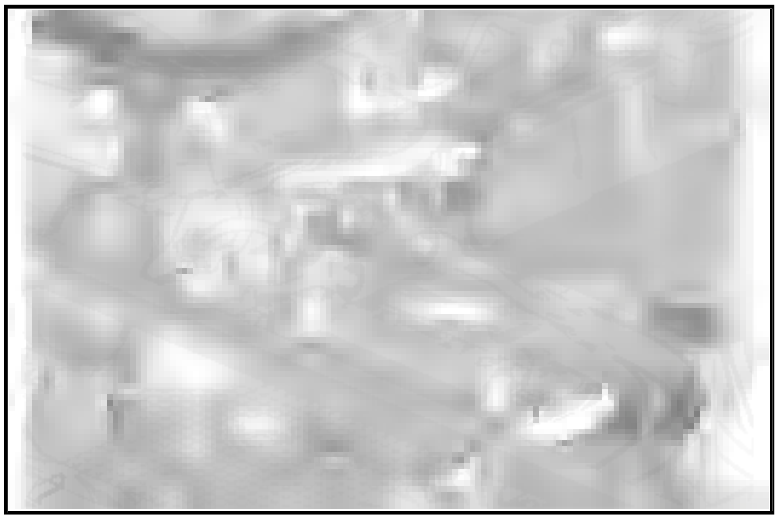
NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

5. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove

6. 

Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Remove

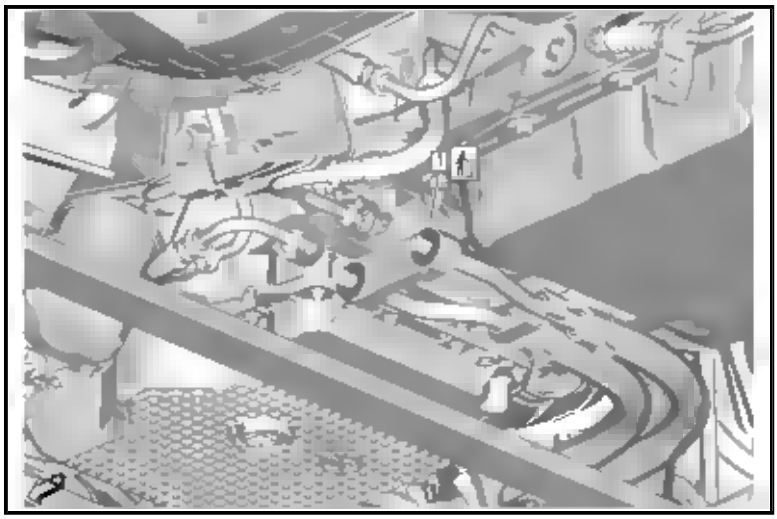
7. Transmission Cooler Bypass Valve (2) - Remove

8. 

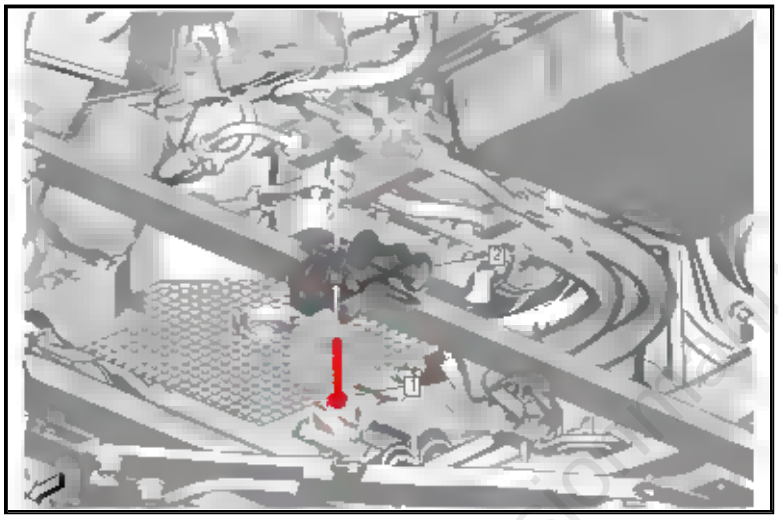
Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [4x]

Installation Procedure

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1. 

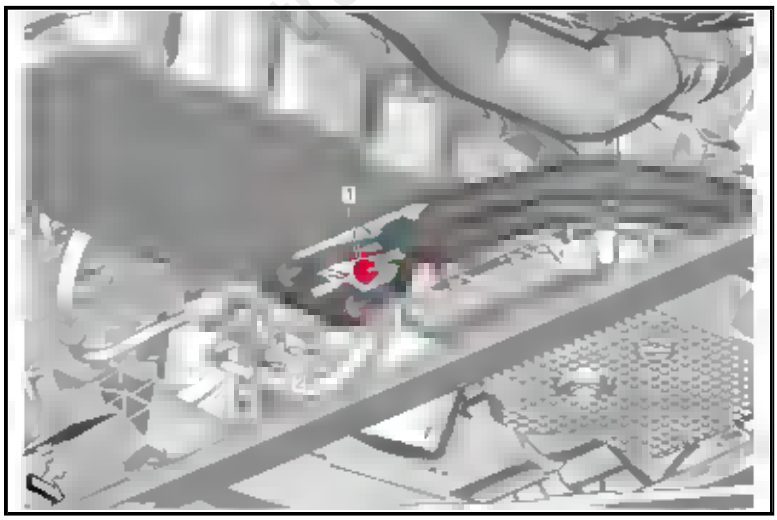
Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [4x]

2. 

Transmission Cooler Bypass Valve (2) - Install

CAUTION: **Refer to Fastener Caution .**

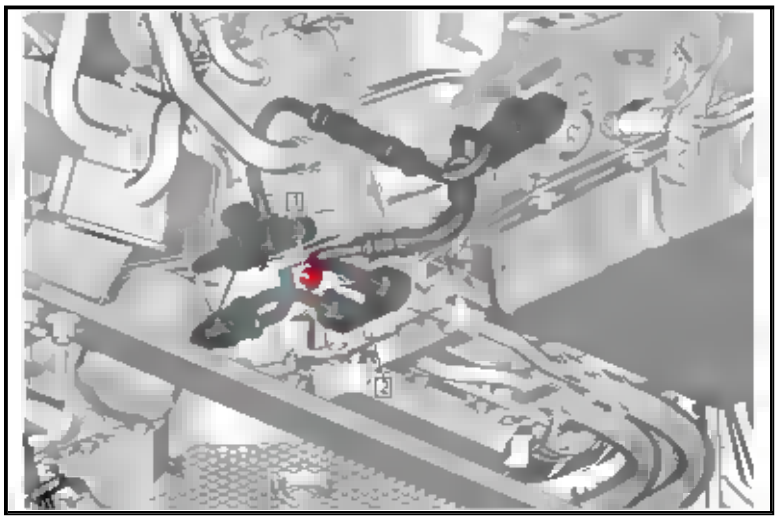
3. Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Install and tighten - **Fastener Specifications**

4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

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5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**
6. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

7. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**
8. Lower the vehicle.
9. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
10. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LSY, RWD, WITHOUT V03)

Single Use Components and Fasteners

- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal

Removal Procedure

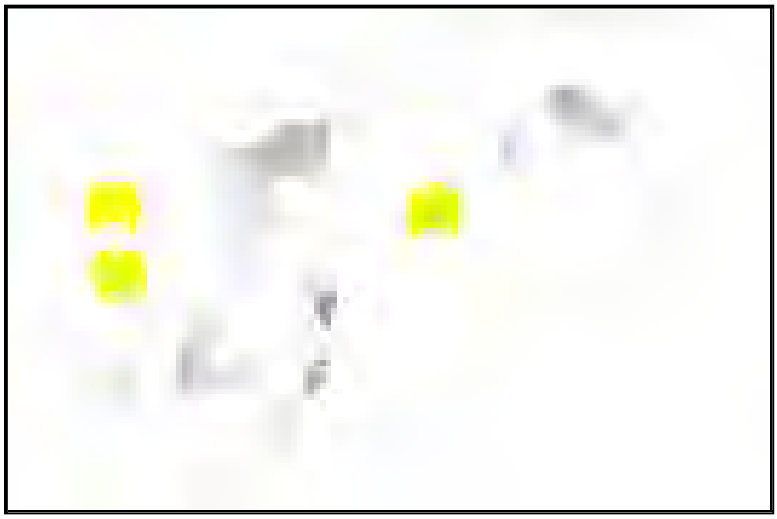
1. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
2. Place a drain pan under the vehicle.
3. 

Transmission Fluid Cooler Pipe Nut (1) - Remove [2x]

4. Transmission Fluid Cooler Pipe Bolt (2) - Remove

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NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

5. Transmission Fluid Cooler Inlet and Outlet Pipe (3) - Remove
6. 

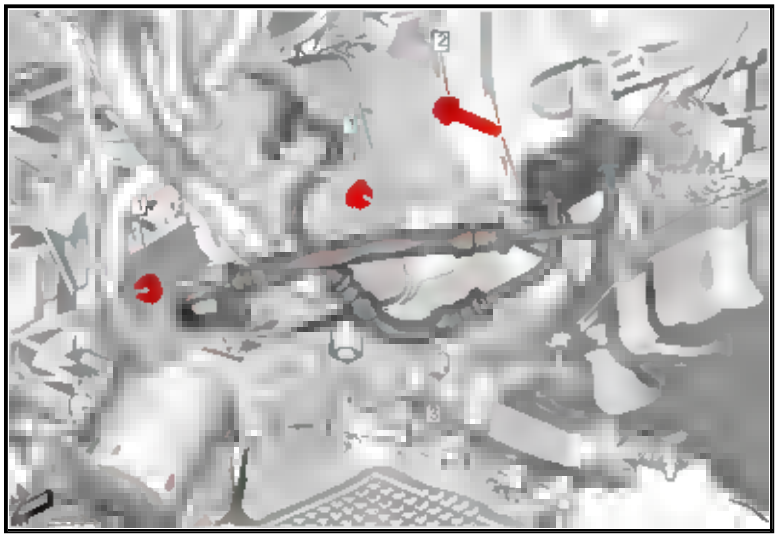
   Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]
7. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

Installation Procedure

1. 

   Transmission Fluid Cooler Seal (2) - Install NEW
2. Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

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3. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (3) - Install

CAUTION: **Refer to Fastener Caution .**

4. Transmission Fluid Cooler Pipe Bolt (2) - Install and tighten - **Fastener Specifications**
5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten [2x] - **Fastener Specifications**
6. Remove the drain pan.
7. Lower the vehicle.
8. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
9. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

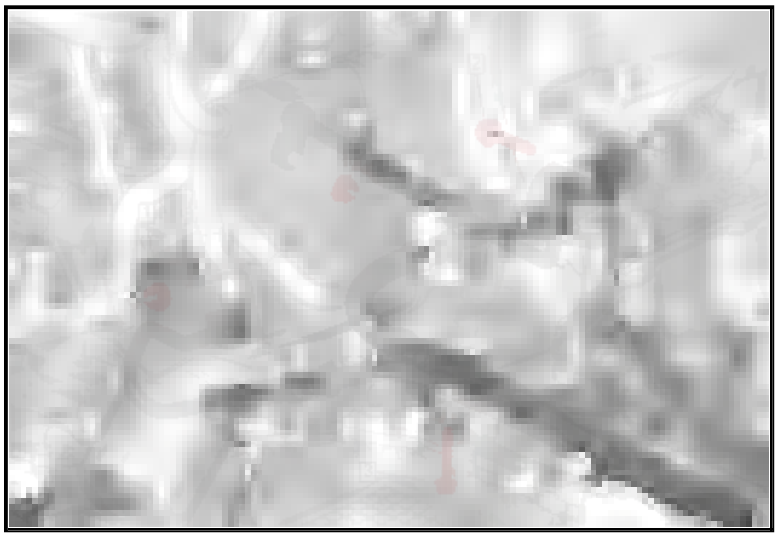
TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LSY, RWD, WITH V03, TRANSMISSION SIDE)

Single Use Components and Fasteners

- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

Removal Procedure

1. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

2. 

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Transmission Fluid Cooler Pipe Nut (1) - Remove [2x]

3. Transmission Fluid Cooler Pipe Bolt (2) - Remove
4. Transmission Fluid Cooler Pipe Clip Bolt (3) - Remove
5. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

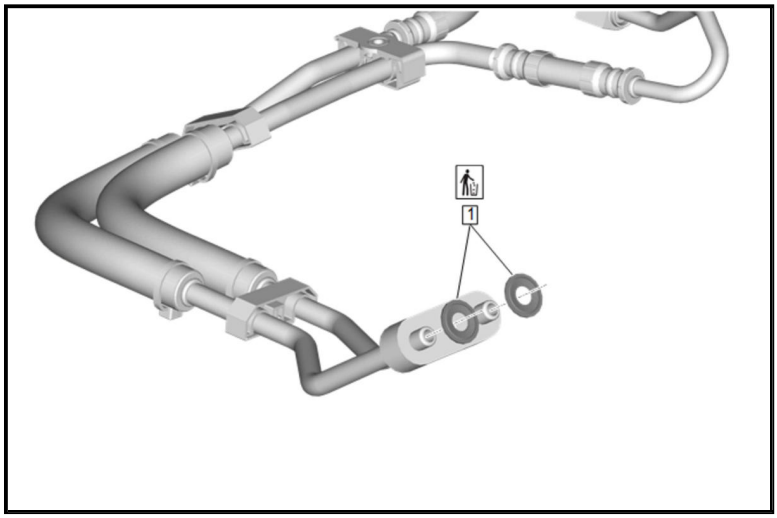
NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

6. Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Remove
7. 

Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

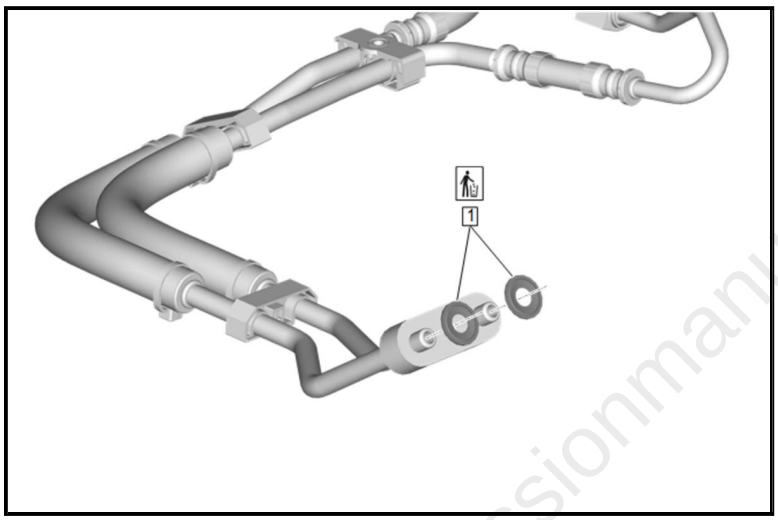
8. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

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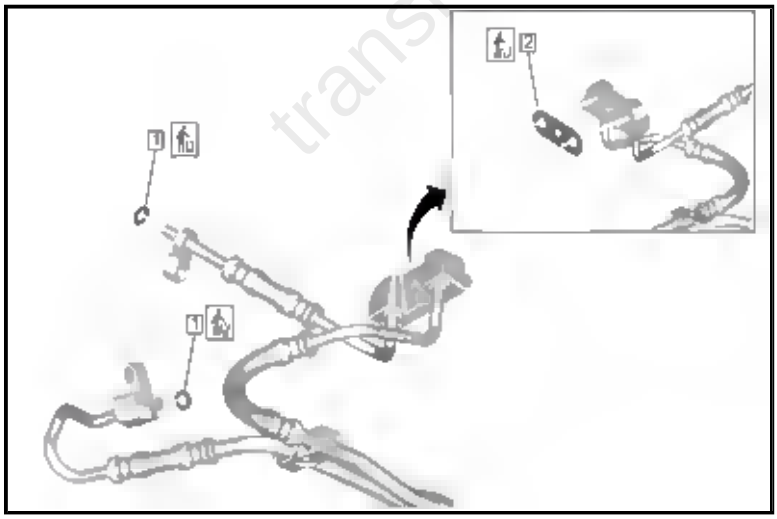
9. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

Installation Procedure

1. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

2. 

Transmission Fluid Cooler Seal (2) - Install NEW

3. Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

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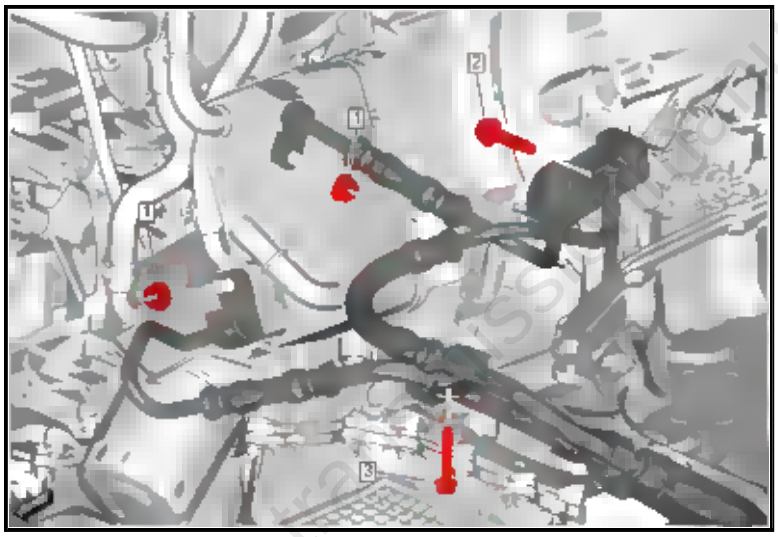
4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Install

CAUTION: **Refer to Fastener Caution .**

5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

6. 

Transmission Fluid Cooler Pipe Clip Bolt (3) - Install and tighten - **Fastener Specifications**

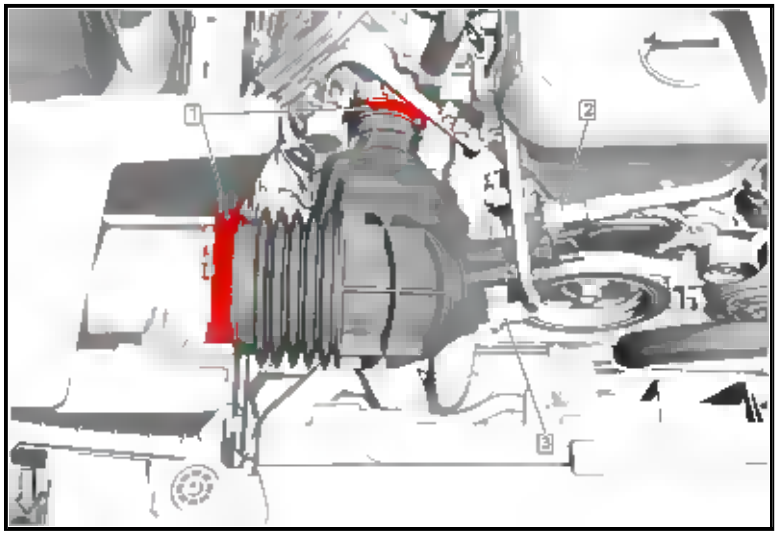
7. Transmission Fluid Cooler Pipe Bolt (2) - Install and tighten - **Fastener Specifications**
8. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten [2x] - **Fastener Specifications**
9. Lower the vehicle.
10. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
11. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LSY, RWD, WITH V03, ATOC SIDE)

Single Use Components and Fasteners

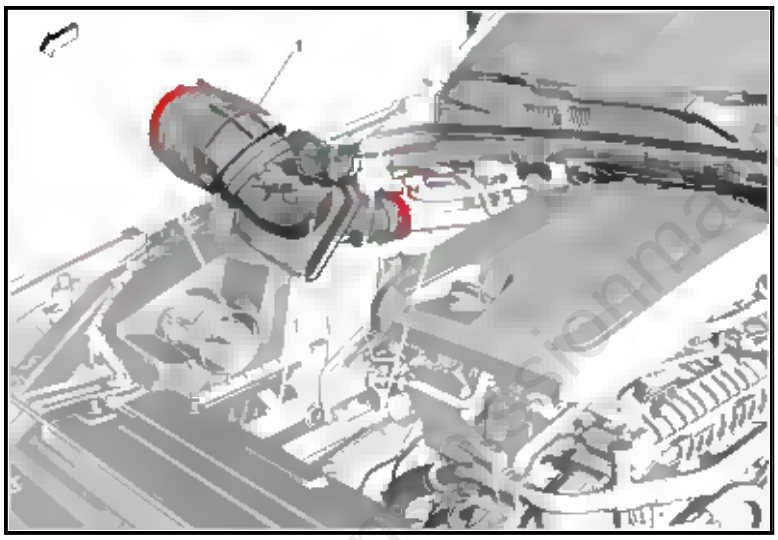
- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

Removal Procedure

1. 

   Air Cleaner Outlet Duct Clamp (1) - Loosen [2x]

2. Evaporative Emission Canister Purge Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
3. Positive Crankcase Ventilation Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
4. Disconnect the electrical connector.

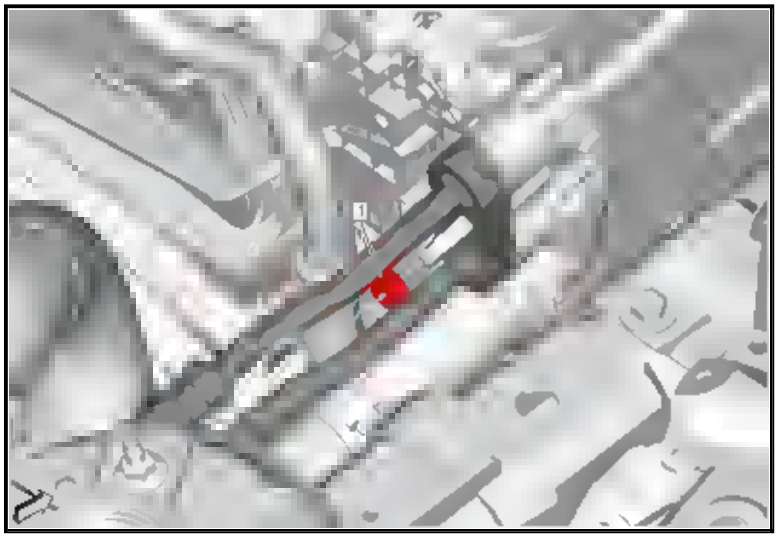
5. 

   Air Cleaner Outlet Duct (1) - Remove

6. 

   Transmission Fluid Cooler Pipe Clip Bolt (1) - Remove

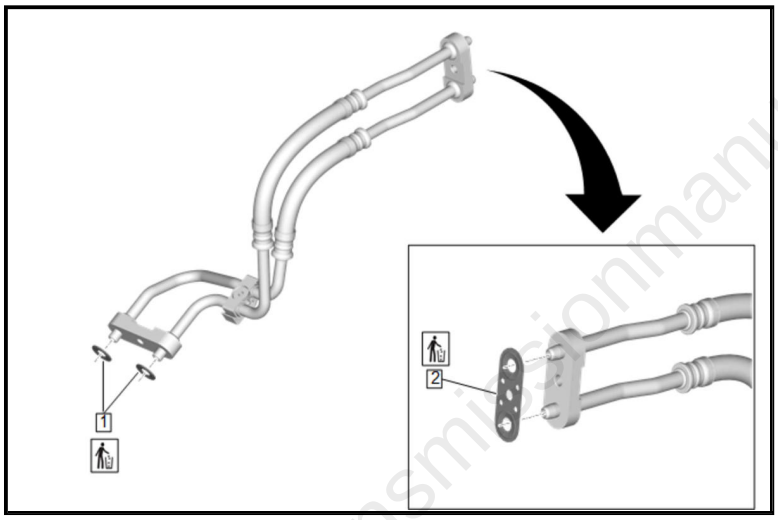
7. Transmission Fluid Cooler Pipe Nut (2) - Remove

8. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

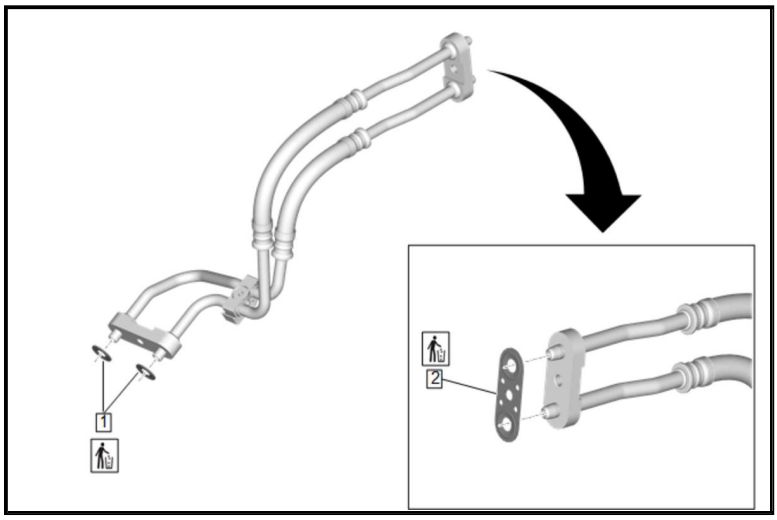
9. Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Remove

10. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

11. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

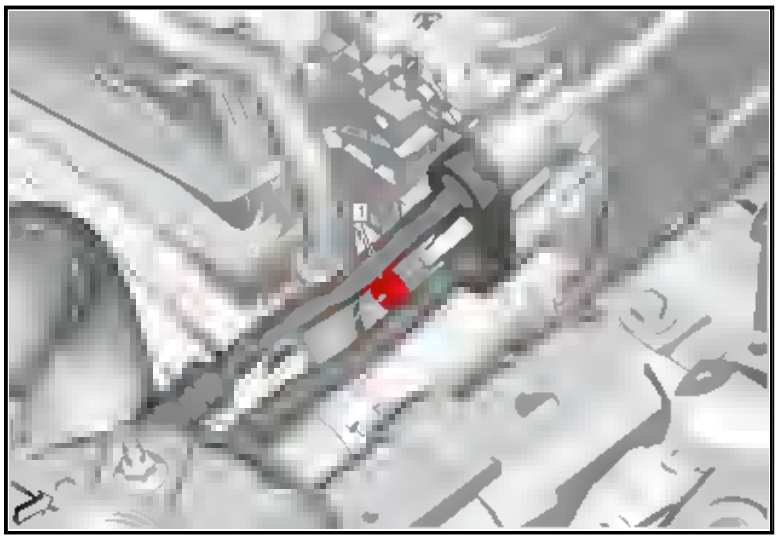
Installation Procedure

1. 

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Transmission Fluid Cooler Seal (2) - Install NEW

2. Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

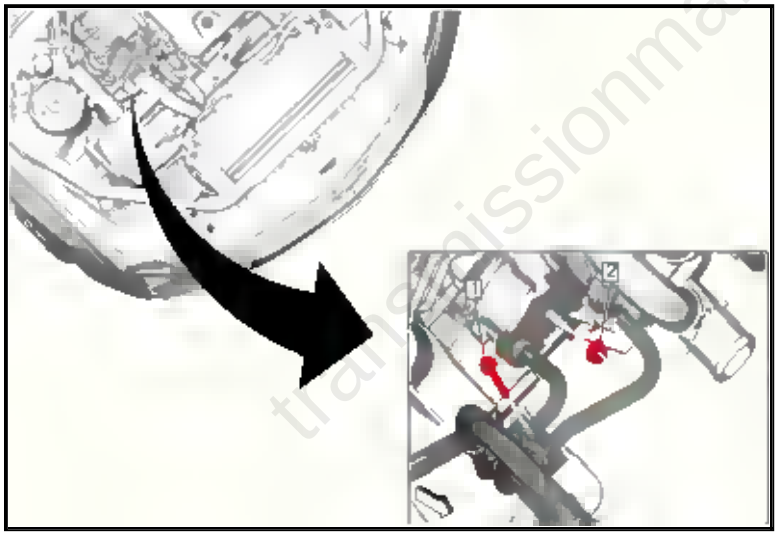
3. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Install

CAUTION: **Refer to Fastener Caution .**

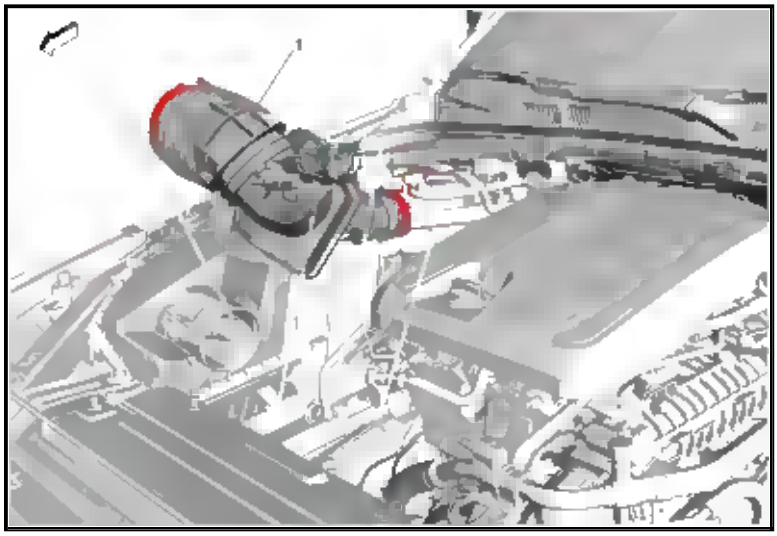
4. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

5. 

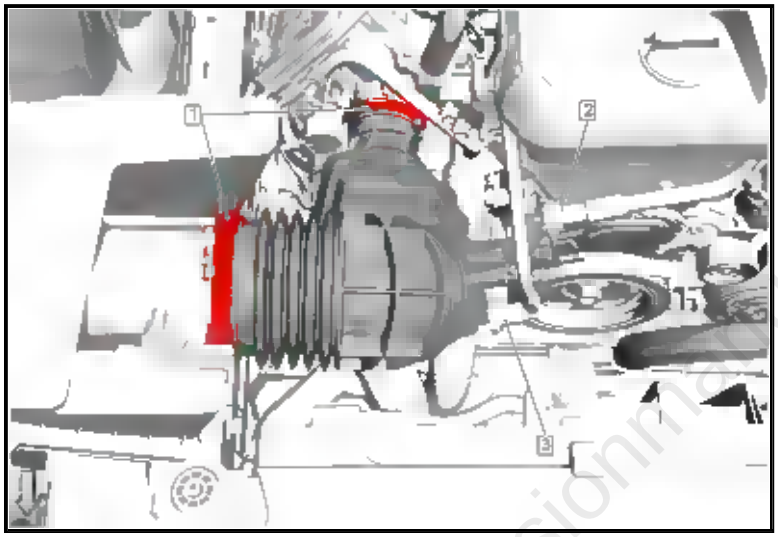
Transmission Fluid Cooler Pipe Nut (2) - Install and tighten - **Fastener Specifications**

6. Transmission Fluid Cooler Pipe Clip Bolt (1) - Install and tighten - **Fastener Specifications**

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7. 

