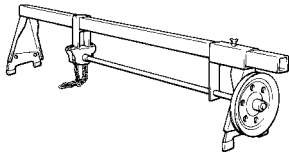
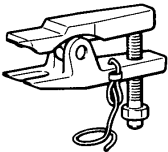


SPECIAL TOOLS

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Tool	Tool number and name	Supersession	Application
	MZ203827 Engine lifter	E309A	To support the engine assembly during removal and installation of the centre member
	MB991113 or MB990635 Steering linkage puller	13-006	Disconnecting the tie rod end from the knuckle

ENGINE MOUNTING

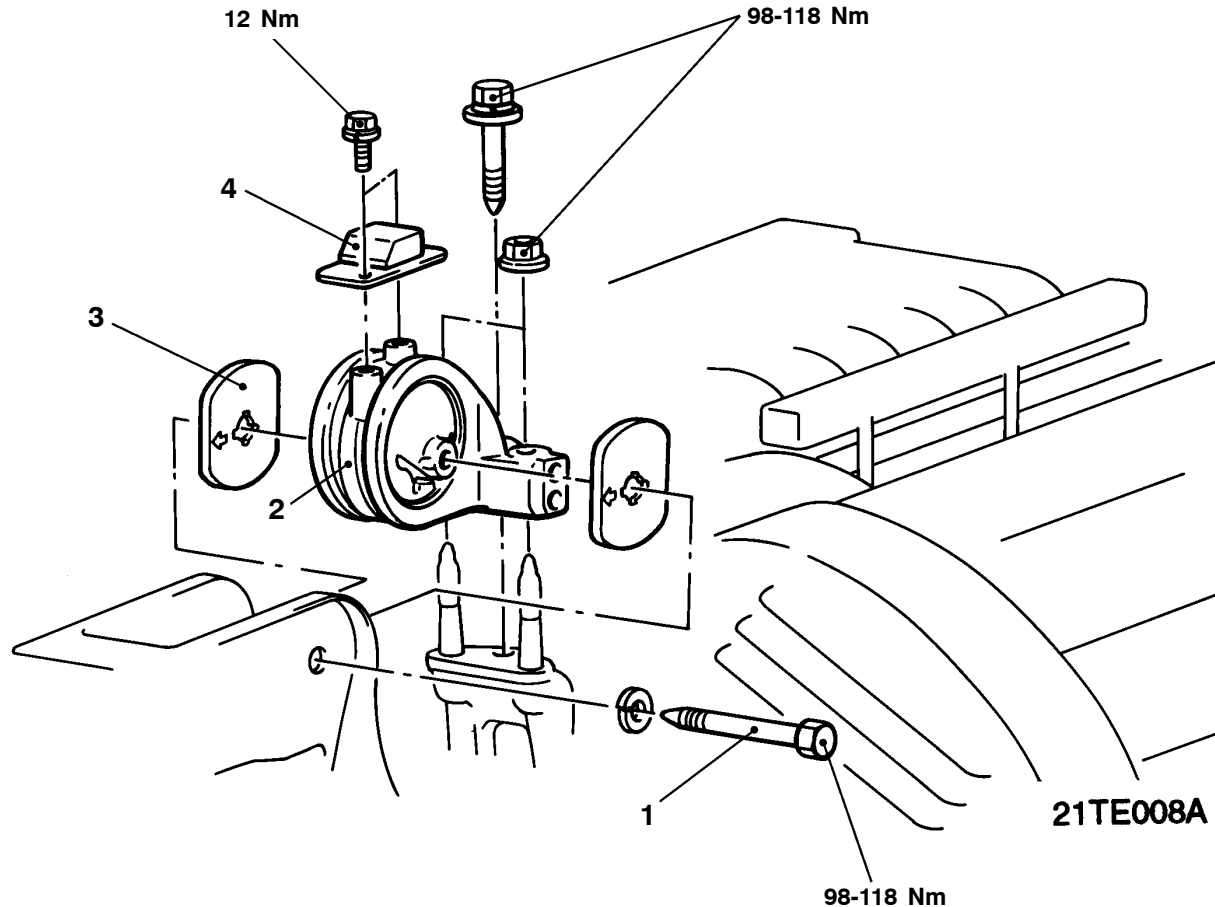
REMOVAL AND INSTALLATION

Pre-removal Operation

- Raise the engine and transmission assembly to a position where the weight is removed from the insulator
- Remove the washer fluid tank

