

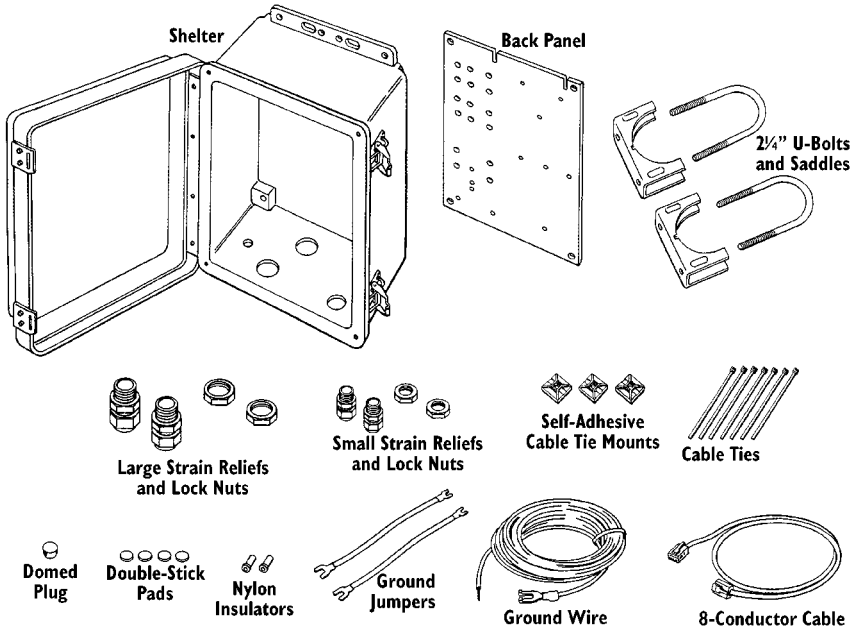
COMPLETE SYSTEM SHELTER

The weather-resistant Complete System Shelter (CSS) provides protection from the elements for system components such as the console, Solar Power Kit components, sensor interface module, Protected Junction Box, Interface Cable Adapter Module, Alarm Output Module, Short Range Modem, Surge Protectors, etc.

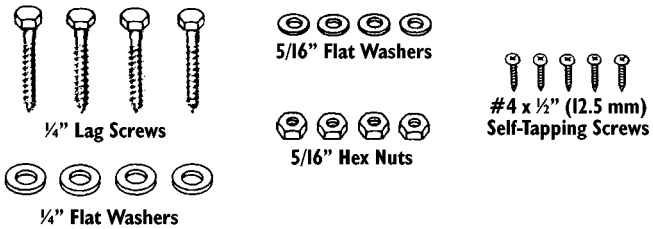
CAUTION: Please note that we have made every attempt to provide a safe product, but Davis Instruments assumes no liability for any injury or damage caused directly or indirectly by the installation or use of this product.

COMPONENTS

The CSS includes the following components. Please make sure that you have all the listed components before continuing.

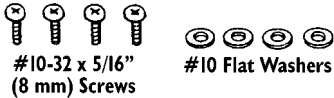


The mounting hardware kit included with the shelter includes the following components. Please make sure that you have all the components before continuing.



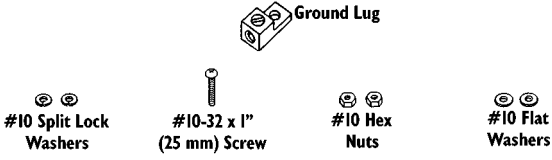
MOUNTING HARDWARE KIT COMPONENTS

The back panel mounting kit included with the shelter includes the following components. Please make sure that you have all the components before continuing.



BACK PANEL MOUNTING KIT

The ground lug kit included with the shelter includes the following components. Please make sure that you have all the components before continuing.



