

Electrical System

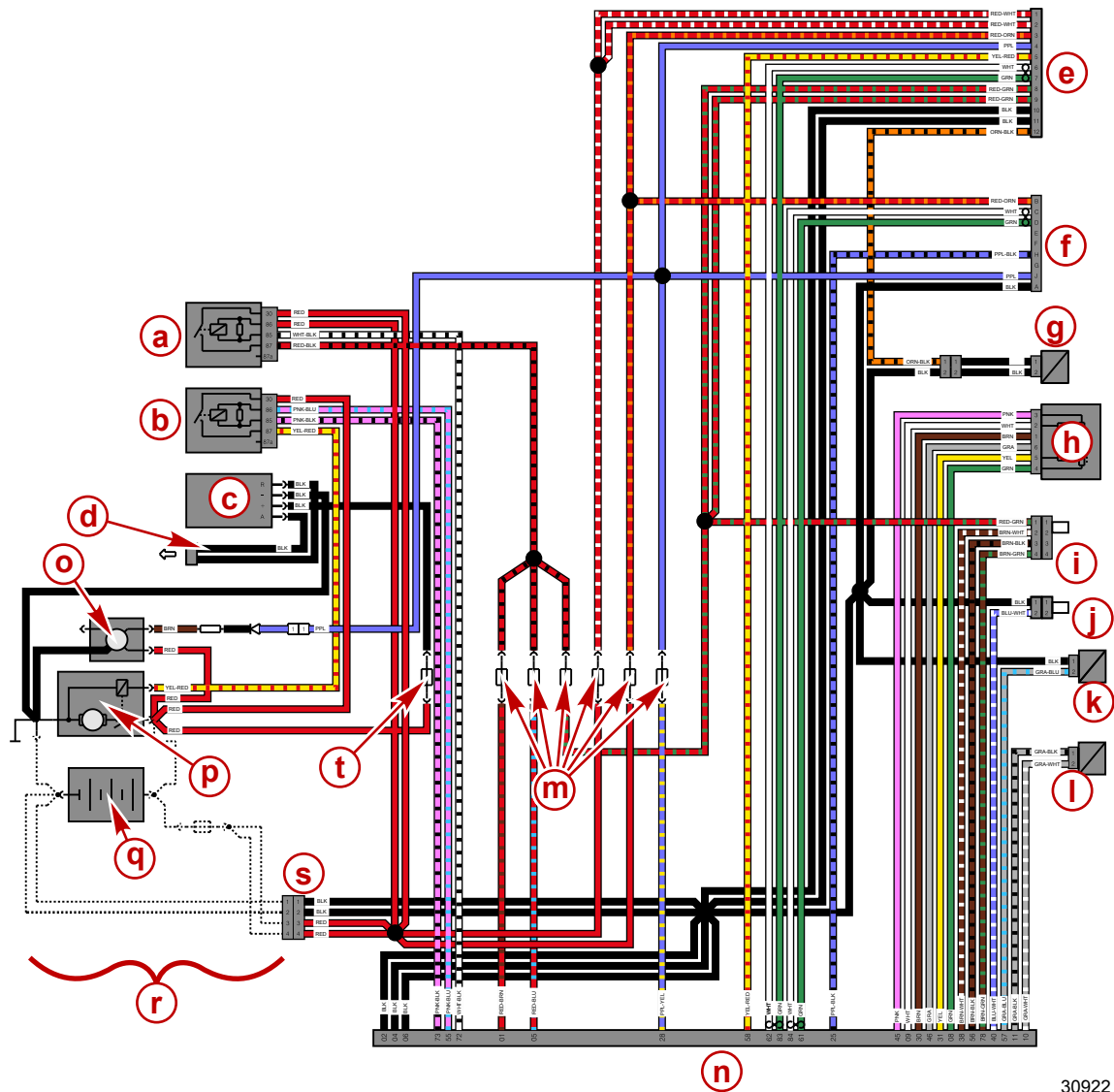
Section 4D - Wiring Diagrams

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Engine Harness Wiring Diagrams

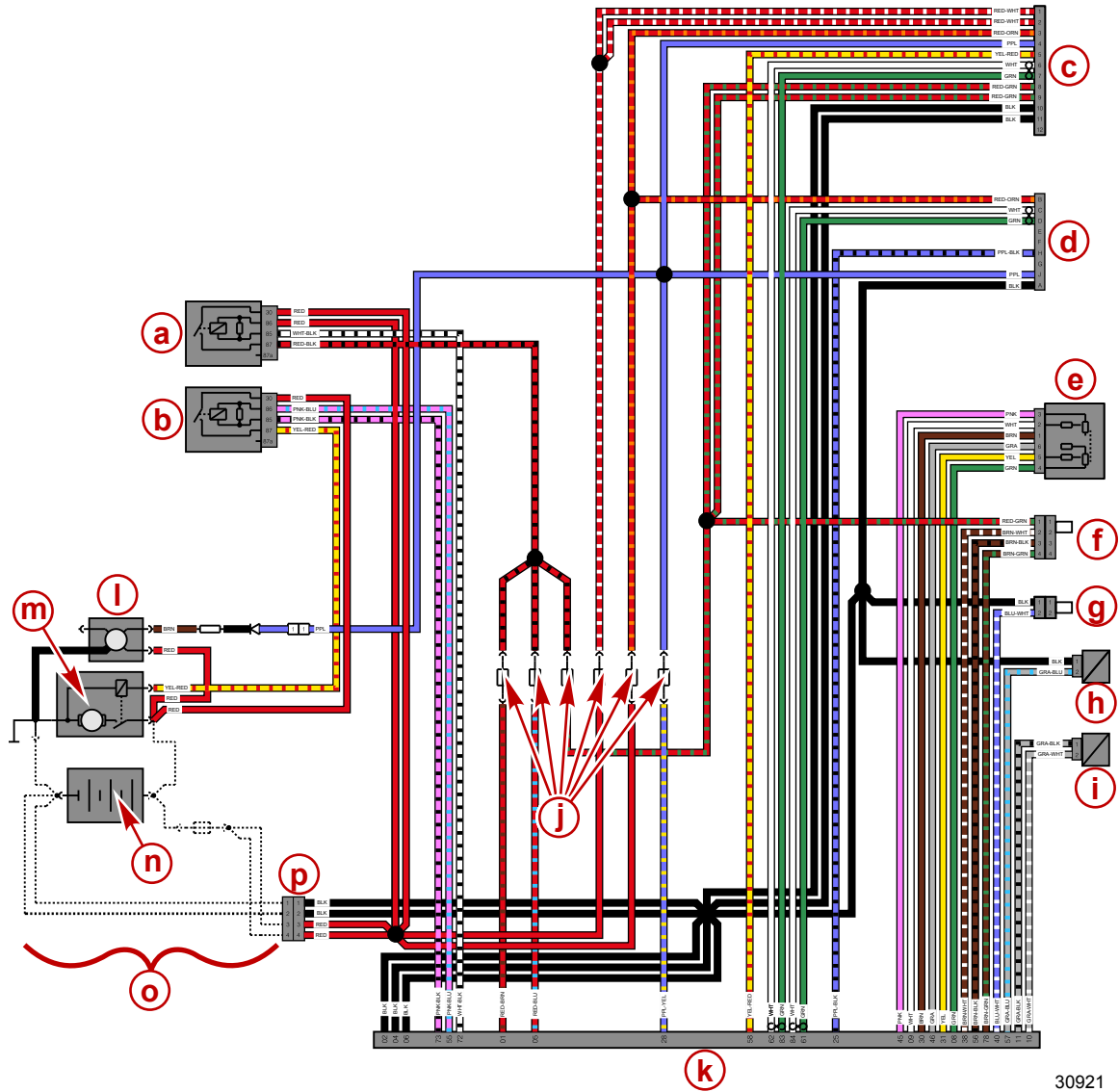
Engine Interface Harness K—Sterndrive Models