Post-installation Operation

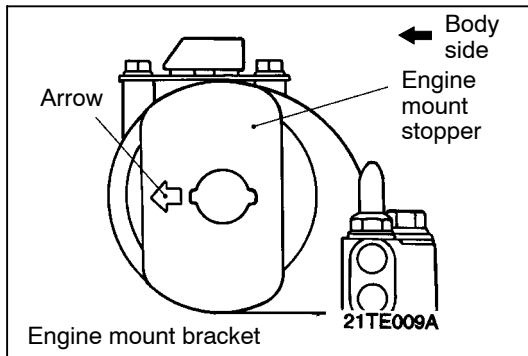
- Lower the engine and transmission assembly to their original position
- Replace the washer fluid tank



Removal steps

1. Mounting bolt for engine mount insulator
2. Engine mount bracket
3. Engine mount stopper
4. Dynamic damper





INSTALLATION SERVICE POINT

►A◄ ENGINE MOUNT STOPPER

Fit the engine mount stopper so that the arrow points in the direction shown in the diagram.

INSPECTION

- Check each insulator for cracks or damage.
- Check each bracket for deformations or damage.

TRANSMISSION MOUNTING

REMOVAL AND INSTALLATION

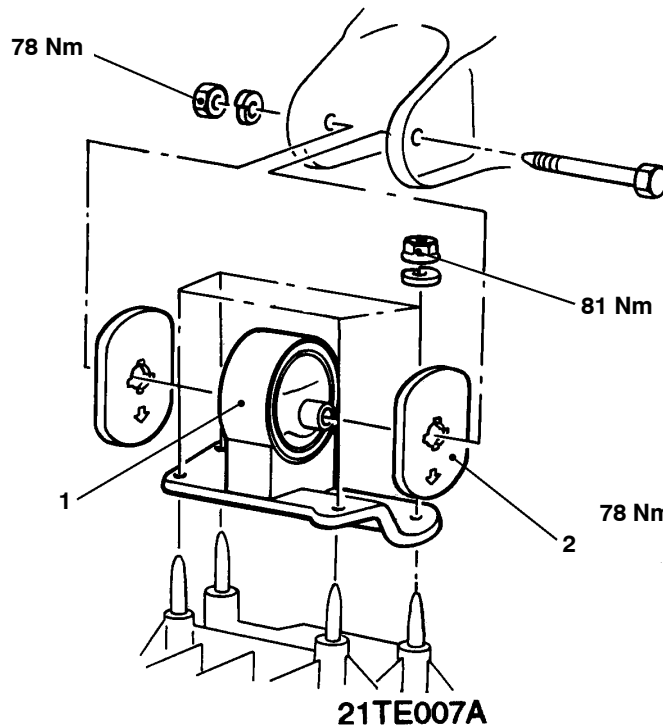
Pre-removal Operation

- Remove the air cleaner assembly, refer [Group 15](#)
- Remove the battery and battery tray
- Remove the front roll stopper, refer [On vehicle Service](#)
- Remove the washer, transmission and rear roll stopper coupling bolt, refer [On vehicle Service](#)
- Remove the rear roll stopper bracket, refer [On vehicle Service](#)

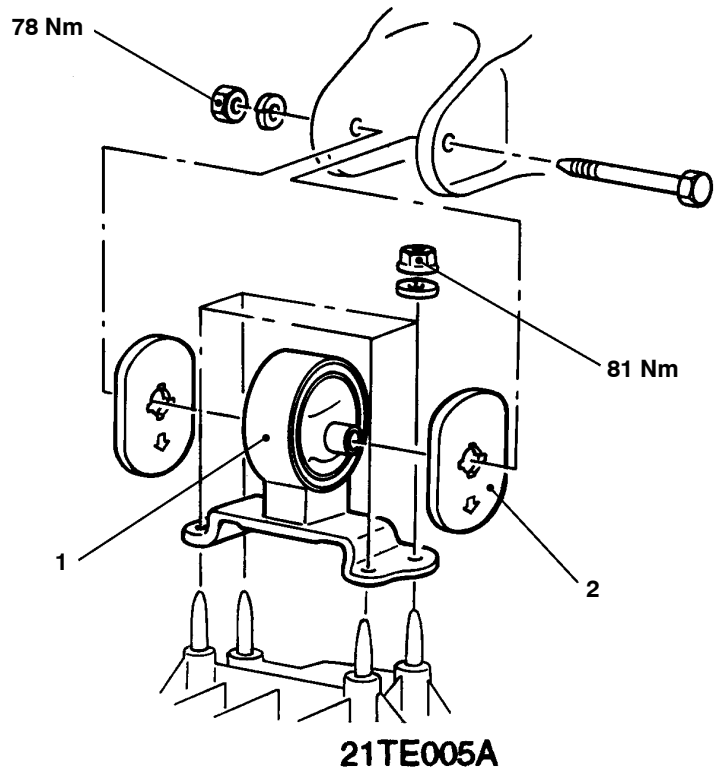
Post-installation Operation

- Replace the rear roll stopper bracket, refer [On vehicle Service](#)
- Replace the transmission and rear roll stopper coupling bolt, refer [On vehicle Service](#)
- Replace the front roll stopper, refer [On vehicle Service](#)
- Replace the battery and battery tray
- Replace the air cleaner assembly, refer [Group 15](#)

