

AUTOMATIC TRANSMISSION (AUSTRALIA)

OUTLINE	7B— 2
OUTLINE OF CONSTRUCTION	7B— 2
SPECIFICATIONS.....	7B— 2
INTERCHANGEABILITY OF	
MAJOR COMPONENTS	7B— 3
CONVERTER HOUSING	7B— 5
2ND BAND SERVO	7B— 6
LOCK-UP CONTROL SOLENOID	7B— 7

67U07B-501

OUTLINE

OUTLINE OF CONSTRUCTION

The basic construction is the same as the previous 929 Automatic Transmission (L4N71B) model except that many items have been changed to improve durability and reliability.

SPECIFICATIONS

		New RX-7 model	929 model
Torque converter stall torque ratio		1.900	
Gear ratio	1st	2.841	2.458
	2nd	1.541	1.458
	3rd	1.000	
	OD(4th)	0.720	
	Reverse	2.400	2.181
Number of plates	Direct clutch	2	
	Front clutch	4—5	3
	Rear clutch	5	4
	Low reverse brake	5	4
Servo diameter (Piston outer diameter/retainer inner diameter)	OD band servo mm (in)	60/40 (2.36/1.57)	
	2nd band servo mm (in)	35/15 (1.38/0.59)	60/40 (2.36/1.57)

67U07B-502

INTERCHANGEABILITY OF MAJOR COMPONENTS

Parts interchangeability and changes of the New RX-7 and previous 929 are as shown below.

Symbols

O: interchangeable

X: not interchangeable

