

881800A1 BASIC INSTRUMENT PANEL KIT AND 881801A1 OPTIONAL INSTRUMENT PANEL KIT

For D1.7L DTI Diesel Engines S/N 0M055001 And Above

NOTICE to INSTALLER

After Completing Installation, These Instructions Should Be Placed With The Product For The Owner's Future Use.

NOTICE

Except when included with power package, the following harnesses must be ordered separately.

Extension Harness [4 Meters (13 ft.)] - 84-860615

Extension Harness [7 Meters (22 ft.)] - 84-860616

Parts List

Basic Instrument Panel (881800A1)

Part Number	Description	Qty.
79-882848	Tachometer	1
805678	Key Switch	1
816492A1	Alarm Buzzer	1
882849A1	Small Panel	1

Optional Instrument Panel (881801A1)

Part Number	Description	Qty.
79-882848	Tachometer	1
805678	Key Switch	1
816492A1	Alarm Buzzer	1
882850A1	Big Panel	1
79-882851	Trim Gauge	1
79-882852	Voltmeter Gauge	1
79-882853	Oil Pressure Gauge	1
79-882854	Coolant Temperature Gauge	1

Installation

⚠ WARNING

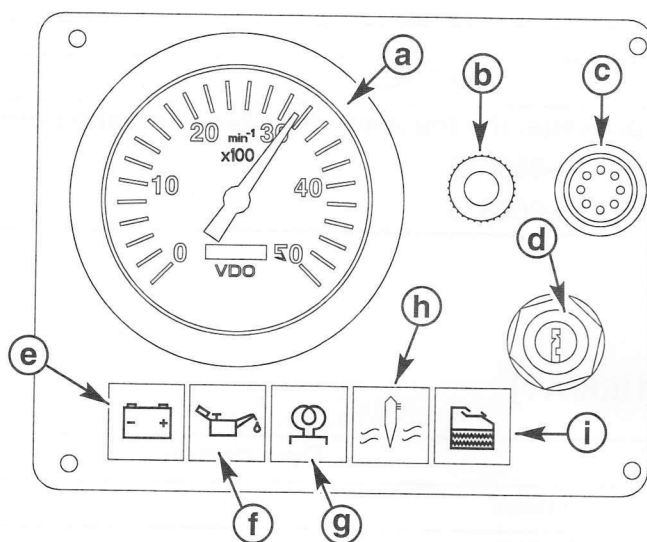
Always disconnect battery cables before working around electrical system components to prevent injury and/or damage to electrical system.

⚠ CAUTION

Before drilling or cutting any holes, check area behind dashboard for obstructions (Examples: braces and cables).

Panel Components

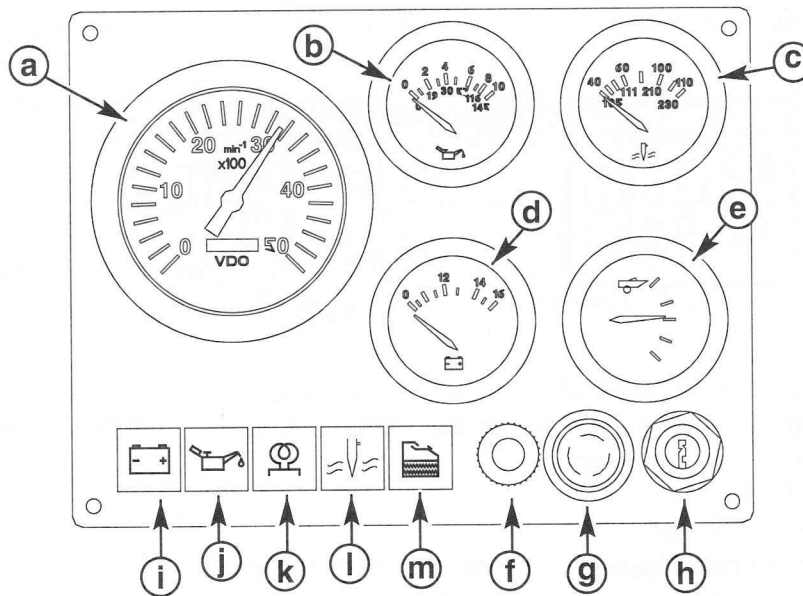
BASIC PANEL



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- a - Tachometer
- b - Instrument Lights / Audio Warning Test Switch
- c - Stop Switch
- d - Key Switch
- e - Charge Indicator Lamp
- f - Oil Pressure Warning Lamp
- g - Preheat Indicator Lamp
- h - Coolant Temperature Warning Lamp
- i - Water In Fuel Warning Lamp

