

Component Identifiers (CID)*	
Engine Control Module	
CID	Component
0001	Cylinder #1 Injector
0002	Cylinder #2 Injector
0003	Cylinder #3 Injector
0004	Cylinder #4 Injector
0005	Cylinder #5 Injector
0006	Cylinder #6 Injector
0041	8 Volt DC Supply
0091	Throttle Position Sensor
0100	Engine Oil Pressure Sensor
0110	Engine Coolant Temperature Sensor
0168	Electrical System Voltage
0172	Intake Manifold Air Temperature Sensor
0174	Fuel Temperature Sensor
0190	Engine speed Sensor
0247	SAC J1939 Data Link
0248	Perkins Data Link
0253	Personality Module
0254	Electronic Control Module
0261	Engine Timing
0262	S Volt Sensor DC Power Supply
0268	Programmed Parameter Fault
0273	Turbocharger Outlet Pressure Sensor
0274	Atmospheric Pressure Sensor
0342	Secondary Engine Speed Sensor
0796	Sensor Test
1690	Throttle #2 Position Sensor

Failure Mode Identifiers (FMI)*	
FMI No.	Failure Description
2	Erratic, intermittent, or incorrect
3	Voltage above normal
4	Voltage below normal
8	Abnormal frequency, pulse width, or period
9	Abnormal update rate
11	Other failure mode
12	Failure
13	Calibration required

\*The FMI is a diagnostic code that indicates what type of failure has occurred.

Event Codes	
Event Code	Condition
E085	Engine Shutdown Override
E162	High Boost Pressure
E255	Diagnostic Reset
E360	Low Engine Oil Pressure
E361	High Engine Coolant Temperature
E362	Engine Overspeed
E363	High Fuel Supply Temperature
E368	High Inlet Air Temperature

\*The CID is a diagnostic code that indicates which circuit is faulty.

Related Electrical Service Manuals	
Title	Form Number
Troubleshooting: 2506-15 Industrial Engines	KENR 6224-00
Systems operation/Testing and Adjusting	KENR 6231-00



