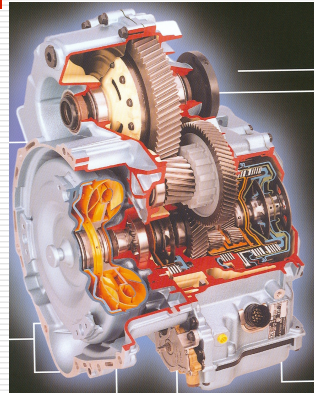


Automatic Transmissions Removal and Installation

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Automatic Transmission/Axles II

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Definitions

- ☐ Removal:
 - Remove the assembly
- ☐ R&R:
 - Remove and replace the assembly
- ☐ R&I:
 - Remove and reinstall the assembly
- ☐ Assembly:
 - The transmission or transaxle

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Reasons for Removal

- ☐ What are some common reasons for removing a transmission assembly?
 - Oil leak
 - Transmission rebuilding
 - Transmission replacement
 - Component replacement/repair

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Precautions

- ☐ Support the vehicle properly
- ☐ Drain pans rags and output shaft plugs.
- ☐ Use a transmission jack to support the transmission. Never rely on your strength!
- ☐ Use the supplied chains or straps to secure the assembly to the jack.
- ☐ If it begins to fall and there is no easy way to catch it, **JUST LET IT FALL!!!**
 - What ever part breaks is much cheaper than a lifetime of medical problems.

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Precautions (cont.)

- ☐ Never force the parts together. The transmission should meet up with the engine block with out forcing.
- ☐ Properly torque all of the fasteners involved
- ☐ Properly route the wiring harnesses, cooler lines, and fuel lines during reinstallation
- ☐ Partially fill an empty transmission before starting the vehicle.

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Precautions (cont.)

- ☐ Remove all tools from transmission, drive shaft, crankshaft area.
- ☐ If you have any left over fasteners locate their home.
- ☐ Start the vehicle with the drive wheels off of the ground.
- ☐ If upon starting you hear something out of the ordinary stop the engine.
- ☐ Ensure you have park before you let the vehicle down on the ground.

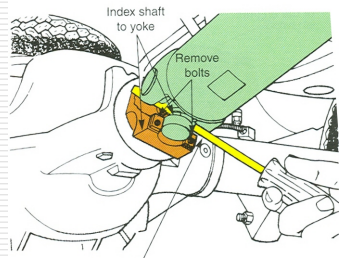
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General procedures

□ Drive shaft:

- Drive shafts are usually first, due to extra access when removed.
- Mark the rear flange so the drive shaft can be reinstall in the same location.
- Check the "u" joints during removal.



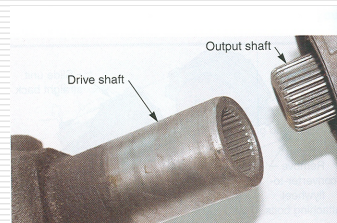
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General procedures

□ Slip yoke:

- After removal, install an output shaft plug. This will prevent oil spilling on the floor.
- Mark the orientation of the yoke to the output shaft.
- Inspect the slip yoke bearing surface for abnormal wear.



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General procedures



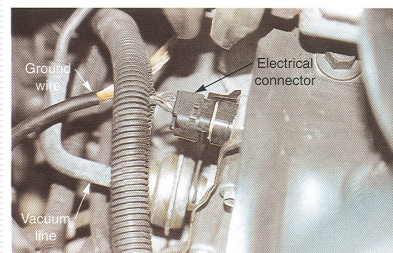
- ❑ Cooler lines:
 - Remove the cooler lines and cap off to prevent oil spilling.
- ❑ Screw fitting:
 - Use a wrench on the transmission adapter.
- ❑ Quick connect fitting:
 - Clean the fitting and lubricate with light oil.
 - Use the appropriate tool if required.

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General procedures

- ❑ Electrical connections:
 - Disconnect the electrical connectors before removing any bolts.
 - Keep track of CPAs removed.
 - Remember the correct routing of the harnesses.
- ❑ Vent lines:
 - Remove before removing any bolts
- ❑ Fuel lines:
 - Identify fuel lines which may interfere with the removal and installation.