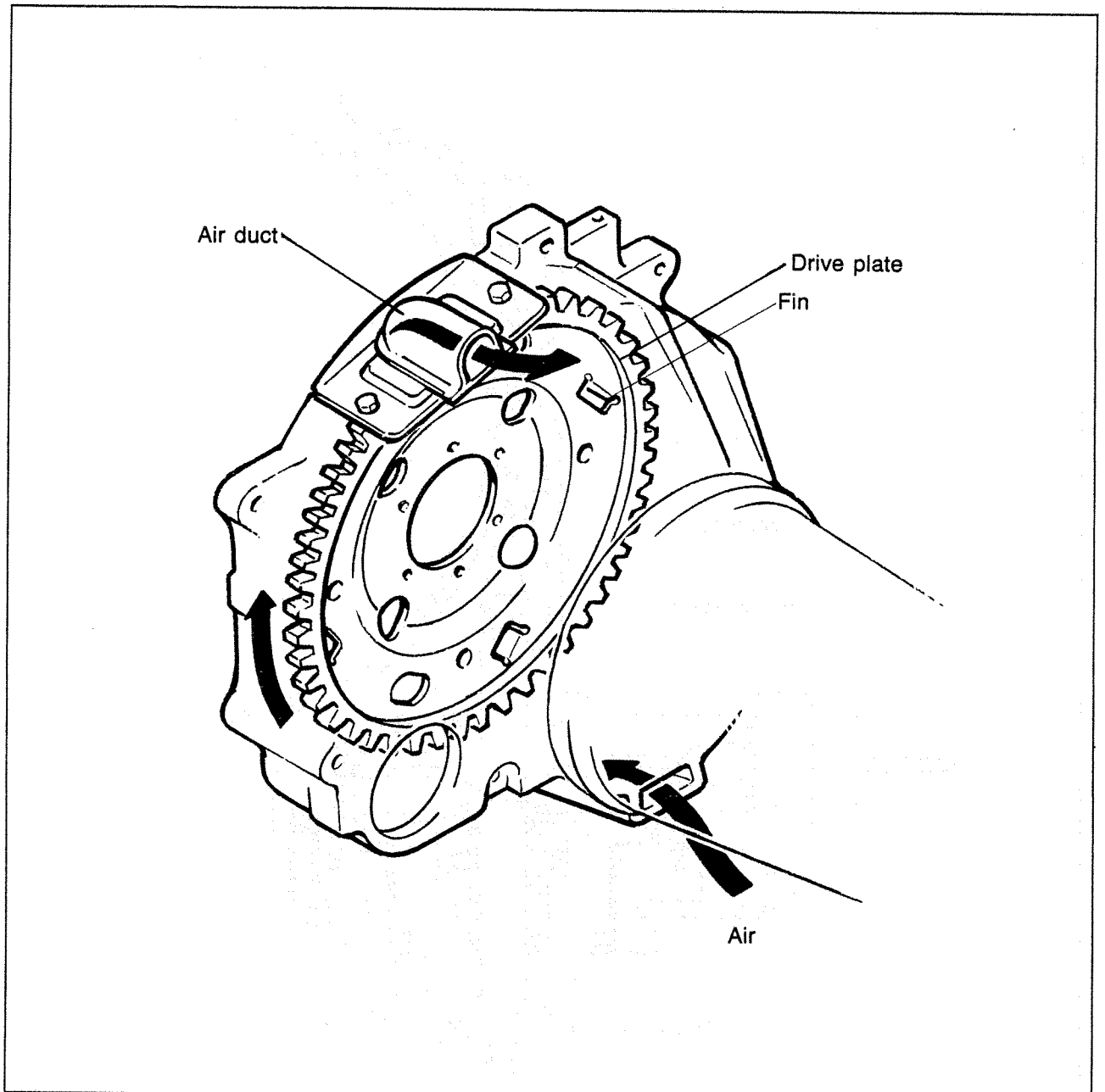
Part name	Interchangeability	Remark
Connecting drum	O	
Connecting Shell	X	Increase the driving torque, gear ratio is changed.
Converter housing	X	Improve the cooling ability, air duct is adopted.
Direct clutch	X	Facing material of dished plate is changed.
Drive plate	X	Improve the cooling ability, fin is adopted.
Drum support	O	
Downshift valve and spring	O	
1st-2nd shift valve	O	
1st-2nd shift spring	X	To change the shift point to match to new engines power.
Front carrier	X	Increase the driving torque, gear ratio is changed.
Front clutch	X	Due to increase in engine torque, number is changed from three to four. Facing material is changed. Reduce the return springs from ten to five, to prevent shift shock.
Governor	O	
Input shaft	O	
Intermediate shaft	O	
Low and reverse piston	O	
OD b and servo	O	
Oil pump	X	Improve the cooling ability, amount of oil flow is increased.
Oil distributor	O	
Output shaft	X	Increase the durability, outer diameter and number of spline are increased.
Over drive carrier	O	
Manual valve	O	

