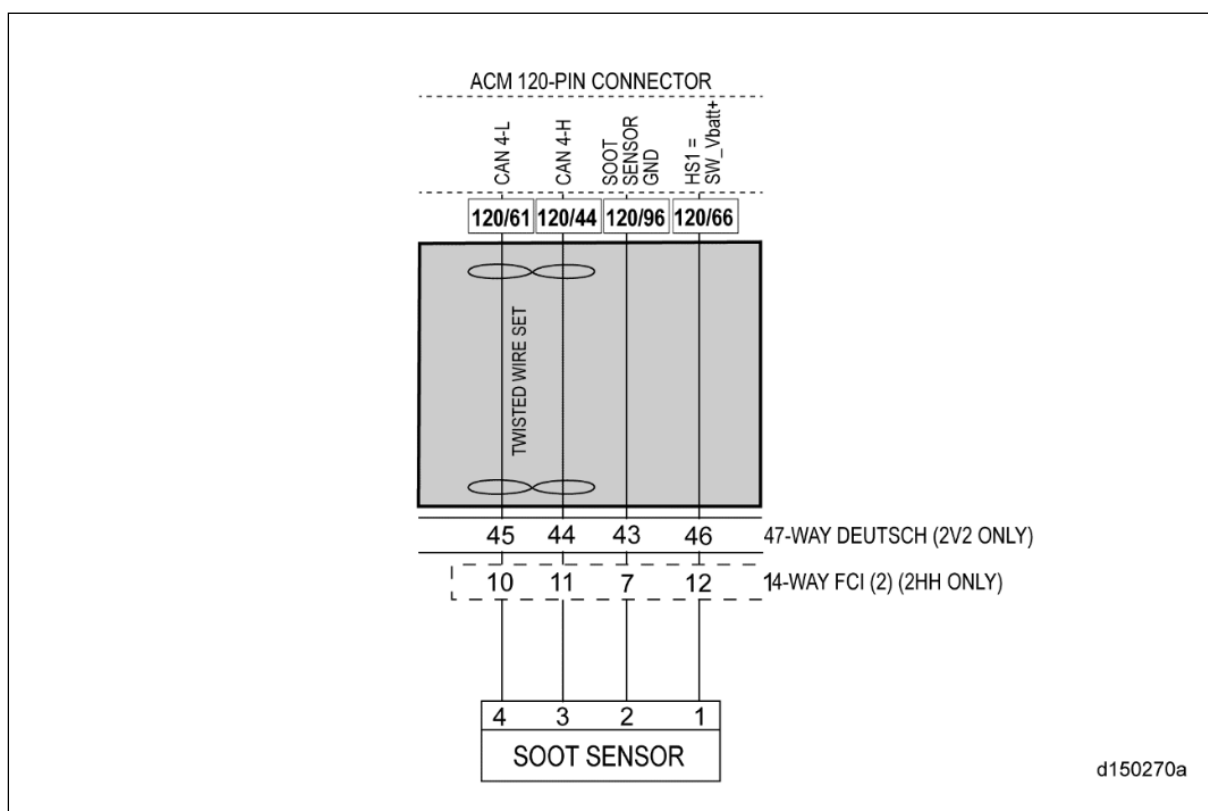
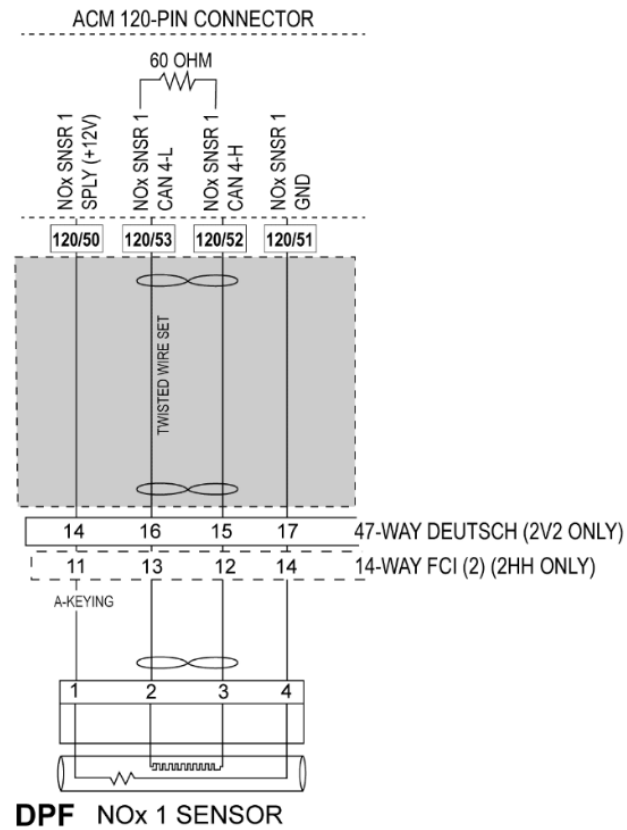