OPTIONAL PANEL

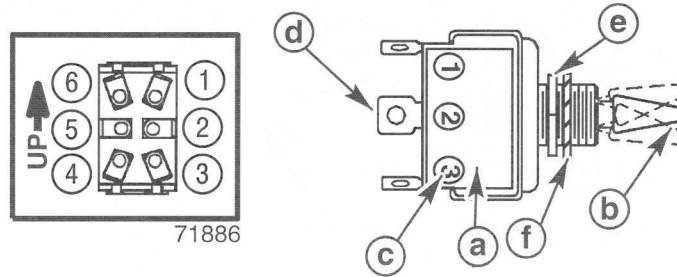


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- a - Tachometer
- b - Oil Pressure Gauge
- c - Coolant Temperature Gauge
- d - Voltmeter
- e - Trim Gauge (Not Applicable On MIE Engines)
- f - Instrument Lights / Audio Warning Test Switch
- g - Stop Switch
- h - Key Switch
- i - Charge Indicator Lamp
- j - Oil Pressure Warning Lamp
- k - Preheat Indicator Lamp
- l - Coolant Temperature Warning Lamp
- m - Water In Fuel Warning Lamp

INSTRUMENT LIGHTS AND AUDIO WARNING TEST SWITCH (STANDARD AND OPTIONAL)

The instrument lights / audio warning test switch is a three-position toggle switch.



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- a - Instrument Lights And Audio Warning Test Switch
- b - Spring-Loaded Audio Test Portion (Should Move Down When Installed)
- c - Terminal Number
- d - Terminal
- e - Jam Nut
- f - Lock Washer

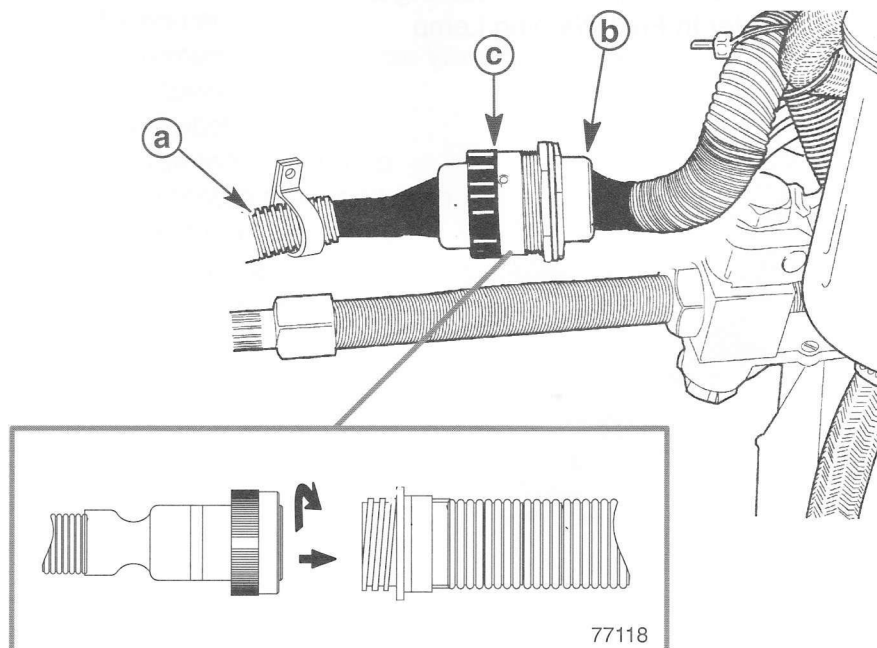
INSTRUMENT PANEL AND HARNESS EXTENSIONS

1. Route instrument extension harnesses back to engine. Fasten harnesses to the boat at least every 460 mm (18 in.) using appropriate fasteners.

IMPORTANT: When routing any wiring extension harness back to the engine, ensure that the harness does not rub or get pinched.

2. Connect and tighten the threaded collar of an extension harness to the engine harness connector.

NOTE: Connector collars must be fully engaged and secure.



