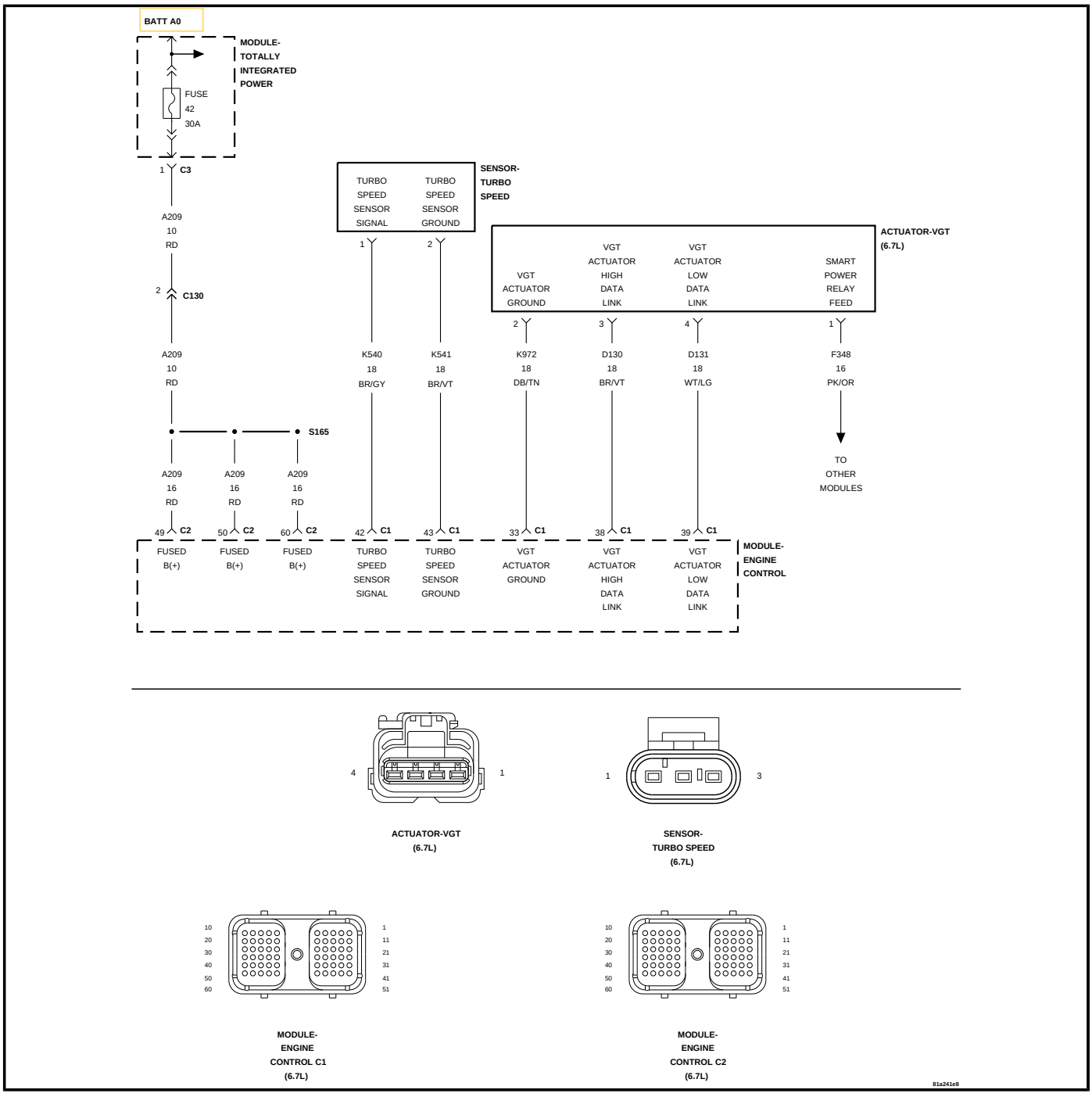
P003A-TURBOCHARGER BOOST CONTROL MODULE POSITION EXCEEDED LEARNING LIMIT



For a complete wiring diagram, **refer to the Wiring Information**.

Theory of Operation

The Variable Geometry Turbocharger (VGT) is electronically controlled by the Electronic Turbo Actuator. The Electronic Turbo Actuator is a smart device; it communicates information with the Engine Control Module (ECM) over the CAN C

BUS. The Electronic Turbo Actuator performs its own internal diagnostics and reports failures back to the ECM. The ECM then decodes the error message and converts it to a fault code. The ECM lights the Malfunction Indicator Lamp (MIL) after the diagnostic runs and fails in two consecutive drive cycles. The ECM will turn off the MIL immediately after this diagnostic runs and passes in four (4) consecutive drive cycles.

- **When Monitored:**

  Ignition on.

- **Set Condition:**

  The VGT Actuator calibrated end-stops were not detected.

Possible Causes
VGT ACTUATOR CALIBRATION MISSING/CORRUPTED

Always perform the Pre-Diagnostic Troubleshooting procedure before proceeding. (Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control (ECM) - Standard Procedure).

ACTIVE DTC

1. Turn ignition on, engine not running.
2. With the scan tool, read DTCs

Is P003A active?

Yes
- Replace the Turbocharger Assembly in accordance with the service information.
- Perform the POWERTRAIN VERIFICATION TEST - 6.7L. (Refer to 28 - DTC-Based Diagnostics/ MODULE, Engine Control (ECM) - Standard Procedure).

No
- Perform the INTERMITTENT CONDITION diagnostic procedure. (Refer to 28 - DTC-Based Diagnostics/ MODULE, Engine Control (ECM) - Standard Procedure).