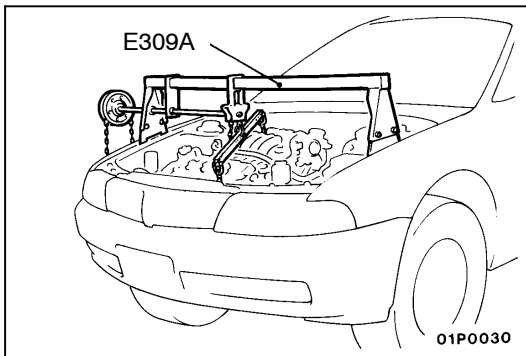
<Automatic Transmission>



<Manual Transmission>

**Removal steps**

1. Transmission mount bracket
2. Transmission mount stopper



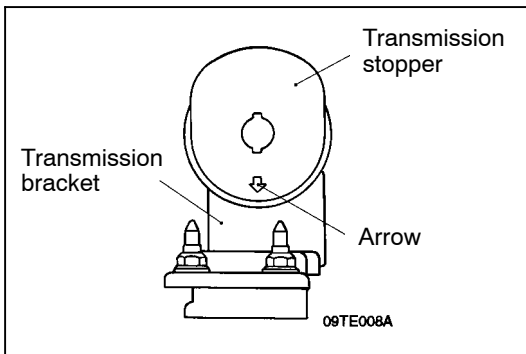
REMOVAL SERVICE POINT

◀A▶ TRANSMISSION MOUNT BRACKET

1. Fit the special tool to the vehicle and support the engine and transmission assembly.
2. Remove the bolts and nuts from the transmission mount bracket.
3. Slightly lower the engine and transmission (while still supporting) and remove the transmission mount bracket.

INSPECTION

- Check each insulator for cracks or damage.
- Check each bracket for deformation or damage.



INSTALLATION SERVICE POINT

▶A◀ TRANSMISSION MOUNT STOPPER

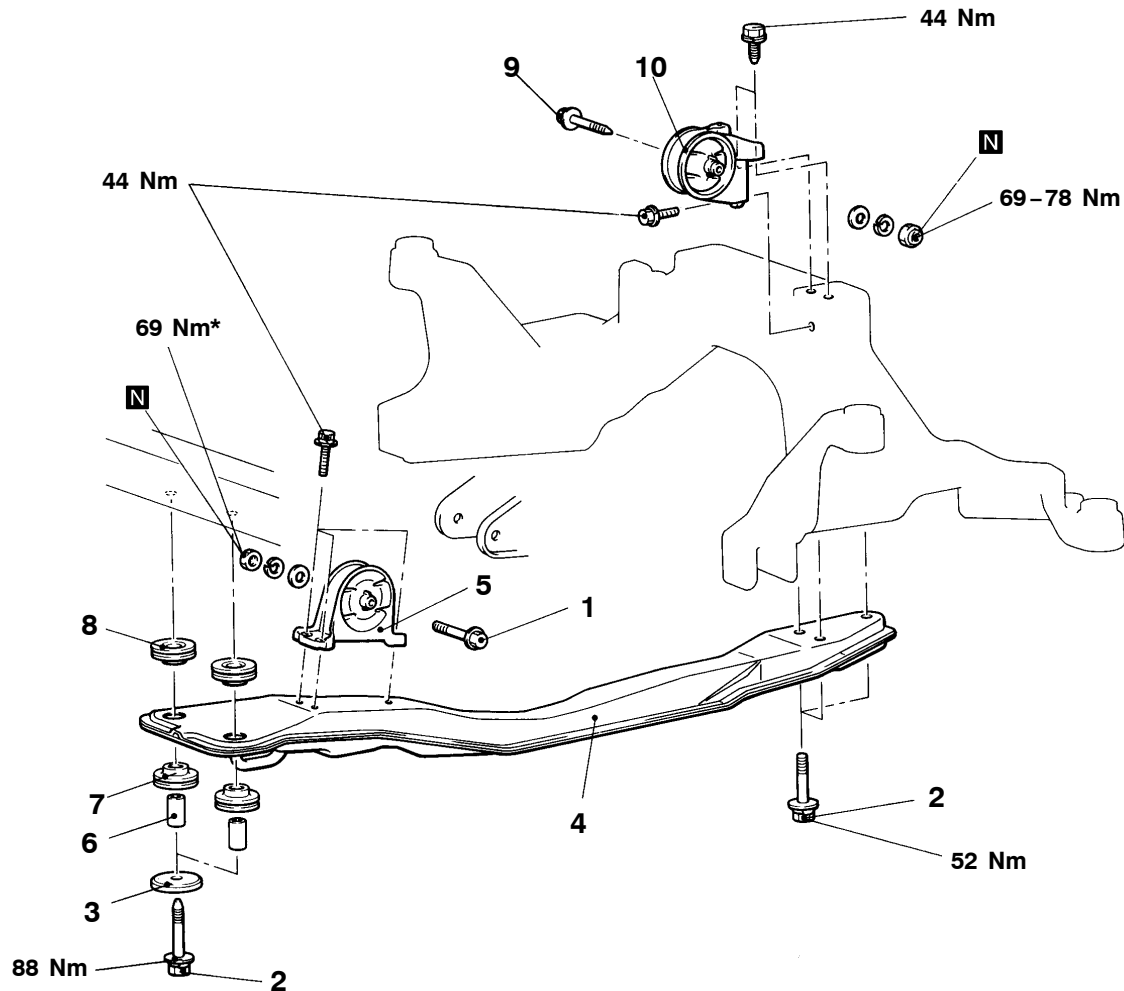
Fit the transmission mount stopper so that the arrow points in the direction shown in the diagram.