   Air Cleaner Outlet Duct (1) - Install

8. 

   Connect the electrical connector.

9. Positive Crankcase Ventilation Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**
10. Evaporative Emission Canister Purge Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
11. Air Cleaner Outlet Duct Clamp (1) - Tighten [2x] - **Fastener Specifications**
12. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
13. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (L3B, RWD, TRANSMISSION SIDE)

Single Use Components and Fasteners

- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

Removal Procedure

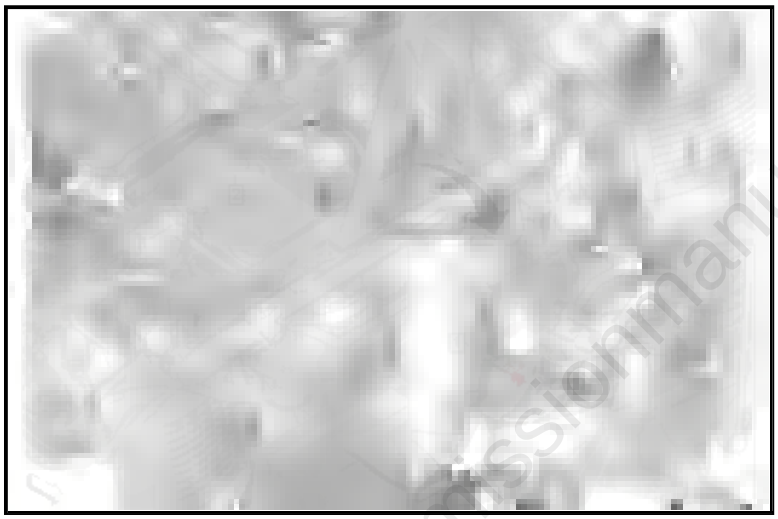
1. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

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2. 

Transmission Fluid Cooler Pipe Connector Bolt (1) - Remove [2x]

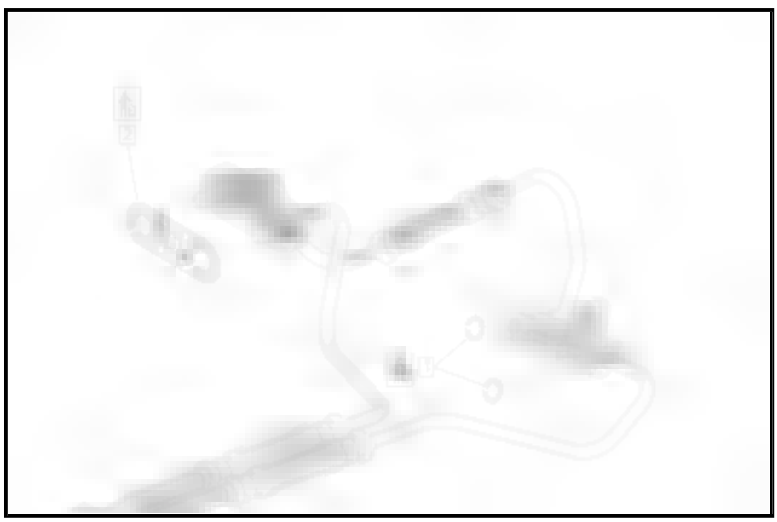
3. Transmission Fluid Cooler Pipe Bolt (2) - Remove
4. Transmission Fluid Cooler Pipe Clip Bolt (3) - Remove

5. 

Transmission Fluid Cooler Pipe Nut (1) - Remove [2x]

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

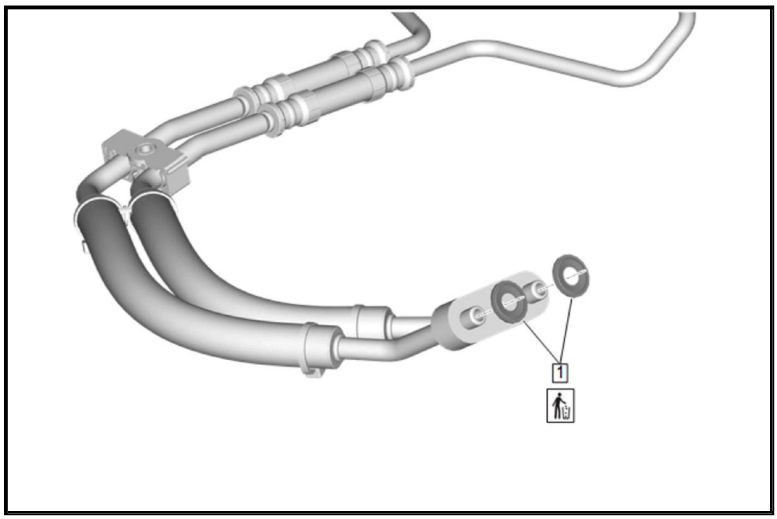
6. Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Remove

7. 

Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

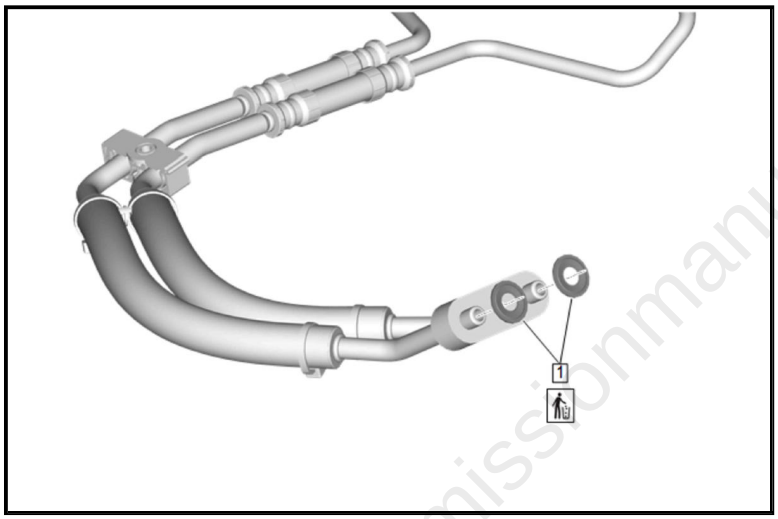
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8. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

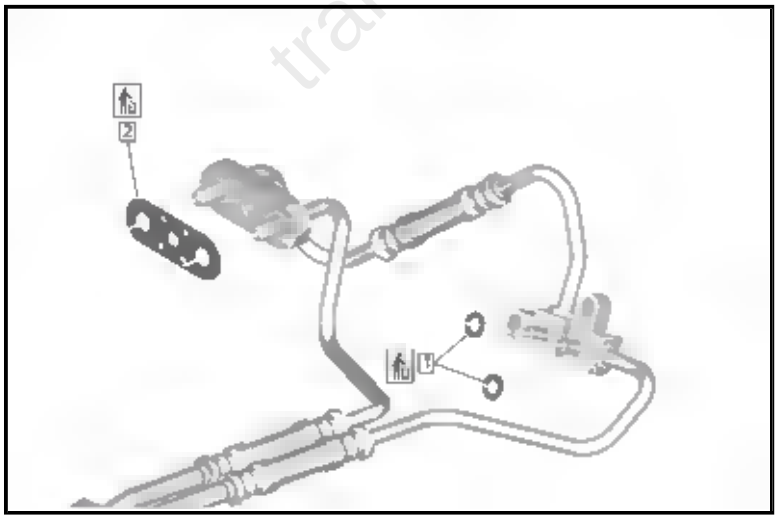
9. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

Installation Procedure

1. 

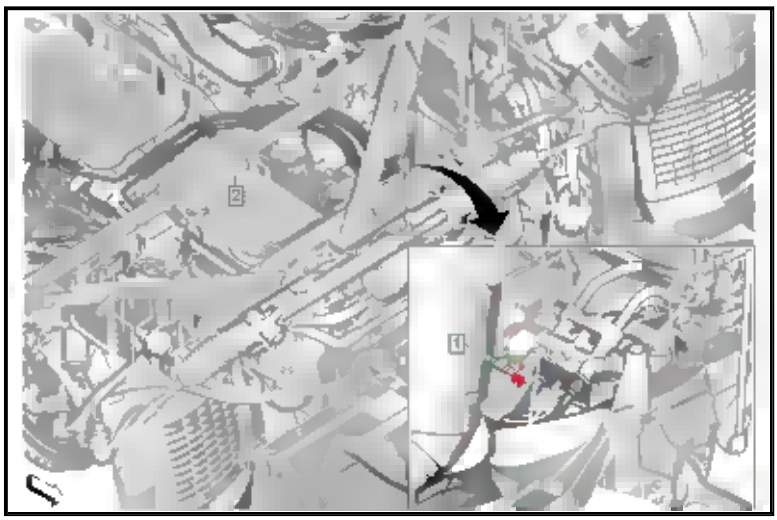
Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

2. 

Transmission Fluid Cooler Seal (2) - Install NEW

3. Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

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4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Install

CAUTION: **Refer to Fastener Caution .**

5. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

6. 

Transmission Fluid Cooler Pipe Clip Bolt (3) - Install and tighten - **Fastener Specifications**

7. Transmission Fluid Cooler Pipe Bolt (2) - Install and tighten - **Fastener Specifications**
8. Transmission Fluid Cooler Pipe Connector Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
9. Lower the vehicle.
10. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
11. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

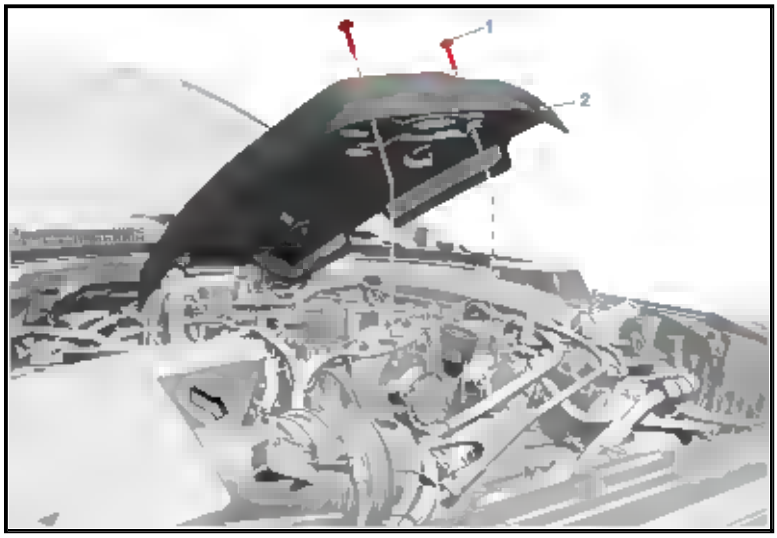
TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (L3B, RWD, ATOC SIDE)

Single Use Components and Fasteners

- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

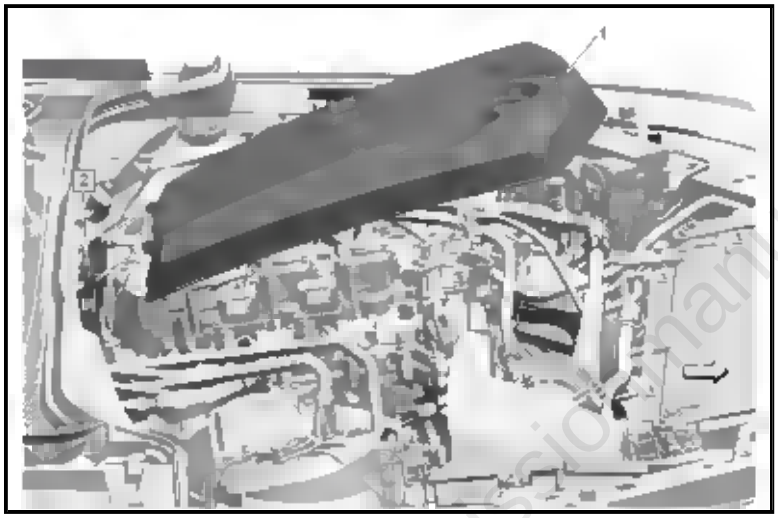
Removal Procedure

1. Remove the oil fill cap.

2. 

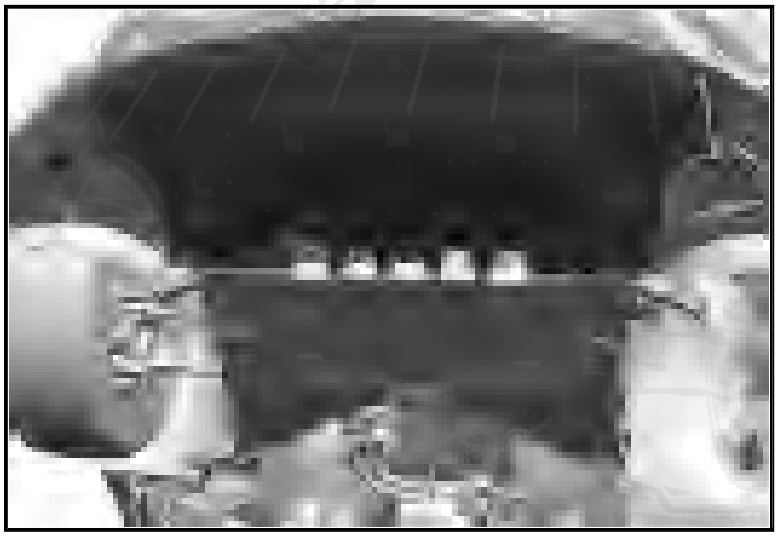
Intake Manifold Cover Bolt (1) - Remove [2x]

3. Lift up on the front of the intake manifold cover (2).

4. 

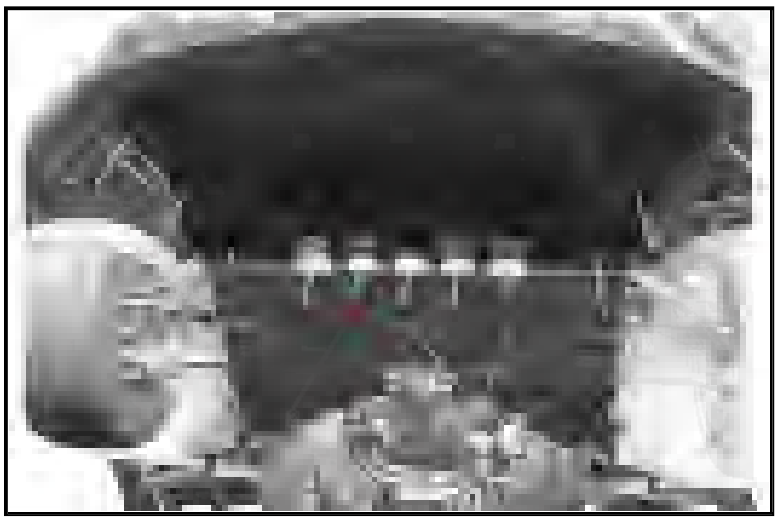
Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Remove

5. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

6. 

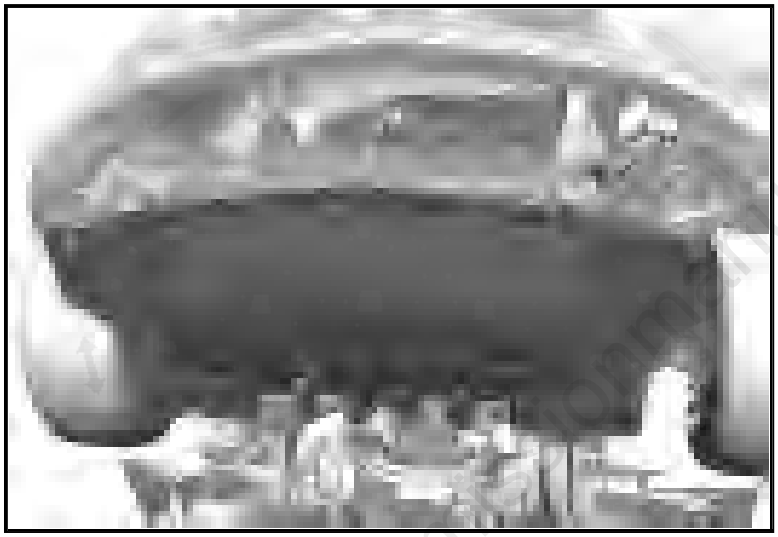
Front Bumper Fascia Center Air Deflector Screw (1) - Remove [10x]

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7. 

Front Bumper Fascia Center Air Deflector Screw (1) - Remove [6x]

8. Front Bumper Fascia Center Air Deflector Bolt (2) - Remove [5x]
9. Front Bumper Fascia Center Air Deflector Retainer (3) - Remove [2x]

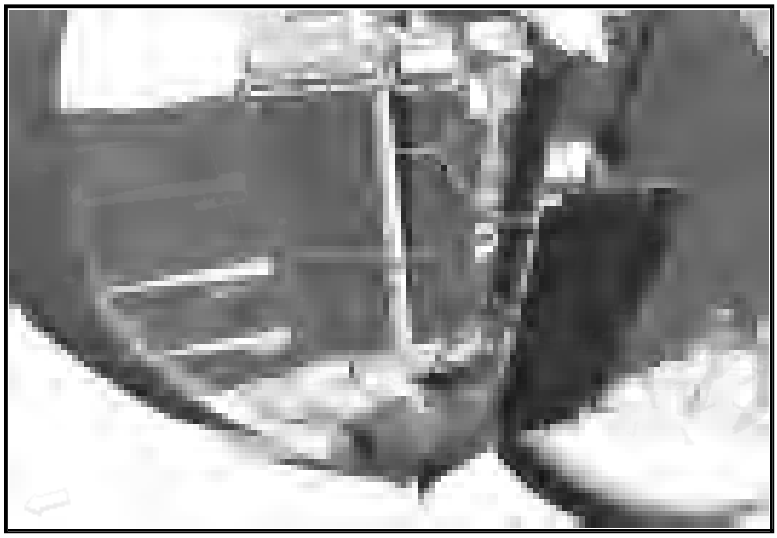
10. 

Pull the front bumper fascia center air deflector (1) rearwards and downwards from the front bumper fascia.

11. 

Radiator Air Lower Seal Retainer (1) - Remove [6x]

12. Radiator Air Lower Baffle Retainer (2) - Remove

13. 

Radiator Air Lower Baffle (1) - Remove

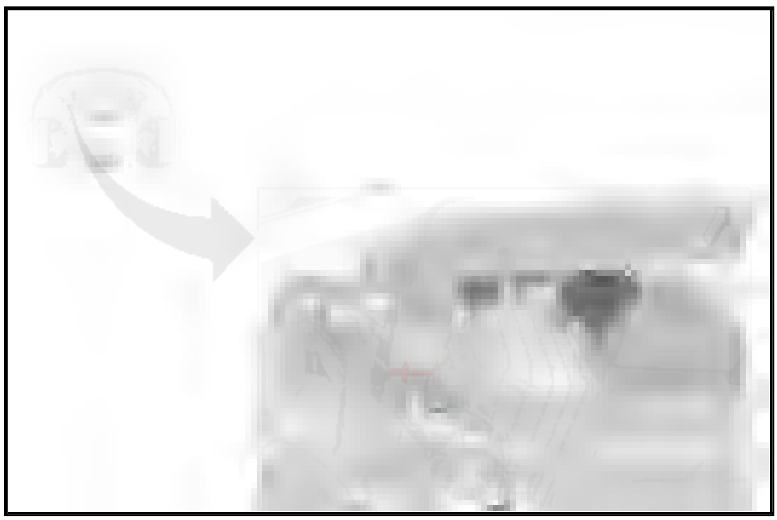
14. 

Radiator Air Front Lower Baffle Retainer (1) - Remove [3x]

15. 

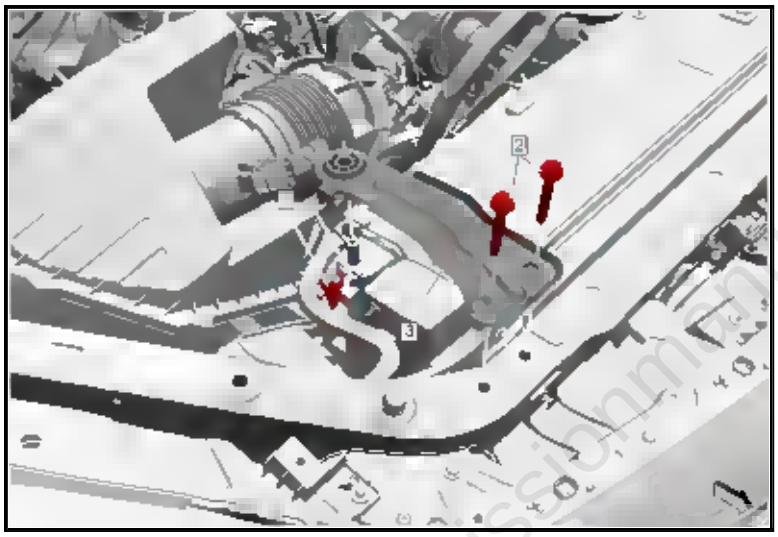
Radiator Air Front Lower Baffle (1) - Remove

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16. 

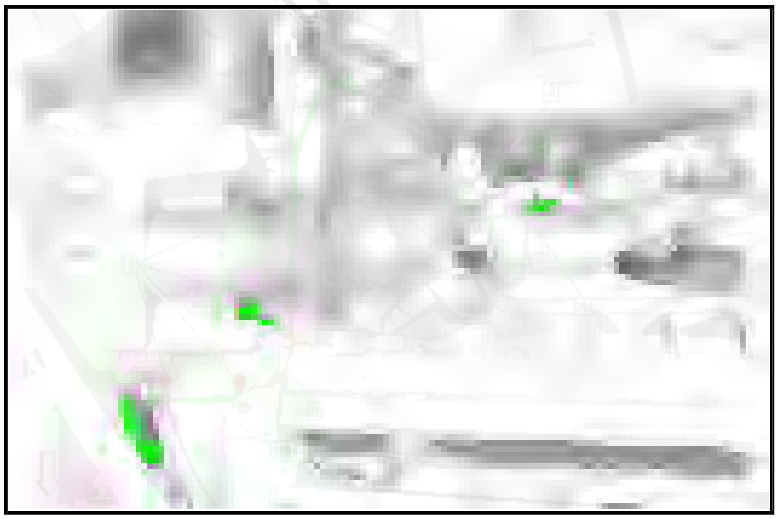
    Radiator Air Seal Retainer (1) - Remove [2x]

17. Lower the vehicle.

18. 

    Wiring Harness Retainer (1) - Remove

19. Radiator Upper Bracket Bolt (2) - Remove [2x]
20. Radiator Upper Bracket (3) - Remove

21. 

    Wiring Harness Retainer (1) @ Air Cleaner Assembly - Remove [3x]

22. Positive Crankcase Ventilation Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
23. Evaporative Emission Canister Purge Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**

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24. Electrical Connector (4) - Disconnect [2x]

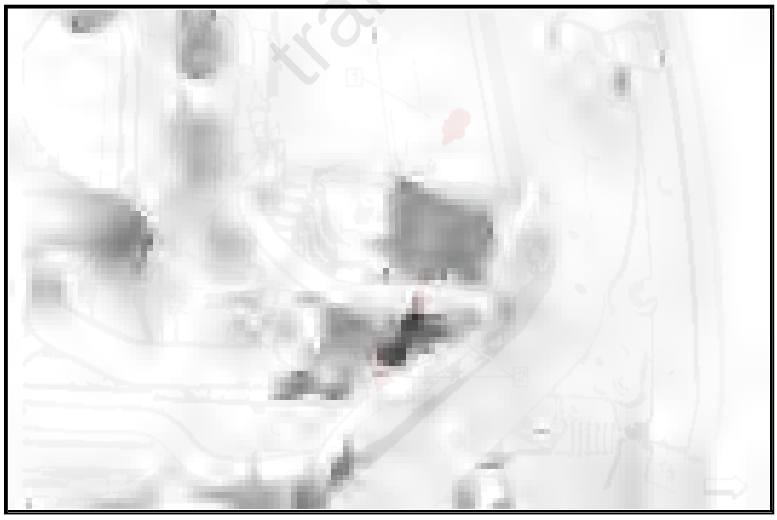
25. 

Air Cleaner Bolt (1) - Remove

26. Air Cleaner Outlet Duct Clamp (2) - Loosen

27. 

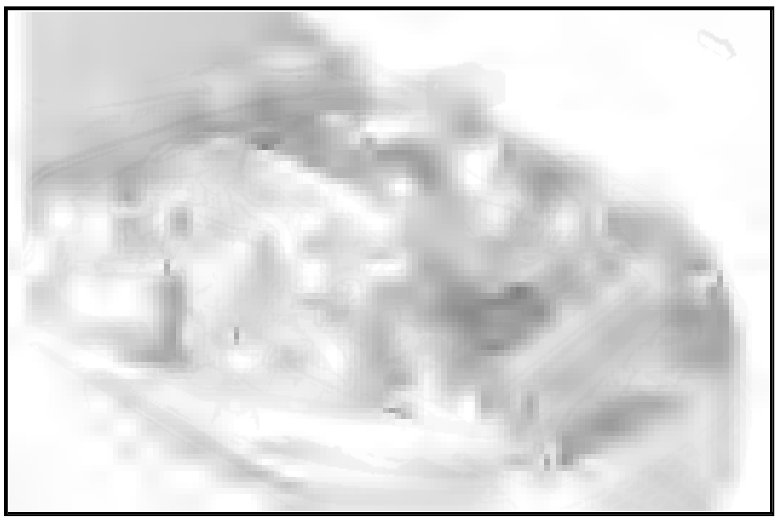
Remove the air cleaner (1) and air cleaner outlet duct (2) as an assembly.

28. 

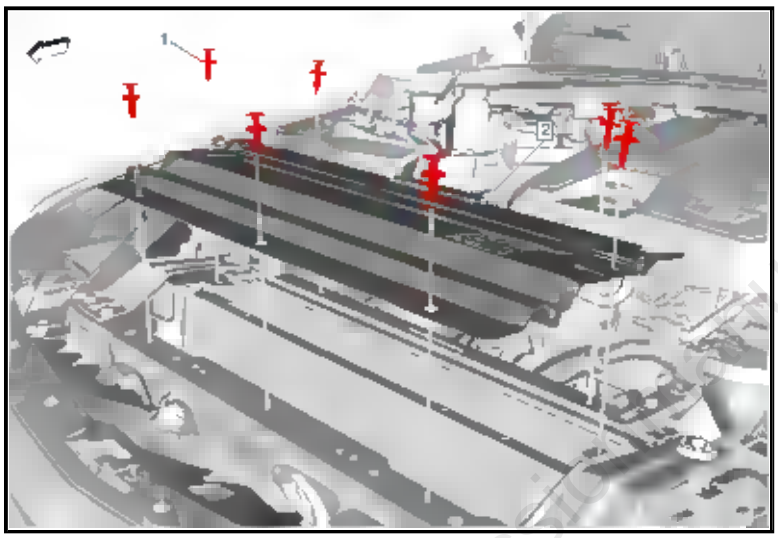
Radiator Air Upper Baffle Retainer (1) - Remove

29. Radiator Air Seal Retainer (2) - Remove [2x]

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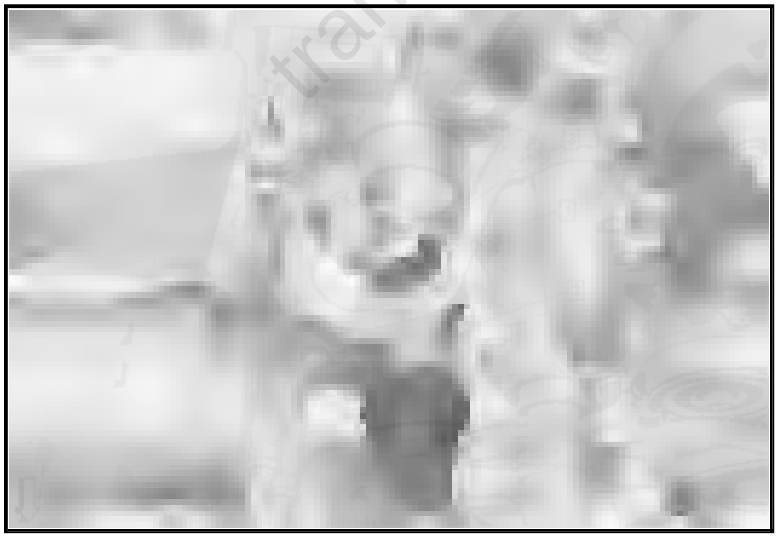
30. 

Remove the radiator air side baffle (1) by manipulating it from beneath the radiator air upper baffle and from between the vehicle components.

31. 

Radiator Air Upper Baffle Retainer (1) - Remove [7x]

32. Radiator Air Upper Baffle (2) - Remove

33. 

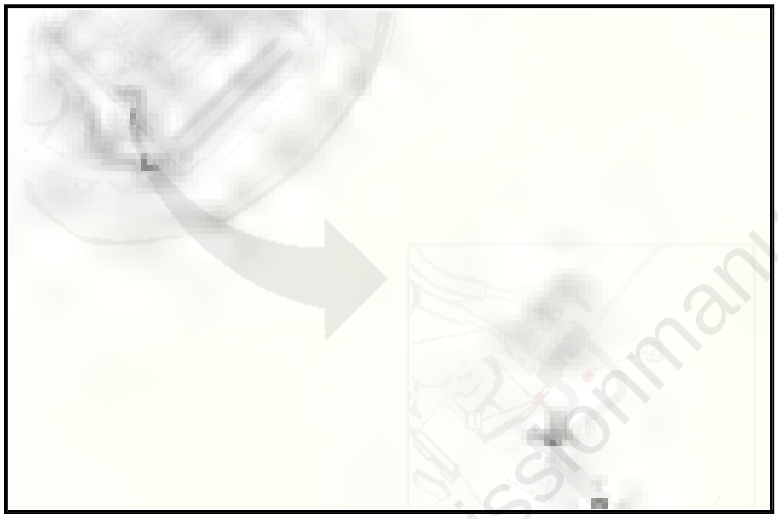
Retainer Spring (1) - Release

34. Charge Air Cooler Inlet Air Tube (2) @ Turbocharger (3) - Remove

35. 

