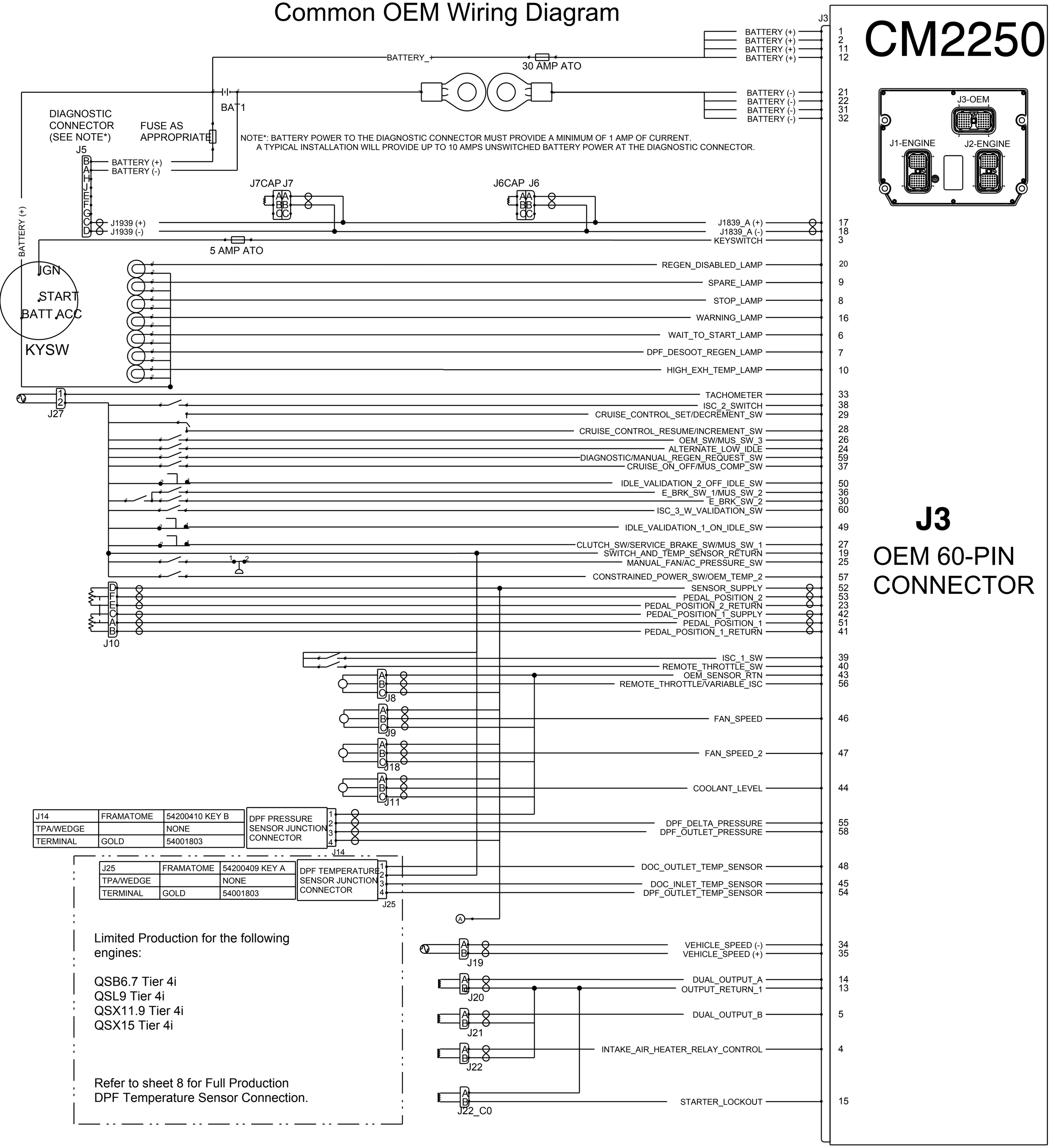
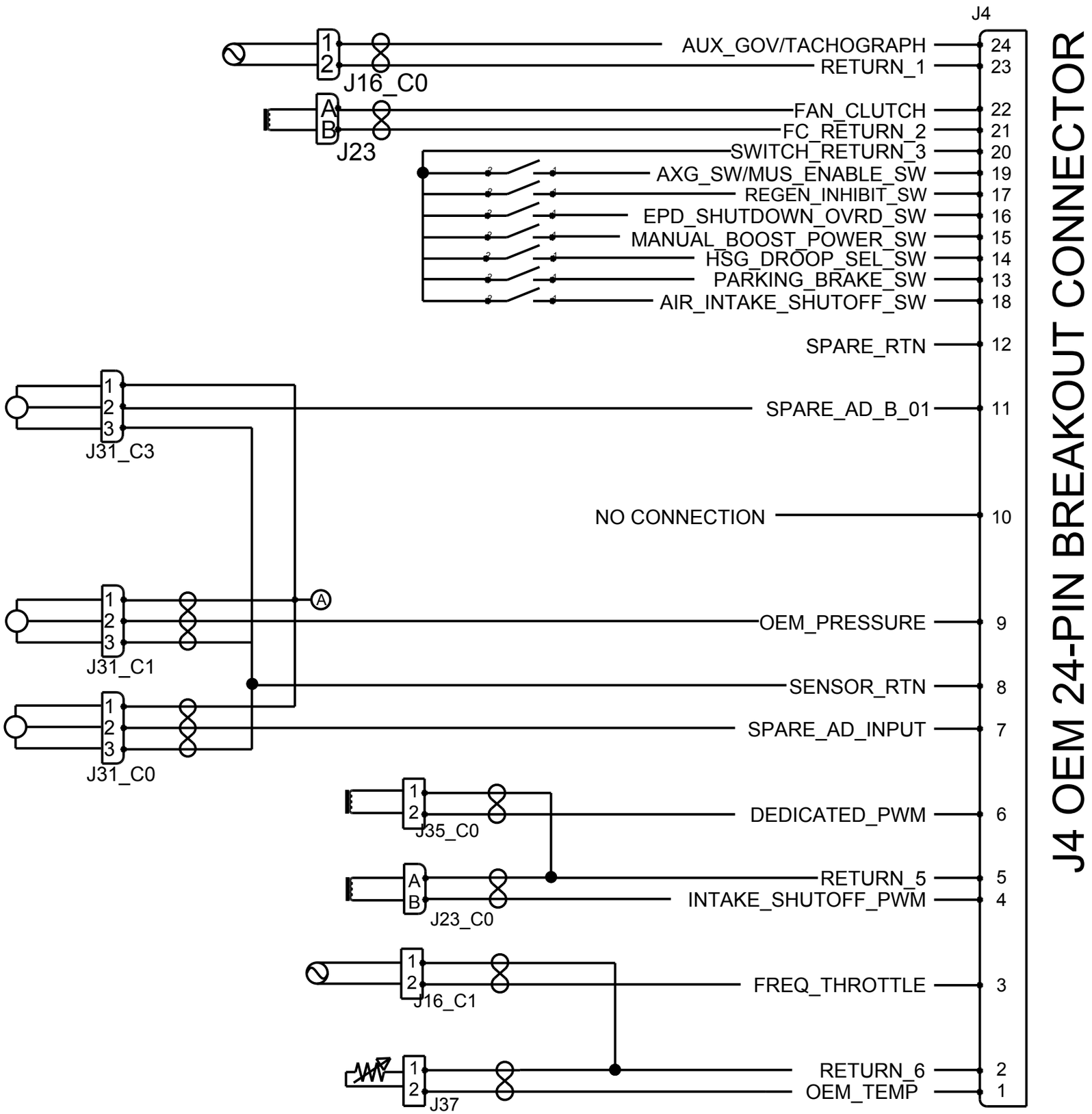
Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim
Common OEM Wiring Diagram

