

VESSELVIEW INSTALLATION INSTRUCTIONS

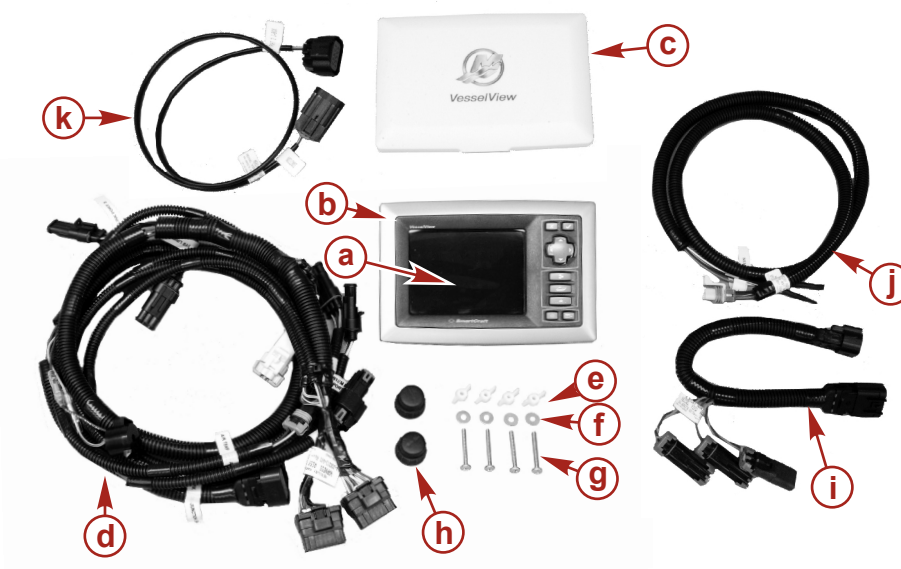
IMPORTANT: This document guides our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. If you have not been trained in the recommended servicing or installation procedures for these or similar Mercury Marine products, have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to those installing or operating the product.

NOTE: After completing installation, place these instructions with the product for the owner's future use.

Notice

This Product Requires Electronic Calibration Before Use.

Installation of this product will require electronic calibration. This calibration must not be attempted by anyone other than the Original Equipment Manufacturer (OEM) or a Mercury technician trained in Digital Throttle and Shift systems (DTS) at an authorized Mercury dealership. Improper installation and calibration of the DTS product will result in a system which is inoperable or unsafe for use.



27051

Ref.	Qty.	Description
a	1	VesselView
b	1	VesselView bezel
c	1	VesselView cover
d	1	VesselView harness
e	4	Wing nut
f	4	Washer
g	4	Mounting bolt
h	2	Weather cap
i	1	VesselView adapter harness (not included in CMD kit)
j	1	NMEA 0183 harness (GPS input)
k	1	Wake harness (included in CMD kit only)

Cutting the Instrument Panel

Preparing the Mounting Location

1. Select a suitable location for the VesselView on the boat's instrument panel.

NOTE: The area behind the panel should be clear of any cables, wiring, or other hardware that may interfere with installation. The mounting location should also provide good visibility from the boat operator's position.

2. Disconnect the batteries powering the gauges or SmartCraft components.
3. Cut out the template located on the last page of the installation instructions.

NOTE: Always check the template cutout to the mounting holes on the VesselView before drilling.

4. Use the template to determine the space required for mounting.

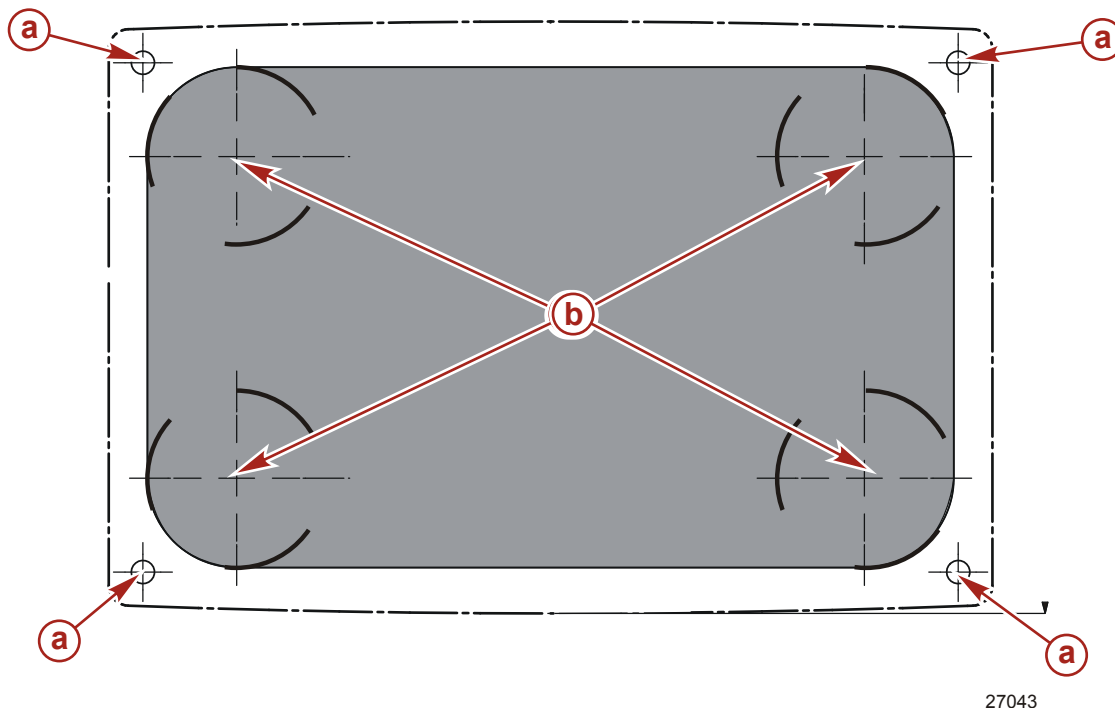
5. Prepare the mounting location surface as follows:

- **Fiberglass panels:** Apply masking tape to the area being cut to prevent cracking the fiberglass.
- **Vinyl-covered panels:** Use a razor blade to carefully remove the vinyl from the area being cut to avoid tearing the vinyl.

