

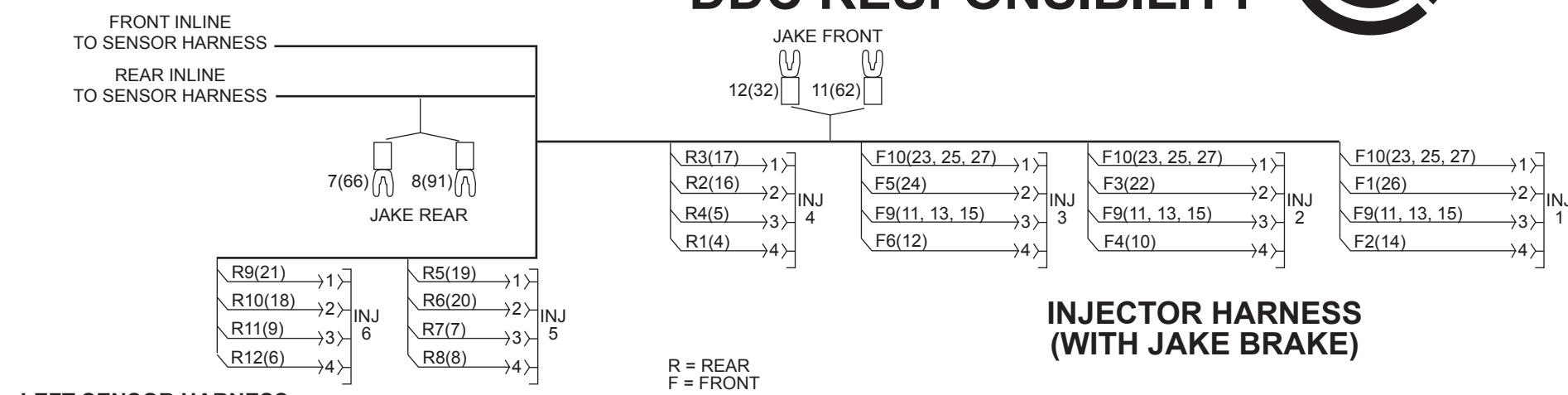
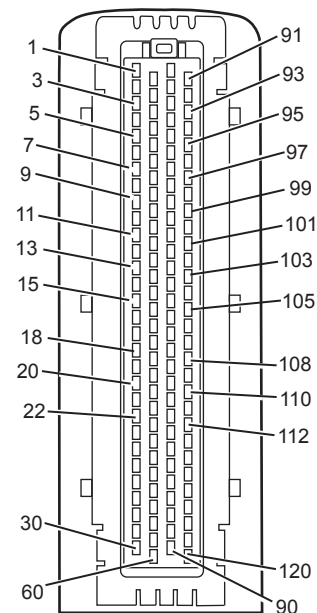
MCM WIRING DIAGRAM