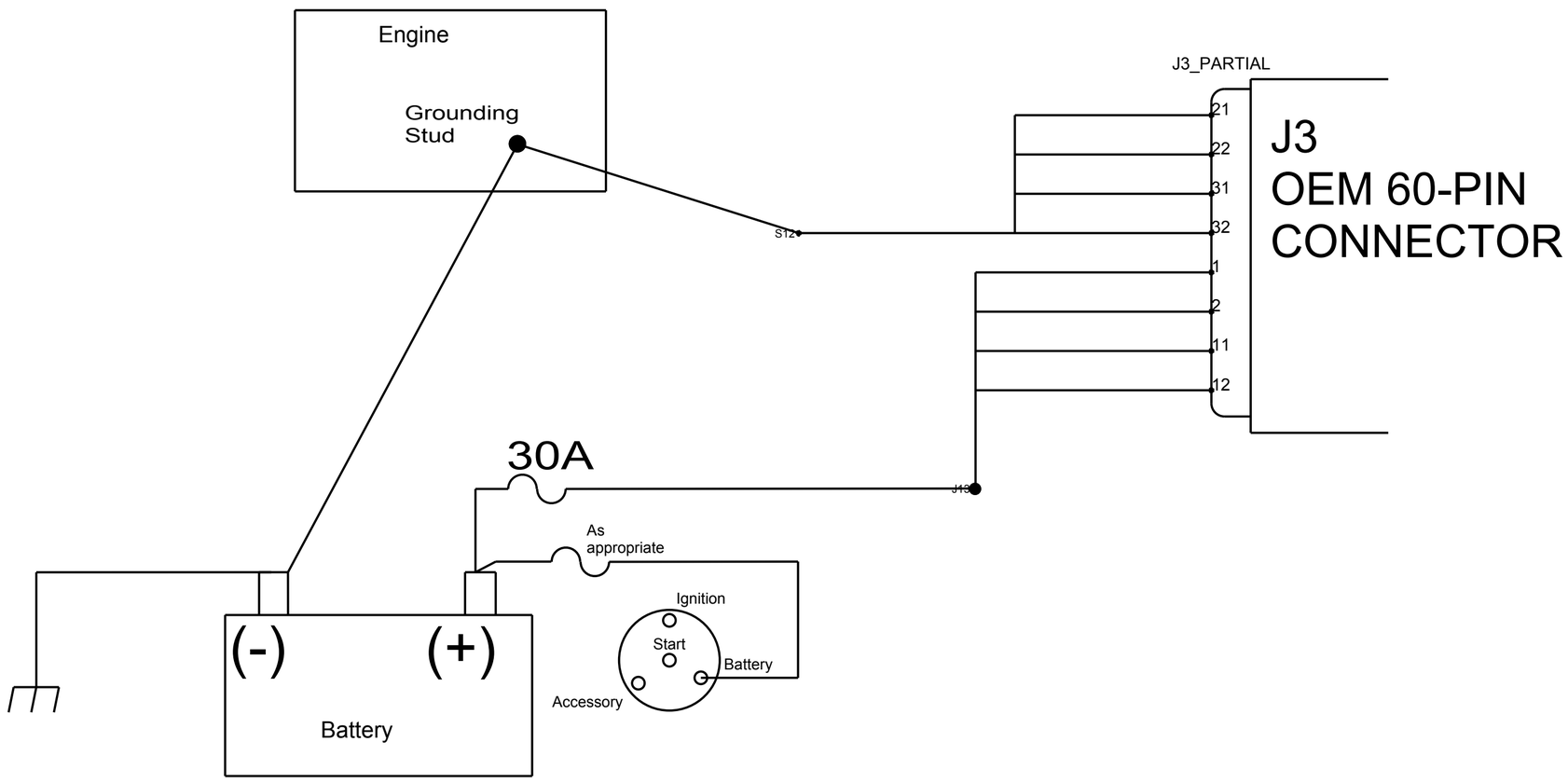


Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim Wiring Diagram Details



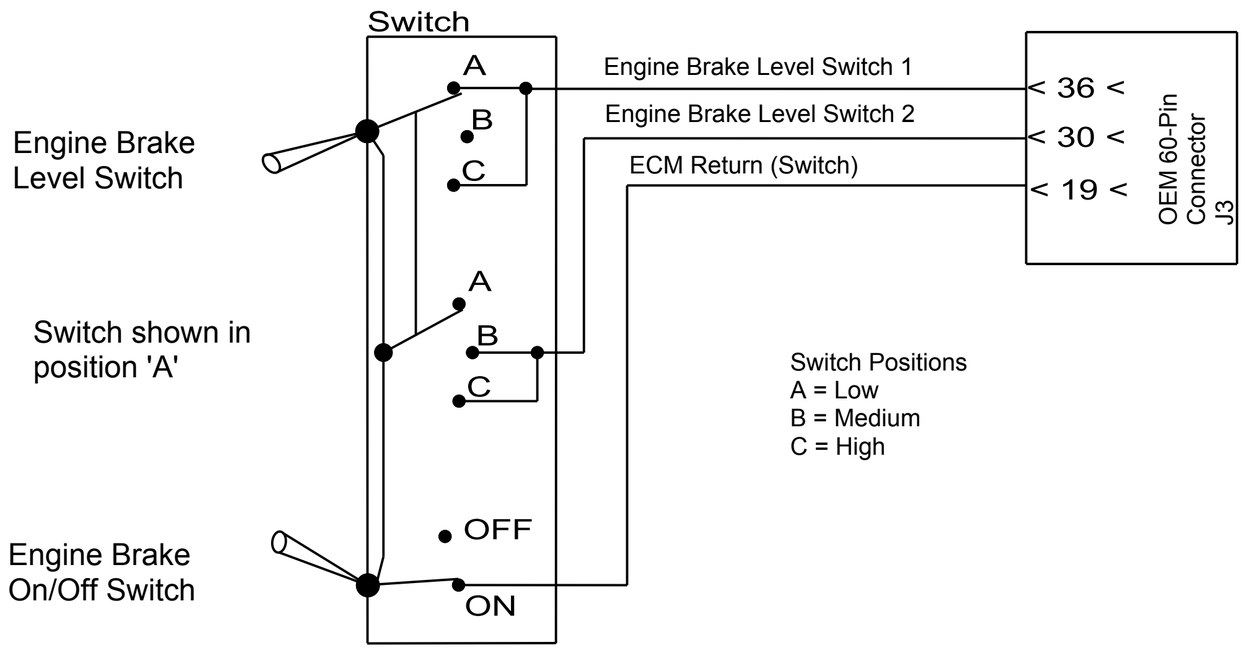
Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim Wiring Diagram Details