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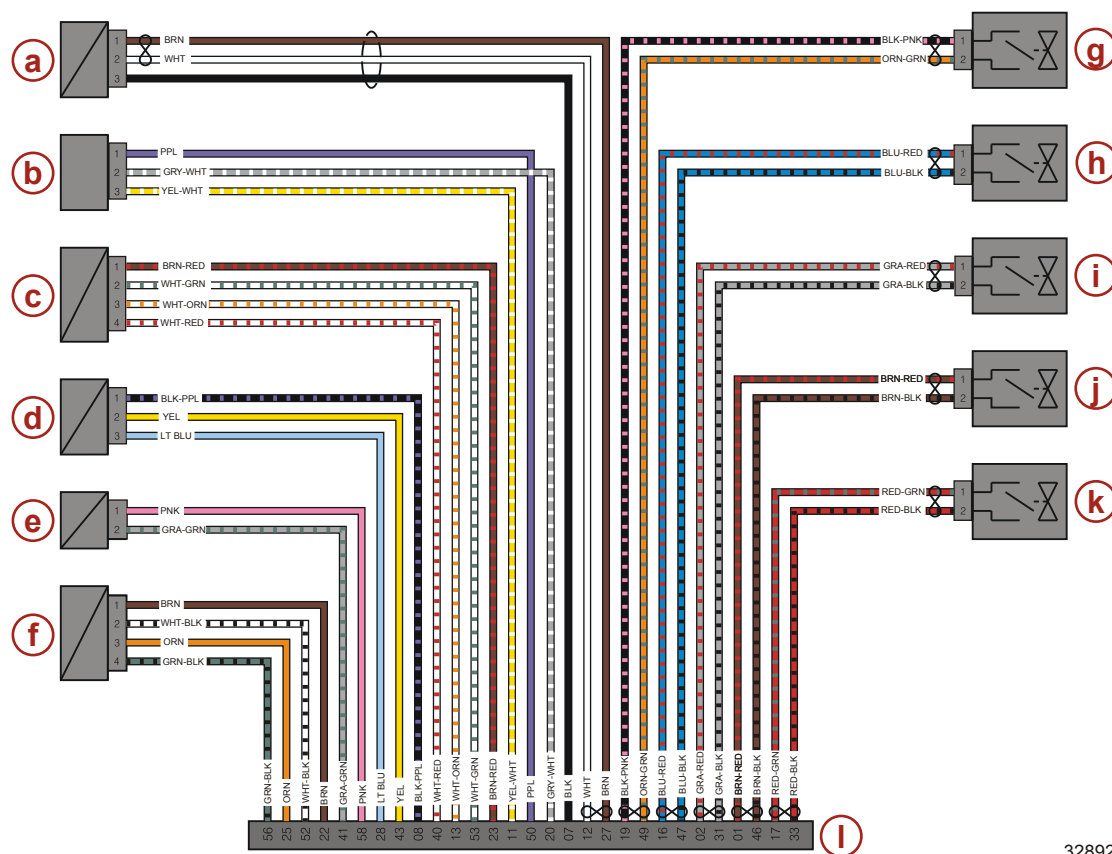
- | | |
|---|--|
| a - Main relay | k - Water in fuel (WIF) sensor connection |
| b - Starter relay | l - Engine fuel temperature (EFT) sensor connection |
| c - MerCathode | m - Engine fuses |
| d - MerCathode connections to transom | n - ECM connection |
| e - Engine interface connection | o - Alternator |
| f - CDS diagnostic tool connection | p - Starter |
| g - Sterndrive gear lube level sensor connection | q - Battery |
| h - Throttle position sensor (TPS) connection | r - Engine power harness |
| i - MUS ID jumper connection | s - Engine power harness connection |
| j - Neutral safety switch connection | t - MerCathode 20-amp in-line fuse |

Engine Interface Harness K—Inboard Models



- a** - Main relay
- b** - Starter relay
- c** - Engine interface connection
- d** - CDS diagnostic tool connection
- e** - Throttle position (TP) sensor connection
- f** - MUS ID jumper connection
- g** - Neutral safety switch connection
- h** - Water in fuel (WIF) sensor connection
- i** - Engine fuel temperature (EFT) sensor connection
- j** - Engine fuses
- k** - ECM connection
- l** - Alternator
- m** - Starter
- n** - Battery
- o** - Engine power harness
- p** - Engine power harness connection