GROUND LUG KIT COMPONENTS

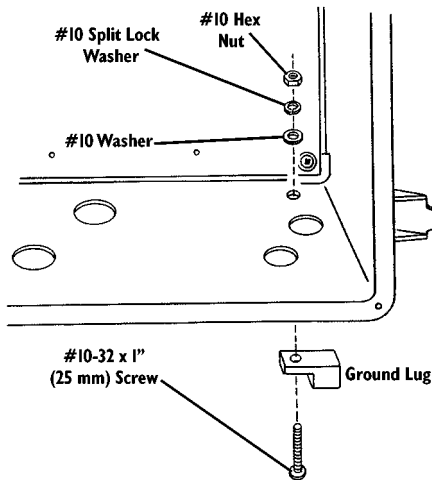
TOOLS AND MATERIALS NEEDED FOR INSTALLATION

You may need some of the following tools and materials in order to install the shelter.

- ◆ System Components
You will need the various system components you plan to install inside the shelter. Some sample installation configurations are shown in “Sample CSS Configurations” on page 5.
- ◆ Medium Flat Head Screwdriver
- ◆ Medium Phillips Head Screwdriver
- ◆ Wrench or 3/8" Nut Driver
- ◆ Large Adjustable Wrench (1 3/8" Opening)
- ◆ Electric Drill with #43 (.089", 2.25 mm) and #36 (.106", 2.70 mm) Drill Bits
- ◆ Wire Cutter
- ◆ Wire Stripper or Knife
- ◆ Pliers
- ◆ Electrical Tape and/or Silicone Caulking
- ◆ Double-Sided Tape

INSTALLING GROUND LUG

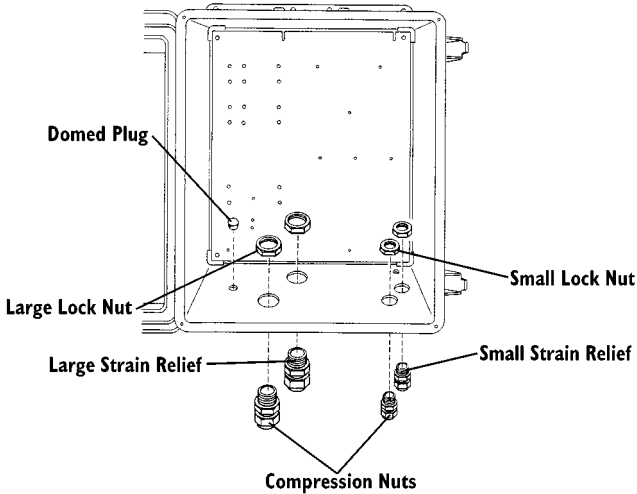
Install the ground lug using a #10-32 screw, #10 washer, #10 split lock washer, and #10 hex nut as shown below.



INSTALLING GROUND LUG

INSTALLING STRAIN RELIEFS AND DOMED PLUG

Install strain reliefs and the domed plug in the CSS as shown below. You will need to install the strain reliefs before running cables into the CSS. Secure the strain reliefs by tightening the lock nuts. Do not tighten the compression nuts until you have completed your installation (see “Securing Cables” on page 15).



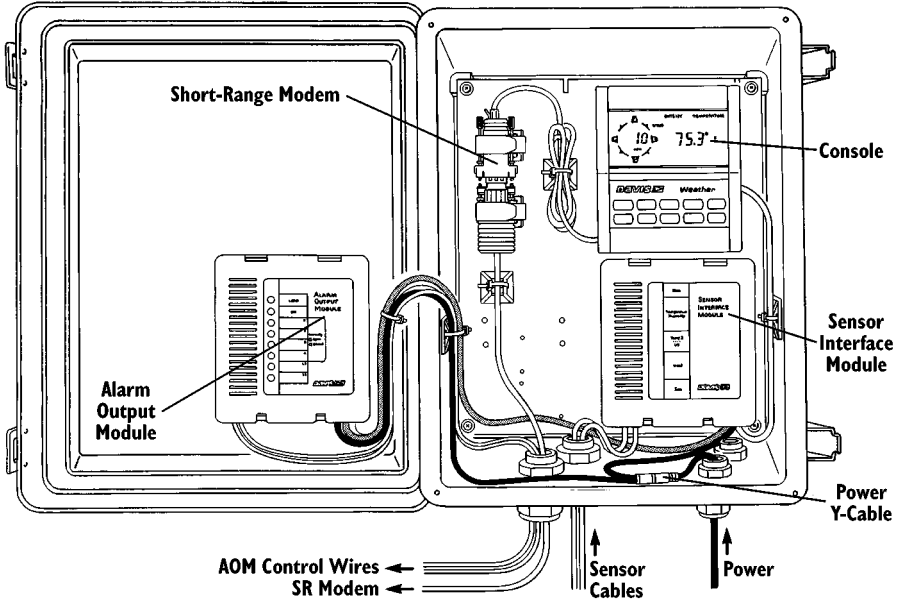
INSTALLING STRAIN RELIEFS AND DOMED PLUG

SAMPLE CSS CONFIGURATIONS

The illustrations below show two sample CSS installations. Consult the installation manuals supplied with system components for wiring instructions.