ECM Power Connections

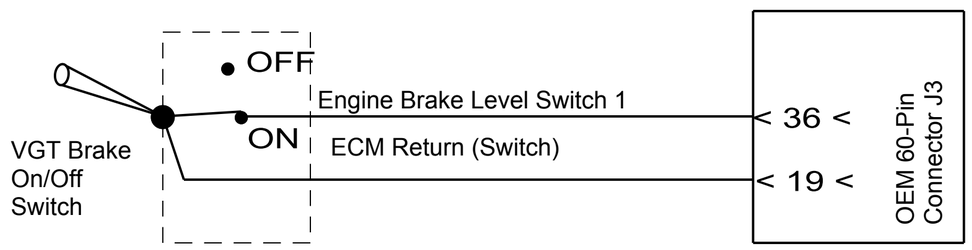


Engine Brake Selector Switches

3 Position Switch



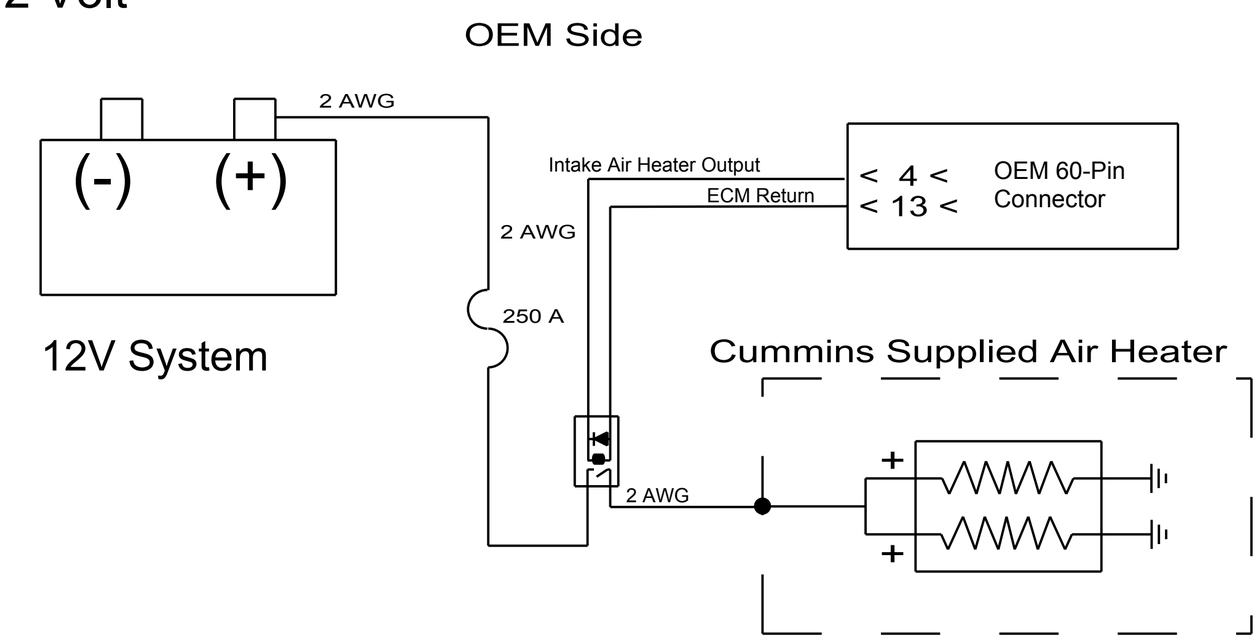
QSL9/QSX15 Tier 4 Interim with Compression Brakes (EB Option)