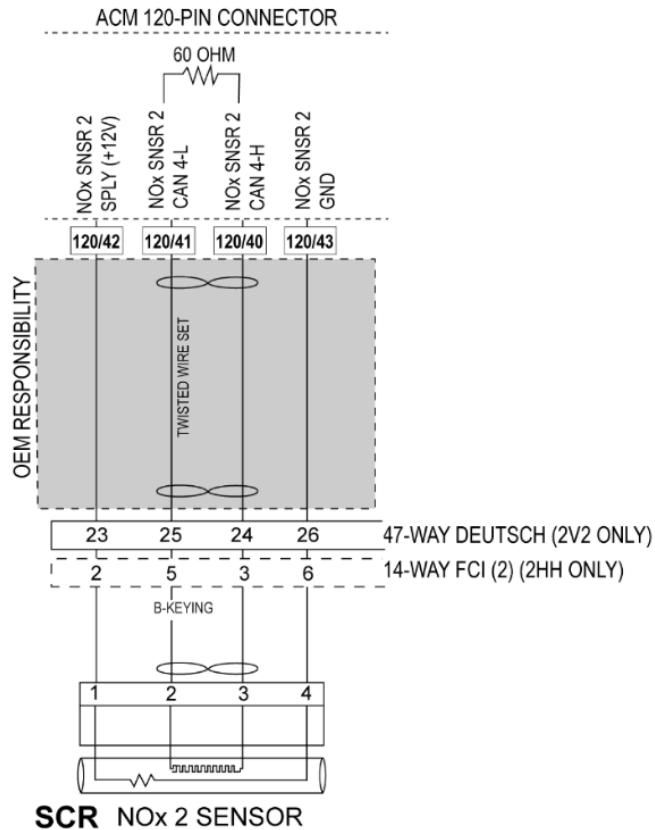
## 204.1 SPN 1669/FMI 9 - GHG17

| SPN 1669/FMI 9              |   |
|-----------------------------|---|
| Description                 | ACM PT-CAN 4 High Short to Ground or CAN 4 Low Short to Power |
| Monitored Parameter         | CAN Communication   |
| Typical Enabling Conditions | Always Enabled  |
| Monitor Sequence            | None  |
| Execution Frequency         | Always Enabled  |
| Typical Duration            | Two Seconds   |
| Dash Lamps                  | MIL, CEL  |
| Engine Reaction             | None  |
| Verification                | Ignition Cycle  |





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Check as follows:

1. Are there any battery voltage faults (SPN 168/FMI any)?
  - 1.a Yes; troubleshoot battery voltage faults first.
  - 1.b No; [Go to step 2.](#)
2. Has the Aftertreatment Control Module (ACM), Motor Control Module (MCM), or Common Powertrain Controller (CPC) been recently programmed?
  - 2.a Yes; clear the fault codes. If faults do not become active, release the vehicle. If faults become active, [Go to step 3.](#)
  - 2.b No; [Go to step 3.](#)
3. Is the aftertreatment system a 1-BOX™ configuration?
  - 3.a Yes; [Go to step 4.](#)
  - 3.b No; for a Two-Box option, [Go to step 6.](#)
4. Turn the ignition OFF and disconnect the ACM 120-pin connector.
5. Measure the resistance between pins 40 and 41 on the ACM connector, component side. Is the resistance between 55 and 65 ohms?
  - 5.a Yes; replace the aftertreatment harness.
  - 5.b No; replace the ACM.
6. Turn ignition OFF and wait five minutes before proceeding.
7. Disconnect the inlet NOx sensor four-way electrical harness connector.

8. Check the resistance between pins 1 and 2 of the inlet NOx sensor electrical connector, aftertreatment harness side. Is the resistance greater than 10k ohms?
  - 8.a Yes; [Go to step 9.](#)
  - 8.b No; repair or replace the harness as necessary.
9. Check the resistance between pins 3 and 4 of the inlet NOx sensor, harness side. Is the resistance greater than 10k ohms?
  - 9.a Yes; [Go to step 10.](#)
  - 9.b No; repair or replace the harness as necessary.
10. Disconnect the outlet NOx sensor four-way electrical harness connector.
11. Check the resistance between pins 1 and 2 of the outlet NOx sensor electrical connector, aftertreatment harness side. Is the resistance greater than 10k ohms?
  - 11.a Yes; [Go to step 12.](#)
  - 11.b No; repair or replace the harness as necessary.
12. Check the resistance between pins 3 and 4 of the outlet NOx sensor electrical connector, aftertreatment harness side. Is the resistance greater than 10k ohms?
  - 12.a Yes; [Go to step 13.](#)
  - 12.b No; repair or replace the harness as necessary.
13. Disconnect the soot sensor four-way electrical harness connector.
14. Check the resistance between pins 2 and 3 of the soot sensor electrical connector, aftertreatment harness side. Is the resistance greater than 10k ohms?
  - 14.a Yes; [Go to step 15.](#)
  - 14.b No; repair or replace the harness as necessary.
15. Check the resistance between pins 1 and 4 of the soot sensor electrical connector, aftertreatment harness side. Is the resistance greater than 10k ohms?
  - 15.a Yes; [Go to step 16.](#)
  - 15.b No; repair or replace the harness as necessary.
16. Disconnect the ACM 120-pin connector.
17. Measure the resistance between pins 40 and 41 on the ACM connector, component side. Is the resistance between 55 and 65 ohms?
  - 17.a Yes; replace the aftertreatment harness.
  - 17.b No; replace the ACM.