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- a - Extension Harness From Instruments
- b - Engine Harness and Connector End
- c - Connector Collar

Remote Control / Neutral Start Safety Circuit

Primary Station

⚠ WARNING

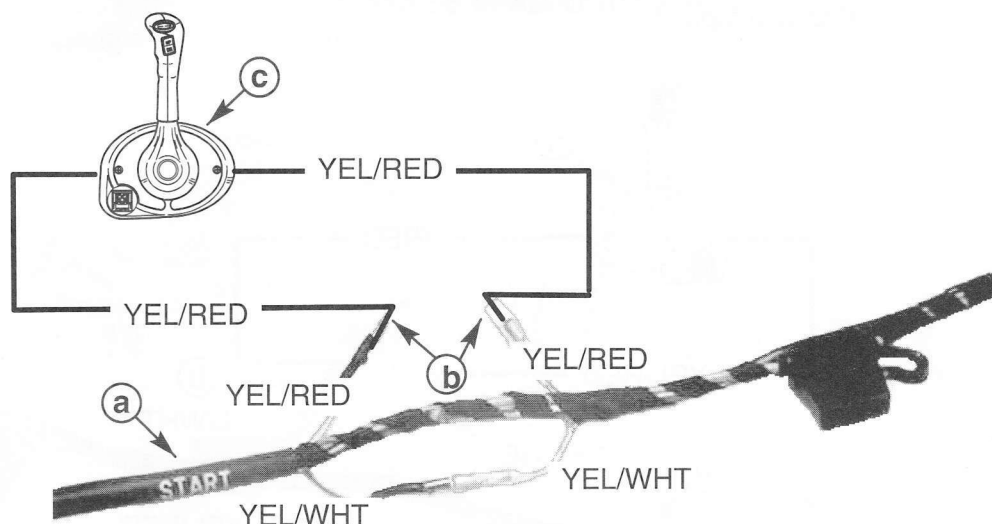
Avoid injury or property damage. Starting an engine while the sterndrive unit or transmission is in gear could cause severe injury to people or animals in or near the boat, or property damage due to unexpected operation. Special circuitry and switches are necessary and must be used to prevent accidental starter engagement, and subsequent engine operation, while a sterndrive or transmission is in a gear.

STERNDRIVE (MCM) MODELS

Ensure Neutral Start Safety Circuit Remote Control connections are made before use. Refer to *Wiring Diagrams*.

IMPORTANT: The two bullet connectors on primary station harness **YELLOW/RED** wire, as shipped from factory, have to be disconnected and reconnected to Neutral Start Safety Circuit (switch) wires from remote control.

1. Disconnect the two YELLOW/RED bullet connectors.
2. Connect the YELLOW/RED wires from the Remote Control Neutral Start Safety Circuit (switch) to the YELLOW/RED wires disconnected in Step 1.



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- a- START Wires Of Instrument Harness
 b- YELLOW/RED Wires
 c- Remote Control / Neutral Start Safety Circuit

Secondary Station

⚠ WARNING

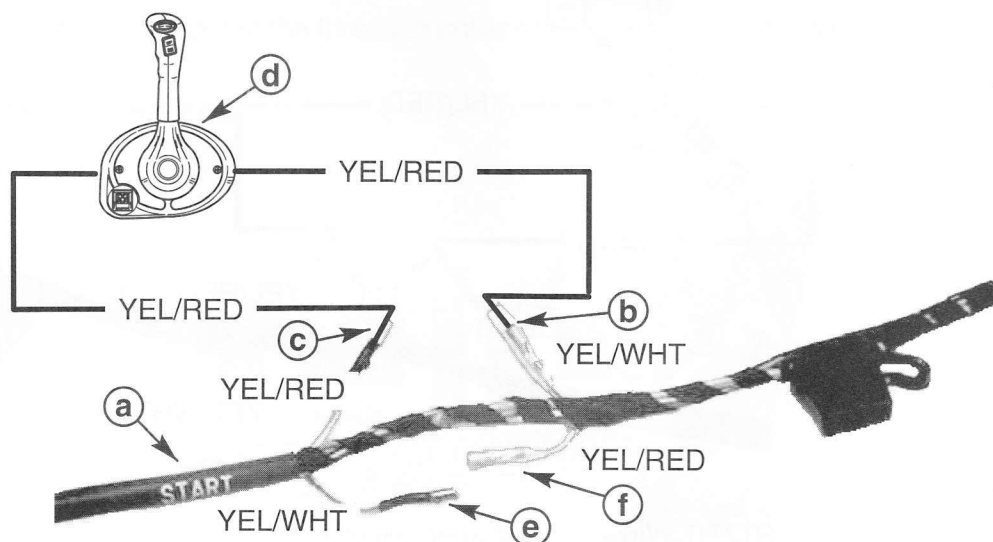
Avoid injury or property damage. Starting an engine while the sterndrive unit or transmission is in gear could cause severe injury to people or animals in or near the boat, or property damage due to unexpected operation. Special circuitry and switches are necessary and must be used to prevent accidental starter engagement, and subsequent engine operation, while a sterndrive or transmission is in a gear.