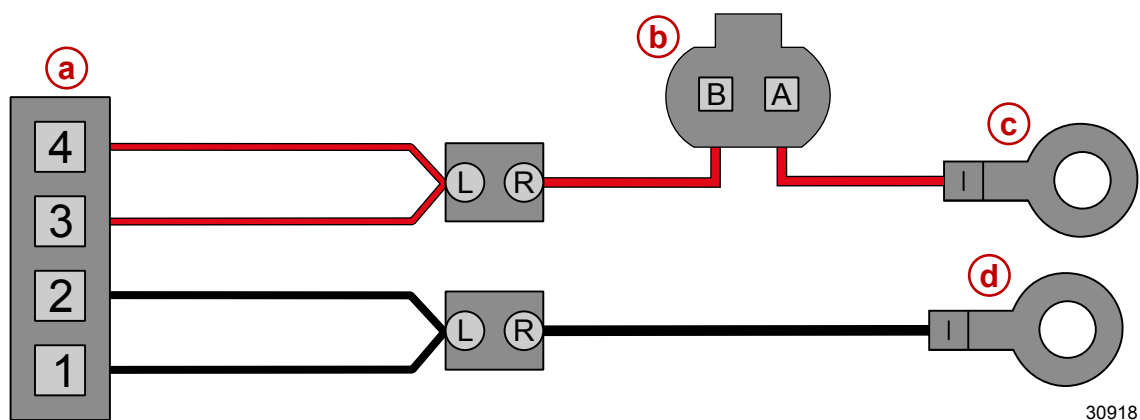
2.0 Engine Fuel System Harness



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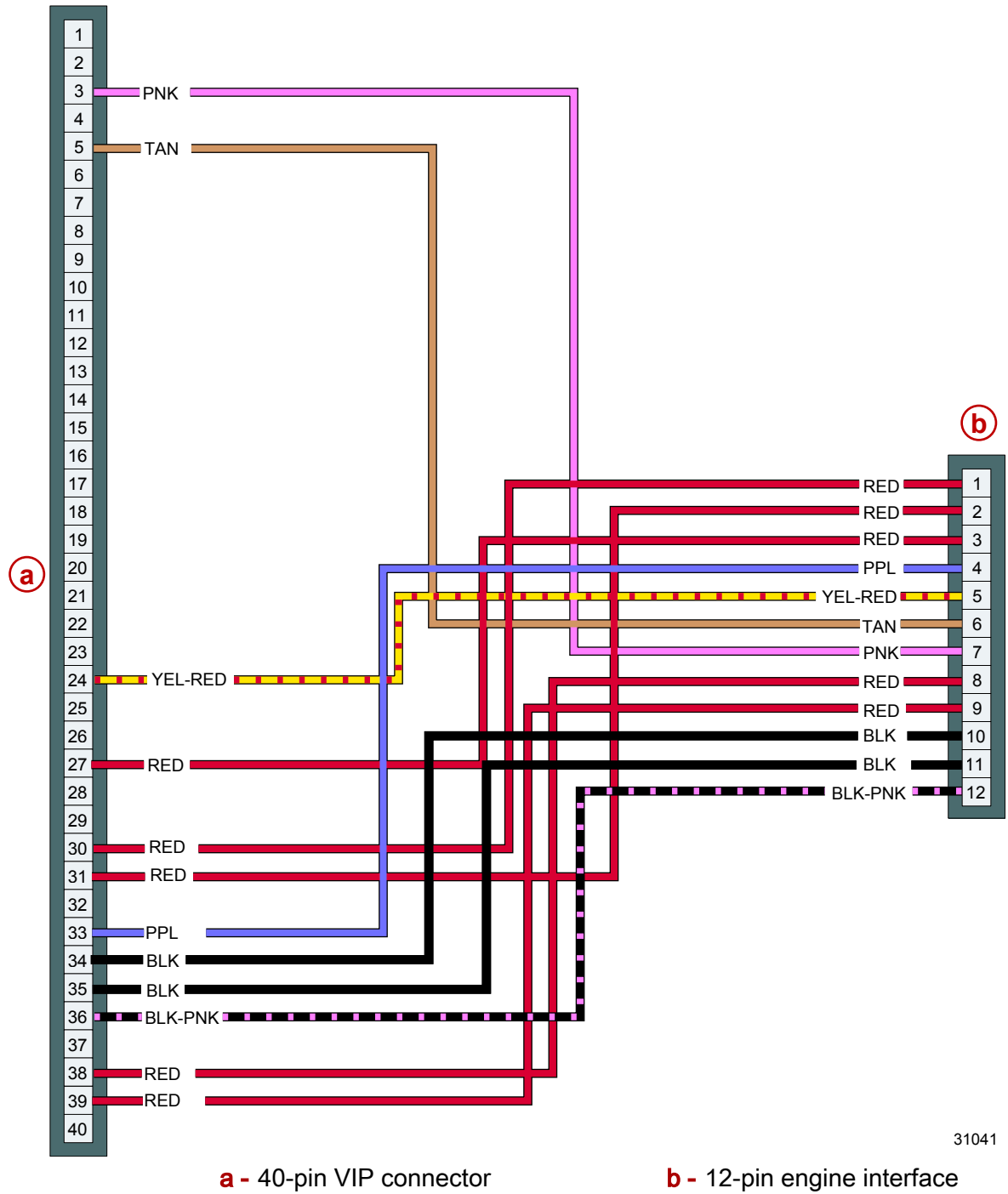
- a** - Crankshaft speed sensor connection
- b** - Camshaft position sensor connection
- c** - Manifold absolute pressure and temperature (IMP and MAP) sensor connection
- d** - Rail fuel pressure sensor connection
- e** - Engine coolant temperature (ECT) sensor
- f** - Engine oil pressure and temperature (EOP and EFT) sensor connection
- g** - High pressure fuel pump sensor connection
- h** - Injector 1
- i** - Injector 2
- j** - Injector 3
- k** - Injector 4
- l** - ECM connection

