

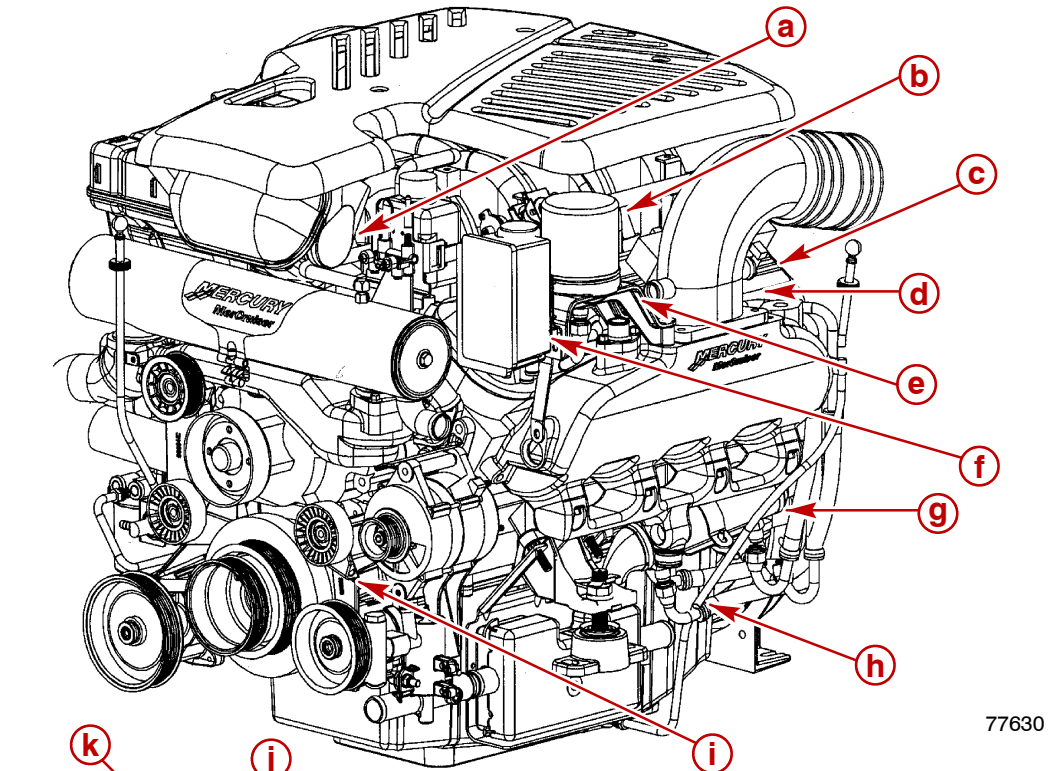
# SECTION 3A - WIRING DIAGRAMS

## Table of Contents

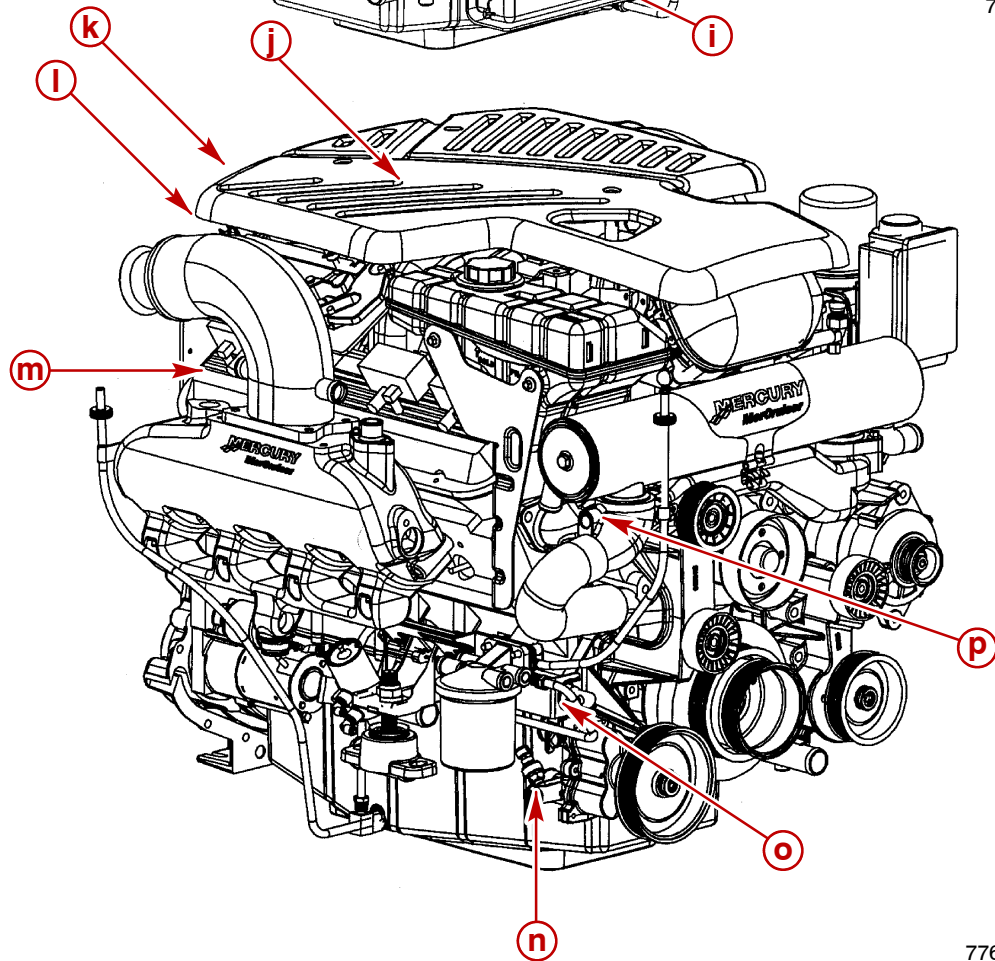
Sensor Locations On The		8.1 liter (496 cid) Electrical Wiring	
8.1 liter (496 cid) Engine .....	3A-2	Diagrams .....	3A-8
8.1 Liter (496 cid) Engine Harness		Typical Starting System Components	3A-8
Legend .....	3A-4	Positive Current Flow .....	3A-9
Wire Splice Description .....	3A-4	Single Circuit Diagrams .....	3A-16
PCM 555 Pinout .....	3A-5	Wiring Diagrams .....	3A-38



# Sensor Locations On The 8.1 liter (496 cid) Engine



77630



77629

- a** - Throttle Position Sensor (TPS)
- b** - Electronic Control Module (PCM)
- c** - Crankshaft Position Sensor (CPS)
- d** - Port Exhaust Manifold Coolant Temperature Sensor (EMCT)
- e** - Data Link Connector (DLC)
- f** - Drive Lube Monitor
- g** - Oil Pressure Sensor
- h** - Cool Fuel Pump Connector
- i** - Camshaft Position Sensor (CMP)
- j** - Manifold Absolute Pressure Sensor (MAP)
- k** - Manifold Air Temperature Sensor (MAT)
- l** - Idle Air Control Valve (IAC)
- m** - Starboard Exhaust Manifold Coolant Temperature Sensor (EMCT)
- n** - Seapump Pressure Sensor
- o** - Boost Fuel Pump Connector
- p** - Engine Coolant Temperature Sensor (ECT)

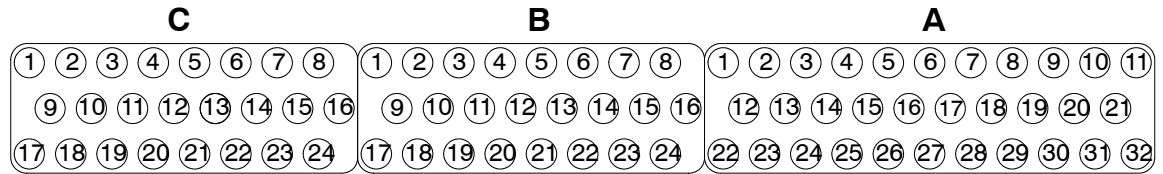
## 8.1 Liter (496 cid) Engine Harness Legend

### Wire Splice Description

Splice Number	Description
100	5 Volt Transducer Ground
101	5 Volt Transducer Power For Sensors
102	Fused 20 AMP 12 Volt Power, Key ON Only
103	Continuous 12 Volt Battery Power
104	Battery Ground
105	Main Power Relay, Key ON Only
106	Coil Return
107	Fused 12 Volt Power to the PCM
108	Fused 12 Volt Power to the Fuel Pump Relay and the Injectors
110	Continuous 12 Volt Battery Power to the Main Power Relay
111	Fused 12 Volt Power to the Fuel Pumps

## PCM 555 Pinout

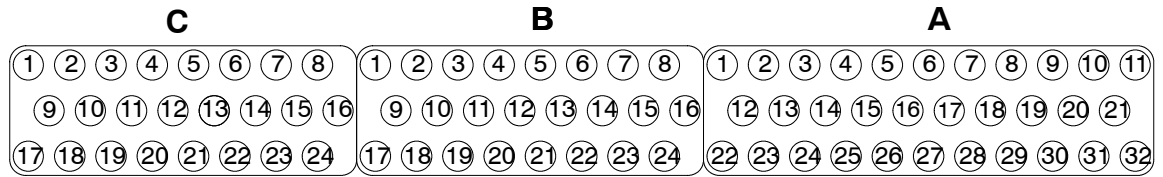
This is a quick reference guide to the pins of the PCM. It can be used to verify broken pins and what they control and to help in checking wire continuity for suspect sensors.



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### Connector A

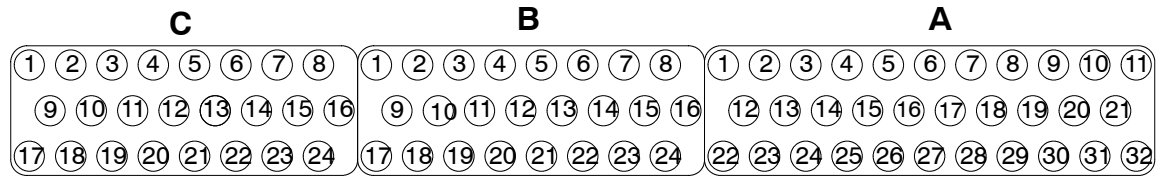
- 1** - Key-on Power
- 2** - Empty
- 3** - Map Sensor Connector Pin B
- 4** - Oil Pressure Sensor Connector Pin C
- 5** - Pitot Pressure Smart Transom Connector Pin D
- 6** - Throttle Position Sensor Connector Pin C
- 7** - Empty
- 8** - Trim Position Smart Transom Connector Pin C
- 9** - Starboard Tab Position Tab Connector Pin A
- 10** - Port Tab Position Tab Connector Pin B
- 11** - CAN Line Pos (+) Connector Pin J
- 12** - Steering Position Smart Transom Connector Pin E
- 13** - Seawater Temperature Paddle Wheel Connector Pin D
- 14** - MAT Sensor Connector Pin B
- 15** - Coolant Temperature Sensor Connector Pin B
- 16** - Port Exhaust Water Temperature Connector Pin B
- 17** - Starboard Exhaust Temperature Connector Pin B
- 18** - Data Link Connector Pin C
- 19** - Port Knock Sensor Connector Pin B
- 20** - Starboard Knock Sensor Connector Pin B
- 21** - CAN Line Neg (-) Connector Pin K
- 22** - Splice 100
- 23** - Splice 101
- 24** - Seapump Pressure Connector Pin C
- 25** - Fuel Level Connector Pin C
- 26** - Fuel Level Connector Pin B
- 27** - Empty
- 28** - Data Link Connector Pin B
- 29** - Port Knock Sensor Connector Pin A
- 30** - Starboard Knock Connector Pin B
- 31** - CAN2 Line Pos (+) Connector Pin G
- 32** - CAN2 Line Neg (-) Connector Pin H



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**Connector B**

- 1** - Splice 106 Coil Return
- 2** - Port Coil 1 Connector Pin G
- 3** - Paddle Wheel Connector Pin C
- 4** - Main Power Relay Pin 85
- 5** - Empty
- 6** - CAM Sensor Connector Pin C
- 7** - IAC Connector Pin 1
- 8** - Transmission Temperature Ground
- 9** - Port Coil 5 Connector Pin C
- 10** - Port Coil 3 Connector Pin F
- 11** - Fuel Pump Relay Pin 85
- 12** - Tachometer
- 13** - Empty
- 14** - Crankshaft Position Sensor Connector Pin C
- 15** - Charging Harness Connector Pin F
- 16** - Drive Lube Monitor Or Transmission Oil Temperature Switch
- 17** - Splice 107
- 18** - Splice 107
- 19** - Empty
- 20** - Fuel Injector 4 Connector Pin B
- 21** - Charging Harness Connector Pin D
- 22** - Fuel Injector 3 Connector Pin A
- 23** - CAN Line Connector Pin E
- 24** - Empty



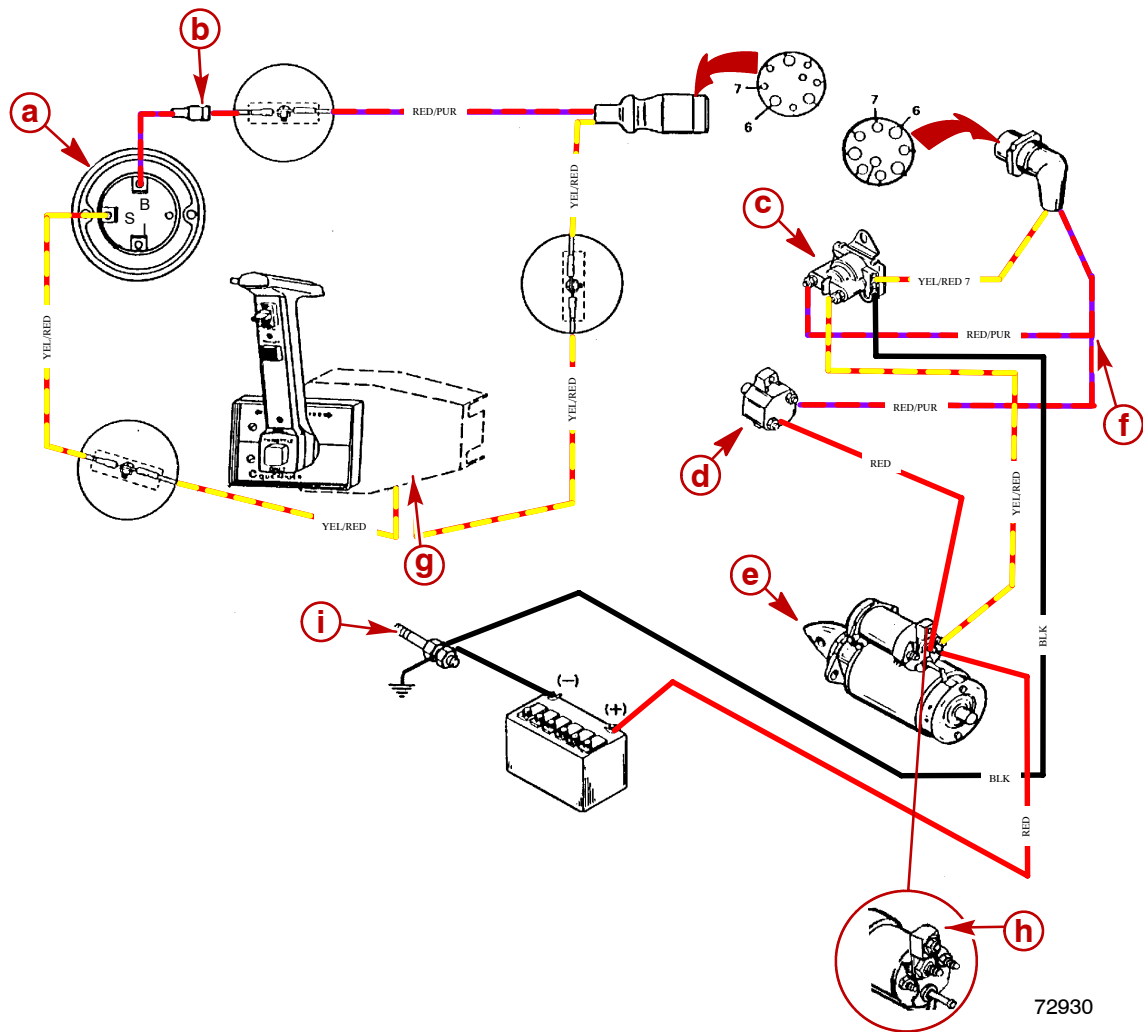
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**Connector C**

- 1** - Port TAB Up Solenoid Connector Pin G
- 2** - Empty
- 3** - Fuel Injector 8 Connector Pin E
- 4** - Empty
- 5** - Fuel Injector 7 Connector Pin G
- 6** - Fuel Injector 1 Connector Pin H
- 7** - Starboard Coil 4 Connector Pin C
- 8** - Starboard Coil 2 Connector Pin B
- 9** - Starboard TAB Up Solenoid Connector Pin C
- 10** - Starboard TAB Down Solenoid Connector Pin D
- 11** - Fuel Injector 2 Connector Pin F
- 12** - Starboard Coil 6 Connector Pin F
- 13** - Port Coil 7 Connector Pin B
- 14** - Starboard Coil 8 Connector Pin G
- 15** - Splice 104
- 16** - Splice 104
- 17** - Empty
- 18** - Empty
- 19** - Port TAB Down Solenoid Connector Pin H
- 20** - Smart Transom Connector Pin G
- 21** - Fuel Injector 6 Connector Pin D
- 22** - Trim Up Relay Pin 85
- 23** - Fuel Injector 5 Connector Pin C
- 24** - Splice 104