Cutting the Panel

1. After preparing the area to be cut, tape the mounting template to the panel.
2. Drill four 5.5 mm (7/32 in.) holes at the locations shown on the template for the mounting screws.
3. Drill four 19 mm (3/4 in.) holes at the locations shown on the template and cut out the shaded portion of the template.

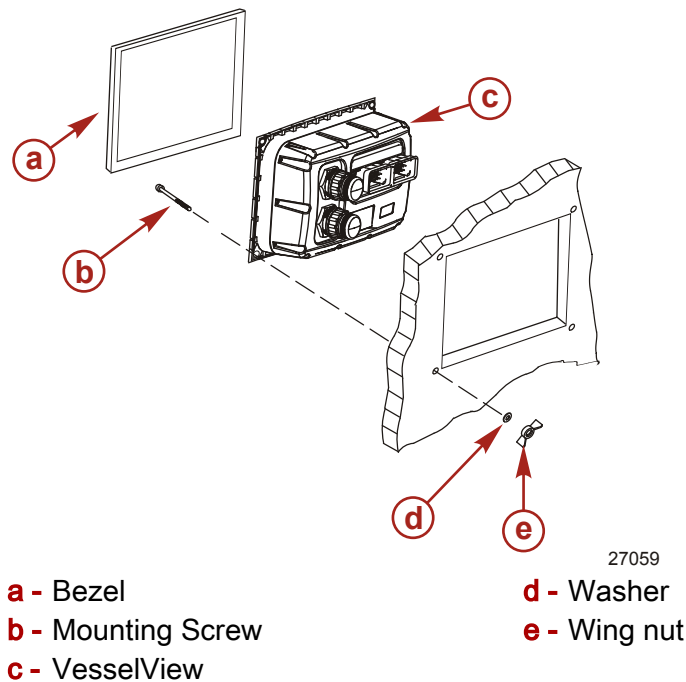
NOTE: The following diagram is an example only. Use the template located at the last page of the installation instructions.



- a** - Mounting screw holes (5.5 mm [7/32 in.])
b - Cutout pilot holes (19 mm [3/4 in.])

4. Remove the template and insert the VesselView into the panel to ensure fit. Do not secure to the instrument panel at this time.

Securing VesselView to the Instrument Panel



1. Insert the VesselView into the opening.
2. Secure the VesselView with the four mounting screws, washers, and wing nuts. Do not overtighten the wing nuts.
3. The back of the bezel is labeled "TOP" and "BOTTOM". Ensure the bezel is aligned correctly to avoid damaging the bezel or VesselView.
4. Snap the bezel onto the VesselView.

DTS Wiring Guidelines

⚠ WARNING

Splicing or probing will damage the wire insulation allowing water to enter the wiring. Water intrusion may lead to wiring failure and loss of throttle and shift control. To avoid the possibility of serious injury or death from loss of boat control, do not splice or probe into any wire insulation of the DTS system.

- Never attempt to connect, network, tie into, switch, sink source voltage or current from the DTS wiring harnesses.
- Never attempt to connect any type of communication or navigation equipment into the DTS wiring harnessing other than at the designated connection point.
- Always install boat accessory equipment using an appropriate power source connection, such as a fuse panel or junction box.
- Never attempt to tap directly into any of the DTS electrical wiring harnesses for a source of power.

Wiring Guidelines for Electrical Boat Accessories

WARNING

Excessive voltage drop may compromise the DTS system, leading to serious injury or death from loss of throttle and shift control. Do not wire any electrical accessory into the 12-volt ignition key switch circuits of the DTS system.

IMPORTANT: Do not connect boat accessories to the ignition key switch. Use a separate, switched 12-volt source for wiring boat accessories.

IMPORTANT: The DTS system requires a consistent 12-volt power source. Splicing or connecting accessories to the 12-volt or ignition key switch DTS circuits (purple, purple/white, or red wires) could blow a fuse or overload circuits, causing intermittent or complete loss of operation.

Harness Installation Guidelines

- Locate an appropriate path for routing the harness connections to their installation points.
- Inspect the routing path to ensure that surfaces are free of any sharp edges or burrs that could cut the harness.
- Fasten and support the harness with clamps or cable ties every 45.8 cm (18 in.) along the routing path. A clamp or cable tie must be used within 25.4 cm (10 in.) of any connection in a DTS system.
- Ensure that all connections are tight. Seal all unused connectors with weather caps.

Installing the VesselView Harness

VesselView Harness Connection for SmartCraft Version 07 and Up

The VesselView adapter harness is required for all Mercury and MerCruiser Version 07 SmartCraft installations. Cummins MerCruiser Diesel installations do not require this harness assembly. For CMD applications, connect the VesselView harness directly to the junction box.