Engine Power Harness

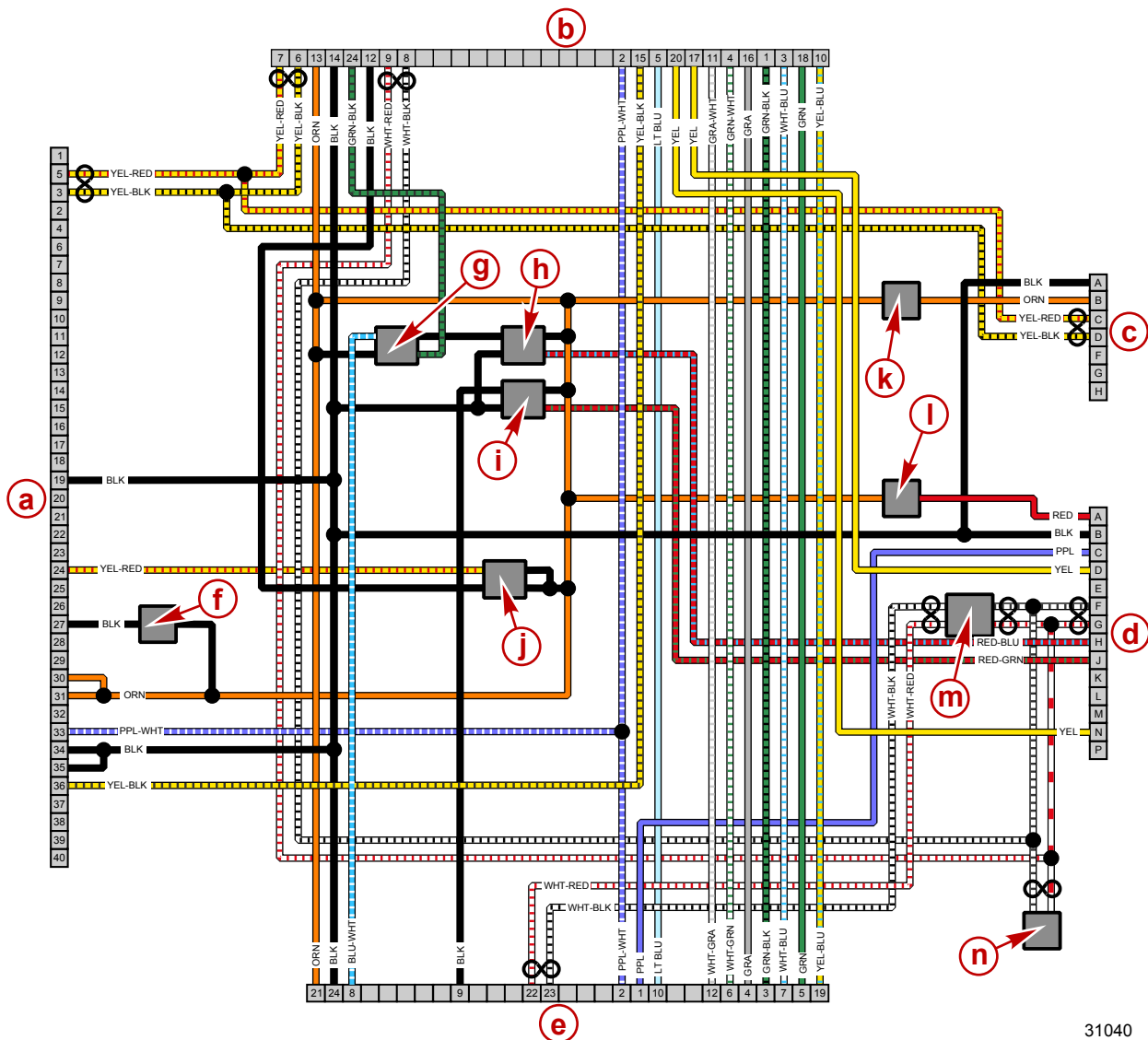


- a** - Engine power connector
- b** - 30-amp fuse
- c** - Positive (+) battery terminal connection
- d** - Negative (-) battery terminal connection