# 8.1 liter (496 cid) Electrical Wiring Diagrams

## Typical Starting System Components



- a** - Ignition Switch
- b** - 20 Amp Fuse
- c** - Starter Slave Solenoid
- d** - Circuit Breaker
- e** - Starter Motor
- f** - Wire Junction
- g** - Neutral Safety Switch
- h** - 90 Amp Fuse
- i** - Engine Ground (-)



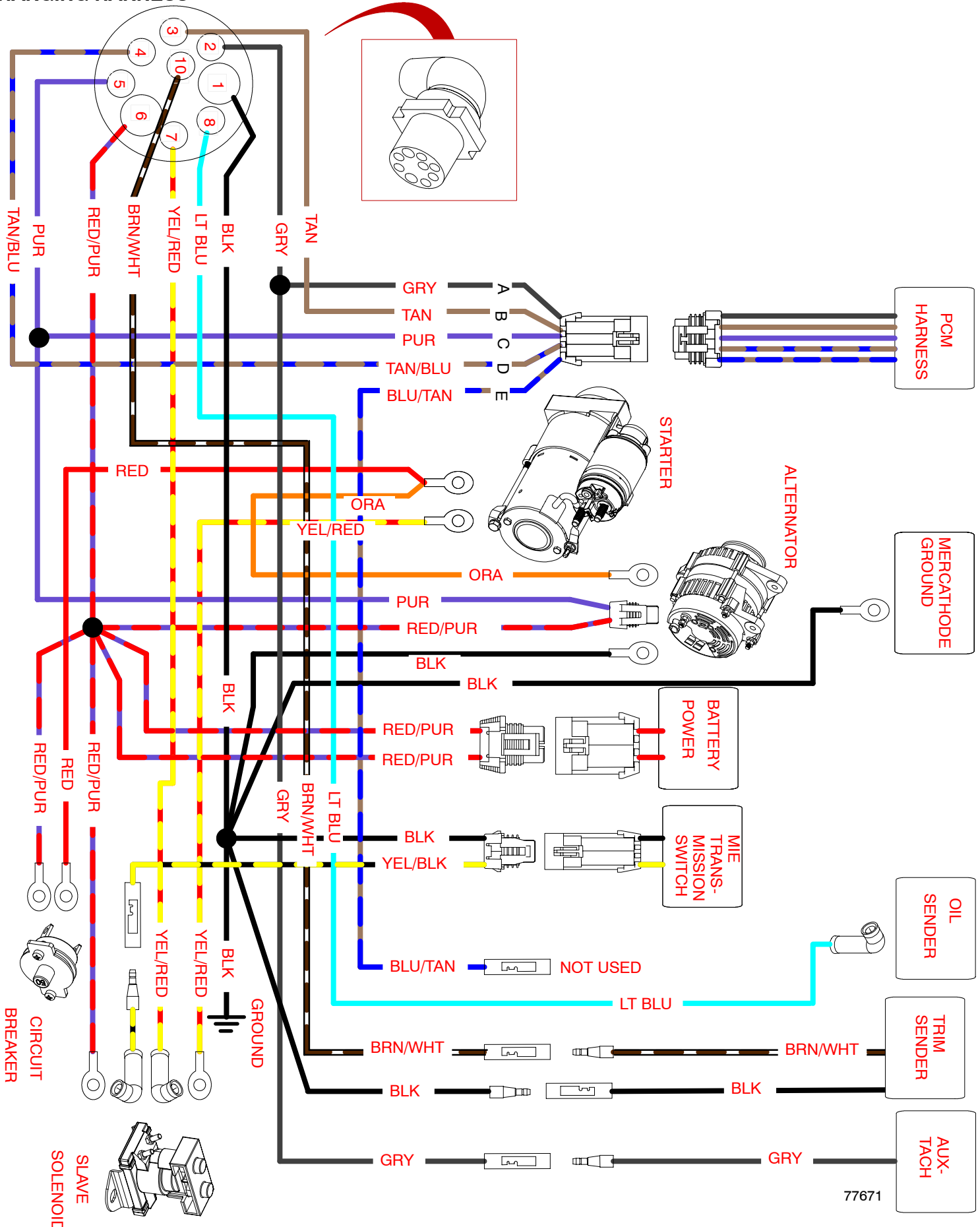
## Positive Current Flow

This is a general description of the positive current flow from the battery through the system until the starter motor cranks.

**NOTE:** *Ensure that all connections are tight and have the required resistance.*

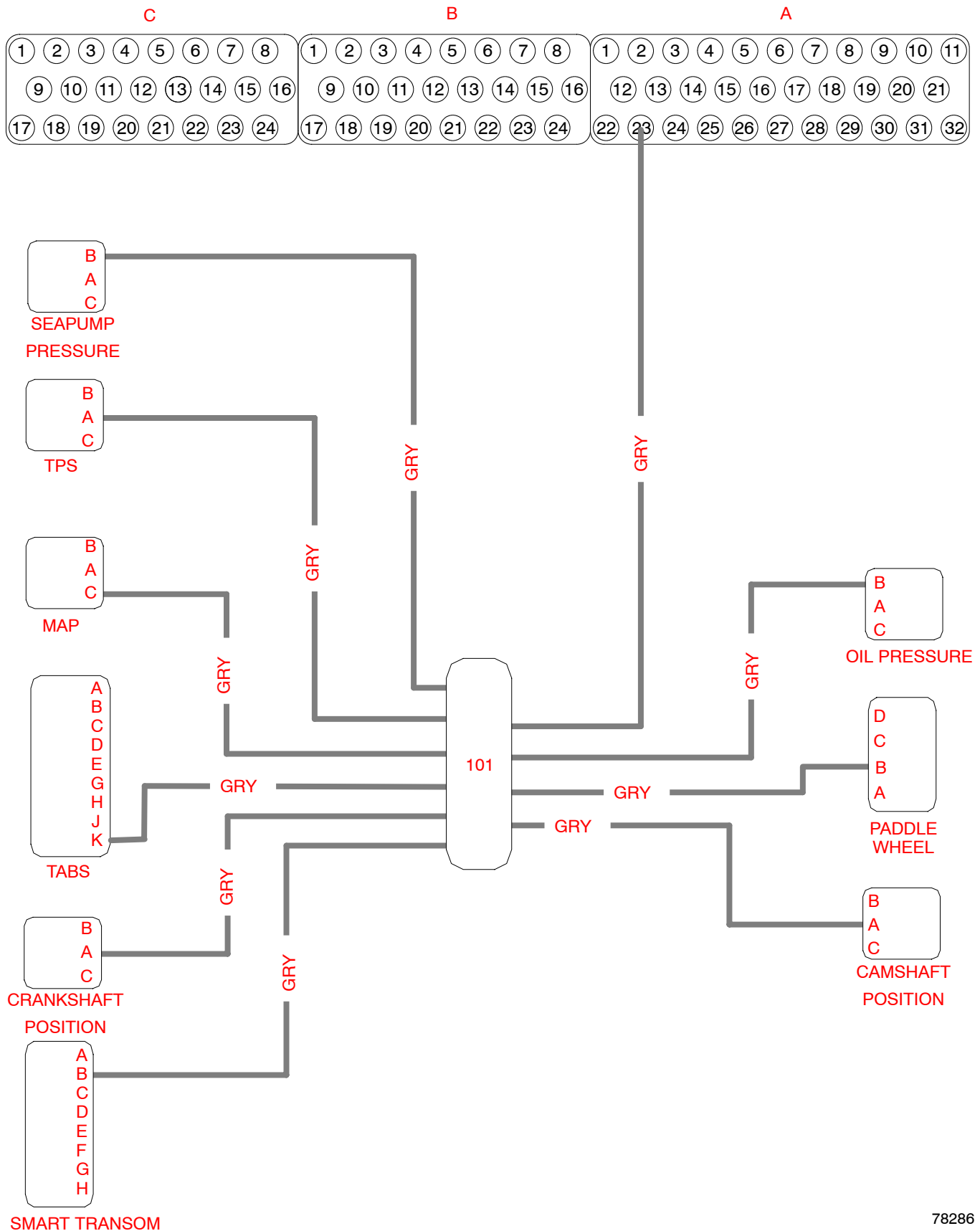
- Battery to the solenoid switch on the starter (RED battery cable).
- Solenoid switch to circuit breaker (RED).
- Circuit breaker to wire junction (RED/PUR).
- Wire junction to wiring harness plug (RED/PUR) Terminal 6.
- Wiring harness plug to 20 amp fuse (RED/PUR).
- 20 amp fuse to the ignition switch Terminal B (RED/PUR). At this point ignition switch is turned to the START position.
- Ignition switch Terminal B to Terminal S.
- Ignition switch Terminal C to neutral start switch (YEL/RED). NEUTRAL START SWITCH MUST BE AT NEUTRAL POSITION.
- Neutral start switch to wiring harness plug Terminal 7 (YEL/RED).
- Wiring harness plug to starter solenoid (small terminal) (YEL/RED). Also, ensure that BLK (small terminal) wire is grounded.
- Starter solenoid is now CLOSED, completing circuit between large terminal (RED/PUR) and other large terminal (YEL/RED), causing starter motor to crank.

CHARGING HARNESS



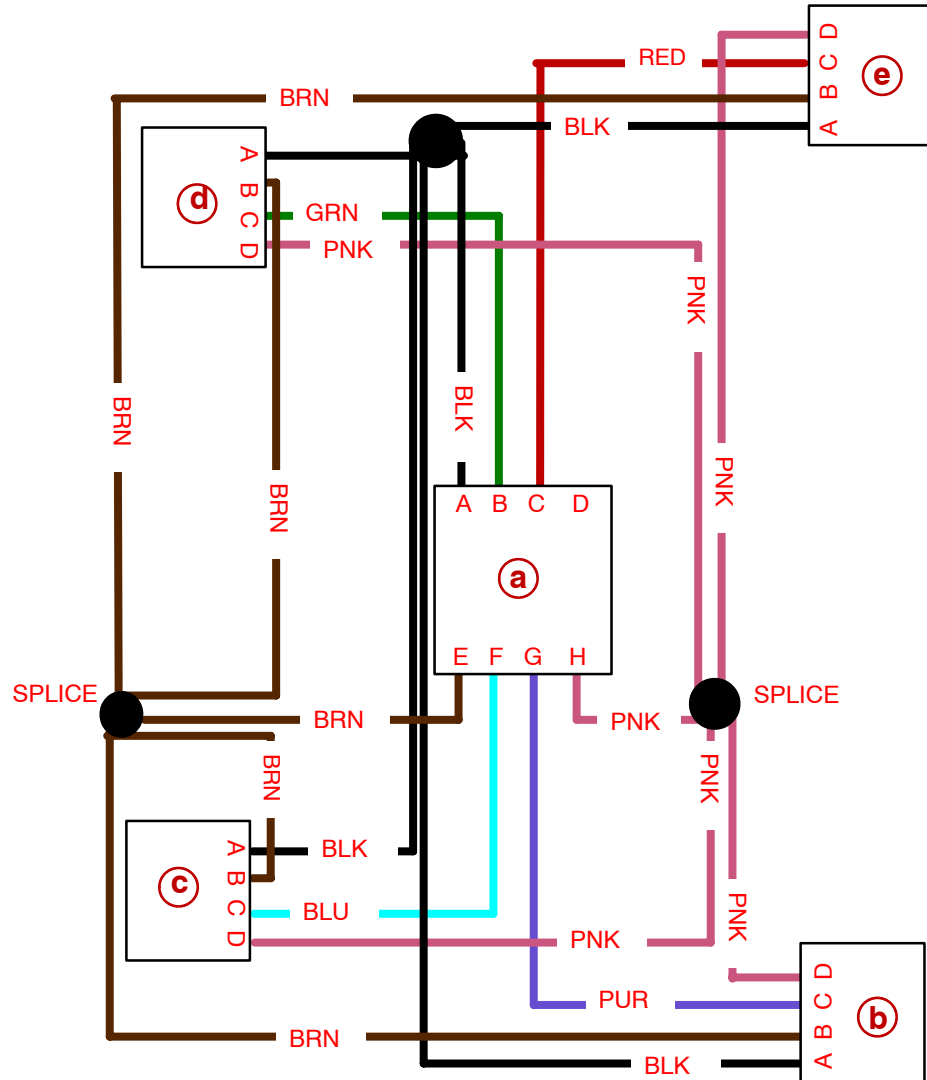
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### 5 VOLT SENSOR CIRCUIT



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COIL HARNESS CIRCUIT



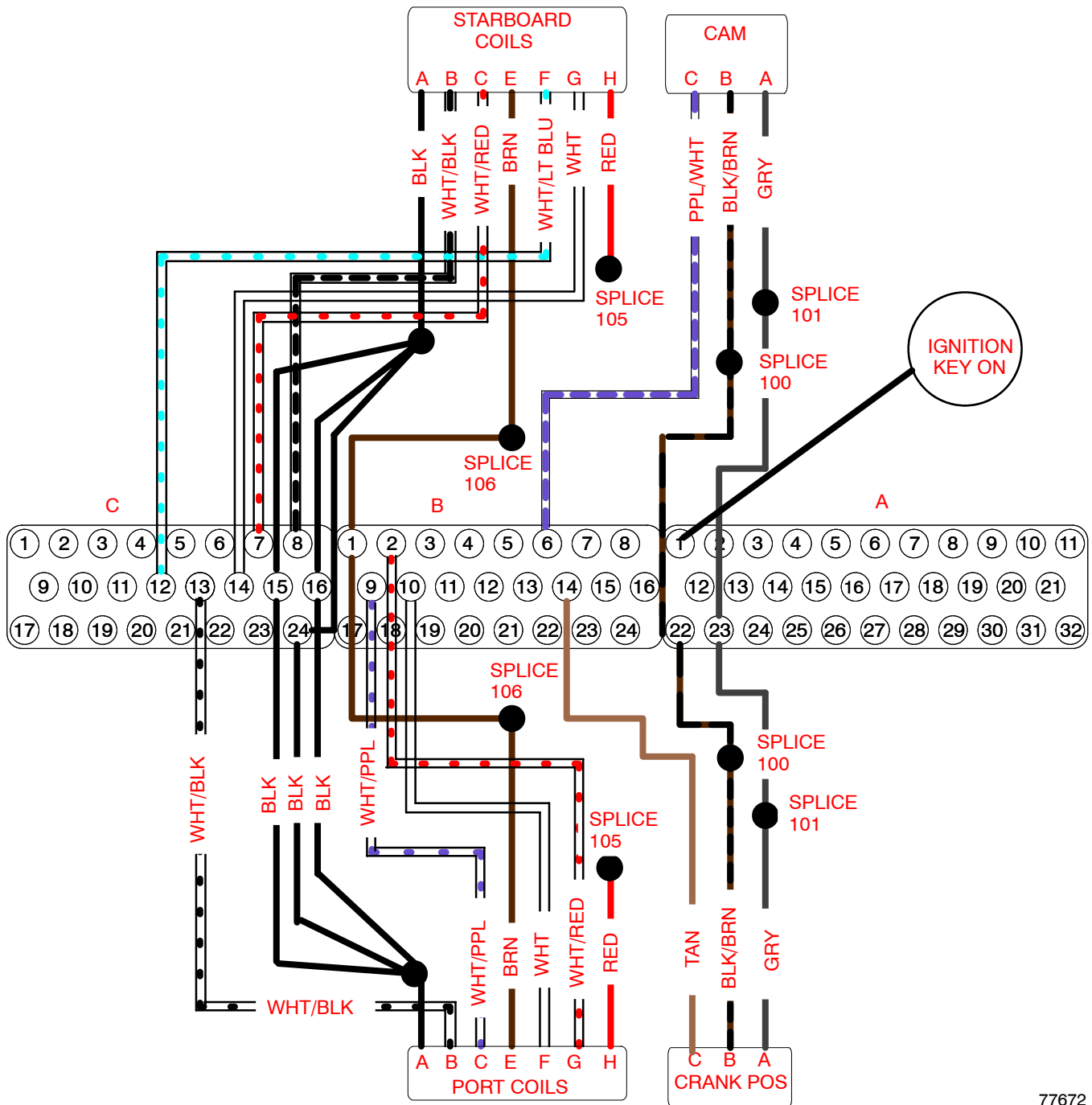
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- a** - Coil Harness To Engine Harness Connector
- b** - 1 And 8 Coil Connector
- c** - 3 And 6 Coil Connector
- d** - 5 And 4 Coil Connector
- e** - 7 And 2 Coil Connector

There are 2 coil harnesses on the engine, one for each side of the engine. The harnesses are wired identically. The signal wire color for coils 1 and 8 is BLU, coils 3 and 6 is PUR, 5 and 4 wire is GRN, and 7 and 2 is RED. The PNK wire is 12 volt power, the BRN wire is 5 volt power and the BLK wire is ground. If a possible problem is suspected in the ignition system, check for faults once with key ON and once with engine running. An EST Open will only register a fault in a key ON only state and an EST Short will only register with the engine operating.