INSPECTION

- Check each insulator for cracks or damage.
- Check each bracket for deformations or damage.

ENGINE ROLL STOPPER, CENTRE MEMBER

REMOVAL AND INSTALLATION

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Front roll stopper & Centre Member Removal steps

1. Coupling bolt for transmission and front roll stopper
2. Mounting bolt for centre member
3. Stopper
4. Centre member
5. Front roll stopper
6. Collar
7. Bush (lower)
8. Bush (upper)

Rear roll stopper Removal steps

9. Coupling bolt between transmission and rear roll stopper
10. Rear roll stopper

Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.

CROSSMEMBER

REMOVAL AND INSTALLATION

Pre-removal Operation

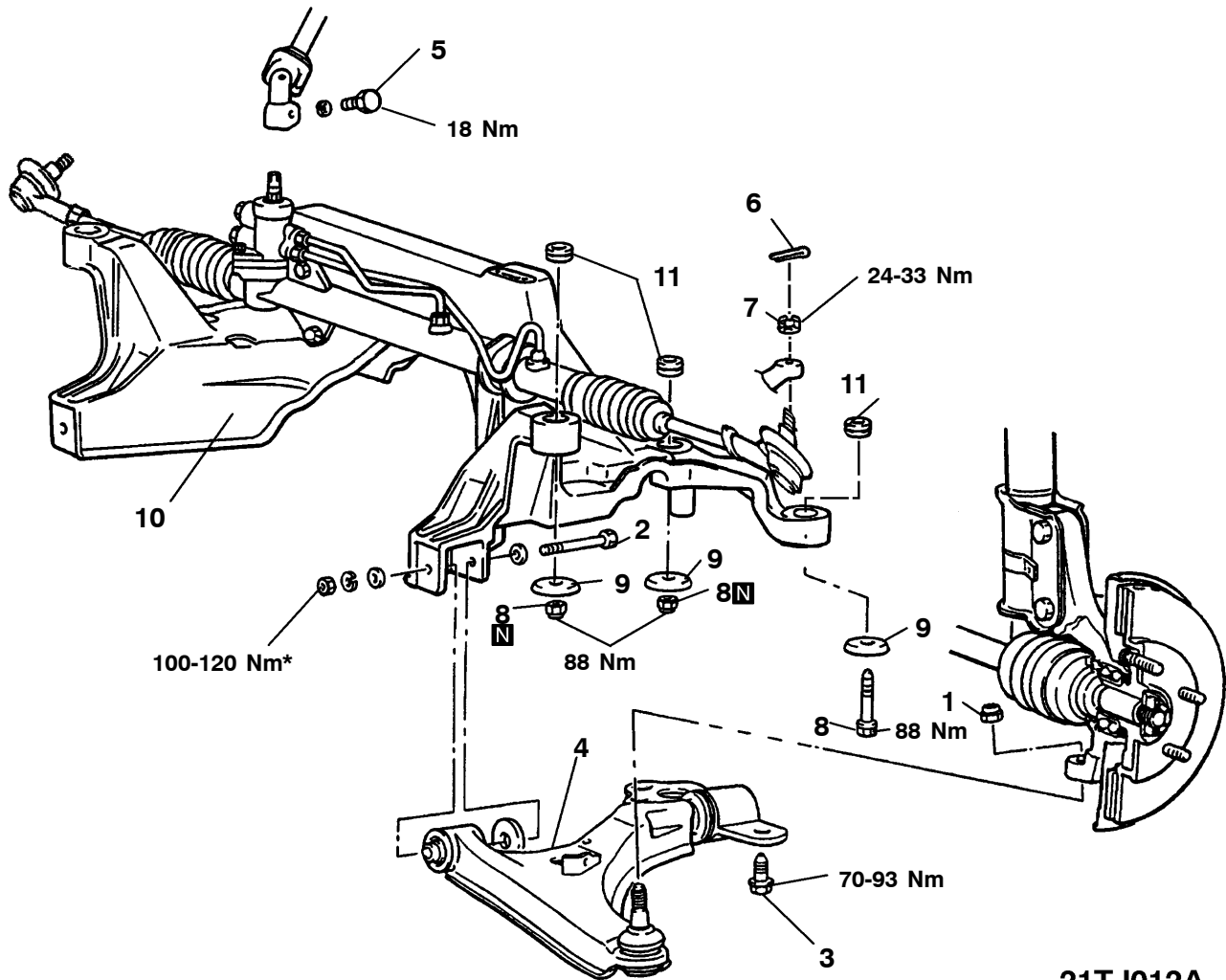
- Drain the power steering fluid, refer [Group 37A](#)
- Remove the centre member, refer [On vehicle Service](#)
- Disconnect the front exhaust pipe, refer [Group 15](#)
- Remove propeller shaft, refer [Group 25 <AWD>](#)
- Remove front drive shafts, refer [Group 23E <AWD>](#)
- Remove transfer case, refer [Group 23E <AWD>](#)
- Remove the front stabiliser bar, refer [Group 33](#)
- Remove the rear roll stopper, refer [On vehicle Service](#)