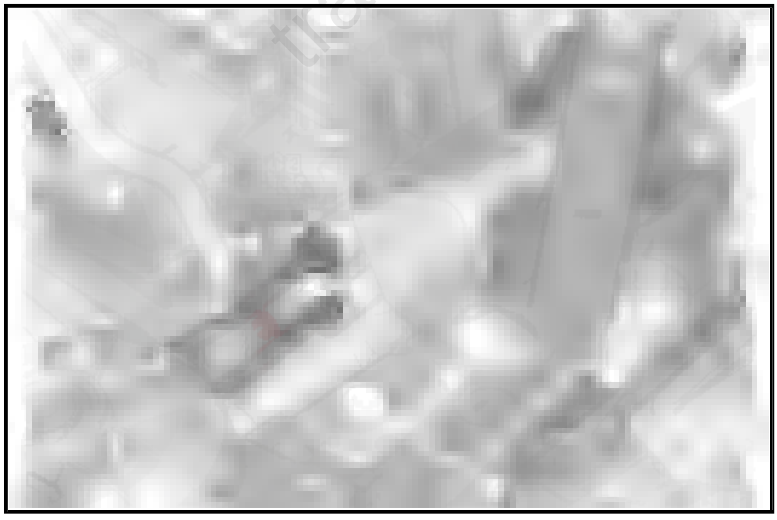
Retainer Spring (1) - Release

36. Charge Air Cooler Inlet Air Tube (2) @ Charge Air Cooler (3) - Remove

37. 

Transmission Fluid Cooler Pipe Clip Bolt (1) - Remove

38. Transmission Fluid Cooler Pipe Nut (2) - Remove

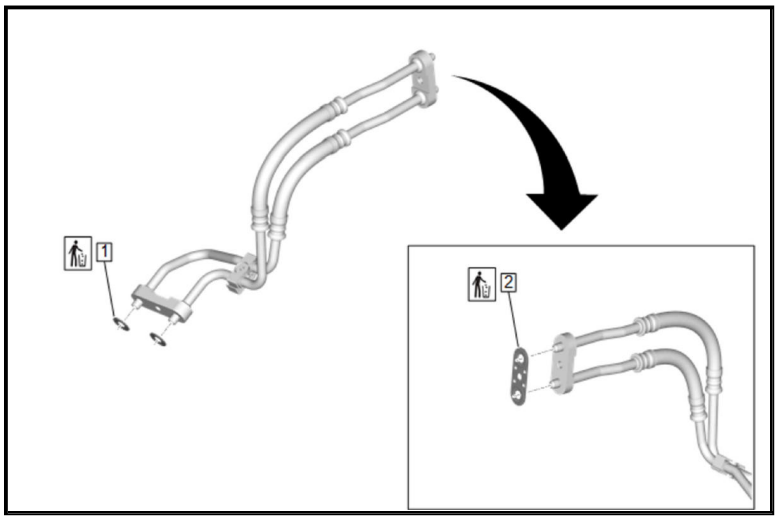
39. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

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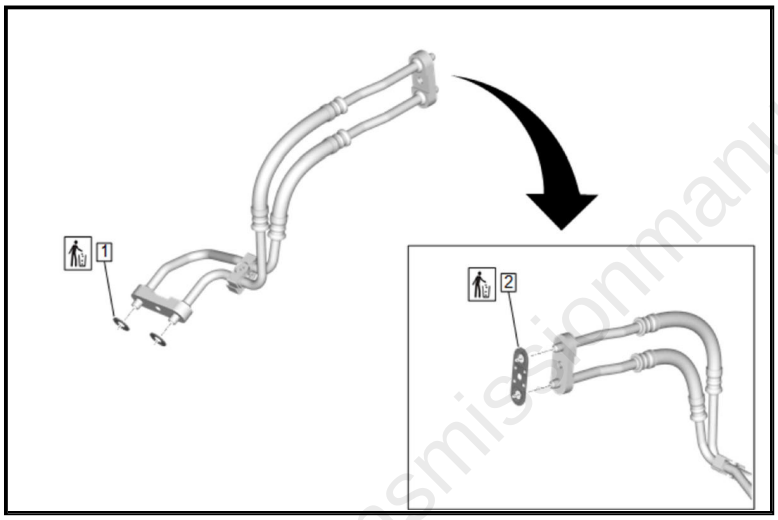
40. Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Remove

41. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

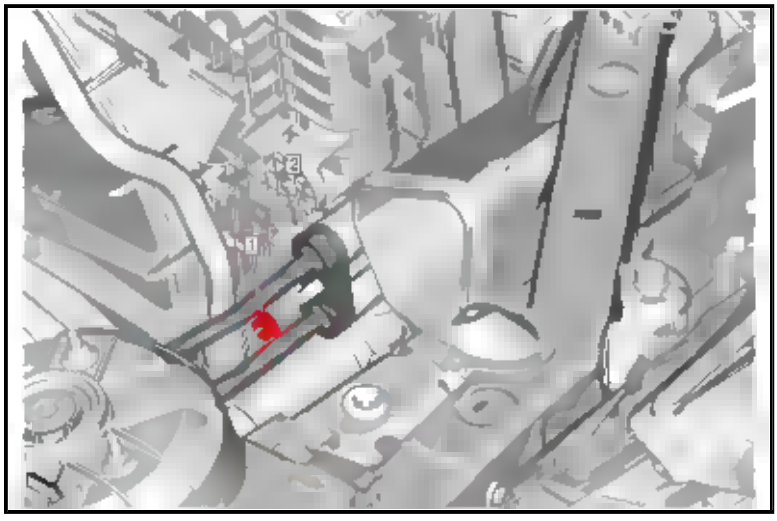
42. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

Installation Procedure

1. 

Transmission Fluid Cooler Seal (2) - Install NEW

2. Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

3. 

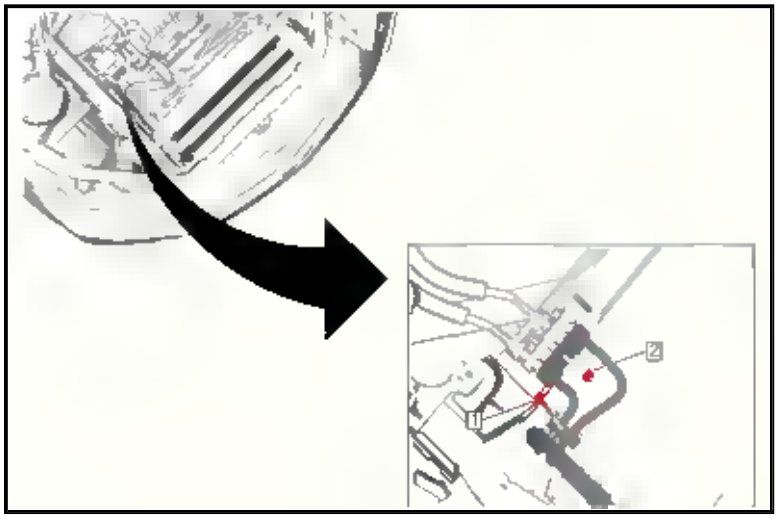
NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

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Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Install

CAUTION: **Refer to Fastener Caution .**

4. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

5. 

Transmission Fluid Cooler Pipe Nut (2) - Install and tighten - **Fastener Specifications**

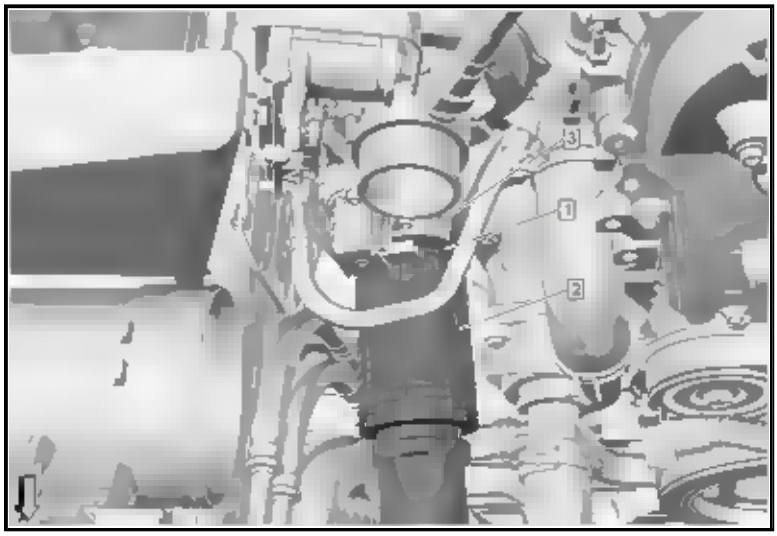
6. Transmission Fluid Cooler Pipe Clip Bolt (1) - Install and tighten - **Fastener Specifications**

7. 

Charge Air Cooler Inlet Air Tube (2) @ Charge Air Cooler (3) - Install

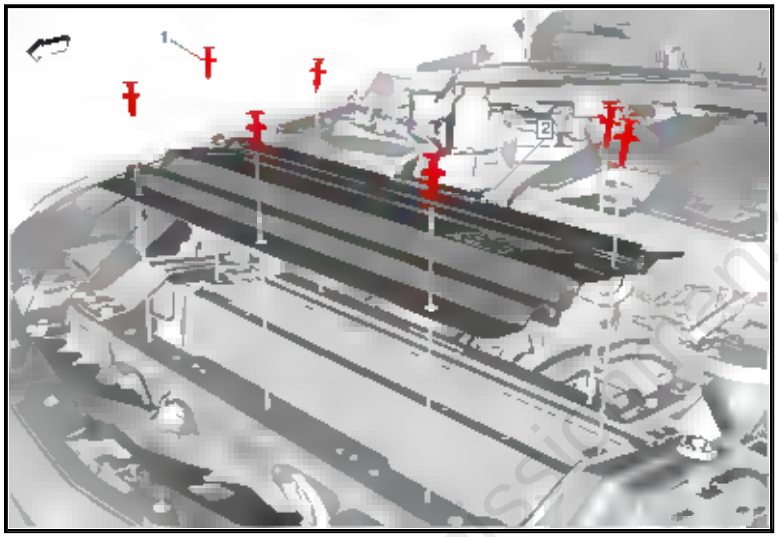
8. Retainer Spring (1) - Engage

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9. 

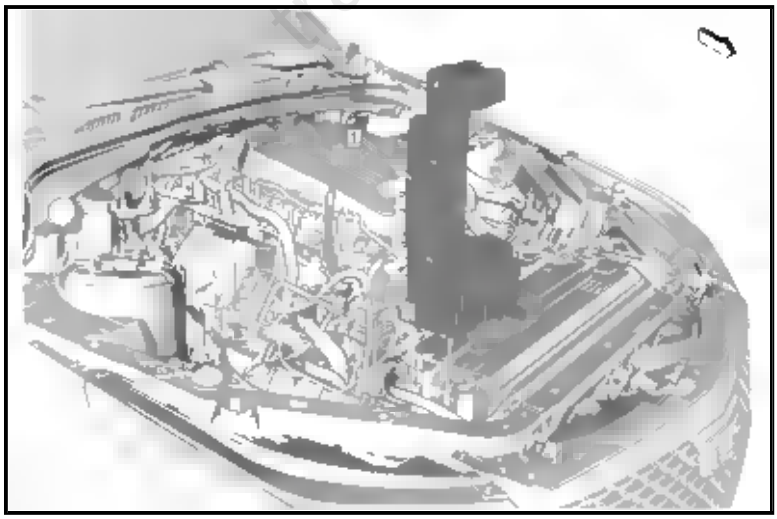
   Charge Air Cooler Inlet Air Tube (2) @ Turbocharger (3) - Install

10. Retainer Spring (1) - Engage

11. 

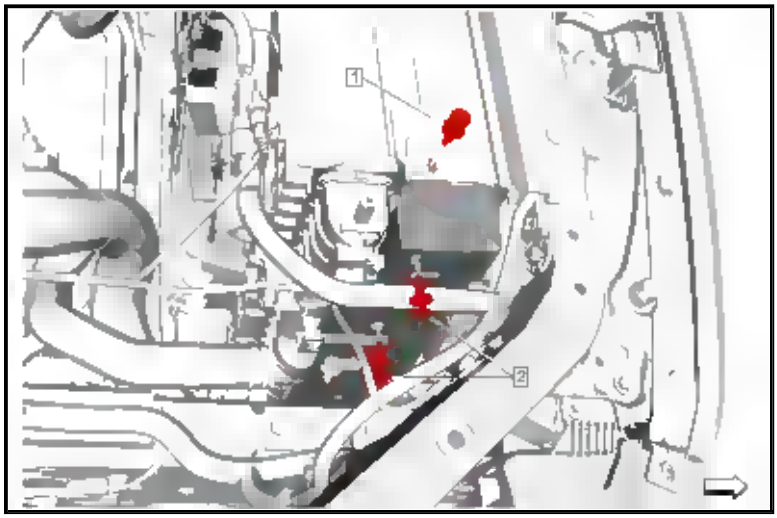
   Radiator Air Upper Baffle (2) - Install

12. Radiator Air Upper Baffle Retainer (1) - Install [7x]

13. 

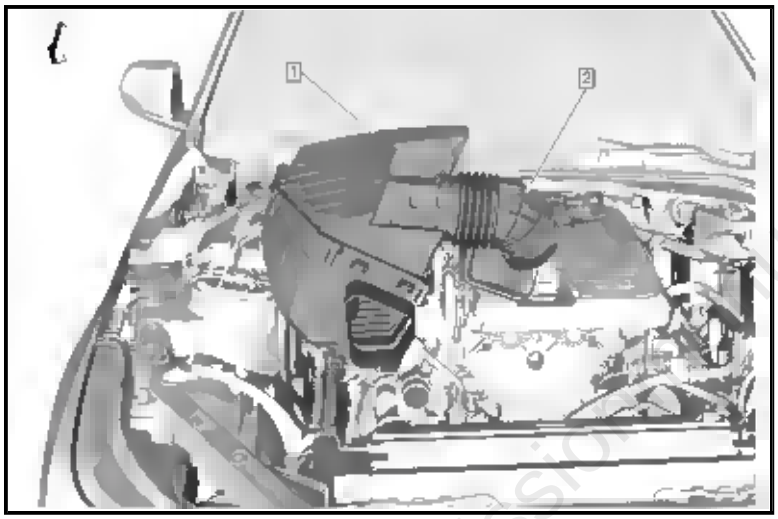
   Install the radiator air side baffle (1) by manipulating it between the vehicle components and beneath the radiator air upper baffle.

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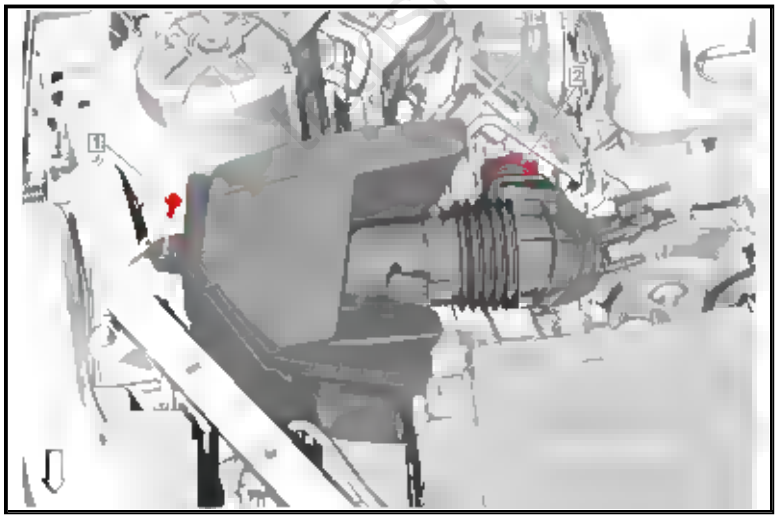
14. 

    Radiator Air Seal Retainer (2) - Install [2x]

15. Radiator Air Upper Baffle Retainer (1) - Install

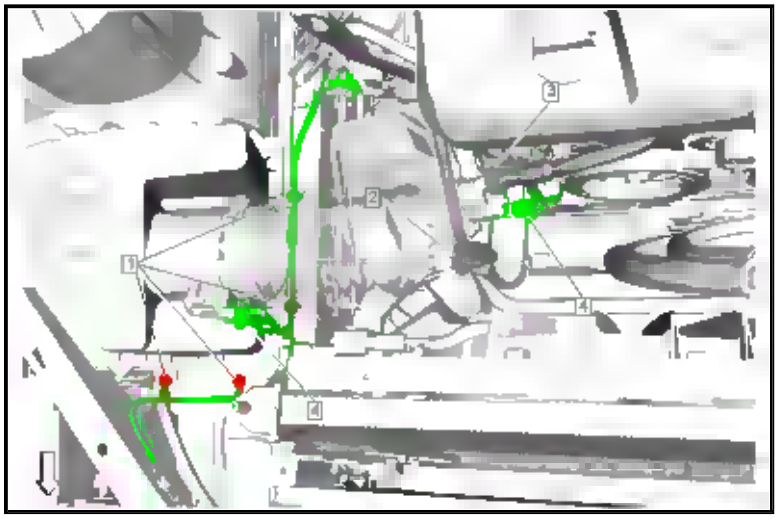
16. 

    Install the air cleaner (1) and air cleaner outlet duct (2) as an assembly.

17. 

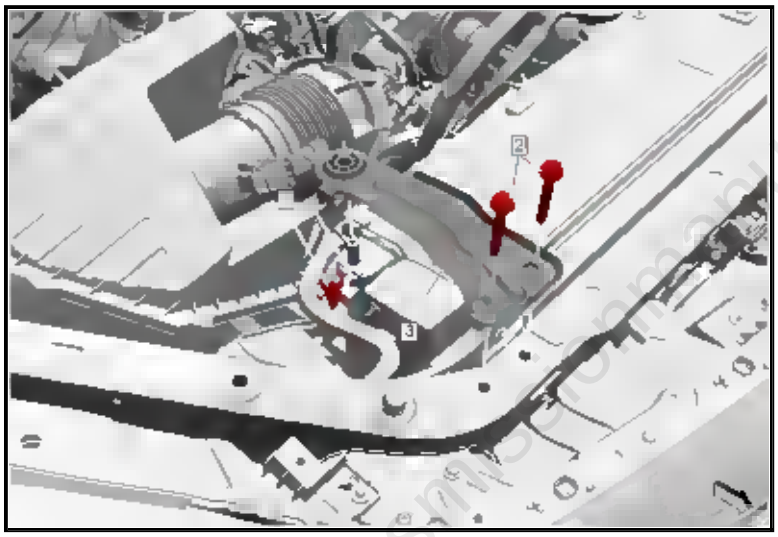
    Air Cleaner Outlet Duct Clamp (2) - Tighten - **Fastener Specifications**

18. Air Cleaner Bolt (1) - Install and tighten - **Fastener Specifications**

19. 

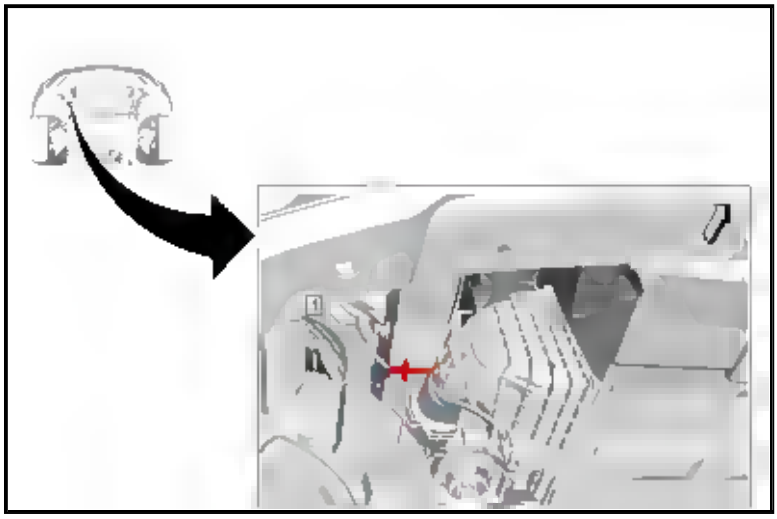
    Electrical Connector (4) - Connect [2x]

20. Evaporative Emission Canister Purge Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**
21. Positive Crankcase Ventilation Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
22. Wiring Harness Retainer (1) @ Air Cleaner Assembly - Install [3x]

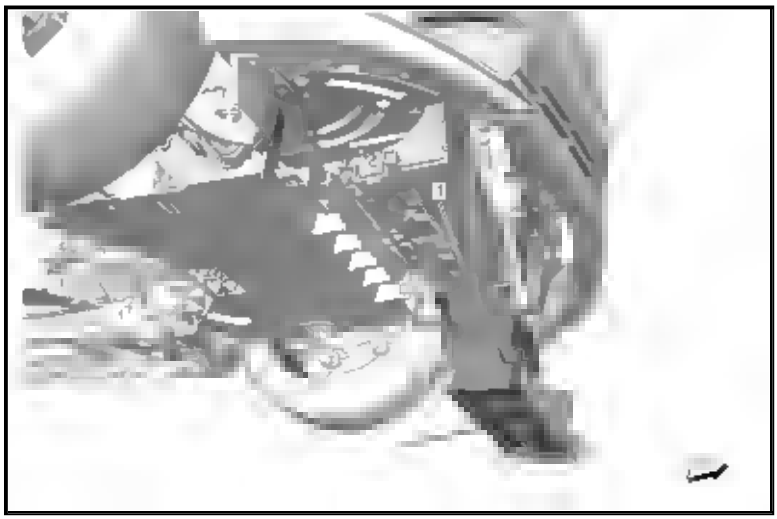
23. 

    Radiator Upper Bracket (3) - Install

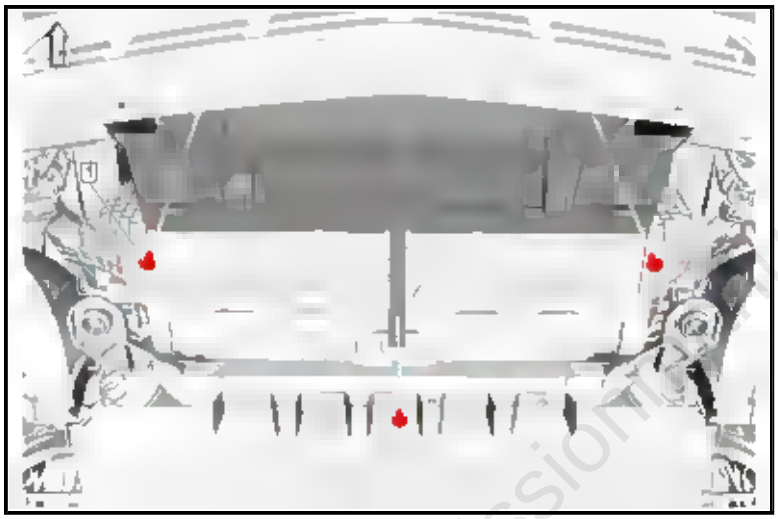
24. Radiator Upper Bracket Bolt (2) - Install and tighten [2x] - **Fastener Specifications**
25. Wiring Harness Retainer (1) - Install
26. Raise the vehicle.

27. 

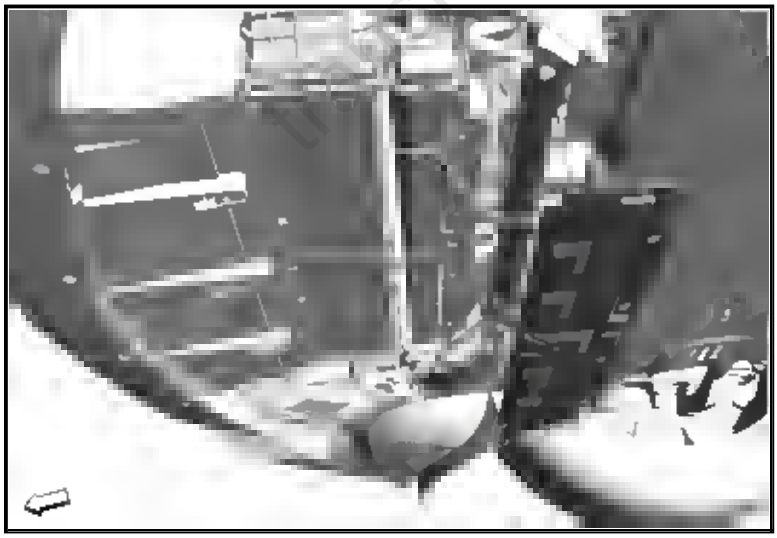
Radiator Air Seal Retainer (1) - Install [2x]

28. 

Radiator Air Front Lower Baffle (1) - Install

29. 

Radiator Air Front Lower Baffle Retainer (1) - Install [3x]

30. 

Radiator Air Lower Baffle (1) - Install

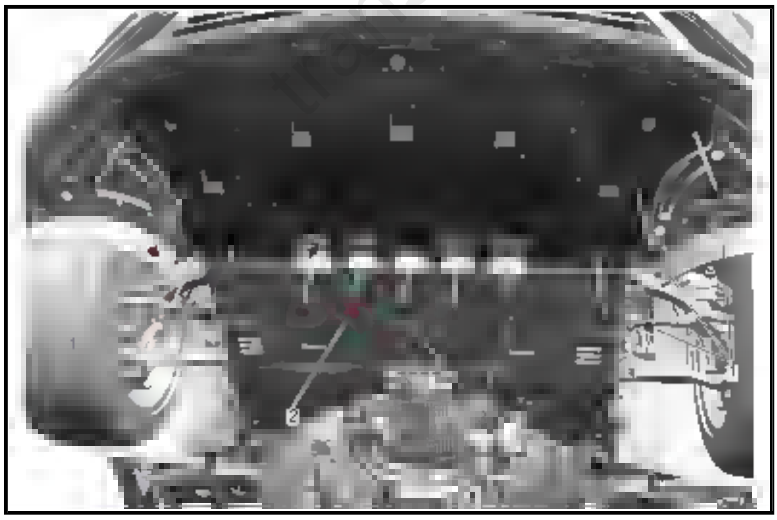
31. 

Radiator Air Lower Baffle Retainer (2) - Install

32. Radiator Air Lower Seal Retainer (1) - Install [6x]

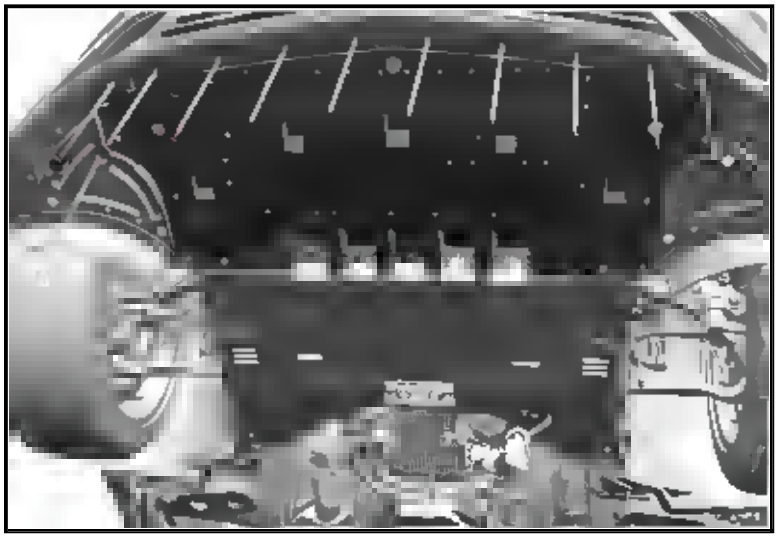
33. 

Front Bumper Fascia Center Air Deflector (1) - Install

34. 

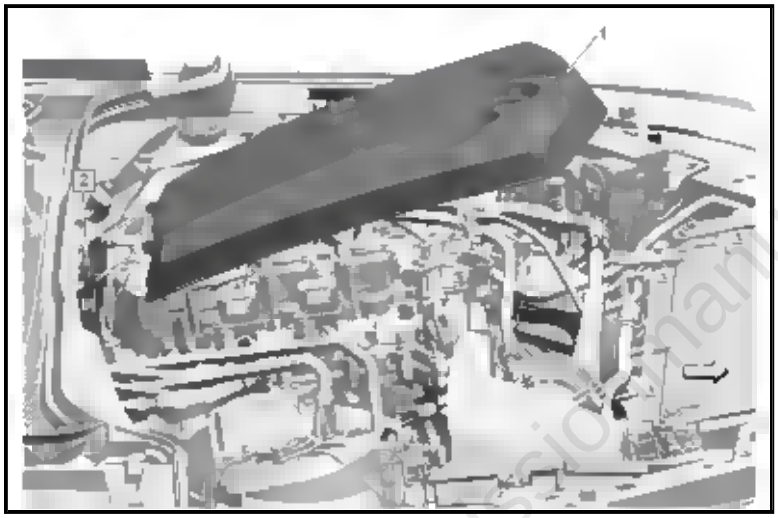
Front Bumper Fascia Center Air Deflector Retainer (3) - Install [2x]

35. Front Bumper Fascia Center Air Deflector Bolt (2) - Install and tighten - **Fastener Specifications**
36. Front Bumper Fascia Center Air Deflector Screw (1) - Install and tighten [6x] - **Fastener Specifications**

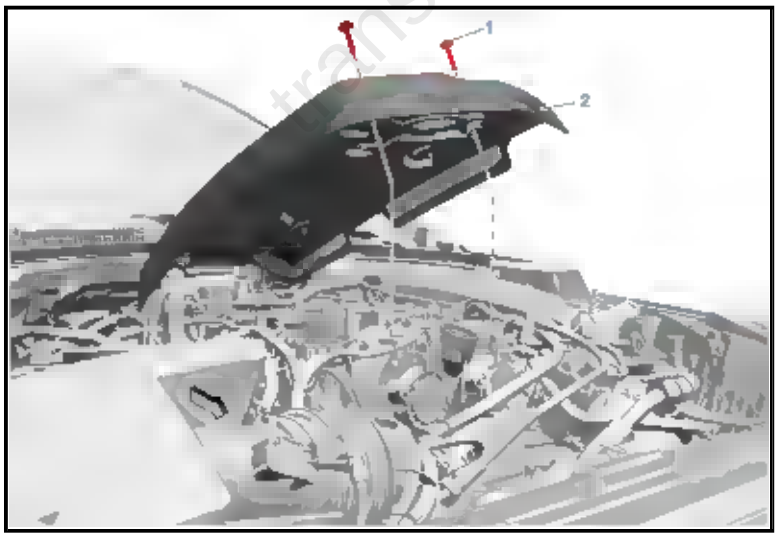
37. 

Front Bumper Fascia Center Air Deflector Screw (1) - Install and tighten [10x] - **Fastener Specifications** .

38. Lower the vehicle.

39. 

Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Install

40. 

Push down on the front of the intake manifold cover (2).