A malfunction in the coil harness will set the fault of EST 1-8 Open or EST 1-8 Short.

IGNITION CIRCUIT

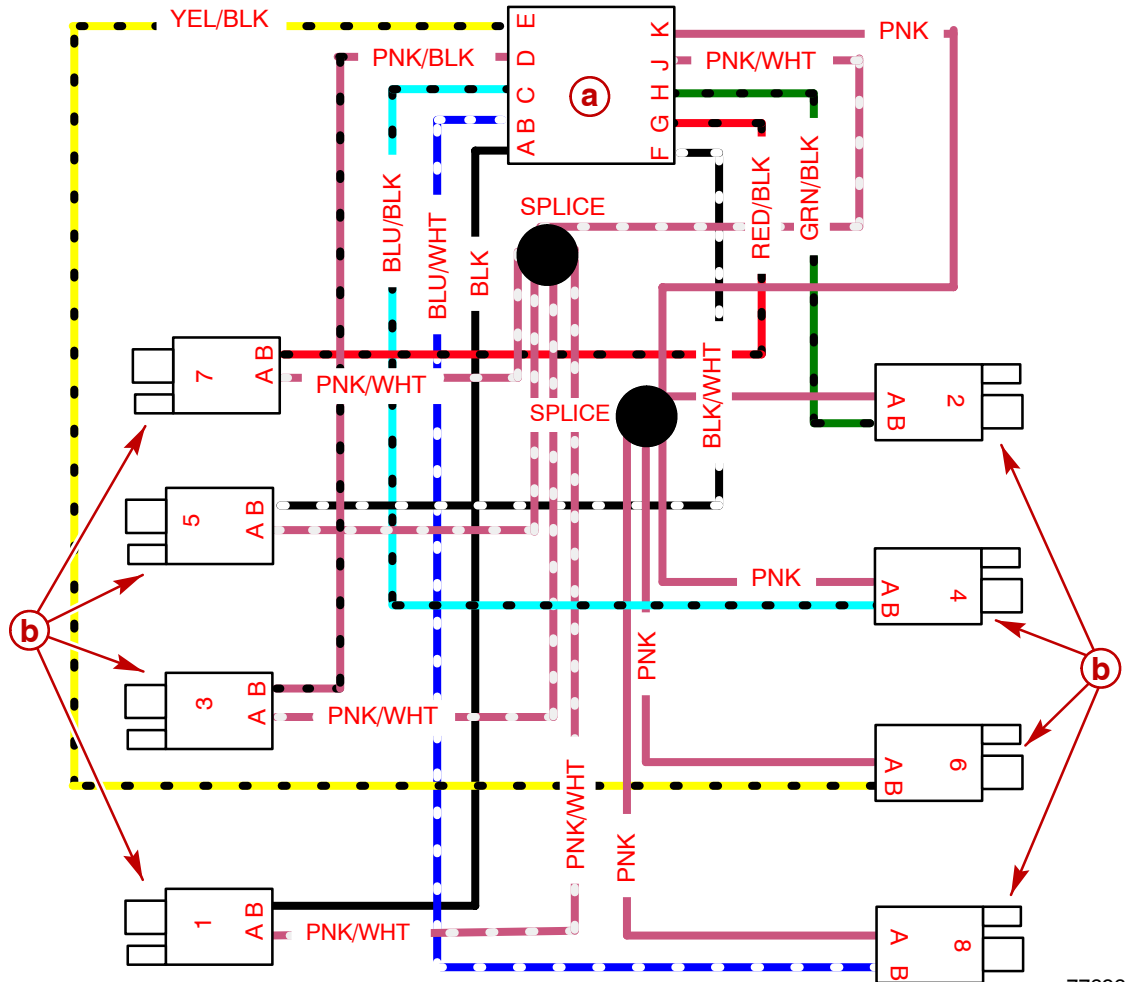


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With initial key ON, 12 volt power is sent from the battery through the purple lead in the 10-pin harness to the pink lead at Engine Harness Pin C. This is wake up power to the PCM. The PCM powers pin B4 which in turn pulls the MPR low. The MPR powers the coils through Splice 105 and powers the engine for ignition.

PCM Pinout	Cylinder	PCM Pinout	Cylinder	PCM Pinout	Cylinder
B2	1	C8	2	B9	5
C7	4	C13	7	C14	8
B10	3	C12	6		

FUEL INJECTOR HARNESS



77696

- a** - Injector Harness To Engine Harness Connector
- b** - Individual Injector Connectors

The fuel injectors receive fused 12 volt power from Splice 108 (Pins J and K) on the injector harness. The PCM signals the injector to fire by pulling the 12 volts to ground and completing the circuit. The normal resistance at 21 degrees C (70 degrees F) is 12.5 ohms.

A malfunction in the fuel injector harness will set the fault of FINJ 1-8 Open or FINJ 1-8 Short.

When the fuel injector driver wire is shorted to ground, the scan tool will read Open Sensor, this means that the fuel injector is full Open.

When the fuel injector is shorted, the scan tool will read Short Injector.

A shorted 12 volt fuel injector power lead will blow the injector fuse E-F; the scan tool will read Bad Fuel Pump Fuse.

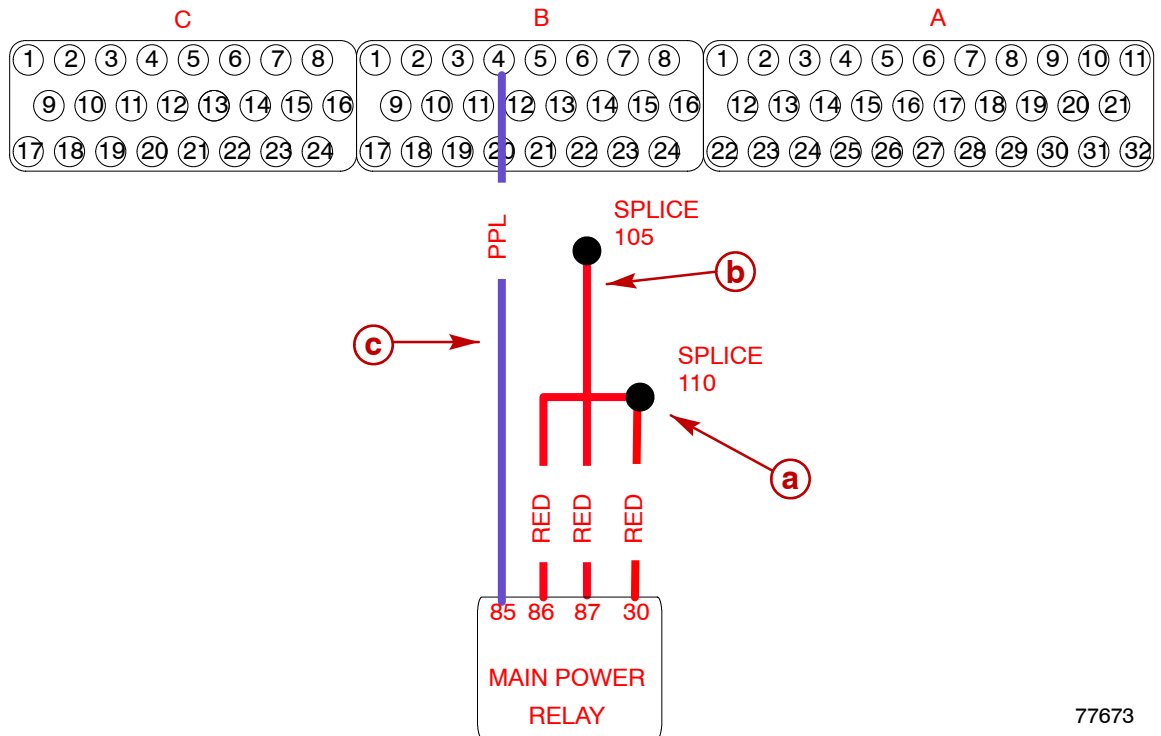
**FUEL INJECTOR HARNESS (CONTINUED)**

<b>Fuel Injector Number</b>	<b>Wire Colors on Fuel Injector Harness</b>	<b>PCM Pinout</b>
1	BLK	C-6
2	GRN/BLK	C-11
3	PNK/BLK	B-22
4	BLU/BLK	B-20
5	BLK/WHT	C-23
6	YEL/BLK	C-21
7	RED/BLK	C-5
8	BLU/WHT	C-3

## Single Circuit Diagrams

This section outlines the circuitry of the 8.1 liter (496 cid) wiring harness and sensors as individual systems. This allows for a quick reference point when trying to detect a faulty connection. However, the complete system wiring diagram should be referenced if multiple electrical faults are occurring.

### MAIN POWER RELAY CIRCUIT



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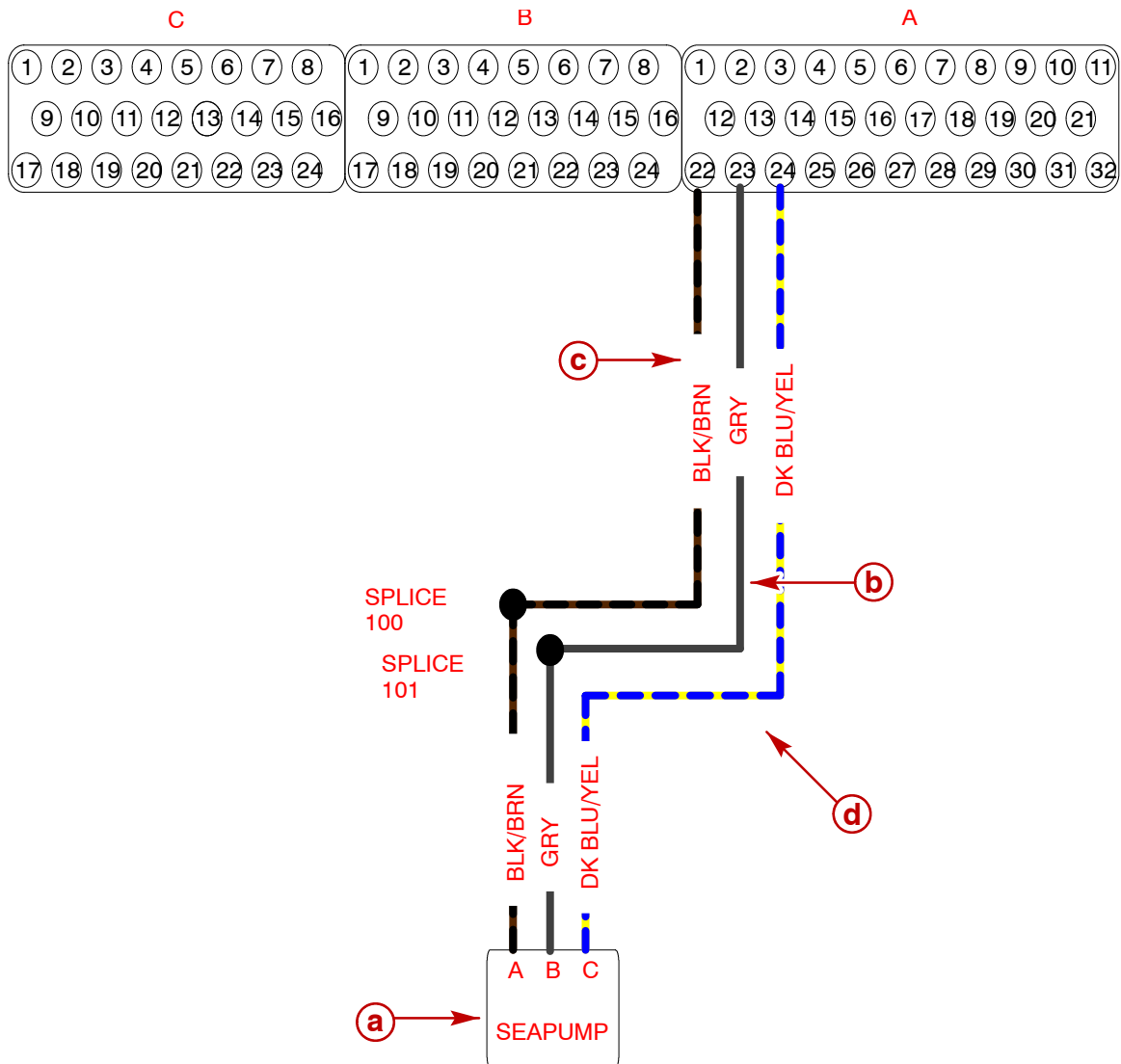
- a** - Battery Power
- b** - Output Power To Splice 105
- c** - Signal From PCM

The Main Power Relay (MPR) switches ON upon key ON and sends 12 volt power to Splice 105, which powers the IAC, fuel injectors and part of the PCM. It is located on the top of the engine near the PCM. Listen for a click on initial key ON and check continuity to the MPR if a problem is suspected.

A malfunction of the MPR could result in the fault MPR Output or MPR Backfeed.



SEAPUMP CIRCUIT



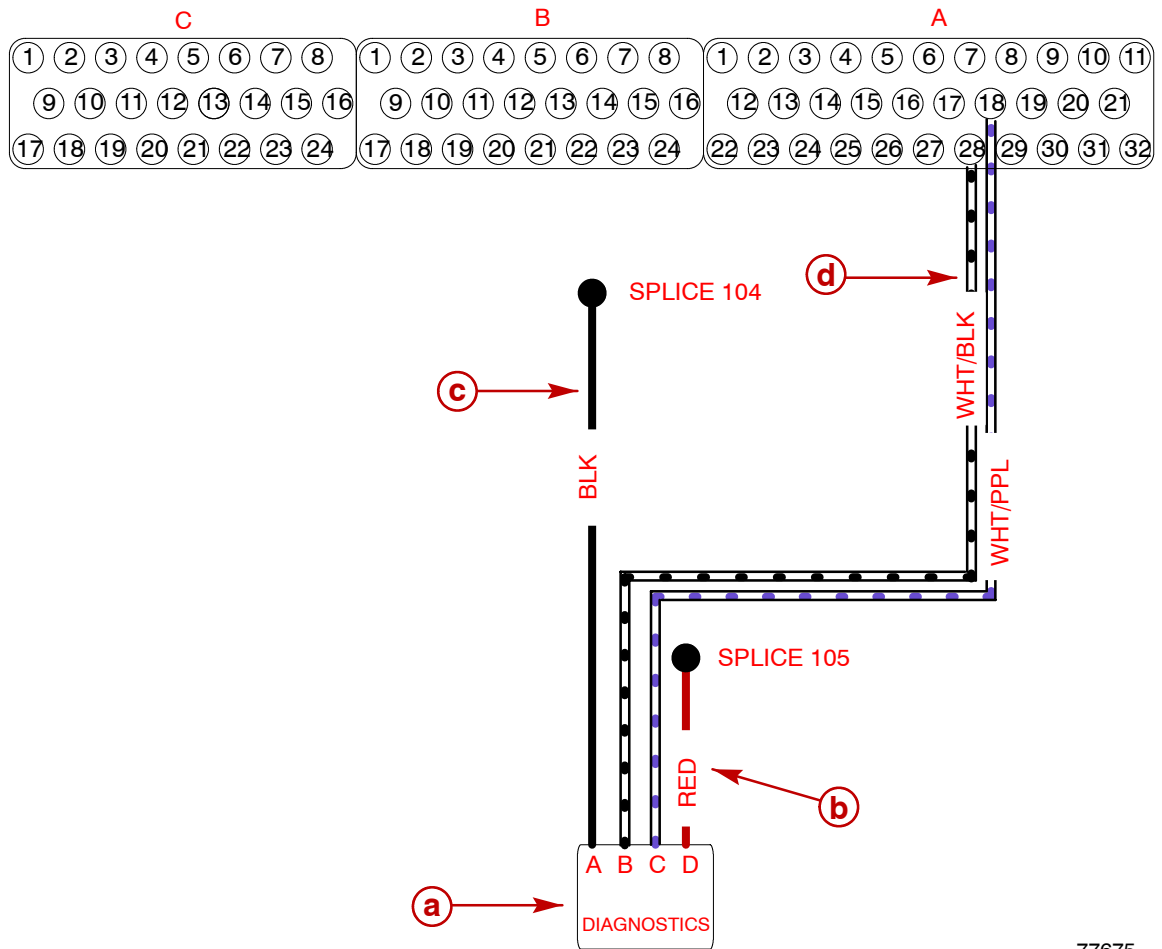
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- a** - Seapump Sensor Connector
- b** - 5 Volt Transducer Power
- c** - 5 Volt Transducer Ground
- d** - Signal To PCM

The seapump sensor measures water inlet pressure or water block pressure. It is located at the seapump inlet hose. Normal diagnostic tool ranges are 1-5 psi (7-34 kPa) at idle and 7-17 psi (48-117 kPa) at WOT. To check if sensor is within range, the diagnostic tool reading with key ON should be approximately zero. The normal resistance value for the oil pressure sensor at 70 degrees F (21 degrees C) is A to B 31.5 kohms and A to C 42.9 kohms.