DDC RESPONSIBILITY



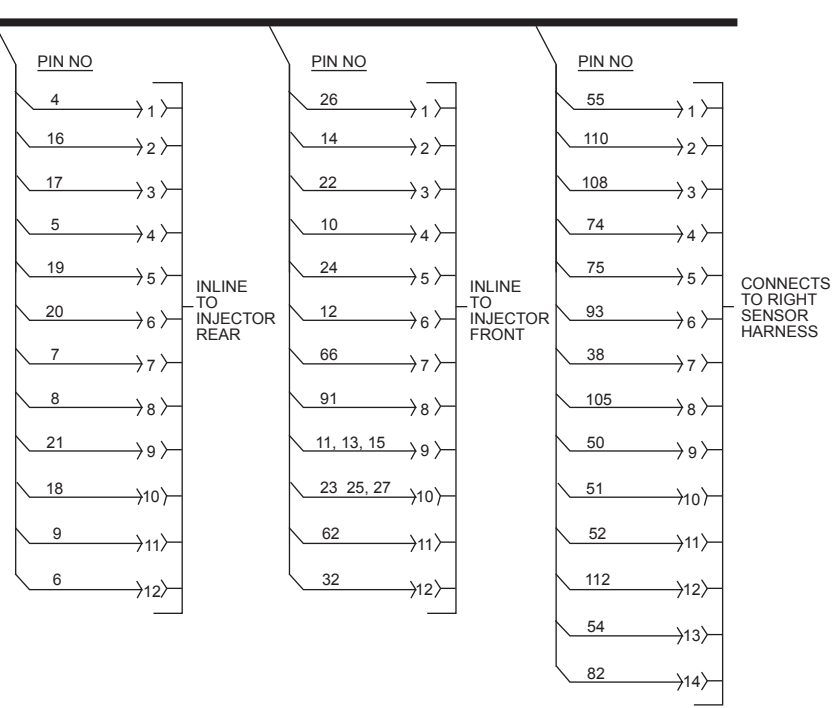
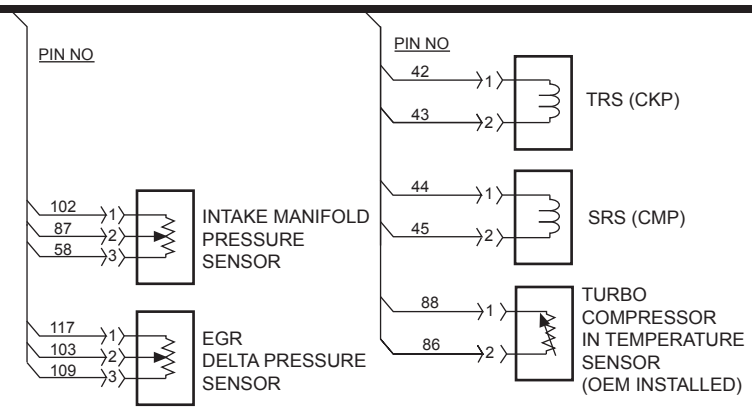
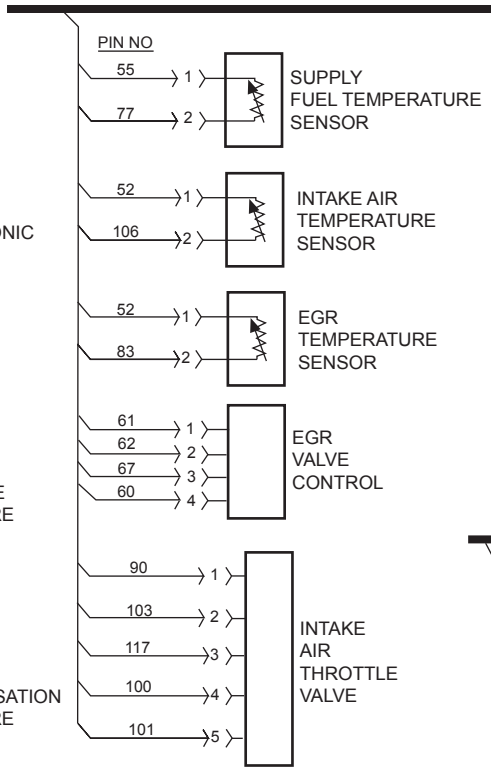
| PIN NO. | DESCRIPTION |
|---------|-------------------------------------|
| 1 | Not Used |
| 2 | Not Used |
| 3 | Not Used |
| 4 | Spill Control Valve (cyl 4)-pin 4 |
| 5 | Spill Control Valve Common-pin 3 |
| 6 | Spill Control Valve (cyl 6)-pin 4 |
| 7 | Spill Control Valve Common-pin 3 |
| 8 | Spill Control Valve (cyl 5)-pin 4 |
| 9 | Spill Control Valve Common-pin 3 |
| 10 | Spill Control Valve (cyl 2)-pin 4 |
| 11 | Spill Control Valve Common-pin 3 |
| 12 | Spill Control Valve (cyl 3)-pin 4 |
| 13 | Spill Control Valve Common-pin 3 |
| 14 | Spill Control Valve (cyl 1)-pin 4 |
| 15 | Spill Control Valve Common-pin 3 |
| 16 | Needle Control Valve (cyl 4)-pin 2 |
| 17 | Needle Control Valve Common-pin 1 |
| 18 | Needle Control Valve (cyl 6)-pin 2 |
| 19 | Needle Control Valve Common-pin 1 |
| 20 | Needle Control Valve (cyl 5)-pin 2 |
| 21 | Needle Control Valve Common-pin 1 |
| 22 | Needle Control Valve (cyl 2)-pin 2 |
| 23 | Needle Control Valve Common-pin 1 |
| 24 | Needle Control Valve (cyl 3)-pin 2 |
| 25 | Needle Control Valve Common-pin 1 |
| 26 | Needle Control Valve (cyl 1)-pin 2 |
| 27 | Needle Control Valve Common-pin 1 |
| 28 | Not Used |
| 29 | DOC Outlet Temp Sensor |
| 30 | DPF Outlet Pressure Sensor |
| 31 | Not Used |
| 32 | Jake Front |
| 33 | Two-speed Fan or Variable-speed Fan |
| 34 | Not Used |
| 35 | Not Used |
| 36 | Not Used |
| 37 | Not Used |
| 38 | Ground |
| 39 | Not Used |
| 40 | Not Used |
| 41 | Not Used |
| 42 | CKP/TRS(-) |
| 43 | CKP/TRS(+) |
| 44 | CMP/SRS(-) |
| 45 | CMP/SRS(+) |
| 46 | Not Used |
| 47 | Fan Speed |
| 48 | Not Used |
| 49 | Not Used |
| 50 | Sensor Ground |
| 51 | Turbo Speed Sensor |
| 52 | Sensor Ground |
| 53 | Not Used |
| 54 | Engine Oil Pressure Sensor |
| 55 | Sensor Ground |
| 56 | Not Used |
| 57 | Not Used |
| 58 | Sensor Power Supply |
| 59 | Not Used |
| 60 | EGR Valve Position |