41. Intake Manifold Cover Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
42. Install the oil fill cap.
43. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
44. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

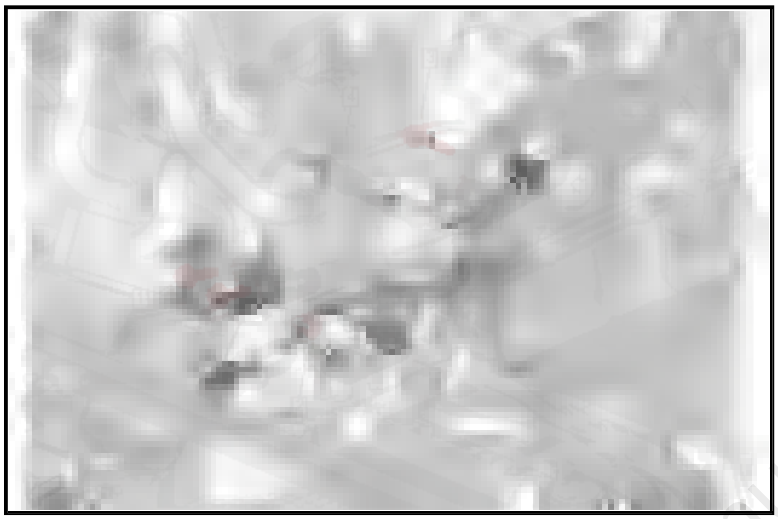
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TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (L3B, AWD, TRANSMISSION SIDE)

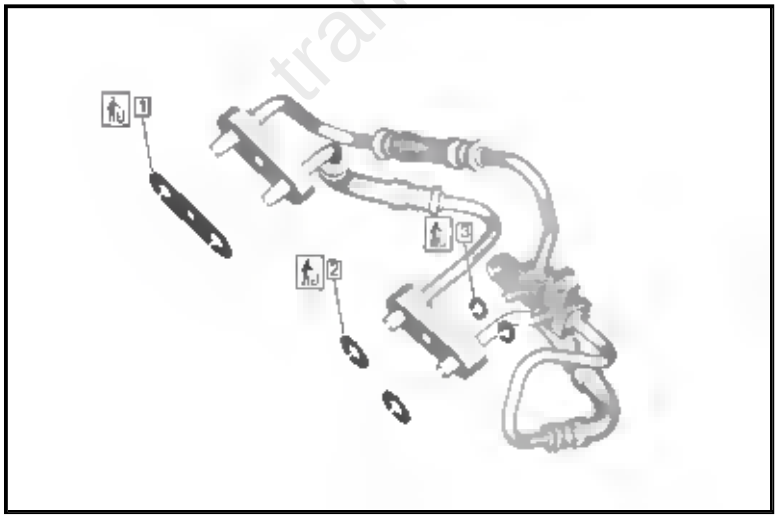
Single Use Components and Fasteners

- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

Removal Procedure

1. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
2. 

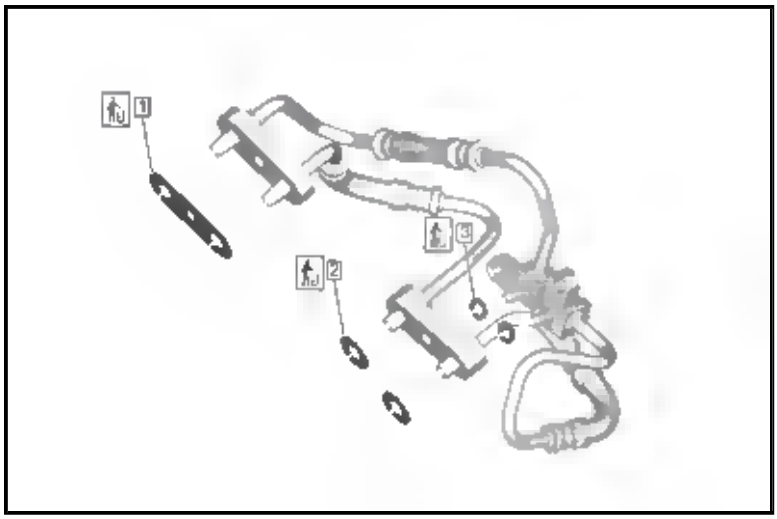
   Transmission Fluid Cooler Pipe Connector Bolt (1) - Remove [2x]
3. Transmission Fluid Cooler Pipe Nut (2) - Remove
4. Transmission Fluid Cooler Pipe Bolt (3) - Remove

   NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**
5. Transmission Fluid Cooler Inlet and Outlet Pipe (4) - Remove
6. 

   Transmission Fluid Cooler Seal (1) - Remove and DISCARD
7. Transmission Fluid Cooler Thermal Bypass Valve Gasket (2) - Remove and DISCARD [2x]
8. Transmission Fluid Cooler Pipe Seal (3) - Remove and DISCARD [2x]

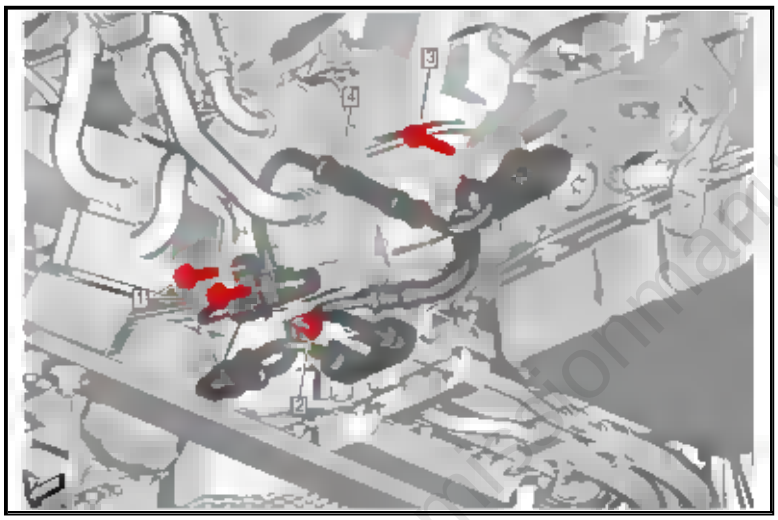
Installation Procedure

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1. 

   Transmission Fluid Cooler Pipe Seal (3) - Install NEW [2x]

2. Transmission Fluid Cooler Thermal Bypass Valve Gasket (2) - Install NEW [2x]
3. Transmission Fluid Cooler Seal (1) - Install NEW

4. 

   NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

   Transmission Fluid Cooler Inlet and Outlet Pipe (4) - Install

   CAUTION: **Refer to Fastener Caution .**

5. Transmission Fluid Cooler Pipe Bolt (3) - Install and tighten - **Fastener Specifications**
6. Transmission Fluid Cooler Pipe Nut (2) - Install and tighten - **Fastener Specifications**
7. Transmission Fluid Cooler Pipe Connector Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
8. Lower the vehicle.
9. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
10. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (L3B, AWD, ATOC SIDE)

Single Use Components and Fasteners

- Front Wheel Drive Shaft Nut
- Retaining Ring

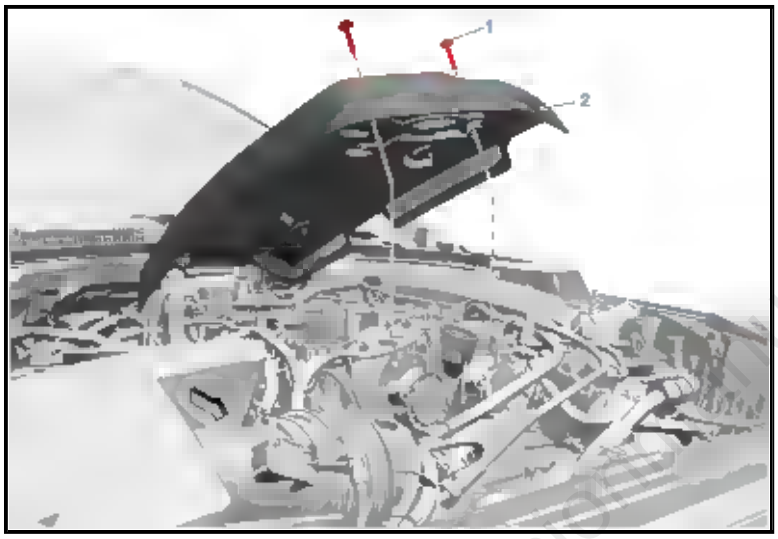
- Transmission Fluid Cooler Seal
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [2x]

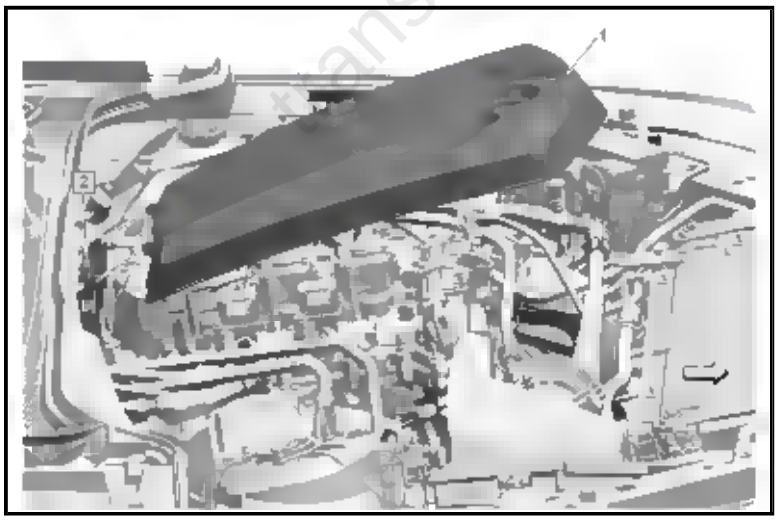
Special Tools

- **DT-45341** Rear Wheel Drive Shaft Removal Tool
- **DT-45859** Axle Remover
- **DT-51504** Seal Protector
- **GE-02619-A** Slide Hammer
- **GE-47829** Slide Hammer Extension

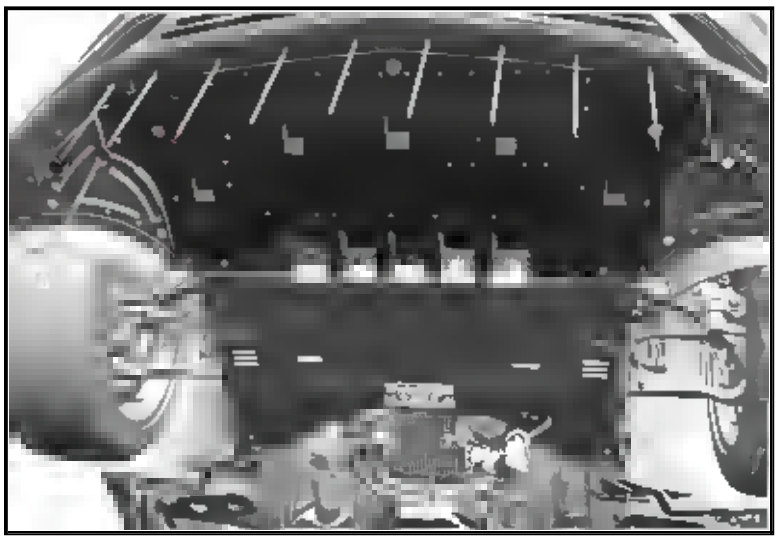
Equivalent regional tools: **Special Tools**

Removal Procedure

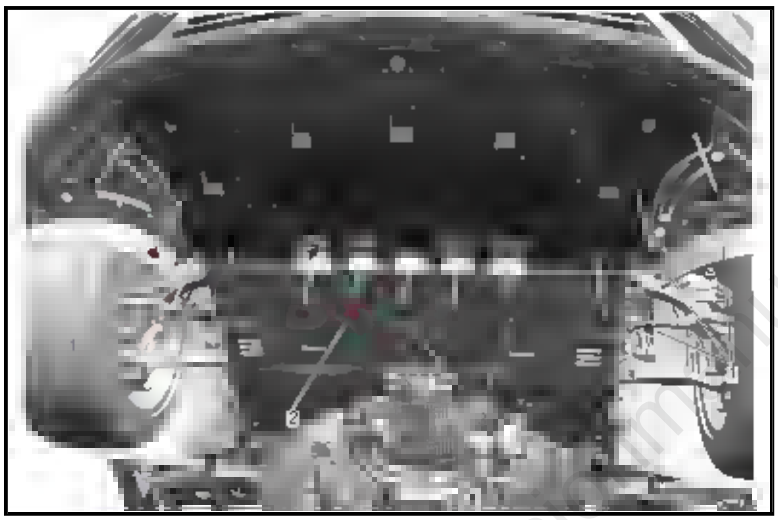
1. Remove the oil fill cap.
2. 

   Intake Manifold Cover Bolt (1) - Remove [2x]
3. Lift up on the front of the intake manifold cover (2).
4. 

   Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Remove
5. Raise the vehicle.

6. 

Front Bumper Fascia Center Air Deflector Screw (1) - Remove [10x]

7. 

Front Bumper Fascia Center Air Deflector Screw (1) - Remove [6x]

8. Front Bumper Fascia Center Air Deflector Bolt (2) - Remove [5x]
9. Front Bumper Fascia Center Air Deflector Retainer (3) - Remove [2x]

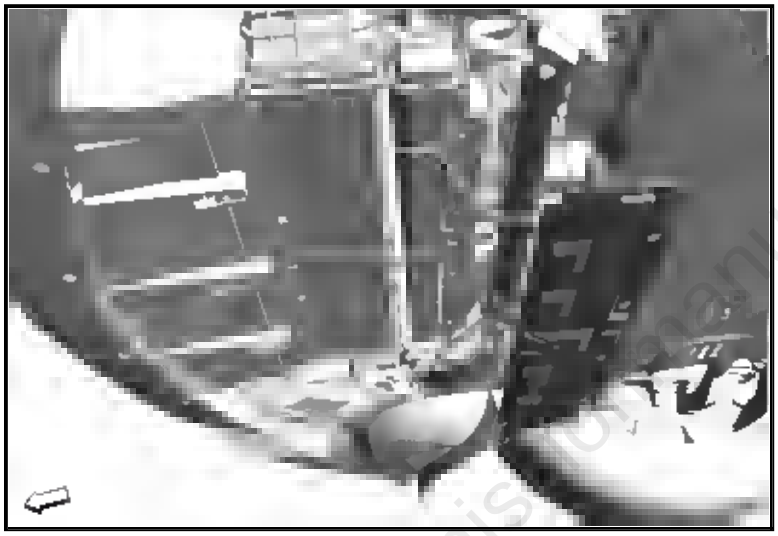
10. 

Pull the front bumper fascia center air deflector (1) rearwards and downwards from the front bumper fascia.

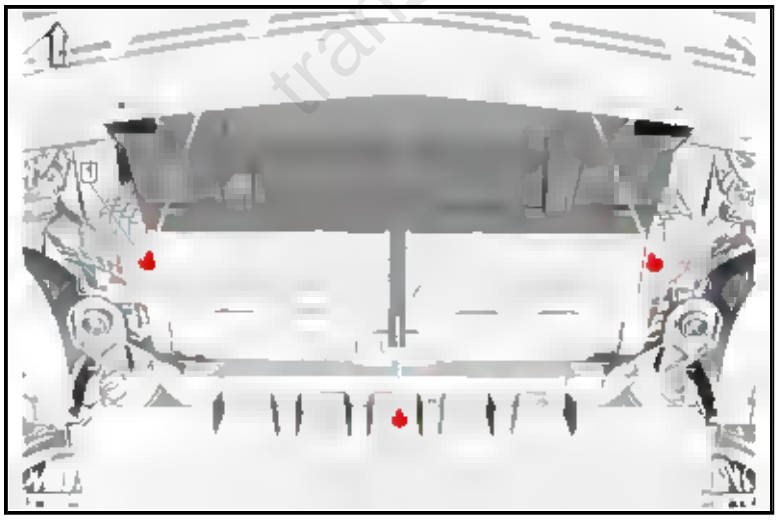
11. 

    Radiator Air Lower Seal Retainer (1) - Remove [6x]

12. Radiator Air Lower Baffle Retainer (2) - Remove

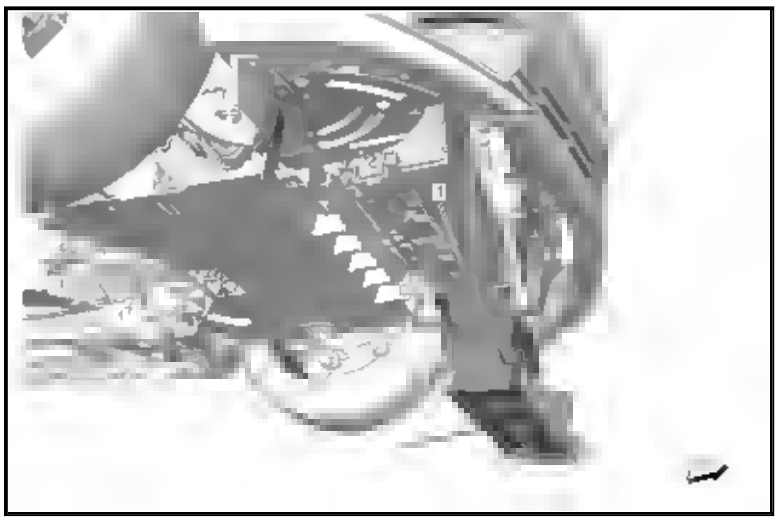
13. 

    Radiator Air Lower Baffle (1) - Remove

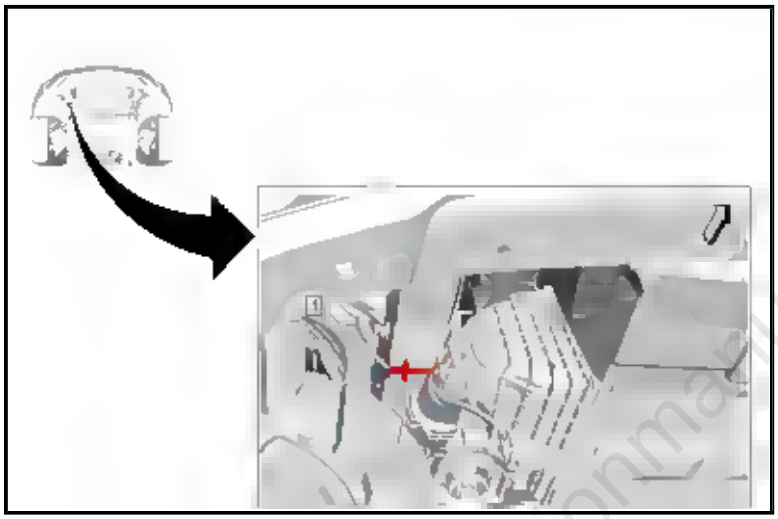
14. 

    Radiator Air Front Lower Baffle Retainer (1) - Remove [3x]

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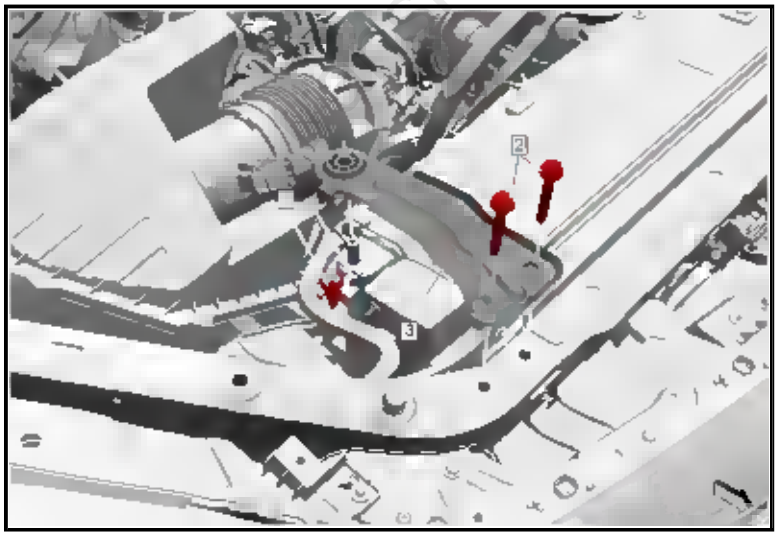
15. 

Radiator Air Front Lower Baffle (1) - Remove

16. 

Radiator Air Seal Retainer (1) - Remove [2x]

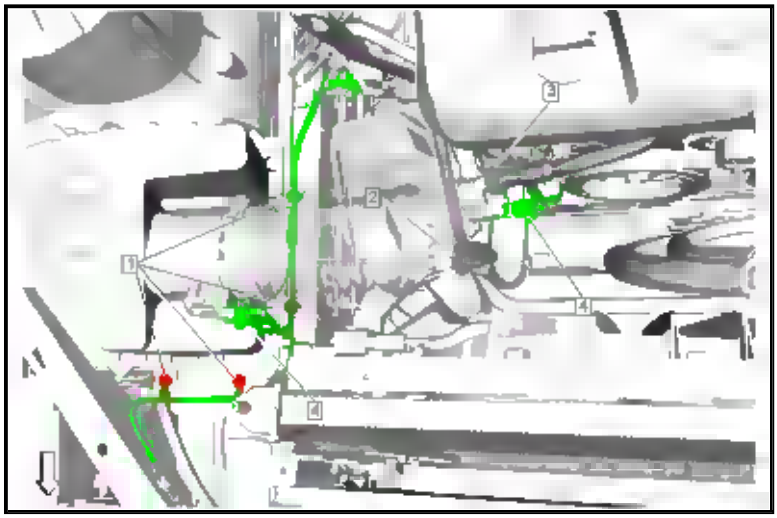
17. Lower the vehicle.

18. 

Wiring Harness Retainer (1) - Remove

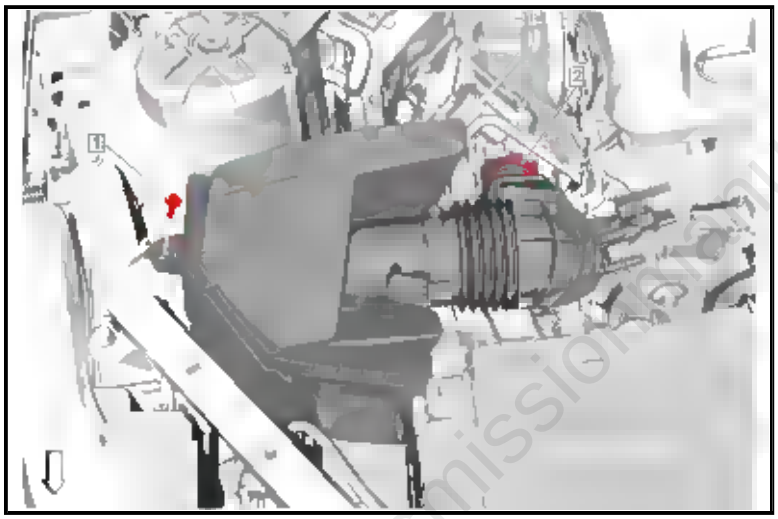
19. Radiator Upper Bracket Bolt (2) - Remove [2x]
20. Radiator Upper Bracket (3) - Remove

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21. 

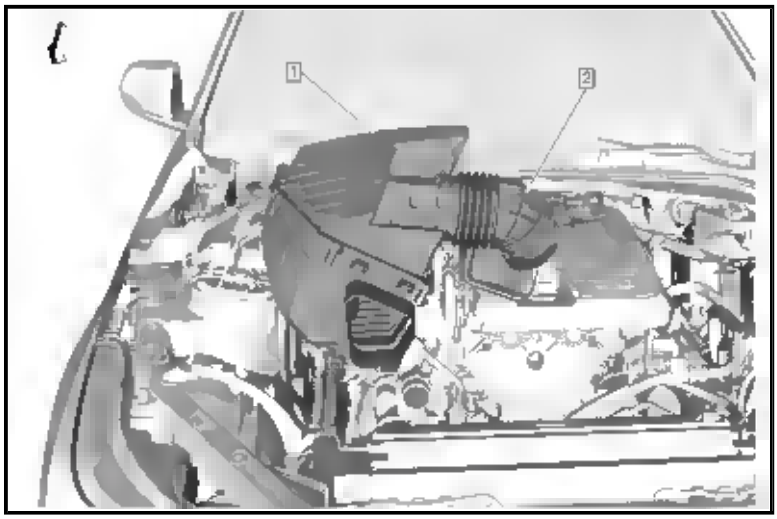
    Wiring Harness Retainer (1) @ Air Cleaner Assembly - Remove [3x]

22. Positive Crankcase Ventilation Tube (2) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
23. Evaporative Emission Canister Purge Tube (3) - Disconnect - **Plastic Collar Quick Connect Fitting Service**
24. Electrical Connector (4) - Disconnect [2x]

25. 

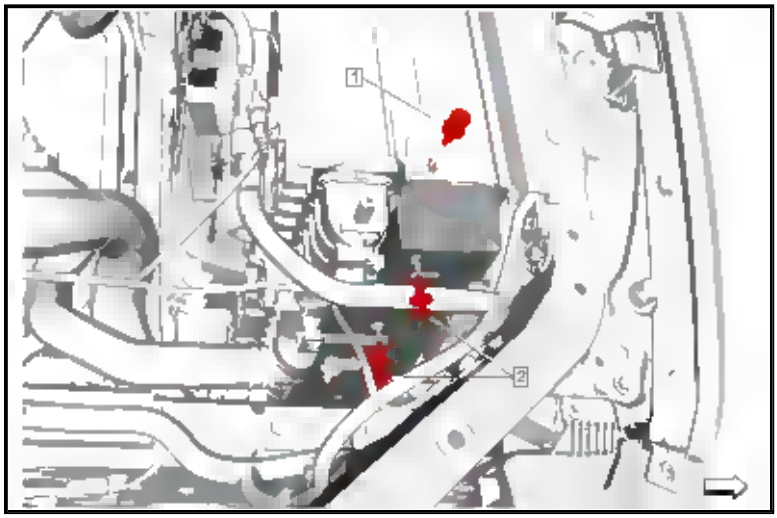
    Air Cleaner Bolt (1) - Remove

26. Air Cleaner Outlet Duct Clamp (2) - Loosen

27. 

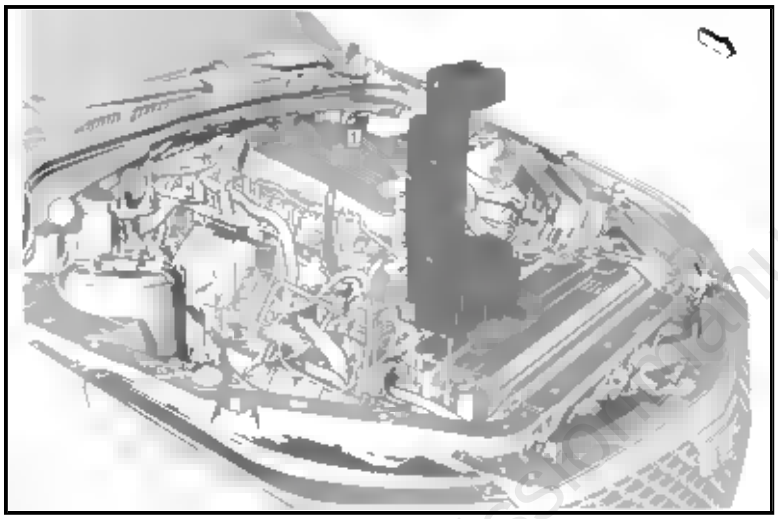
    Remove the air cleaner (1) and air cleaner outlet duct (2) as an assembly.

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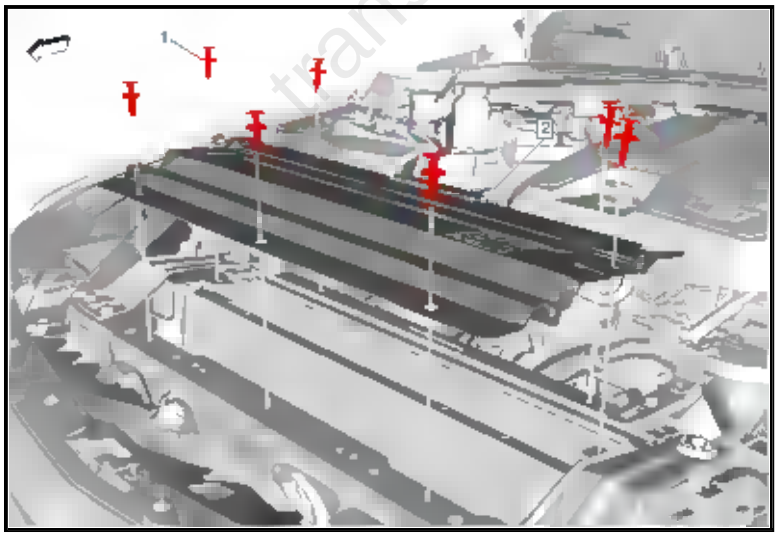
28. 

Radiator Air Upper Baffle Retainer (1) - Remove

29. Radiator Air Seal Retainer (2) - Remove [2x]

30. 

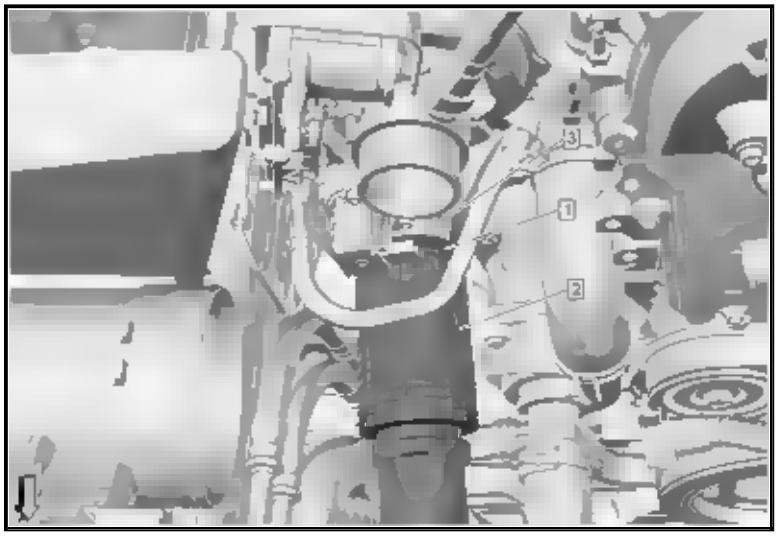
Remove the radiator air side baffle (1) by manipulating it from beneath the radiator air upper baffle and from between the vehicle components.

31. 

Radiator Air Upper Baffle Retainer (1) - Remove [7x]

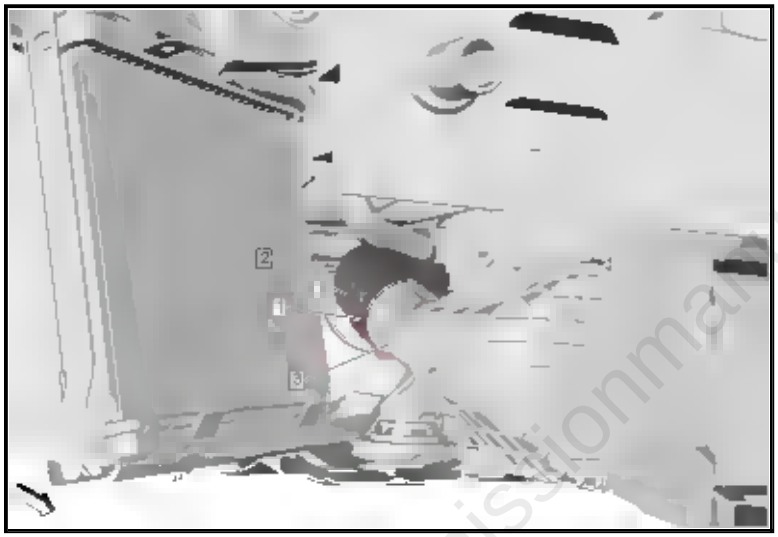
32. Radiator Air Upper Baffle (2) - Remove

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33. 