Console, Sensor Interface Module, Alarm Output Module, and Short-Range Modem

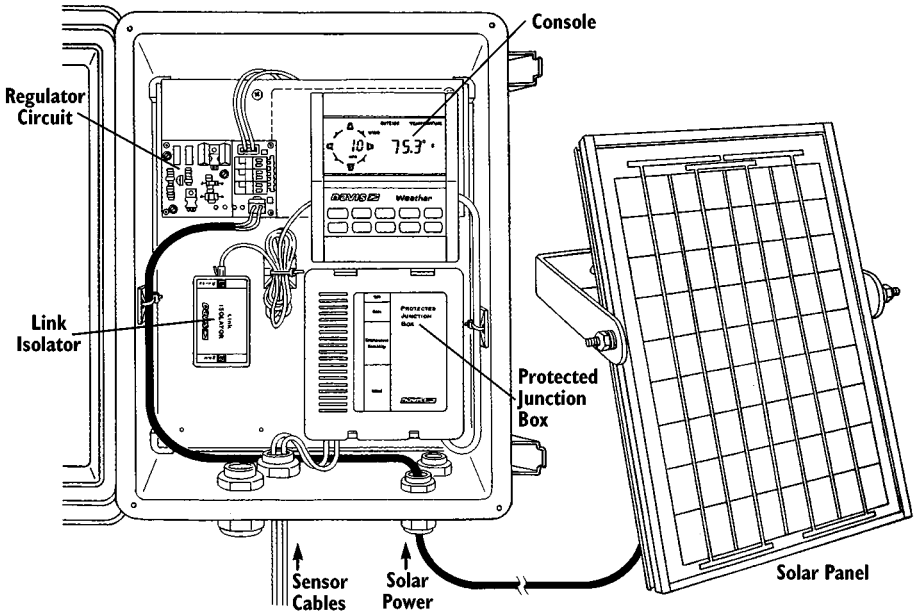
The illustration below shows a CSS installation which includes the console, sensor interface module (SIM), Alarm Output Module (AOM), and Short-Range Modem (SR Modem).



CONSOLE, SIM, AOM, SR MODEM INSTALLATION

Console, Protected Junction Box, Link Isolator, and Solar Power Kit

The illustration below shows an CSS installation which includes the console, Protected Junction Box, Link Isolator, and Solar Power Kit. In this installation, you would bring a laptop computer to the CSS, plug it into the isolator, and download data from the WeatherLink.



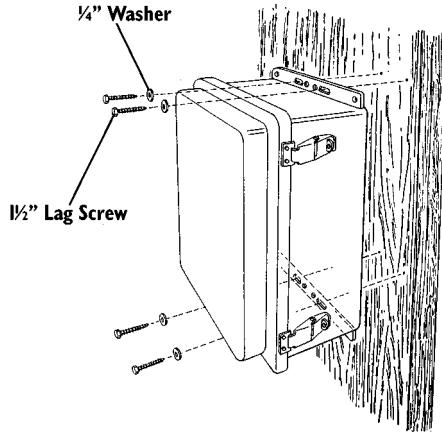
CONSOLE, PROTECTED JUNCTION BOX, LINK ISOLATOR, AND SOLAR POWER KIT

MOUNTING THE CSS

The instructions below take you through the procedure necessary to mount the shelter against a wall or post, on a small pipe, or on a large pipe.