67U07B-503

Part name	Interchangeability	Remark
Pressure modifier valve	○	
Pressure modifier spring	○	
Pressure regulator valve	○	
2nd lock valve	○	
2nd lock spring	○	
2nd band servo	X	The long-stroke type is used to reduce the shift shock.
2nd-3rd shift valve	○	
2nd-3rd shift spring	X	To change the shift point to match to new engine power
Throttle back-up valve	○	
Throttle back-up spring	○	
Throttle valve	○	
Throttle spring	○	
3rd-4th shift valve	X	} To change the shift point to match to new engine power
3rd-4th shift spring	X	
Rear carrier	X	Increase the driving torque, gear ratio is changed.
Rear clutch	X	Due to increase in engine torque, number is changed from four to five. Decrease number of dished plates to one, reduce shift shock. Facing material is changed.
Rear clutch hub	○	
Vacuum diaphragm	X	To change the shift point to match to new engines power.

67U07B-504

CONVERTER HOUSING



67U7B-505

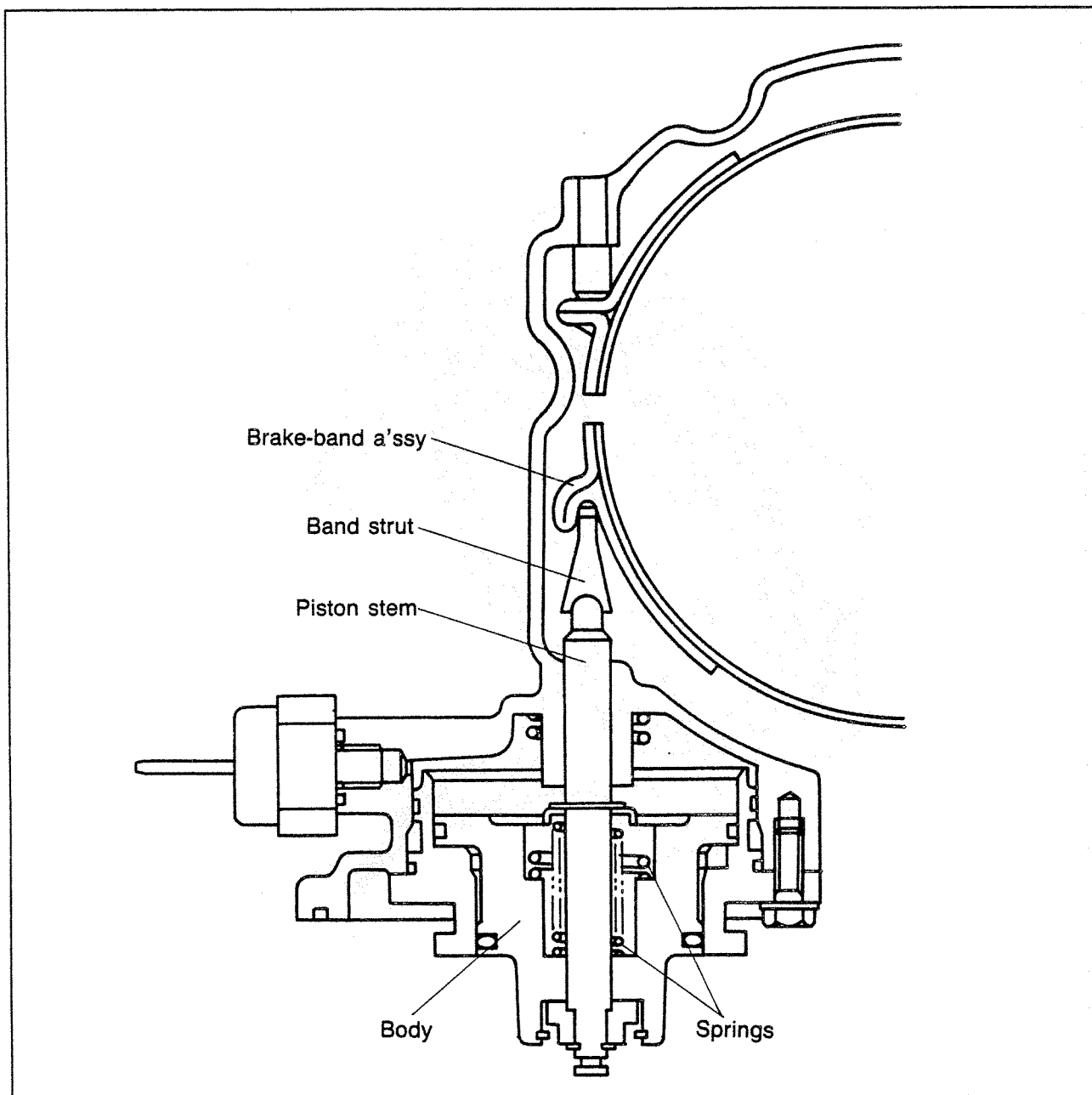
The New RX-7 has a front styling designed to reduce air resistance.

As a result, air cannot easily enter the engine compartment, and the automatic transmission housing is not sufficiently cooled.

Consequently, in order to prevent a temperature increase of the automatic transmission fluid, an air-intake port (at the lower part of the converter housing), an air-expel port (at the upper part of the housing) and a fin (on the drive plate) have been added. Thus, the internal part of the converter housing is ventilated by the rotation of the drive plate, and the torque converter is cooled.

To improve the strength of the converter housing, its thickness has been changed from 3.2 mm to 4.0 mm.

