Another year, another Expo; I’m looking forward to seeing some of my old friends from all over the country and abroad. Hopefully there’ll be some new faces, as fewer young techs have been finding their way into this industry.

For this issue, I’ve collected some of the most valuable reference information for the RE5R05A, and put it all together in one place for you. We start with a cutaway view of the transmission to identify the component locations (figure 1).

Figures 2 and 3 are application charts for the floor shift and column shift models. They’re followed by the solenoid apply chart (figure 4), including solenoid function.

Figures 5 through 11 are the hydraulic diagrams for this unit; hard to find, but isn’t that why you depend on ATRA and GEARS?

This compiled information should make it easier for you to understand and diagnose the RE5R05A. Knowing what applies when, and what valve controls which hydraulic circuit, should make it easier to diagnose a shift problem or track down a circuit leak.
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### Nissan RE5R05A (Floor Shift Models)

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Figure 2

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NOTE: The torque converter clutch is applied in 4th and 5th gears, depending on transmission fluid temperature, throttle position, and vehicle speed, to eliminate slippage and increase fuel efficiency. The current output supplied by the TCM to the TCC solenoid is varied, to gradually increase the torque converter clutch apply pressure to prevent converter clutch apply shock.

Figure 5
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<table>
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<th>TCC Clutch N.V.</th>
<th>Direct Clutch N.A.</th>
<th>Front Brake Band N.V.</th>
<th>Input Clutch N.A.</th>
<th>High/Low Reverse N.A.</th>
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MOD: Modulating according to engine load
(c): During coast down

**High & Low Reverse Clutch, Input Clutch & Direct Clutch (Normally Applied)**

- Off (De-energized) (Duty Cycle)
- Plastic Tab (3)
- 3 - 9 Ohms
- Exhaust
- Solenoid Feed (.029" Orifice)
- Pressure Out To Components
- Pressure From Components

**Line Pressure, Torque Converter Clutch & Front Brake Band (Normally Vented)**

- Off (De-energized) (Duty Cycle)
- Flat Metal (3)
- 3 - 9 Ohms
- Exhaust
- Solenoid Feed (.029" Orifice)
- Pressure From Components
- Pressure Out From Components

**Low Coast Clutch (Normally Closed)**

- Off (De-energized) (On/Off)
- Flat Plastic (1)
- 20 - 30 Ohms
- Exhaust
- Solenoid Feed
- Pressure Out To Components

---

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- Direct Clutch (Large Cavity)
- Low Coast Brake
- Direct Clutch (Small Cavity)
- High & Low Reverse Clutch
- Reverse Clutch
- Forward Brake Clutch
- Input Clutch

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