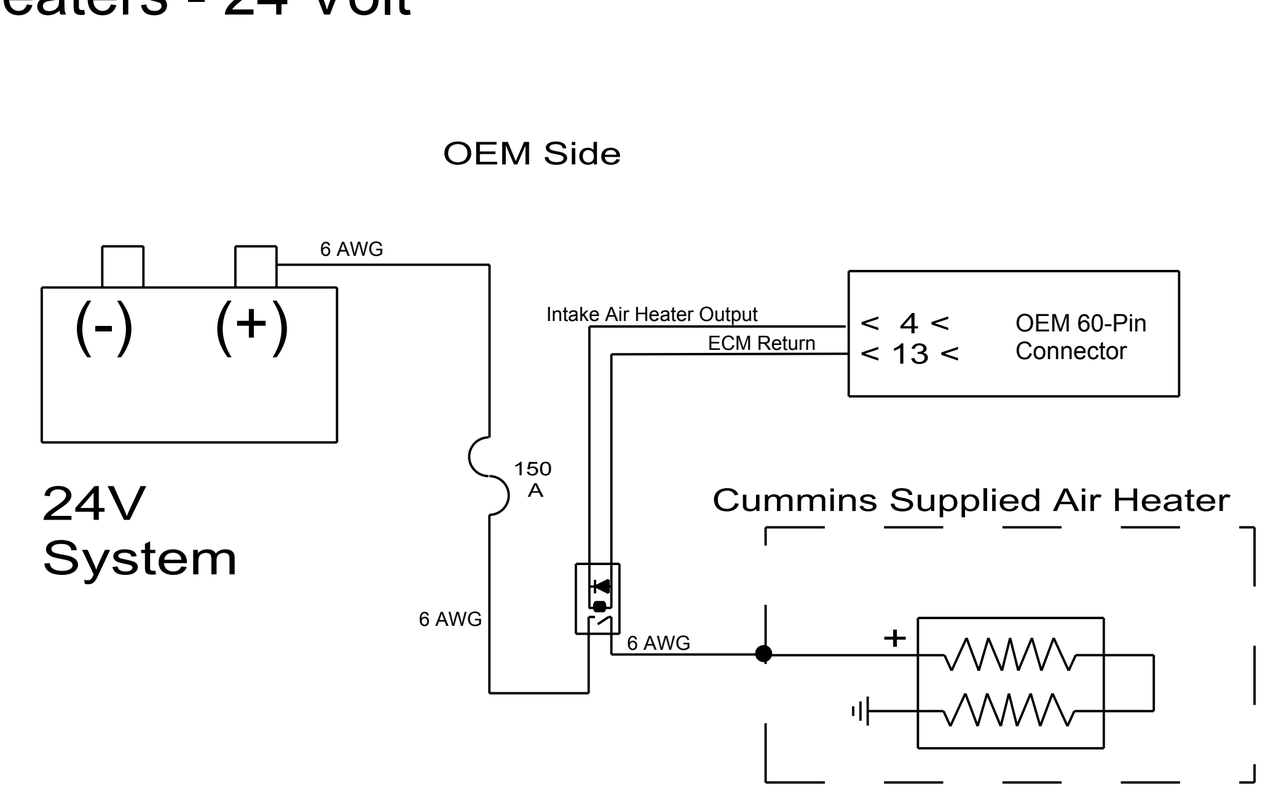
VGT Braking
QSB6.7/QSL9 Tier 4 Interim without Compression Brakes

Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim Wiring Diagram Details

Detail 'A' - Intake Air Heaters - 12 Volt



Detail 'B' - Intake Air Heaters - 24 Volt



OEM responsibility (assume 12V system is used):

1. Procure and install Heavy solenoid switch ("off engine" mount for environment durability) with following charateristics:
   - 12 VDC SPST (Ametek Prestolite switch SBJ-4201 works)
   - 200 amps steady state coninuous current rating
   - Break current 200 amps
   - 600 Amp In rush capability
   - Water resistant

2. Provide wiring capable of 200 continous amps from battery positive terminal to Heavy Duty solenoid battery (+) terminal and from heavy duty solenoid output to grid heater element input

3. Provide solenoid control wiring from the ECM OEM connector to the "off engine" mounted heavy solenoid switch.

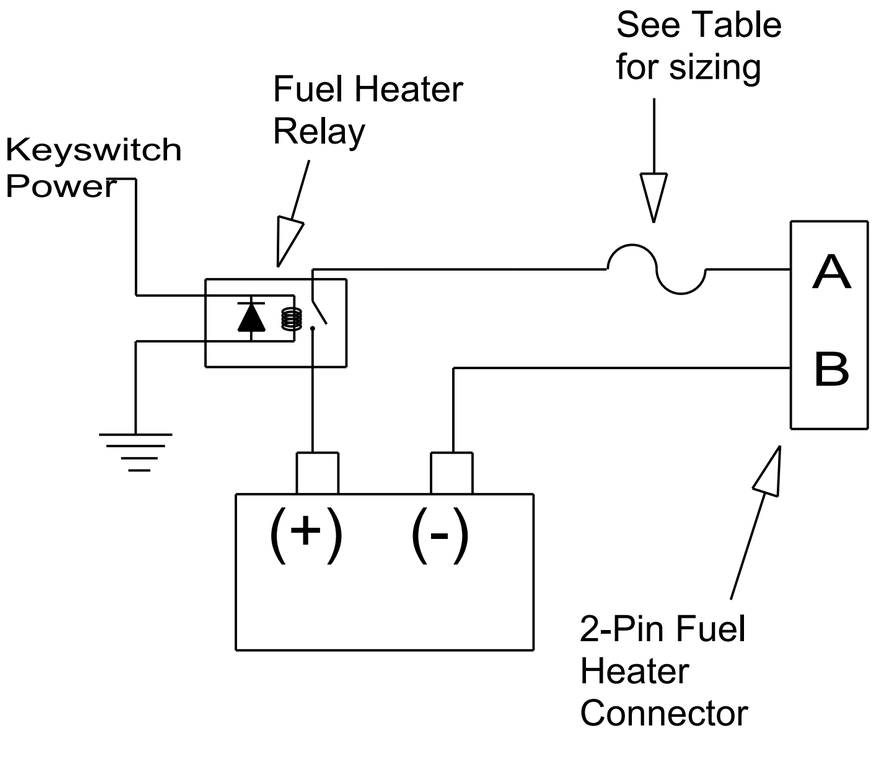
4. Note that grid heater current is returned to Battery negative via engine block ground. OEM is responsible for installation of engine block ground in vehicle installations.

Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim
Wiring Diagram Details

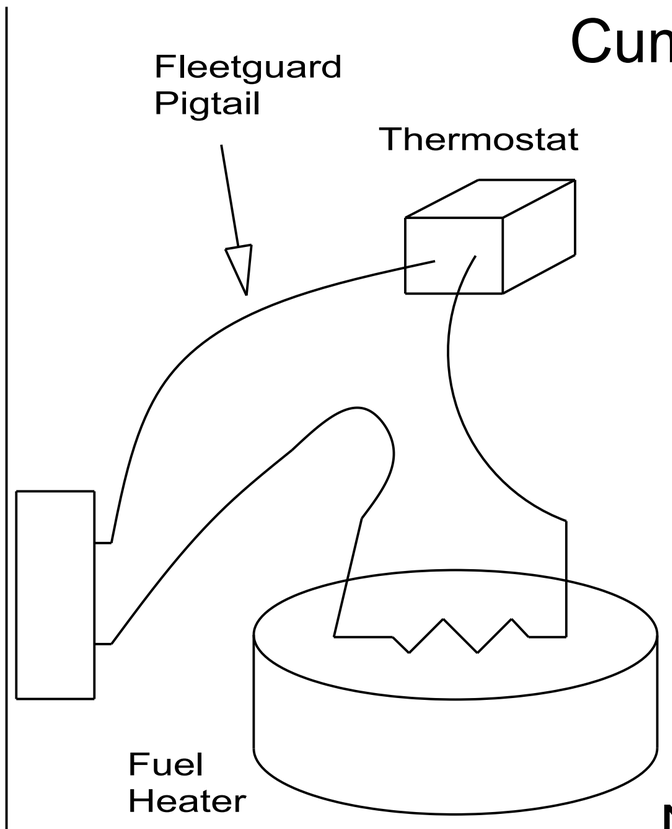
Detail 'C' - Fuel Heater Wiring

OEM Side

12 V Systems use 10 AWG,
24 V Systems use 12 AWG.



Cummins Side



Heater Current & Fuse Data

	12 V	24 V
Nominal Current	25 A	12.5 A
Fuse	50 A	30 A

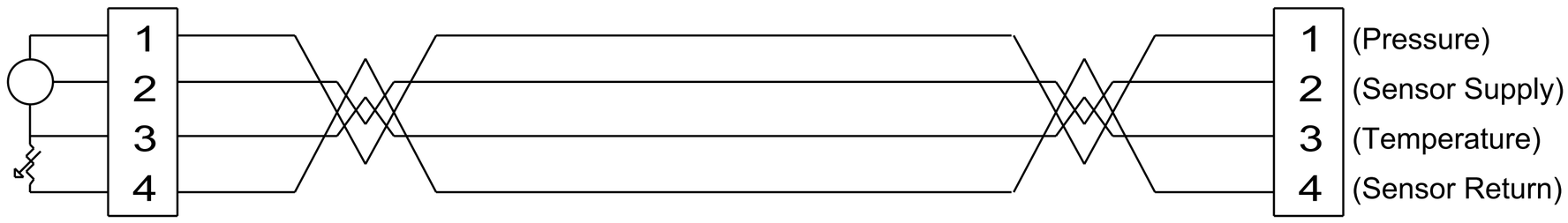
Notes

1. Thermostat opens at 18 +/- 4 Deg C (i.e. Heater OFF)
2. Thermostat closes at 1 +/- 3 Deg C (i.e. Heater ON)
3. OEM supplies mating connector (Packard Metri-Pack P/N 15300027)
4. 12V system only on ISB07 engine

Temperature Barometric Absolute Pressure Sensor (TBAP).
TBAP jumpers (WR options) are available for Tier 4 applications.

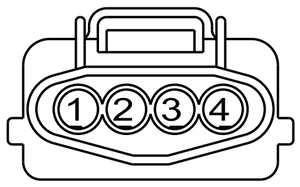
Use Sumitomo Connector 6098-0144 and wedge 6920-0081 with gold plated Yazaki terminals 7116-1530-08

Use Framatome Connector 54200415 with tin plated terminals 54001801



TBAP 4-Pin Connector is located on the hot side of the engine.

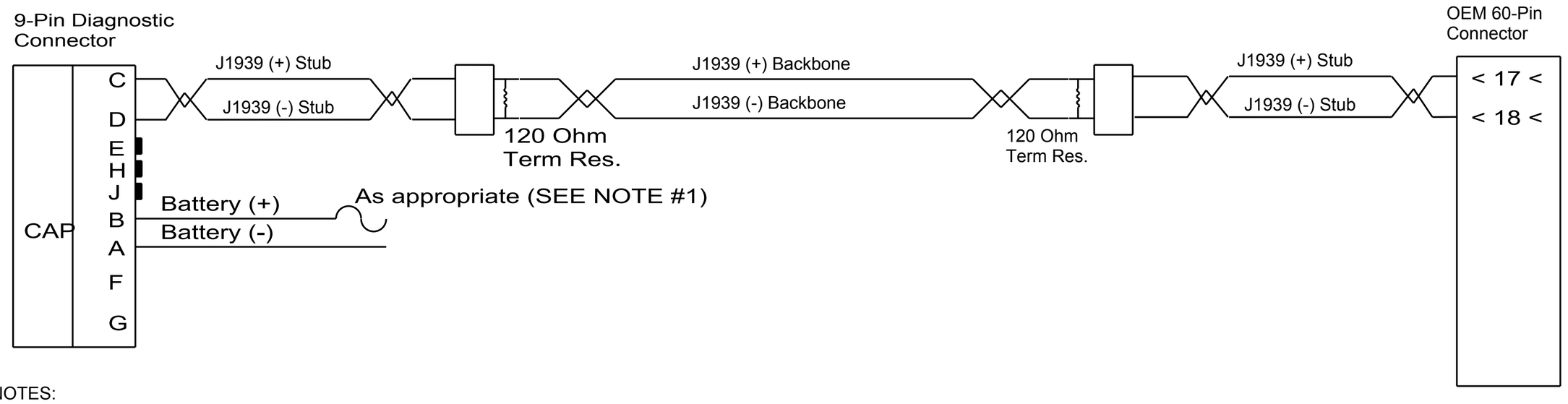
TBAP sensor to be installed in clean air stream near filter.



Sumitomo Connector 6098-0144 wire insertion view.

Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim Wiring Diagram Details

Datalink Connectors



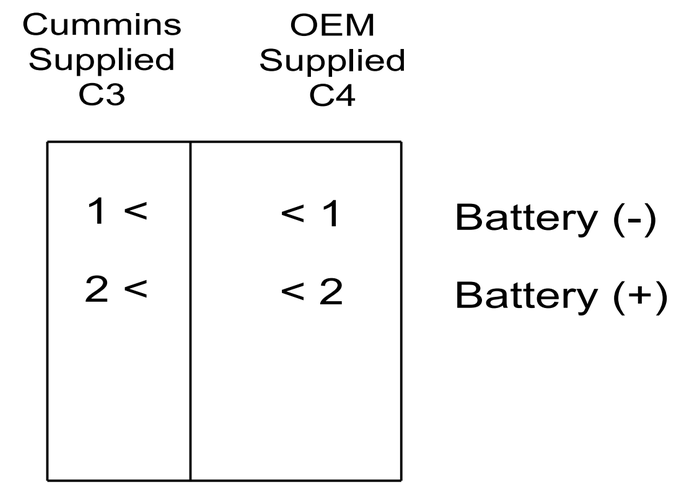
NOTES:
1. The Cummins Service Tool requires a minimum of 1 Amp. The fuse and wiring should be sized according to all devices that may be connected to the diagnostic connector.