A malfunction of the seapump sensor will set the fault of Seapump CKT Hi, Seapump CKT Lo or Seapump PSI Lo.

DIAGNOSTICS CIRCUIT



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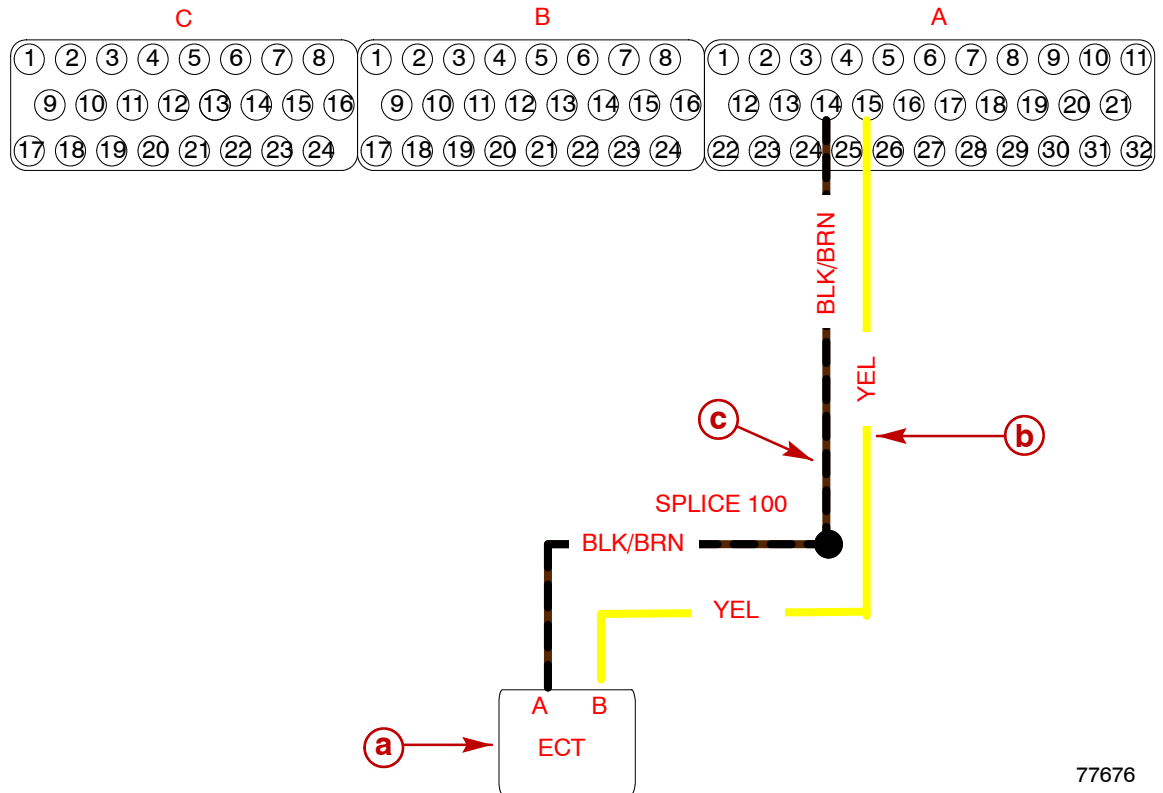
- a** - Data Link Connector
- b** - 12 Volt Transducer Power
- c** - 12 Volt Transducer Ground
- d** - Data Leads From PCM

The data link connector (DLC) is a 4-pin circuit for attaching the diagnostic tool to the PCM. It is located on the port side of the engine next to the oil filter. Before attaching a diagnostic tool to the engine, verify that the key is OFF and the pins are clean of corrosion and debris. Pin A is the 12 volt ground connected to the engine harness at splice 104. Pins B and C are data retrieval lines from the PCM. Pin D is the 12 volt supply to the diagnostic tool.

**IMPORTANT: Diagnostic tools can only receive data with key ON or engine operating. Diagnostic tools need a minimum of 8 volts. If the diagnostic tool does not respond, verify the connection, verify that the key is ON and check the battery voltage.**

A malfunction of the data link connector will not set a fault.

ENGINE COOLANT TEMPERATURE CIRCUIT



77676

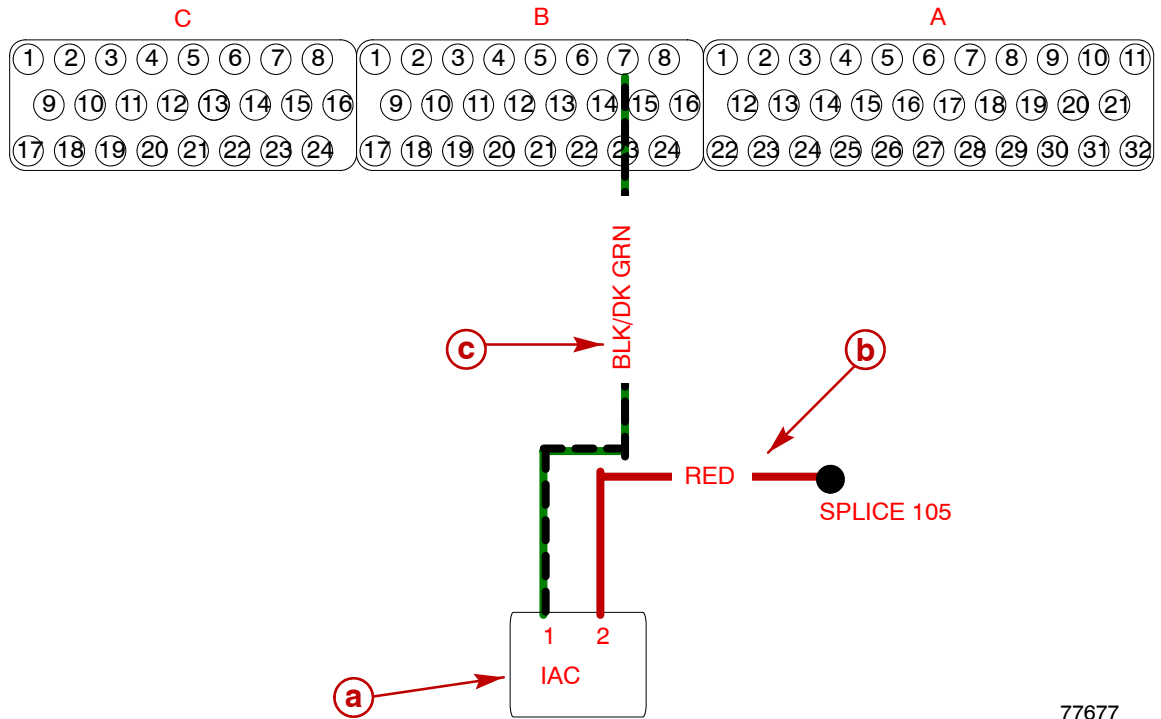
- a** - Engine Coolant Temperature Sensor
- b** - 5 Volt Transducer Power
- c** - 5 Volt Transducer Ground

The engine coolant temperature (ECT) sensor is a thermistor immersed in the engine coolant stream. It is located in the water crossover on the front starboard side of the engine. Low coolant temperature produces high resistance, while high temperature causes low resistance. The normal resistance value for the ECT sensor at 21 degrees C (70 degrees F) is 3.12 kohms.

A malfunction of the ECT sensor will set a fault of Cool TEMP CKT Hi, Cool TEMP CKT Lo or ECT Coolant Overheat.

Approximate Temperature - to - Resistance Values		
Degrees F	Degrees C	ohms
210	100	185
160	70	450
100	38	1,800
70	20	3,400
40	4	7,500
20	-7	13,500
0	-18	25,000
-40	-40	100,700

IAC CIRCUIT



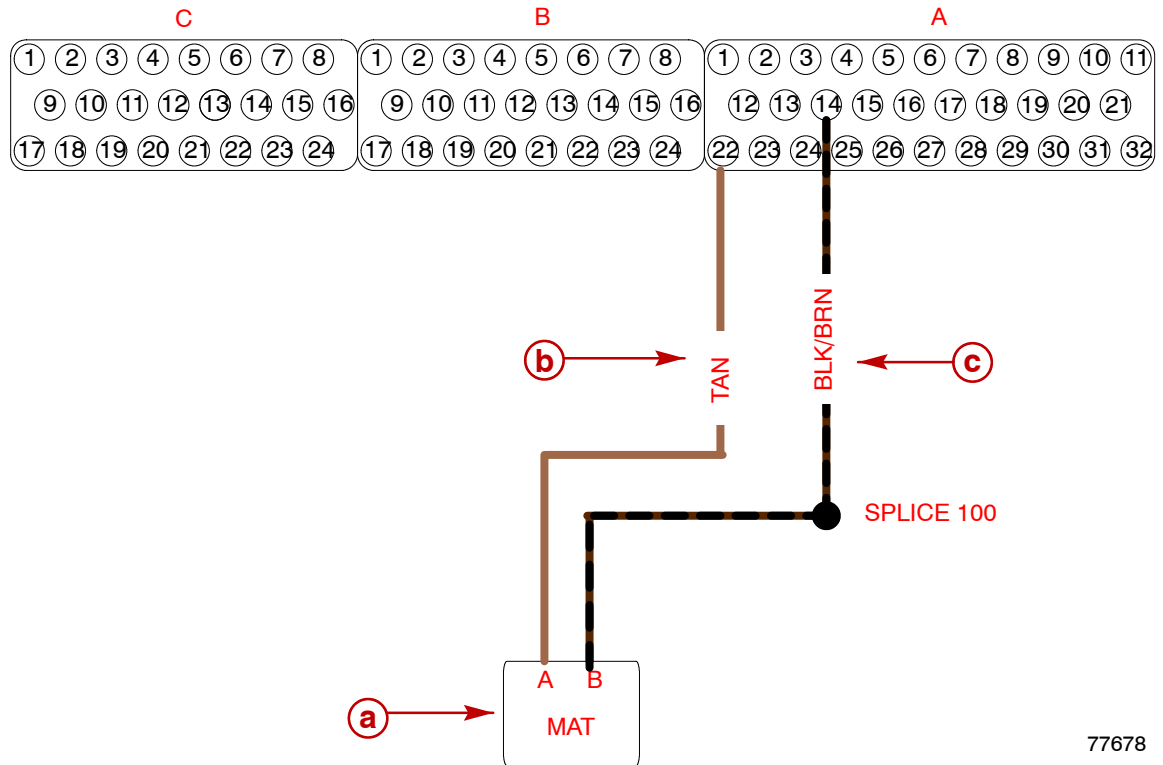
77677

- a** - IAC Sensor Connector
- b** - 12 Volt Transducer Power From MPR
- c** - 12 Volt Transducer Ground

The idle air control (IAC) valve is a 12 volt circuit powered by the MPR. It is located at the top rear of the engine. The normal resistance value for the IAC at 21 degrees C (70 degrees F) is 10.1 ohms.

A malfunction of the IAC will set a fault of IAC Output.

**MAT CIRCUIT**



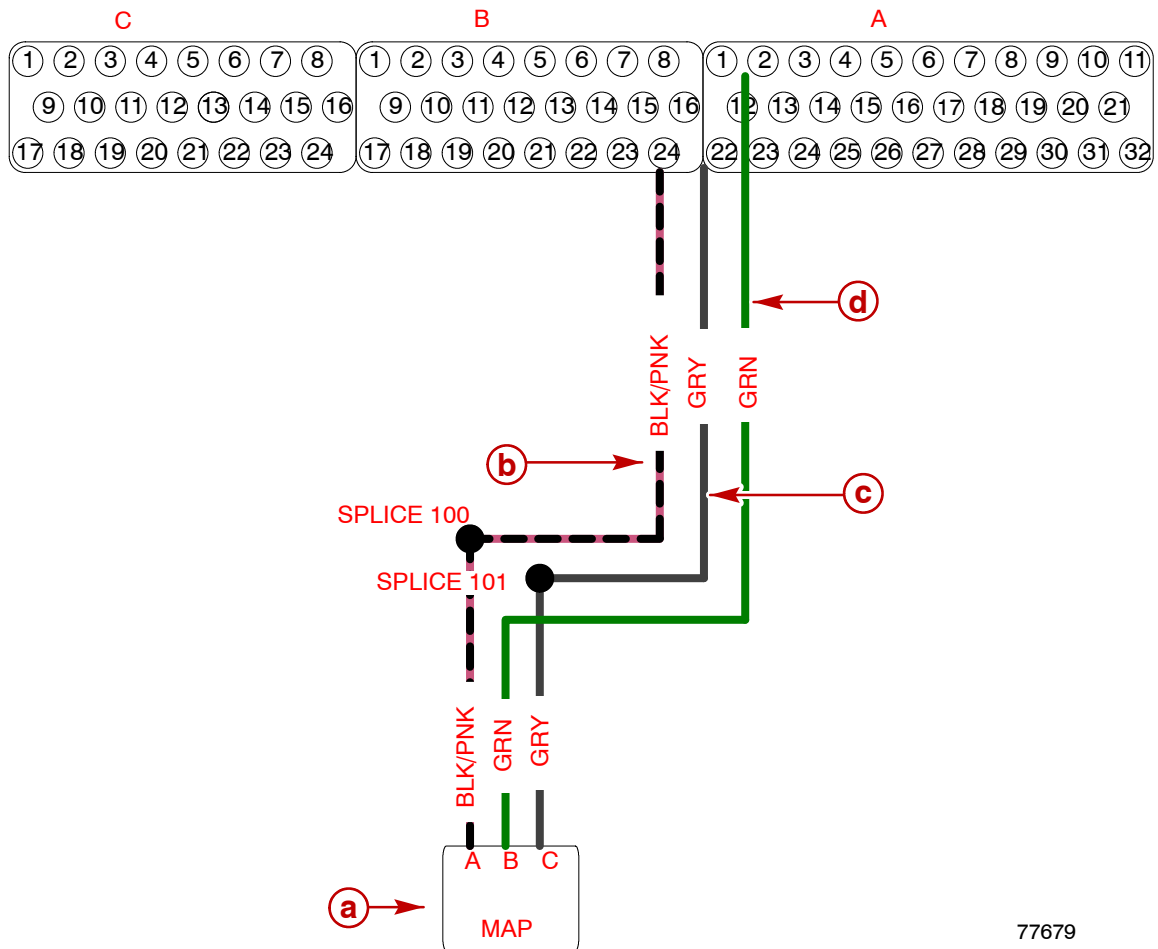
77678

- a** - Manifold Air Temperature Connector
- b** - 5 Volt Signal
- c** - 5 Volt Ground

The manifold air temperature (MAT) sensor is a thermistor that controls signal voltage to the PCM. It is located at the rear of the engine in the intake manifold plenum. When intake air is cold, the sensor resistance is high. As the air temperature rises, resistance lowers. At normal engine operating temperature, 71-82 degrees C (160-180 degrees F), the voltage will measure about 1.5 to 2.0 volts. The normal resistance value for the MAT sensor at 21 degrees C (70 degrees F) is 3.14 kohms.

A malfunction in the MAT will set the fault of AIR TMP CKT Hi or AIR TMP CKT Lo.