2ND BAND SERVO



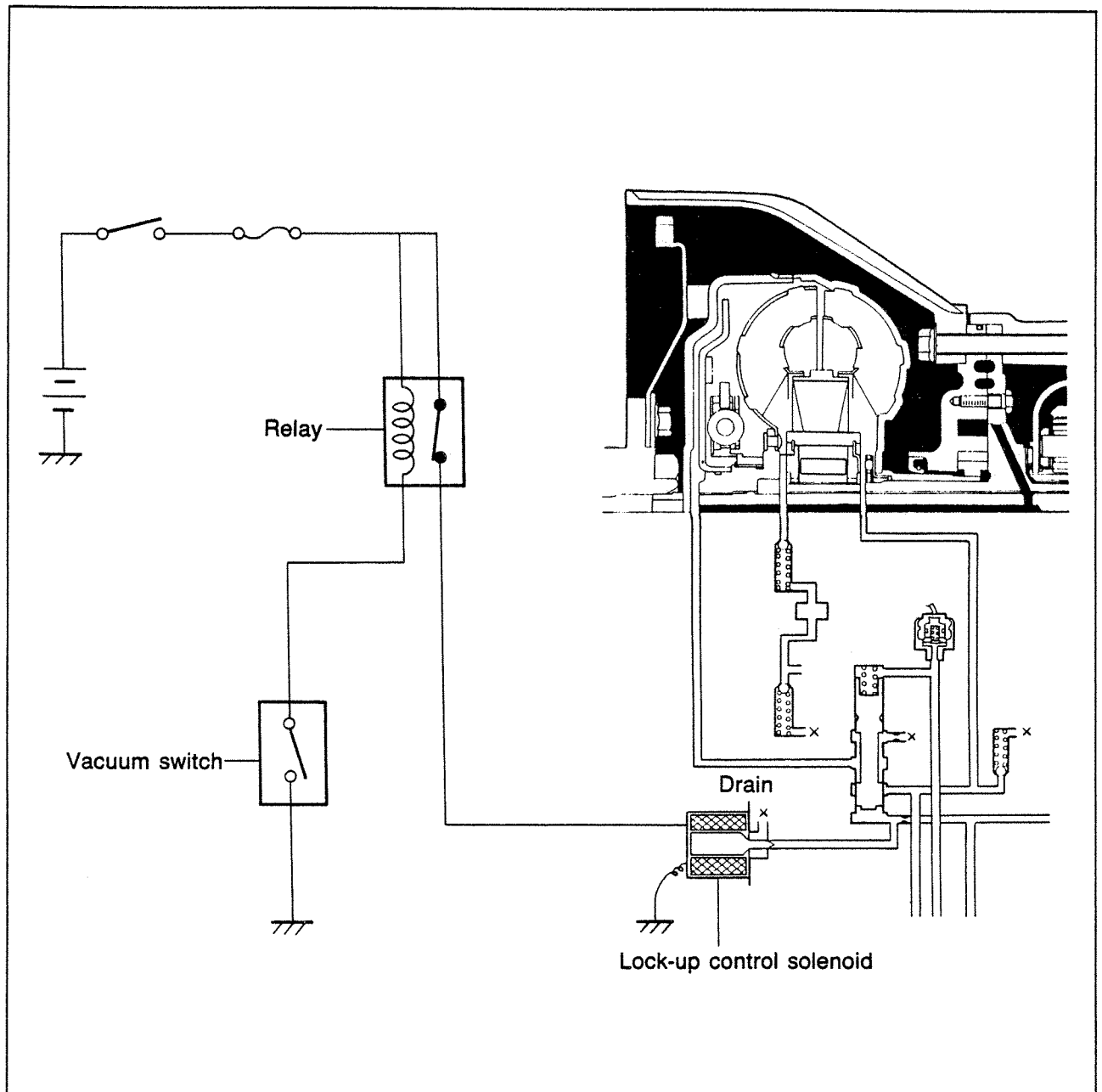
67U07B-506

In order to moderate the shifting "shock" when shifting from D1 to D2 or from D2 to D3 during driving at half throttle, a long-stroke type of 2nd band servo has been adopted.

Because the stroke of this new 2nd band servo is long, the 2nd drum lock time and release time are delayed.

As a result, the shifting "shock" becomes less.

LOCK-UP CONTROL SOLENOID



67U07B-507

"Bucking" may occur when engine braking (with the foot off the accelerator pedal) is used while, during driving, the torque converter, impeller and turbine are locked up. In order to prevent such "bucking", the lock-up is released when the intake manifold vacuum reaches 425 mmHg or higher (negative pressure).

This system is composed of the lock-up control solenoid, vacuum switch, and relay. When the vacuum of the intake manifold becomes higher than the regular specified value, the governor pressure which acts upon the lock-up control valve is drained and the lock-up is released.