STERNDRIVE (MCM) MODELS

IMPORTANT: The two bullet connectors on the YELLOW/RED wire must be disconnected. Also, the two bullet connectors on the YELLOW/WHITE wire must be disconnected. After doing so, connect female YELLOW/WHITE terminal and male YELLOW/RED terminal to Neutral Start Safety Circuit (switch) wires from remote control. Leave the other two connectors disconnected.

1. Disconnect the two bullet connectors on the YELLOW/RED wire.
2. Disconnect the two bullet connectors on the YELLOW/WHITE wire.
3. Connect female YELLOW/WHITE terminal and male YELLOW/RED terminal to Neutral Start Safety Circuit (switch) wires from remote control.

NOTE: Leave the male YELLOW/WHITE and female YELLOW/RED terminals disconnected. Keep wires separated. Tape each wire separately with at least two layers of electrical tape.



- a - START Wires Of Instrument Harness
- b - Female YELLOW/WHITE Terminal
- c - Male YELLOW/RED Terminal
- d - Remote Control / Neutral Safety Start Circuit
- e - Male YELLOW/WHITE Disconnected
- f - Female YELLOW/RED Disconnected

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Battery Connections

1. Connect POSITIVE (+) battery cable to the POSITIVE (+) battery terminal. Tighten clamp securely.
2. Connect NEGATIVE (-) battery cable to the NEGATIVE (-) battery terminal. Tighten clamp securely.
3. Spray terminals with a battery connection sealant to help retard corrosion.
4. Upon first starting the engine, check all indicator lights, instrument lights and instrumentation for proper function, at both primary and secondary stations.

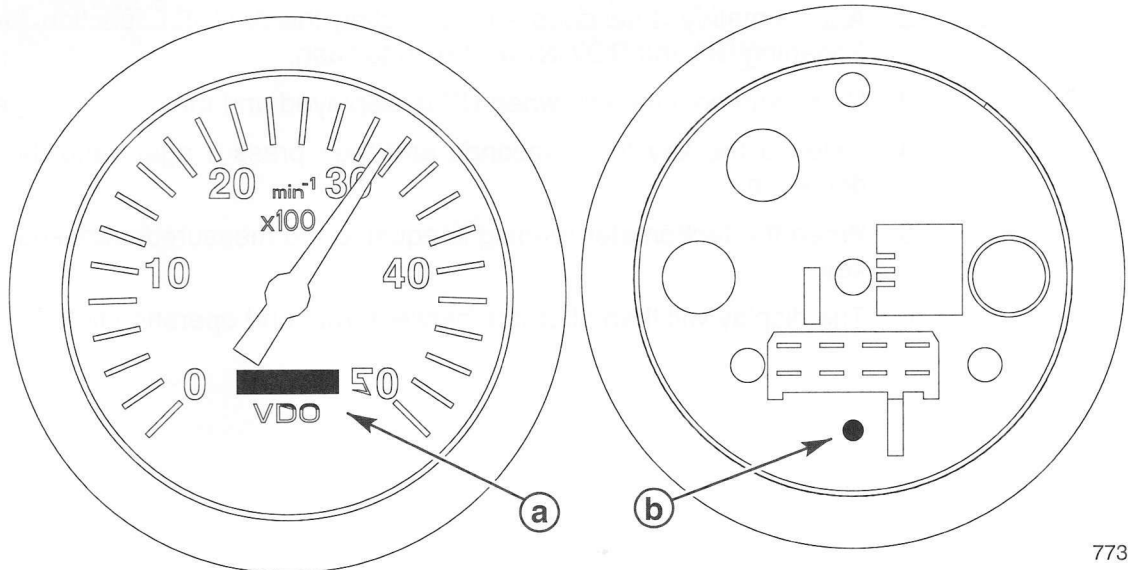
Setting the Tachometer

There are two possible function settings:

- PULSE - used to set the know pulse count per revolution.
- ADJUST - used to calibrate the displayed rpm to agree with that of a manual rpm meter checking at the crankshaft.

