

CHASSIS

U150E AUTOMATIC TRANSAXLE

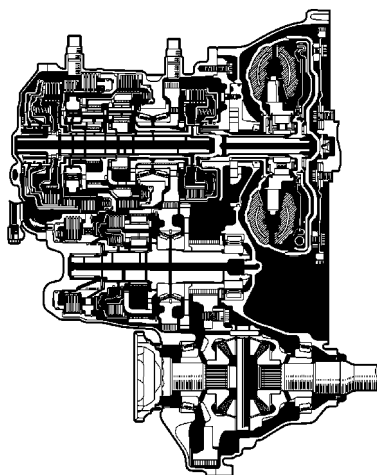
DESCRIPTION

The U150E automatic transaxle (hereafter referred to as “A/T”) is a newly developed, compact and high-capacity 5-speed Super ECT (Electronically Controlled Transaxle).

Based on the U140E A/T of the '01 ES300, this U150E A/T has been changed into a 5-speed to improve fuel economy and dynamic performance.

– **Main Changes (from U140E A/T) –**

- Direct & O/D (C₀) clutch and 2 solenoid valves (SL3, SR) have been adopted.
- Fluid passages have been changed for the 5-speed application.

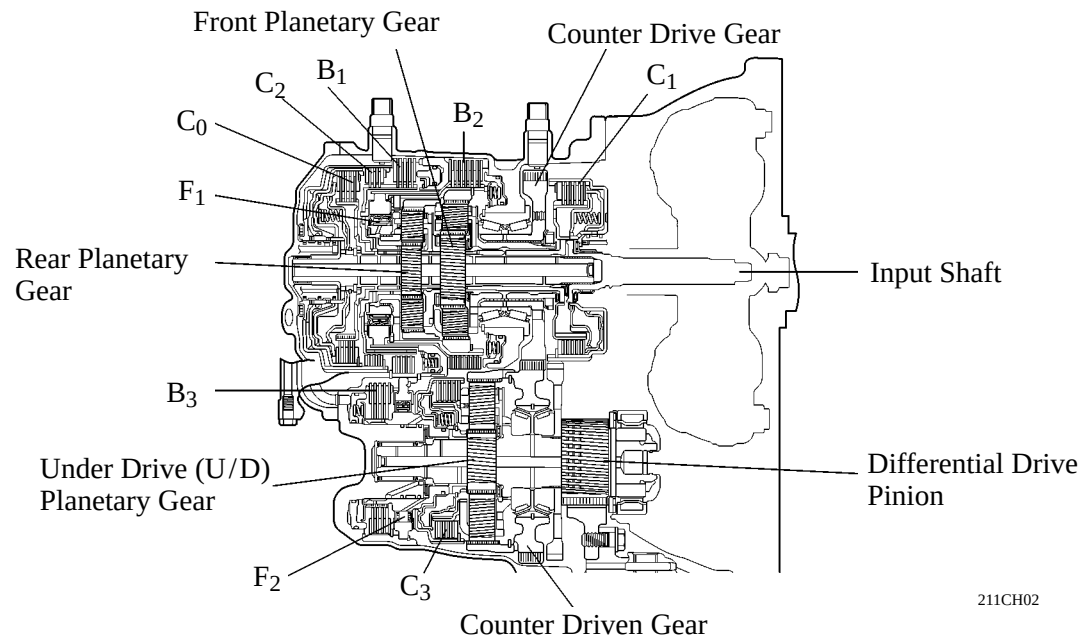


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► Specification ◀

Model		'02 ES300	'01 ES300
Transaxle Type		U150E	U140E
Engine Type		1MZ-FE	←
Gear Ratio*1	1st	3.938	←
	2nd	2.194	←
	3rd	1.411	←
	4th	0.973	1.019
	5th	0.703	–
	Reverse	3.141	←
Counter Gear Ratio		1.019	←
Differential Gear Ratio		3.478	2.642
Fluid Capacity Liters (US qts, Imp. qts)		9.1 (9.5, 7.9)*2	8.4 (8.9, 7.4)*2
Fluid Type		ATF Type T-IV	←
Dry Weight kg (lb)		94.1 (207.5)	91 (200.6)