2. The CM2250 ECM does not support J1587.

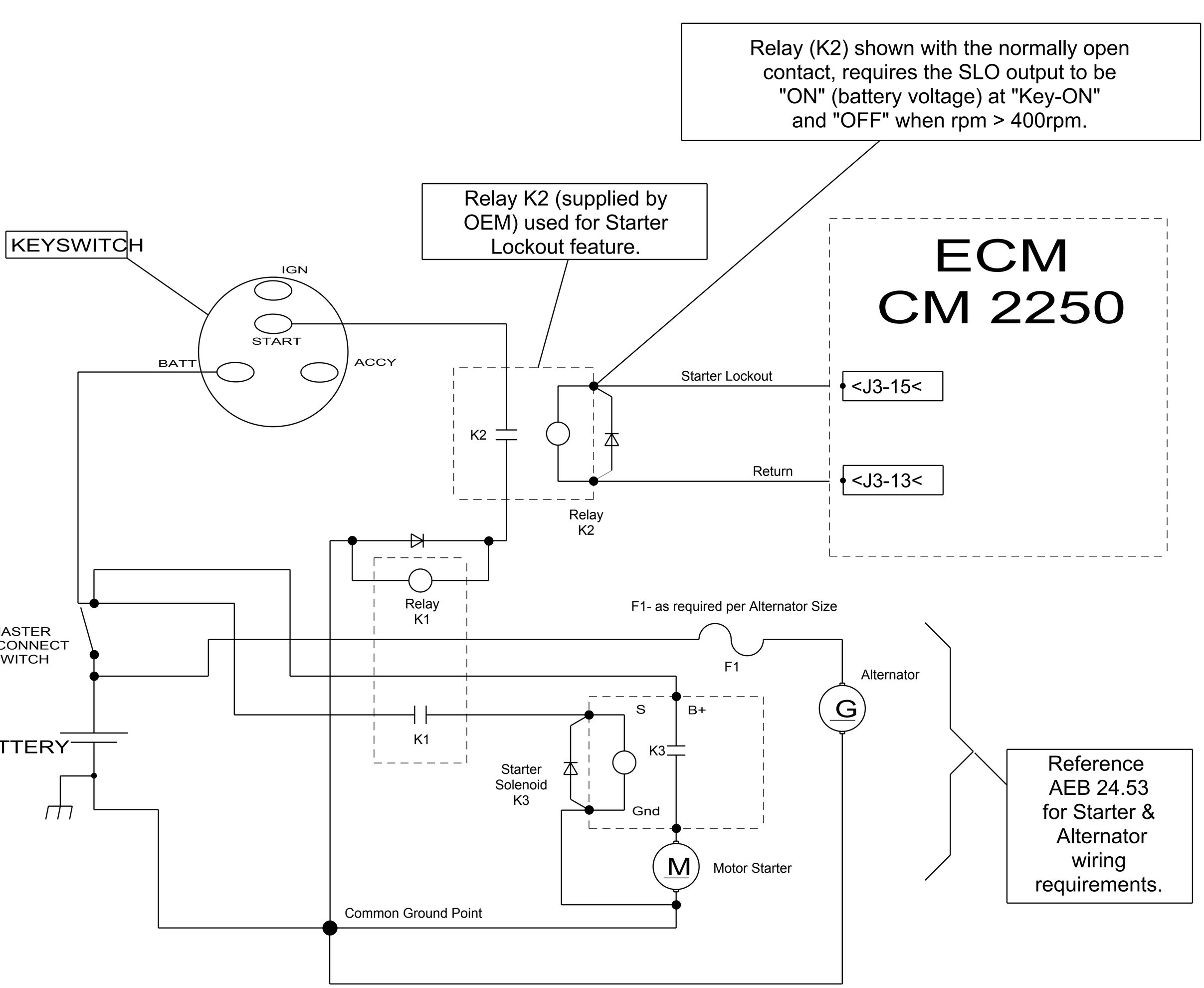
3. The CM2250 ECM does not provide a shield connection for the J1939 datalink. The ECM may be connected to a shielded datalink backbone as described in SAE Recommended Practice J1939-15.