KENR6233-00  
August 2006

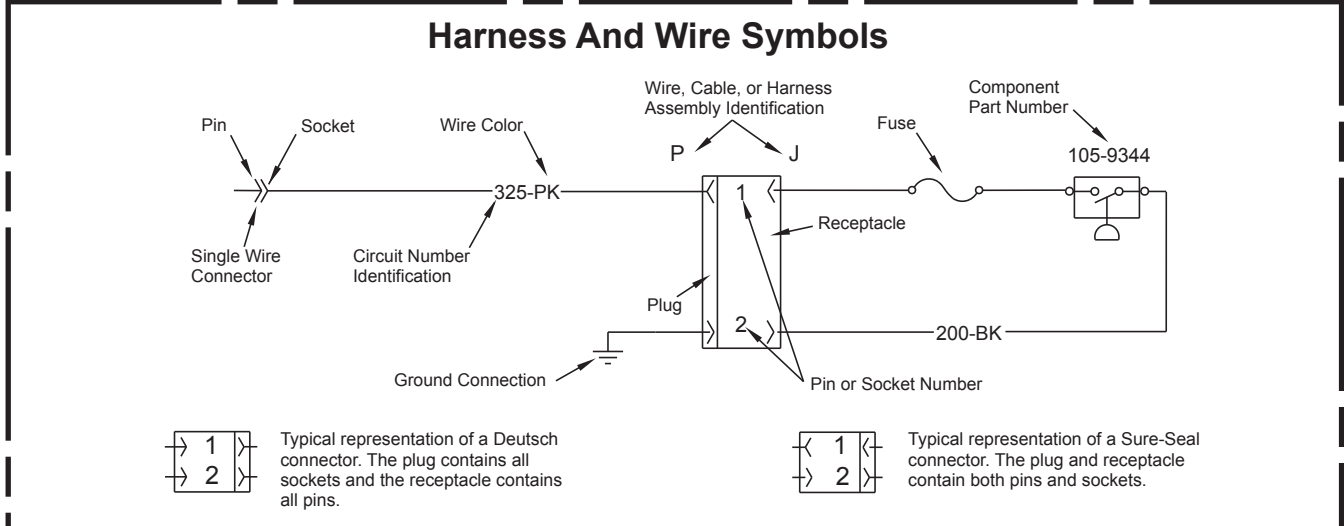
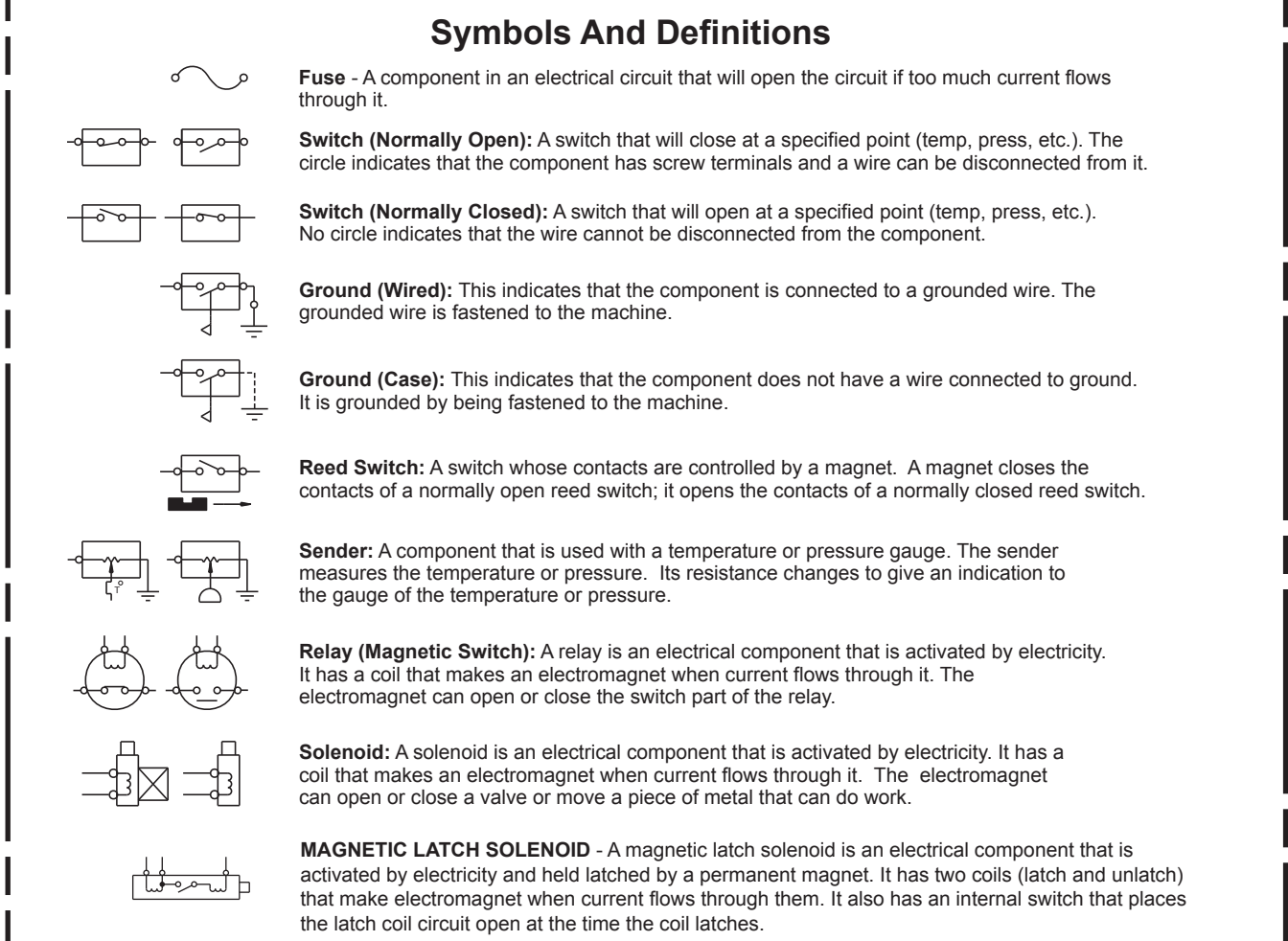
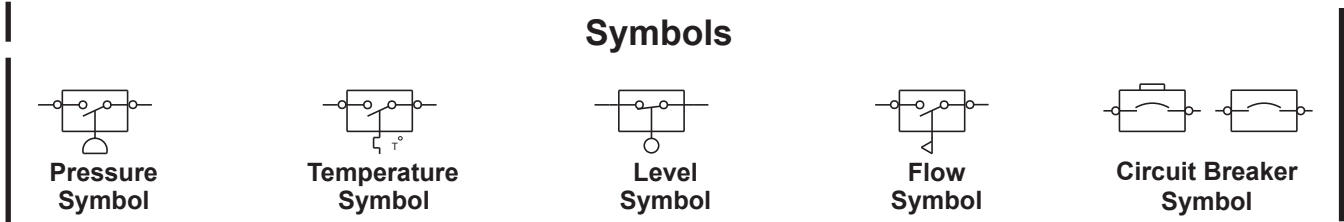
# Schematic