| PIN NO. | DESCRIPTION |
|---------|-----------------------------------|
| 61 | EGR Valve |
| 62 | Power Supply |
| 63 | Not Used |
| 64 | Power Supply |
| 65 | Electronic Dosing Valve |
| 66 | Jake Rear |
| 67 | Ground |
| 68 | Not Used |
| 69 | Fuel Cutoff Valve |
| 70 | Ether Start |
| 71 | Not Used |
| 72 | Not Used |
| 73 | Not Used |
| 74 | VNT CAN (-) |
| 75 | VNT CAN (+) |
| 76 | Not Used |
| 77 | Supply Fuel Temperature Sensor |
| 78 | Not Used |
| 79 | Not Used |
| 80 | Not Used |
| 81 | Not Used |
| 82 | Sensor Power Supply |
| 83 | EGR Temperature Sensor |
| 84 | Fuel Compensation Pressure Sensor |
| 85 | Sensor Power Supply |
| 86 | Turbo Compressor InTemp Sensor |
| 87 | Intake Manifold Pressure Sensor |
| 88 | Sensor Ground |
| 89 | DOC Inlet Temp Sensor |
| 90 | Sensor Position |
| 91 | Intake Air Throttle Valve |
| 92 | Power Supply |
| 93 | Power Supply |
| 94 | Not Used |
| 95 | Not Used |
| 96 | Not Used |
| 97 | Not Used |
| 98 | Single-Speed Fan or Two-Speed Fan |
| 99 | Not Used |
| 100 | Intake Air Throttle (+) |
| 101 | Intake Air Throttle (-) |
| 102 | Sensor Ground |
| 103 | Sensor Ground |
| 104 | Sensor Ground |
| 105 | Sensor Ground |
| 106 | Intake Air Temperature Sensor |
| 107 | Not Used |
| 108 | Engine Oil Temperature Sensor |
| 109 | EGR Delta Pressure Sensor |
| 110 | Engine Coolant Temperature Sensor |
| 111 | Fuel Line Pressure Sensor |
| 112 | Turbo Compressor Out Temp Sensor |
| 113 | Not Used |
| 114 | Sensor Ground |
| 115 | DPF Outlet Temp Sensor |
| 116 | Not Used |
| 117 | Sensor Power Supply |
| 118 | DPF Inlet Pressure Sensor |
| 119 | Not Used |
| 120 | Not Used |