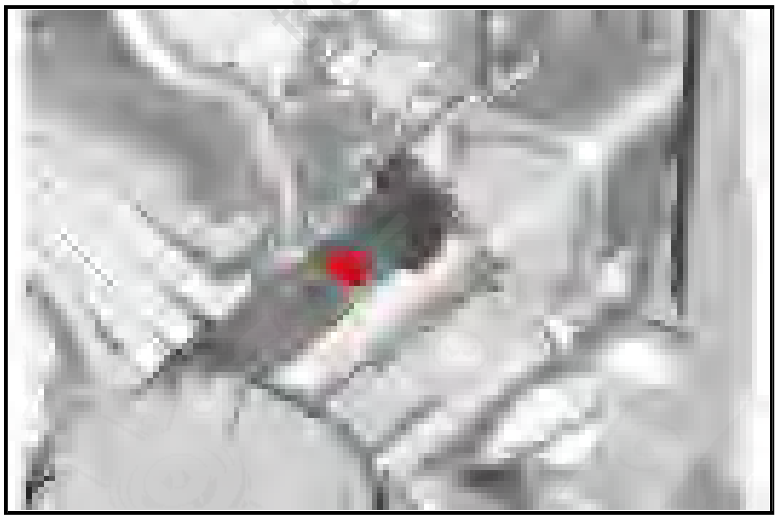
Retainer Spring (1) - Release

34. Charge Air Cooler Inlet Air Tube (2) @ Turbocharger (3) - Remove

35. 

Retainer Spring (1) - Release

36. Charge Air Cooler Inlet Air Tube (2) @ Charge Air Cooler (3) - Remove

37. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

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38. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Fluid Auxiliary Cooler - Remove
39. Remove the front tire and wheel assemblies. **Tire and Wheel Removal and Installation**
40. 

    Front Wheelhouse Liner Bolt (1) - Remove

41. Engine Front Splash Shield Retainer (2) - Remove
42. Engine Front Splash Shield Bolt (3) - Remove
43. 

    Front Wheelhouse Liner Bolt (1) - Remove

44. Engine Front Splash Shield Retainer (2) - Remove
45. Engine Front Splash Shield Bolt (3) - Remove
46. 

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Front Compartment Air Deflector Bolt (1) - Remove [6x]

47. Front Compartment Air Deflector (2) - Remove

48. 

Engine Front Splash Shield Bolt (1) - Remove [3x]

49. Engine Front Splash Shield - Right Side (2) - Remove
50. Have an assistant apply the brakes.

51. 

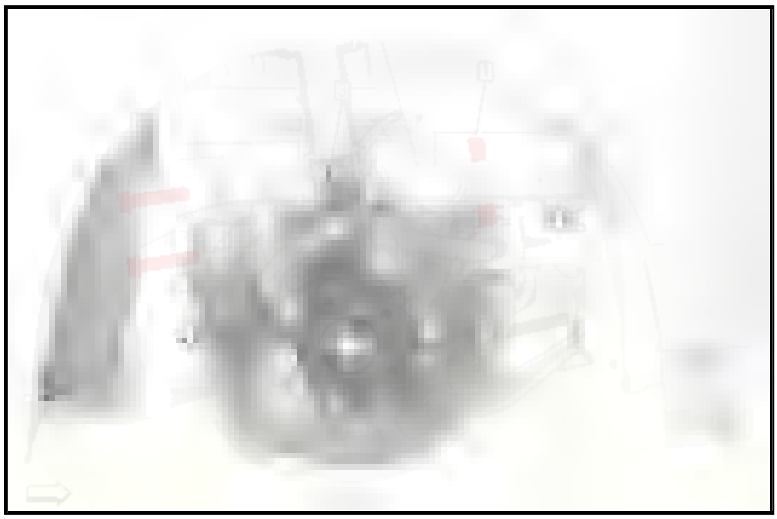
CAUTION: **DO NOT use air tools to remove the wheel drive shaft nut. Damage to the wheel drive shaft threads could occur. Use hand tools only.**

Front Wheel Drive Shaft Nut (1) - Remove and DISCARD

52. 

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Install the **DT-45859** Axle Remover (1) to the front wheel hub and secure with 3 wheel nuts (2) hand tightened.

53. Using the **DT-45859** Axle Remover (1), release the front wheel drive half shaft from the front wheel hub.
54. Remove the 3 wheel nuts (2) and the **DT-45859** Axle Remover (1) from the front wheel hub.
55. 

NOTE: **Support the front steering knuckle assembly to prevent over-articulation of the ball joints.**

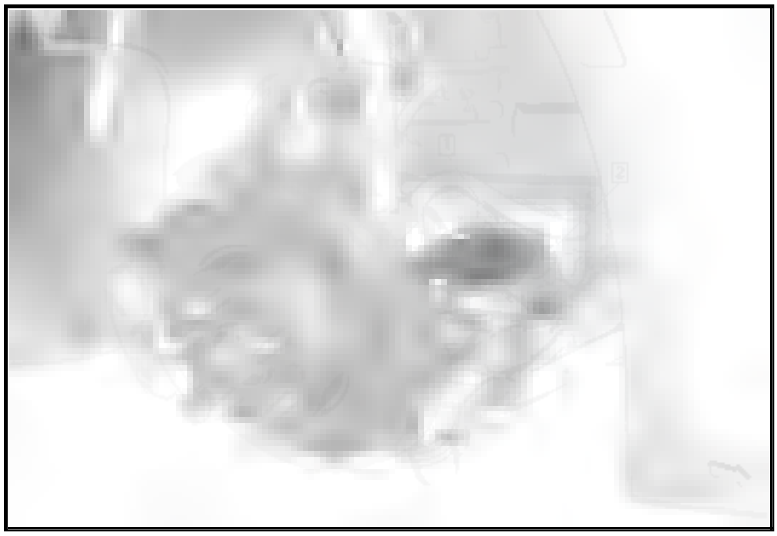
Steering Knuckle Nut (1) - Remove [2x]

56. Steering Knuckle Bolt (2) - Remove [2x]
57. Steering Knuckle (3) @ Front Suspension Strut - Separate
58. 

Install the **DT-45341** Rear Wheel Drive Shaft Removal Tool (1), **GE-47829** Slide Hammer Extension (3), and **GE-02619-A** Slide Hammer (4) to the front wheel drive half shaft (2).

59. Release the front wheel drive half shaft (2) from the front wheel drive intermediate shaft.
60. Remove the **GE-02619-A** Slide Hammer (4), **GE-47829** Slide Hammer Extension (3), and **DT-45341** Rear Wheel Drive Shaft Removal Tool (1) from the front wheel drive half shaft (2).

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61. 

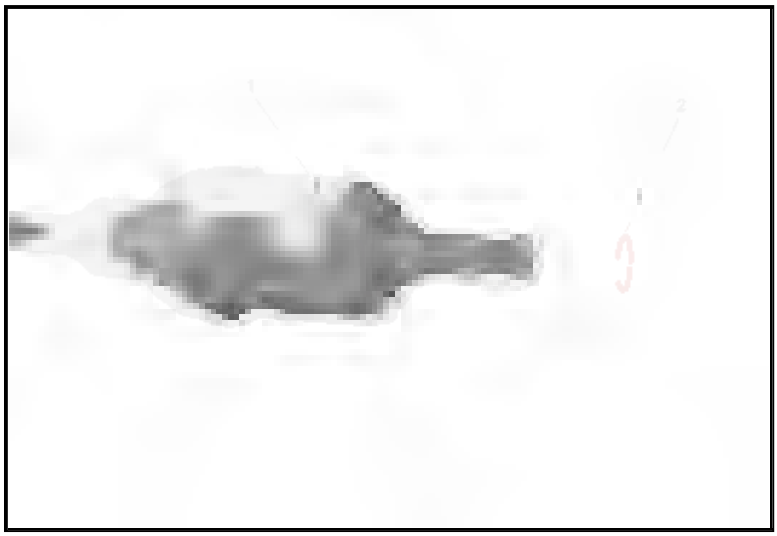
Partially remove the front wheel drive half shaft (1) from the front differential carrier.

CAUTION: **DT-51504 must be installed into the differential output shaft seal prior to removing and installing the wheel drive shaft. Failure to install the DT-51504 as indicated may cause the splines of the wheel drive shaft to damage the differential output seal**

62. Install the **DT-51504** Seal Protector (2) into the front axle shaft seal.

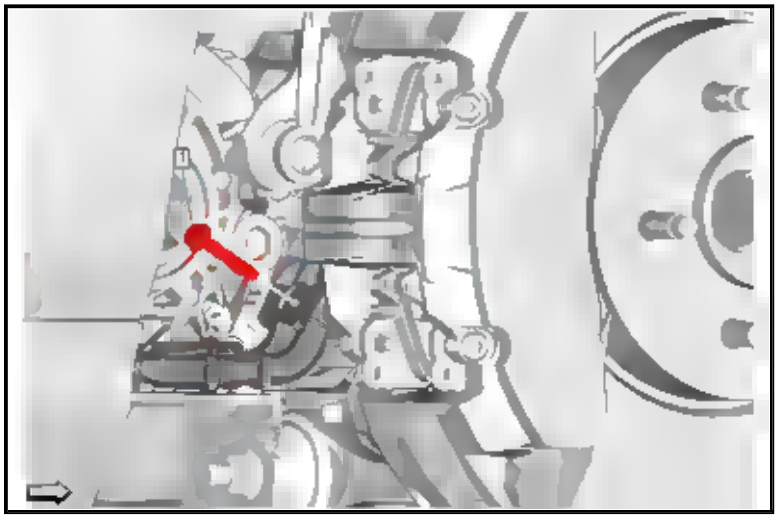
63. 

Front Wheel Drive Half Shaft (1) - Remove

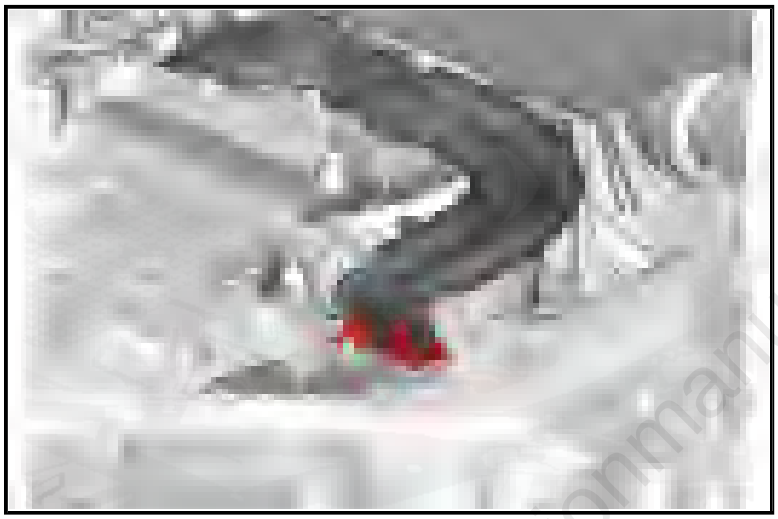
64. 

Retaining Ring (2) @ Front Wheel Drive Half Shaft (1) - Remove and DISCARD

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65. 

Transmission Fluid Cooler Pipe Clip Bolt (1) - Remove

66. 

Transmission Fluid Auxiliary Cooler Pipe Clip (1) - Remove

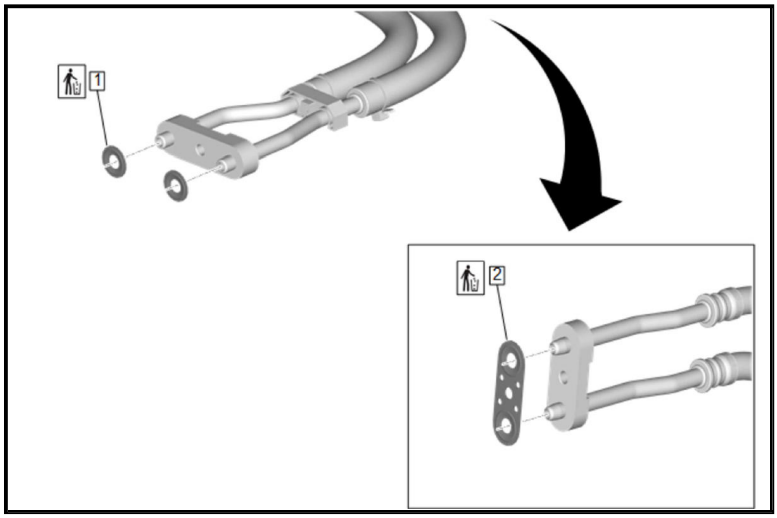
67. 

Transmission Fluid Cooler Pipe Nut (1) - Remove

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

68. Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Remove

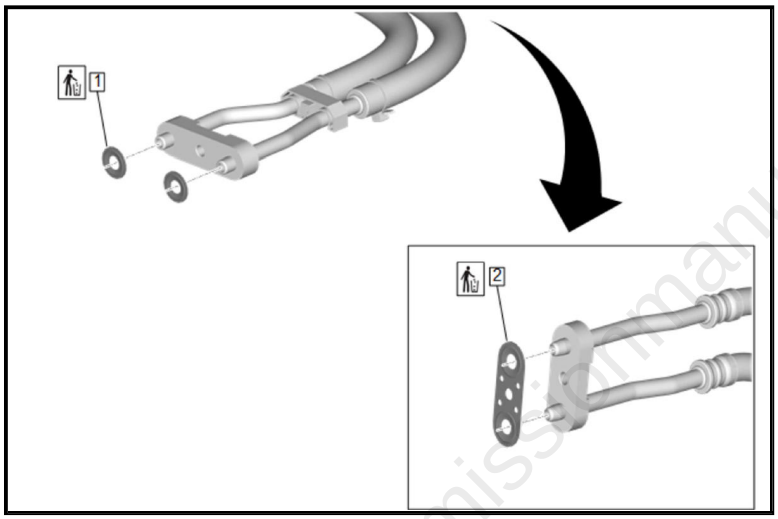
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69. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Remove and DISCARD [2x]

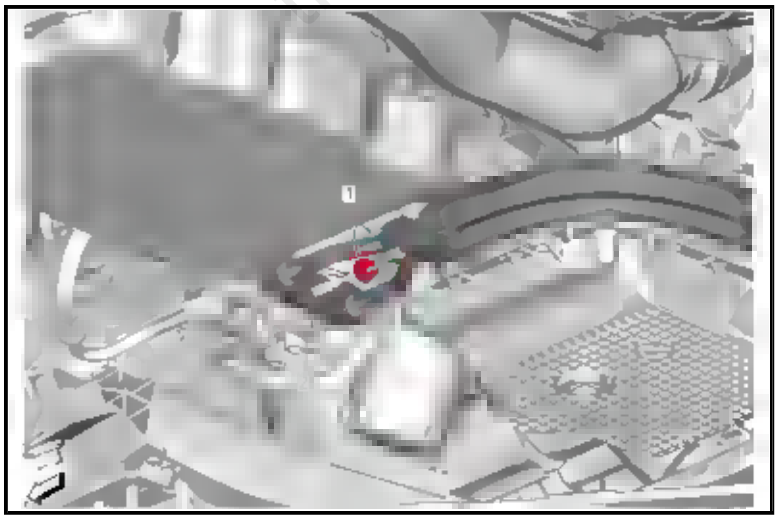
70. Transmission Fluid Cooler Seal (2) - Remove and DISCARD

Installation Procedure

1. 

Transmission Fluid Cooler Seal (2) - Install NEW

2. Transmission Fluid Cooler Thermal Bypass Valve Gasket (1) - Install NEW [2x]

3. 

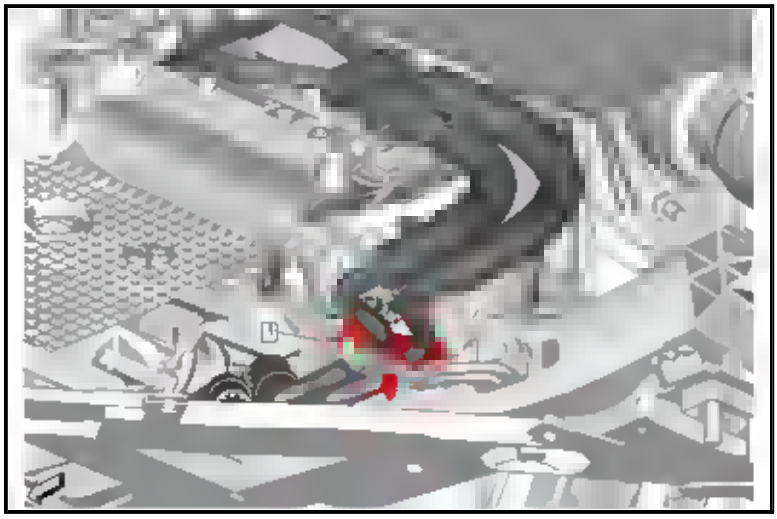
NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) - Install

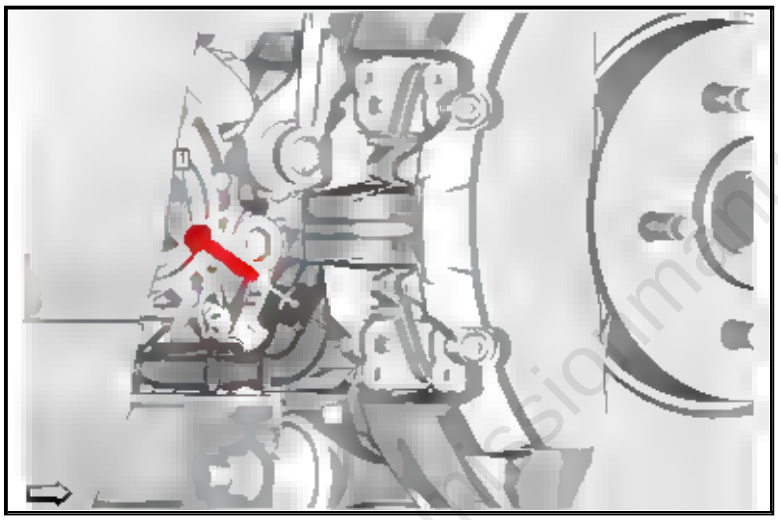
transmissionmanuals.com

CAUTION: **Refer to Fastener Caution .**

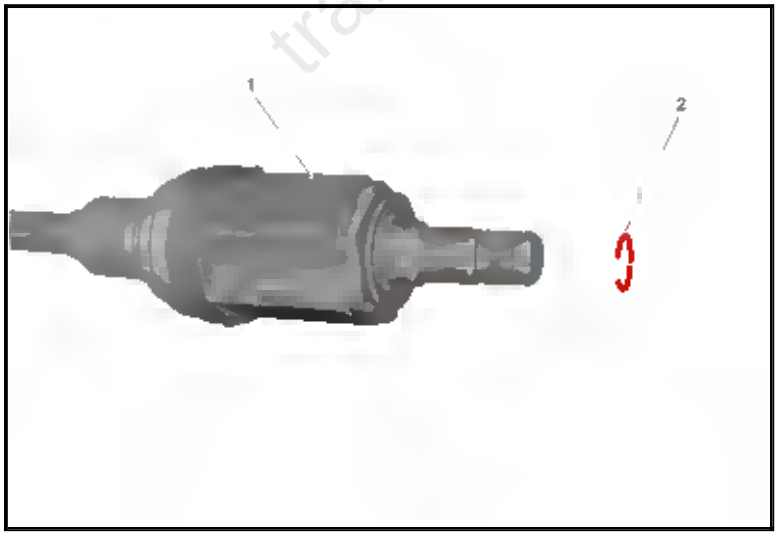
4. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten - **Fastener Specifications**

5. 

Transmission Fluid Auxiliary Cooler Pipe Clip (1) - Install

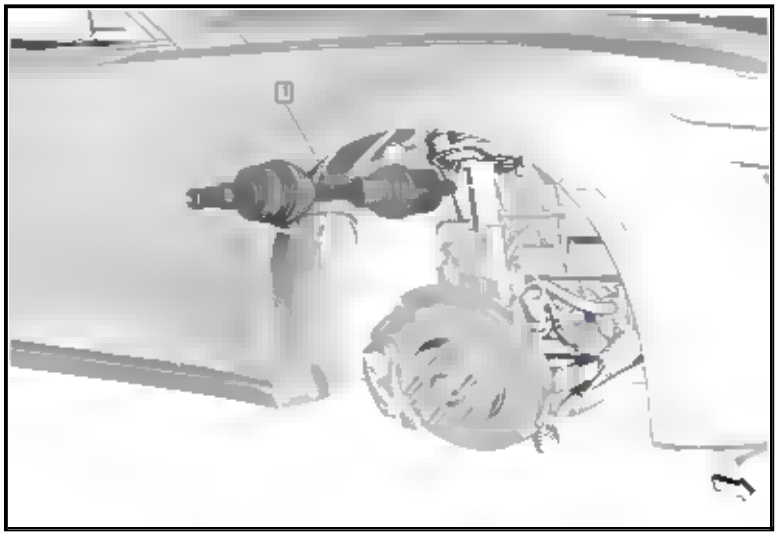
6. 

Transmission Fluid Cooler Pipe Clip Bolt (1) - Install and tighten - **Fastener Specifications**

7. 

Retaining Ring (2) @ Front Wheel Drive Half Shaft (1) - Install NEW

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8. 

Front Wheel Drive Half Shaft (1) - Install

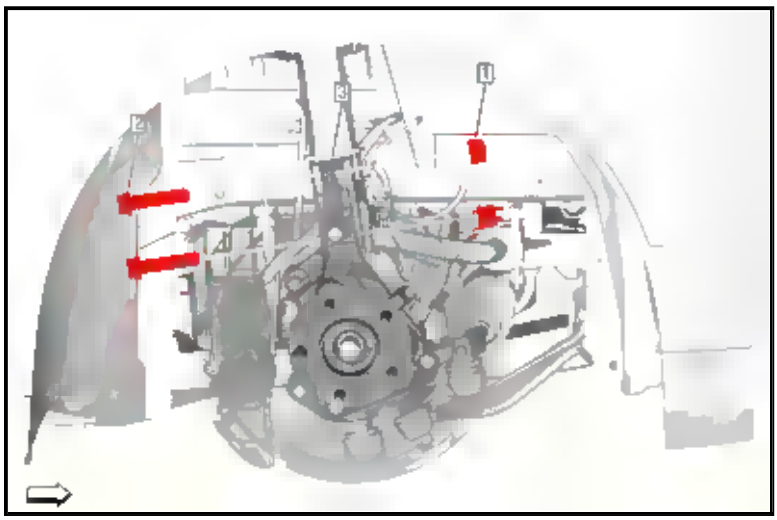
9. 

Partially install the front wheel drive half shaft (1) into the front differential carrier.

10. Remove the **DT-51504** Seal Protector (2) from the front axle shaft seal.

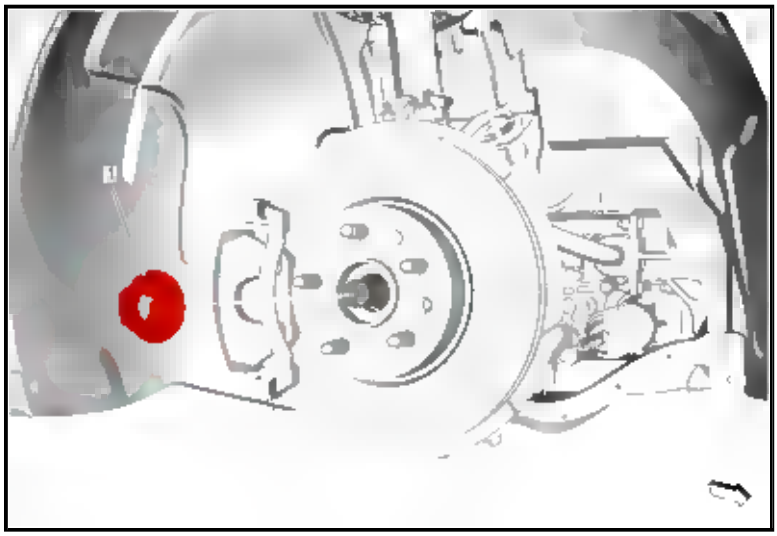
NOTE: **Ensure that the front wheel drive half shaft (1) is securely engaged to the front wheel drive intermediate shaft.**

11. Completely install the front wheel drive half shaft (1) into the front differential carrier.

12. 

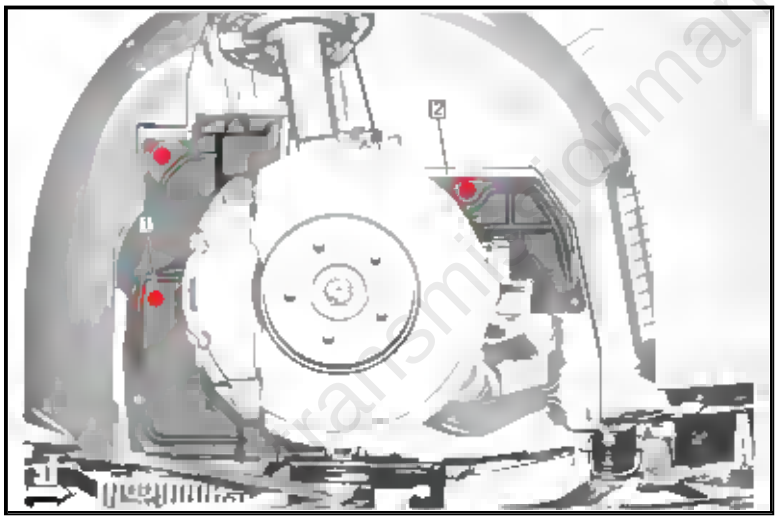
Steering Knuckle (3) @ Front Suspension Strut - Install

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13. Steering Knuckle Bolt (2) - Install [2x]
14. Steering Knuckle Nut (1) - Install and tighten [2x] - **Fastener Specifications**
15. Have an assistant apply the brakes.
16. 

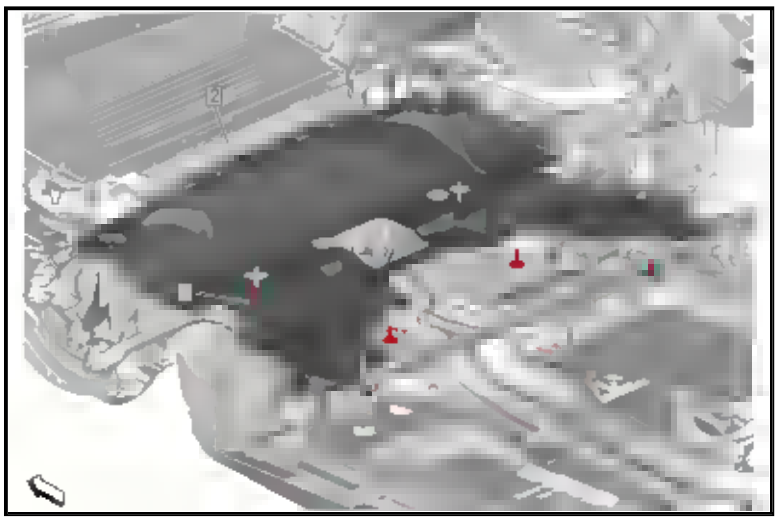
CAUTION: **This vehicle is equipped with torque-to-yield or single use fasteners. Install a NEW torque-to-yield or single use fastener when installing this component. Failure to replace the torque-to-yield or single use fastener could cause damage to the vehicle or component.**

Front Wheel Drive Shaft Nut (1) - Install NEW and tighten - **Fastener Specifications**

17. 

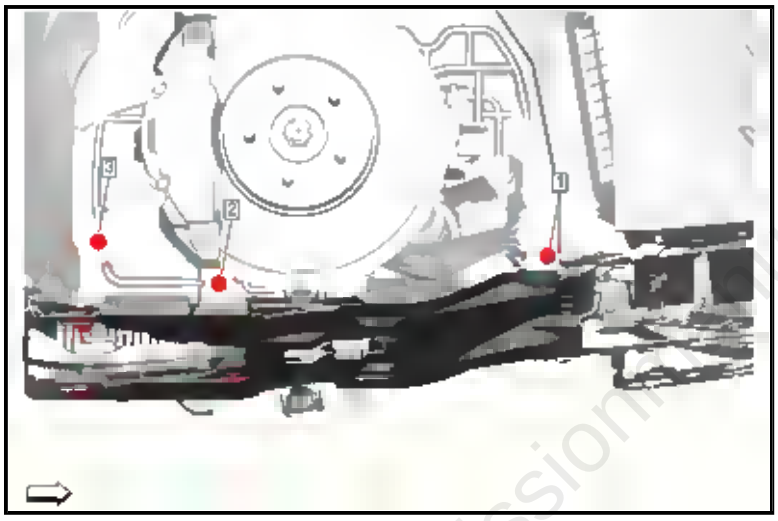
Engine Front Splash Shield - Right Side (2) - Install

18. Engine Front Splash Shield Bolt (1) - Install and tighten [3x] - **Fastener Specifications**

19. 

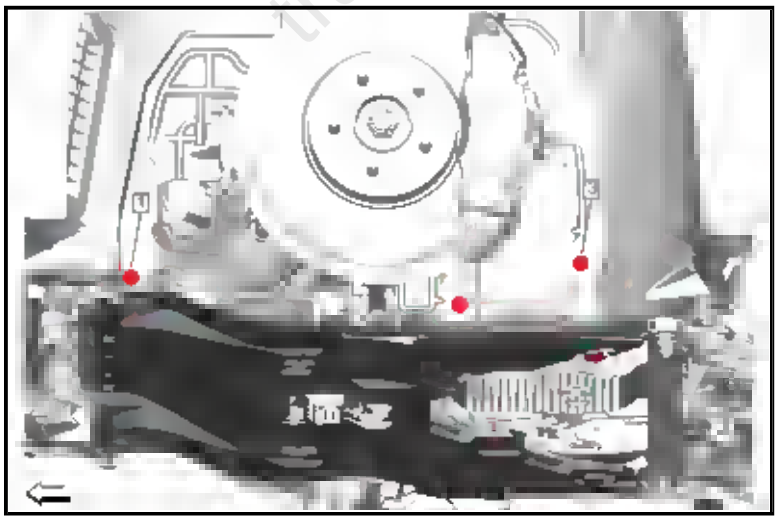
    Front Compartment Air Deflector (2) - Install

20. Front Compartment Air Deflector Bolt (1) - Install and tighten [6x] - **Fastener Specifications**

21. 

