NISSAN RE5R05A
TORQUE CONVERTER CLUTCH SHUDDER AND/OR INTERMITTENT SOLENOID/PRESSURE SWITCH CIRCUIT FAULTS

COMPLAINT: Late 04 and up Nissan vehicles equipped with the RE5R05A transmission may exhibit a complaint of Torque Converter Clutch Shudder along with intermittent solenoid circuit and or pressure switch faults, which may cause a limp mode condition. See Figure 1 for a list of possible codes.

CAUSE: The cause may be, that the transmission cooler in the radiator has ruptured causing water to be mixed into the transmission fluid. This can cause the Torque Converter Clutch linings to delaminate, causing the TCC shudder. This same cause may create the intermittent solenoid circuit or pressure switch faults as well, by means of the water intrusion into the Transmission Control Module, which is mounted on top of the Valve Body as shown in Figures 2 and 3.

CORRECTION: To correct this condition, the transmission will need to be overhauled as well as the Torque Converter. Refer to Figure 3 for solenoid location and ohm values. If there is a solenoid circuit fault for a specific solenoid, locate it in Figure 3 and verify the ohm value is correct. If the ohm value is correct, the TCM may be faulty and will have to be replaced. Refer to Figure 2 and note that the pressure switches are part of the TCM and can not be tested, without the use of a scan tool. ***Note: There may be instances where the vehicle will come into the shop and there will be NO solenoid circuit faults and the transmission will have water intrusion. The vehicle could leave the shop for a month and everything be fine, and all of a sudden start setting solenoid circuit faults. Refer to Figure 3 and verify the solenoid in question has the correct ohm value at that point if it is good the TCM will have to be replaced. Make sure the customer is aware that the TCM may go bad if there was water intrusion, and an additional cost may be necessary down the road.***

SERVICE INFORMATION:

Contact your local Nissan Dealer, as the TCM does not come separate than the Valve Body.

DIAGNOSTIC TROUBLE CODE (DTC) DESCRIPTION		
TCM DTC	OBD II	DESCRIPTION
P0700	P0700	MIL Request, Transmission related trouble code set
P0740	P0740	Torque Converter Clutch Solenoid Circuit
P0745	P0745	Line Pressure Solenoid Circuit
P1731		First Gear Engine Braking (Fluid Pressure Switch 2 fault)
P1752	P1752	Input Clutch Solenoid Circuit
P1757	P1757	Front Brake Band Solenoid Circuit
P1762	P1762	Direct Clutch Solenoid Circuit
P1767	P1767	High And Low/Reverse Clutch Solenoid Circuit
P1772	P1772	Low Coast Brake Clutch Solenoid Circuit
P1841		Fluid Pressure Switch 1 Circuit
P1843		Fluid Pressure Switch 3 Circuit
P1845		Fluid Pressure Switch 5 Circuit
P1846		Fluid Pressure Switch 6 Circuit

Figure 1

NISSAN RE5R05A
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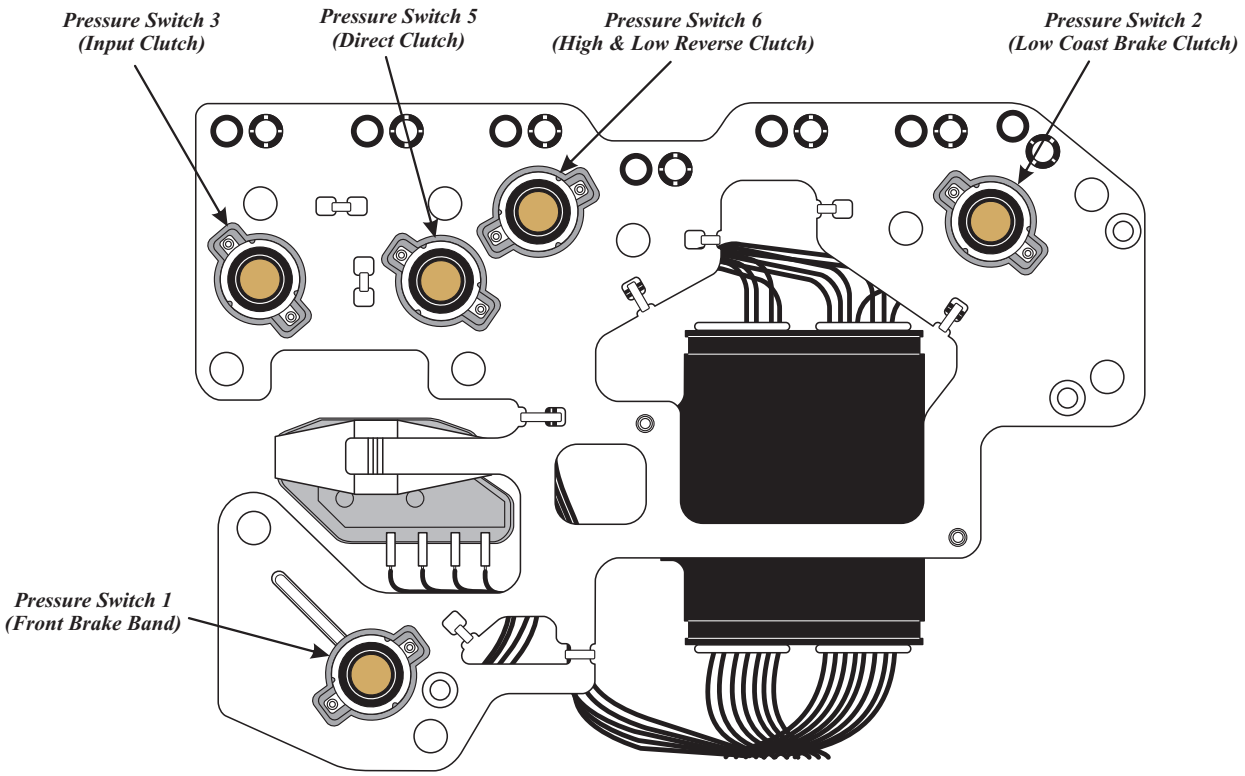
PRESSURE SWITCH LOCATIONS (EARLY MODEL SHOWN)