QSX11.9 and QSX15 Tier 4 Interim Lift Pump Connections

C4	DEUTSCH	DT04-2P-E004
TPA/WEDGE		W2P
TERMINAL	GOLD	1060-14-0122



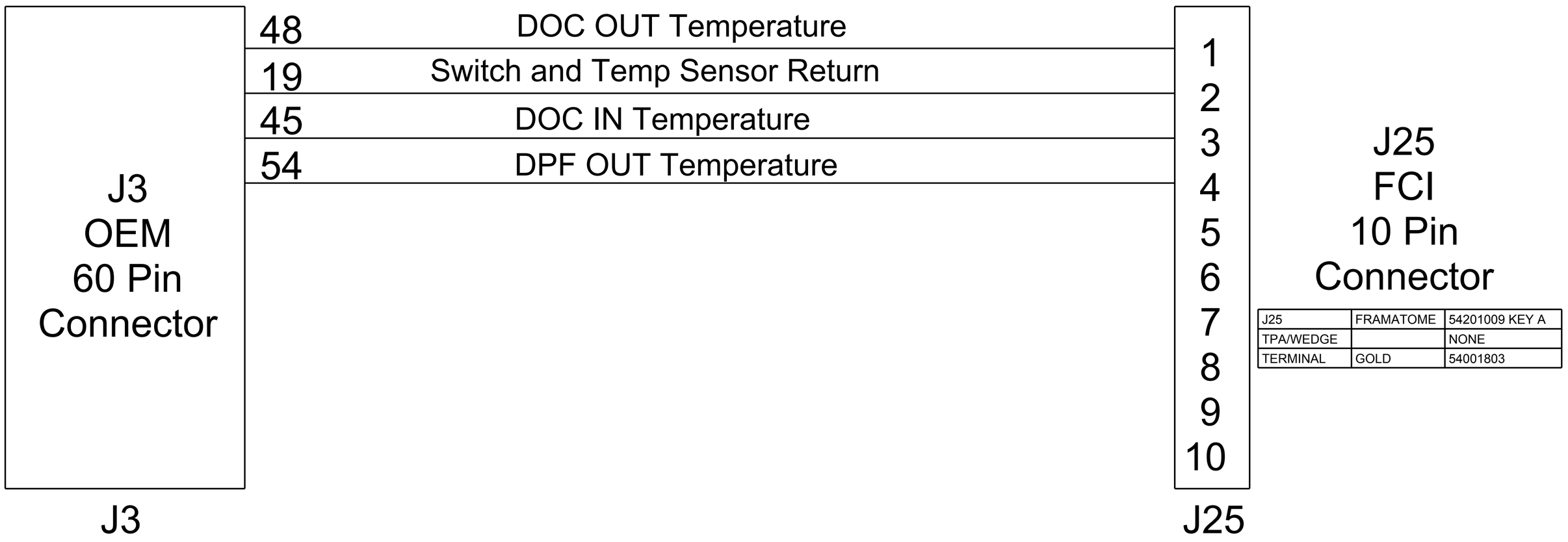
Starter Lockout Feature



Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim
Wiring Diagram Details

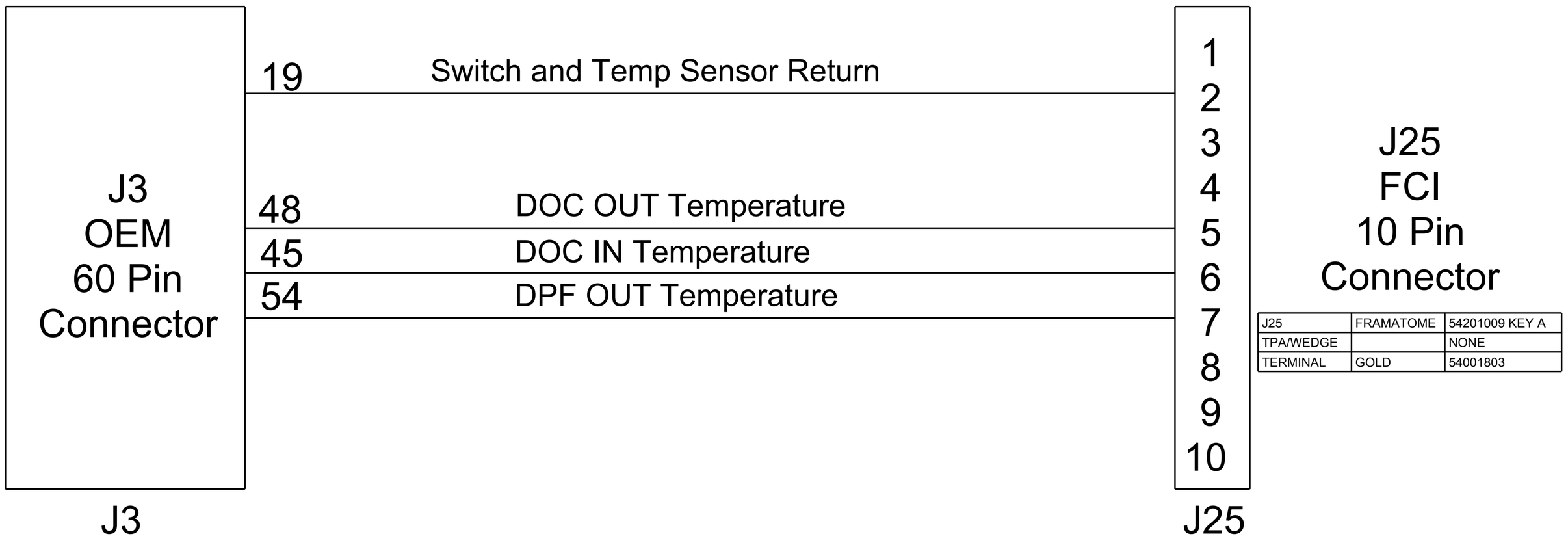
FULL PRODUCTION DPF TEMPERATURE SENSOR CONNECTION

QSB6.7 Tier 4i OEM Harness Aftertreatment Temperature Sensor Connection.



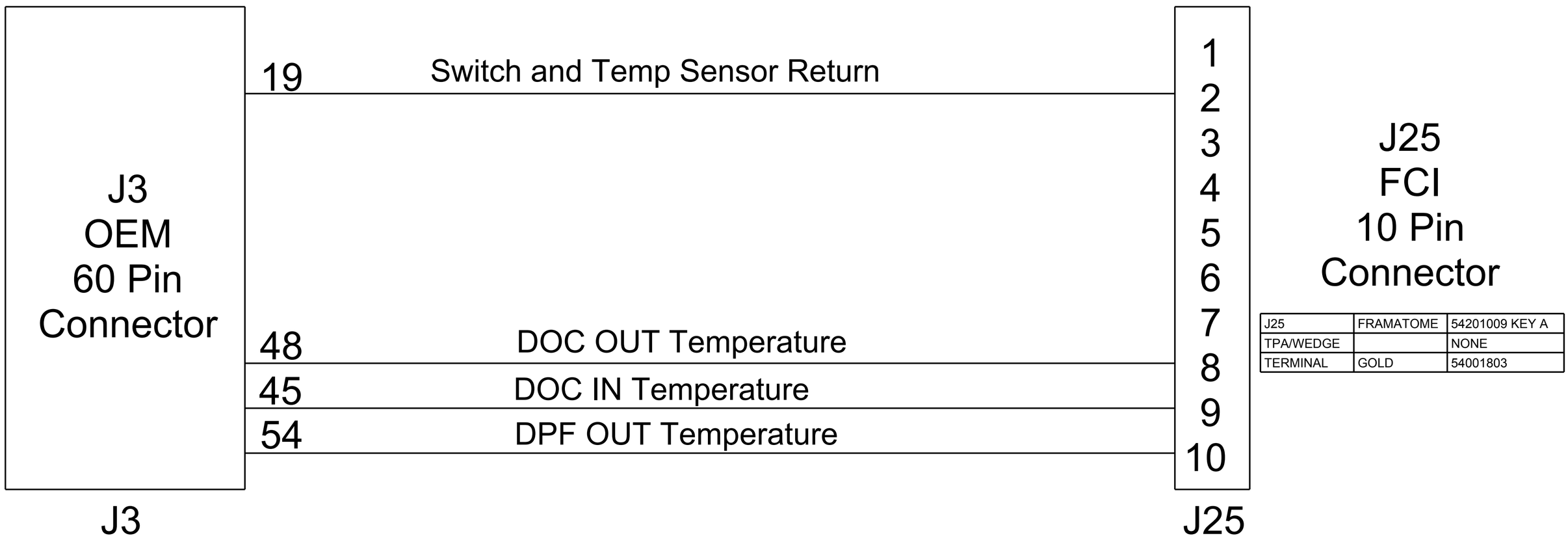
J25	FRAMATOME	54201009 KEY A
TPA/WEDGE		NONE
TERMINAL	GOLD	54001803

QSL9 Tier 4i OEM Harness Aftertreatment Temperature Sensor Connection.