Engine to VIP Wiring Harness



Vessel Interface Panel Wiring Diagram

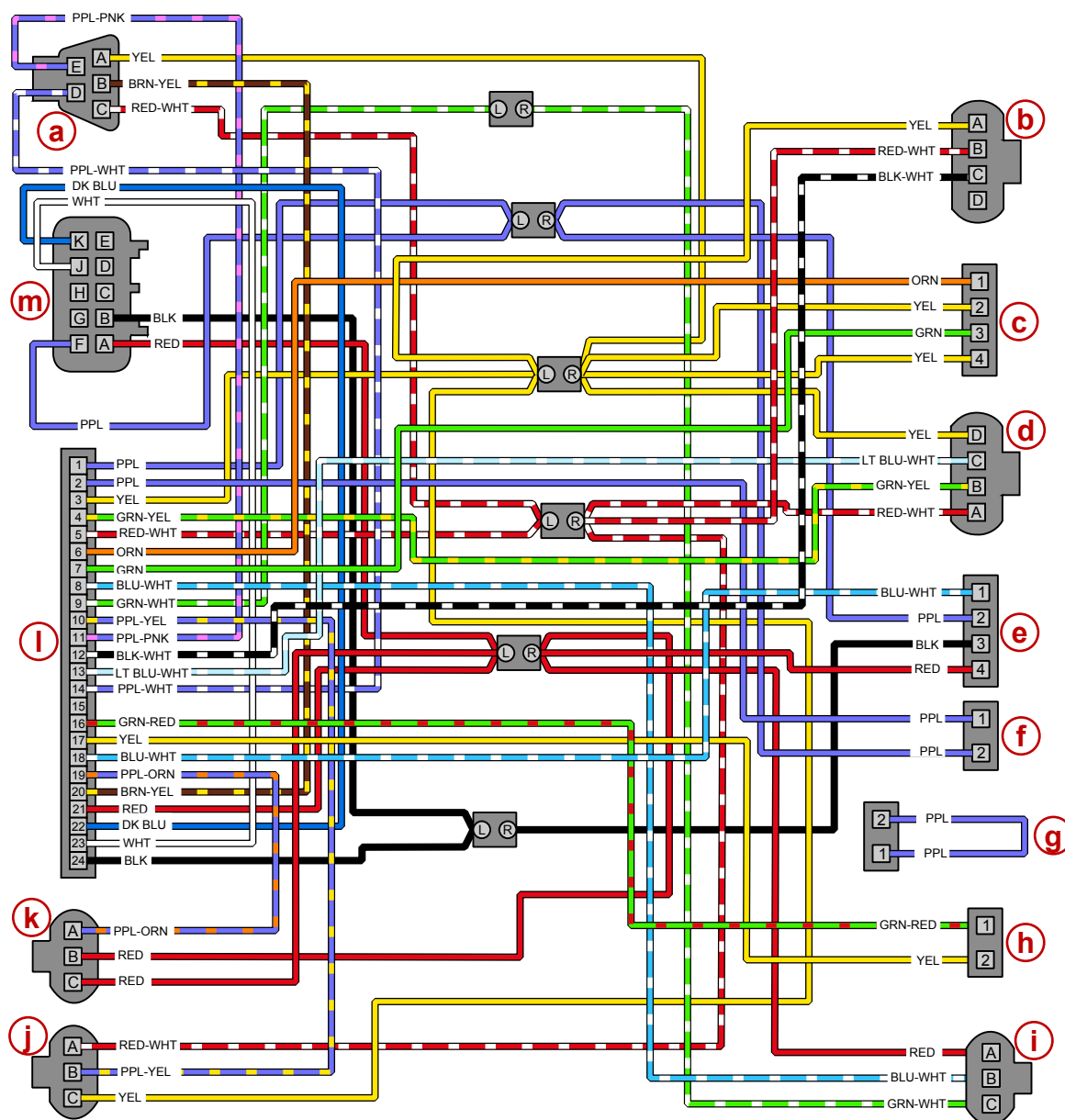


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- a** - 40-pin engine to VIP harness connector
- b** - SIM connections
- c** - 9-pin diagnostic connector
- d** - 14-pin helm harness connector
- e** - 24-pin vessel sensor harness connector
- f** - 5-amp circuit breaker
- g** - Trim limit relay
- h** - Trim up relay
- i** - Trim down relay
- j** - Start relay
- k** - 5-amp circuit breaker
- l** - 10-amp circuit breaker
- m** - Default switch position
- n** - 120-ohm CAN P terminator resistor

Vessel Sensor Harness Wiring Diagrams

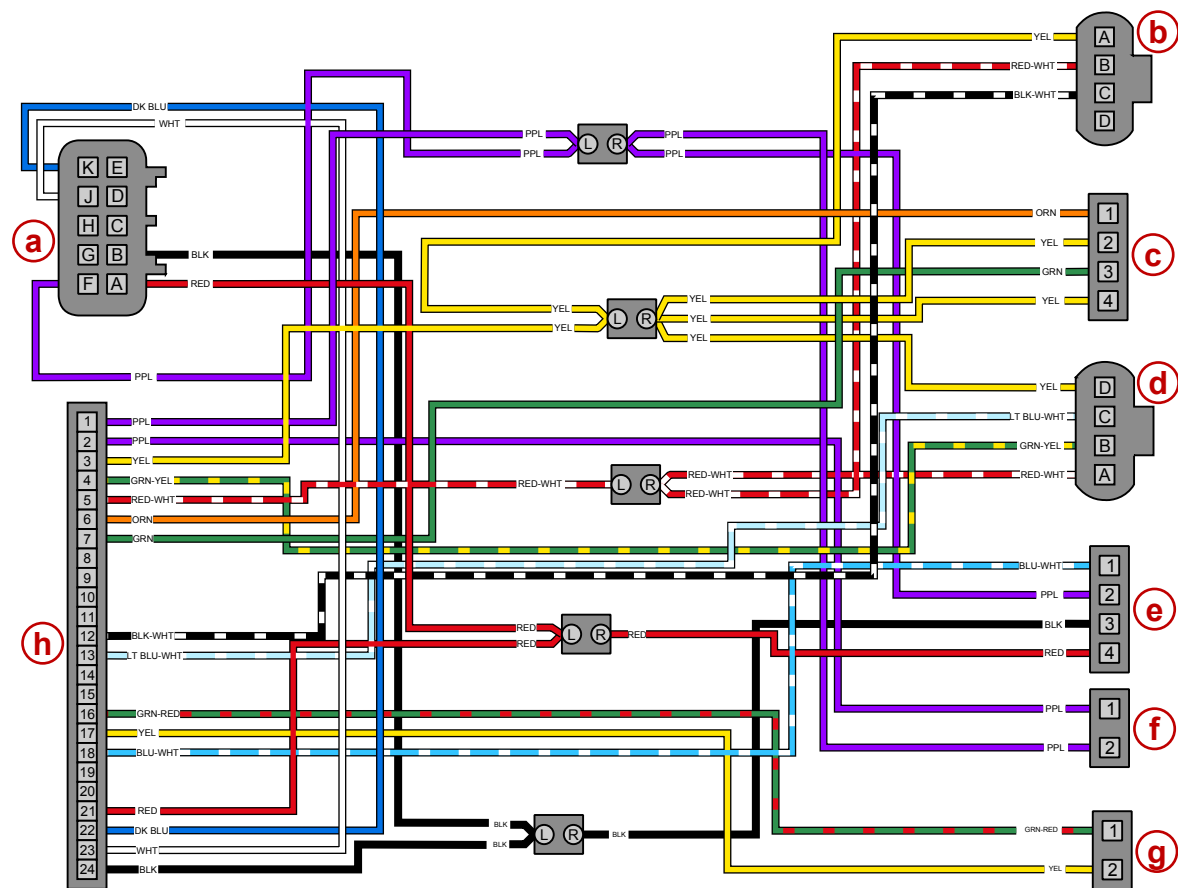
Sterndrive Vessel Sensor Harness



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- a** - Shift actuator connector
- b** - Paddle wheel speed sensor connector
- c** - Fuel tank quantity sensor connector
- d** - Fuel tank quantity sensor connector
- e** - Accessory relay drive connector
- f** - Halon breakout connector
- g** - Halon breakout jumper plug
- h** - Water in fuel (WIF) connection
- i** - Trim pump connection
- j** - Trim position sensor connection
- k** - Shift anticipation connection
- l** - 24-pin VIP connection
- m** - CAN P connector