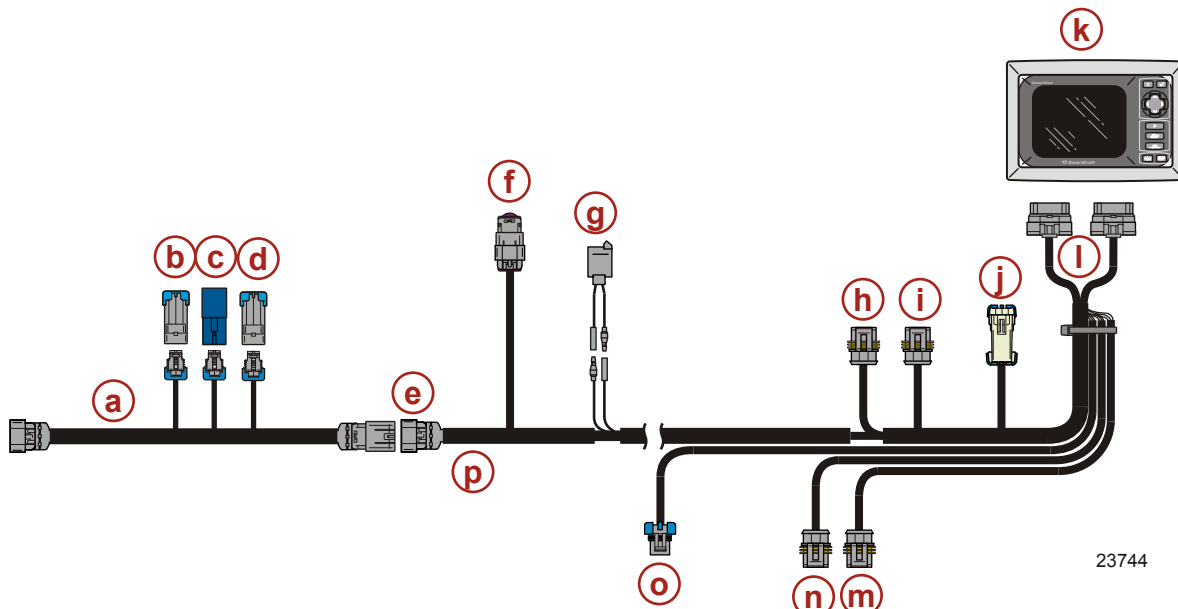
IMPORTANT: Do not connect the VesselView or the VesselView adapter harness to the vessel display connector on the command module harness.

NOTE: *If installing more than one VesselView, use a separate VesselView harness and VesselView harness adapter for each unit.*

1. Connect the VesselView adapter harness to the starboard junction box. Refer to the **Wiring Connections for SmartCraft Version 07** for diagrams.
2. Connect the VesselView harness to the VesselView adapter harness.
3. Connect the VesselView harness to the VesselView unit.
4. For multi-engine applications, install the appropriate multi-engine ignition harness (available separately) between the multi-ignition connector on the VesselView harness and the appropriate junction boxes.
5. Ensure the VesselView receives power when any key switch is in the "ON" position.

Wiring Connections for SmartCraft Version 07

VESSELVIEW HARNESS AND ADAPTER



- | | |
|---|---|
| a - VesselView adapter harness | i - Starboard inner (center/engine 3) system link gauge connector (purple and tan wires) |
| b - CAN V data connector | j - NMEA 0183 connector |
| c - CAN V terminator resistor | k - VesselView |
| d - CAN V wake connector | l - VesselView connectors |
| e - 10-pin connector | m - Starboard (engine 1) system link gauge connector (purple wires) |
| f - Multi-ignition connector | n - Port (engine 2) system link gauge connector (purple and yellow wires) |
| g - Warning horn | o - Air temperature sensor connector |
| h - Port inner (engine 4) system link gauge connector (purple and red wires) | p - VesselView harness |

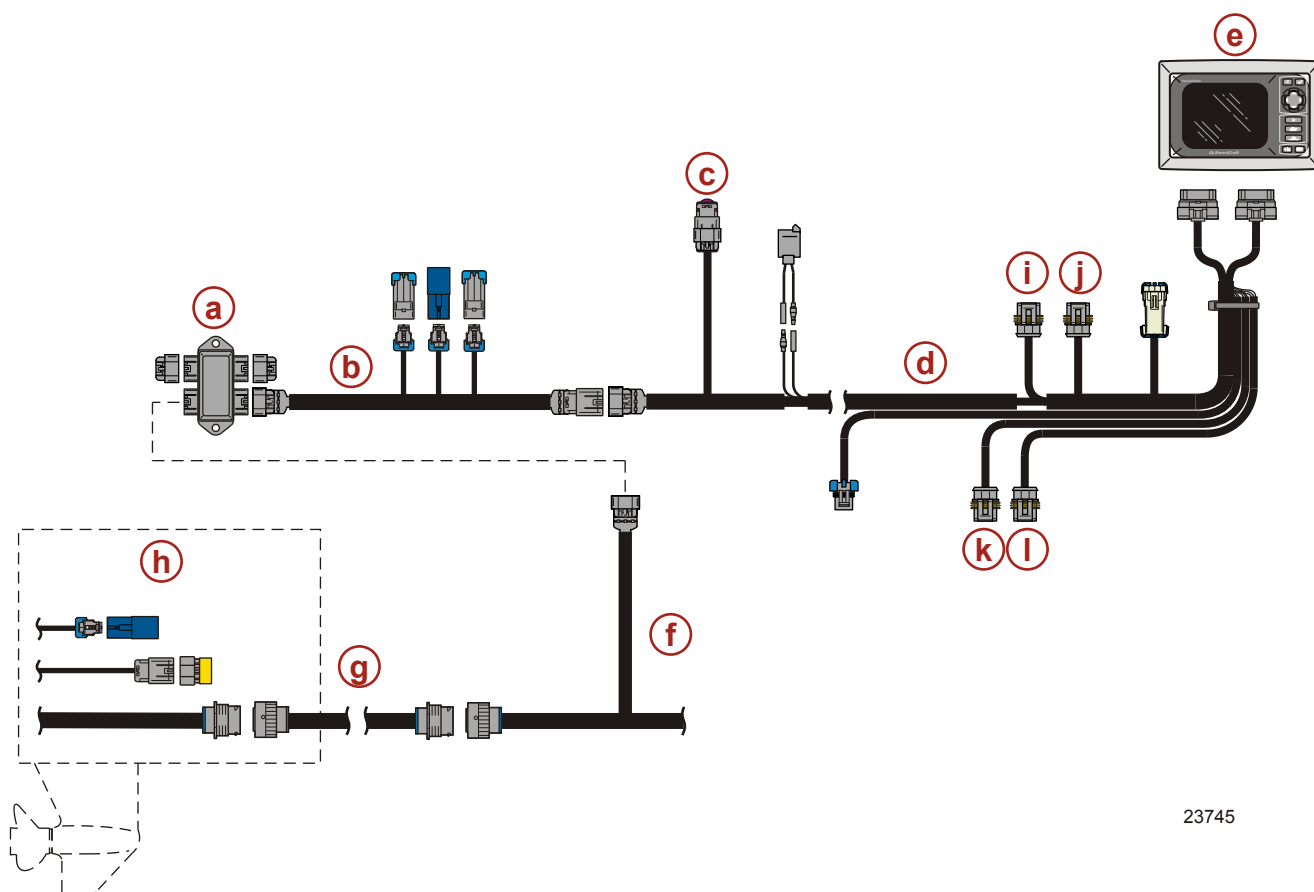
IMPORTANT: Do not connect the VesselView or the VesselView adapter harness to the vessel display connector on the command module harness.