J25	FRAMATOME	54201009 KEY A
TPA/WEDGE		NONE
TERMINAL	GOLD	54001803

QSX11.9/QSX15 Tier 4i OEM Harness Aftertreatment Temperature Sensor Connection.



J25	FRAMATOME	54201009 KEY A
TPA/WEDGE		NONE
TERMINAL	GOLD	54001803

Cummins QSB6.7/QSL9/QSX11.9/QSX15 Tier 4 Interim
Common OEM Wiring Diagram
Change Log

REV.	DATE	DESCRIPTION OF CHANGES
00	13MAR2008	INITIAL CREATION OF THE WIRING DIAGRAM
01	02SEP2008	OEM BREAKOUT HARNESS IS CALLED J4; ADDED REGEN_DISABLED_LAMP, PIN #20 ON J3; PINS ARE REARRANGED
		ON J4; FRAMATOME CONNECTOR 54200415 IS USED FOR TBAP SENSOR. TBAP 4-PIN CONNECTOR LOCATED ON
		THE HOT SIDE OF THE ENGINE.; DPF SENSOR CONNECTORS ARE RENAMED J14, J25
02	12MAY2009	REMOVED ALL REFERENCES TO THE QSC ENGINE ON ALL PAGES.
		UPDATED ALL REFERENCES TO THE QSL9 ENGINE ON ALL PAGES WAS QSL.
03	04AUG2009	SHEET 1, REMOVED BULKHEAD/PASS THROUGH CONNECTOR, MOVED PIN 20 ABOVE PIN 9 ON DIAGRAM, PIN 14
		DESCRIPTION DUAL_OUTPUT_A WAS STARTER_LOCKOUT/DUAL_OUTPUT_A, PIN 15 DESCRIPTION STARTER_LOCKOUT
		WAS SPARE_PWM, PIN 57 DESCRIPTION LIMITED_POWER_SW WAS ALT_TORQUE_SW, J3 CONNECTOR PINS 6, 9,
		24,38, 39,40, 51, 53, 56, J2 CONNECTOR PINS 4, 11, 16 REMOVED ALL (PG_) REFERENCES TO POWER
		GENERATION ENGINES. SHEET 2, PIN 18 WAS PIN 7, DESCRIPTION SPARE_AD_INPUT WAS
		SPARE_AD_A(PRESSURE), PIN 7 WAS PIN 18 DESCRIPTION AIR_INTAKE_SHUTOFF_SW WAS
		EMERGENCY_AIR_INTAKE_SHUTOFF_SW
04	05MAR2010	SHEET 1, Connected PIN 15 to OUTPUT_RETURN was unattached; Removed Connection B, added J22_C0
		connector; Page 2: Removed Lamp and Connector B for Pin J4-12, Removed Connector J31_C2 and
		connection to J4-10, Renumbered pins J4-18 was J4-7; J4-7 was J4-18. Page 3, Engine Brake
		Selector Switches Diagram: 3 Postition Switch QSL9/QSX15 Tier 4 Interim with Compression Brakes
		(EB Option) was QSL9 ONLY ...; VGT Braking QSB6.7/QSL9 Tier 4 Interim without Compression Brakes
		removed (Not available for Alpha build); Page 4: Detail 'B' - Intake Air Heaters - 24 Volt
		diagram: 150 A fuse was 125 A; Added new Sheet 7 to show Starter Lockout Feature Diagram,
		Renumbered Sheet 8 was Sheet 7, Added QSX15 to Title on all sheets
05	13SEP2010	SHEET 1, Added phantom box around J25 DPF TEMPERATURE SENSOR and included Limited Production
		for following engines: ...refer to sheet 8 for Full production... Updated J14 connector info.
		54200410 KEY B was 54200410. Updated J25 connector info. 54200409 KEY A was 54200409.
		SHEET 1, J3-57 name change CONSTRAINED_POWER_SW/OEM_TEMP_2 was LIMITED_POWER_SW/OEM_TEMP_2
		Added New SHEET 8 with Full Production DPF Temp Sensor Connection Diagrams; sheet 9 was sheet 8.
06	01NOV2010	SHEET 1, Pin 50, modified switch type Pushbutton was SPST. SHEET 3, Updated ECM Power
		Connections schematic. SHEET 7, Updated Starter Lockout feature schematic.
07	10AUG2011	SHEET 8, J25 FCI 10 pin connector part number 54201009 KEY A was 54200409 KEY A; SHEET 4,
		Updated 12V & 24V Intake Air Heater Schematics, Cummins Supplied Air Heater was Cummins' Side
		SHEET 6, Added QSX11.9 and QSX15 Tier 4 Interim Lift Pump Connections Schematic
08	01MAY2012	SHEET 1, TOP LEFT FUSE, AS APPROPRIATE WAS 10 AMP ATO; ADDED DIAGNOSTIC CONNECTOR (SEE NOTE*)
		TO J5 CONNECTOR; ADDED NOTE*: BATTERY POWER TO THE DIAGNOSTIC CONNECTOR MUST PROVIDE A MINIMUM
		OF 1 AMP OF CURRENT. A TYPICAL INSTALLATION WILL PROVIDE UP TO 10 AMPS UNSWITCHED BATTERY POWER
		AT THE DIAGNOSTIC CONNECTOR.
09	22APR2014	SHEET 6, QSX11.9 and QSX15 Tier 4 Interim Lift Pump Connections Schematic Changes: Pin 1,
		Battery (-) was Battery (+); Pin 2, Battery (+) was Battery (-).