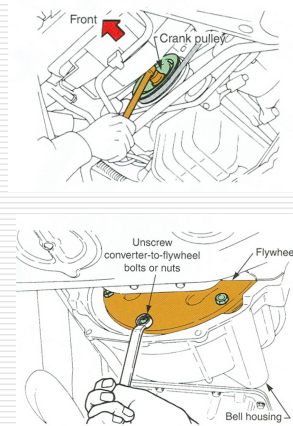


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General procedures

- Torque converter:
 - Remove the access panel or plug for torque converter nuts/bolts.
 - Mark the orientation of the converter to the flexplate.
 - Use the correct size tool for the nut/bolt.
 - Once all bolts are removed ensure converter is free of flex plate by moving converter independently.

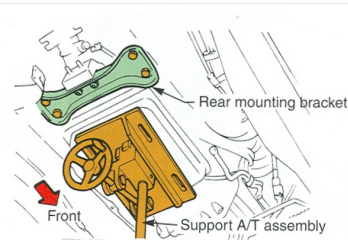


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General procedures

- Supporting the transmission/axle.
 - Use a transmission jack to support the assembly.
 - Do not overload the jack.
 - Support the transmission by the pan if possible.
 - Strap or chain the transmission to the jack to prevent falling.
 - Adjust the jack so it sits at the same angle as the pan prior to removal.

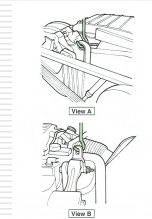
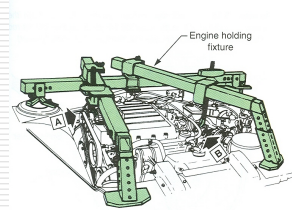


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General procedures

- ❑ Supporting the transaxle and engine.
- ❑ When removing the transmission from a front wheel drive you are also removing the rear engine supports. This may leave the engine with no support.
- ❑ An engine support fixture as shown is usually required.
- ❑ It supports the engine with the body structure from the top of the bay.

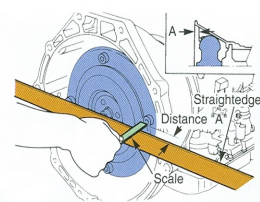
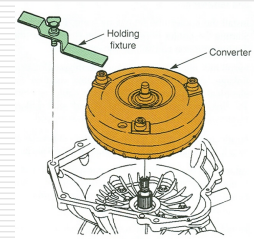


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General procedures

- ❑ Torque converter:
 - Install tool to prevent torque converter from falling out of the transmission.
 - Measure the amount of torque converter insertion to be used upon installation.

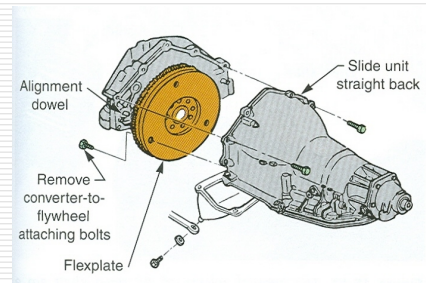


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General procedures

- Bell housing:
 - Remove the bell housing bolts.
 - Identify bolts of various designs, lengths, and their locations.



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Installation

- The installation of the transmission is the reverse of the removal in most respects.
- Exceptions:
 - After tightening down the bell housing bolts be sure that the torque converter is able to turn separately of the flex plate.
 - Line up all of the marks you made upon removal.

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First start

- ☐ Before starting fill the transmission with 1/3rd of the total capacity. (if empty)
- ☐ If upon starting the engine you hear something abnormal stop the engine and inspect.
- ☐ Directly after starting continue to fill the transmission, fill it to the lowest cold fill level.
- ☐ Cycle the transmission through the gears and feel the engagement of the transmission into each gear from neutral.
- ☐ Verify that park is working and lower the vehicle to the ground.