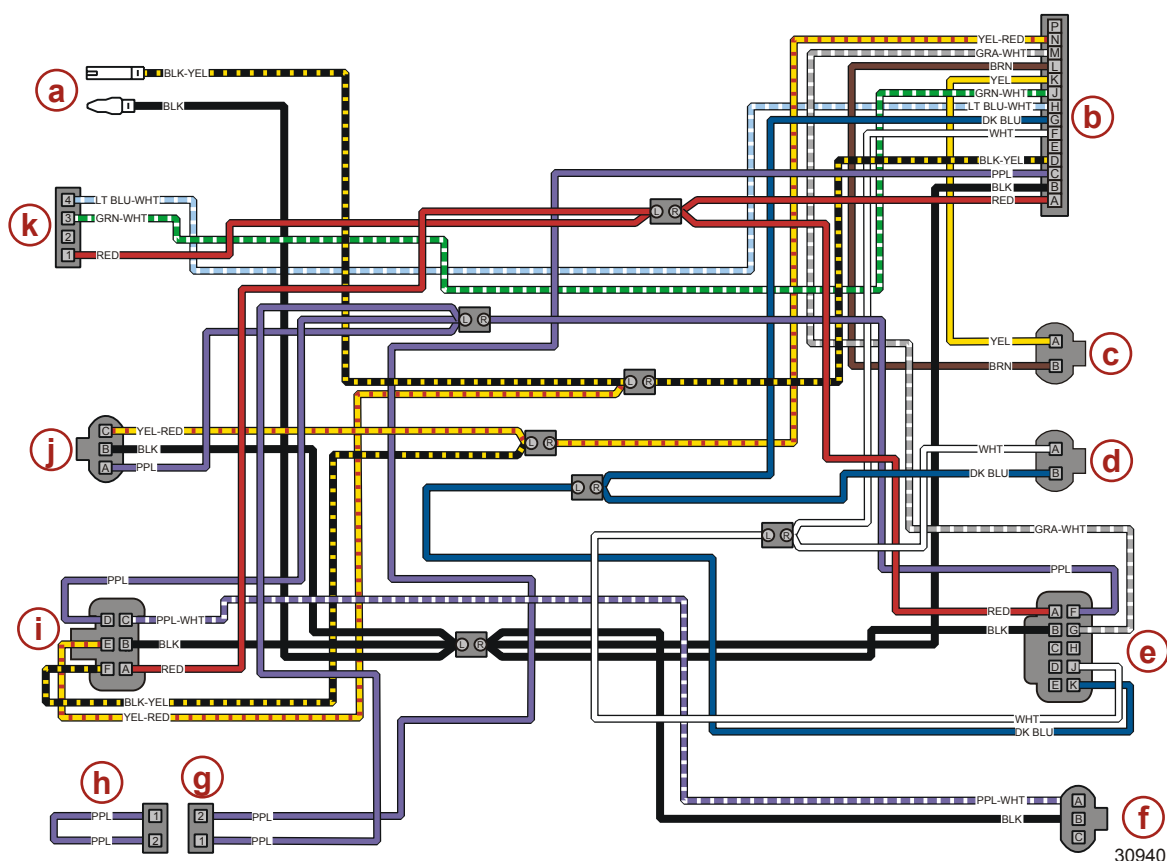
Inboard Vessel Sensor Harness



- 30937
- a** - CAN P connector
 - b** - Paddle wheel speed sensor connector
 - c** - Fuel tank quantity sensor connector
 - d** - Steering position connector
 - e** - Accessory relay drive connector
 - f** - Halon breakout connector (jumper plug not shown)
 - g** - Water in fuel (WIF) extension connection
 - h** - 24-pin VIP connection

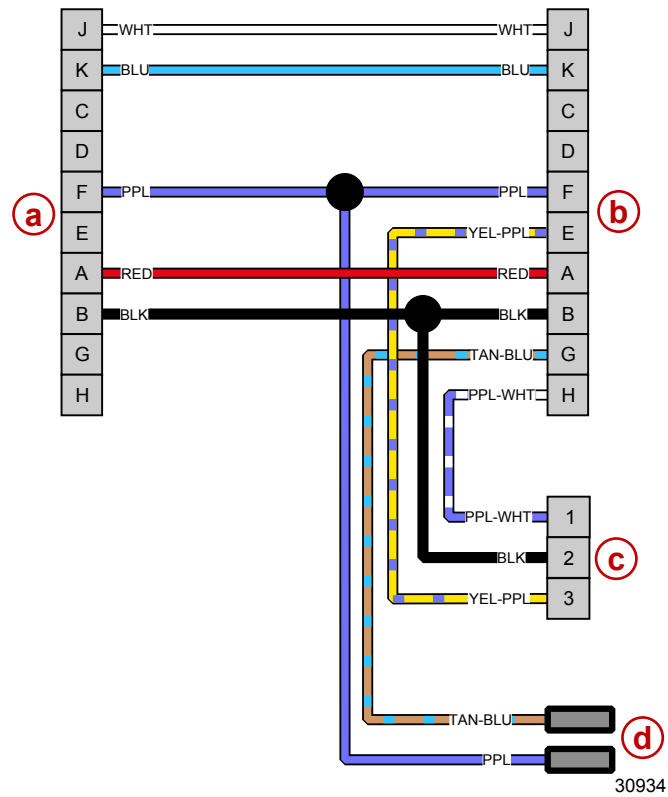
Instrumentation Wiring Diagrams

Non-DTS helm harness



- a** - Lanyard connections
- b** - 14-pin helm extension harness or VIP connection
- c** - CAN X termination resistor connector (weather capped)
- d** - CAN P termination resistor connector
- e** - Junction block connection
- f** - Switched load connection
- g** - Halon breakout connection
- h** - Halon breakout jumper plug
- i** - Key switch connection
- j** - Start-stop panel connector
- k** - Power trim control connection