MAP CIRCUIT



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- a** - Manifold Absolute Pressure Connector
- b** - 5 Volt Ground
- c** - 5 Volt Power
- d** - Signal Wire

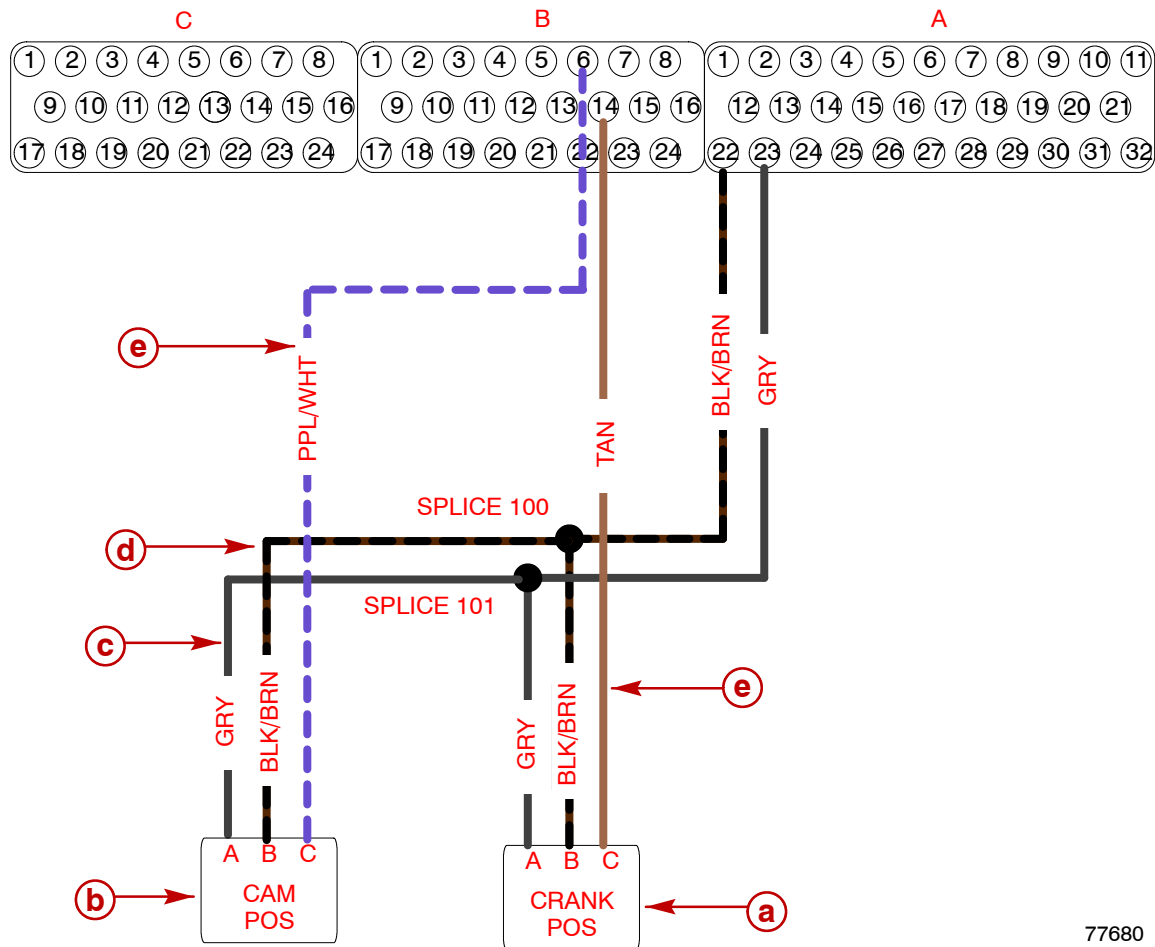
The manifold absolute pressure (MAP) sensor measures the changes in the intake manifold pressure. It is located on the intake manifold on the top of the engine. At key ON, the MAP is equal to atmospheric pressure. This information is used by the PCM as an indication of altitude and is referred to as BARO. Comparison of this BARO reading with a known good MAP sensor is a good check of a suspect sensor. The pressure changes as a result of engine load and speed change. The PCM receives this information as a signal voltage that will vary from about 1.0-2.0 volts at idle to about 4.0-5.0 volts at WOT. Typical pressure readings at idle are:

- Base Models- 50-54 kPa (7.25-7.83 psi)
- High Output Models - 58-62 kPa (8.41-8.99 psi)

The normal resistance values for the MAP sensor at 21 degrees C (70 degrees F) are A to B 9.33 kohms and A to C 3.89 kohms.

A malfunction in the MAP sensor circuit could set the fault of MAP Sensor Input HI, MAP Sensor Input Lo or MAP Sensor Idle Rationale.

**CRANK POSITION AND CAMSHAFT POSITION CIRCUITS**



77680

- a** - Crankshaft Position Sensor
- b** - Camshaft Position Sensor
- c** - 5 Volt Power
- d** - 5 Volt Ground
- e** - Signal To The PCM

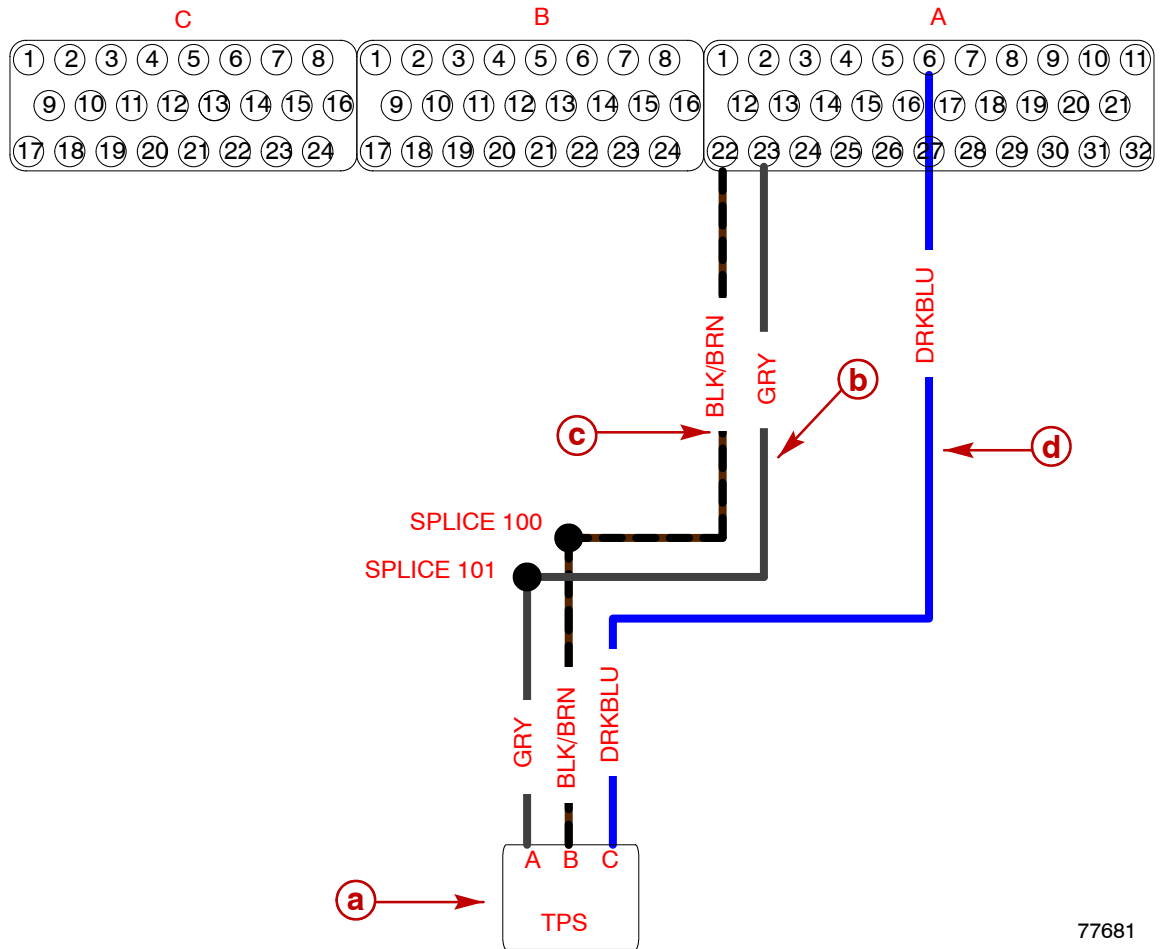
The crankshaft position sensor, located at the rear of the engine, and the camshaft position sensor, located at the front of the engine, supply the PCM with timing and rpm information. If a failure occurs in these sensor circuits, the engine will operate extremely rough or stop operating. Check for continuity between the PCM and the sensor.

The normal resistance values for these sensors at 21 degrees C (70 degrees F) are:

- Camshaft Position Sensor - A to B 24.04 mohms and B to C 24.05 mohms
- Crankshaft Position Sensor - A to B 23.2 mohms and B to C 23.21 mohms.

With software prior to level 091, a malfunction of the crankshaft position sensor or the camshaft position sensor will not set a fault. With level 091 software, if the camshaft position sensor is bad and does not send a signal to the PCM, the engine will backfire and not start. Stop cranking the engine when this occurs and then try to start the engine. Operate the engine for 20 seconds to set faults. The Audio Warning alarm will signal 2 beeps per minute. The Smartcraft system monitor will show the check engine light.

THROTTLE POSITION CIRCUIT



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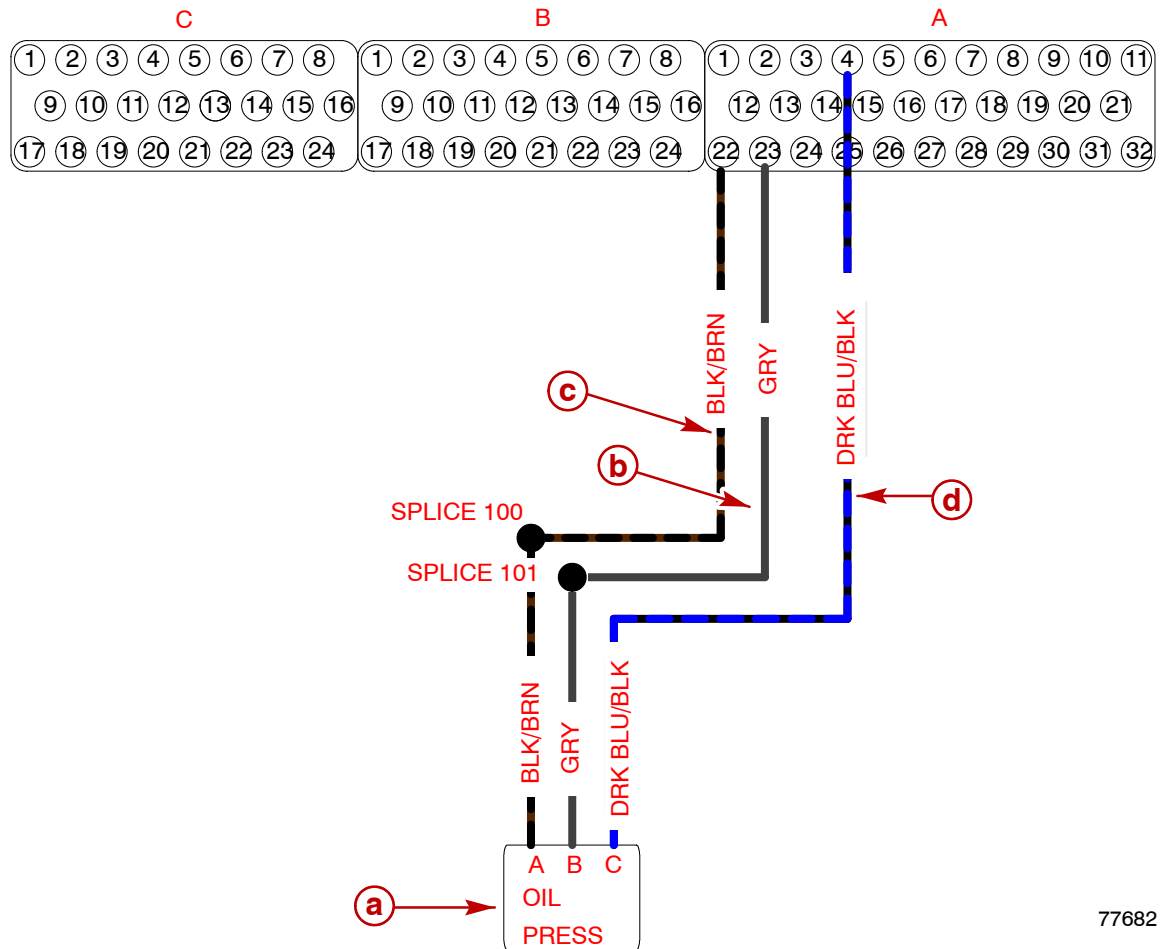
- a** - Throttle Position Sensor
- b** - 5 Volt Transducer Power
- c** - 5 Volt Transducer Ground
- d** - Signal To The PCM

The throttle position sensor (TPS) sends throttle plate angle information to the PCM. It is located on the throttle body. Signal voltage should vary from 0.5 volts at idle to 4.7 volts at WOT. If the TPS malfunctions, the ECM will reset to a default value.

A malfunction in the TPS circuit will set the fault of TPS Input Hi, TPS Input Lo, TPS Range Hi, TPS Range Lo or TPS No Adapt.



OIL PRESSURE CIRCUIT



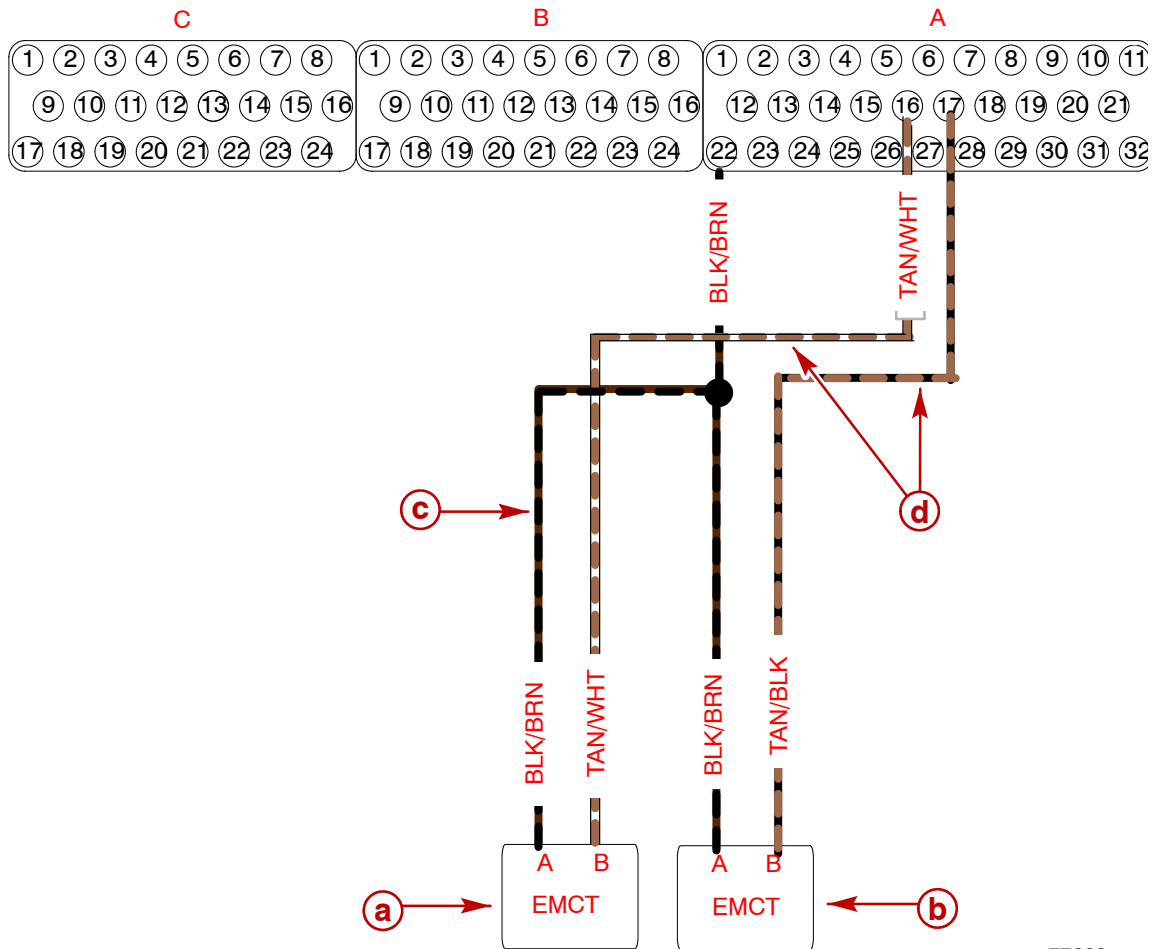
77682

- a** - Oil Pressure Sensor
- b** - 5 Volt Power
- c** - 5 Volt Ground
- d** - Signal To The PCM

The oil pressure sensor measures oil flow through the oil galleries .It is located on the rear port side of the engine. The normal resistance value for the oil pressure sensor at 21 degrees C (70 degrees F) is A to B 31.5 kohms and A to C 42.9 kohms.

A malfunction of the oil pressure sensor will set the fault Oil PSI CKT Hi, Oil PSI CKT Lo or Oil PSI Lo.