IMPORTANT: Seal all unused connectors with weather caps.

The VesselView adapter harness provides connections for CAN V components. These connections provide CAN V support as follows:

- **CAN V data connector** - Allows data input to the CAN V bus.
- **CAN V terminator resistor** - Terminates CAN V if installed at the farthest end of the CAN V network; otherwise, this connector continues the CAN V bus.
- **CAN V wake connector** - Supplies CAN V wake to the entire CAN V network.

SINGLE ENGINE APPLICATIONS

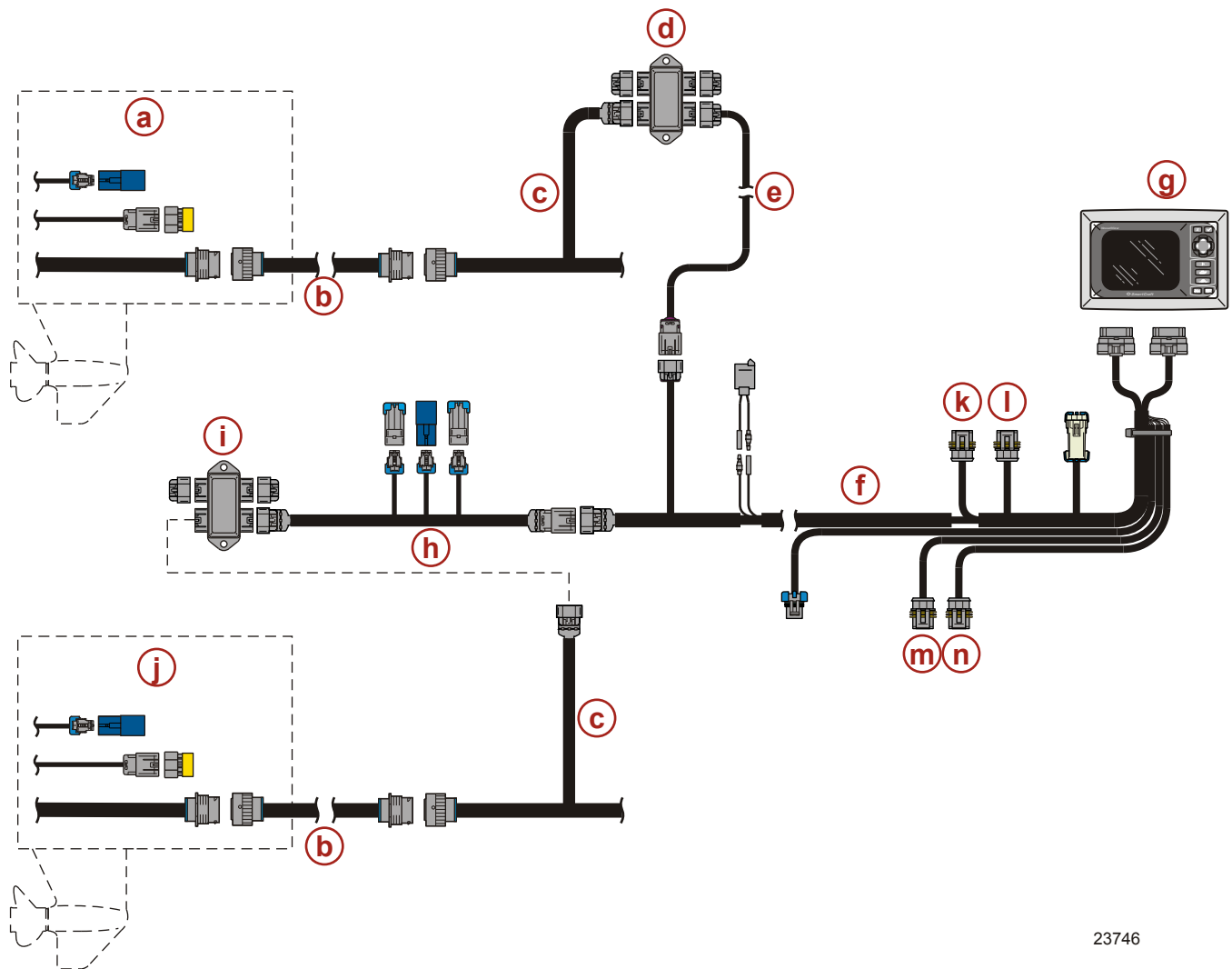


23745

- a** - Junction box
- b** - VesselView adapter harness
- c** - Multi-ignition connector
- d** - VesselView harness
- e** - VesselView
- f** - Command module harness
- g** - 14-pin data harness
- h** - Engine
- i** - Port inner (engine 4) system link gauge connector
- j** - Starboard inner (center/engine 3) system link gauge connector
- k** - Port (engine 2) system link gauge connector
- l** - Starboard (engine 1) system link gauge connector

IMPORTANT: Seal all unused connectors with weather caps.