Mounting the Shelter on a Wall or Post

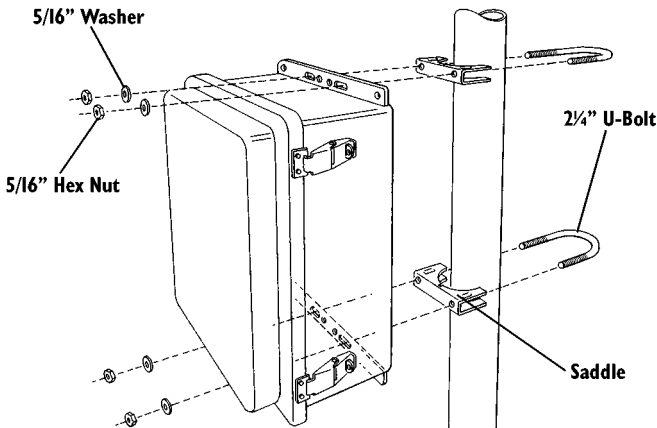
Attach the shelter to the mounting surface in the desired location using the large screws and 1/4" flat washers as shown below. Use a pencil or a center-punch to mark the location of the pilot holes.



MOUNTING ON A WALL OR POST

Mounting On a Pipe

Mount the CSS onto a pipe, outside diameter between 1 1/2" and 2 3/8" (38mm and 60mm), using the 2 1/4" U-bolt, saddles, 5/16" washers, and 5/16" hex nuts as shown below. For a smaller pipe, outside diameter between 3/4" and 1 1/4" (19 mm and 31mm), use 1 1/2" U-Bolts (not provided).



MOUNTING ON A PIPE

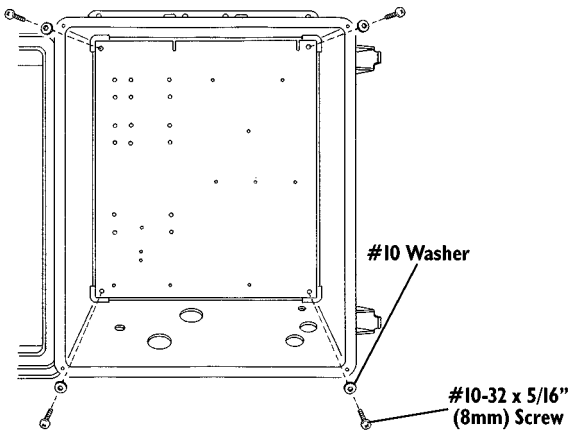
INSTALLING COMPONENTS INTO THE CSS

The sections below show where and how the various system components are installed into the CSS.

Note: You will need to consult the various installation manuals supplied with each system component for instructions on wiring your installation.

Installing the Back Panel

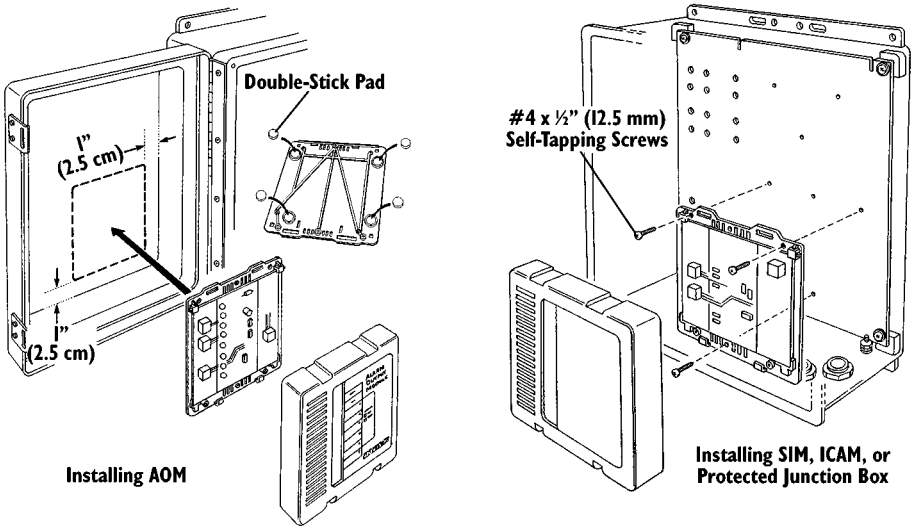
Use a #10-32 x 5/16" (8 mm) screw and #10 washer to attach the back panel to the shelter. If installing the SR Modem or a similarly-sized component, you must attach cable ties to the back panel before installing it. See "Installing Short-Range Modem or Similar-Sized Equipment" on page 12 for details.