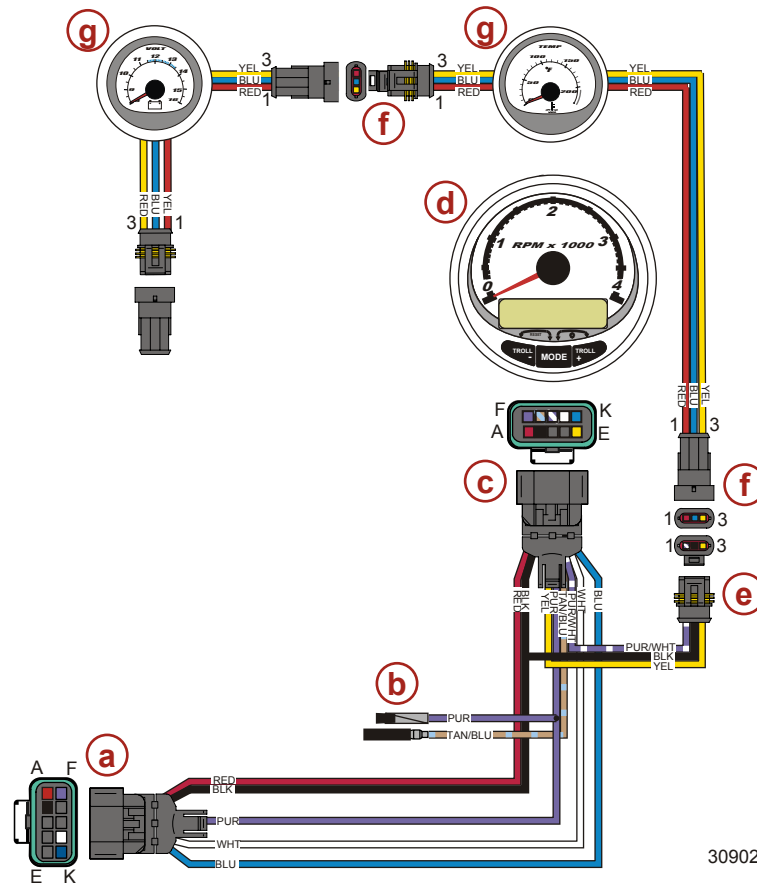
SmartCraft System Tachometer



- a** - Junction block connection
- b** - System tachometer connection
- c** - Link gauges connection
- d** - Alarm horn connections

SmartCraft System Tachometer

IMPORTANT: Seal all unused connectors with weather caps.



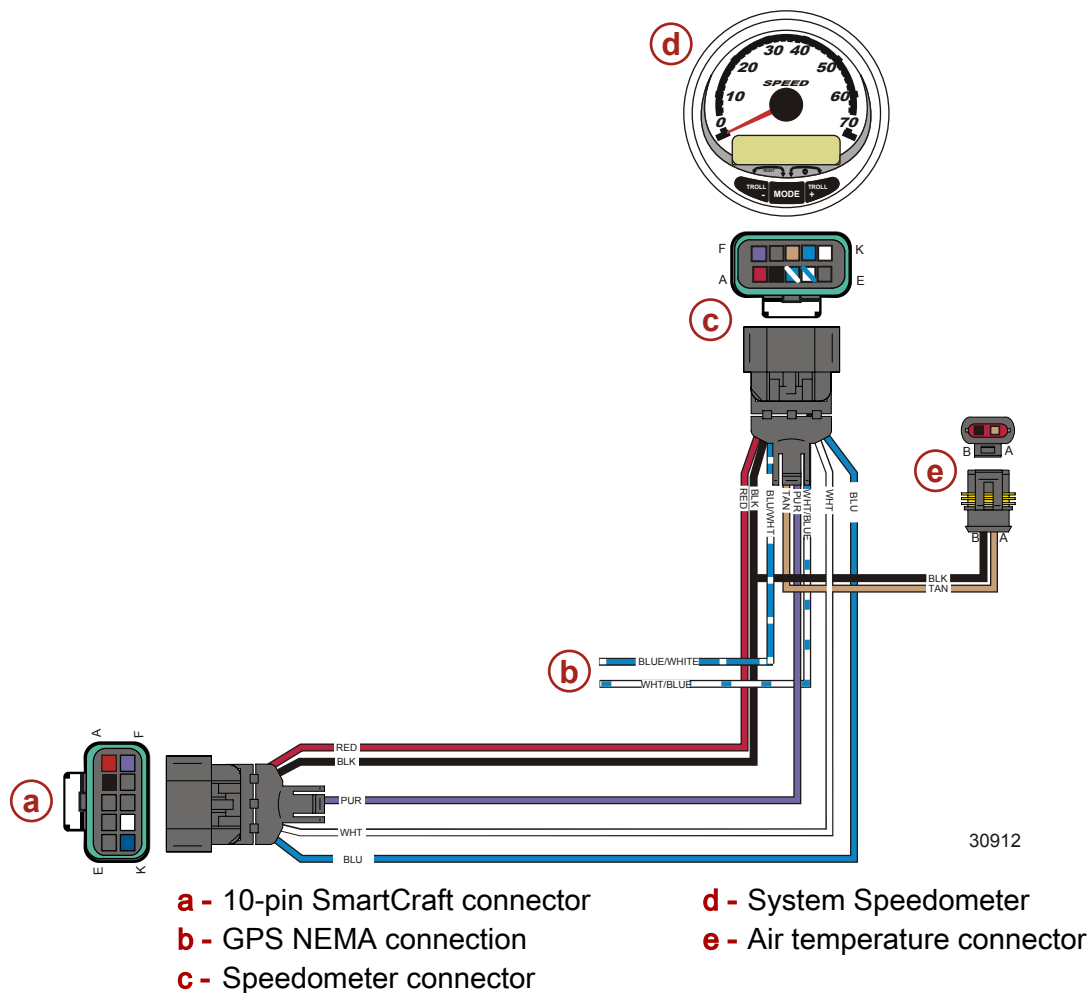
- a** - 10-pin SmartCraft connector
- b** - Audio warning wiring
- c** - Tachometer connector
- d** - System Tachometer

- e** - System Link Gauge connector
- f** - System Link Gauge wiring
- g** - System Link Gauge

Tachometer Connector		
Pin	Wire Color	Function
A	RED	Positive 12 volts (un-switched)
B	BLK	Ground
C	—	Empty
D	—	Empty
E	YEL	System Link Data
F	PUR	Wake (key on battery power)
G	TAN/BLU	Audio warning
H	PUR/WHT	System Link Power
J	WHT	CAN P +
K	BLU	CAN P -