DUAL ENGINE APPLICATIONS



23746

- a** - Port engine
- b** - 14-pin harness
- c** - Command module harness
- d** - Port junction box
- e** - Multi-ignition harness for dual engine applications
- f** - VesselView harness
- g** - VesselView
- h** - VesselView adapter harness
- i** - Starboard junction box
- j** - Starboard engine
- k** - Port inner (engine 4) system link gauge connector
- l** - Starboard inner (center/engine 3) system link gauge connector
- m** - Port (engine 2) system link gauge connector
- n** - Starboard (engine 1) system link gauge connector

IMPORTANT: Seal all unused connectors with weather caps.

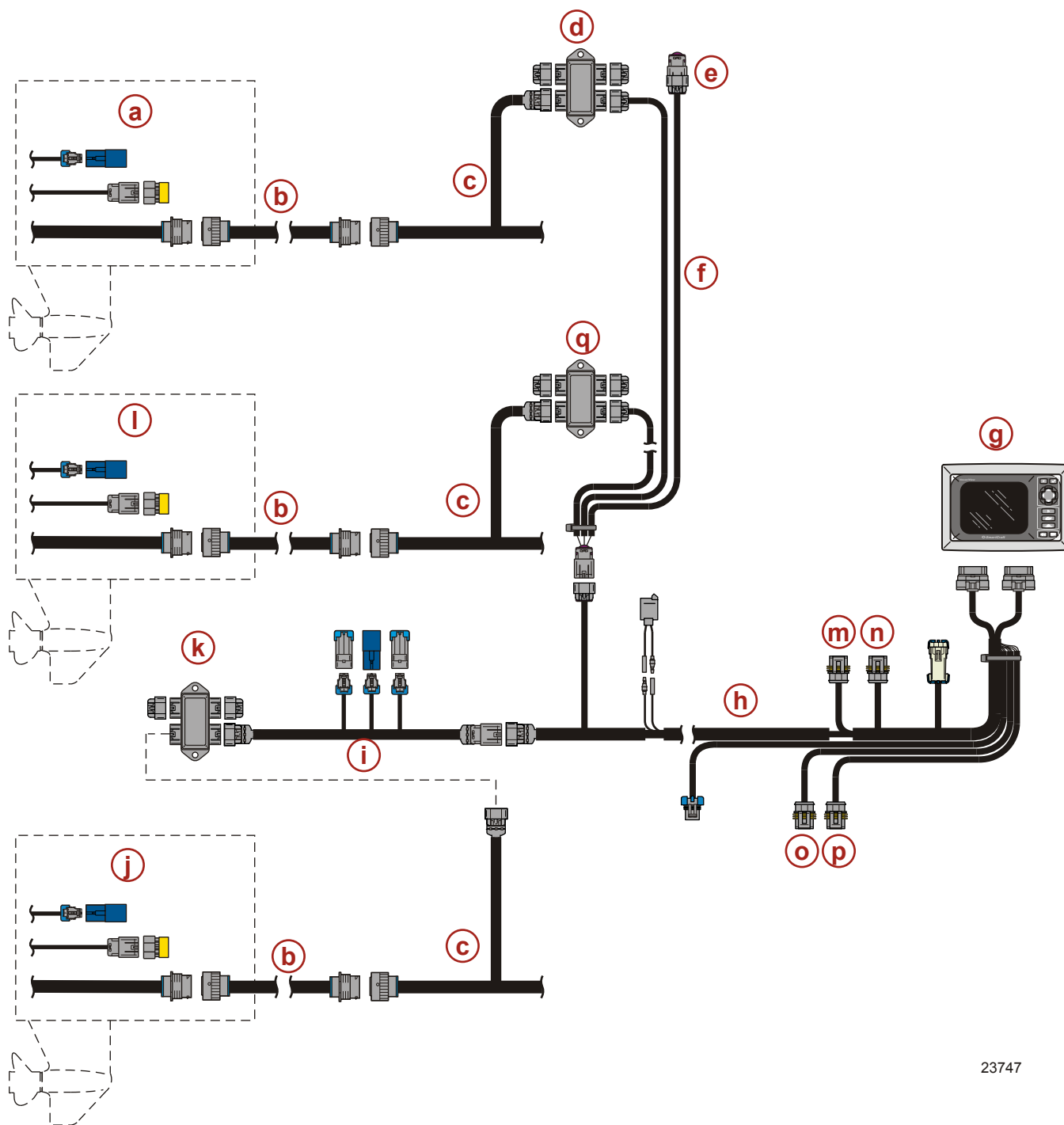
NOTE: The multi-ignition harness for dual engine applications connects the port engine to the VesselView harness, allowing the VesselView to turn on when either key switch is turned on.