Function Selection

1. Press and hold down the key on the back of the housing.
 2. Turn ignition key to the ON position.
- NOTE:** The display shows PULSE and ADJUST, alternating every 2 seconds.
3. Select the desired function, PULSE or ADJUST, by releasing the touch key when the designated word is displayed.



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Front and Rear View Of The Tachometer

- a - Display
b - Touch Key

PULSE FUNCTION

The pulses per revolution will appear on the display after approximately 3 seconds, for example P 14.50. The last digit in the display will flash.

NOTE: Begin with the entry of the known pulse count immediately. Possible pulse count settings are 0.50 to 399.99.

1. Change the flashing digit by pushing the touch key until the desired setting is displayed.

Tachometer Switch Setting		
Model	Pulses/Rev	Adjust
D1.7L DTI	2	0

2. When the desired pulse count is reached release the touch key.
3. After the pulse count is selected, the display will change to show operating time.

ADJUST FUNCTION

NOTE: Two people are required to make the following adjustments. The adjustment can be made only from 30% to 100% of the indicator range.

IMPORTANT: When the ADJUST function is made, UP or DOWN alternate every 3 seconds on the display.

NOTE: The pointer range changes very slowly at first, facilitating high-precision setting. The rate at which the pointer range changes increases the longer the key is held down.

1. Connect a service tachometer to the crankshaft of the engine.
2. Approximately 3 seconds after selecting the ADJUST function the letters UP or dn (meaning UP and DOWN) will begin to flash.
3. Press and hold the key when UP is displayed and the pointer range will increase.
4. Release the key for 2 seconds and then press it again and the pointer range will decrease.
5. When the tachometer reading is equal to the measured crankshaft RPM, release the key.
6. The display will then alternate between rpm and operating time.

FINE ADJUSTMENT

During normal operation it is possible to do a fine adjustment by using the key. The adjustment range is $\pm 20\%$.

1. Press the touch key during the normal operation. The display will read A 0.0.
2. Press and hold the key to increase the adjustment factor by 0.5% steps.
3. Release the key for 2 seconds and then press again to decrease the adjustment factor by 0.5% steps.
4. If the key is not pressed for 5 seconds, the adjustment factor will be stored and the indicator will switch to the normal operating hours display.