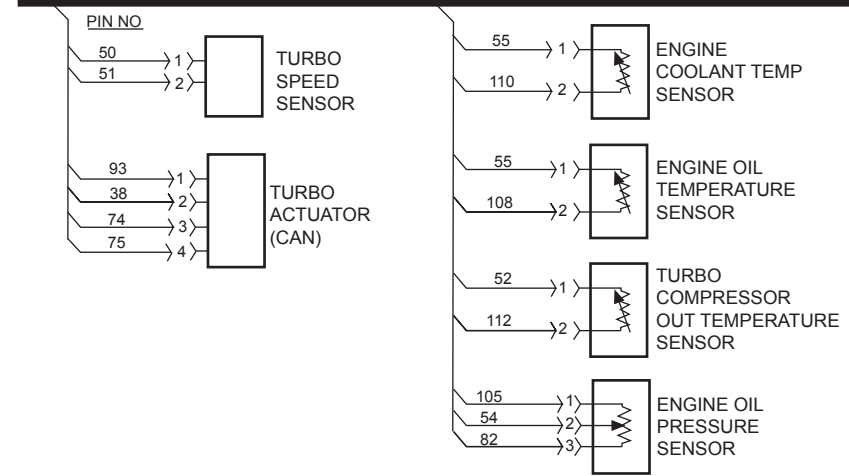


INJECTOR HARNESS (WITH JAKE BRAKE)

LEFT SENSOR HARNESS



RIGHT SENSOR HARNESS



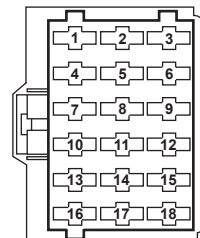
| CAVITY | LABEL |
|--------|----------------------------|
| → 1 | PLUG |
| → 2 | PLUG |
| → 3 | PLUG |
| → 4 | PLUG |
| → 5 | PLUG |
| → 6 | PLUG |
| → 7 | PLUG |
| → 8 | ETHER START |
| → 9 | FAN CONTROL #2 |
| → 10 | FAN CONTROL #1 |
| → 11 | PLUG |
| → 12 | PLUG |
| → 13 | PLUG |
| → 14 | PLUG |
| → 15 | PLUG |
| → 16 | PLUG |
| → 17 | DOC OUTLET TEMP SENSOR |
| → 18 | DOC INLET TEMP SENSOR |
| → 19 | DPF OUTLET TEMP SENSOR |
| → 20 | PLUG |
| → 21 | PLUG |
| → 22 | POWER SUPPLY |
| → 23 | FAN SPEED |
| → 24 | SENSOR GND |
| → 25 | PLUG |
| → 26 | PLUG |
| → 27 | TCI TEMP SENSOR |
| → 28 | SENSOR RETURN |
| → 29 | SENSOR SUPPLY |
| → 30 | DPF OUTLET PRESSURE SENSOR |
| → 31 | DPF INLET PRESSURE SENSOR |

DDEC VI SERIES 60 MCM EGR ENGINE HARNESS

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PLACEMAT ORDER # 20SE74

18-PIN CONNECTOR #1

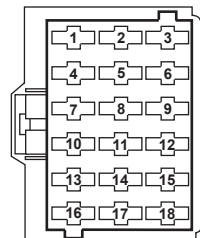
- 1/1 TWO-SPEED AXLE
- 1/2 PARK BRAKE INTERLOCK
- 1/3 IDLE VALIDATION SWITCH 2 (THROTTLE ACTIVE)
- 1/4 THROTTLE POSITION SENSOR GND
- 1/5 DPF REGENERATION LAMP
- 1/6 IDLE VALIDATION SWITCH 1 (IDLE ACTIVE)
- 1/7 THROTTLE POSITION SENSOR
- 1/8 THROTTLE POSITION SENSOR SUPPLY
- 1/9 TACHOMETER
- 1/10 STOP ENGINE / AUX SHUTDOWN #1
- 1/11 LIMITER 0 / LIMITING TORQUE CURVE
- 1/12 SET / COAST ENABLE
- 1/13 MIL LAMP
- 1/14 CRUISE CONTROL ENABLE
- 1/15 STOP ENGINE OVERRIDE / DIAGNOSTIC REQUEST
- 1/16 RESUME / ACCEL ENABLE
- 1/17 SPARE
- 1/18 RUN START