NOTE: *Rudder angle or synchronizer system link gauges must be connected to the starboard system link gauge connector on the VesselView harness.*

NOTE: *The starboard junction box provides battery voltage and ground circuit to the VesselView. If the starboard battery (pin A) is unavailable because it has failed or is switched off, the VesselView will power up using another ignition source (port, starboard inner, or port inner batteries) but will not save any memory settings when the VesselView is turned off. The VesselView will not operate if the starboard ground (pin B) is unavailable at the starboard junction box.*

Notes:

TRIPLE ENGINE APPLICATIONS



23747

- a** - Port engine
- b** - 14-pin data harness
- c** - Command module harness
- d** - Port junction box
- e** - Multi-ignition connector (weather capped)
- f** - Multi-ignition harness for triple or quad engine applications
- g** - VesselView
- h** - VesselView harness
- i** - VesselView adapter harness
- j** - Starboard engine
- k** - Starboard junction box
- l** - Center engine
- m** - Port inner (engine 4) system link gauge connector
- n** - Starboard inner (center/engine 3) system link gauge connector
- o** - Port (engine 2) system link gauge connector
- p** - Starboard (engine 1) system link gauge connector
- q** - Center junction box

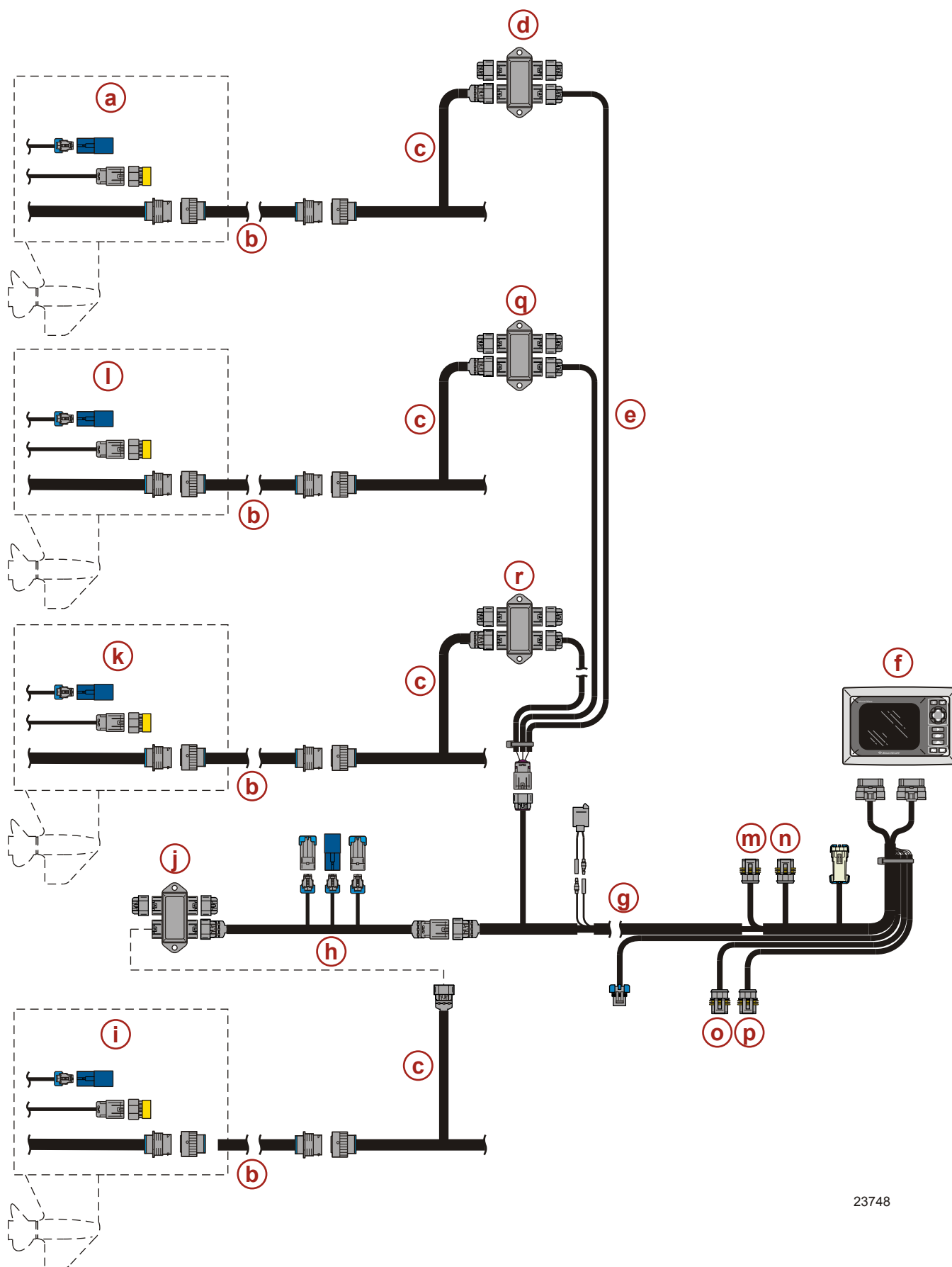
IMPORTANT: Seal all unused connectors with weather caps.

NOTE: The multi-ignition harness for triple or quad engine applications connects each engine to the VesselView harness, allowing the VesselView to turn on when either key switch is turned on.

NOTE: A rudder angle system link gauge must be connected to the starboard system link gauge connector on the VesselView harness.

NOTE: The starboard junction box provides battery voltage and ground circuit to the VesselView. If the starboard battery (pin A) is unavailable because it has failed or is switched off, the VesselView will power up using another ignition source (port, starboard inner, or port inner batteries) but will not save any memory settings when the VesselView is turned off. The VesselView will not operate if the starboard ground (pin B) is unavailable at the starboard junction box.