    Engine Front Splash Shield Bolt (3) - Install and tighten - **Fastener Specifications**

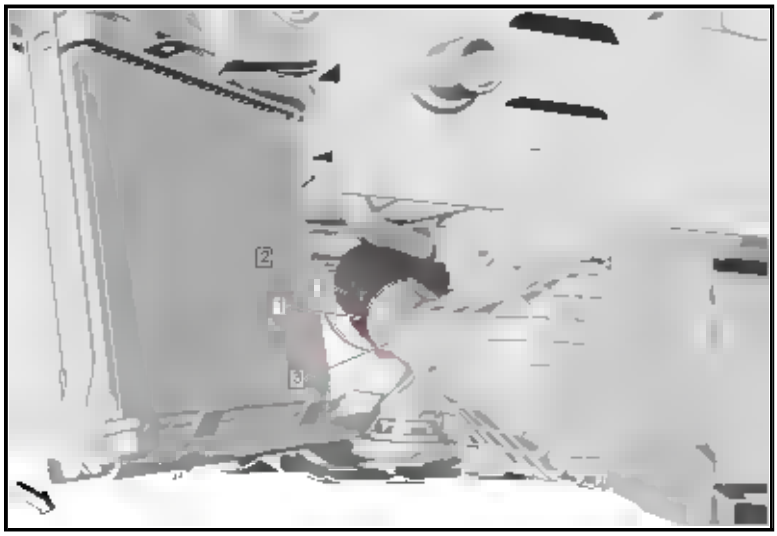
22. Engine Front Splash Shield Retainer (2) - Install and tighten - **Fastener Specifications**
23. Front Wheelhouse Liner Bolt (1) - Install and tighten - **Fastener Specifications**

24. 

    Engine Front Splash Shield Bolt (3) - Install and tighten - **Fastener Specifications**

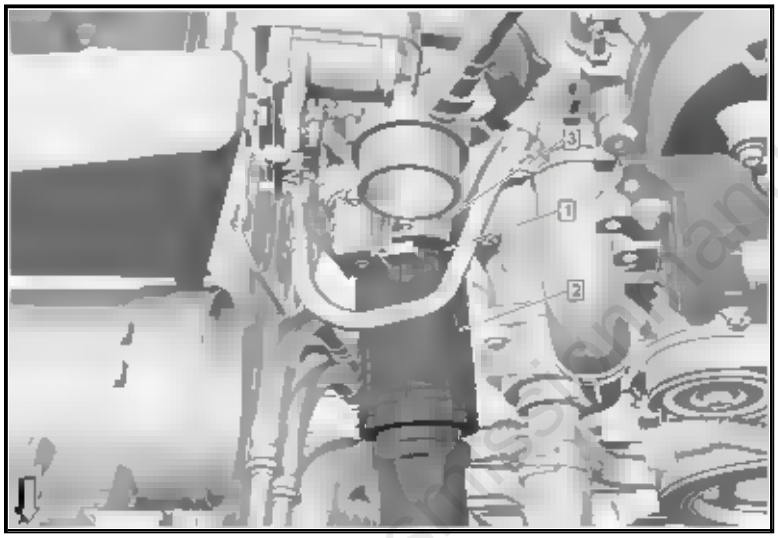
25. Engine Front Splash Shield Retainer (2) - Install and tighten - **Fastener Specifications**
26. Front Wheelhouse Liner Bolt (1) - Install and tighten - **Fastener Specifications**

27. Install the front tire and wheel assemblies. **Tire and Wheel Removal and Installation**

28. 

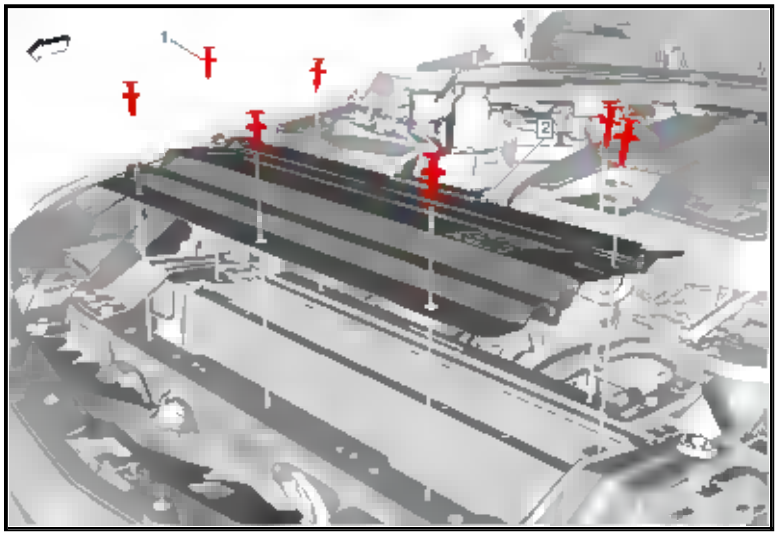
Charge Air Cooler Inlet Air Tube (2) @ Charge Air Cooler (3) - Install

29. Retainer Spring (1) - Engage

30. 

Charge Air Cooler Inlet Air Tube (2) @ Turbocharger (3) - Install

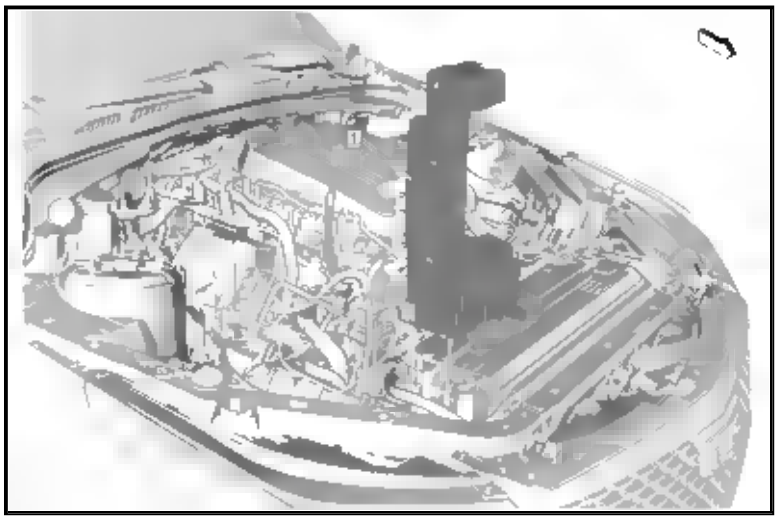
31. Retainer Spring (1) - Engage

32. 

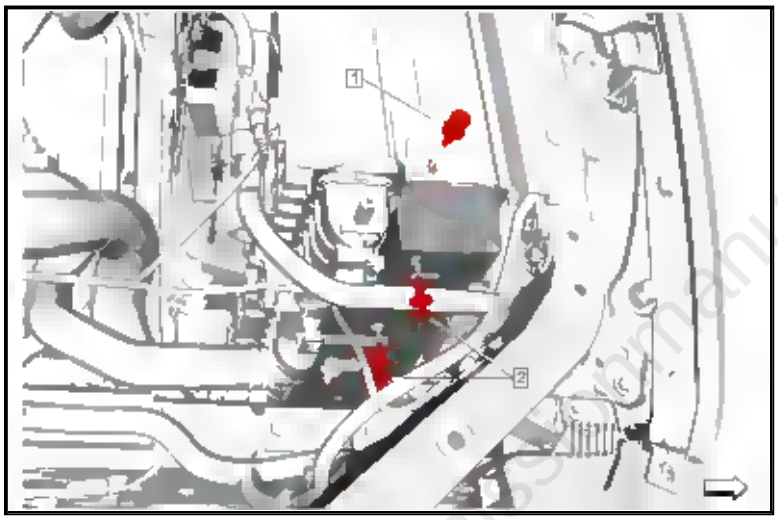
Radiator Air Upper Baffle (2) - Install

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33. Radiator Air Upper Baffle Retainer (1) - Install [7x]

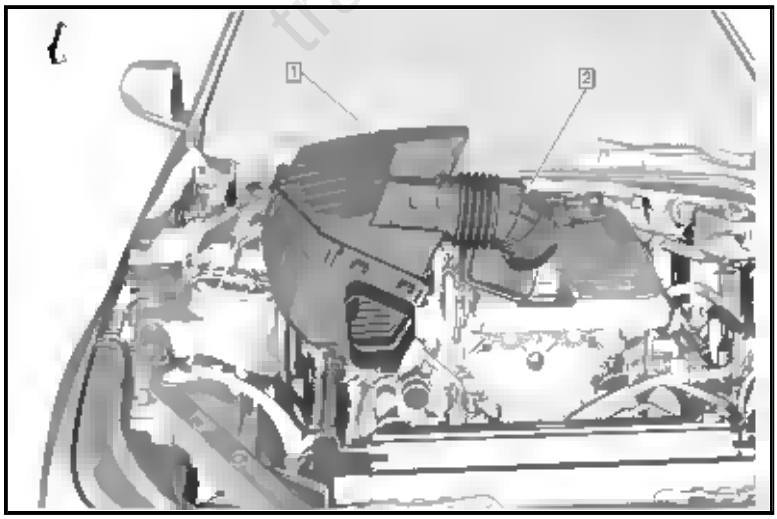
34. 

Install the radiator air side baffle (1) by manipulating it between the vehicle components and beneath the radiator air upper baffle.

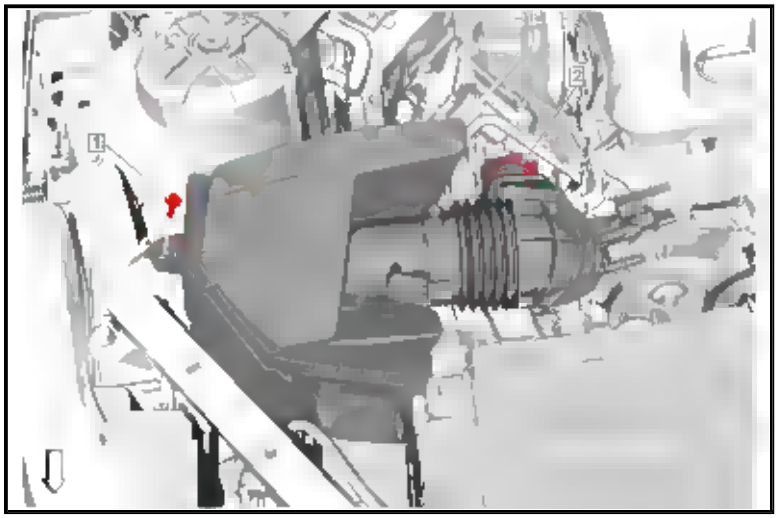
35. 

Radiator Air Seal Retainer (2) - Install [2x]

36. Radiator Air Upper Baffle Retainer (1) - Install

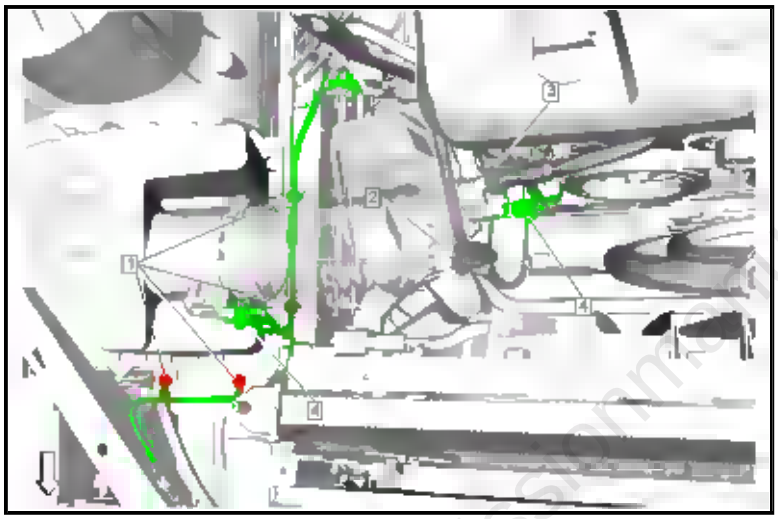
37. 

Install the air cleaner (1) and air cleaner outlet duct (2) as an assembly.

38. 

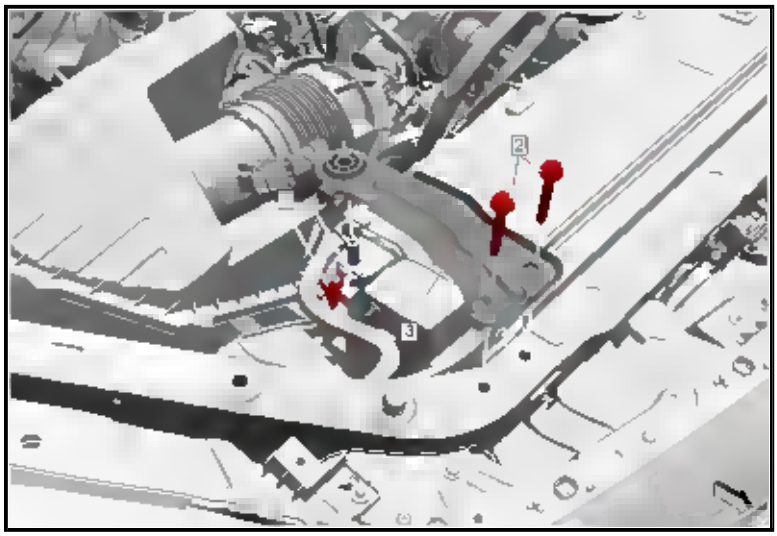
    Air Cleaner Outlet Duct Clamp (2) - Tighten - **Fastener Specifications**

39. Air Cleaner Bolt (1) - Install and tighten - **Fastener Specifications**

40. 

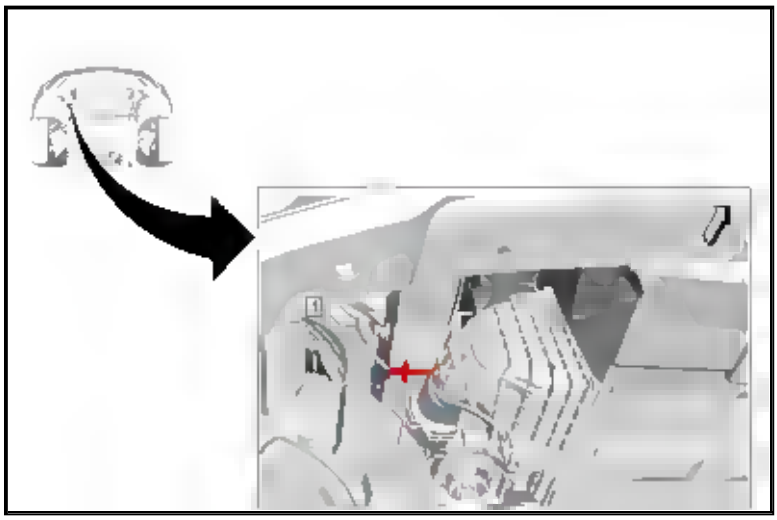
    Electrical Connector (4) - Connect [2x]

41. Evaporative Emission Canister Purge Tube (3) - Connect - **Plastic Collar Quick Connect Fitting Service**
42. Positive Crankcase Ventilation Tube (2) - Connect - **Plastic Collar Quick Connect Fitting Service**
43. Wiring Harness Retainer (1) @ Air Cleaner Assembly - Install [3x]

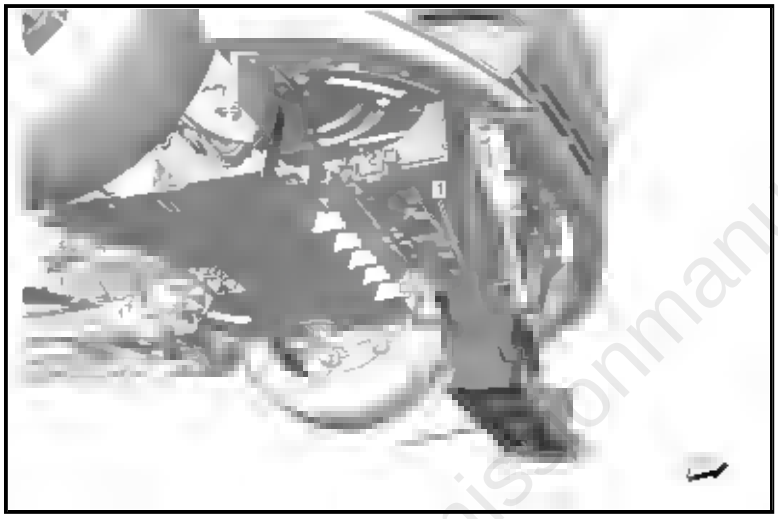
44. 

    Radiator Upper Bracket (3) - Install

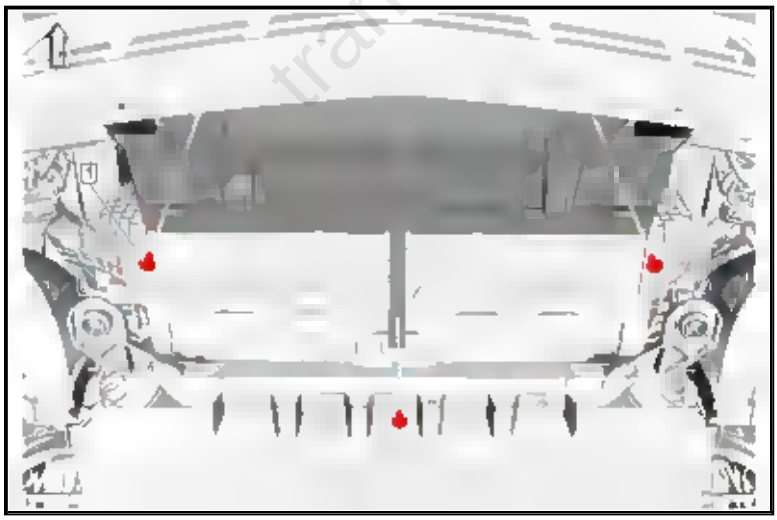
45. Radiator Upper Bracket Bolt (2) - Install and tighten [2x] - **Fastener Specifications**

46. Wiring Harness Retainer (1) - Install
47. Raise the vehicle.
48. 

Radiator Air Seal Retainer (1) - Install [2x]

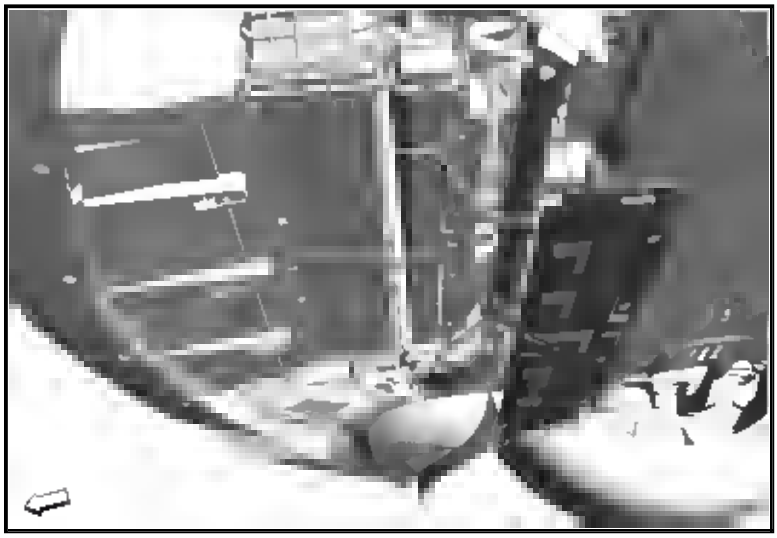
49. 

Radiator Air Front Lower Baffle (1) - Install

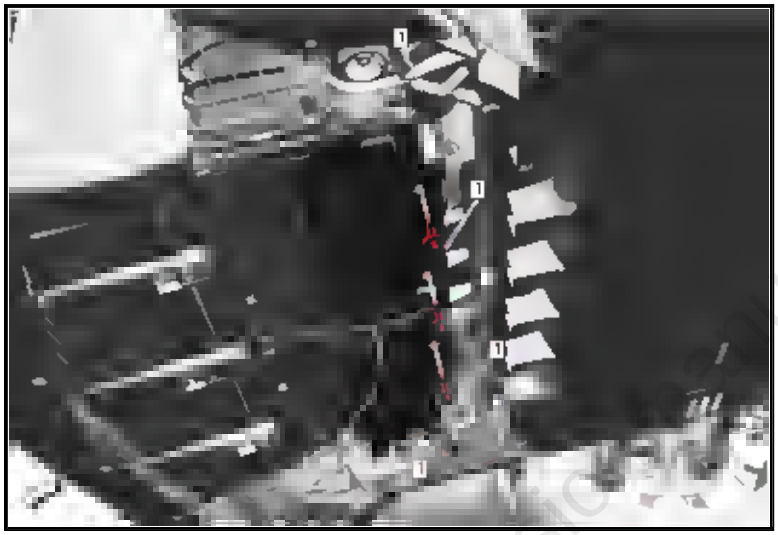
50. 

Radiator Air Front Lower Baffle Retainer (1) - Install [3x]

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51. 

Radiator Air Lower Baffle (1) - Install

52. 

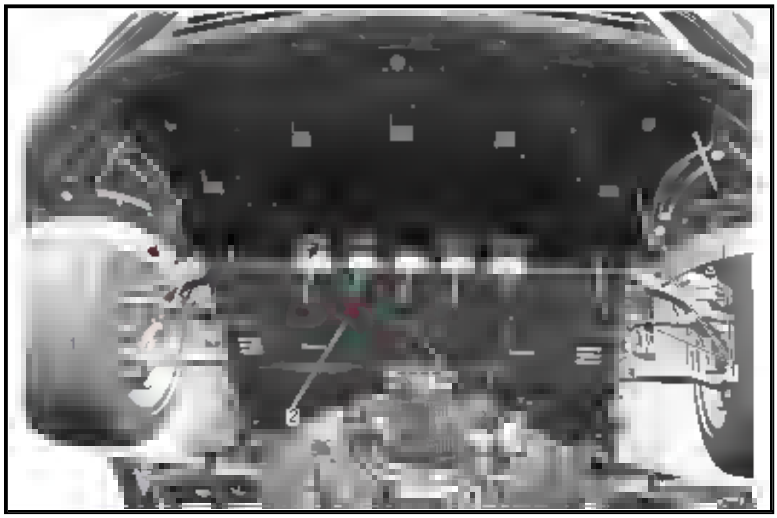
Radiator Air Lower Baffle Retainer (2) - Install

53. Radiator Air Lower Seal Retainer (1) - Install [6x]

54. 

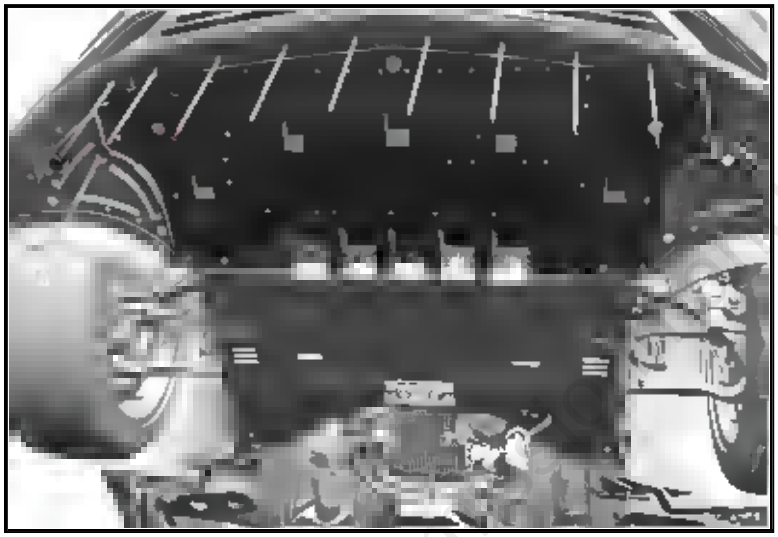
Front Bumper Fascia Center Air Deflector (1) - Install

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55. 

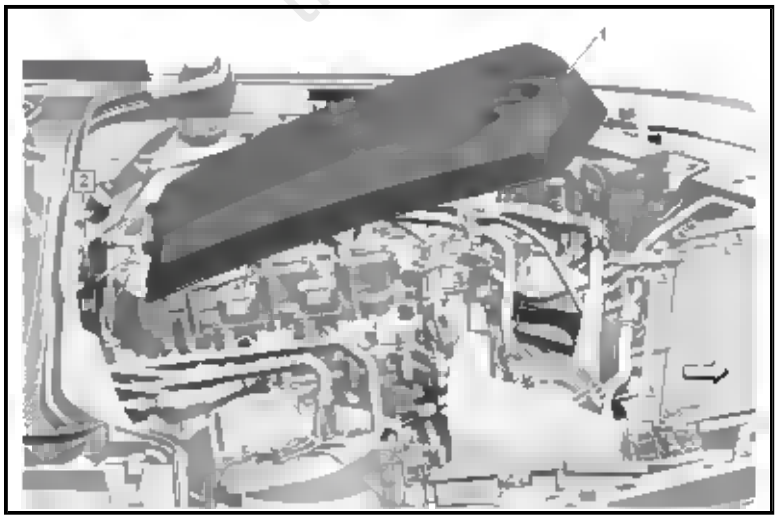
Front Bumper Fascia Center Air Deflector Retainer (3) - Install [2x]

56. Front Bumper Fascia Center Air Deflector Bolt (2) - Install and tighten - **Fastener Specifications**
57. Front Bumper Fascia Center Air Deflector Screw (1) - Install and tighten [6x] - **Fastener Specifications**

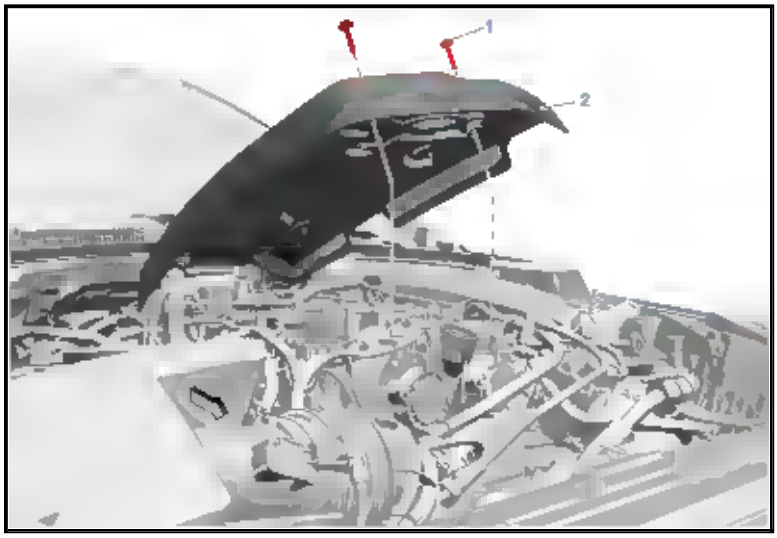
58. 

Front Bumper Fascia Center Air Deflector Screw (1) - Install and tighten [10x] - **Fastener Specifications** .

59. Lower the vehicle.

60. 

Intake Manifold Cover (1) @ Upper Intake Manifold Bracket (2) - Install

61. 

    Push down on the front of the intake manifold cover (2).

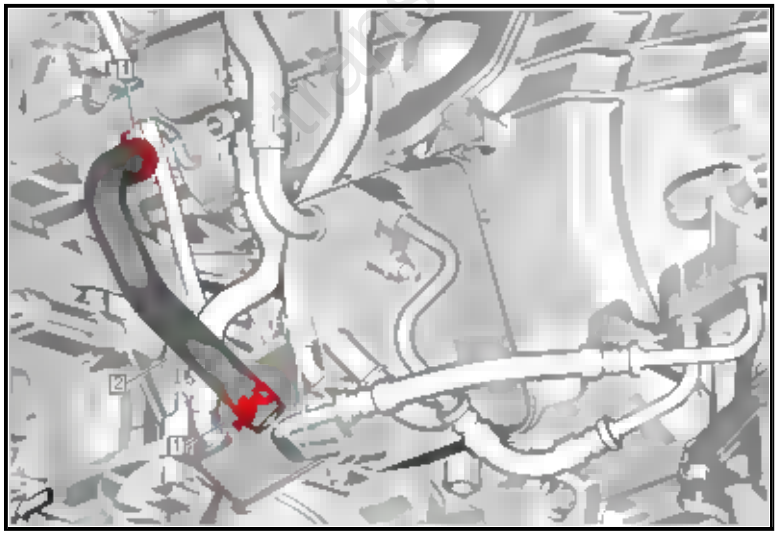
62. Intake Manifold Cover Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
63. Install the oil fill cap.
64. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
65. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

AUTOMATIC TRANSMISSION FLUID COOLING EXCHANGER REPLACEMENT (LSY, RWD, WITHOUT V03)

Single Use Components and Fasteners

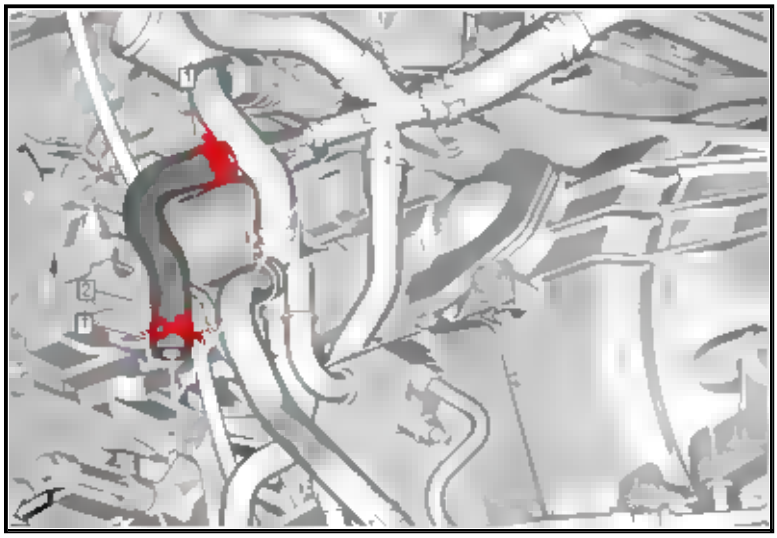
- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal

Removal Procedure

1. Drain the cooling system. **Cooling System Draining and Filling (LSY GE 47716)** , or **Cooling System Draining and Filling (LSY Static Fill)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

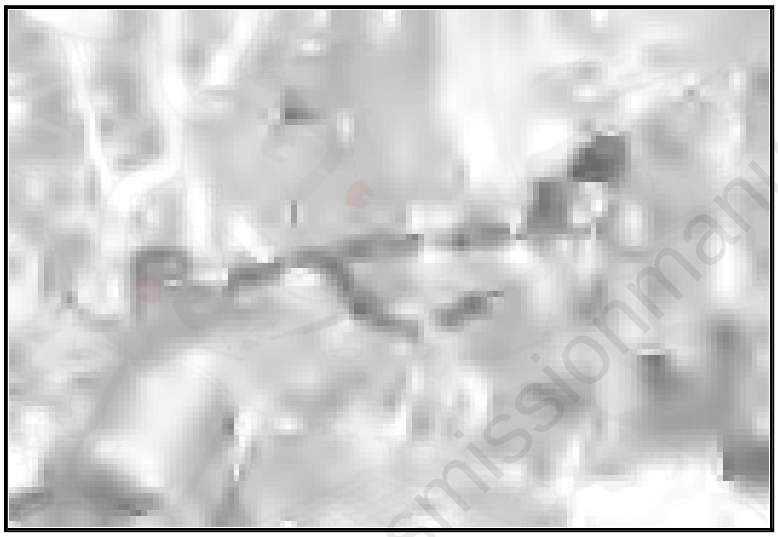
    Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove

5. 

   Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

6. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove

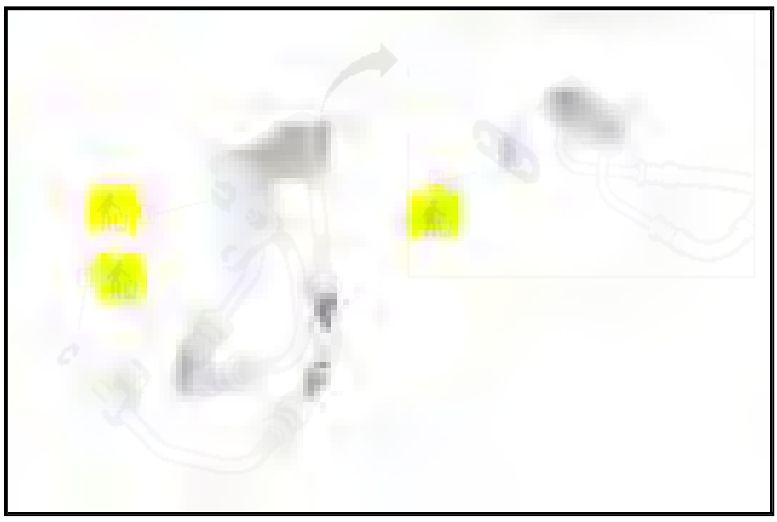
7. 

   Transmission Fluid Cooler Pipe Nut (1) - Remove [2x]

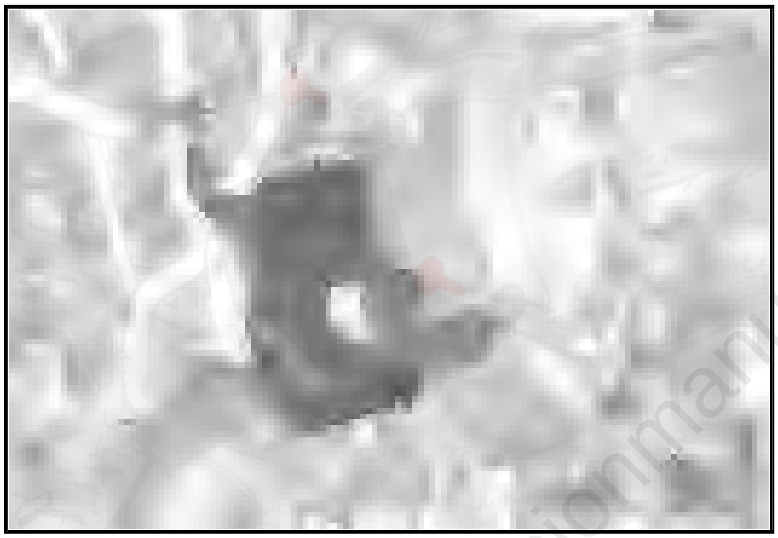
   NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

8. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove [2x]

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9. 

Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

10. 

Transmission Fluid Auxiliary Cooler Bolt (1) - Remove [2x]

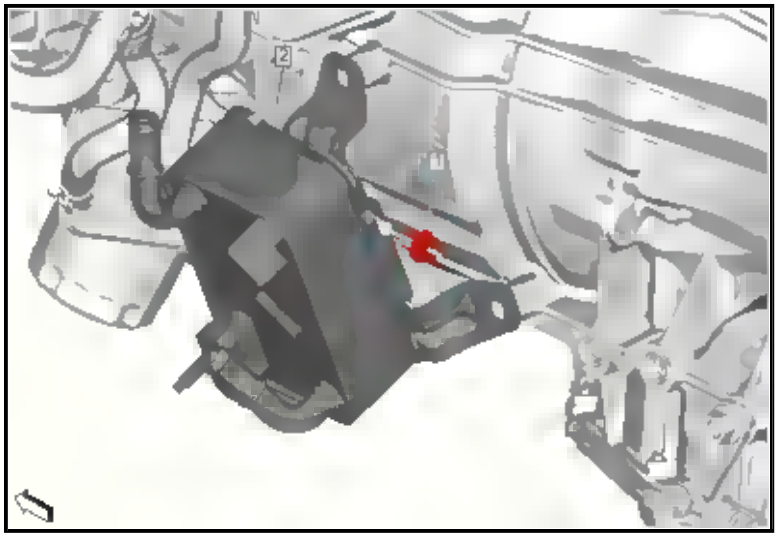
11. 

Transmission Fluid Auxiliary Cooler Bracket Nut (1) - Remove

12. Automatic Transmission Fluid Cooling Exchanger (2) - Remove

Installation Procedure

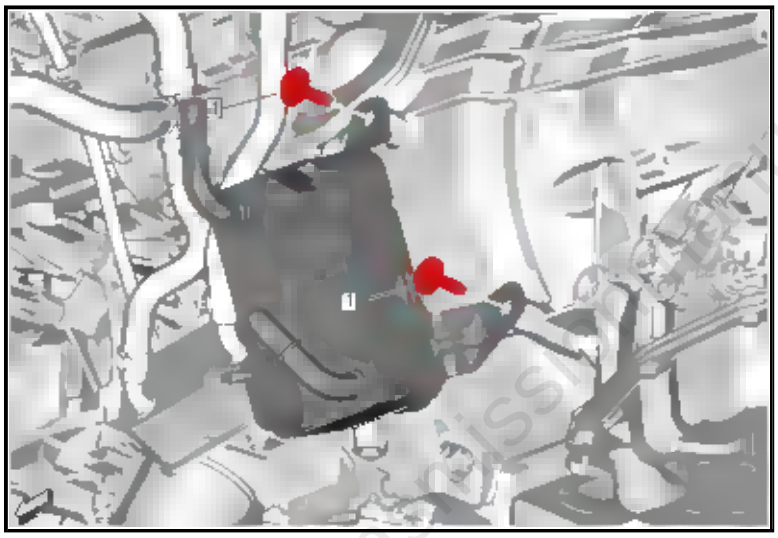
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1. 

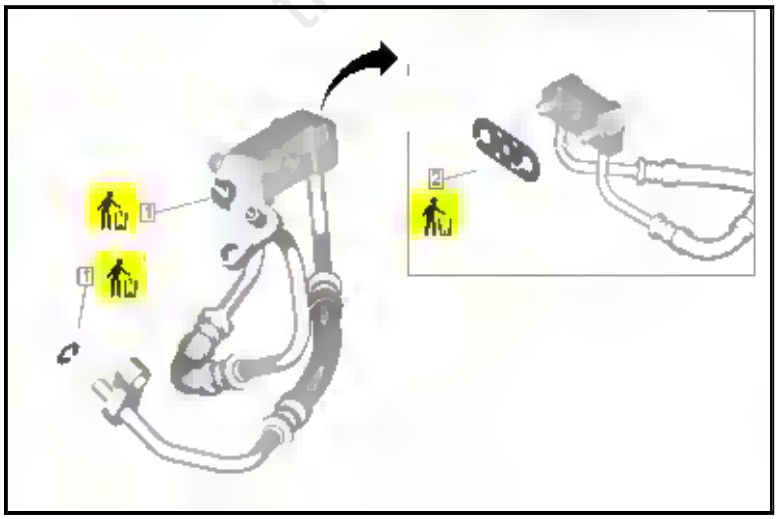
Automatic Transmission Fluid Cooling Exchanger (2) - Install

CAUTION: **Refer to Fastener Caution .**

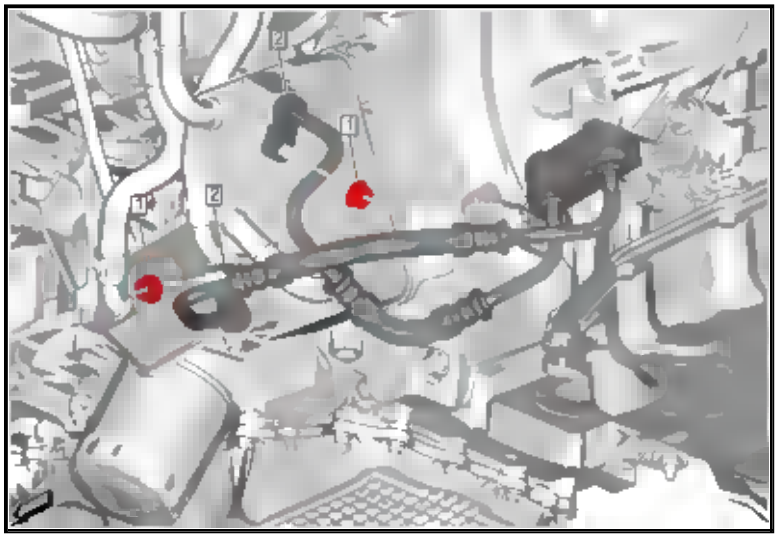
2. Transmission Fluid Auxiliary Cooler Bracket Nut (1) - Install and tighten - **Fastener Specifications**

3. 

Transmission Fluid Auxiliary Cooler Bolt (1) - Install and tighten [2x] - **Fastener Specifications**

4. 

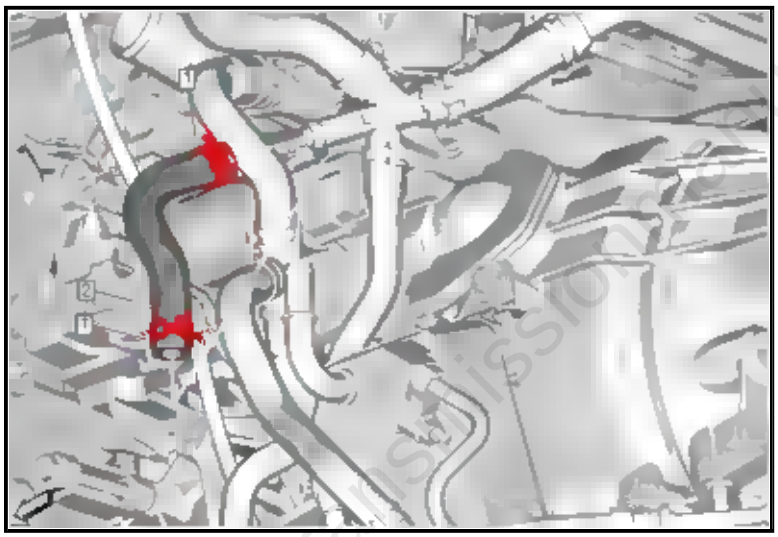
Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

5. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

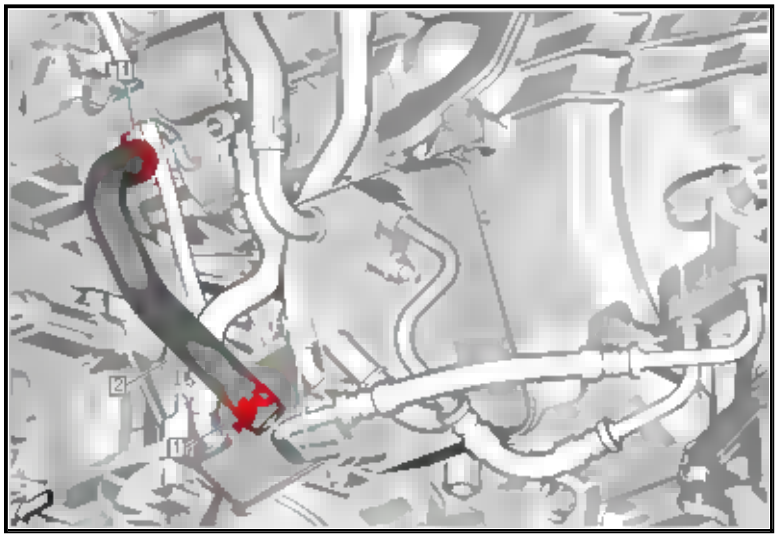
Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Install [2x]

6. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten [2x] - **Fastener Specifications**

7. 

Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Install

8. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Engage - **Hose Clamp Replacement Guidelines - Spring Type**

9. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (1) @ Automatic Transmission Fluid Cooling Exchanger - Install

10. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
11. Lower the vehicle.
12. Fill the cooling system. **Cooling System Draining and Filling (LSY GE 47716)** , or **Cooling System Draining and Filling (LSY Static Fill)**
13. Check the cooling system for leaks.
14. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
15. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

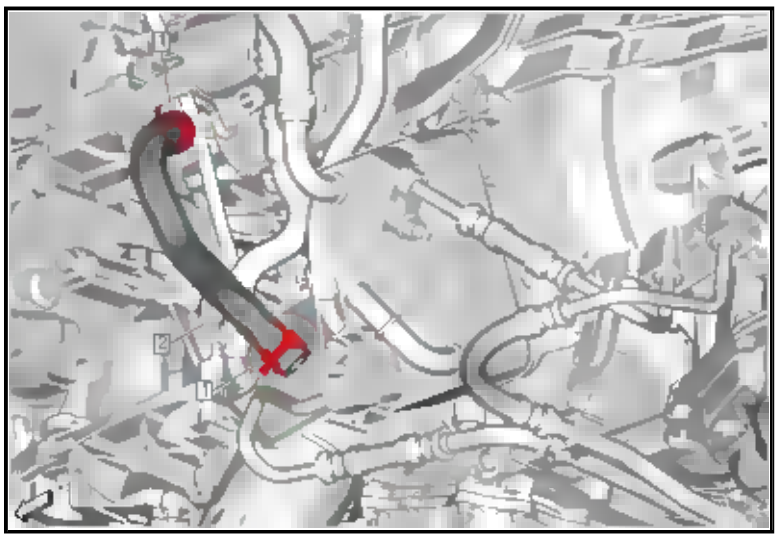
AUTOMATIC TRANSMISSION FLUID COOLING EXCHANGER REPLACEMENT (LSY, RWD, WITH V03)

Single Use Components and Fasteners

- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Seal

Removal Procedure

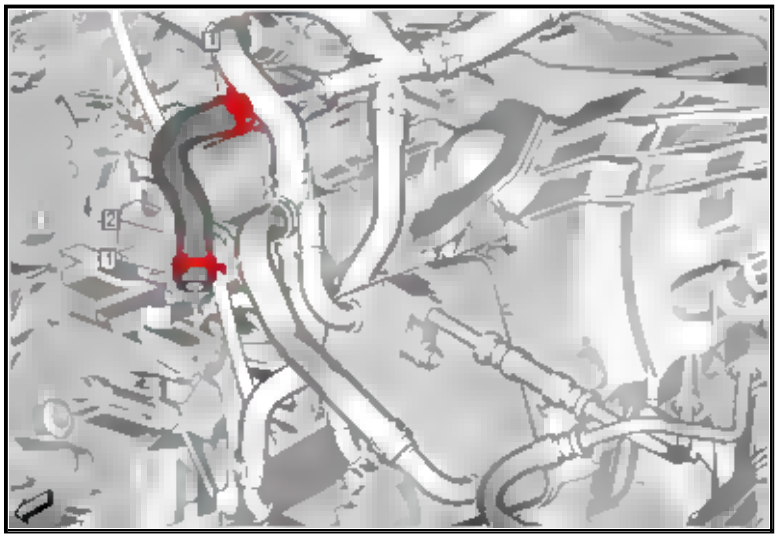
1. Drain the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

3. 

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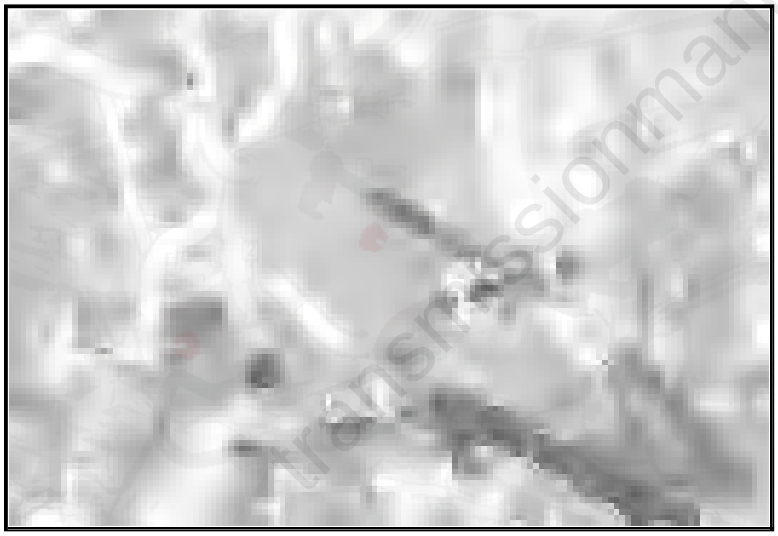
Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove

5. 

Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

6. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove

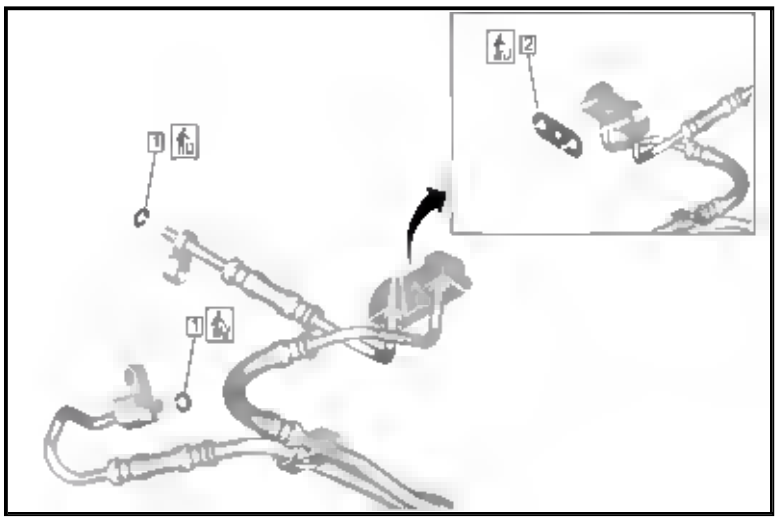
7. 

Transmission Fluid Cooler Pipe Nut (1) - Remove [2x]

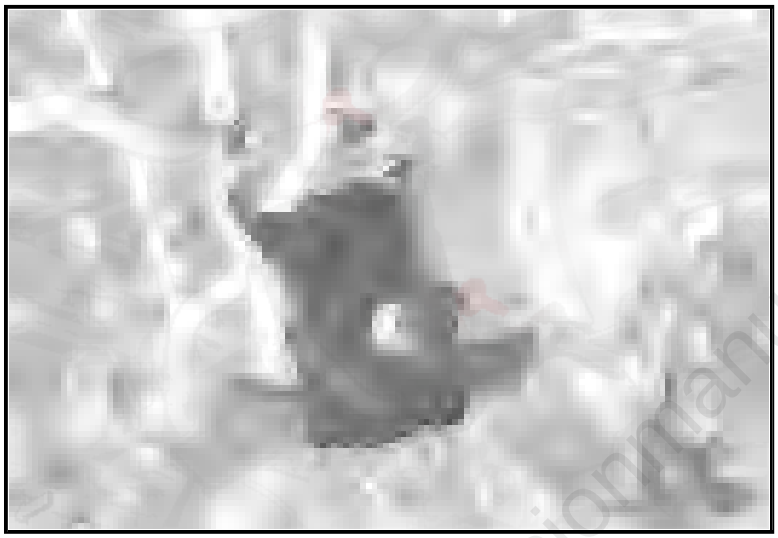
NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

8. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove [2x]

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9. 

Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

10. 

Transmission Fluid Auxiliary Cooler Bolt (1) - Remove [2x]

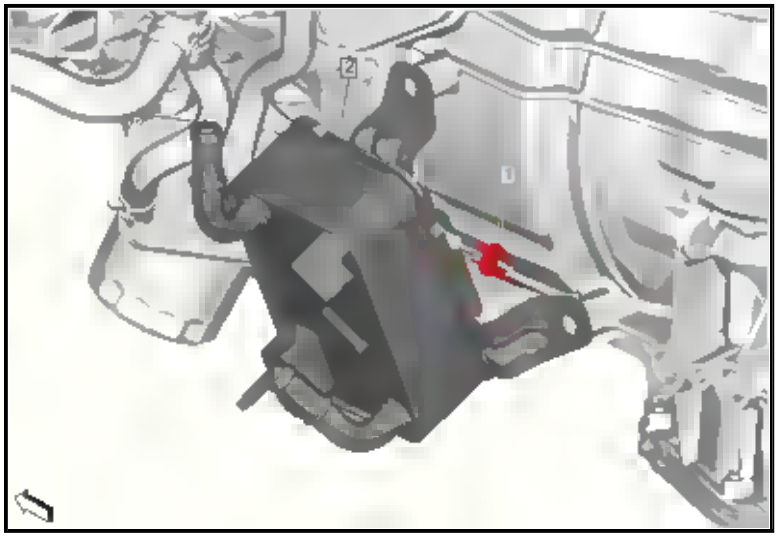
11. 

Transmission Fluid Auxiliary Cooler Bracket Nut (1) - Remove

12. Automatic Transmission Fluid Cooling Exchanger (2) - Remove

Installation Procedure

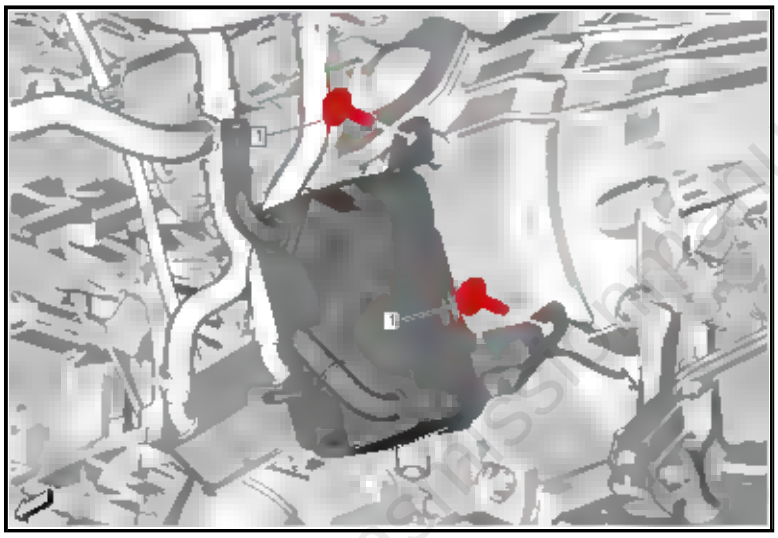
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1. 

Automatic Transmission Fluid Cooling Exchanger (2) - Install

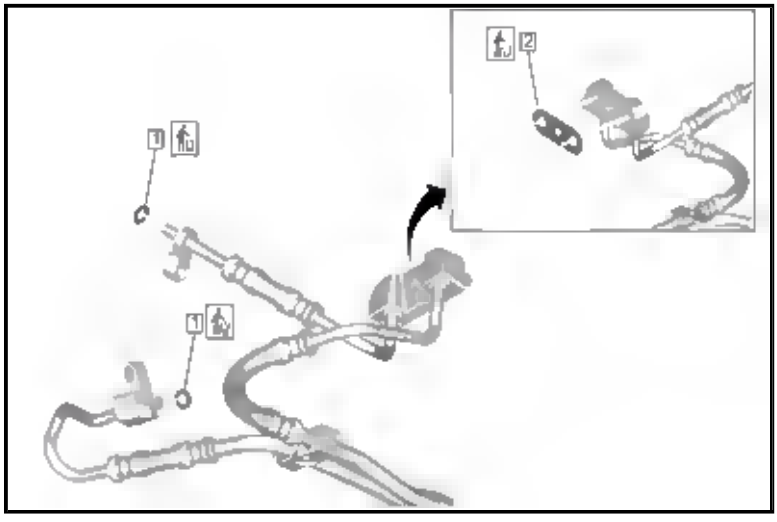
CAUTION: **Refer to Fastener Caution .**

2. Transmission Fluid Auxiliary Cooler Bracket Nut (1) - Install and tighten - **Fastener Specifications**

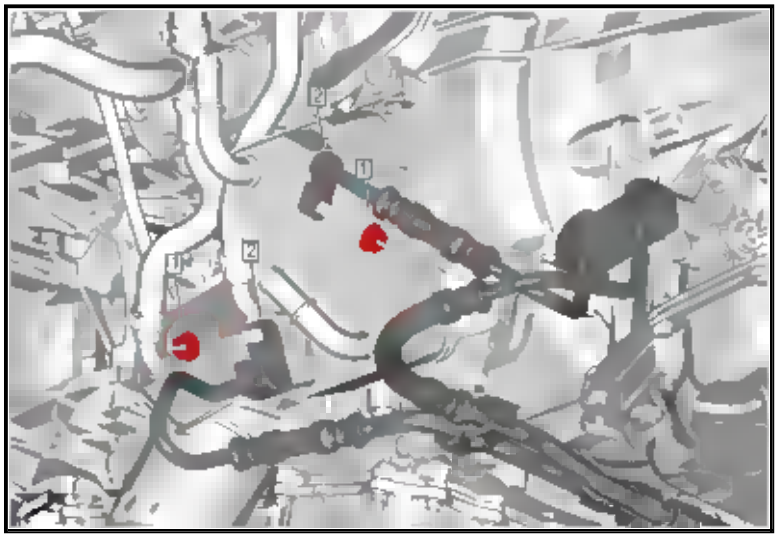
3. 

CAUTION: **Refer to Fastener Caution .**

Transmission Fluid Auxiliary Cooler Bolt (1) - Install and tighten [2x] - **Fastener Specifications**

4. 

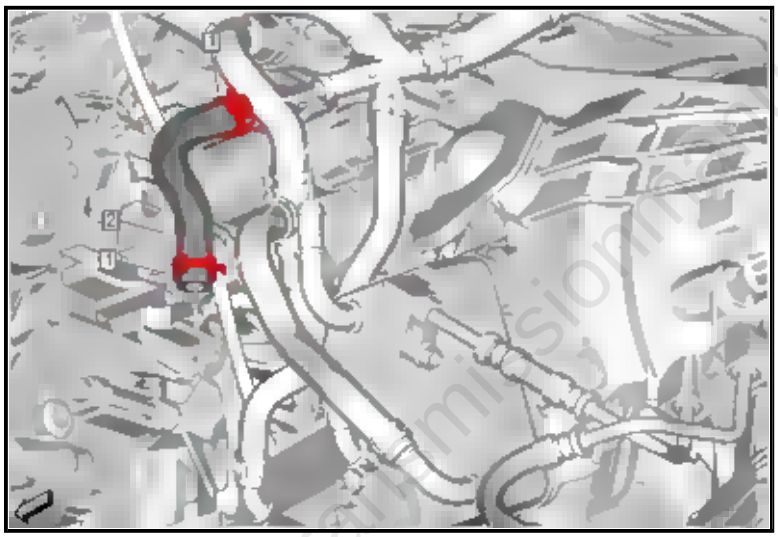
Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

5. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

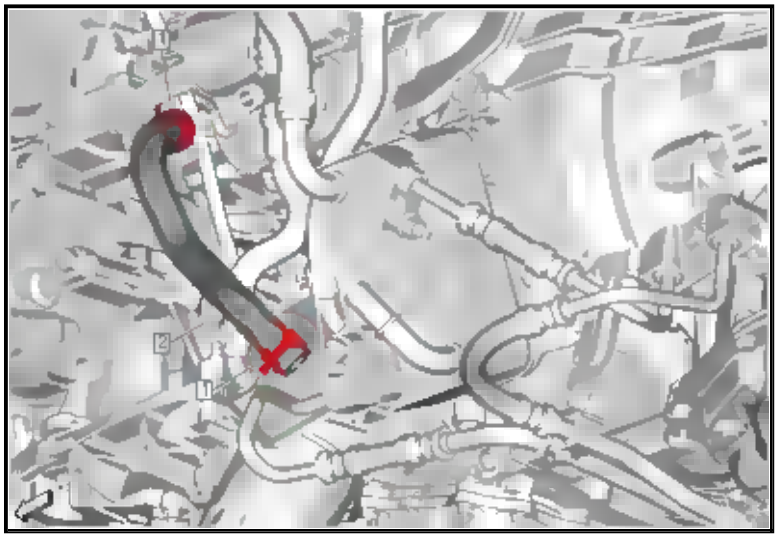
Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Install [2x]

6. Transmission Fluid Cooler Pipe Nut (1) - Install and tighten [2x] - **Fastener Specifications**

7. 

Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Install

8. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Engage - **Hose Clamp Replacement Guidelines - Spring Type**

9. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Install

10. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) @ Automatic Transmission Fluid Cooling Exchanger - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
11. Lower the vehicle.
12. Fill the cooling system. **Cooling System Draining and Filling (LSY with V03 Static Fill)** , or **Cooling System Draining and Filling (LSY with V03 GE 47716)**
13. Check the cooling system for leaks.
14. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
15. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

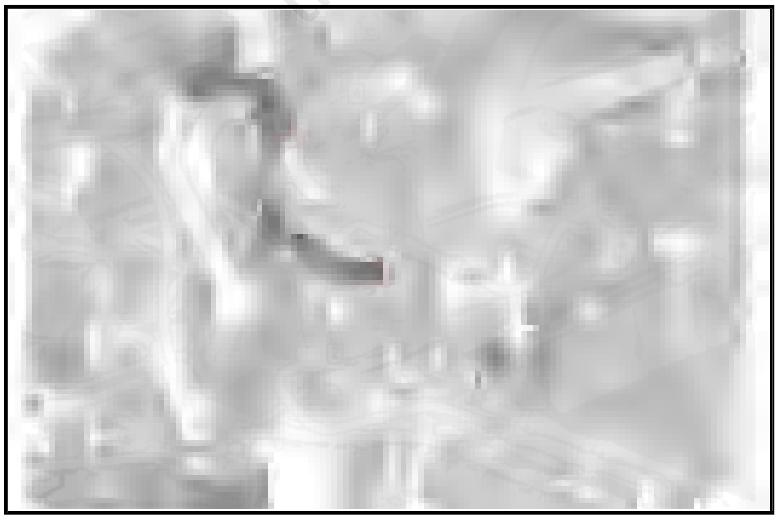
AUTOMATIC TRANSMISSION FLUID COOLING EXCHANGER REPLACEMENT (L3B, RWD)

Single Use Components and Fasteners

Transmission Fluid Cooler Pipe Seal [2x]

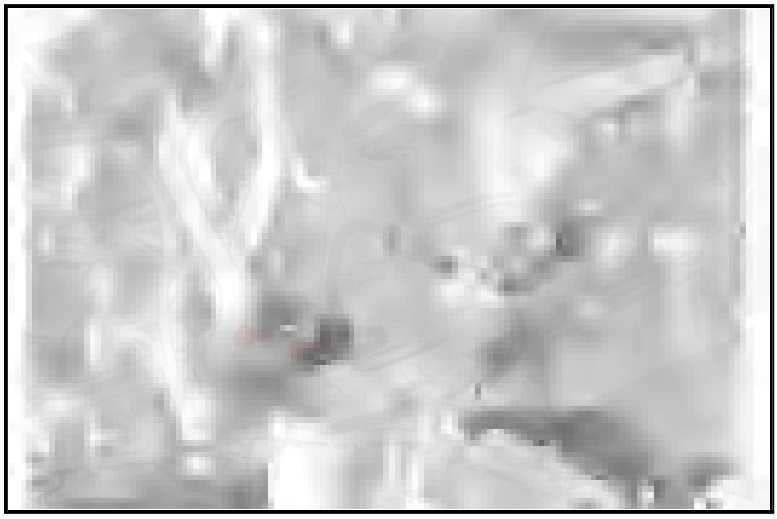
Removal Procedure

1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**

3. 

   Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

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4. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove
5. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (3) - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**
6. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (4) @ Automatic Transmission Fluid Cooling Exchanger - Remove
7. 

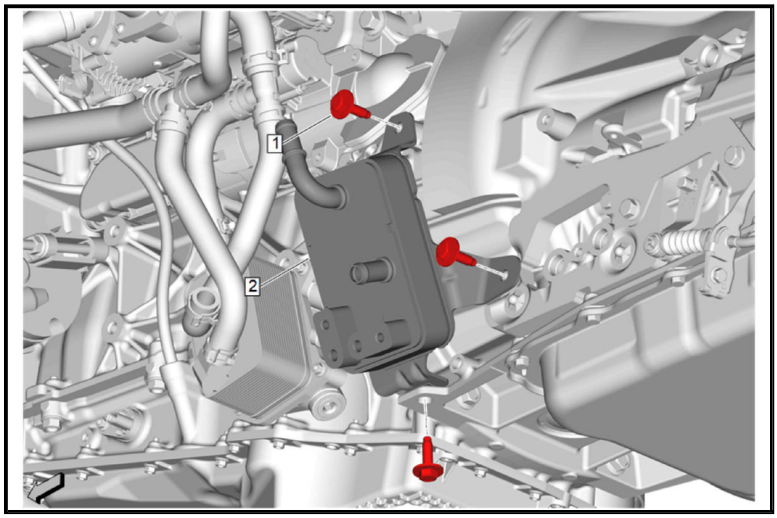
   Transmission Fluid Cooler Pipe Connector Bolt (1) - Remove [2x]

   NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

8. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove
9. 

   Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

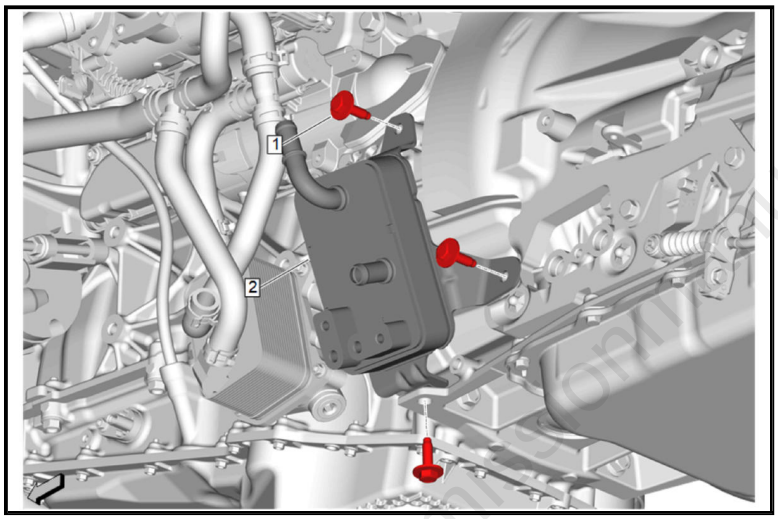
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10. 

Automatic Transmission Fluid Cooling Exchanger Bolt (1) - Remove [3x]

11. Automatic Transmission Fluid Cooling Exchanger (2) - Remove

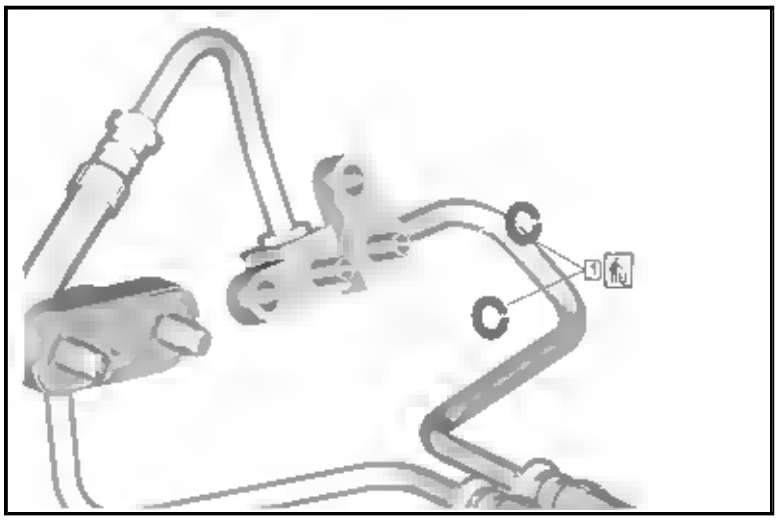
Installation Procedure

1. 

Automatic Transmission Fluid Cooling Exchanger (2) - Install

CAUTION: **Refer to Fastener Caution .**

2. Automatic Transmission Fluid Cooling Exchanger Bolt (1) - Install and tighten [3x] - **Fastener Specifications**

3. 

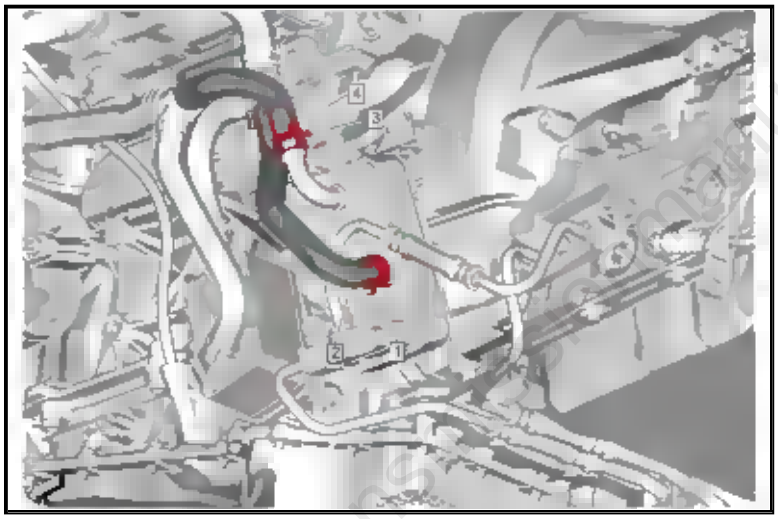
Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

4. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Install

5. Transmission Fluid Cooler Pipe Connector Bolt (1) - Install and tighten [2x] - **Fastener Specifications**

6. 

Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (4) @ Automatic Transmission Fluid Cooling Exchanger - Install

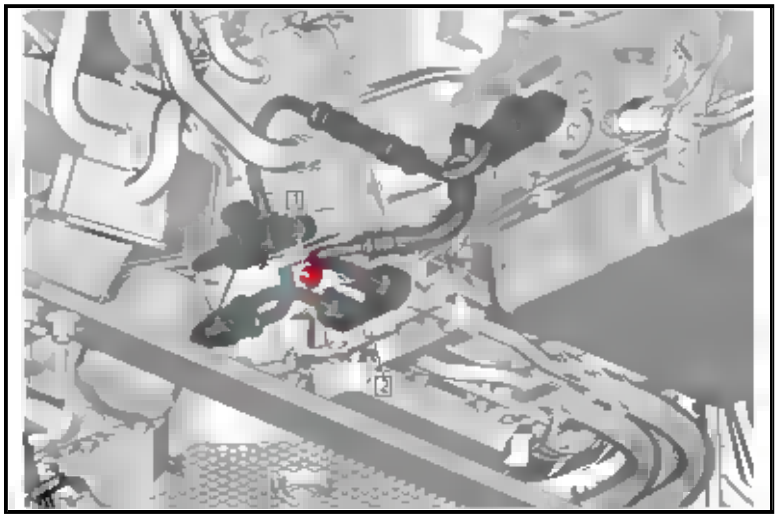
7. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (3) - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
8. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Install
9. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
10. Lower the vehicle.
11. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
12. Check the cooling system for leaks.
13. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
14. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

AUTOMATIC TRANSMISSION FLUID COOLING EXCHANGER REPLACEMENT (L3B, AWD)

Single Use Components and Fasteners

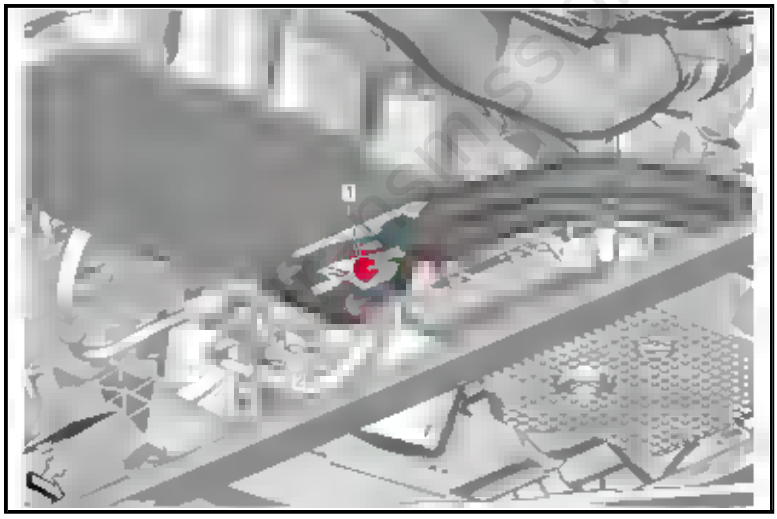
- Transmission Fluid Cooler Pipe Seal [2x]
- Transmission Fluid Cooler Thermal Bypass Valve Gasket [4x]

Removal Procedure

1. Drain the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
2. Raise and support the vehicle. **Lifting and Jacking the Vehicle**
3. 

   Transmission Fluid Cooler Pipe Bracket Nut (1) - Remove

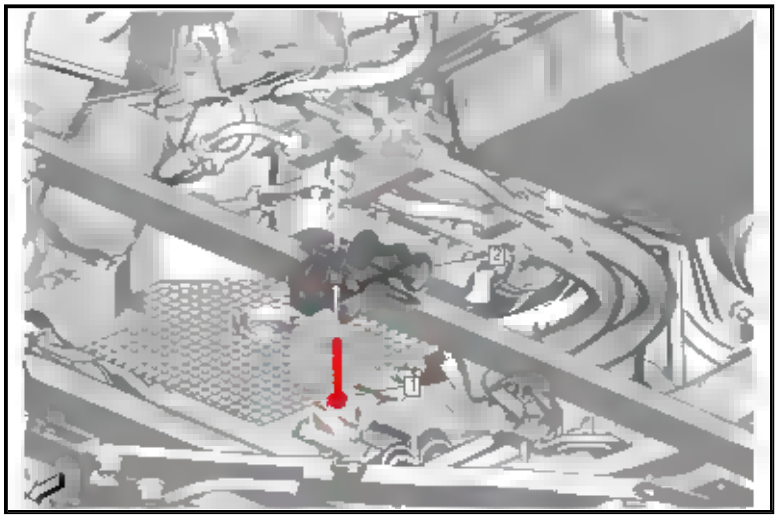
   NOTE: Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.

4. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove
5. 

   Transmission Fluid Cooler Pipe Bracket Nut (1) - Remove

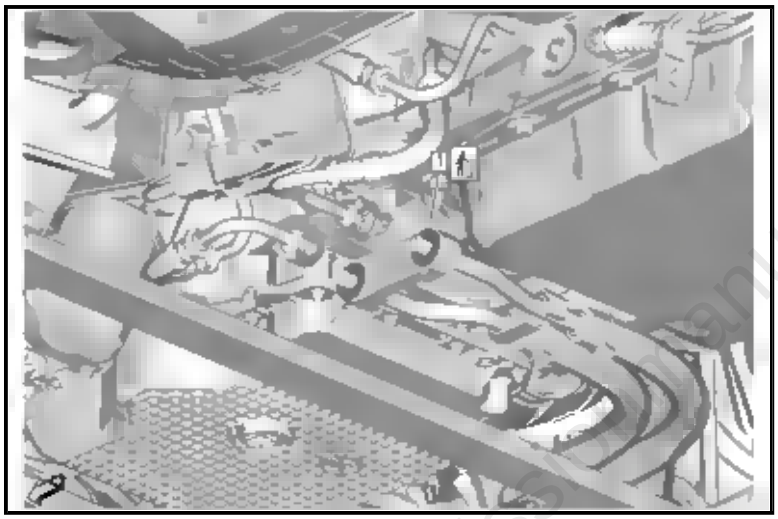
   NOTE: Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.

6. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Remove

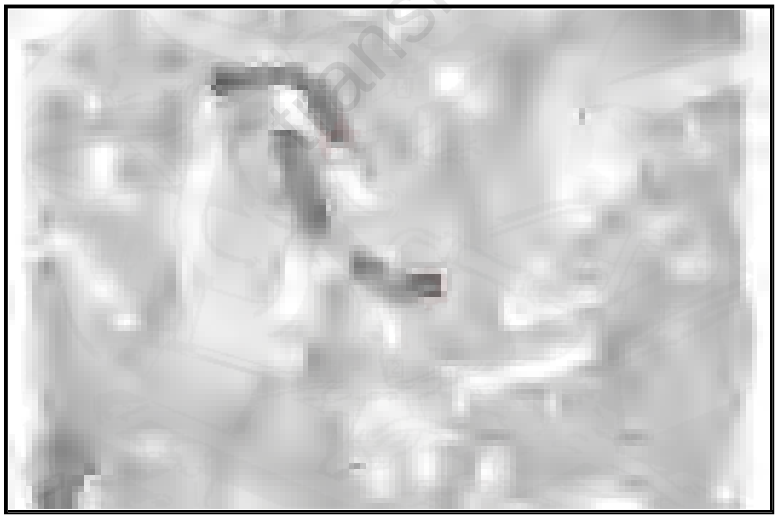
7. 

   Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Remove

8. Transmission Cooler Bypass Valve (2) - Remove

9. 

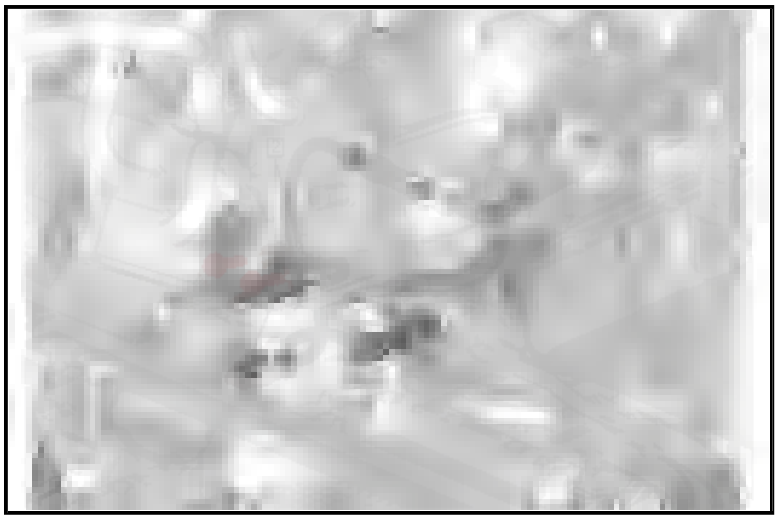
   Transmission Fluid Cooler Thermal Bypass Valve Gasket (2) - Remove and DISCARD [4x]

10. 

    Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

11. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove
12. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (3) - Disengage - **Hose Clamp Replacement Guidelines - Spring Type**

13. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (4) @ Automatic Transmission Fluid Cooling Exchanger - Remove

14. 

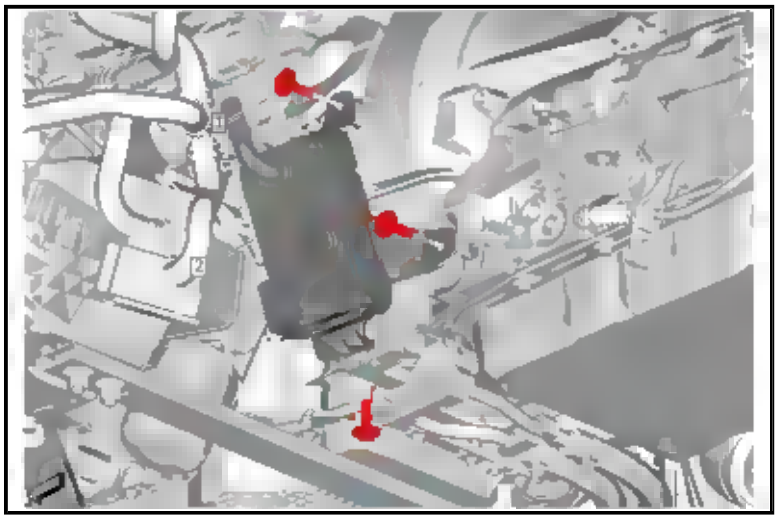
Transmission Fluid Cooler Pipe Connector Bolt (1) - Remove [2x]

NOTE: **Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.**

15. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Remove

16. 

Transmission Fluid Cooler Pipe Seal (1) - Remove and DISCARD [2x]

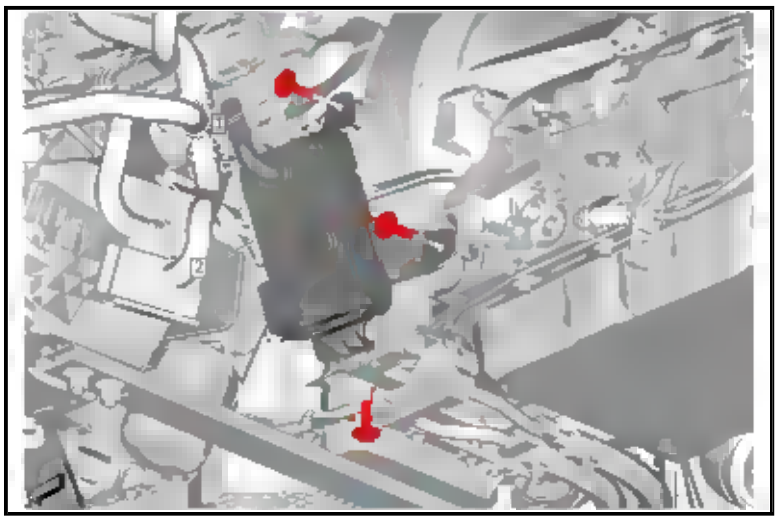
17. 

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Automatic Transmission Fluid Cooling Exchanger Bolt (1) - Remove [3x]

18. Automatic Transmission Fluid Cooling Exchanger (2) - Remove

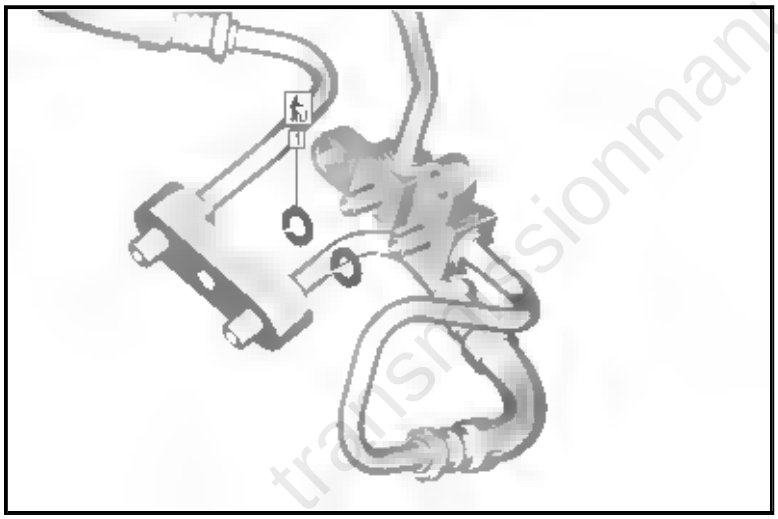
Installation Procedure

1. 

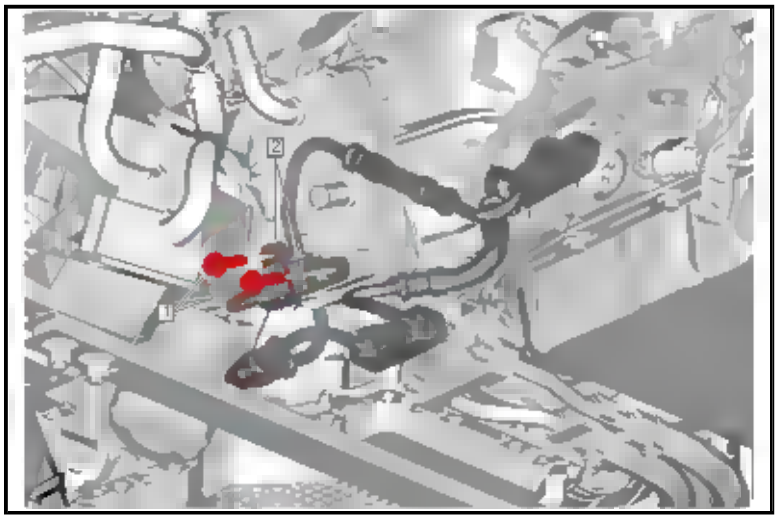
Automatic Transmission Fluid Cooling Exchanger (2) - Install

CAUTION: **Refer to Fastener Caution .**

2. Automatic Transmission Fluid Cooling Exchanger Bolt (1) - Install and tighten [3x] - **Fastener Specifications**

3. 

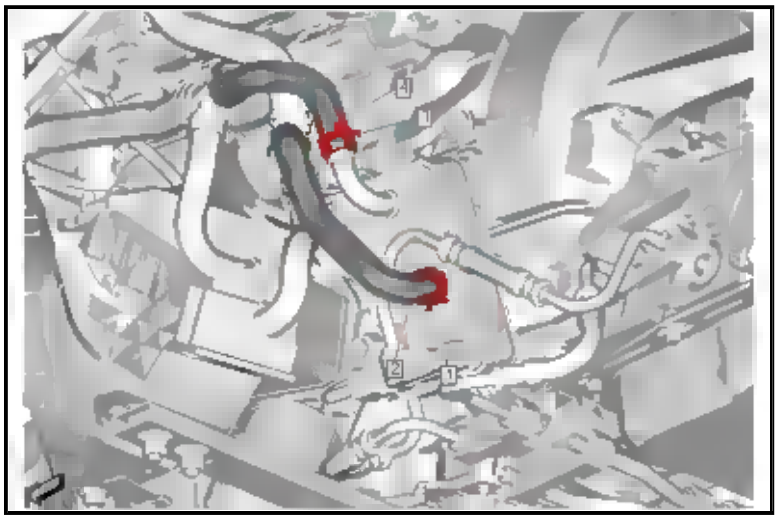
Transmission Fluid Cooler Pipe Seal (1) - Install NEW [2x]

4. 

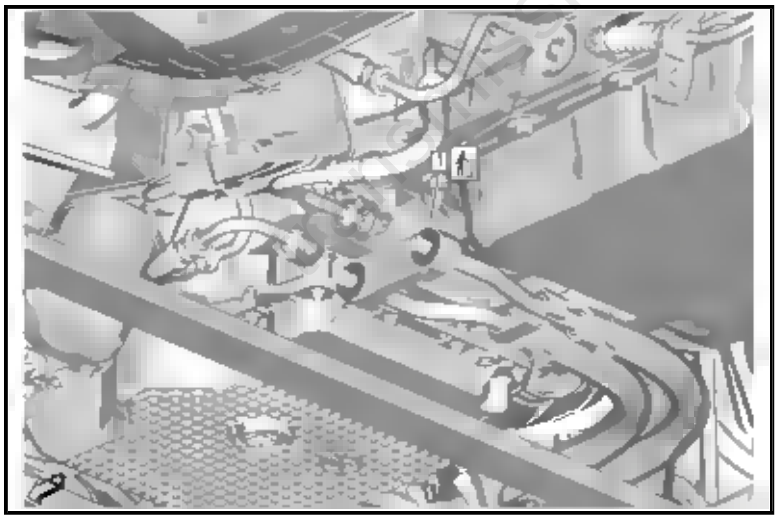
transmissionmanuals.com

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

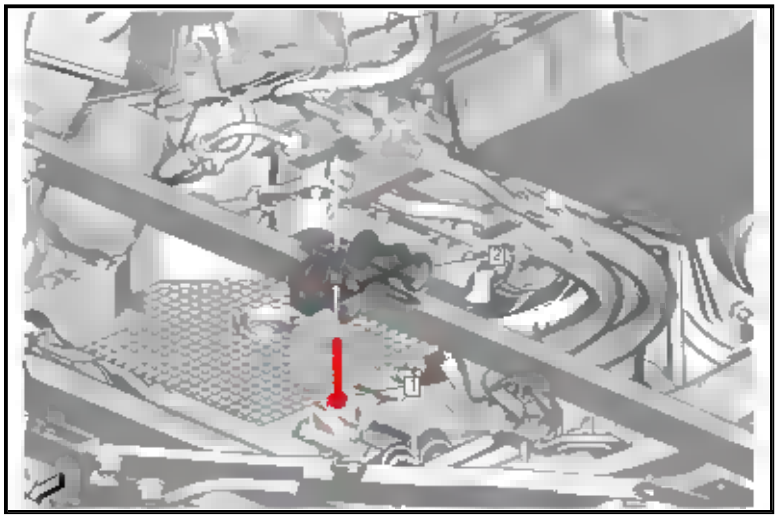
Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Automatic Transmission Fluid Cooling Exchanger - Install

5. Transmission Fluid Cooler Pipe Connector Bolt (1) - Install and tighten [2x] - **Fastener Specifications**
6. 

Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose (4) @ Automatic Transmission Fluid Cooling Exchanger - Install

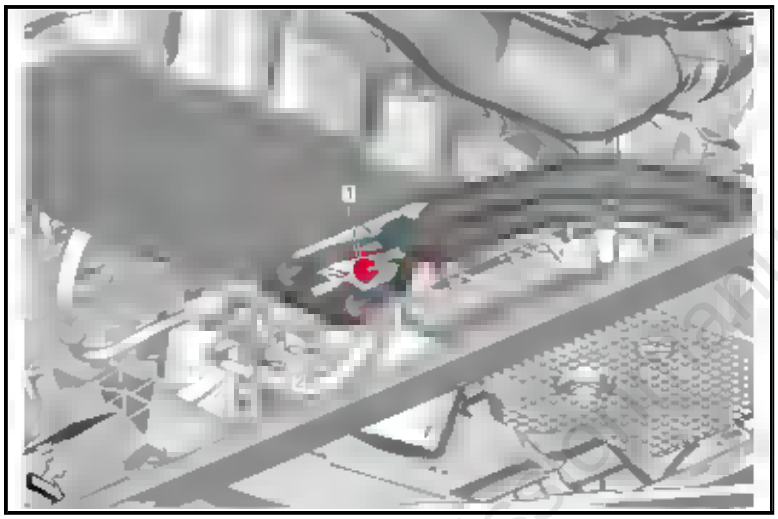
7. Automatic Transmission Fluid Cooling Heat Exchanger Outlet Hose Clamp (3) - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
8. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose (2) @ Automatic Transmission Fluid Cooling Exchanger - Install
9. Automatic Transmission Fluid Cooling Heat Exchanger Inlet Hose Clamp (1) - Engage - **Hose Clamp Replacement Guidelines - Spring Type**
10. 

Transmission Fluid Cooler Thermal Bypass Valve Gasket (2) - Install NEW [4x]

11. 

Transmission Cooler Bypass Valve (2) - Install

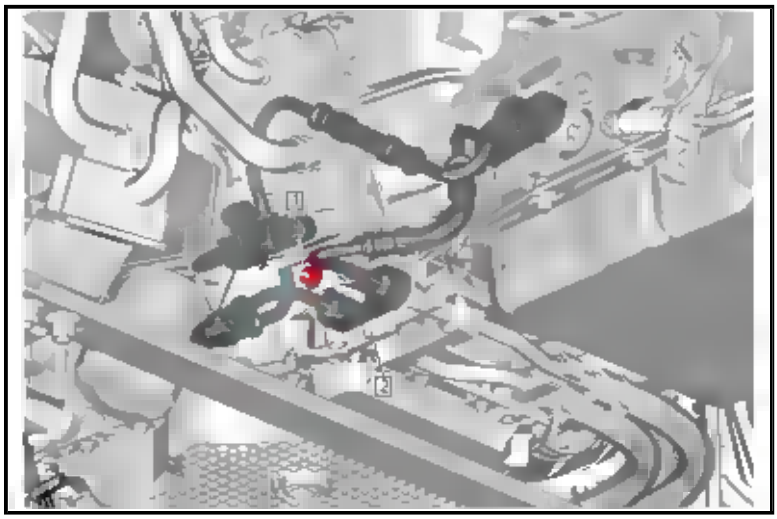
12. Transmission Fluid Cooler Thermal Bypass Valve Bolt (1) - Install and tighten - **Fastener Specifications**

13. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

14. Transmission Fluid Cooler Pipe Bracket Nut (1) - Install and tighten - **Fastener Specifications**

15. 

NOTE: **Remove the caps from the fittings and plugs from the holes before installing the transmission fluid cooler pipes.**

Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Transmission Cooler Bypass Valve - Install

16. Transmission Fluid Cooler Pipe Bracket Nut (1) - Install and tighten - **Fastener Specifications**
17. Lower the vehicle.
18. Fill the cooling system. **Cooling System Draining and Filling (L3B Static Fill)** , or **Cooling System Draining and Filling (L3B GE 47716)**
19. Check the cooling system for leaks.
20. Check the transmission fluid level. **Transmission Fluid Level and Condition Check**
21. Inspect for transmission fluid leaks. **Fluid Leak Diagnosis**

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Illustration	Tool Number/Description
	DT-45096 J-45096 Transmission Oil Cooling System Flush and Flow Test Tool

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Illustration	Tool Number/Description
	DT-45096-23 Cooler Flushing Adapter

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Illustration	Tool Number/Description
	DT-45096-30 J-45096-30 Transmission Cooler Flush Adapter

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