SmartCraft System Speedometer

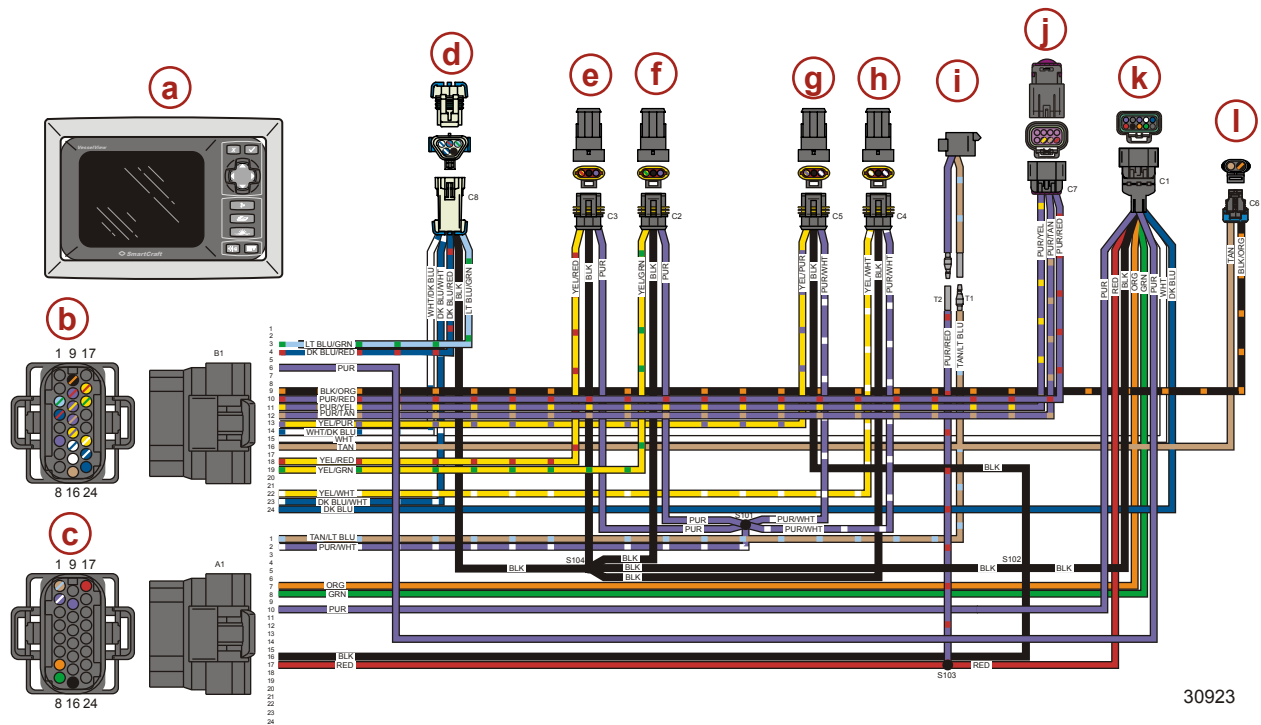
IMPORTANT: Seal all unused connectors with weather caps.



Pin	Wire Color	Function
A	RED	Positive 12 volts
B	BLK	Ground
C	BLU/WHT	NEMA -
D	WHT/BLU	NEMA +
E	-	Empty
F	PUR	Wake (key on battery voltage)
G	-	Empty
H	TAN	Air Temperature
J	BLU	CAN P +
K	WHT	CAN P -

VesselView Harness Wiring Diagram

VesselView Harness Diagram



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- a** - VesselView
- b** - VesselView connector "B"
- c** - VesselView connector "A"
- d** - NMEA connection
- e** - System link (starboard 2)
- f** - System link (port 2)
- g** - Starboard system link
- h** - Port system link
- i** - Warning horn
- j** - Ignition connector
- k** - Junction box connector
- l** - Air temperature sensor

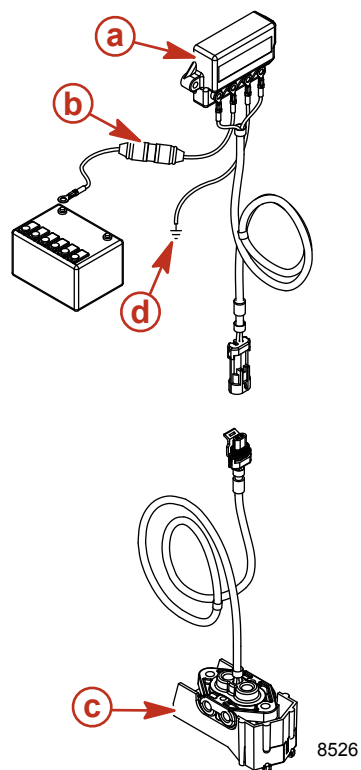
IMPORTANT: Seal all unused connectors with weather caps.

VesselView Harness Pinout Table

Vessel View Connector "A"		
Pin	Wire Color	Function
1	TAN/LT BLU	Audio warning signal
2	PUR/WHT	Audio warning power
3 – 6	–	Empty
7	ORG	Reserved
8	GRN	Reserved
9	–	Empty
10	PUR	Wake (key on battery power)
11 – 15	–	Empty
16	BLK	Ground
17	RED	Positive 12 volts (un-switched)
18 – 24	–	Empty

Vessel View Connector "B"		
Pin	Wire Color	Function
1 – 2	–	Empty
3	LT BLU/GRN	NMEA out (+)
4	DK BLU/RED	NMEA out (–)
5	–	Empty
6	PUR	Wake (key on battery power)
7 – 8	–	Empty
9	BLK/ORG	Air temperature ground
10	PUR/RED	Multi-engine Ignition
11	PUR/YEL	Multi-engine Ignition
12	PUR/TAN	Multi-engine Ignition
13	YEL/PUR	Starboard one System Link signal
14	WHT/DK BLU	NMEA in (+)
15	WHT	CAN P +
16	TAN	Air temperature signal
17	–	Empty
18	YEL/RED	Starboard two System Link signal
19	YEL/GRN	Port two System Link signal
20 – 21	–	Empty
22	YEL/WHT	Port one System Link signal
23	DK BLU/WHT	NMEA in (–)
24	DK BLU	CAN P -

MerCathode System



- a** - Controller
- b** - 20-amp fuse
- c** - Electrode
- d** - BLACK wire - with engine harness or separate, model dependant

Notes: