

# ANTI-LOCK BRAKE SYSTEM (ABS)

## Description

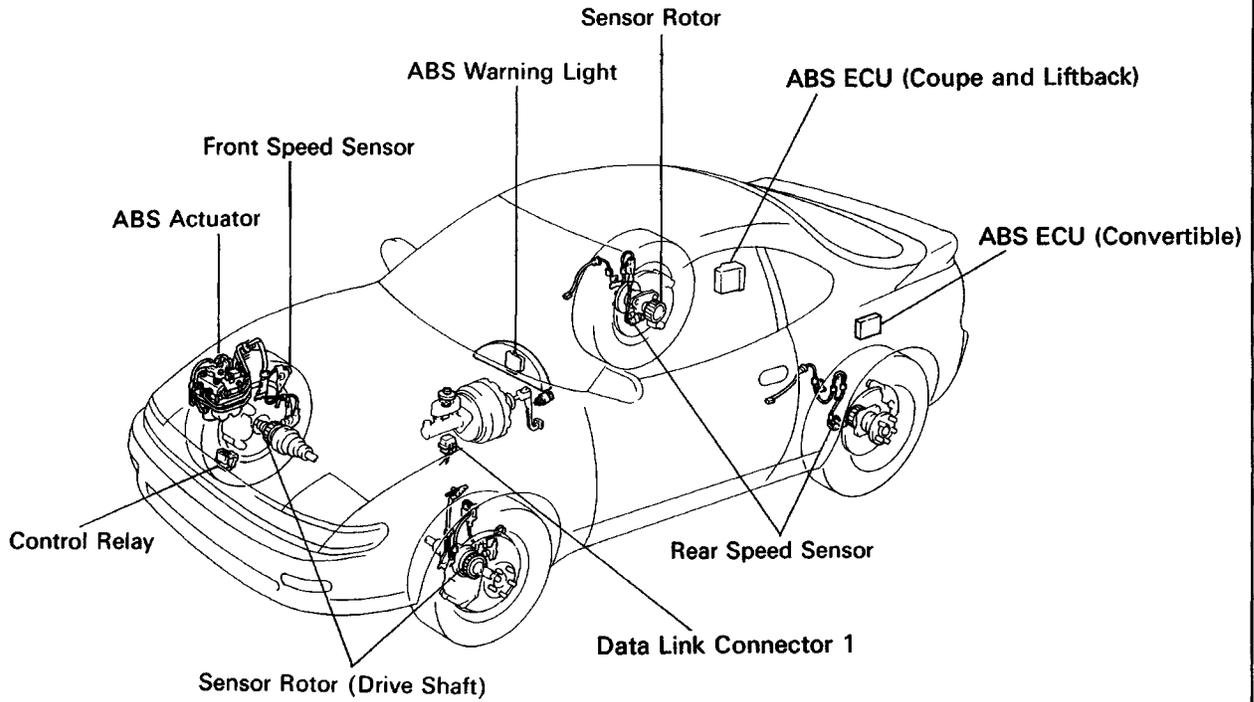
- The ABS is a brake system which controls the wheel cylinder hydraulic pressure of all four wheels during sudden braking and braking on slippery road surfaces, preventing the wheels from locking. This ABS provides the following benefits:
  - (1) Enables steering round an obstacle with a greater degree of certainty even when panic braking.
  - (2) Enables stopping in a panic brake while keeping effect upon stability and steerability to a minimum, even on curves.
- The function of the ABS is to help maintain directional stability and vehicle steerability on most road conditions. However, the system cannot prevent the vehicle from skidding if the cornering speed limit is exceeded.
- The ABS has a longitudinal deceleration sensor to match braking characteristics to the full-time four-wheel drive. (For 4WD)
- In case a malfunction occurs, a diagnosis function and fail-safe system have been adopted for the ABS to increase serviceability.

## FUNCTION OF COMPONENTS

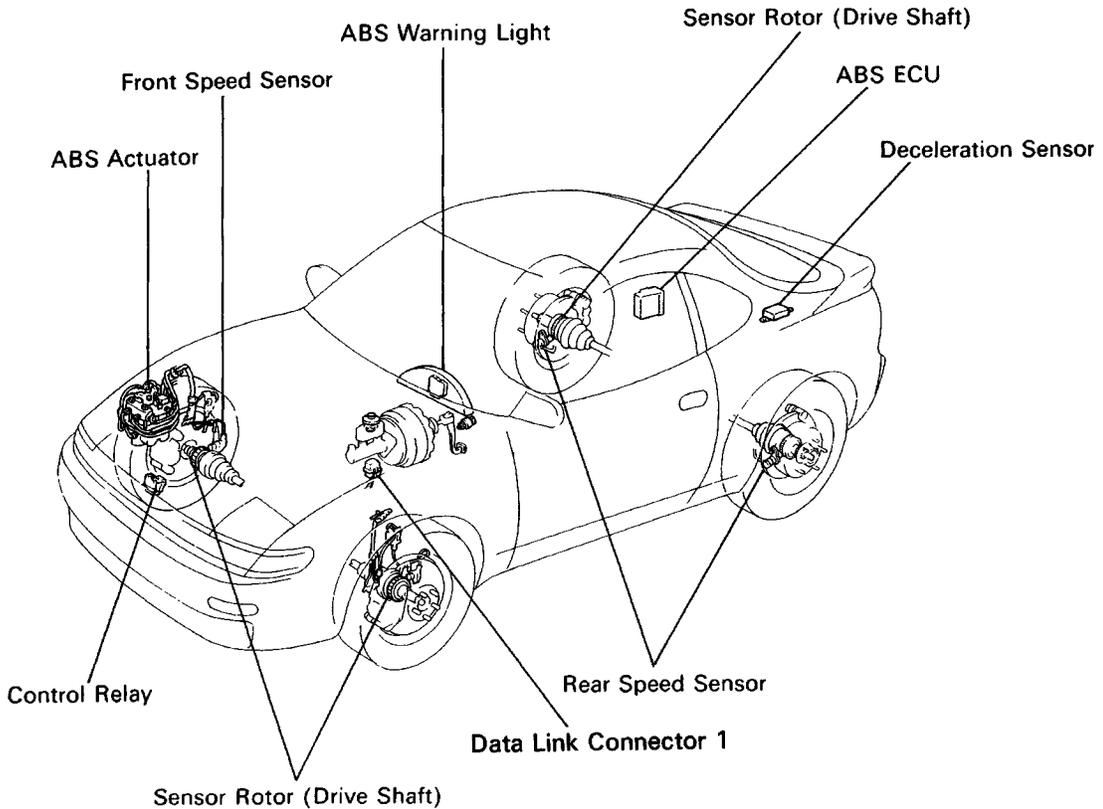
Component	Function
Front Speed Sensor	Detects the wheel speed of each of the left and right front wheels.
Rear Speed Sensor	Detects the wheel speed of each of the left and right rear wheels.
Deceleration Sensor (For 4WD )	Detects the deceleration speed of the vehicle and sends a signal accordingly to the ABS ECU.
ABS Warning Lamp	Lights up to alert the driver when trouble has occurred in the Antilock Brake System.
Actuator	Controls the brake fluid pressure to each disc brake cylinder through signals from the ECU.
ABS ECU	From the wheel speed signals from each sensor, it calculates acceleration, deceleration and slip values and sends signals to the actuator to control brake fluid pressure.

# LOCATION OF SYSTEM PARTS

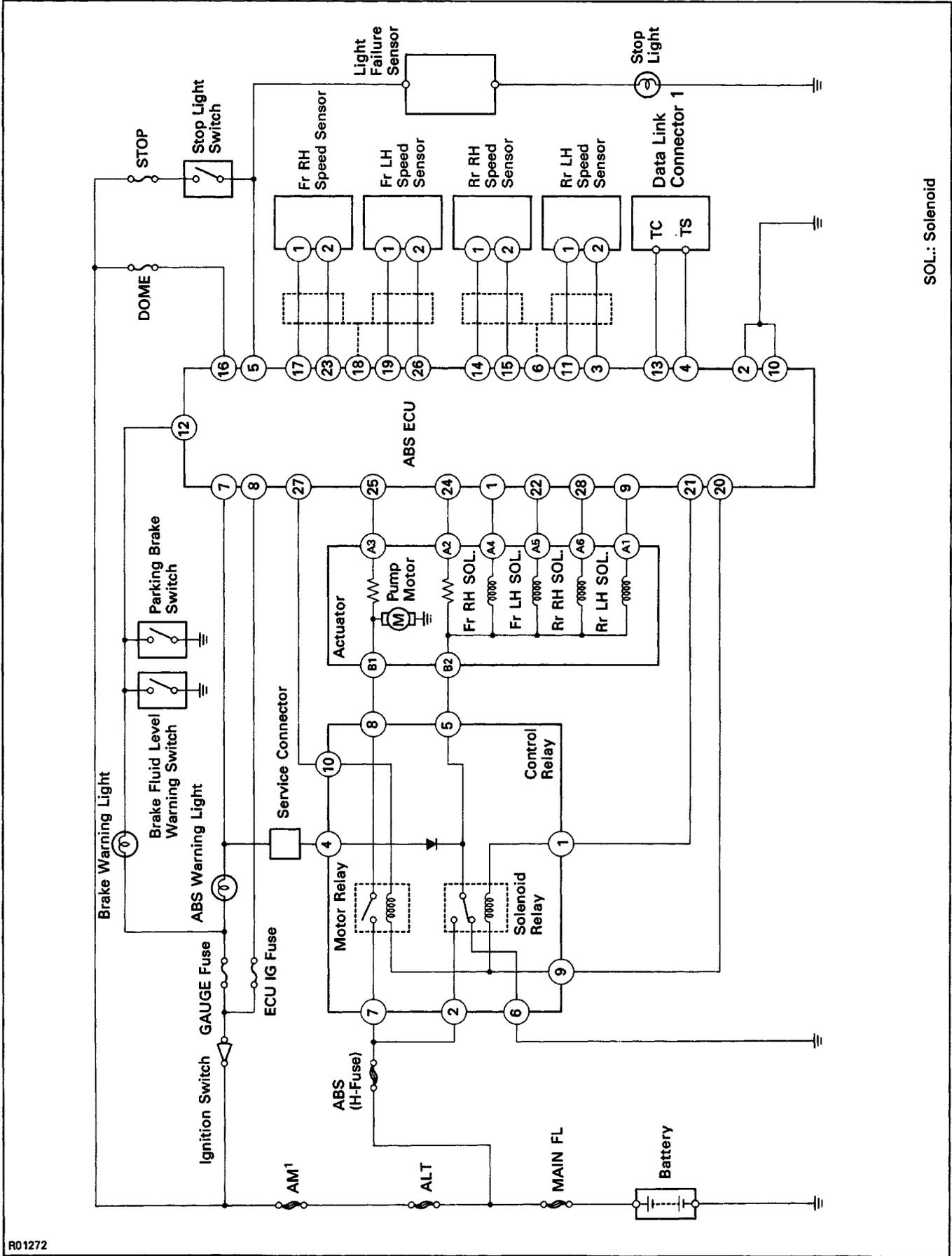
2WD



4WD



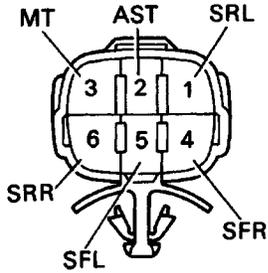
# WIRING DIAGRAM (2WD)



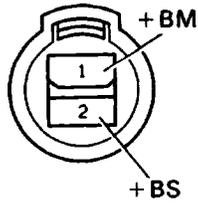
SOL.: Solenoid

# CONNECTORS (2WD)

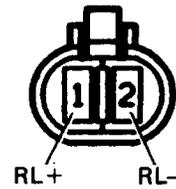
ABS Actuator  
CONNECTOR A



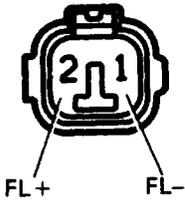
CONNECTOR B



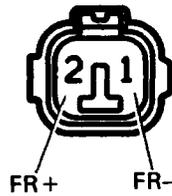
Rear Speed Sensor (LH)



Front Speed Sensor (LH)



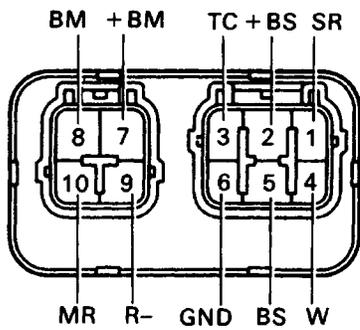
Front Speed Sensor (RH)



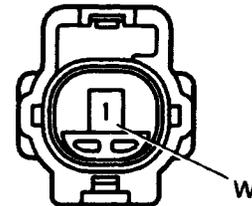
Rear Speed Sensor (RH)



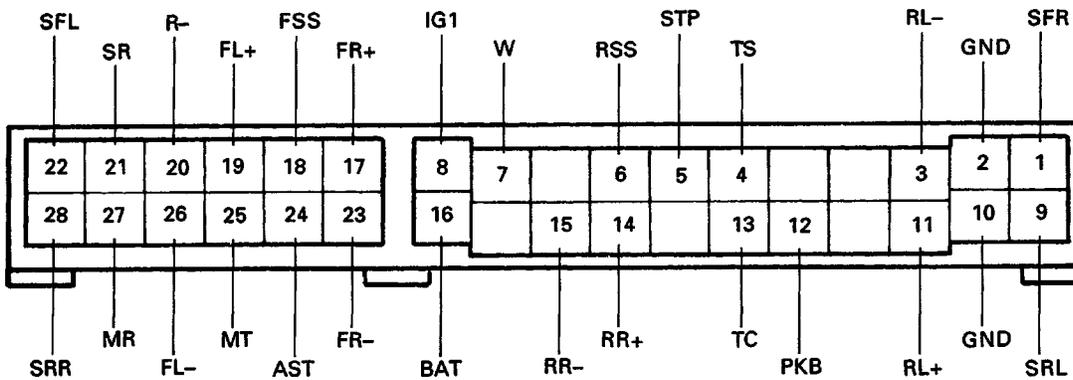
Control Relay



Service Connector (Wire Harness Side)