INSTALLING THE BACK PANEL

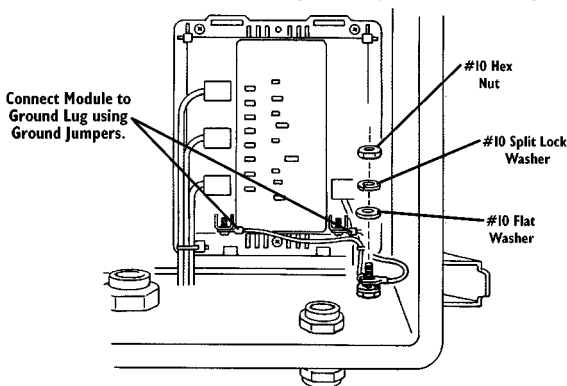
Installing a Module

You may install any of the following modules into the CSS: sensor interface module, Protected Junction Box, Alarm Output Module (AOM), or Interface Cable Adapter Module. You may mount the AOM on the door of the CSS (because the AOM does not require grounding). All other modules should be mounted in the shelter's main box. To install the AOM in the cover, attach the double-stick pads to the base of the AOM and use the double-stick pads to secure the AOM to the door of the shelter in the location shown below. To mount a module in the shelter's main box, use the #4 x 1/2" (12.5 mm) self-tapping screws as shown below.



INSTALLING A MODULE

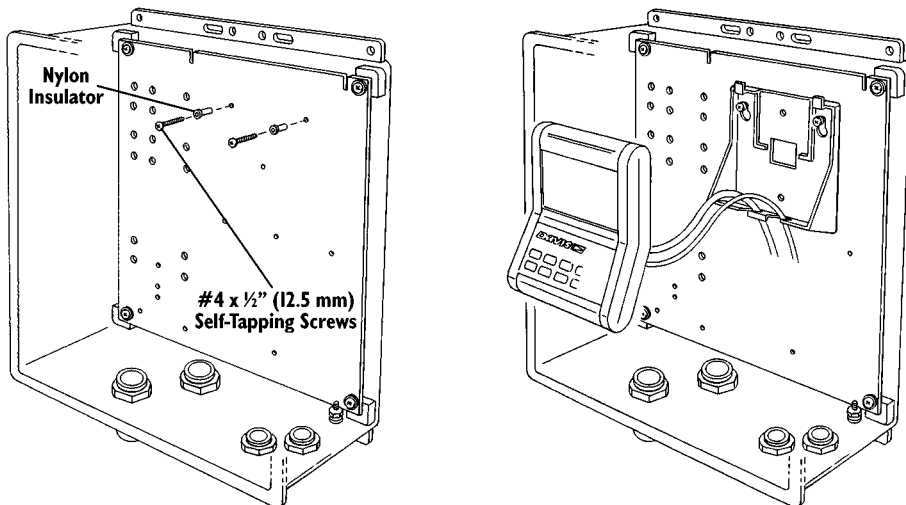
When grounding modules installed in the shelter's main box, use the ground jumpers supplied with the CSS to connect the terminals inside the "module" to the ground lug as shown below. Use a #10-32 screw, #10 washer, #10 split lock washer, and #10 hex nut to secure the ground jumper to the ground lug.



GROUNDING MODULES (INDUSTRIAL SIM SHOWN HAS 2 GROUND JUMPERS)

