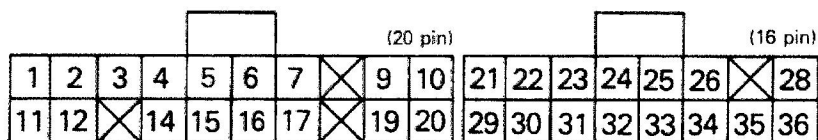


The precheck is simply to make sure the shifter and mode switch are in their proper position before starting the code retrieval routine.

the codes again. If the component checks okay, but the code comes back, check the circuit at the computer. The computer is located under the dash on the driver's side. Figure six illustrates the pins, and their functions. Figure seven provides testing parameters.

Working on the NPR computer system is a breeze. Anyone who has had any experience with the Nissan system will feel right at home.



Pin No.	Function	Pin No.	Function
1.	2 range switch	19.	Neutral range switch
2.	1 range switch	20.	D range switch
3.	Exhaust brake signal	21.	Overrun clutch solenoid
4.	Idle switch	22.	Lock-up duty solenoid
5.	Diagnosis terminal	23.	Economy drive indicator
6.	Overdrive switch	24.	Vehicle speed sensor 2
7.	Kick-down switch	25.	Engine revolution sensor
8.	—	26.	Reverse range switch
9.	Economy drive switch	27.	—
10.	Throttle sensor voltage (5V out)	28.	Battery back-up voltage
11.	Throttle sensor	29.	Ignition voltage
12.	ATF Thermosensor	30.	Ignition voltage
13.	—	31.	Ground
14.	Idle switch voltage	32.	Ground
15.	Throttle sensor ground	33.	Duty solenoid (Dropping register)
16.	Vehicle speed sensor 1	34.	Duty solenoid (Line pressure)
17.	Full throttle switch	35.	Shift solenoid A
18.	—	36.	Shift solenoid B

Figure 6

**JR403E System Diagnosis (continued)
Circuit Testing**

Pin	Function	Operating Conditions	Measurement
1	Inhibitor Switch; Manual 2 Input	In Manual 2 All ranges except Manual 2	Battery Voltage Zero Volts
2	Inhibitor Switch; Manual L Input	In Manual L All ranges except Manual L	Battery Voltage Zero Volts
3	Brake Switch	Brake pedal applied Brake pedal released	Battery Voltage Zero Volts
4	Idle Switch	Accelerator pedal applied Accelerator pedal released	Less than 1.0 Volt 8 - 15 Volts
5	Early — N/A Late -- Diagnostic Link		
6	Overdrive Switch	Overdrive switch off Overdrive switch on	Battery Voltage Less than 1.0 Volt
7	Kickdown Switch	Accelerator pedal applied Accelerator pedal released	Less than 1.0 Volt 3 - 8 Volts
8	N/A		
9	Economy Switch	Switch set to Normal Switch set to Economy	3 - 8 Volts Less than 1.0 Volt
10	TPS Reference	Key on	4.5 - 5.5 Volts
11	TPS Signal	Idle Wide-open throttle	4.0 - 4.9 Volts 0.1 - 1.8 Volts
12	ATF Temperature Sensor	At 50° F (10° C) At 104° F (40° C)	About 1.8 Volts About 1.1 Volts
13	N/A		
14	Idle/Full Throttle Ref.	Key on	8 - 15 Volts
15	Sensor Ground	Always	Less than 0.1 Volts
16	VSS1 (at Transmission)	With outout shaft rotating	Square Wave DC Signal
17	Full Throttle Switch	Idle Accelerator more than halfway down	Less than 1 Volt 8 - 15 Volts

Continued...

Figure 7A

**JR403E System Diagnosis (continued)
Circuit Testing (continued)**

Pin	Function	Operating Conditions	Measurement
18	N/A		
19	Inhibitor Switch; Neutral Input	In Neutral All ranges except Neutral	Battery Voltage Zero Volts
20	Inhibitor Switch; Drive Input	In Drive All ranges except Drive	Battery Voltage Zero Volts
21	Overrun Clutch Solenoid	Solenoid on Solenoid off	Battery Voltage Zero Volts
22	Lockup Solenoid	Converter clutch applied Converter clutch released	8 - 15 Volts Less than 1.0 Volt
23	Economy Switch	Switch in normal position; key on Switch in economy position; key on	Battery Voltage Less than 1.0 Volt
24	VSS2 (in Speedometer)	With speedometer cable rotating	Square Wave DC Signal
25	Engine RPM Sensor	Engine off Engine running	Zero Volts AC Varying Volts AC
26	Inhibitor Switch; Reverse Input	In Reverse All ranges except Reverse	Battery Voltage Zero Volts
27	N/A		
28	Keep-Alive Power	Always	Battery Voltage
29	Ignition	Key on	Battery Voltage
30	Ignition	Key on	Battery Voltage
31	Ground	Always	Less than 0.1 Volt
32	Ground	Always	Less than 0.1 Volt
33	Line Pressure Control Solenoid	Idle Full throttle	1.5 - 2.5 Volts Less than 0.5 Volts
34	Line Press. Control Sol. w/Dropping Resistor	Idle Full throttle	5 - 14 Volts Less than 0.5 Volts
35	Shift Solenoid A	Solenoid on Solenoid off	Battery Voltage Zero Volts
36	Shift Solenoid B	Solenoid on Solenoid off	Battery Voltage Zero Volts

Figure 7B