



CIVACON TRAILER MOUNTED SOCKETS INSTALLATION and WIRING INSTRUCTIONS

Mounting Instructions

Before the socket housing is mounted, be sure that the drain screw provided by CIVACON is in the uppermost drain hole of the housing to keep out precipitation and road grime.

The sockets should be mounted on the same side of the trailer and in close proximity to the bottom loading equipment. Remove the socket faceplate from the socket housing by removing the two bolts which hold it onto the housing, and save all the mounting hardware. The faceplate is the part that contains the contact assembly. (A protective vinyl dust cap is provided by CIVACON and should be used whenever the socket is not connected to a mating plug.) Mount the socket housing to the trailer using the two 1 1/32" through-holes as shown in Figure C1 to a rigid grounded metal surface. Keep in mind that the socket will be subjected to road vibration, so lockwashers are required. Use 5/16" stainless steel bolts and star lockwashers whenever possible. The ground lead lug from the faceplate must be installed under the head of one of these mounting bolts. A star lockwasher should be used under the head of this bolt to provide for proper grounding.

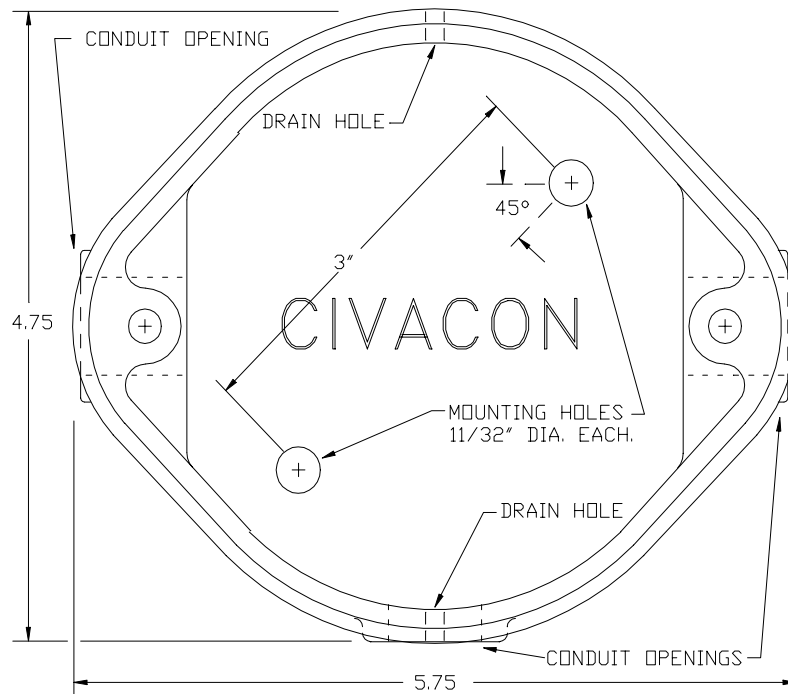


FIGURE C1

Wiring Instructions

IMPORTANT: These instructions are to be used for sockets that are to be wired directly to sensors. If they are wired directly to sensors, cross reference the part number of the socket shown on the faceplate with the proper wiring schematics shown on Figures C2, C3, and C4. If they are being used with an CIVACON compatible overfill onboard monitor, refer to instruction sheet H50101PA which is included with that monitor. If they are being used with an CIVACON ROM onboard monitor, refer to instruction sheet H50479PA which is included with that monitor. If you cannot find them, limited information is provided in these instructions for wiring onboard monitors.

Depending on your preference, use either a multi-conductor jacketed cable or individual wires run through a conduit when wiring the sockets. In either case, we suggest the use of a high quality stranded tinned copper wire with a minimum thickness of 20 gage. Civacon cable is available in 18 and 20 gage wire, depending on the amount of conductors required. The wires must enter through one of the openings shown in Figure C1. Use weathertight strain reliefs or conduit fittings to keep out external moisture. On any openings that are not used, be sure the supplied pipe plugs or any other 1/2" NPT pipe plugs are inserted to keep out the elements. We also suggest the use of a thread sealant on all NPT fittings.

Referencing the proper schematics in Figures C2, C3, and C4, connect the wires to the back of the appropriate conductor pins using the wire terminals provided. Insure that the star lockwashers provided are used under the head of the screws provided, to keep the terminals from vibrating loose. Also insure that the terminals DO NOT short to one another. Using the end splice provided, crimp the ground wire from the sensor to the white pig-tail ground lead coming from the mounting bolt terminal lug. Make sure that sound wiring and crimping practices are used on the terminals so there will be good electrical connections along with mechanical integrity. Bad or loose connections will do nothing but cause problems, so a few extra minutes spent on the installation now could save many hours of trouble shooting that may be required in the future.

