

# GENUINE FORD

## Transmission



### How they work:

### What can happen:

#### **A** TORQUE CONVERTER

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| <ul style="list-style-type: none"> <li>• A hydraulic coupling that transfers engine power to the transmission</li> <li>• Allows the engine to run with the vehicle stopped, by permitting a controlled amount of slip. Provides the engage/disengage function from the drive wheels at red lights</li> <li>• A lockup clutch physically locks the engine output to the transmission at steady cruising speeds to eliminate slip and increase efficiency</li> </ul> | <ul style="list-style-type: none"> <li>• A seal between the torque converter and the transmission can leak fluid</li> <li>• The torque converter can fill with debris from component wear and contaminate fresh fluid or a replacement transmission</li> <li>• Internal components can break or bend</li> <li>• The lockup clutches can slip or stop working entirely</li> <li>• The seam weld can leak</li> </ul> |
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#### **B** FLUID AND FILTER

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| <ul style="list-style-type: none"> <li>• Fluid is the “lifeblood” of the transmission</li> <li>• Keeps components cool</li> <li>• Lubricates the bearings, bushings and gears</li> <li>• Prevents rust</li> <li>• Optimizes driving “feel” (clutch friction)</li> <li>• An internal filter cleans the fluid</li> <li>• Fluid/filter require periodic changes – see Owner Guide maintenance schedule</li> </ul> | <ul style="list-style-type: none"> <li>• Fluid can overheat (burn) and reduce the life of the transmission</li> <li>• Unchanged, burned fluid eventually results in transmission failure</li> <li>• Filter can eventually clog with debris (metal shavings/friction material) caused by wear</li> <li>• A clogged filter can prevent fluid flow, resulting in failure</li> </ul> |
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#### **C** GEARS

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| <ul style="list-style-type: none"> <li>• Planetary gearsets offer multiple speed ratios in a compact package</li> <li>• Clutches hold specific gearset components for various gear ranges</li> </ul> | <ul style="list-style-type: none"> <li>• Bushings or bearings can fail</li> <li>• Debris can damage gear teeth</li> </ul> |
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#### **D** OIL PUMP

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| <ul style="list-style-type: none"> <li>• The oil pump pressurizes fluid to:             <ul style="list-style-type: none"> <li>– Activate clutches</li> <li>– Provide lubrication</li> <li>– Move it through the transmission cooler</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• The pump can fail due to wear or leakage             <ul style="list-style-type: none"> <li>– Causes low or no fluid pressure</li> <li>– Clutches can slip and fail</li> </ul> </li> <li>• Bushings, bearings and gears lose lubrication, causing wear or failure</li> <li>• Low pressure reduces or stops fluid flow through the transmission cooler             <ul style="list-style-type: none"> <li>– Transmission overheats as a result</li> </ul> </li> </ul> |
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#### **E** CLUTCHES

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| <ul style="list-style-type: none"> <li>• Clutch pistons are actuated by fluid pressure             <ul style="list-style-type: none"> <li>– This applies the clutch to engage the friction material</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• The friction materials can wear out and lose their grip, resulting in transmission slip</li> <li>• Clutch piston seals can wear or fail, resulting in friction material slip and wear</li> </ul> |
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#### **F** MAIN CONTROL / TRANSMISSION CONTROL UNIT

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| <ul style="list-style-type: none"> <li>• The Main Control and Transmission Control Unit are the combined brains of the transmission</li> <li>• They direct fluid at the proper time and pressure to the clutch pistons/clutches to provide:             <ul style="list-style-type: none"> <li>– Smooth shifts</li> <li>– The optimum gear selection for performance and fuel economy</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Main control valves and solenoids contaminated by debris can stick, causing erratic shifting and clutch failure</li> </ul> |
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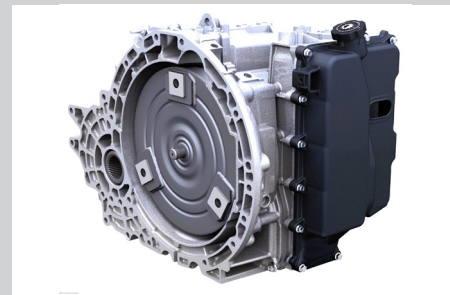
## HOW AN AUTOMATIC TRANSMISSION WORKS:

- A torque converter harnesses and transmits the engine’s rotary motion
- A hydraulic pump moves transmission fluid to the clutches and main control
- Rotary power is transferred to internal shafts and gearing
- Gearing and clutch application determines the correct combination of speed and power output to the wheels
- Rotary motion is transmitted through the differential to the drive wheels

## Possible Symptoms:

- One or more gear ranges do not work (A, B, C, D, E, F)
- The engine must be revved higher than normal to make the vehicle move (A, B, C, D, E, F)
- Vehicle driveability is jerky or erratic (A, B, D, E, F)
- A burnt odor is detected (B, E)
- Excessive noise (A, C, D)

## TRANSMISSION ASSEMBLY

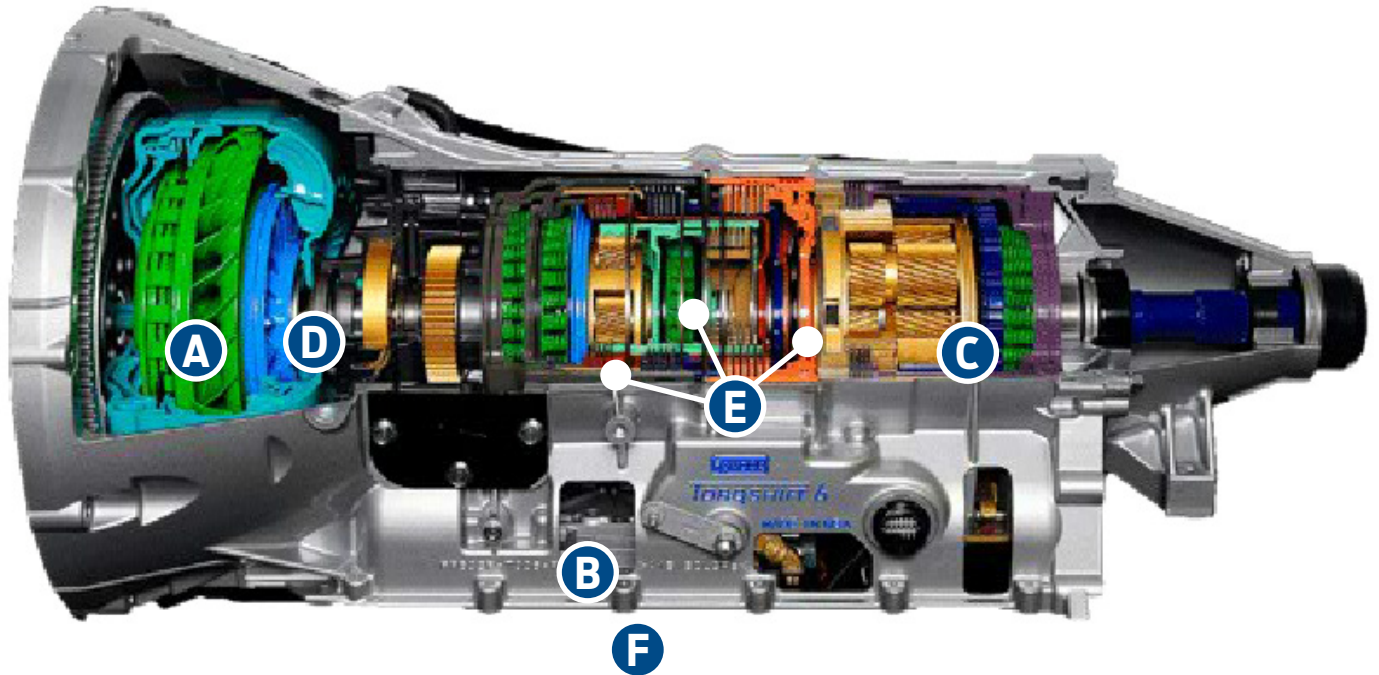


### 3-Year Unlimited Mileage Warranty

- All Ford-designed and approved parts
- Assembled using precision assembly fixtures
- Latest parts updates and revisions from Ford engineering
- Commercial use-approved with full warranty
- The correct replacement for your vehicle
- Final testing and standards identical to new Ford production transmissions

# GET EVERYTHING YOU'RE PAYING FOR AT A COMPETITIVE PRICE

with a **GENUINE Ford Remanufactured Transmission**



## **A** Torque Converter

A hydraulic coupling that transmits engine power to the transmission.

