

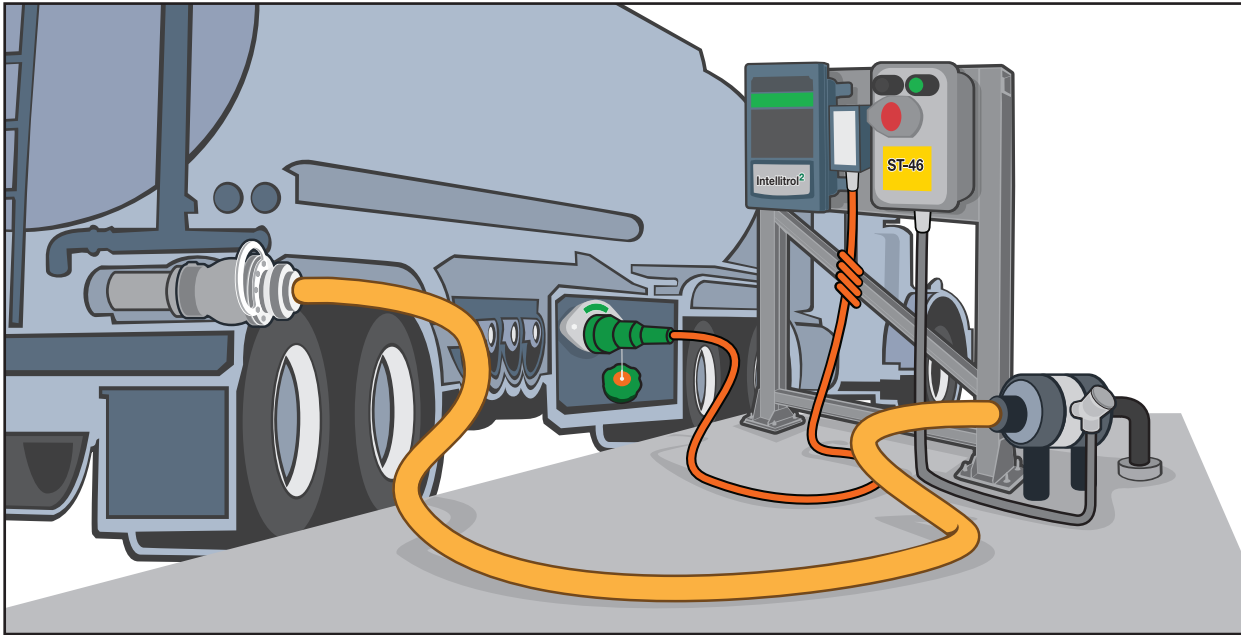
OPERATING TEST

Apply power to the ST-46 or ST-46C control unit.
NOTE: The vapor recovery hose coupler should not be connected to a truck or test coupler at this time.
Check status of lights with Bypass Control Switch in the following positions:

- **AUTO:** Red light should be ON. Circuit is non-permissive
- **BYPASS:** Both lights should be OFF. Circuit is permissive.

Return the Bypass Switch to the AUTO position. The Bypass Switch should be locked by the user so that the bypass setting cannot be tampered with. Connect the Vapor Coupler to a truck or test coupler. The ST-46 or ST-46C outputs will go permissive with the green light ON and the red light OFF. If a truck or test coupler is not available, pushing the poppet of the vapor coupler to its open position will also simulate a coupler to adapter connection and the ST-46 or ST-46C will change to a permissive state.

TYPICAL INSTALLATION OF ST-46 CONTROLLER



SUPPORT

Manual (ST-46 601000016 / ST-46C 601000017):
Use the QR code to the right to download the full technical manual for more detailed installation, troubleshooting, and maintenance information.



ST-46 MANUAL
NORTH AMERICA



ST-46C MANUAL
EUROPE



SCULLY WARRANTY

Contact Scully Technical Support:
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605000012 Rev A
September 2026

Scully Vapor Controller ST-46 / ST-46C

Quick Start Guide

The ST-46 and ST-46C are the controllers used in the Scully Vapor Connect™ Kit. The ST-46 meets NEC hazloc approval standards while the ST-46C meets IEC hazloc approval standards. The controllers are available in 120VAC and 240VAC and include a bypass switch

The ST-46 or ST-46C controllers indicate the state of the vapor coupler integrated proximity sensor during the petroleum tank truck loading process. It notifies the operator if the vapor coupler is connected or not connected to the vapor adaptor. The visual indication light will be green when the coupler is connected, or red when the coupler is not connected. The controller also has an output relay that changes state when the vapor coupler is connected or not. The controller is typically installed in areas that are classified as hazardous locations due to the nature of the products being loaded.

UNBOX & INSPECT: The controller is enclosed in an explosion proof enclosure, and shipped in a corrugated box that includes screws with an anti-seize packet to tighten the door to the main enclosure. Also included is this quick start guide, a warranty card, and a final inspection and test records sheet. All cable entry fittings, junction boxes, connections, wiring, etc. are to be provided by the installers.



For detailed instructions and warnings please review the technical product manual using the QR code provided on the back of this document



SAFETY & HAZARDS - DO NOT SKIP THIS STEP

There are three holes in the enclosure for cable entry. Two holes in the top of the enclosure are for mains power and control output wiring. One hole in the bottom of the enclosure, labeled "INTRINSICALLY SAFE ENTRY" is for connection to the vapor coupler sensor.