QUAD ENGINE APPLICATIONS



23748

- a** - Port engine
- b** - 14-pin data harness
- c** - Command module harness
- d** - Port outside junction box
- e** - Multi-ignition harness for triple or quad engine applications
- f** - VesselView
- g** - VesselView harness
- h** - VesselView adapter harness
- i** - Starboard outside engine
- j** - Starboard outside junction box
- k** - Starboard inner engine
- l** - Port inner engine
- m** - Port inner (engine 4) system link gauge connector
- n** - Starboard inner (center/engine 3) system link gauge connector
- o** - Port (engine 2) system link gauge connector
- p** - Starboard (engine 1) system link gauge connector
- q** - Port inner junction box
- r** - Starboard inner junction box

IMPORTANT: Seal all unused connectors with weather caps.

NOTE: The multi-ignition harness for triple or quad engine applications connects each engine to the VesselView harness, allowing the VesselView to turn on when either key switch is turned on.

NOTE: A rudder angle system link gauge must be connected to the starboard system link gauge connector on the VesselView harness.

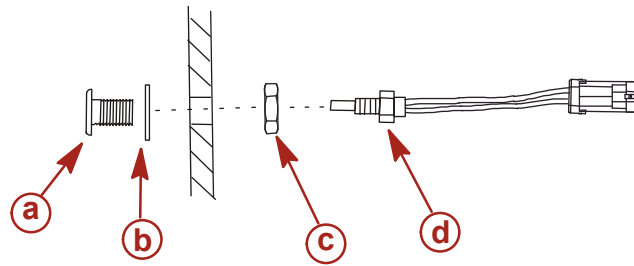
NOTE: The starboard junction box provides battery voltage and ground circuit to the VesselView. If the starboard battery (pin A) is unavailable because it has failed or is switched off, the VesselView will power up using another ignition source (port, starboard inner, or port inner batteries) but will not save any memory settings when the VesselView is turned off. The VesselView will not operate if the starboard ground (pin B) is unavailable at the starboard junction box.

Installing the Ambient Air Temperature Sensor

NOTE: The ambient air temperature sensor installation is optional.

1. Select the location of the air temperature sensor. Mount the sensor where it will be exposed to outside air and not in direct sunlight.
2. Drill a 19 mm (3/4 in.) mounting hole.

3. Install the mounting adapter as shown below.



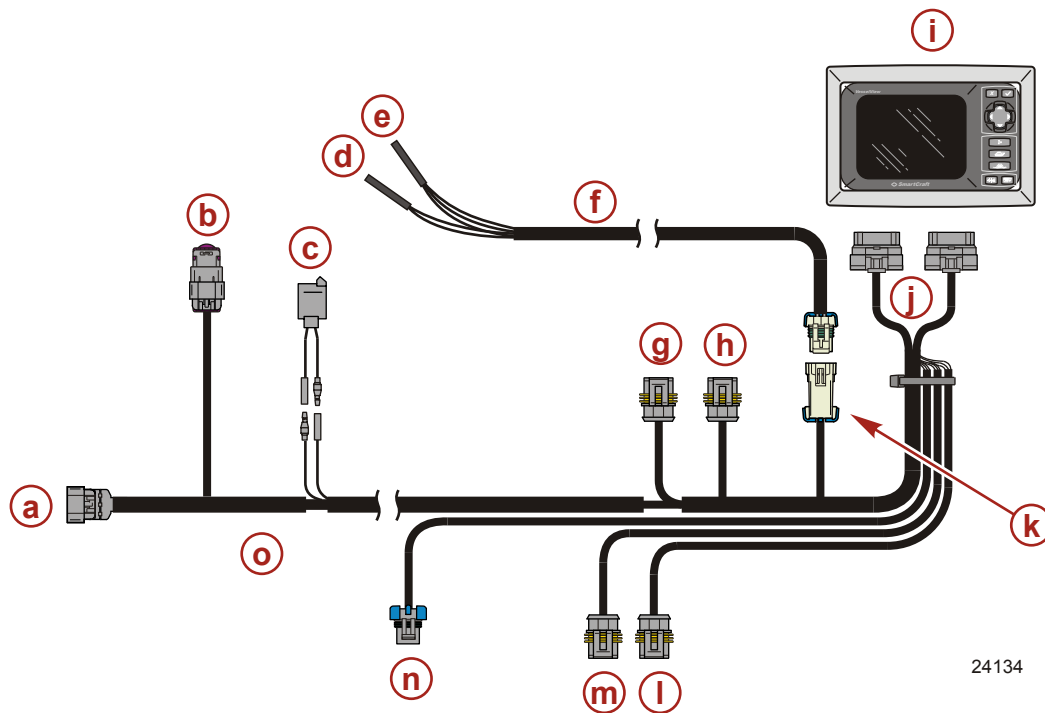
10738

a - Mounting adapter
b - Gasket

c - Nylon nut
d - Air temperature sensor

4. Thread the sensor into the mounting adapter.
5. Connect the temperature sensor to the connector on the VesselView harness.

Installing the NMEA 0183 Adapter Harness



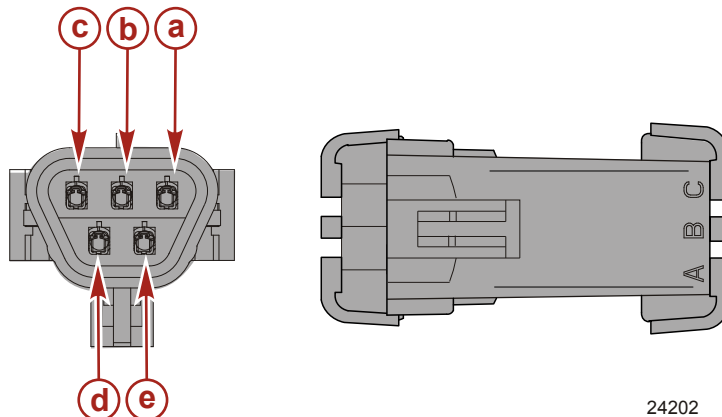
24134

- a** - 10-pin connector
- b** - Multi-ignition connector
- c** - Warning horn
- d** - NMEA output connector (light blue with green stripe: NMEA out [+]; dark blue with red stripe: NMEA out [-])(reserved for future use)
- e** - NMEA input connector (white with dark blue stripe: NMEA in [+]; dark blue with white stripe: NMEA in [-])
- f** - NMEA adapter harness
- g** - Port inner (engine 4) system link gauge connector (purple and red wires)
- h** - Starboard inner (center/engine 3) system link gauge connector (purple and tan wires)
- i** - VesselView
- j** - VesselView connectors
- k** - NMEA 0183 connector
- l** - Starboard (engine 1) system link gauge connector (purple wires)
- m** - Port (engine 2) system link gauge connector (purple and yellow wires)
- n** - Air temperature sensor connector
- o** - VesselView harness

1. Connect the 5-pin NMEA connector on the adapter harness to the 5-pin NMEA 0183 connector on the VesselView harness as shown in the diagram.
2. Connect your GPS unit or other NMEA-compatible device to the adapter harness. Refer to the documentation provided with the device for installation requirements and procedures.

NMEA 0183 Connector

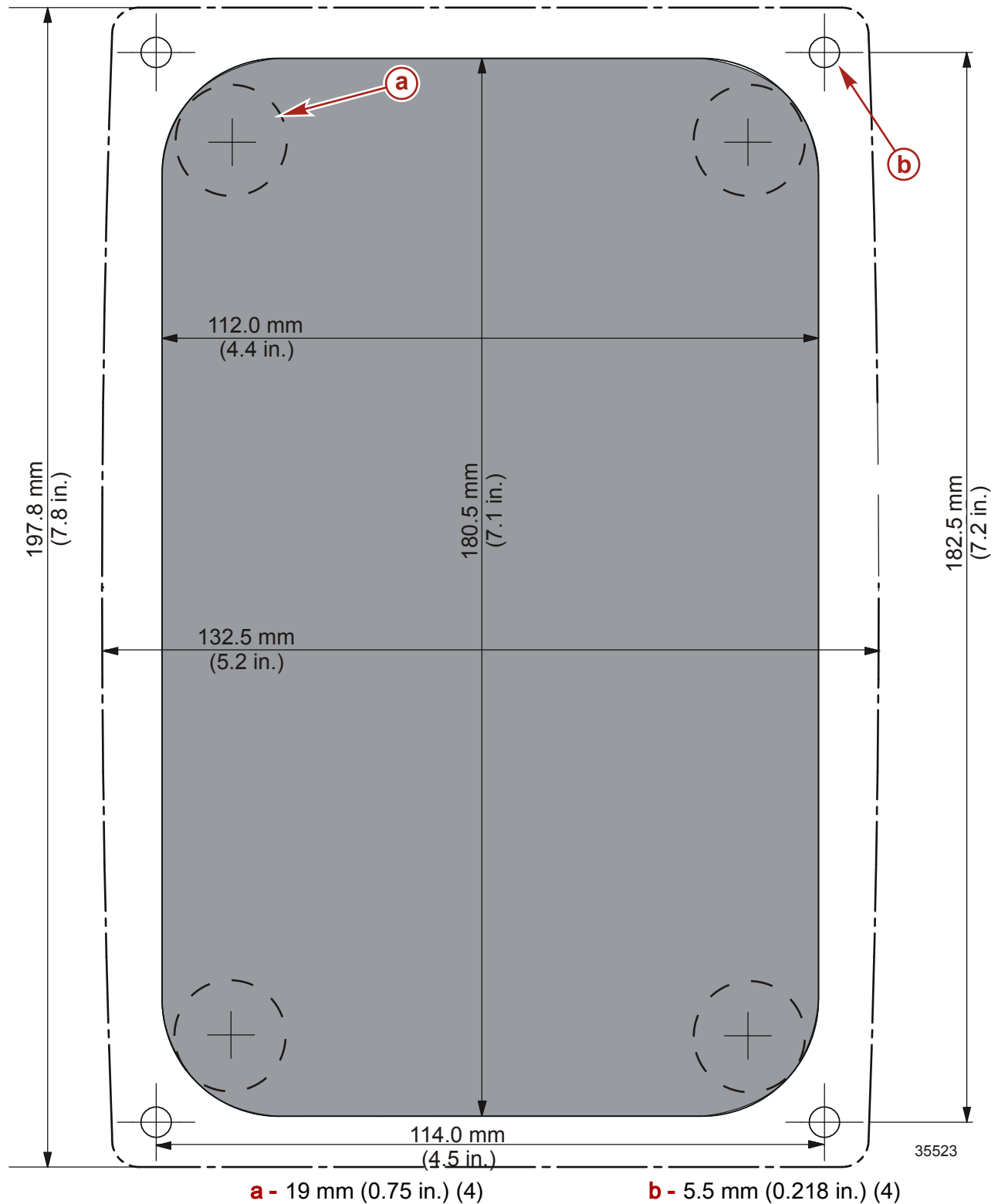
NOTE: The connector image shown is the wire side of the plug.



- a** - NMEA out (+)
- b** - NMEA out (-)
- c** - NMEA in (+)
- d** - NMEA in (-)
- e** - DC ground

VesselView Template Cutout

NOTE: Due to printing variables, the image size of the template may have changed from the actual size. Check the graphic for accuracy prior to using the template.



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