WHITE - FRONT
LOOKING INTO PINS
ON THE HARNESS

18-PIN CONNECTOR #2

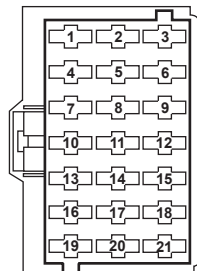
- 2/1 MAIN BATTERY (+12V)
- 2/2 MAIN BATTERY GROUND
- 2/3 IGNITION
- 2/4 K-LINE
- 2/5 J1587+
- 2/6 J1587-
- 2/7 SERVICE BRAKE RELEASED SWITCH
- 2/8 REMOTE THROTTLE SELECT SWITCH
- 2/9 REMOTE PTO SWITCH
- 2/10 AMBER WARNING LAMP
- 2/11 LIM 1 / FAST IDLE / ALT ROAD SPEED LIMIT / ALT ETC
- 2/12 A/C STATUS
- 2/13 FAN OVERRIDE
- 2/14 ENGINE BRAKE LOW
- 2/15 ENGINE BRAKE MEDIUM
- 2/16 J1939-
- 2/17 J1939 SHIELD
- 2/18 J1939+



GRAY - FRONT
LOOKING INTO PINS
ON THE HARNESS

21-PIN CONNECTOR #3

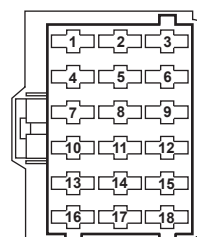
- 3/1 OI THERMOSTAT
- 3/2 SENSOR RETURN
- 3/3 SENSOR SUPPLY
- 3/4 REMOTE PTO
- 3/5 SPARE
- 3/6 SPARE
- 3/7 TOP 2 LOCKOUT SOLENOID
- 3/8 TOP 2 SHIFT SOLENOID
- 3/9 AGS 2 BACKUP LAMP
- 3/10 AGS 2 TRANS TEMP LAMP
- 3/11 LOW COOLANT LEVEL SENSOR
- 3/12 AGS 2 CHECK TRANS LAMP
- 3/13 VEHICLE SPEED (+)
- 3/14 VEHICLE SPEED (-)
- 3/15 AMBIENT AIR TEMPERATURE SENSOR
- 3/16 RED STOP LAMP
- 3/17 OI ALARM
- 3/18 ABS ACTIVE (AGS 2 TRANS)
- 3/19 NOT USED
- 3/20 NOT USED
- 3/21 NOT USED



BROWN FRONT
LOOKING INTO PINS
ON THE HARNESS

18-PIN CONNECTOR #4

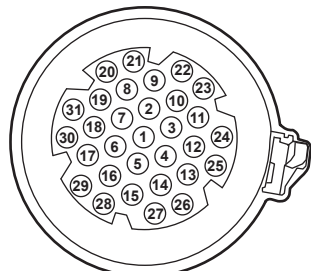
- 4/1 ENGINE CAN (-)
- 4/2 ENGINE CAN SHIELD
- 4/3 ENGINE CAN (+)
- 4/4 SPARE
- 4/5 SPARE
- 4/6 WAIT TO START LAMP (GRID HEATER)
- 4/7 HIGH EXHAUST SYSTEM TEMP LAMP
- 4/8 CLUTCH RELEASED
- 4/9 OI ACTIVE LAMP
- 4/10 VEHICLE POWER SHUTDOWN
- 4/11 SPARE
- 4/12 VEHICLE SPEED OUTPUT
- 4/13 SPARE
- 4/14 SPARE
- 4/15 SPARE
- 4/16 NEUTRAL SWITCH
- 4/17 REGEN SWITCH
- 4/18 HOOD TILT SWITCH