## 2506-15 Industrial Engine Electrical System

MGA  
MGB  
MGD

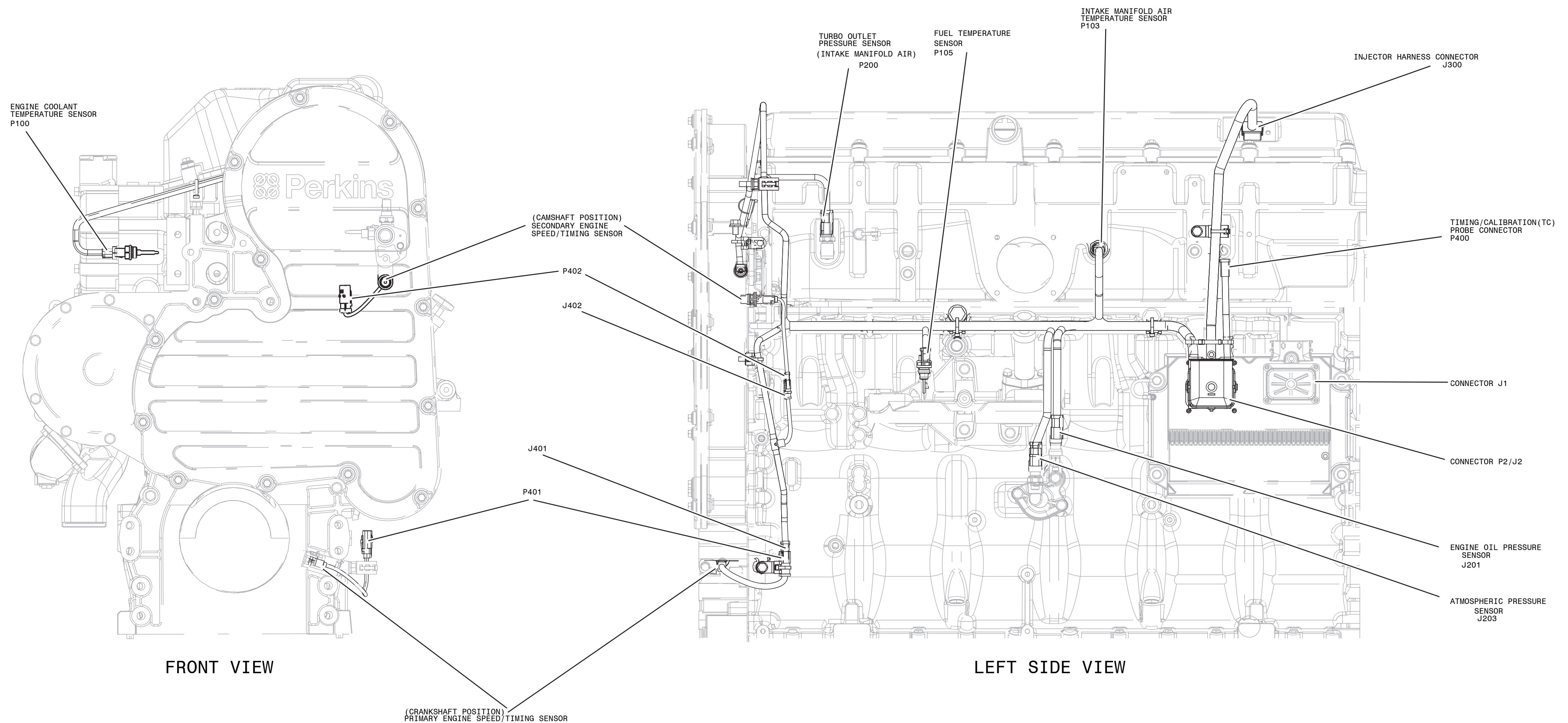
Volume 1

### Electrical Schematic Symbols