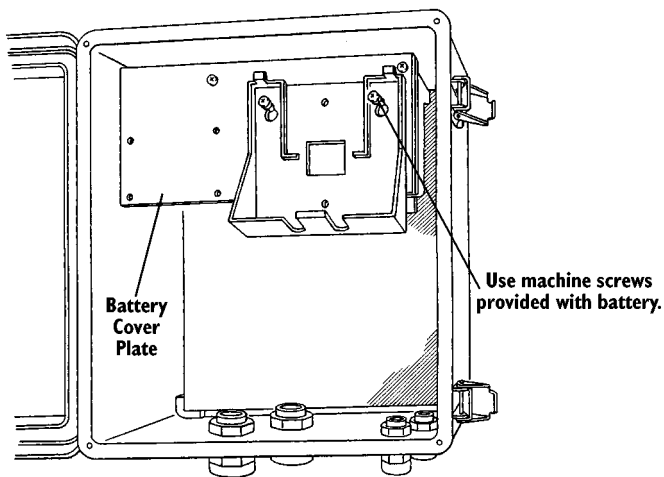
Installing a Console

If you are not installing the 6.5-Amp-Hour Battery in the CSS, install a console in the CSS using the #4 x 1/2" (12.5 mm) self-tapping screws and nylon insulators as shown below.



INSTALLING A CONSOLE (NO BATTERY INSTALLED)

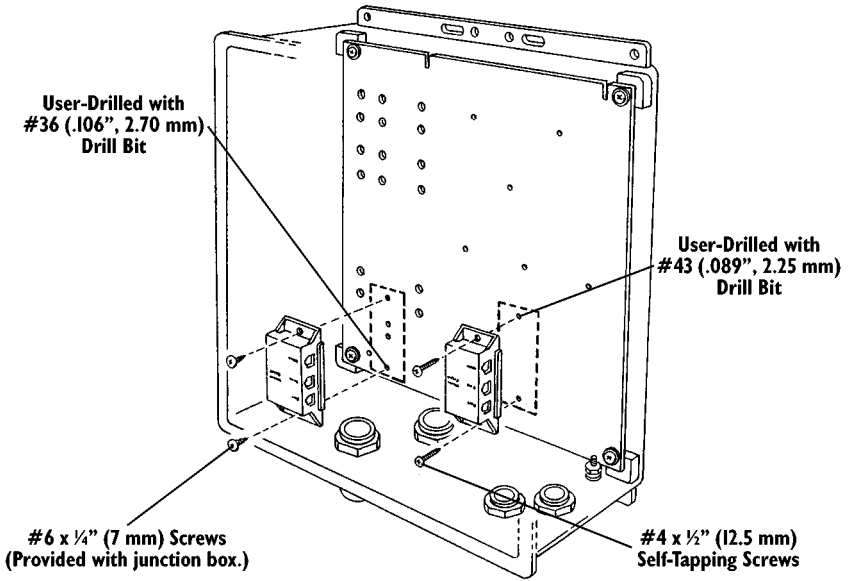
If you are installing the 6.5-Amp-Hour Battery in the CSS, install the console onto the battery cover plate using the #4 x 1/2" (12.5 mm) **machine screws** and nylon insulators supplied with the Solar Power Kit (the self-tapping screws might cause you to inadvertently puncture the battery).



INSTALLING A CONSOLE (BATTERY INSTALLED)

Installing a Small Junction Box

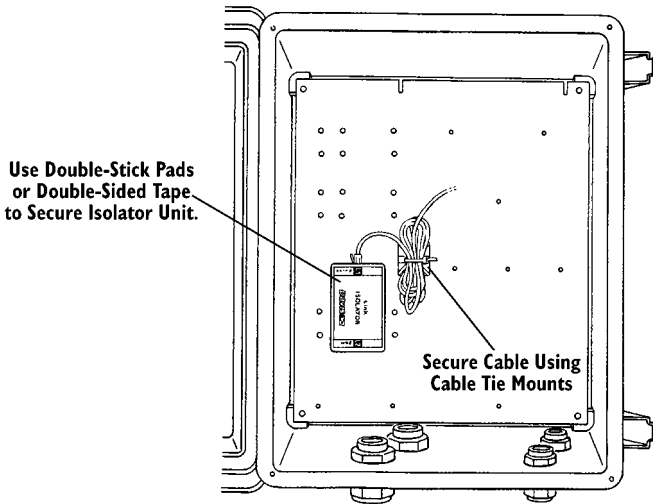
You may install the small junction box into the CSS, using double-stick pads, double-sided tape, or the screws shown below. If using the screws, you will have to drill a hole in one of the locations shown below using the indicated drill bit. Use a pencil or a center-punch to mark the location of the hole before drilling.