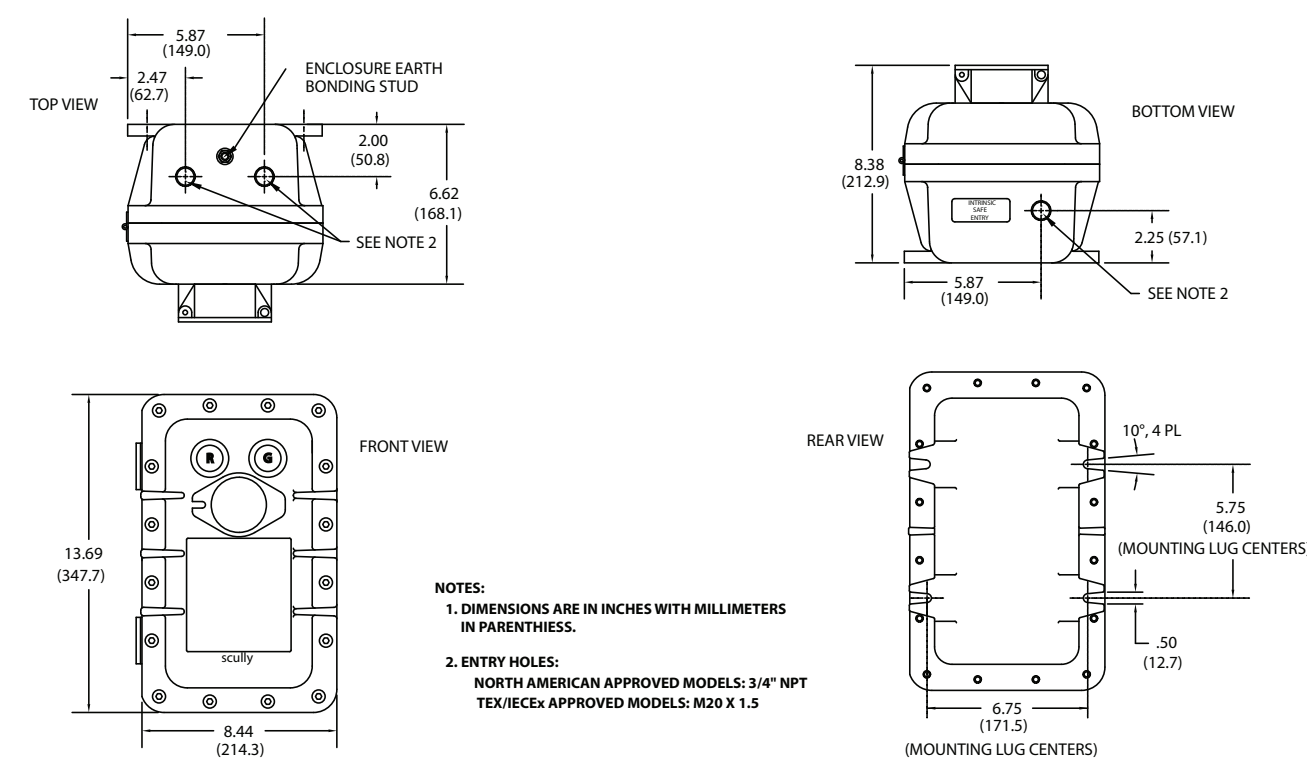
WARNING:

- The electrical cable entry in the bottom of the enclosure marked "INTRINSICALLY SAFE ENTRY" must only be used to interface with the sensor integrated in the vapor coupler.
- To maintain intrinsic safety, this cable entry must not be used for any other wiring.
- DO NOT ROUTE MAINS POWER THROUGH THIS HOLE.

PHYSICAL INSTALLATION

Mounting Instructions: When choosing a location on the loading rack for the control unit, the lights on the front of the control unit should be easily visible and within reach of the user. The control unit should be mounted vertically, in a location where the cover can open for servicing. For detailed instructions and warnings, review diagrams in the ST-46 Technical Manual Appendix 4.

System and mounting lugs location and dimensions DWG 31412 in User Technical Manual appendix 4.1.



Wiring & Labeling: For detailed instructions and warnings, review diagrams in Chapter 2.2 and Appendix 4 diagrams.

Power Connections: Route the mains power wires through the top left entry hole. Connect mains power wires to the appropriate terminals on the terminal block (strip) on the metal bracket in the enclosure. The Power terminals are marked E, N, and L, also shown in wiring diagram. 603000022 Appendix 4.5.

Enclosure Earth (Ground/Bond) Connection: Connect a wire (1.5mm² minimum) from the enclosure-bonding stud to an earthed metallic structure of the gantry (rack). 31412 Appendix 4.1.

Control Output (Controlled Circuit) Connections: Route the control output wiring through the top right entry hole in the enclosure and connect it to output contact terminals, indicated on the terminal strip on metal bracket. The output control contact is open when no connection is made from the controller to a vehicle (idle state). The output control contact closes when a proper vapor recovery hose connection between the vehicle and the controller has been established (or when the optional bypass switch is in the "Bypass" position). The contact opens if the vapor recovery hose connection is broken or disconnected. Reference drawing 603000022 in manual.

Intrinsically Safe Connections: The signals from the ST-46 or ST-46C to the vapor recovery hose coupler are intrinsically safe. The intrinsically safe connections must only be made via the entry hole in the bottom of the enclosure. The connections are made to the terminal strip TB2 at the bottom of the printed circuit board module. The wires must be 1.5mm² (18AWG) minimum conductor size. All wiring installation should be in accordance with local wiring codes. Note spacing and superscript and should reference drawing 31412 in manual.

Detailed wiring instructions DWG 606000019 in User Technical Manual Appendix 4.4.

