TWO PIN PLUG UNDER DASH IN FRONT OF STEERING WHEEL SHORT 2PINS TOGETHER & COUNT FLASHES

talk | TRANSMISSION

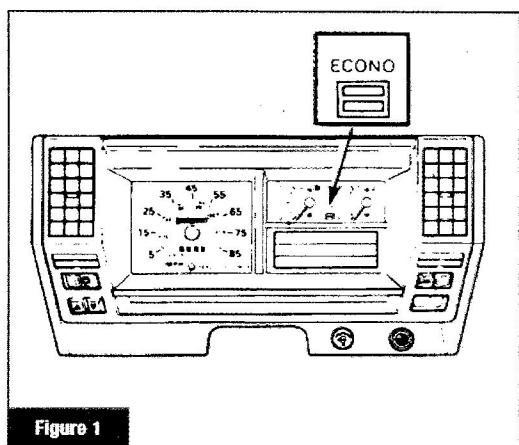by Dennis Madden

JR403E Code Retrieval And Testing

Figure 1

T he Isuzu NPR is a heavy-duty truck chassis with a diesel engine. There are several body styles that are available from many custom manufacturers.

Regardless of the look of the vehicle, the powertrain is the same. It uses the JR403E transmission: a fully computer-controlled unit, which includes all shift timing and shift feel characteristics. To looks just like a Nissan RE4R01A... only larger. And that's exactly what it is. The only real difference in rebuilding one of these is the parts are larger.

The computer system used with these transmissions is very similar to the Nissan system. Code retrieval on 1988 through '91 models is also very similar to the Nissan procedure.

The system uses the ECONO light (figure 1) on the dash to indicate a problem. Normally, the ECONO light will come on once then go out. But if the computer recognizes a problem, it will flash the ECONO light sixteen times.

Code retrieval on the early system is

Reading the Codes; Early Systems

Isuzu trucks display diagnostic trouble codes using an 11-flash sequence. The light flashes 11 times in a row; the sequence always starts with a long flash — about two seconds long. It's followed by 10 shorter flashes.

If there are no problems in the system, all ten flashes will be very short — about 0.1 seconds each.

Here's how early Isuzu trucks indicate no diagnostic trouble codes in memory.

But if the computer identifies a problem in the system, one of those 10 flashes will be longer — nearly a half second long. Count the flashes: The long flash identifies the code in memory.

For example, if the first flash after the two second flash is the long one, you're looking at code 1.

Here's how early Isuzu trucks display diagnostic trouble code 1.

If the fourth flash is the longer one, you're looking at code 4.

And here's how early Isuzu trucks display diagnostic trouble code 4.

If there's more than one code in memory, the computer displays all of the codes in the same pass. Here's how a system would display codes 1, 4 and 8 at the same time:

This is how early Isuzu trucks would display codes 1, 4 and 8 at the same time.

CODE DEFINITION

1. Vehicle speed sensor--transmission circuit open or shorted.
2. Vehicle speed sensor-- speedometer circuit open or shorted.
3. Throttle position sensor circuit open or shorted.
4. Shift solenoid A circuit open or shorted.
5. Shift solenoid B circuit open or shorted.
6. Over-run clutch solenoid open or shorted.
7. Lock-up clutch solenoid open or shorted.
8. ATF temperature sensor circuit is open or the computer power source is insufficient.
9. Engine RPM signal circuit open or shorted.
10. Line pressure solenoid open or shorted.

Figure 2