

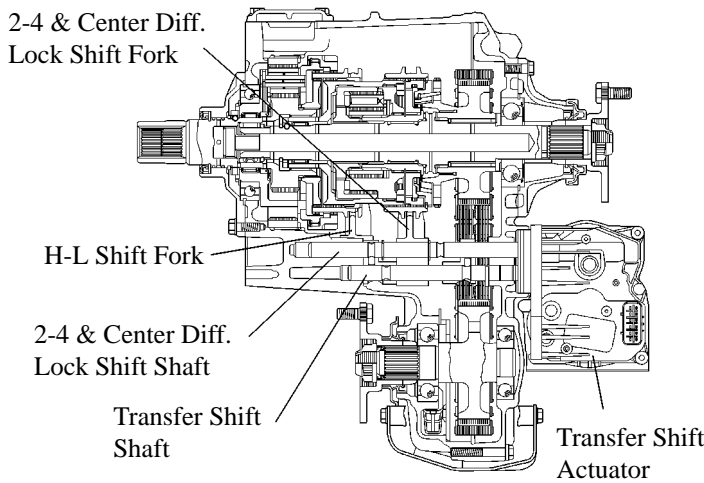
CONSTRUCTION

1. General

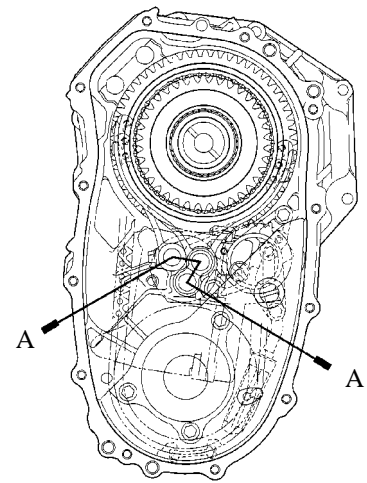
The construction of the transfer is shown below.

- The construction of the planetary gears is the same as the VF4BM transfer on the '03 4Runner with 2UZ-FE engine.
- The center differential uses the TORSEN LSD. The construction of the center differential is the same as the VF4BM transfer on the '03 4Runner with 2UZ-FE engine.
- A triple-cone type synchromesh mechanism is used. This mechanism makes shifting from H2 to H4 smooth while the vehicle is being driven.
- The transfer shift actuator, which contains H-L shift motor, 2-4 & center diff. lock shift motor, H-L shift motor limit switch, 2-4 & center diff. lock shift motor limit switch and center differential lock detection switch, cannot be disassembled.
- The 2-4 center differential lock shift mechanism consists of a 2-4 & center differential lock shift shaft that is driven by the 2-4 & center differential lock shift motor, 2-4 & center differential lock shift fork, stopper, interlock pin, and a stationary transfer shift shaft. This mechanism shifts the transfer between the 2WD and 4WD modes and switches the center differential lock.
- As in the VF4BM transfer, the H-L shift mechanism consists of the H-L shift shaft and H-L shift fork that are actuated by the H-L shift motor to shift the transfer gear ratios.

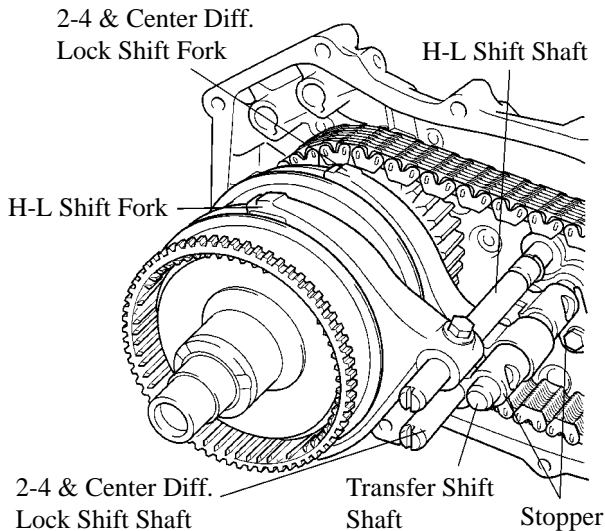
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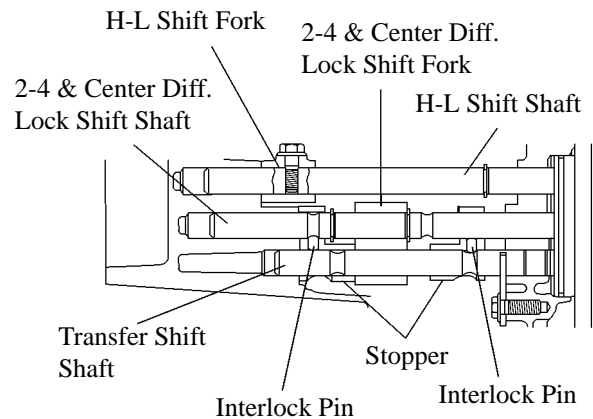


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Shift Shaft Location



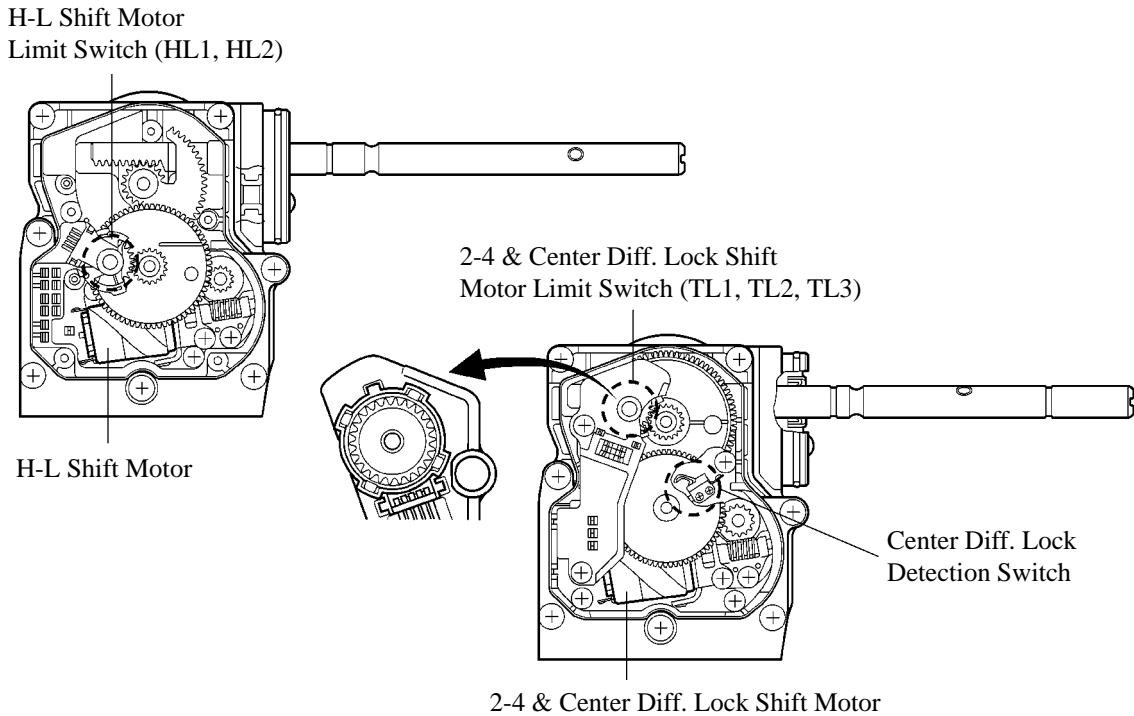
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A – A Cross Section

2. Transfer Shift Actuator

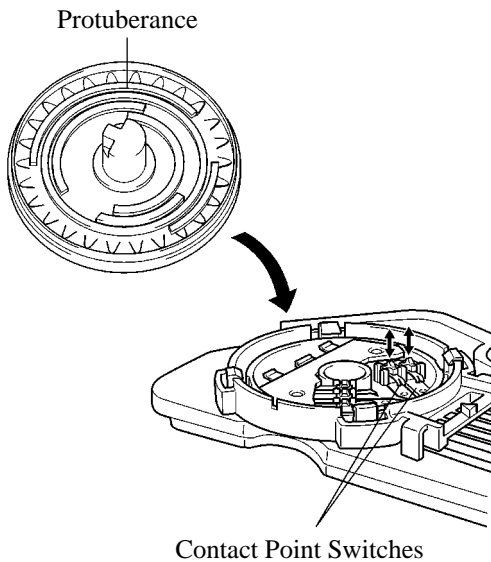
- The VF4AM transfer on the '03 4Runner with the 1GR-FE engine has adopted a 2-4 & center differential lock shift motor limit switch that contains 3 contact point limit switches for detecting the 2-4 positions and the center differential locking position. However, the basic construction and operation of the transfer shift actuator are the same as those of the VF4BM transfer on the '03 4Runner with the 2UZ-FE engine.
- The contact point switches come in contact with a protuberance, and the combinations of the contact point switches determine the position of the shift motor.

► Cross Section of Transfer Shift Actuator ◀

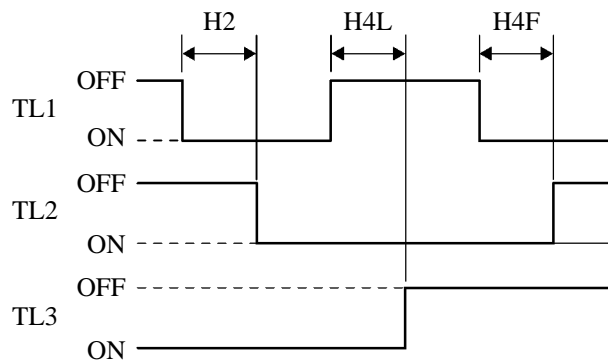


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► Limit Switch ◀



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Combinations of 3 Contact Point Switches