BLUE FRONT
LOOKING INTO PINS
ON THE HARNESS

CONNECTS TO ENGINE HARNESS 31-PIN CONNECTOR

| CAVITY | LABEL | ENGINE SERIES |
|--------|---|---------------|
| 1 | SPARE | |
| 2 | POWER SUPPLY - IGN | HDE |
| 3 | FUEL HEATER SUPPLY (+) #1 | MBE 900, HDE |
| 4 | SPARE | |
| 5 | FUEL HEATER SUPPLY #2 | MBE 900, HDE |
| 6 | SPARE | |
| 7 | POWER SUPPLY - GND | HDE |
| 8 | ETHER START | S60 |
| 9 | VARIABLE SPEED FAN CONTROL OR HIGH OF 2-SPEED FAN | ALL |
| 10 | SINGLE SPEED FAN CONTROL OR LOW OF 2-SPEED FAN | ALL |
| 11 | FUEL HEATER GROUND #1 | MBE 900, HDE |
| 12 | SPARE | |
| 13 | SPARE | |
| 14 | WATER-IN-FUEL SENSOR SUPPLY | MBE 900 |
| 15 | WATER-IN-FUEL SENSOR GROUND | MBE 900 |
| 16 | ENGINE BRAKE SOLENOID CONTROL | MBE 900 |
| 17 | DOC OUTLET TEMPERATURE SENSOR | ALL |
| 18 | DOC INLET TEMPERATURE SENSOR | ALL |
| 19 | DPF OUTLET TEMPERATURE SENSOR | ALL |
| 20 | FUEL HEATER GROUND #2 | MBE 900, HDE |
| 21 | SPARE | |
| 22 | POWER SUPPLY - ENG. BRAKE, FAN, ETHER | ALL |
| 23 | FAN SPEED | ALL |
| 24 | SENSOR GROUND | ALL |
| 25 | SPARE | |
| 26 | WATER-IN-FUEL SENSOR | MBE 900 |
| 27 | TCI TEMP. | S60 |
| 28 | SENSOR GROUND | ALL |
| 29 | SENSOR SUPPLY | ALL |
| 30 | DPF OUTLET PRESSURE SENSOR | ALL |
| 31 | DPF INLET PRESSURE SENSOR | ALL |

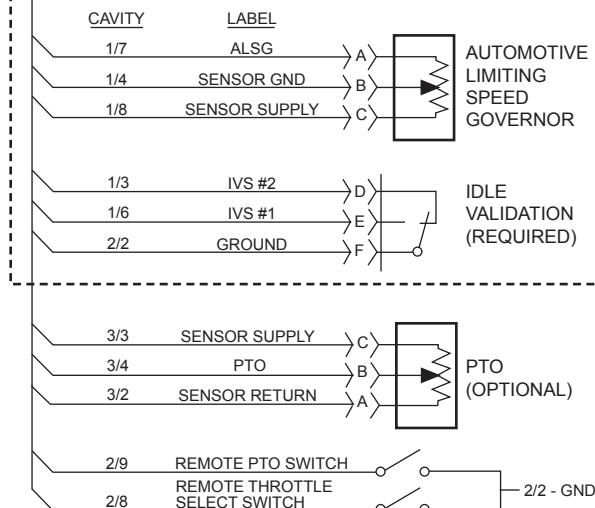


FRONT
LOOKING INTO PINS
ON THE HARNESS

TO 10-PIN DPF CONNECTOR
CONNECTOR P/N: 54201016
TERMINAL P/N: LSP-1811-58AU
PLUG: P/N: 54200005

GOVERNOR

THROTTLE PEDAL

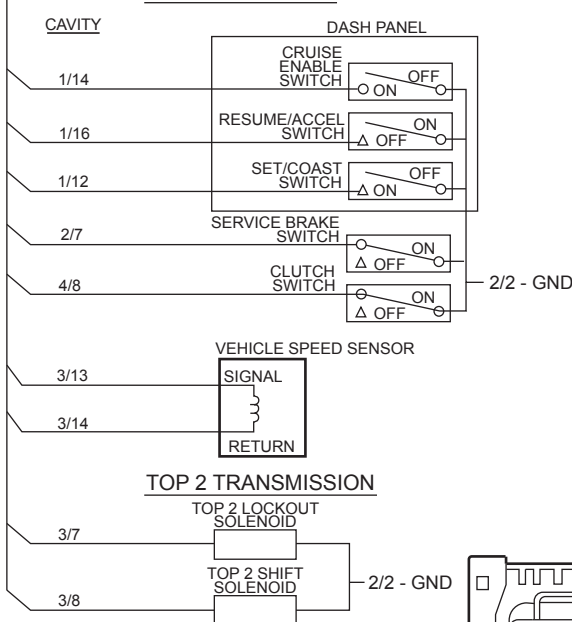


AUTOMOTIVE
LIMITING
SPEED
GOVERNOR

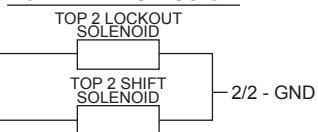


PTO
(OPTIONAL)