- Remanufactured using premium components
  - Disassembled and all parts cleaned and inspected
  - Assembled using only Ford-designed and approved parts and processes
  - Balanced using the same methods as new production units

## **B** Fluid and Filter

Provides clean lubrication, cools components, inhibits rust and optimizes “shift feel” across the normal operating temperature range

- Ford-specified, Ford-designed fluid and filter used on every unit

## **C** Planetary Gearsets

Transfer power from the torque converter to the wheels at different speeds to provide a full range of gear options

- Cleaned and inspected for wear, damage or noise and replaced when necessary

## **D** Pump

Pressurizes fluid to actuate clutches, lubricate parts and move fluid through the cooler

- Cleaned, inspected and reassembled using Ford-designed, Ford-approved parts and processes

## **E** Clutches and Friction Material

Activated by fluid pressure to transmit power to the gearset elements and to provide smooth transitions between gear ranges

- Disassembled and parts cleaned and inspected
- Friction material and seals inspected for wear and replaced as needed with Ford-designed and approved parts
- Assembled using state of the art equipment to ensure proper clutch clearance

## **F** Main Control and Transmission

### **Control Unit (“Brains”; not pictured)**

Interacts with vehicle computer to determine correct transmission shift speeds and timing

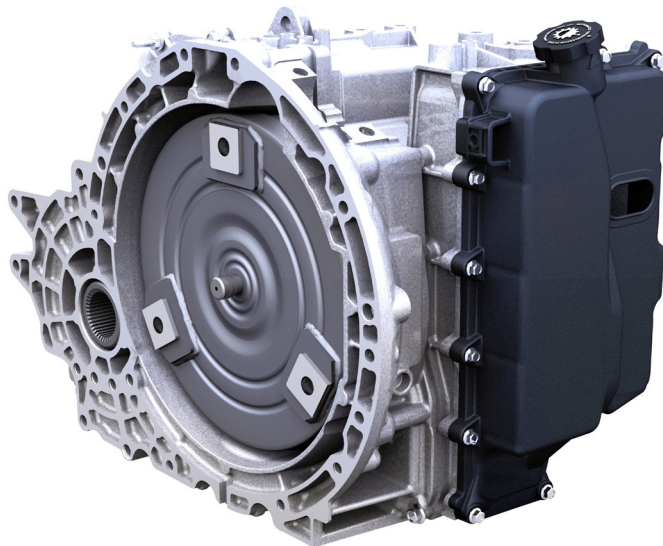
- Disassembled and parts cleaned and inspected
- Solenoid valves electronically tested to ensure full-range function
- Assembled using only Ford-designed, Ford-approved parts and processes

# GENUINE QUALITY MAKES THE DIFFERENCE.

## 3-YEAR Unlimited Mileage Warranty

### Compare Your Transmission Repair Options:

There are a number of transmission repair options available to you, but none offer the quality and peace of mind that Ford Remanufactured transmissions do. For starters, we use only the most up-to-date Original Equipment parts and offer an unsurpassed three-year, unlimited-mileage warranty. You can be certain that they're engineered and built tough enough for demanding commercial use. Check out what makes us your best choice.



Ask about no-interest  
financing with approved  
credit on the  
Ford Service Credit Card

	USED TRANSMISSION	GENUINE FORD REMANUFACTURED TRANSMISSION
<b>Warranty</b>		
Terms	Varies	3-Year/ Unlimited Mileage
Nationwide Coverage	NO	YES
<b>Parts Replaced</b>		
Meet OE Specifications?	?	YES
Torque Converter	?	YES
Frictions, Steels and Bands	?	YES
Gaskets, Seals & Solenoids	?	YES
<b>Specifications</b>		
Original Equipment	?	YES
Final Testing	NO	YES
OE Requirements	?	YES
Computer Diagnostics	NO	YES



FORD PARTS

OEM Parts & Specs at Competitive Prices