Post-installation Operation

- Install the rear roll stopper, refer [On vehicle Service](#)
- Install the front stabiliser bar, refer [Group 33](#)
- Install transfer case, refer [Group 23E <AWD>](#)
- Install front drive shafts, refer [Group 23E <AWD>](#)
- Install propeller shaft, refer [Group 25 <AWD>](#)
- Reconnect the front exhaust pipe, refer [Group 15](#)
- Install the centre member, refer [On vehicle Service](#)
- Replenish the power steering fluid, refer [Group 37A](#)

CAUTION: SRS

For vehicles with SRS, before removal of steering rack, ensure you refer to [Group 52B](#) – SRS Airbag. In addition, place the front wheels in a straight ahead position and remove the ignition key. If you fail to observe this caution, the SRS clockspring may be damaged and could render the SRS system inoperative and could result in serious injury to the driver in the event of an accident.



21TJ012A

Removal steps for crossmember

1. Self locking nut
2. Lower control arm mounting bolt and nut
3. Lower control arm mounting bolts
4. Lower control arm
5. Coupling bolt for steering gear and joint
6. Split pin
7. Tie rod end coupling bolt
8. Crossmember mounting bolt and nut

9. Lower stopper
 - Steering gear and linkage (refer [Group 37A](#))
10. Crossmember
11. Stopper B

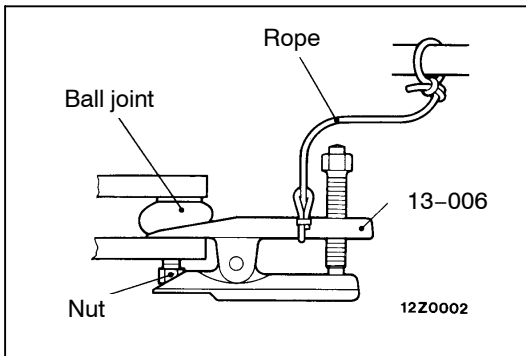
Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.



Caution

Under no circumstances is the front crossmember on this vehicle to be repaired. If it is found to be faulty it must be replaced with a new part.



REMOVAL SERVICE POINTS

◀A▶ DISCONNECTING THE TIE ROD END AND KNUCKLE

Caution

1. Using the special tool, loosen the tie rod end mounting nut but do not remove it until the ball joint has been dislodged.
2. Be sure to tie the cord attached to the special tool to a nearby part to prevent the tool from falling.

◀B▶ DISCONNECTING THE CROSSMEMBER MOUNTING BOLT AND NUT

1. Support the crossmember with a transmission jack and remove the bolt and nut.