And Definitions

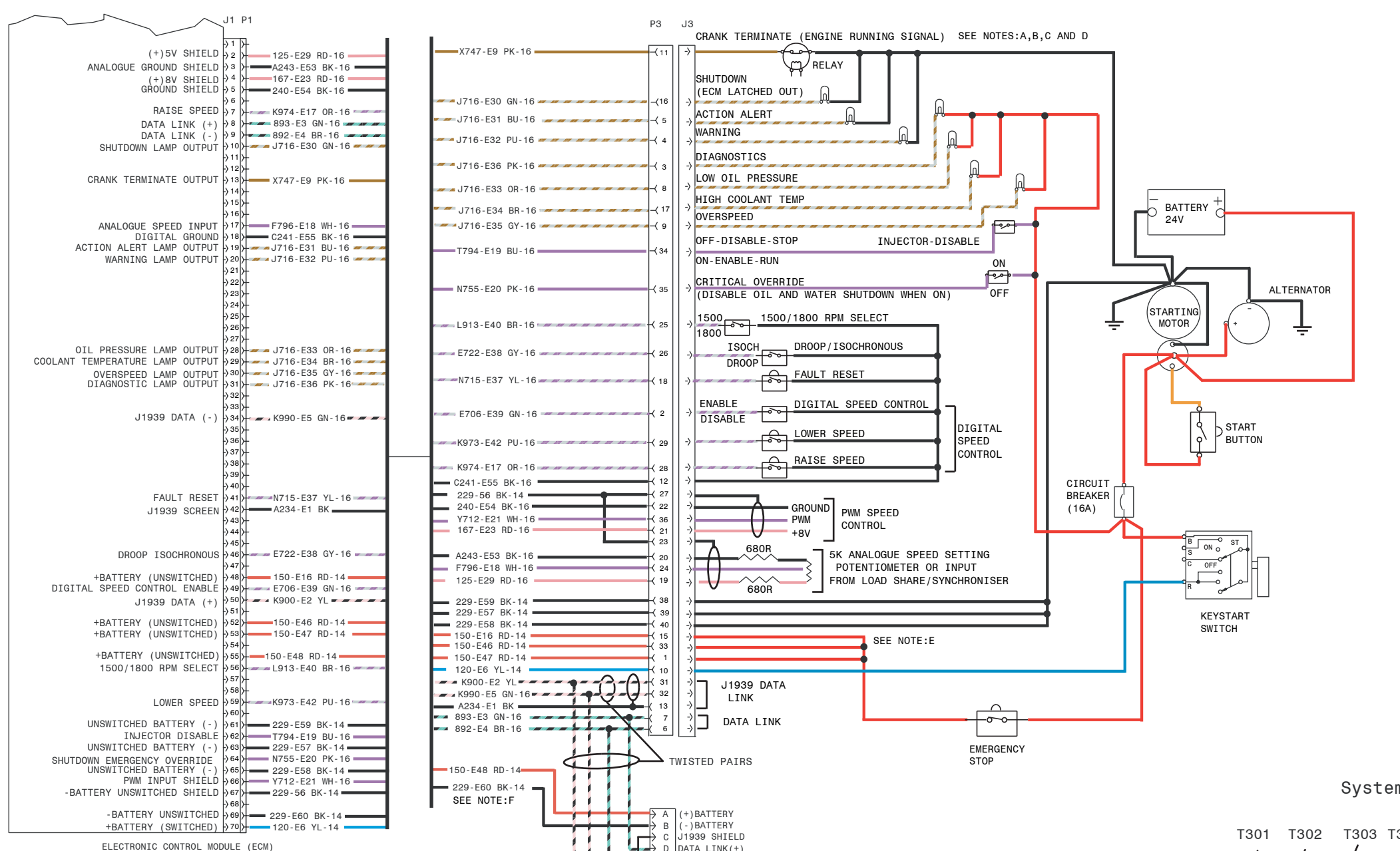


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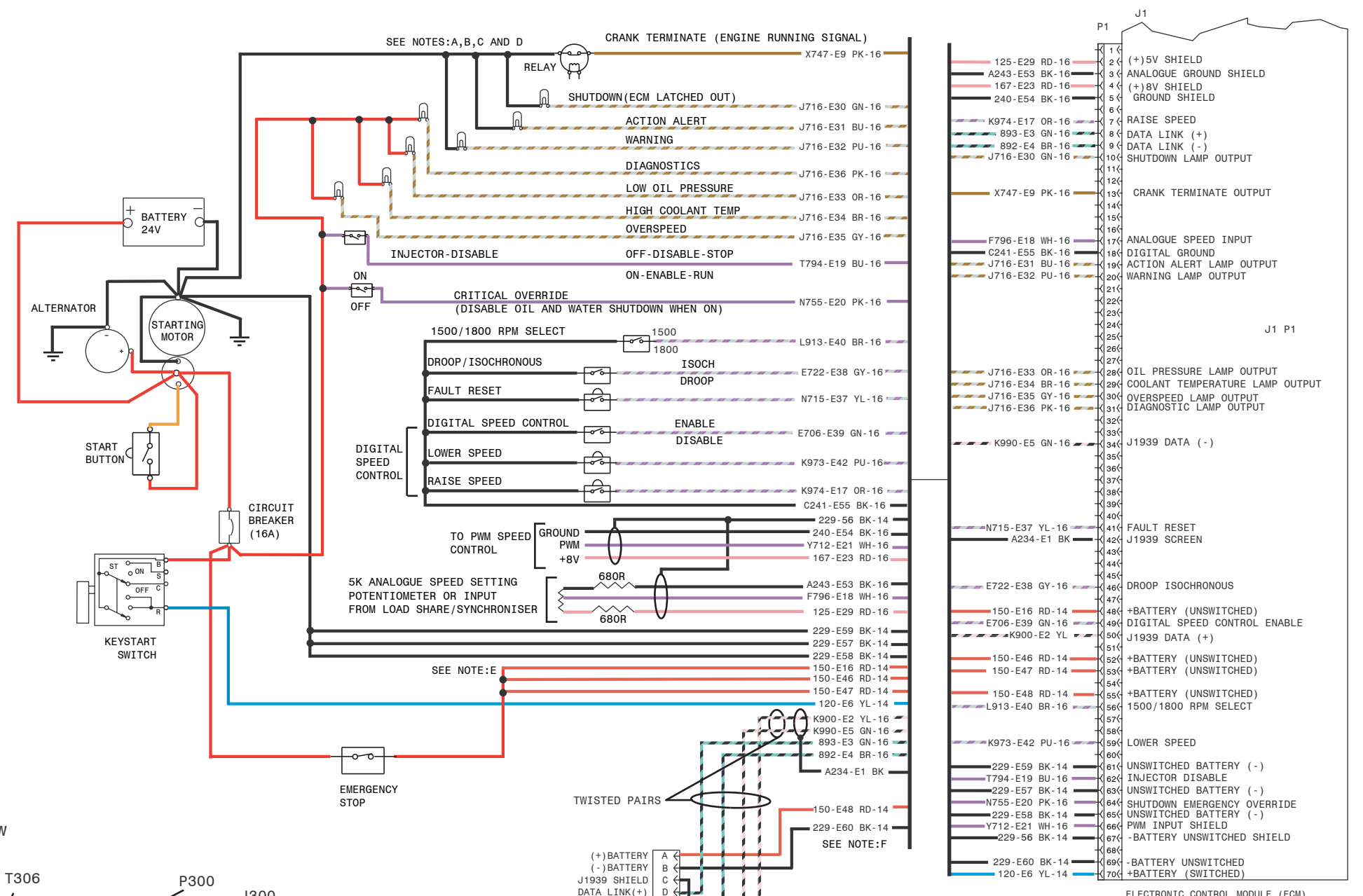
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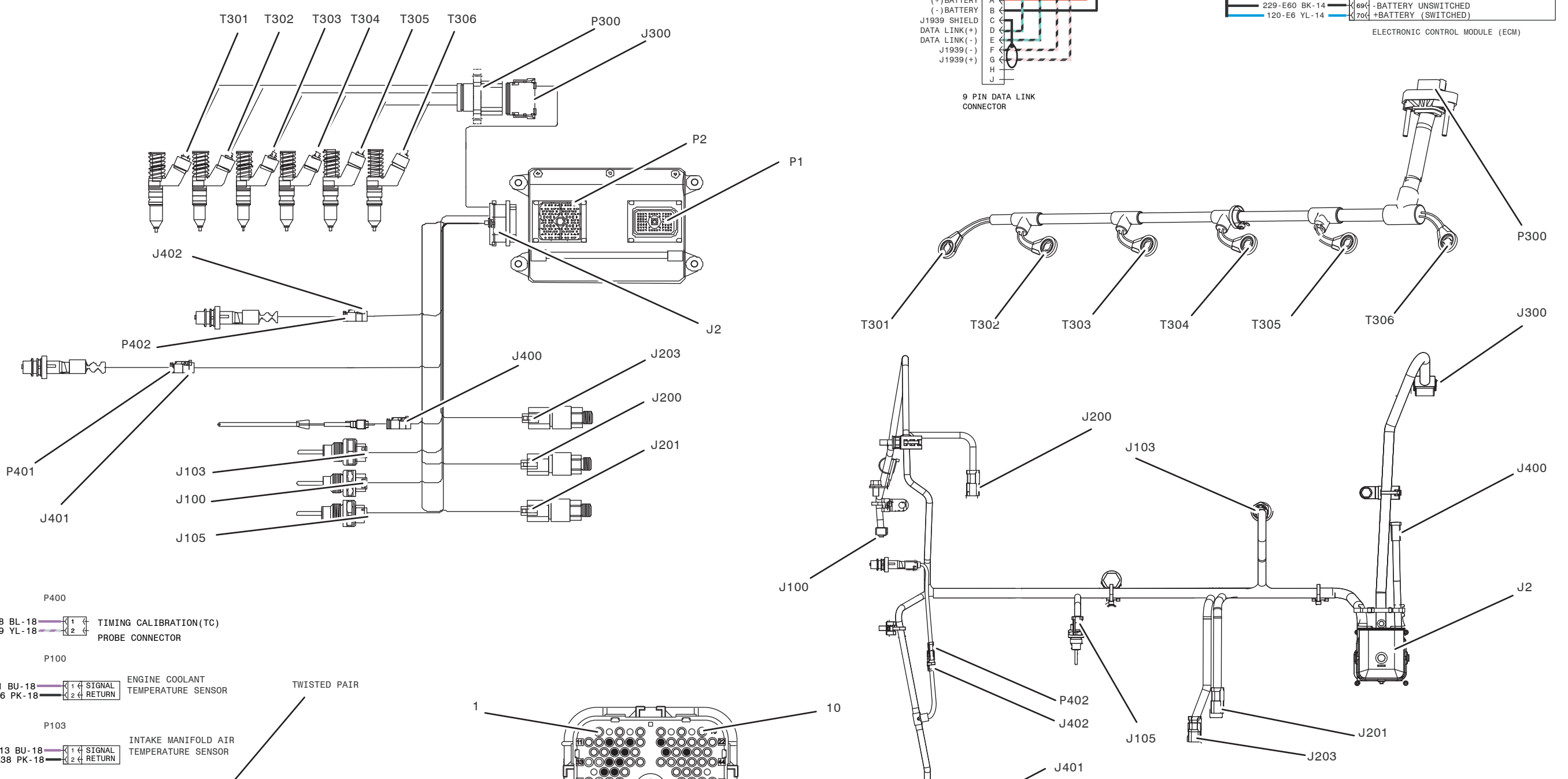
MACHINE HARNESS WITH CUSTOMER INTERFACE CONNECTION



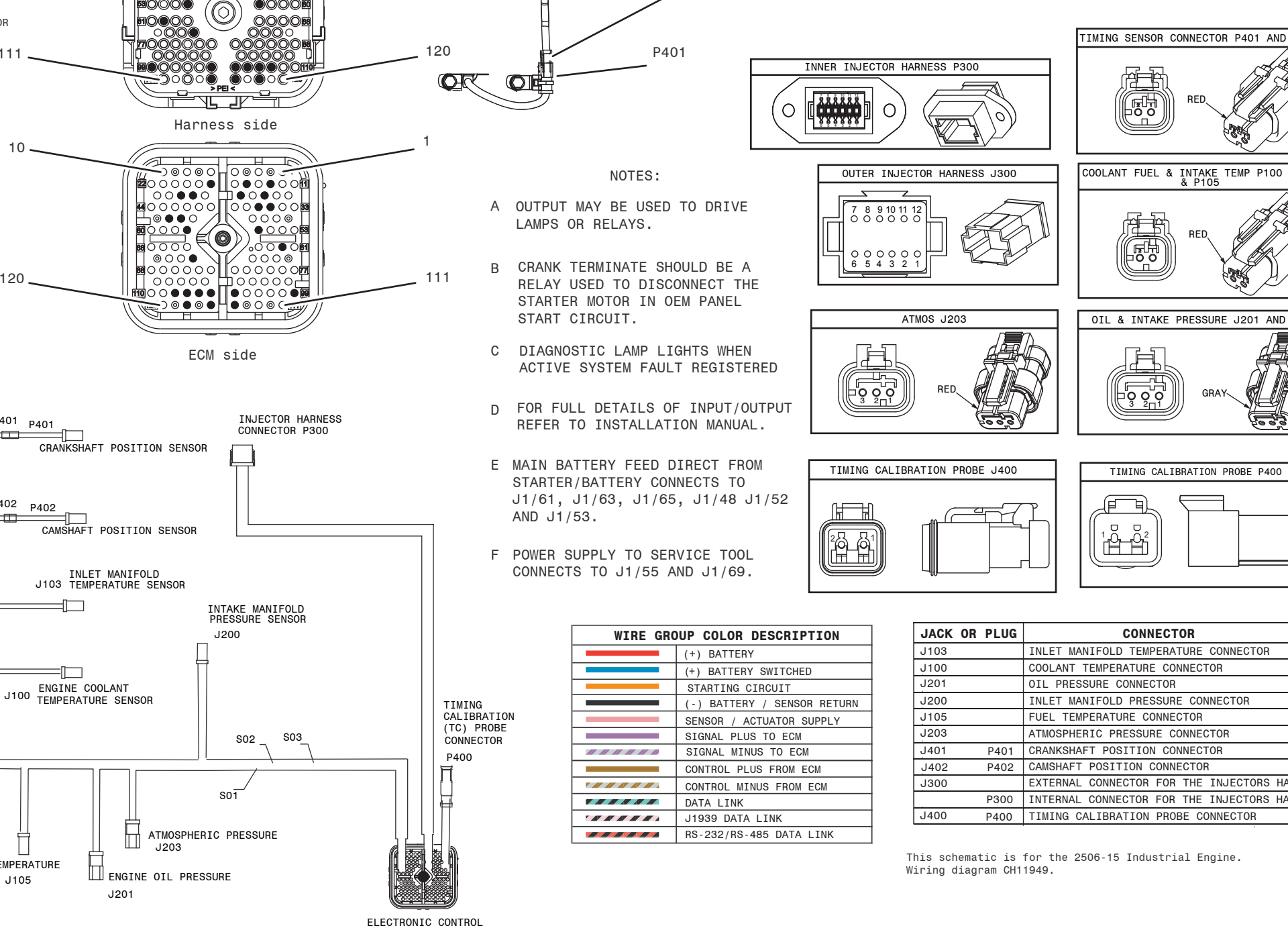
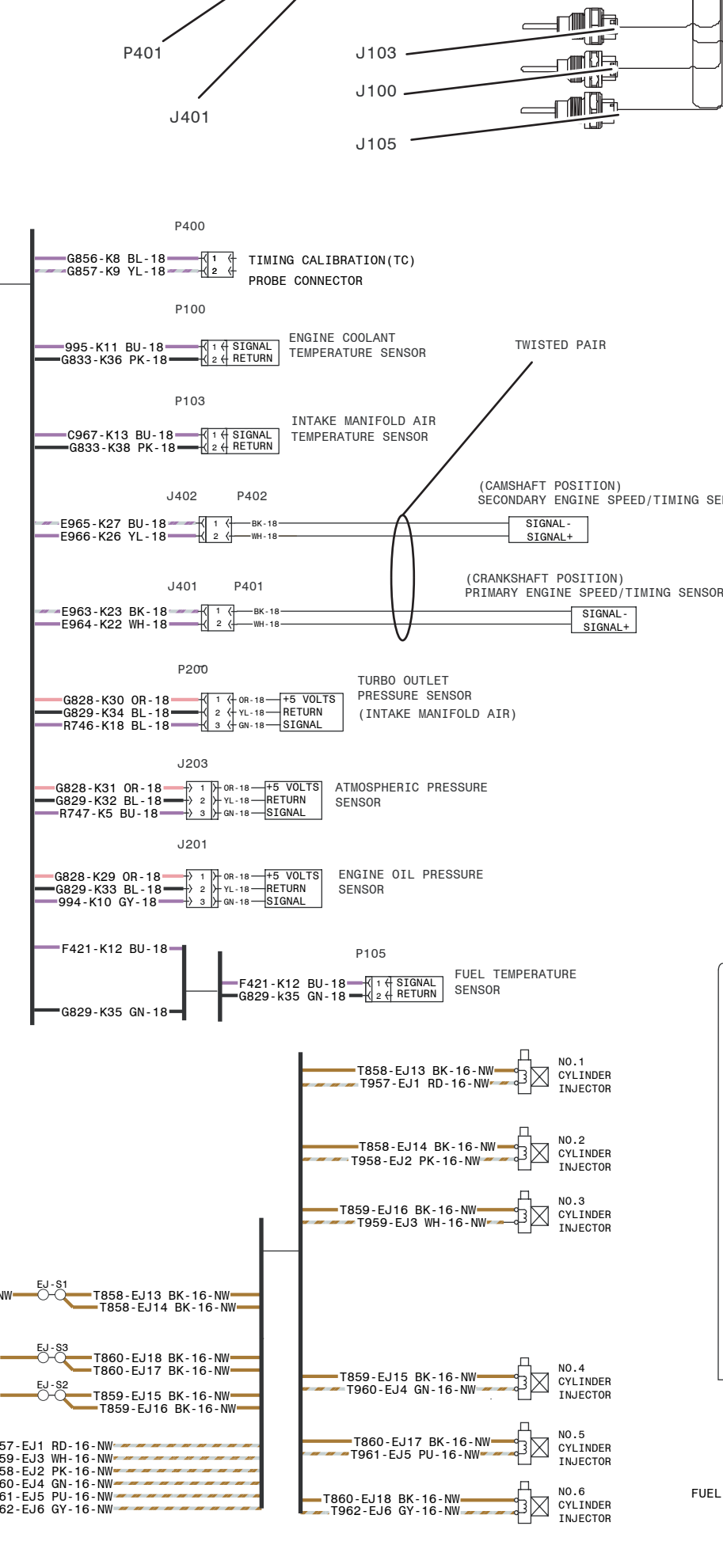
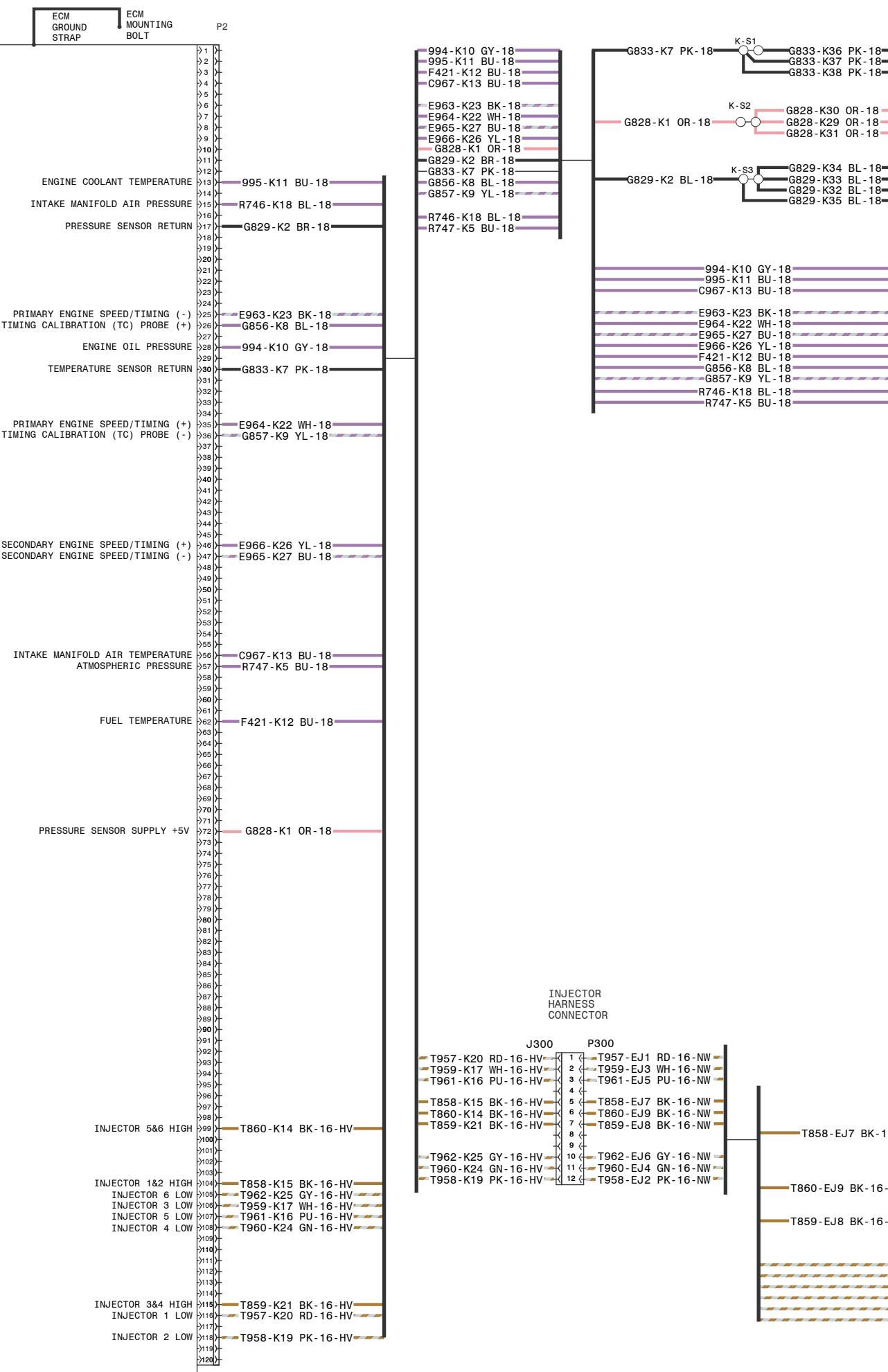
MACHINE HARNESS WITHOUT CUSTOMER INTERFACE CONNECTION



System overview



ECM CONNECTION	P3 CONNECTION	ECM CONNECTION	P3 CONNECTION
13	CONNECTS TO 11	66	CONNECTS TO 36
10	16	4	21
19	5	3	29
20	4	17	27
31	3	2	24
28	8	61	19
29	17	63	38
30	9	65	39
62	34	48	40
64	35	52	15
56	25	53	33
46	26	70	1
41	18	50	10
48	2	34	31
59	29	42	32
7	28	8	7
18	12	9	6
67	27	55	A
5	22	69	B



- NOTES:
- A OUTPUT MAY BE USED TO DRIVE LAMPS OR RELAYS.
  - B CRANK TERMINATE SHOULD BE A RELAY USED TO DISCONNECT THE STARTER MOTOR IN OEM PANEL START CIRCUIT.
  - C DIAGNOSTIC LAMP LIGHTS WHEN ACTIVE SYSTEM FAULT REGISTERED
  - D FOR FULL DETAILS OF INPUT/OUTPUT REFER TO INSTALLATION MANUAL.
  - E MAIN BATTERY FEED DIRECT FROM STARTER/BATTERY CONNECTS TO J1/61, J1/63, J1/65, J1/48 J1/52 AND J1/53.
  - F POWER SUPPLY TO SERVICE TOOL CONNECTS TO J1/55 AND J1/69.

WIRE GROUP COLOR DESCRIPTION	JACK OR PLUG	CONNECTOR
(+) BATTERY	J103	INLET MANIFOLD TEMPERATURE CONNECTOR
(+) BATTERY SWITCHED	J100	COOLANT TEMPERATURE CONNECTOR
(-) BATTERY / SENSOR RETURN	J201	OIL PRESSURE CONNECTOR
SENSOR / ACTUATOR SUPPLY	J200	INLET MANIFOLD PRESSURE CONNECTOR
SIGNAL PLUS TO ECM	J105	FUEL TEMPERATURE CONNECTOR
SIGNAL MINUS TO ECM	J203	ATMOSPHERIC PRESSURE CONNECTOR
CONTROL PLUS FROM ECM	J401	CRANKSHAFT POSITION CONNECTOR
CONTROL MINUS FROM ECM	J402	CRANKSHAFT POSITION CONNECTOR
DATA LINK	J300	EXTERNAL CONNECTOR FOR THE INJECTORS HARNESS
J1939 DATA LINK	J400	INTERNAL CONNECTOR FOR THE INJECTORS HARNESS
RS-232/RS-485 DATA LINK	P400	TIMING CALIBRATION PROBE CONNECTOR

This schematic is for the 2506-15 Industrial Engine. Wiring diagram CH11949.