PRESSURE SWITCH FUNCTION

Name	*Function*
Pressure Switch 1 (Front Brake Band)	*Detects any malfunction in the front brake band hydraulic circuit. When it detects any malfunction, it puts the system into "Fail-Safe mode.*
Pressure Switch 2 (Low Coast Brake Clutch)	*Detects any malfunction in the low coast brake clutch hydraulic circuit. When it detects any malfunction, it puts the system into "Fail-Safe mode.*
Pressure Switch 3 (Input Clutch)	*Detects any malfunction in the input clutch hydraulic circuit. When it detects any malfunction, it puts the system into "Fail-Safe mode.*
Pressure Switch 5 (Direct Clutch)	*Detects any malfunction in the direct clutch hydraulic circuit. When it detects any malfunction, it puts the system into "Fail-Safe mode.*
Pressure Switch 6 (High & Low Reverse Clutch)	*Detects any malfunction in the high & low reverse clutch hydraulic circuit. When it detects any malfunction, it puts the system into "Fail-Safe mode.*

Figure 2

NISSAN RE5R05A
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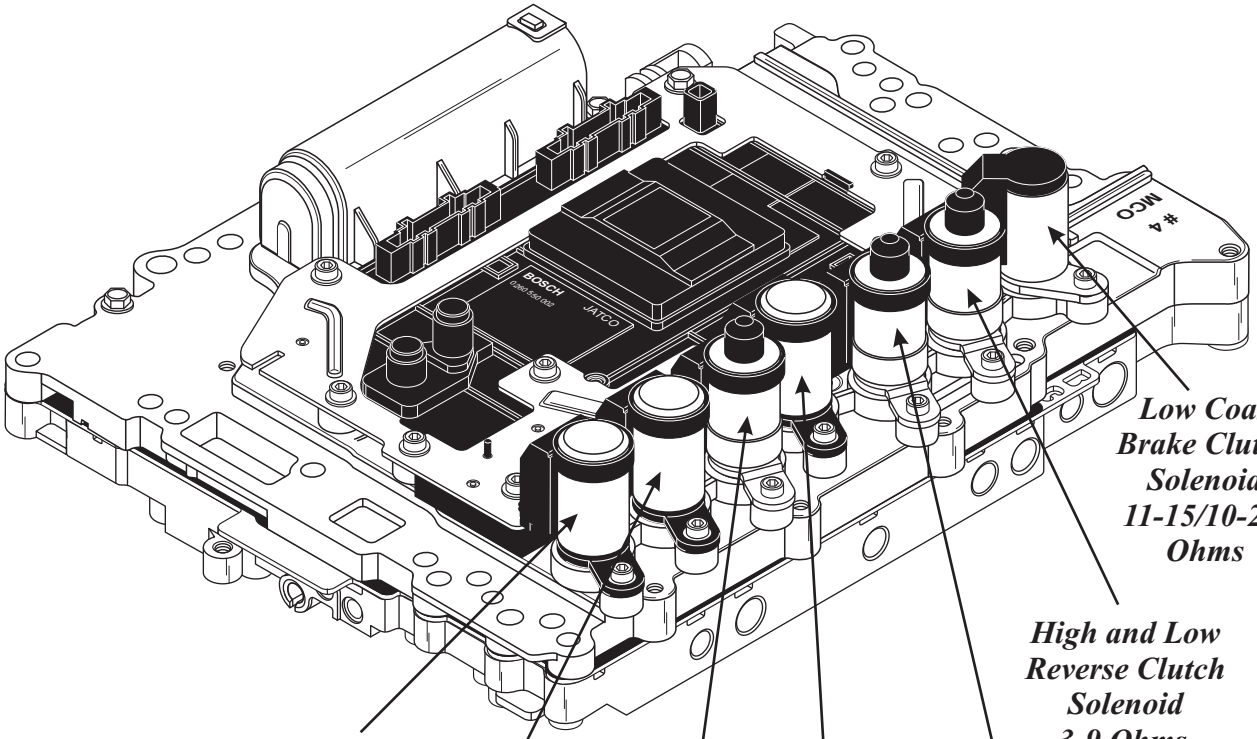
NISSAN RE5RO5A SOLENOID LOCATIONS AND OHM VALUES



Low Coast Brake Clutch Solenoid 11-15/10-20 Ohms

High and Low Reverse Clutch Solenoid 3-9 Ohms

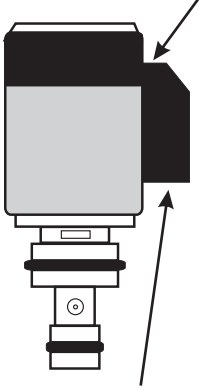
Main Line Pressure Solenoid 3-9 Ohms

Input Clutch Solenoid 3-9 Ohms

Front Brake Solenoid 3-9 Ohms

Torque Converter Clutch Solenoid 3-9 Ohms

Direct Clutch Solenoid 3-9 Ohms



Two Terminals

Example: Line Pressure Solenoid. Connect terminals of Ohm meter to the two terminals in the solenoid shown above, the resistance value should be 3-9 Ohms.

Note: Be Careful not to break the solenoid as it is usually difficult to remove out of the Valve Body. A simple Punch from the bottom of the Channel plate, to the snout of the solenoid can ease the removal of the solenoids.

Figure 3