
GROUP 22

MANUAL TRANSMISSION

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MANUAL TRANSMISSION

GENERAL INFORMATION

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The F5M42 type manual transmission has been used. Although the transmission is basically the same as the F5M42 type adopted for SPACE WAGON, the following modifications have been made in order to improve shift feeling:

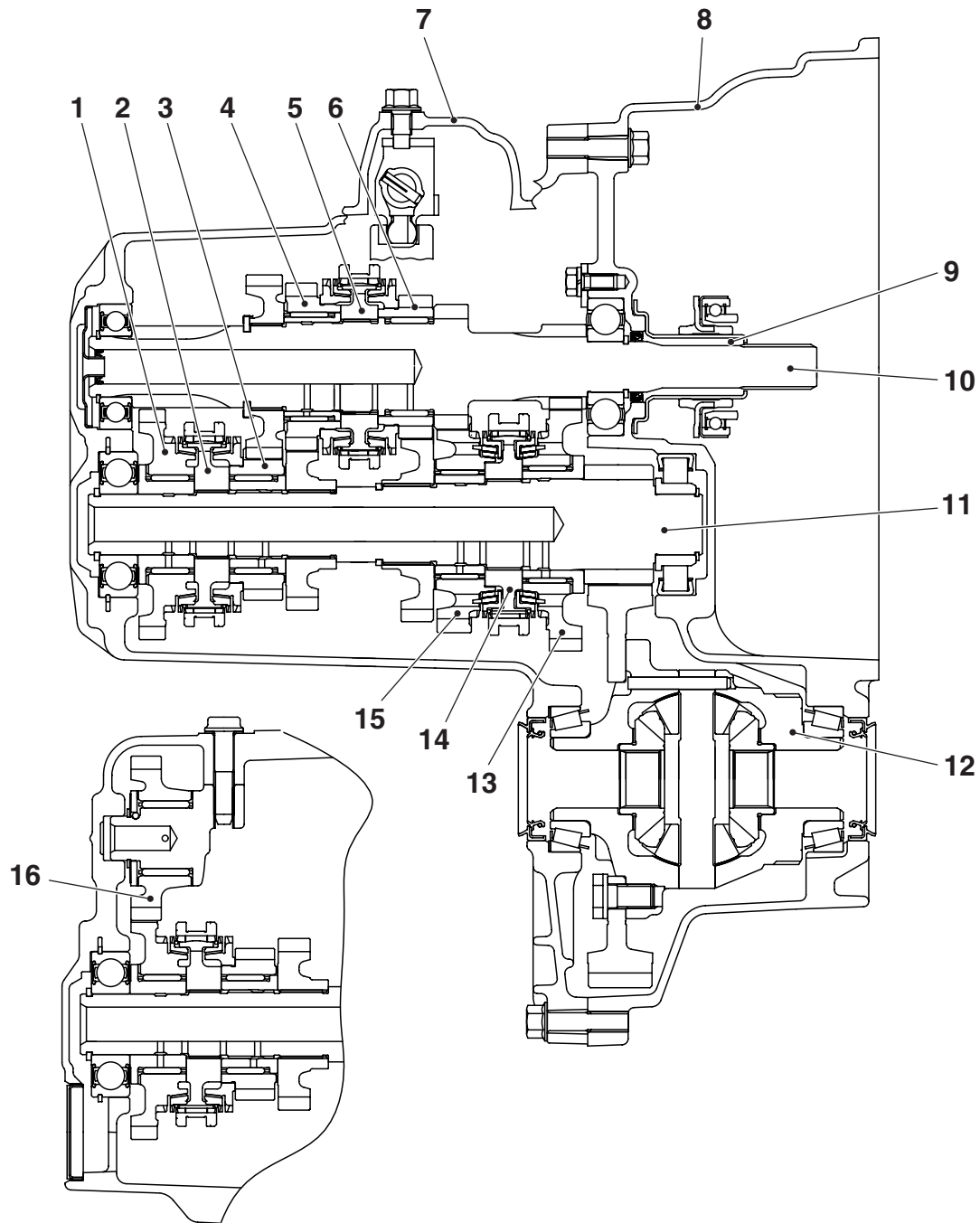
- In addition to the second gear, the triple cone synchronizer has also been adopted for the first gear.
- A reverse gear misoperation prevention mechanism (device for 5th-to-4th smooth shift) has been adopted.

SPECIFICATIONS

Item		Specification
Transmission model		F5M42
Engine model		4G69-SOHC-MIVEC
Transmission type		5-speed forward, 1-speed reverse constant mesh
Transmission gear ratio	1st	3.583
	2nd	1.947
	3rd	1.266
	4th	0.970
	5th	0.767
	Reverse	3.363
Final reduction ration (Differential gear ratio)		4.312
Speedometer gear ratio		27/36
Transmission oil	Specified lubricants	DiaQueen NEW MULTI GEAR OIL API classification GL-3, SAE 75W-80 or Gear oil API classification GL-4, SAE 75W-85W/75W-90
	Quantity L	2.2

SECTIONAL VIEW

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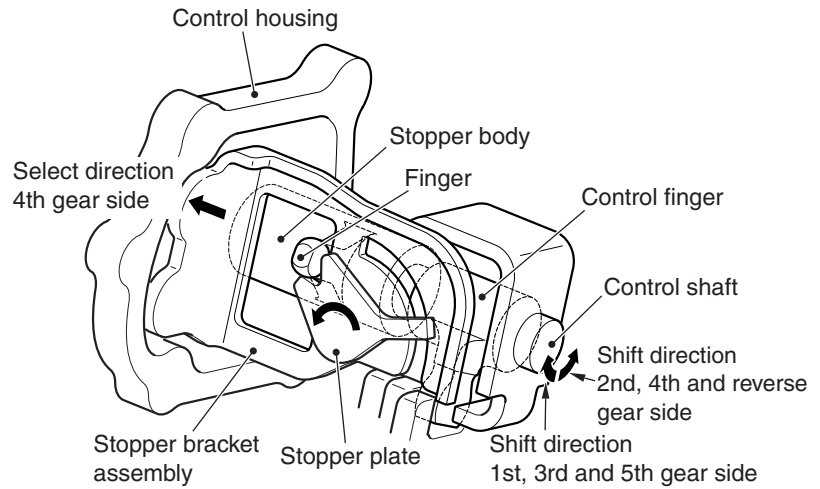
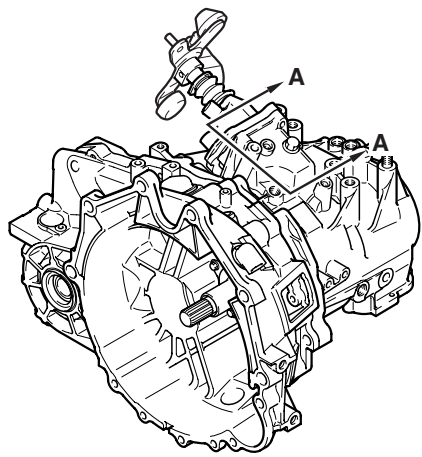


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- | | |
|-----------------------------|-----------------------------|
| 1. Reverse gear | 9. Release bearing retainer |
| 2. 5th/Reverse synchronizer | 10. Input shaft |
| 3. 5th gear | 11. Output shaft |
| 4. 4th gear | 12. Differential |
| 5. 3rd/4th synchronizer | 13. 1st gear |
| 6. 3rd gear | 14. 1st/2nd synchronizer |
| 7. Transmission case | 15. 2nd gear |
| 8. Clutch housing | 16. Reverse idler gear |

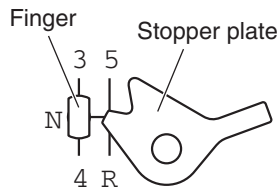
REVERSE GEAR MISOPERATION
PREVENTION MECHANISM

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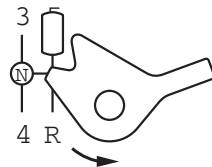


Section A-A

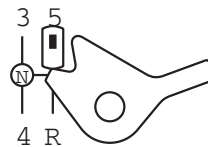
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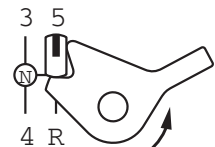
1. Neutral



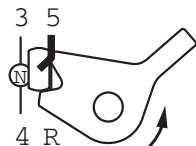
2. 5th gear position



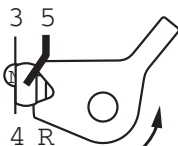
3. Finger contacts cam



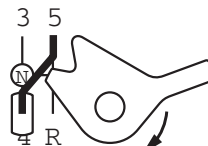
4. Stopper plate pivots



5. Finger being pushed out



6. Pushing-out completes



7. 4th gear shifting completes

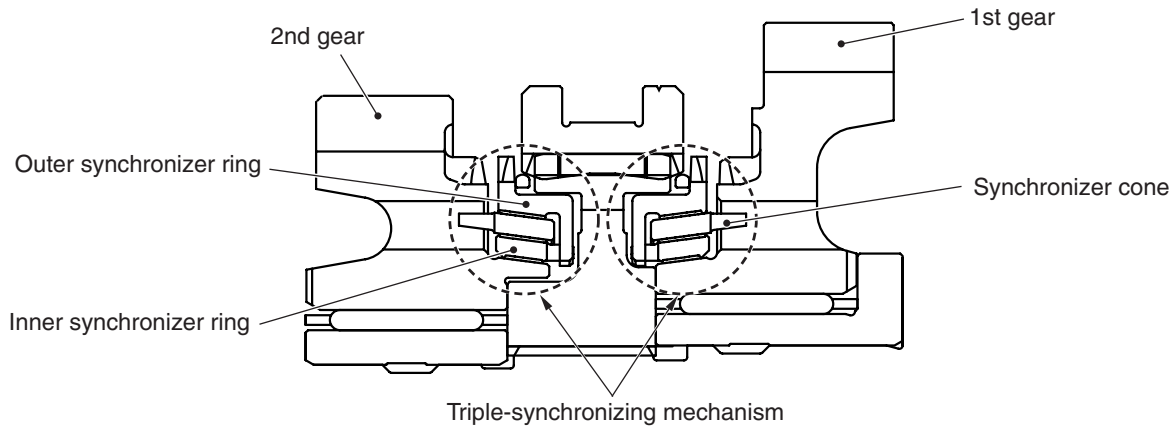
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In order to facilitate 5th to 4th speed shifting operation, the previous reverse gear misoperation prevention mechanism has been modified as follows:

- When the transmission is shifted from 5th gear to reverse, the control finger and the stopper body pivot around the control shaft, and the finger will contact the stopper plate, which is secured on the stopper assembly. Because of this, the stopper plate pivots to push out the finger end surface to the 4th-speed side, thus preventing the transmission from being engaged in reverse position, and guiding it into 4th position.

SYNCHRONIZER

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For the 1st and 2nd gears, a triple - synchronizing mechanism has been adopted.

With the triple - synchronizing mechanism, synchronizing action is achieved by one side of the outer synchronizer ring and both sides of the inner synchronizer ring. By providing significantly increased synchronization capacity, the triple - synchronizing mechanism reduces the effort required to perform gear shift.

TRANSMISSION CONTROL

GENERAL INFORMATION

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A shift lever of an instrument panel type has been adopted in order to facilitate walkthrough between the seats.