EXHAUST MANIFOLD COOLANT TEMPERATURE CIRCUITS



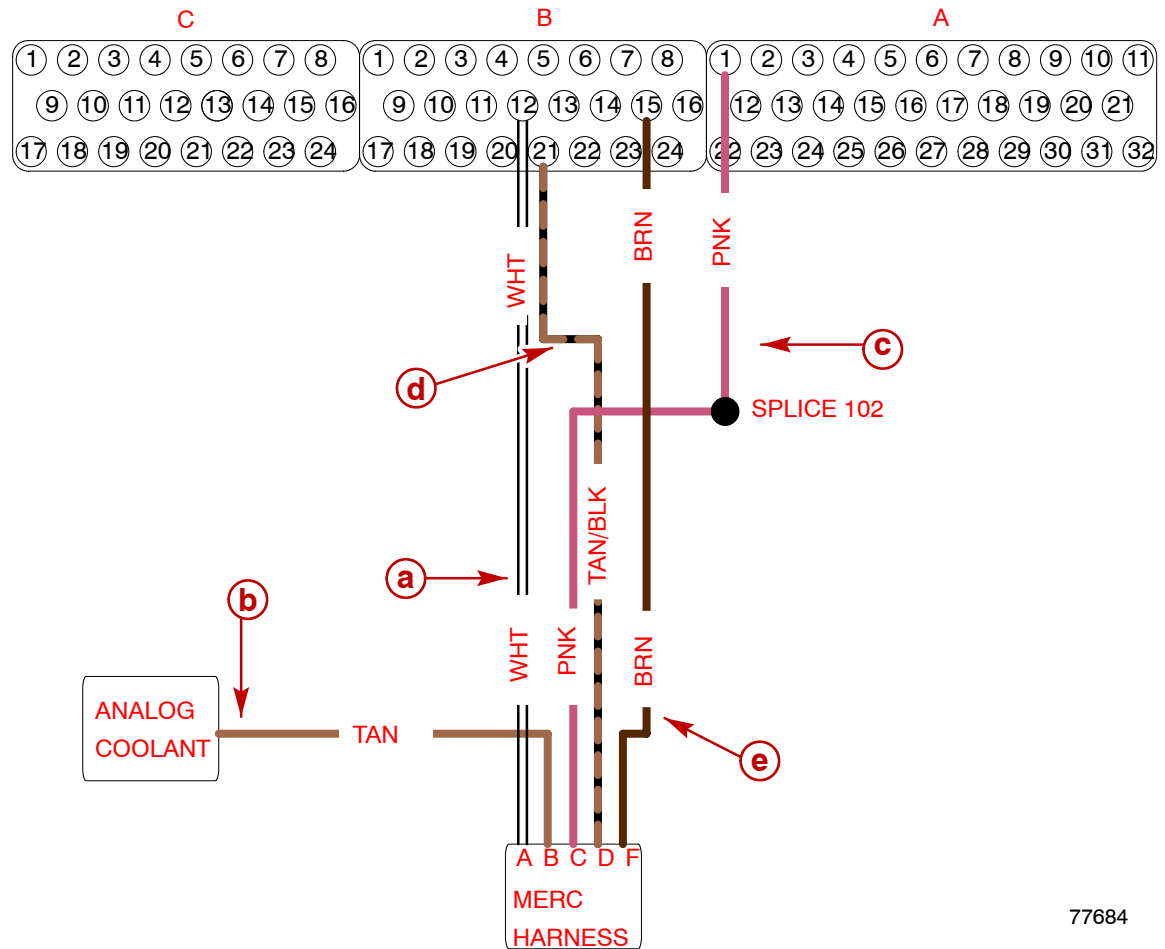
77683

- a** - Port Exhaust Manifold Coolant Temperature Sensor
- b** - Starboard Exhaust Manifold Coolant Temperature Sensor
- c** - 5 Volt Transducer Power
- d** - 5 Volt Transducer Ground

The exhaust manifold coolant temperature (EMCT) sensors are located on the top of each exhaust manifold. The EMCT sensors are thermistors immersed in the engine exhaust stream. Low temperatures produce high resistance, while high temperatures cause low resistance. The normal resistance values for the EMCT sensors at 21 degrees C (70 degrees F) is 11.01 kohms.

A malfunction of the EMCT will set a fault of Port EMCT CKT Hi, Port EMCT CKT Lo, Port EMCT CKT Overheat, STB EMCT CKT Lo, STB EMCT CKT Hi or STB EMCT CKT Overheat.

10 PIN HARNESS CIRCUIT



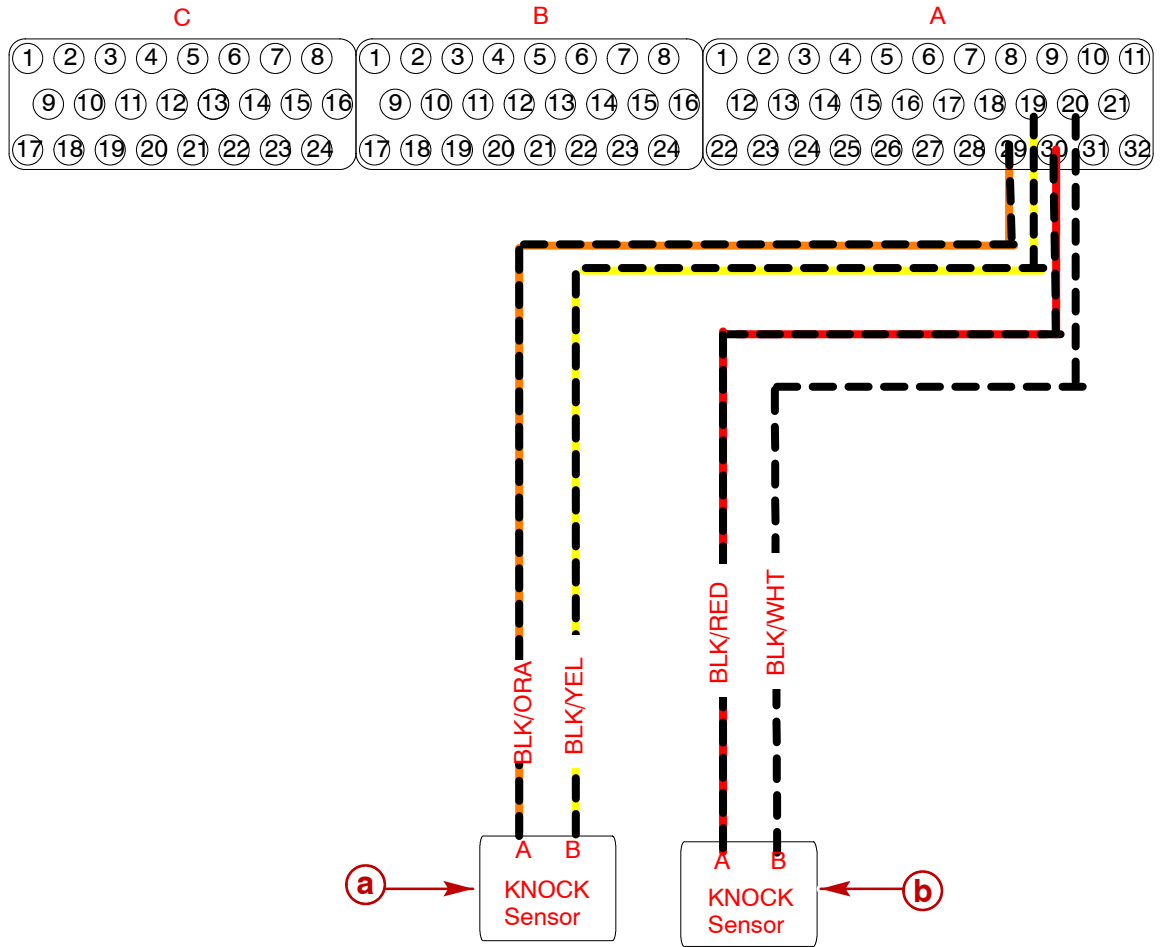
77684

- a** - Tachometer Signal
- b** - Analog Coolant
- c** - 12 Volt Power
- d** - Audio Warning Alarm
- e** - Neutral Start Switch

The 10 pin harness (MERC harness) is the connecting point between the Mercury MerCruiser electronic EFI harness and the 10 pin engine harness. It supplies the PCM with the analog coolant, tachometer, audio warning alarm and neutral safety signals.

A malfunction of the 10 pin harness connection will not set a fault.

PORT AND STARBOARD KNOCK SENSOR CIRCUITS



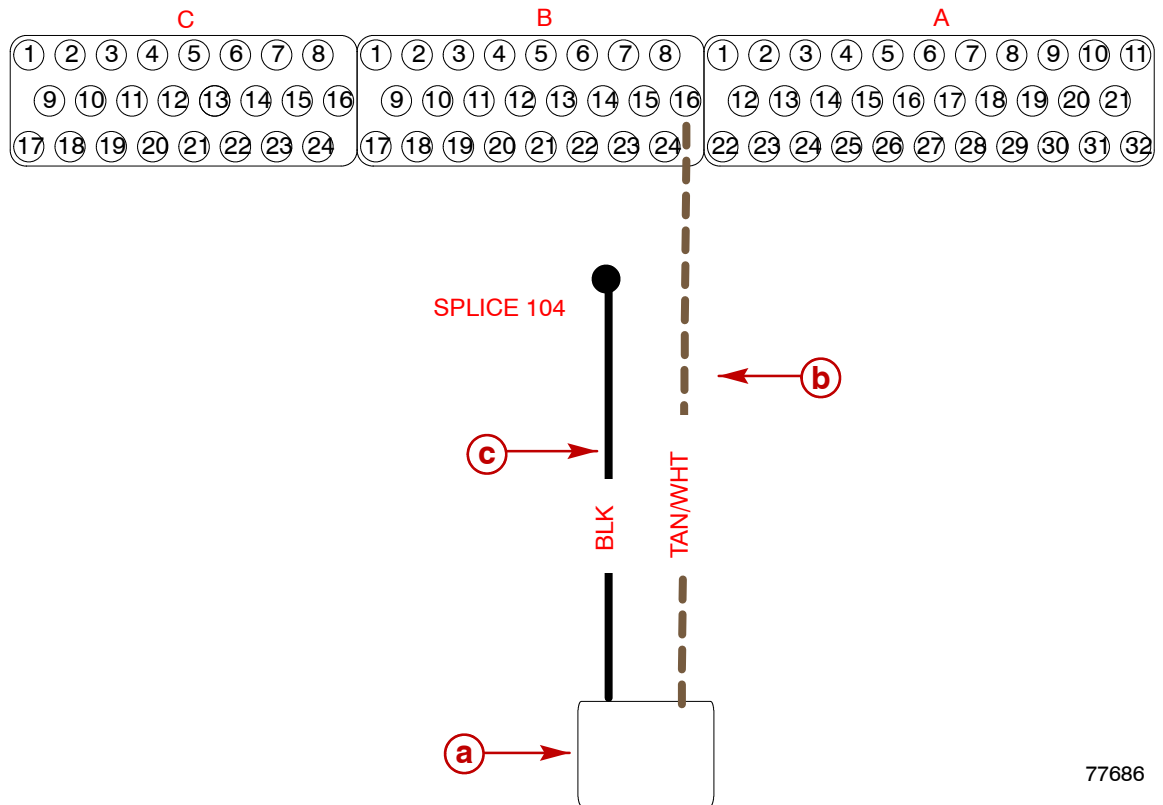
77685

- a** - Port Knock Sensors
- b** - Starboard Knock Sensors

The knock sensors detect engine detonation or spark knock and send a voltage signal to the PCM. They are located on the lower half of the engine on both the port and starboard sides. As the sensor detects knock, the voltage output level increases and signals the PCM of the problem.

An unacceptable knock sensor reading will set a fault of Knock Sensor HI or Knock Sensor LO. A normal reading is 83,000 - 104,000 at idle. Readings indicating an open will fall in the 7,900 - 12,000 range and readings indicating a short will range from 3,800 - 5,100.

GEAR LUBE MONITOR OR TRANSMISSION OVERTEMP CIRCUIT



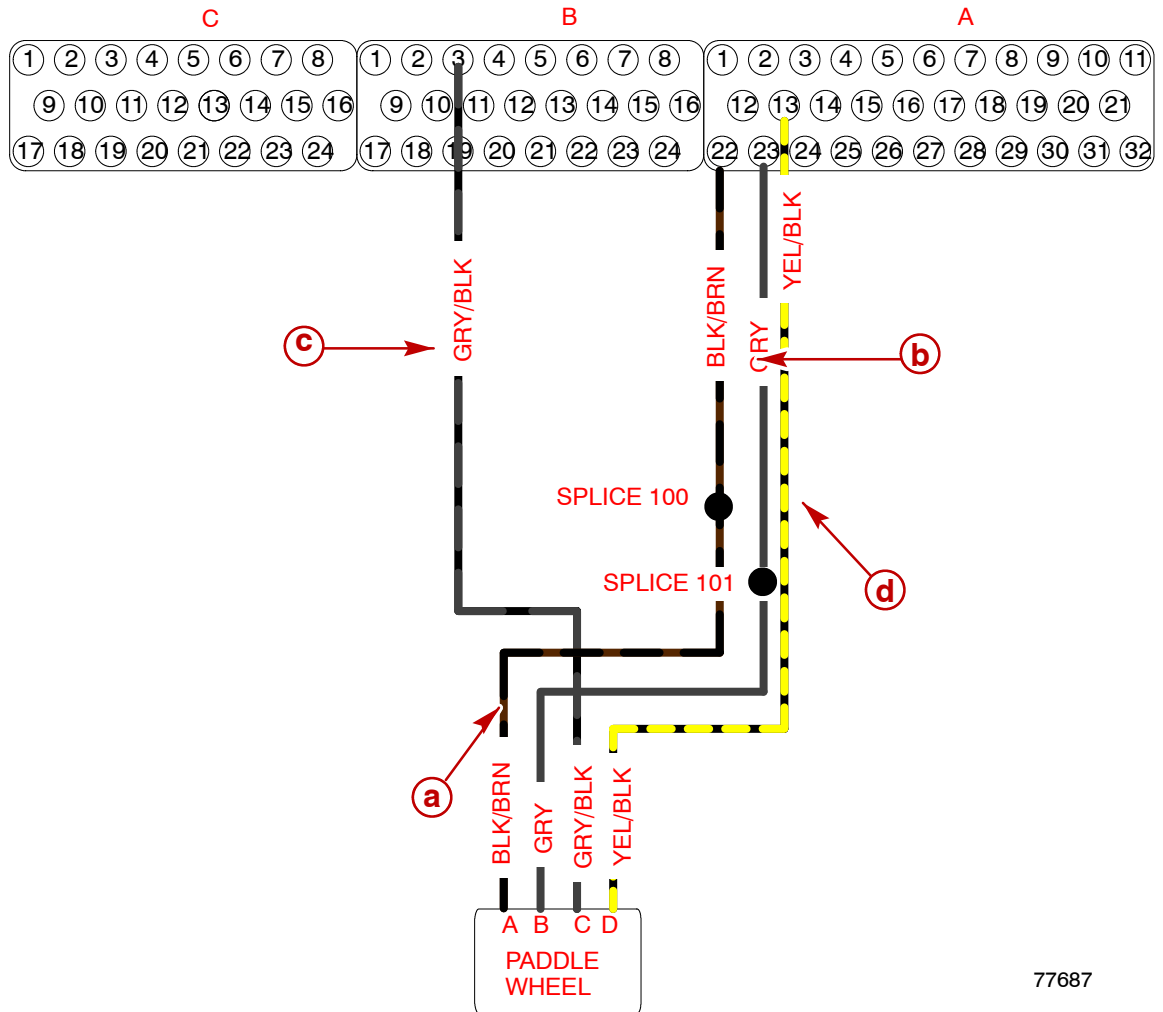
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- a** - Drive Lube Monitor Or Transmission Temperature Sensure
- b** - 5 Volt Reference
- c** - 5 Volt Ground

The gear lube monitor circuit is an open-continuity circuit. It is located on the top port side of the engine. The circuit will show continuity if the level of fluid in the monitor is low. If a problem is suspected, check continuity. There should be continuity with an empty monitor and no continuity with a full monitor.

A low level of fluid in the gear lube monitor will set a fault of Low Drive Lube Strategy.

HARNESS TO PADDLE WHEEL CONNECTOR CIRCUIT



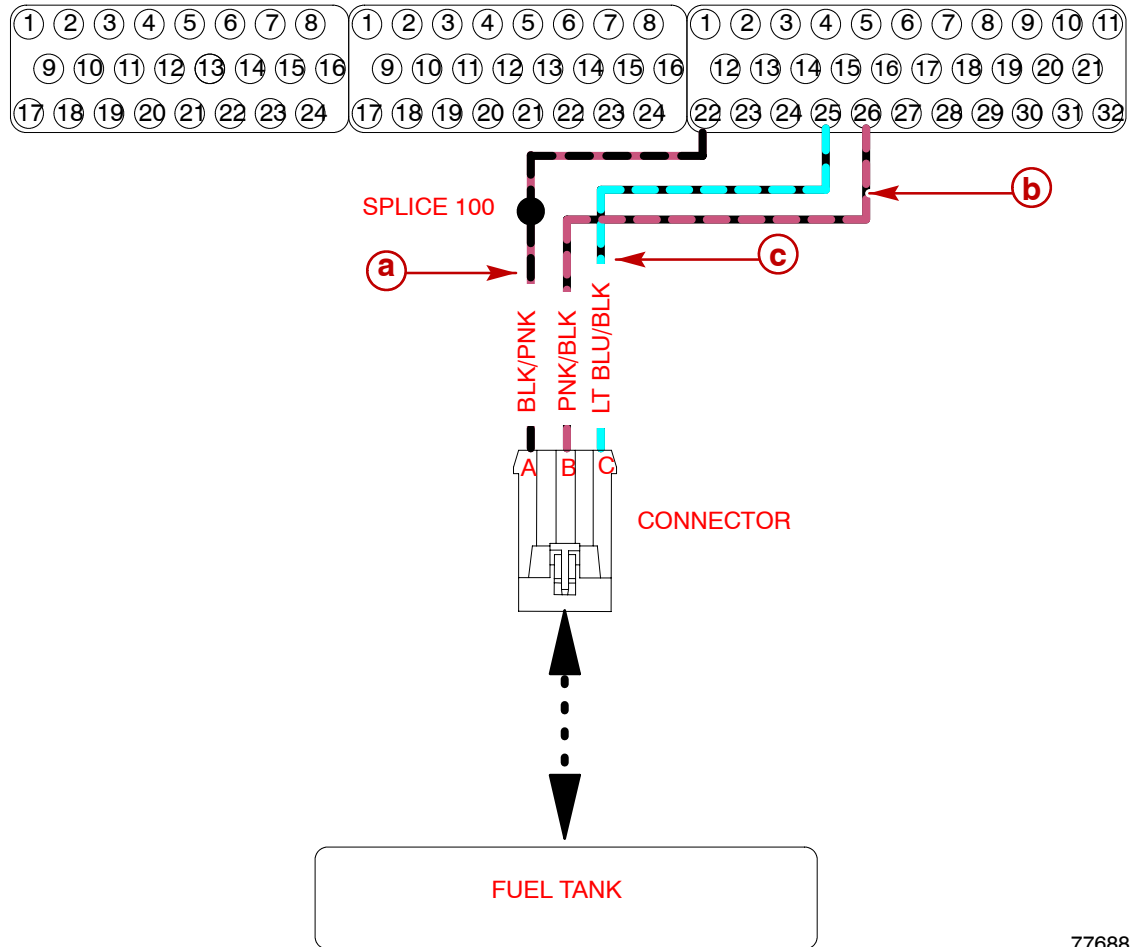
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- a** - 5 Volt Transducer Ground
- b** - 5 Volt Transducer Power
- c** - Paddle Wheel Signal
- d** - Seawater Lake Temperature Signal

The paddle wheel circuit supplies the PCM with boat speed and lake water temperature readings, it is much more precise than the pitot circuit at lower speeds. It is located on the rear of the engine.

