# 600-901 INSTALL/REMOVAL INSTRUCTIONS: TRANSFER CASE MOTOR

**ATTENTION:** Refer to the appropriate shop manual for your vehicle to obtain specific service procedures for this part. If you do not have a service manual or lack the skill to install this part, it is recommended that you seek the services of a qualified technician. Pay special attention to all cautions and warnings included in the shop manual. Read and follow all instructions carefully.

#### REMOVAL/INSTALL OF TRANSFER CASE MOTOR (600-901) 2005–1999 Chevrolet S10 Blazer/Pickup/ S15 GMC Sonoma, 2002–1998 Chevrolet/ GMC Suburban/Tahoe/Yukon, 2002–1999 GMC/Chevrolet/Cadillac Sierra/Silverado/ Escalade, 1999–98 Chevrolet K1500/K2500 Pickups, 2001–1999 Oldsmobile/GMC Bravada/Jimmy, 2002 Chevrolet Avalanche

#### **General Tech Tips:**

- Check that the vehicle 4WD and Automatic Transfer Case (ATC) fuses have not blown.
- Road test vehicle and document any noises and symptoms of unusual operation.
- Attach scan tool to diagnostic data link connector and retrieve any stored trouble codes including pending codes and freeze frame data.
- Check for any related Technical Service bulletins.
- Check for proper transfer case I.D. by referencing the tag that is attached to the transfer case extension housing. This tag is bolted on and may include the model number, serial number, build date and range reduction ratio.

#### IMPORTANT THIS GM TYPE TRANSFER CASE MOTOR IS SHIPPED IN THE TRANSFER CASE NEUTRAL POSITION

Disclaimer:

Even though every attempt is made to ensure this information is complete and accurate, it is impossible to account for all possible circumstances or situations. Please consult with a qualified auto technician before attempting to perform any work you are not qualified to do. Automobiles can be hazardous to work on; be sure to take all necessary safety precautions. Failure to do so may result in property damage or personal injury. Certain motor vehicle standards and performance requirements may apply to your motor vehicle (such as Federal Motor Vehicle Safety Standards by the National Highway Traffic Safety Administration). Be sure that your work is performed in accordance with such standards and that you do not disable any motor vehicle safety feature.

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## **Removal Instructions**

STEP 1: This GM type transfer case motor is shipped with a plastic alignment insert which has positioned the unit into the transfer case neutral position. Place the transfer case into the neutral position, before removal of the transfer case motor, by holding both the 2HI and 4LO buttons together for about 10 seconds, as defined in your operating manual. If the transfer case is unable to be shifted into the neutral position beforehand, please use the procedure outlined in the installation section below.

**STEP 2:** Raise vehicle on a lift or jack stands making sure the vehicle is properly and safely supported.

STEP 3: Remove transfer case shield if vehicle is equipped with one.

**STEP 4:** If motor cannot be accessed because of front driveshaft – remove the driveshaft following the procedure in the shop manual. Check the universal joints at this time and replace if faulty.

**STEP 5:** If motor still cannot be removed due to interference with the yoke – remove the yoke by removing the nut holding the yoke to the transfer case. Pay attention to the position of any washers. Remove the yoke being careful not to damage the seal. Inspect the seal and replace if necessary.

**STEP 6:** Disconnect the shift motor electrical connector(s) by lifting up the plastic retaining tab and pulling apart. Be careful not to break off the plastic connecting tabs.

**STEP 7:** Remove the three or four bolts that attach the motor to the transfer case.

**STEP 8:** Remove the transfer case motor from the transfer case.

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## **Installation Instructions**

**STEP 1:** Clean mounting surface on the transfer case making sure that there is no gasket material or residue left from the motor removal.

**STEP 2:** Remove the plastic alignment insert from the new motor.

**STEP 3:** Look at the position of the transfer case shaft and see if it matches up with the receiving end of the transfer case motor. If it does not – it may be necessary to manually turn the shift shaft on the transfer case with a crescent wrench to align it with the motor. For this GM type transfer case motor, the transfer case should be in the Neutral position for installation.

STEP 4: Do not attempt to align the motor to the transfer case by turning the drive opening in the motor with a half inch drive ratchet or other tool. Damage to the motor may occur if this procedure is used.

STEP 5: Do not attempt to put power to the transfer case motor to move the receiving end for alignment. This GM type Transfer Case Motor has an internal brake on the motor and doing so may lead to internal motor damage.

**STEP 6:** Once the motor is indexed properly to the transfer case – install motor by holding it flat against the transfer case and thread in the mounting bolts. Start the mounting bolts by hand to avoid cross threading. Snug the bolts up evenly. If any binding occurs while tightening the bolts – remove them and make sure that the motor is fully seated on the shaft and lying flat against the transfer case.

**STEP 7:** Torque the mounting bolts to approximately **15 FT LBS** or **20 NM**. Consult service manual for exact specification.

**STEP 8:** Connect the electrical connectors ensuring a tight fit. Make sure the wires are routed correctly and secured to the transfer case or vehicle where required.

**STEP 9:** Install the yoke making sure not to nick or damage the seal. Install any washers that came off in the proper order and orientation.

**STEP 10:** Install the nut and torque to the proper specification. New Venture gear cases – 110 FT LBS.

**STEP 11:** Install the drive shaft and torque the bolts that hold the universal joint to the proper specification.

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STEP 12: Install the transfer case shield.

- STEP 13: Check the transfer case oil level and add oil if necessary.
- STEP 14: Lower vehicle and test for proper 4WD operation.
- **STEP 15:** Clear any stored diagnostic trouble codes that were related to the repair.

### We appreciate your opinions regarding this product! Please call our Technical Assistant with any challenges or suggestions regarding the installation or operation of this product.

# 1-800-523-2492

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