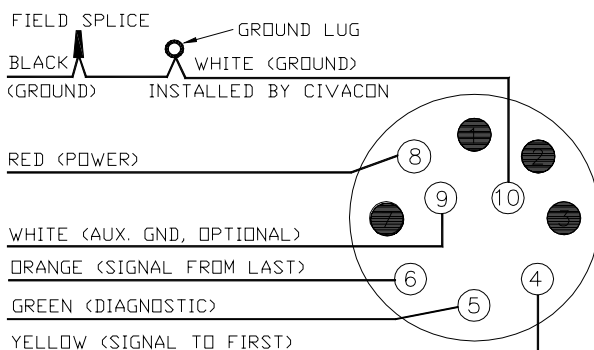
CAUTION: Proper grounding is required. Socket Contact Pin 10 must be grounded to the chassis of the tank trailer. In turn the sensors' ground lead must be connected to the pig-tail ground lead.

After the wiring has been double checked and is found to be correct, reinstall the faceplate, faceplate gasket, mounting hardware, and color coded dust cap. (Color coded dust caps are provided on CIVACON socket Models 4100, 4200, 4400 series, and 4700. All other CIVACON sockets have a permanently attached dust cover.) These color coded dust caps may also be purchased separately from Civacon as replacement parts for any damaged API style socket cap.

CIVACON OPTIC SOCKETS

Match your socket model number with the model numbers below.

MODEL NO'S. 4100, 4200 & 4201



MODEL NO. 4300

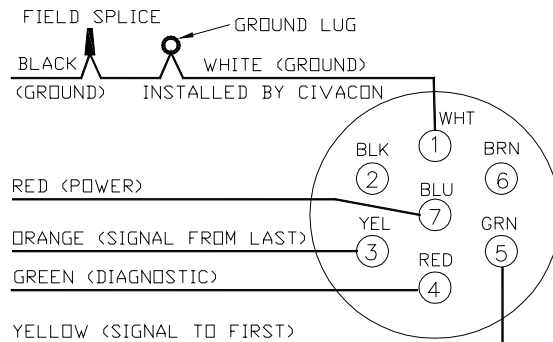


FIGURE C2

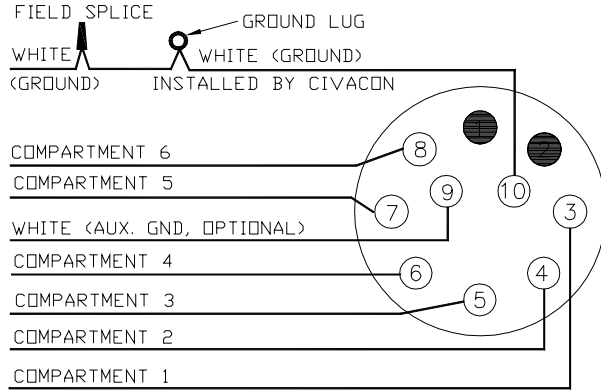
VIEWED FROM WIRE CONNECTION SIDE

For OPTIC onboard monitor wiring, connect the following wires to the OPTIC section of the terminal strip on the monitor: RED to RED; YELLOW to YELLOW; ORANGE to ORANGE; BLACK to BLACK. GREEN is not used, and WHITE auxiliary ground (Pin 9) may still be connected externally.

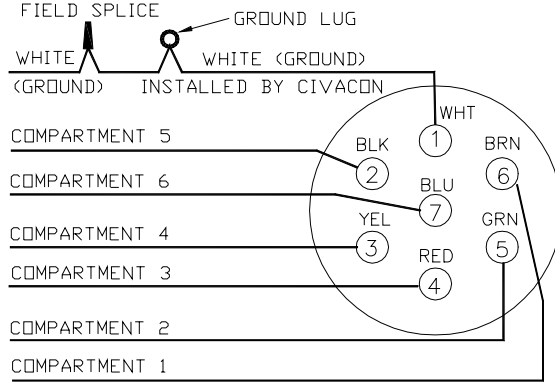
CIVACON THERMISTOR SOCKETS

Match your socket model number with the model numbers below.

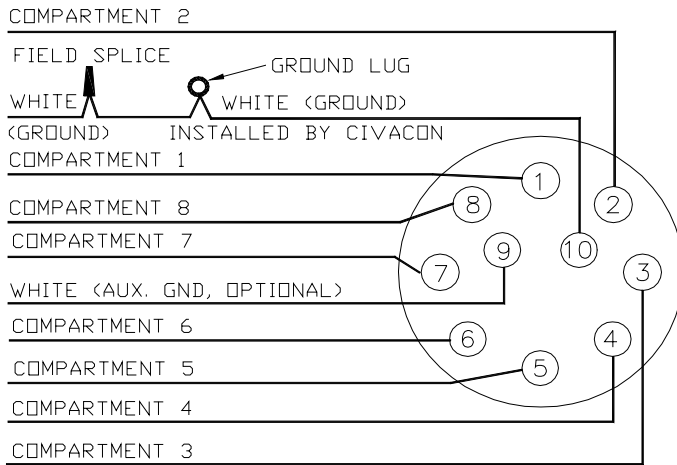
MODEL NO. 4400



MODEL NO. 4500



MODEL NO'S. 4400C & 4401



SUGGESTED WIRING COLOR CODE:

COMPARTMENT 1 = BROWN
 COMPARTMENT 2 = GREEN
 COMPARTMENT 3 = RED
 COMPARTMENT 4 = YELLOW
 COMPARTMENT 5 = BLACK
 COMPARTMENT 6 = BLUE
 COMPARTMENT 7 = VIOLET
 COMPARTMENT 8 = ORANGE

FOR GROUND IN THIS CASE, USE
 THE WHITE WIRE OF THE CABLE.
 AUX. GROUND IS SEPARATE.

FIGURE C3
 VIEWED FROM WIRE CONNECTION SIDE

**SEE THE FOLLOWING PAGE FOR
 THERMISTOR ONBOARD MONITOR WIRING.**

NOTICE: CIVACON socket Models 4100, 4400, & 4600 are shown in conformance with API Standard RP-1004. Local requirements may vary wiring configurations.

INFORMATION FOR THERMISTOR ONBOARD MONITOR WIRING :

Connect the shown wires below to the THERM section of the terminal strip on the monitor.

CAUTION: The THERMISTOR RED and ORANGE wires are NOT the same wires as the OPTIC wires.

MODEL NO'S. 4400, 4400C, & 4401

MODEL NO. 4500

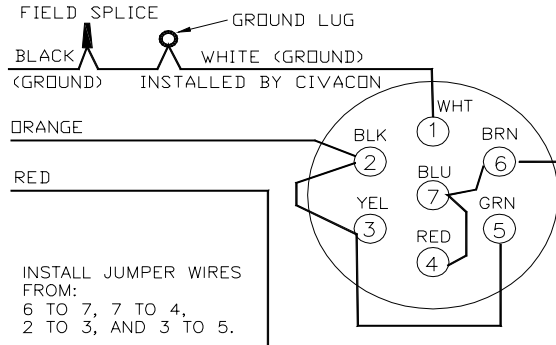
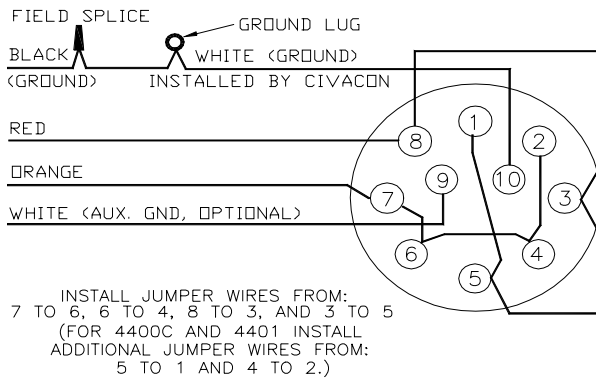


FIGURE C3.1
VIEWED FROM WIRE CONNECTION SIDE

CIVACON FLOAT SOCKETS

Match your socket model number with the model numbers below.

MODEL NO. 4700

MODEL NO. 4600

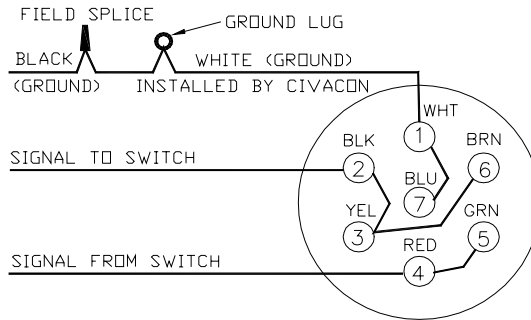
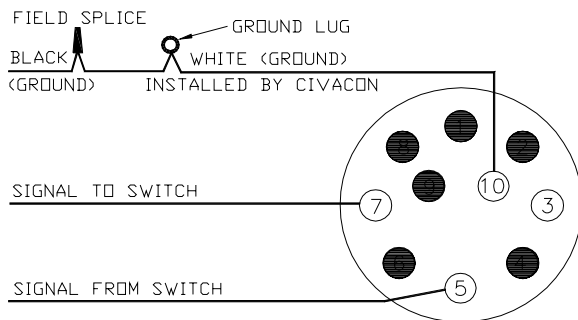


FIGURE C4
VIEWED FROM WIRE CONNECTION SIDE

For FLOAT onboard monitor wiring, connect the following wires to the FLOAT section of terminal strip on the monitor:

"SIGNAL TO SWITCH" to BRN; "SIGNAL FROM SWITCH" to BRN; BLACK to BLACK.

CIVACON ELECTRONICS TECHNICAL ASSISTANCE LINE:

In the U.S.A., Call 1-800-5 CIVACON

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