A malfunction in the paddle wheel circuit will not set a fault.

FUEL LEVEL SENSOR CIRCUIT



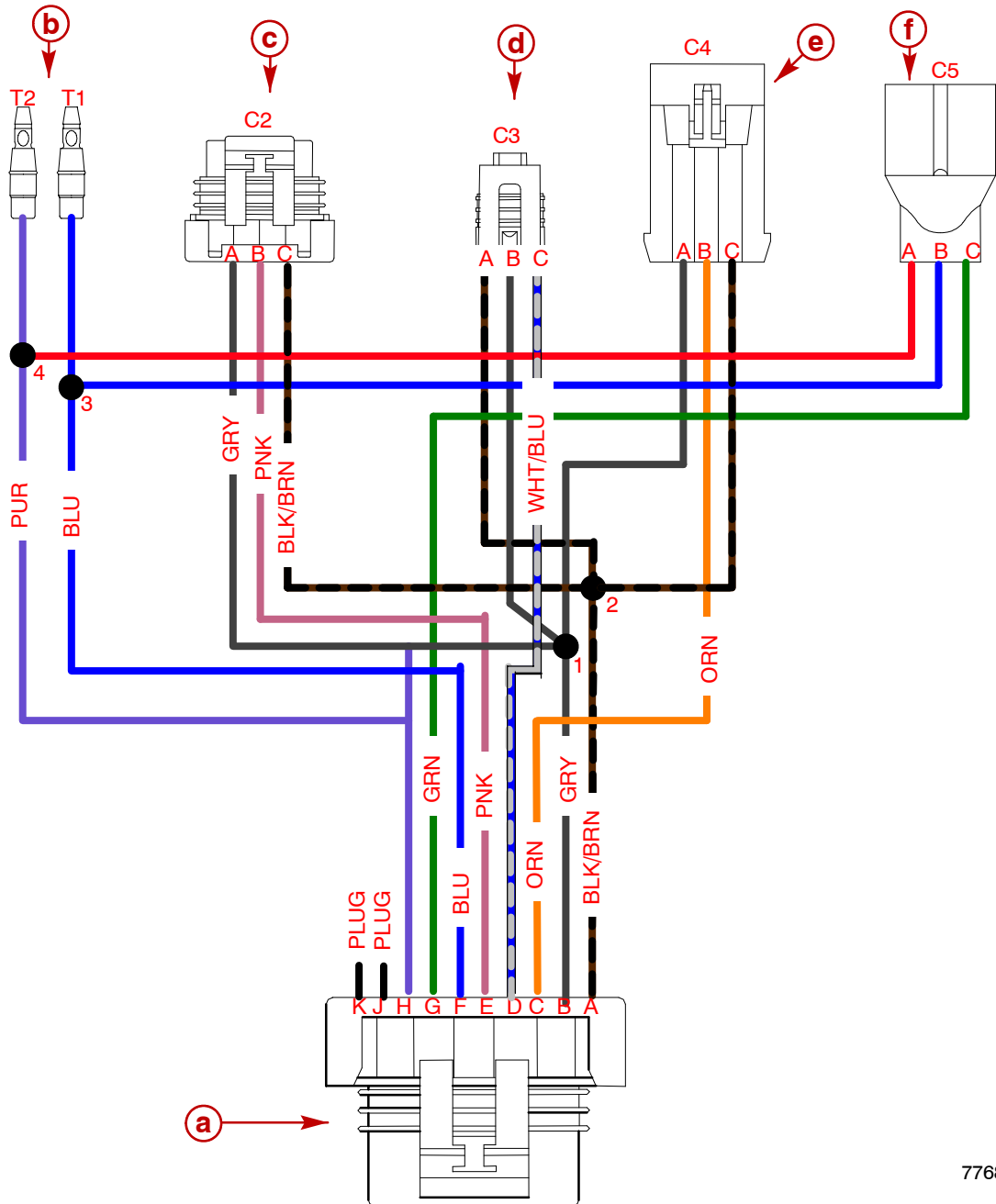
77688

- a** - 5 Volt Transducer Ground
- b** - Fuel Level 1
- c** - Fuel Level 2

The fuel level sensor circuit supplies the PCM with the fuel level. It is located on the port rear of the engine.

A malfunction in the fuel level circuit will not set a fault.

TRANSOM HARNESS



77689

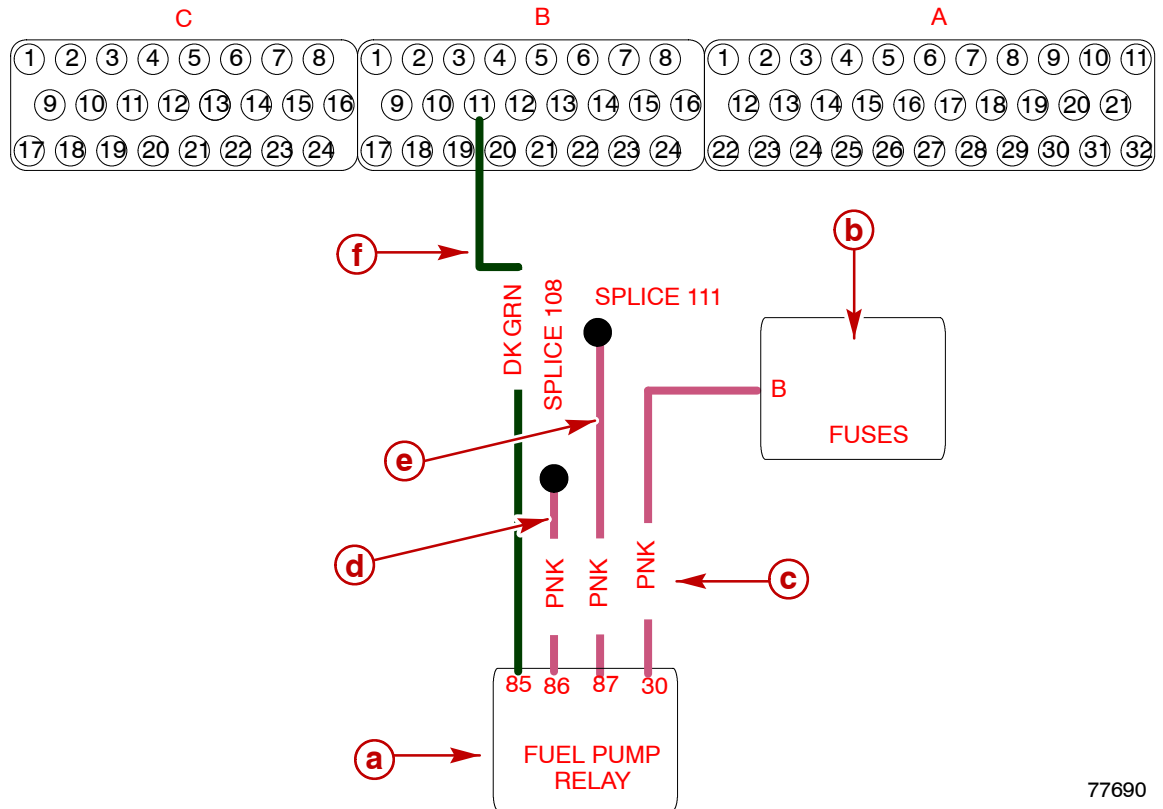
- a** - Transom Harness To Engine Harness Connector
- b** - Trim Limit Connectors On Mechanical Throttle and Shift
- c** - Steering Sensor Connector
- d** - Speedometer Sensor
- e** - Trim Sensor
- f** - Trim Limit Connector For Electronic Throttle And Shift

The transom harness has multiple leads that connect to sensors in the transom assembly. It is located on the rear of the engine between the EFI harness and the inner transom. Do NOT connect both of the trim limit connectors, “b” and “f”, simultaneously as this will cause a failure in the trim limit circuit.

A malfunction in the transom harness will set the fault of Trim CKT HI, Trim CKT LO, Steering Angle Input HI or Steering Angle Input LO.



FUEL PUMP RELAY CIRCUIT



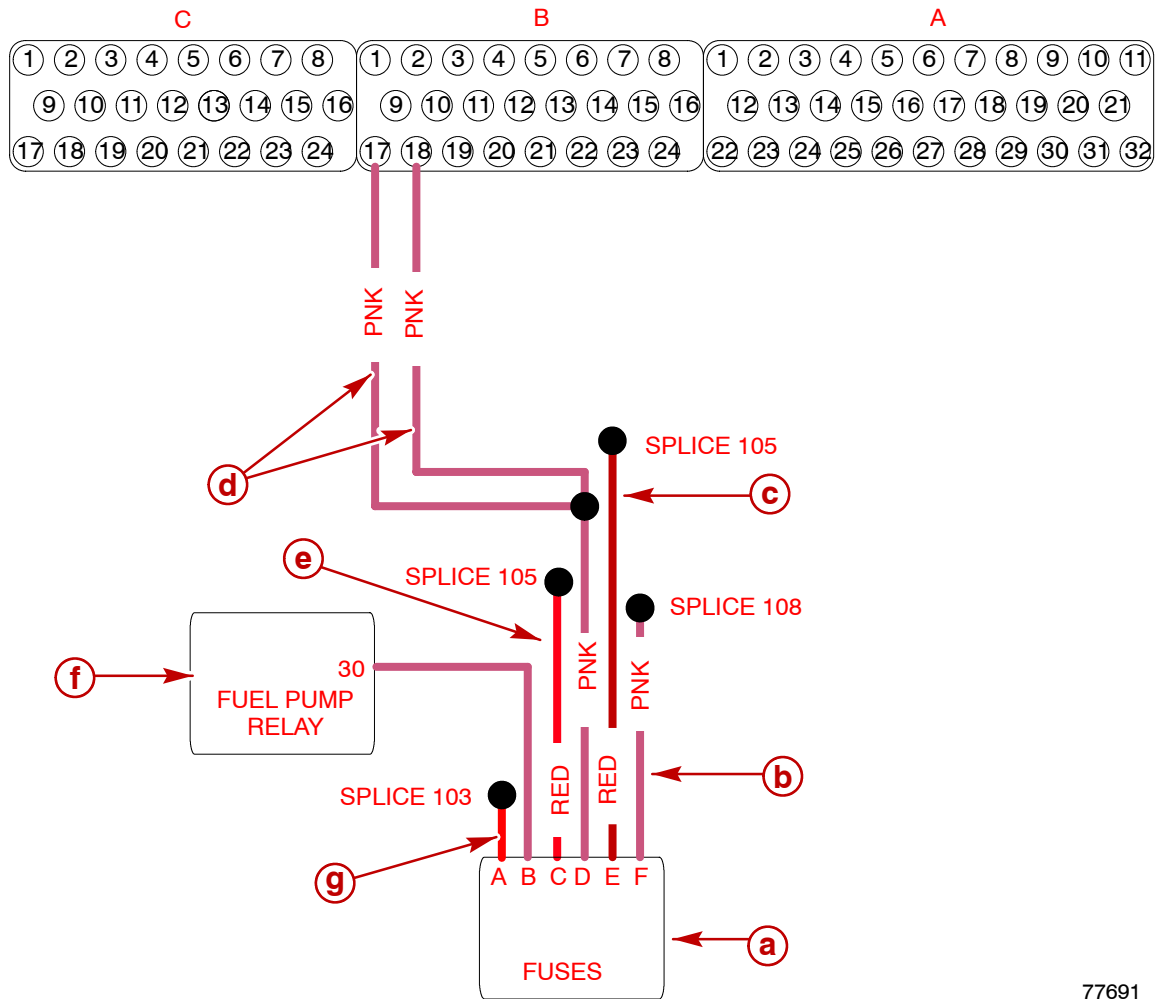
77690

- a** - Fuel Pump Relay
- b** - Fuses
- c** - 12 Volt Power From The Fuses
- d** - 12 Volt Power To The Injectors
- e** - 12 Volt Power To Both Fuel Pumps
- f** - Signal To PCM

Upon Key ON, the fuel pump relay receives 12v battery power through the fuses at Terminal 30. The relay powers both fuel pumps and signals the PCM that the engine is ready to start. Listen at key ON for both fuel pumps to run.

A malfunction in the fuel pump relay circuit will not set a fault.

FUSE CIRCUIT



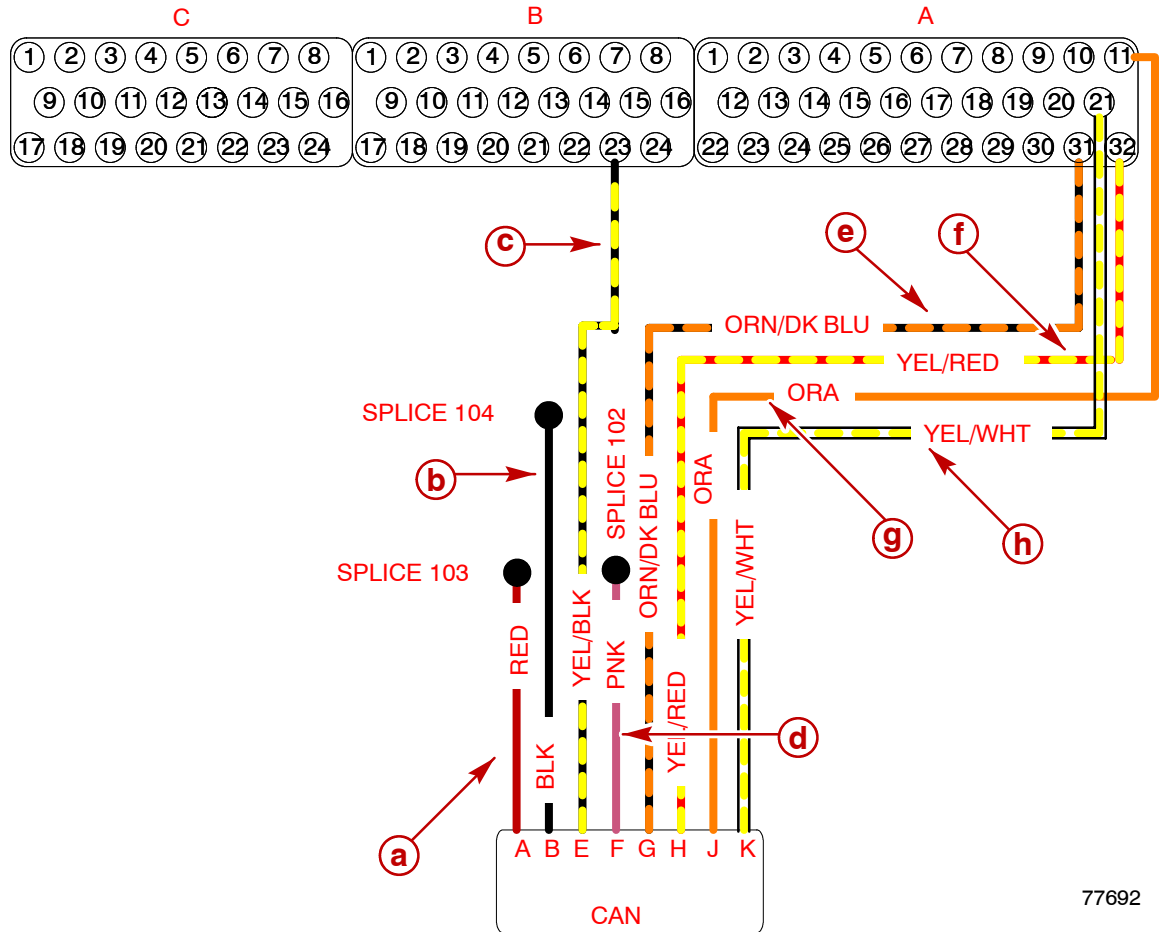
77691

- a** - Transducer Ground
- b** - 12 Volt Power To Fuel Injectors
- c** - Battery Power
- d** - 12 Volt Power To PCM
- e** - Battery Power
- f** - 12 Power To Fuel Pump Relay
- g** - Battery Power

The fuse circuit receives 12v battery power through Splices 103 and 105. It is located on the upper port side of the engine. The protected power is then sent to the PCM, fuel injectors and the fuel pump relay.

