# Powertrain - FWD/RWD

### **Differential**

Performs three functions:

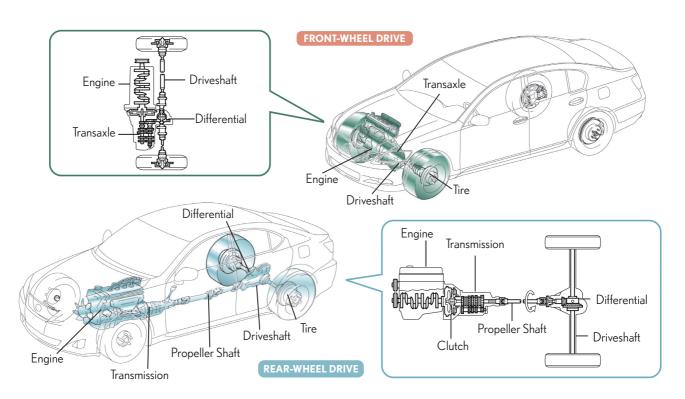
- · Changes the direction of the driving power.
- Final gear reduction.
- Allows drive wheels to rotate at different speeds when cornering.

### **Driveshaft**

Transmits power from the differential to the wheel.

### **Transaxle**

A transaxle is a transmission and differential combined into one unit, used in front-wheel drive vehicles.



# **Transmission**

Uses gears to transmit power from the engine to the drive wheels. Selecting different gears changes the amount of power and torque transmitted.

### Clutch

# (manual transmission only)

The clutch either transmits or isolates the power from the engine to the drive wheels.

## **Propeller Shaft**

On front engine rear-wheel drive vehicles, the propeller shaft transmits power from the transmission to the differential.



# Powertrain 4WD/AWD

#### **Differentials**

Perform three functions:

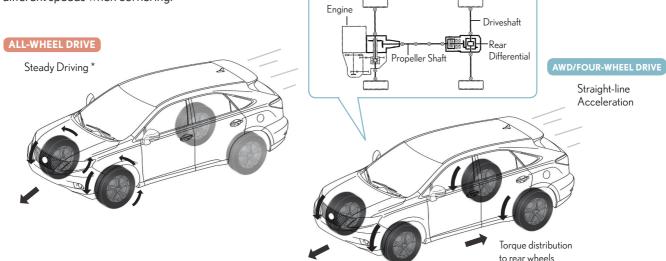
- Change the direction of the driving power.
- · Final gear reduction.
- Allow drive wheels to rotate at different speeds when cornering.

### **Driveshafts**

Transmit power from the differential to the wheel.

### **Transaxle**

A transaxle is a transmission and differential combined into one unit, used in front-wheel drive and some all-wheel-drive vehicles.



### **Transmission**

Uses gears to transmit power from the engine to the drive wheels. Selecting different gears changes the amount of power and torque transmitted.

### **Transfer Case**

Receives power from the transmission and sends it to both the front and rear axles. Some models have driver selectable 2WD/4WD modes, some are full time 4WD and others are controlled automatically (AWD).

## **Propeller Shaft**

On front engine rear-wheel or all-wheel-drive/four-wheel-drive vehicles, the propeller shaft transmits power from the transmission to the rear differential.



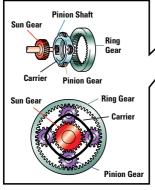
<sup>\*</sup> Driven wheels will very by model.

# **Automatic Transaxle**

# Planetary Gears Gear shifting is performed by combinations of the input gear, output gear and the locking gear. Planetary Gear Set

# **Torque Converter**

Transmits and multiplies torque from the engine using transmission fluid as the medium.



# **Transmission Fluid**

Transmission fluid is an integral part of your automatic transaxle function. Check with your Service Advisor for recommended service intervals for your Lexus vehicle.

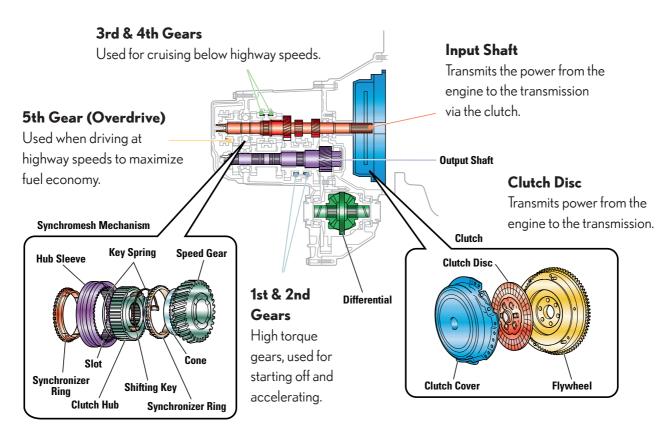
## **Differential**

Performs three functions:

- Changes the direction of the driving power.
- Final gear reduction.
- Allows drive wheels to rotate at different speeds when cornering.



# Manual Transaxle



## Synchromesh Mechanism

Synchronizes the rotational speed of the gears when they are being changed for smooth, easy shifts.

# **Flywheel**

The inertia provided by the flywheel's weight makes the crankshaft rotate more evenly and the engine run more smoothly.



# **Product**Focus

# Manufacturer's Genuine Remanufactured Parts

# What are they?

- A range of key parts that are "remanufactured" using Manufacturer's Genuine components.
- They are put through stringent performance tests to ensure "like new" performance and Manufacturer's Genuine Quality.
- They're virtually identical to the original part, giving you the perfect fit and uncompromised performance – guaranteed.

# Why use them?

- Using remanufactured parts in place of new parts offers significant cost savings, without a loss of performance.
- Using remanufactured parts helps reduce our impact on the environment.
- Eliminates potential problems that often result from using aftermarket "should work" or "consolidated" units.
- Covered by a 12 month warranty with no kilometre restriction.
- "Rebuilt" is not "remanufactured." Aftermarket rebuilders typically repair or replace only the broken, worn or damaged components.
- Essential wear items are replaced with new Manufacturer's Genuine parts, regardless of their condition.
- Any other components that do not meet Lexus' specifications are also replaced with new parts.
- As part of the Lexus remanufacturing process, where appropriate, the latest design enhancements in Lexus technology and engineering are incorporated.





# **Product**Focus

# Manufacturer's Genuine Remanufactured Parts

# **Key Benefits**

- Remanufacturing process is controlled and measured to exacting Lexus quality standards.
- Many components are cleaned and repainted for a like-new appearance and corrosion protection.
- All remanufactured products must pass stringent performance tests to ensure like-new performance and Manufacturer's Genuine Quality.
- A great economical alternative to new Manufacturer's Genuine Parts.



CV Axle Shaft



 $Steering\ Rack$ 

# Lexus Remanufactured Parts

The following are currently available for most model applications:

- Brake calipers
- Alternators
- Starters
- · Steering racks
- · CV axle shafts
- Transaxles
- A/C compressors



A/C Compressor