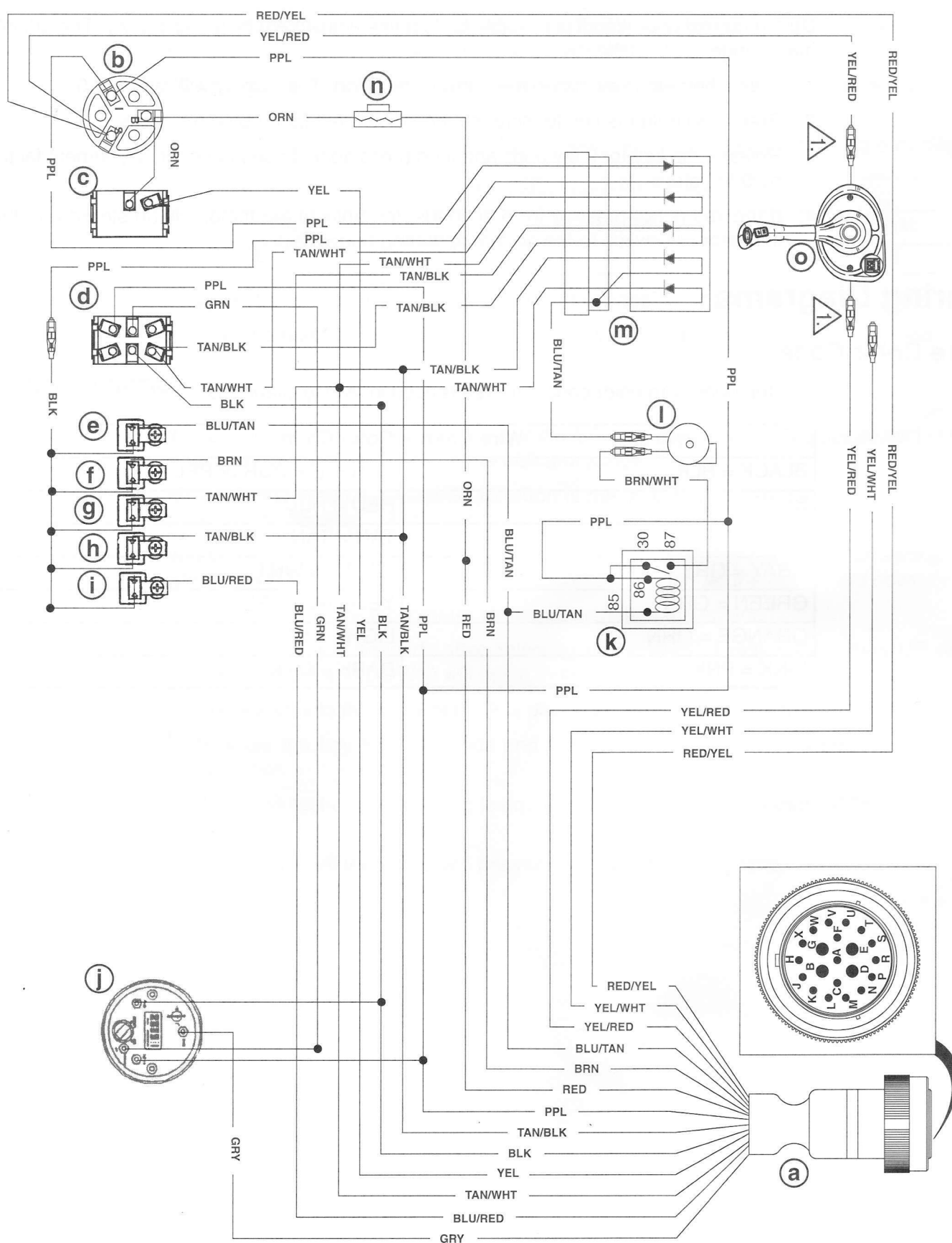
Wiring Diagrams

Wire Color Codes

The following wire color codes are referenced in *Wiring Diagrams*.


Wire Color = Color Code	
BLACK = BLK	PURPLE = PUR or PPL
BLUE = BLU	RED = RED
BROWN = BRN	TAN = TAN
GRAY = GRY	WHITE = WHT
GREEN = GRN	YELLOW = YEL
ORANGE = ORN	LIGHT = LT
PINK = PNK	DARK = DRK

D1.7L DTI - Basic Panel (Page 1 of 2)



D1.7L DTI - Basic Panel (Page 2 of 2)**DESCRIPTION**

- a** - Instrument Harness Connection
- b** - Key Switch
- c** - Engine Stop Switch
- d** - Panel Lights / Audio Warning Test Switch
- e** - Preheat Indicator Lamp
- f** - Charge Indicator Lamp
- g** - Oil Pressure Warning Lamp
- h** - Coolant Temperature Warning Lamp
- i** - Water In Fuel Warning Lamp
- j** - Tachometer
- k** - Audio Warning Relay Delay (During Pre-heat)
- l** - Audio Warning Horn
- m** - Diode Pack
- n** - 20 Amp Fuse
- o** - Remote Control