*1: Counter Gear Ratio Included *2: Differential Included



► Specification ◀

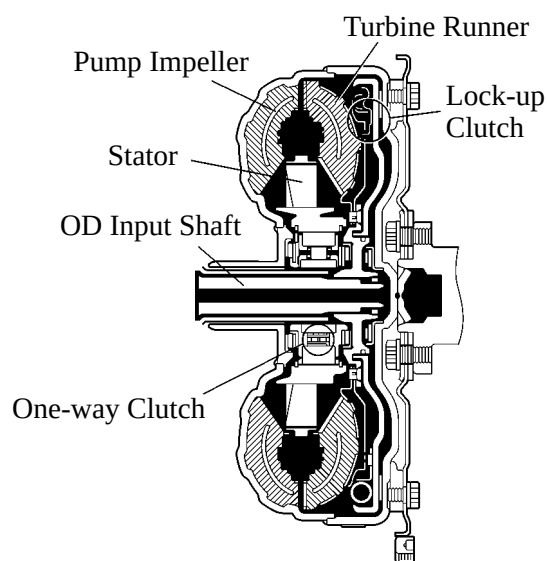
Transaxle Type			U150E	U140E
C ₁	Forward Clutch	The No. of Discs	5	6
C ₂	Direct Clutch		—	4
	Reverse Clutch		3	—
C ₃	U/D Direct Clutch		4	←
C ₀	Direct & O/D Clutch		4	—
B ₁	2nd & O/D Brake		4	—
	2nd Brake		—	4
B ₂	1st & Reverse Brake		6	7
B ₃	U/D Brake		4	←
F ₁	No.1 One-Way Clutch	The No. of Sprags	28	←
F ₂	U/D One-Way Clutch		24	←
Front Planetary Gear	The No. of Sun Gear Teeth		43	←
	The No. of Pinion Gear Teeth		17	←
	The No. of Ring Gear Teeth		77	←
Rear Planetary Gear	The No. of Sun Gear Teeth		31	←
	The No. of Pinion Gear Teeth		19	←
	The No. of Ring Gear Teeth		69	←
U/D Planetary Gear	The No. of Sun Gear Teeth		35	←
	The No. of Pinion Gear Teeth		28	←
	The No. of Ring Gear Teeth		91	←
Counter Gear	The No. of Drive Gear Teeth		52	←
	The No. of Driven Gear Teeth		53	←

■ TORQUE CONVERTER

- This torque converter has optimally designed fluid passages and impeller configuration resulting in substantially enhanced transmission efficiency to ensure better starting, acceleration and fuel economy.
- Furthermore, a hydraulically operated lock-up mechanism which cuts power transmission losses due to slippage at medium and high speeds is used.
- The basic construction and operation are the same as for the U140E for the '01 ES300 models. However, the stall torque ratio has been changed.

► Specification ◀

Model	'02 ES300	'01 ES300
Transaxle Type	U150E	U140E
Type	3-Element, 1-Step, 2-Phase (with Lock-up Mechanism)	
Stall Torque Ratio	1.75	1.8



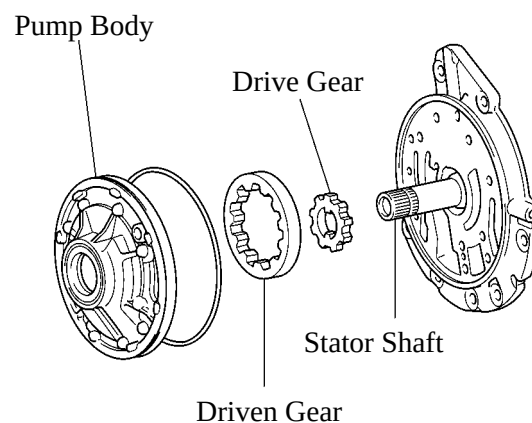
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■ OIL PUMP

The oil pump is combined with torque converter, lubricates the planetary gear units and supplies operating pressure to the hydraulic control.

► Specification ◀

Gear	Gear Teeth
Drive Gear	9
Driven Gear	10



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