CRUISE CONTROL



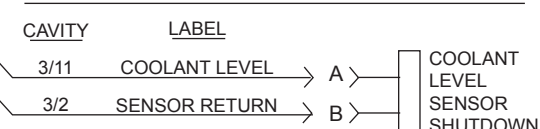
TOP 2 TRANSMISSION



TOP 2 LOCKOUT
SOLENOID

TOP 2 SHIFT
SOLENOID

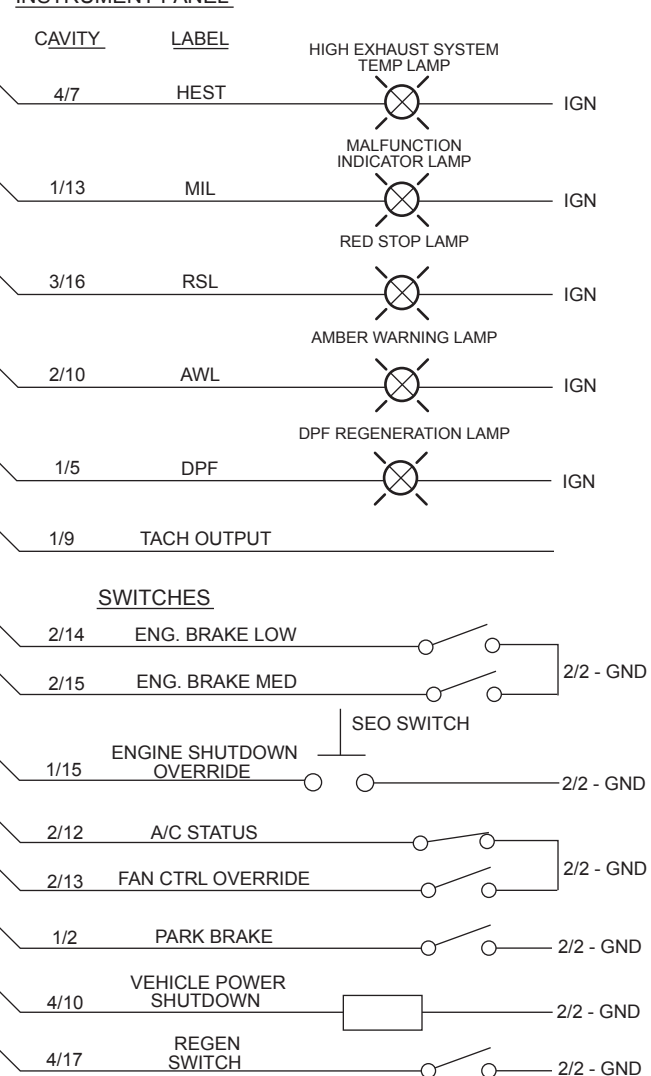
ENGINE COOLANT LEVEL SENSOR - SHUTDOWN



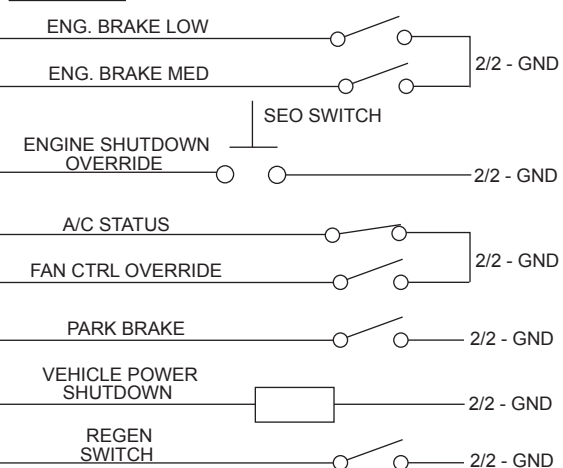
DIAGNOSTIC CONNECTOR - REQUIRED

| CAVITY | DDC CONNECTOR | LABEL |
|--------|---------------|---------------------|
| - | A | GND |
| - | B | +12 V |
| 2/18 | C | J1939 DATA LINK (+) |
| 2/16 | D | J1939 DATA LINK (-) |
| 2/17 | E | J1939 SHIELD |
| 2/5 | F | J1587 DATA LINK (+) |
| 2/6 | G | J1587 DATA LINK (-) |
| - | H | PLUG |
| - | J | PLUG |

INSTRUMENT PANEL



SWITCHES



DDEC VI (CPC) VEHICLE INTERFACE HARNESS