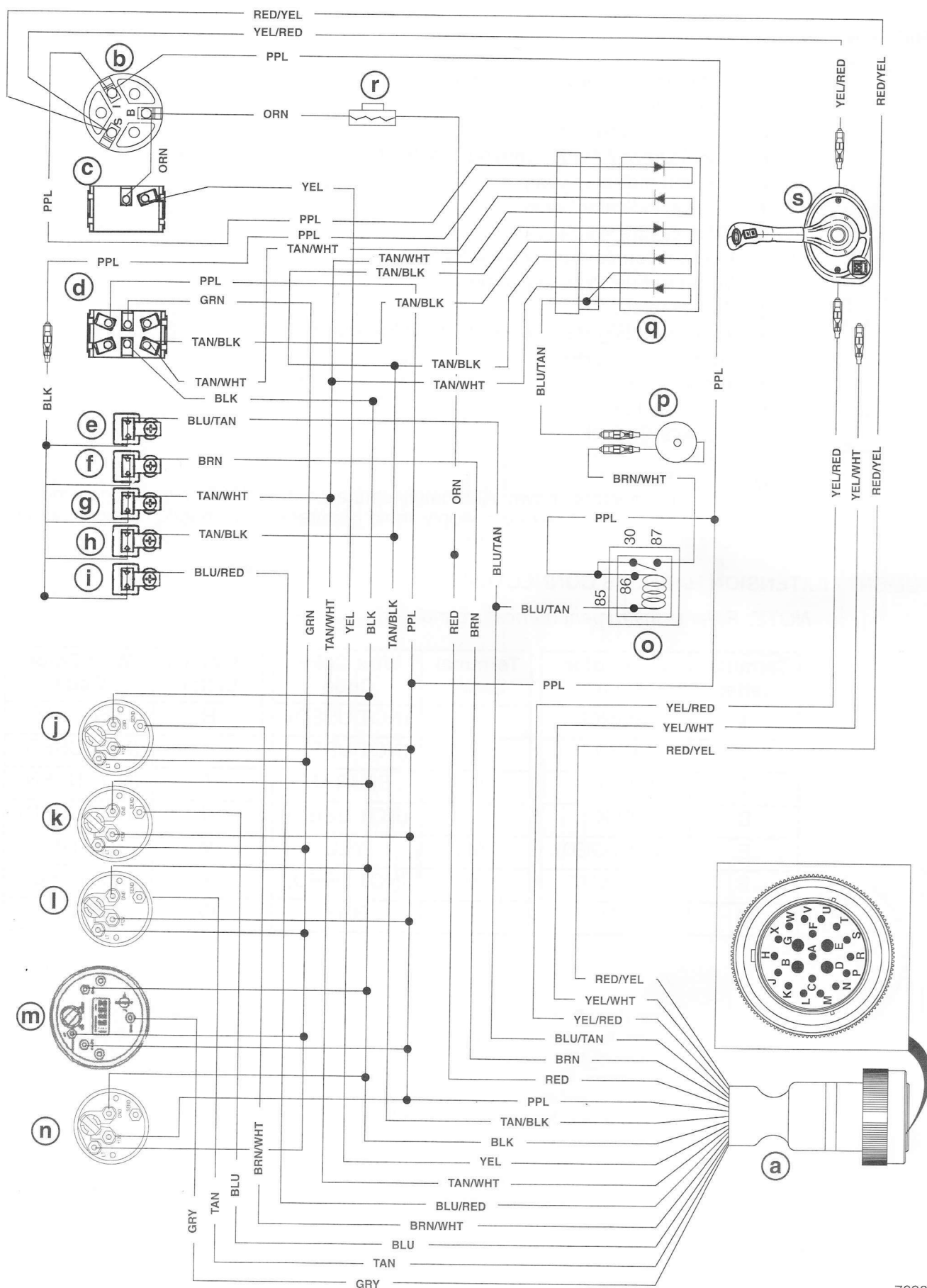
 1. Bullet connectors shown. Alternately connect wires together with ring terminals using screws and hex nuts. Apply liquid neoprene to connections and slide rubber sleeves over connections.

INSTRUMENT / EXTENSION HARNESS CONNECTOR

NOTE: Refer to instrument harness connection.

Terminal Letter	Wire Color Code	Terminal Letter	Wire Color Code	Terminal Letter	Wire Color Code
A	YEL/RED	H	(NOT USED)	R	YEL/WHT
B	RED	J	(NOT USED)	S	(NOT USED)
C	TAN/BLK	K	BLU/TAN	T	(NOT USED)
D	BLK	L	(NOT USED)	U	(NOT USED)
E	(NOT USED)	M	YEL	V	BLU/RED
F	TAN/WHT	N	(NOT USED)	X	RED/YEL
G	PPL	P	GRY	W	BRN

D1.7 DTI Optional Panel (Page 1 of 2)



D1.7L DTI - Optional Panel (Page 2 of 2)**DESCRIPTION**

- a** - Instrument Harness Connection
- b** - Key Switch
- c** - Engine Stop Switch
- d** - Panel Lights / Audio Warning Test Switch
- e** - Preheat Indicator Lamp
- f** - Charge Indicator Lamp
- g** - Oil Pressure Warning Lamp
- h** - Coolant Temperature Warning Lamp
- i** - Water In Fuel Warning Lamp
- j** - Trim Gauge
- k** - Oil Pressure Gauge
- l** - Coolant Temperature Gauge
- m** - Tachometer
- n** - Voltmeter
- o** - Audio Warning Relay Delay (During Pre-heat)
- p** - Audio Warning Horn
- q** - Diode Pack
- r** - 20 Amp Fuse
- s** - Remote Control

- 1.** Bullet connectors shown. Alternately connect wires together with ring terminals using screws and hex nuts. Apply liquid neoprene to connections and slide rubber sleeves over connections.