A malfunction in the fuse circuit will not set a fault.

**CONTROL AREA NETWORK (CAN) CIRCUIT**



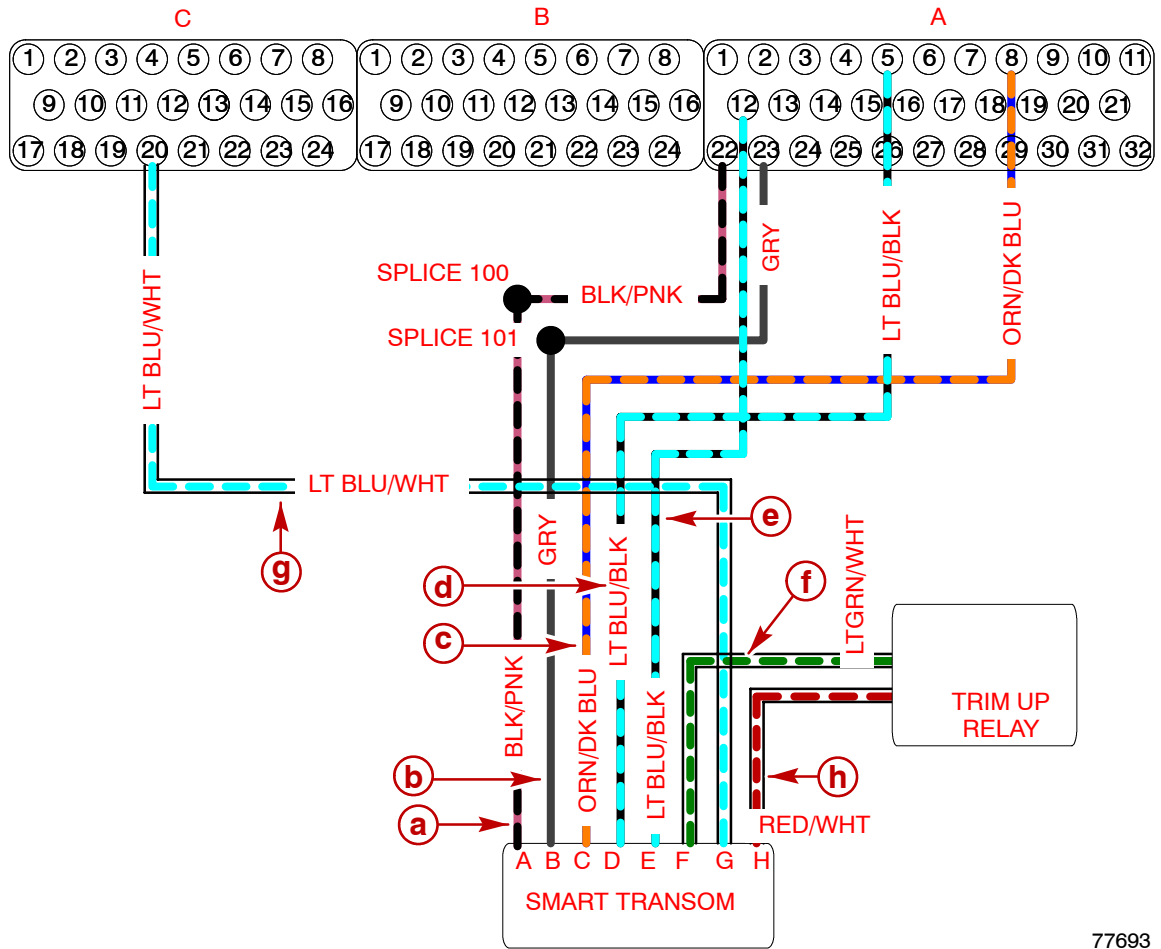
77692

- a** - Bus 12 Volt Power
- b** - Bus Ground
- c** - Emergency Stop
- d** - Wake Up Line
- e** - Can 2 Power
- f** - Can 2 Ground
- g** - Can 1 Power
- h** - Can 1 Ground

The CAN circuit powers the Smartcraft gauges (SC1000) on mechanical throttle and shift engines. It is located on the rear of the engine on the upper port side. The gauges receive power through the BUS power and ground. Gauge information (RPM, TEMP, TRIM) is sent through the CAN leads. Emergency Stop and Wake Up is not used on the mechanical models.

A malfunction in the CAN circuit will not set a fault.

SMART TRANSOM CIRCUIT



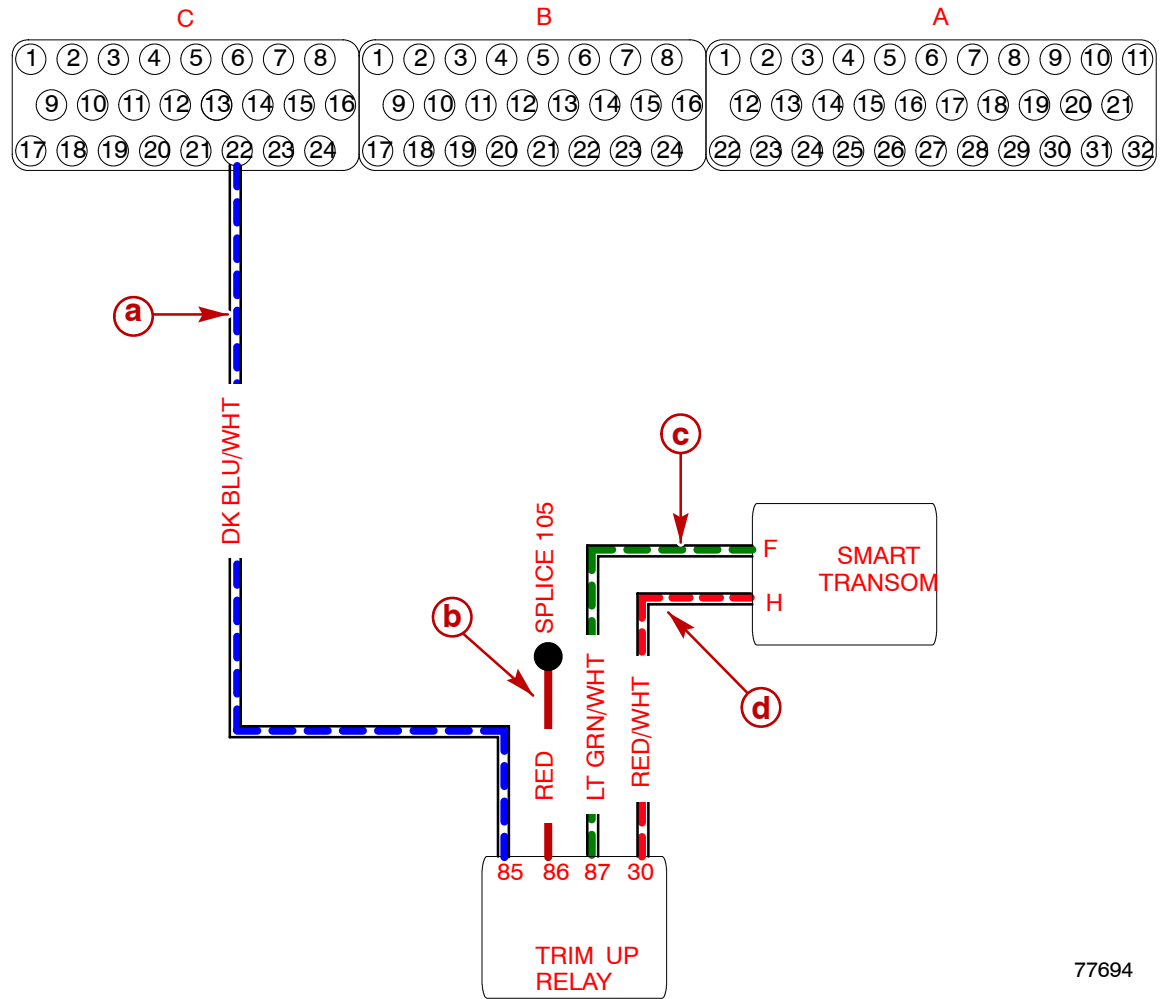
77693

- a** - Transducer Ground
- b** - 5 Volt Transducer Power
- c** - Trim Position Signal
- d** - Pitot Signal
- e** - Steering Signal
- f** - Trim Up Relay
- g** - Trim Down Signal
- h** - 12 Volt Power From Trim Up Relay

The smart transom harness connection is located at the rear of the engine on the upper port side. It controls communication between the transom sensors and the PCM. 5 volt power is supplied to the trim position sensor, pitot and steering through Pin B.

A malfunction in the smart transom circuit will set a fault of Pitot CKT Hi, Pitot CKT Lo, Steer CKT Hi, Steer CKT Lo, Trim CKT Hi or Trim CKT Lo.

TRIM UP RELAY CIRCUIT



77694

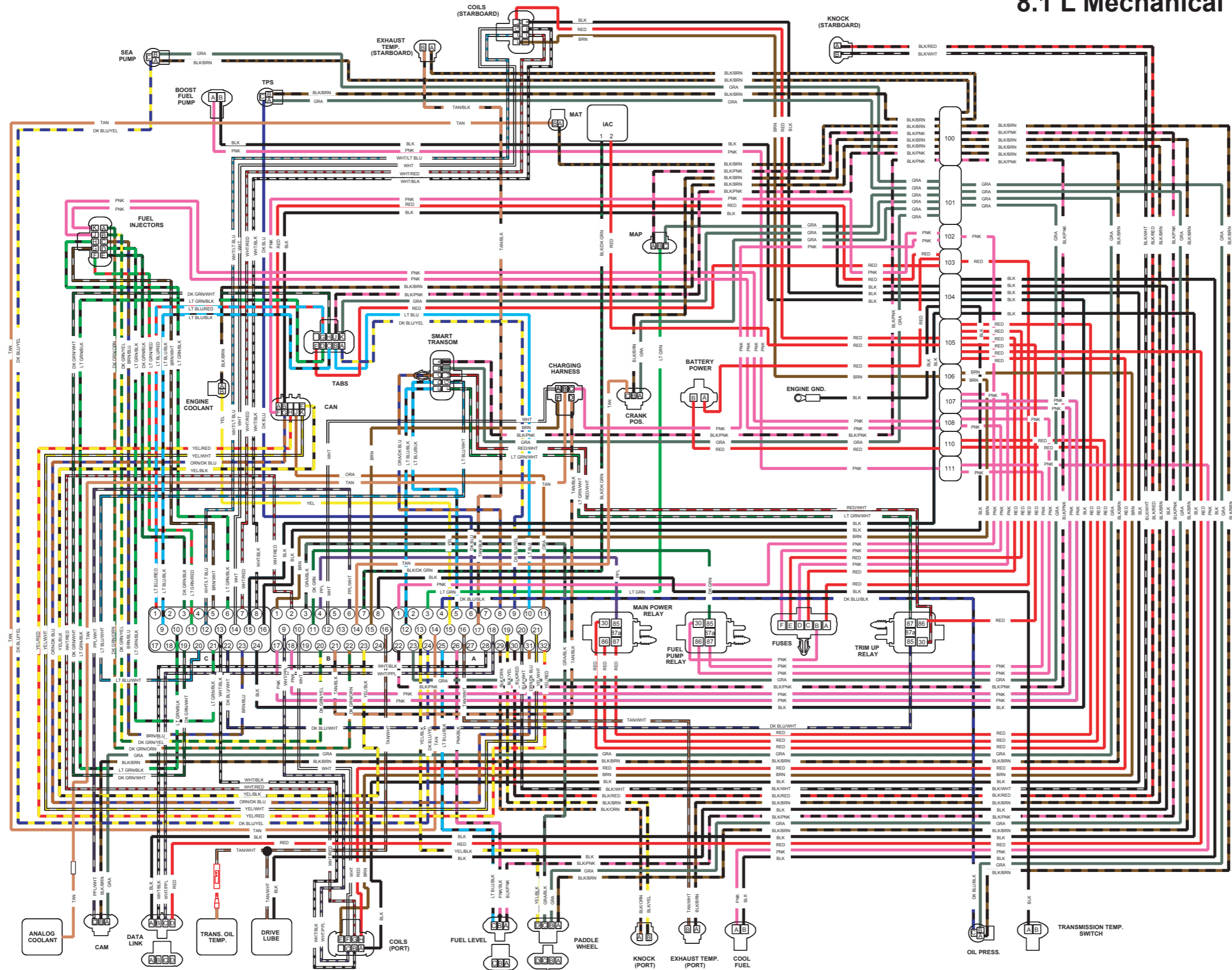
- a** - Reference
- b** - 12 Volt Power To Trim Up Relay
- c** - Trim Up Signal
- d** - 12 Volt Power To Smart Transom

The trim up relay circuit receives power through Splice 105 and signals through the smart transom to trim the sterndrive unit. It is located on the upper port side of the engine.

A malfunction in the trim up relay circuit will set the fault Trim CKT Hi or Trim CKT Lo.

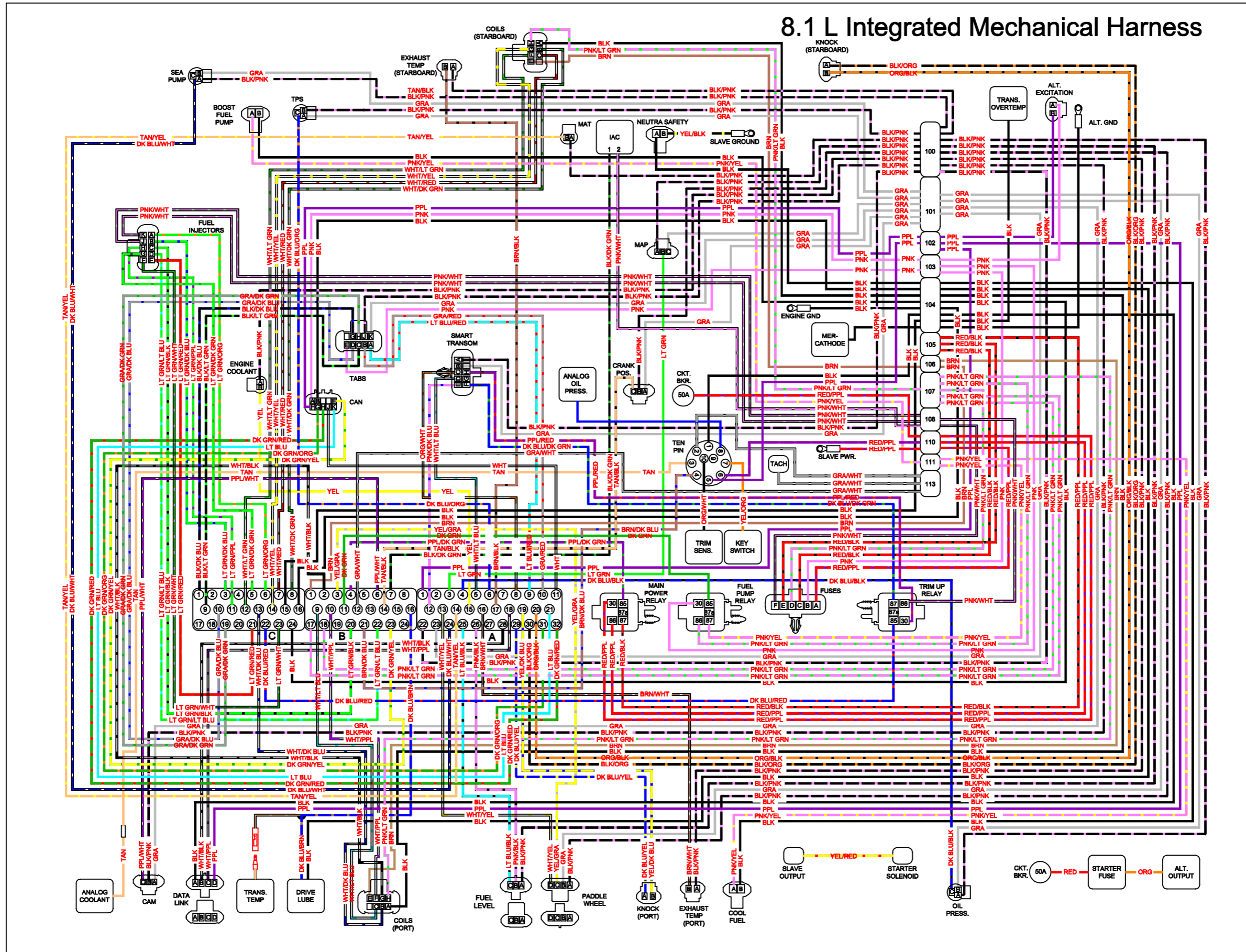
# Wiring Diagrams

# 8.1 L Mechanical Harness



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