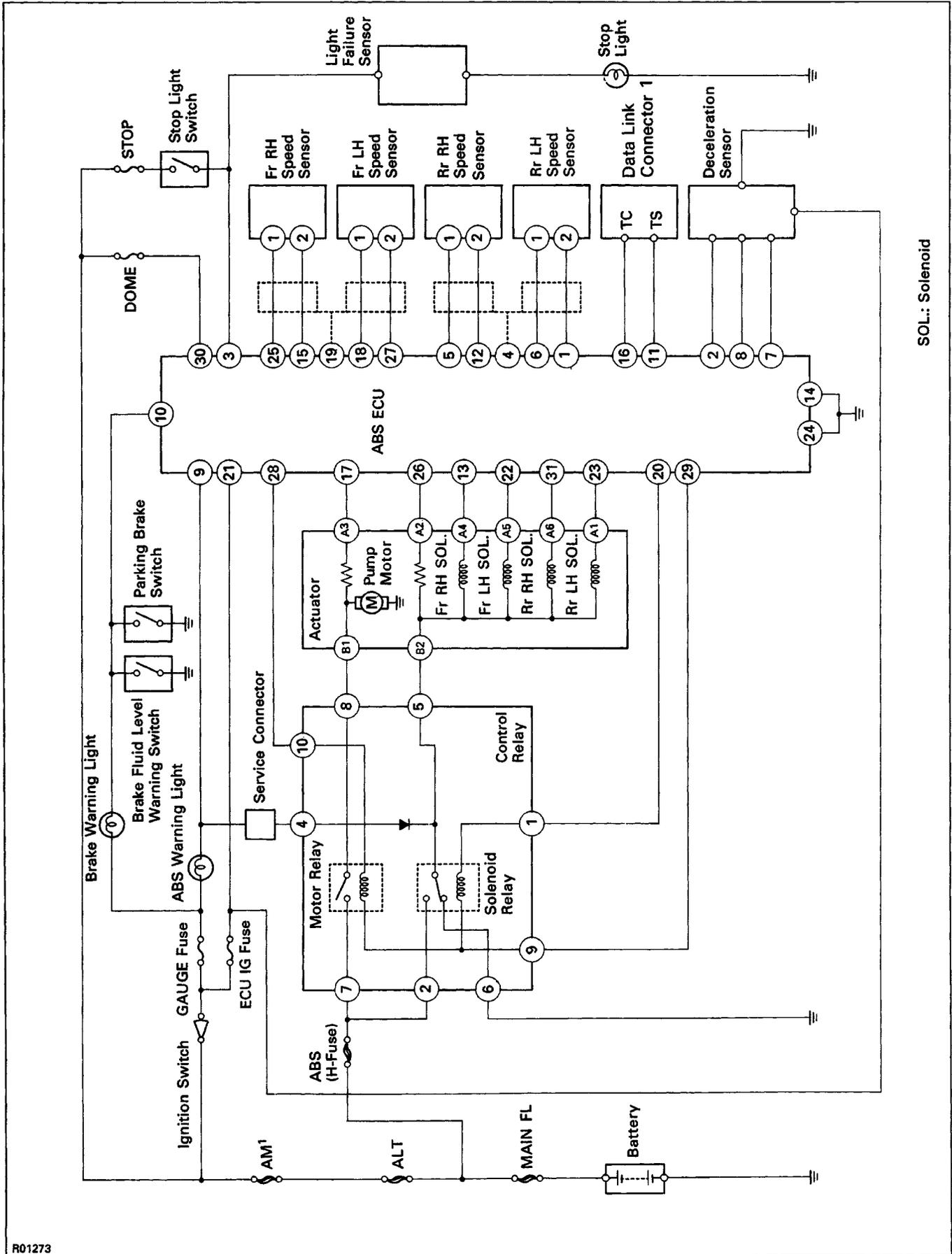


A6S ECU



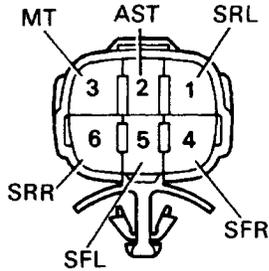
E2402 ID-2-2 IS-2-1-B  
IS-2-2-0 IS-2-2-0 IS-2-1-B  
BR3999 le-1-1  
R01274

# WIRING DIAGRAM (4WD)

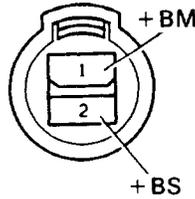


# CONNECTORS (4WD)

ABS Actuator  
CONNECTOR A



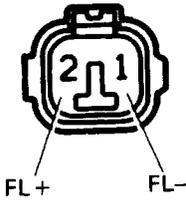
CONNECTOR6



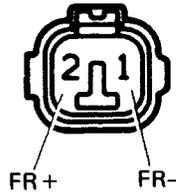
Rear Speed Sensor (LH)



Front Speed Sensor (LH)



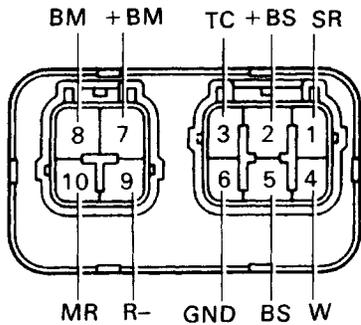
Front Speed Sensor (RH)



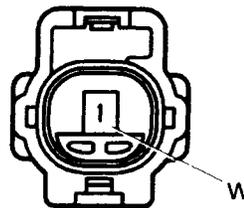
Rear Speed Sensor (RH)



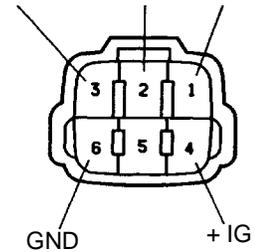
Control Relay



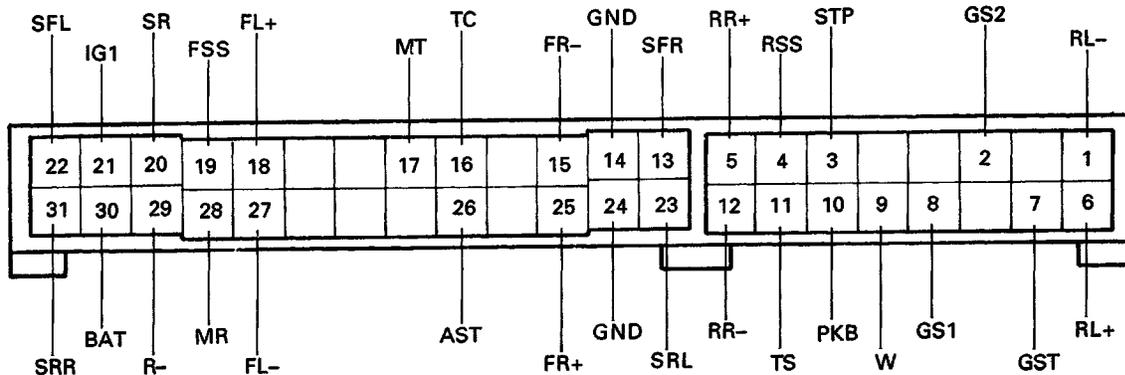
Service Connector (Wire Harness Side)



Deceleration Sensor  
GS1 GS2 GST



A6S ECU



E2402 ID-2-2 IS-2-18  
IS-2-2-0 IS-2-2-0 IS-2-1-B  
BR3999 le-1-1 IS-6-2-B  
R01275