INSTRUMENT / EXTENSION HARNESS CONNECTOR

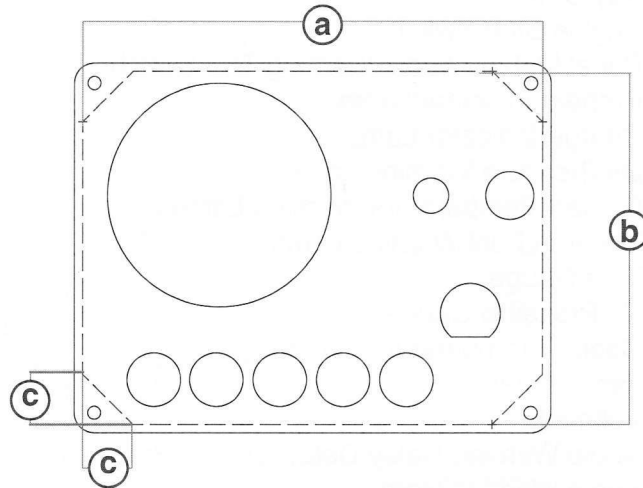
NOTE: Refer to instrument harness connection.

Terminal Letter	Wire Color Code	Terminal Letter	Wire Color Code	Terminal Letter	Wire Color Code
A	YEL/RED	H	TAN	R	YEL/WHT
B	RED	J	BLU	S	(NOT USED)
C	TAN/BLK	K	BLU/TAN	T	(NOT USED)
D	BLK	L	(NOT USED)	U	(NOT USED)
E	(NOT USED)	M	YEL	V	BLU/RED
F	TAN/WHT	N	(NOT USED)	X	RED/YEL
G	PPL	P	GRY	W	(NOT USED)

Template Diagrams

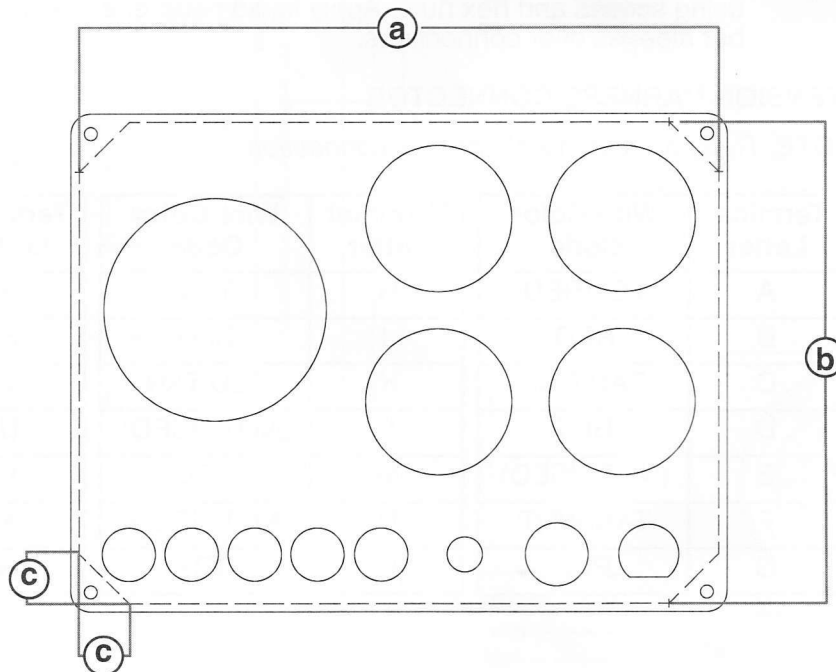
IMPORTANT: These diagrams are not actual size. They are only to illustrate the needed dimensions.

Basic Panel



- a - 174 mm (6-7/8 in.)
- b - 134 mm (5-1/4 in.)
- c - 19 mm (3/4 in.)

Optional Panel



- a - 244 mm (9-5/8 in.)
- b - 184 mm (7-1/4 in.)
- c - 19 mm (3/4 in.)