INSTALLING A SMALL JUNCTION BOX

Installing Link Isolator

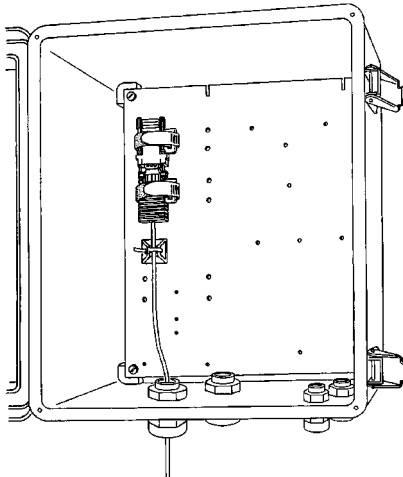
Use double-stick pads or double-sided tape to install the Link Isolator in the CSS as shown below. Use cable tie mounts to secure the cable.



INSTALLING A LINK ISOLATOR

Installing Short-Range Modem or Similar-Sized Equipment

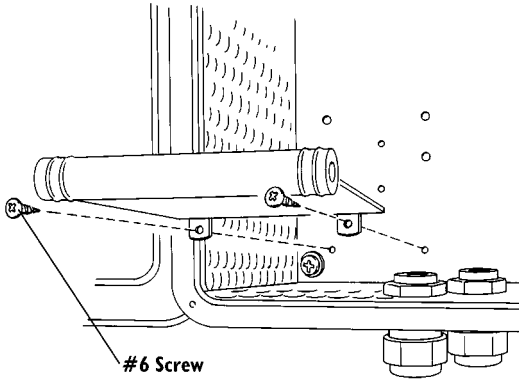
Install the Short-Range Modem (SR Modem) into the CSS by using cable ties to secure VELCRO® straps (provided with the SR Modem) to the back wall of the CSS. Then use the VELCRO straps to secure the SR Modem and adapter in place. Consult the SR Modem manual for detailed instructions.



SR MODEM INSTALLATION

Installing a Heater

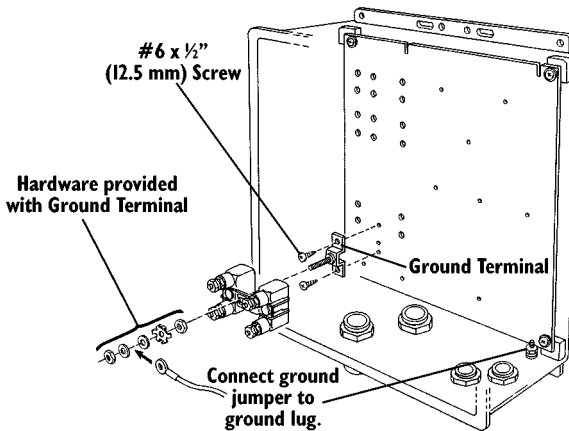
Install the shelter heater as shown below. Note that you must install the heater insulation blankets before installing the heater. Consult the shelter heater manual for more complete instructions.



INSTALLING HEATER

Installing Surge Protectors

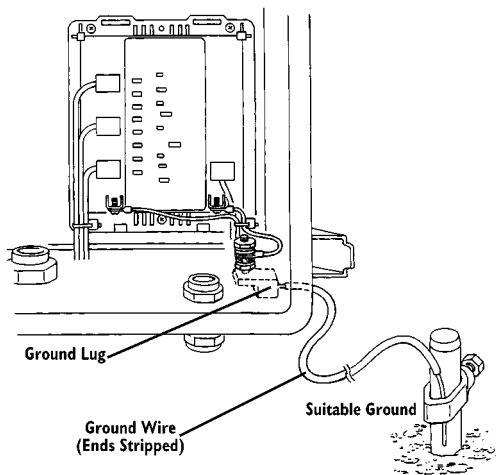
To install 2- or 4-wire Surge Protectors in the CSS, you will need to obtain a ground terminal (available free from Davis). The ground terminal includes all hardware necessary to install the surge protector as shown below. Connect the ground jumper to the surge protectors and the ground lug. Consult the surge protector manual for instructions on wiring the surge protectors.



INSTALLING SURGE PROTECTOR

GROUNDING THE CSS

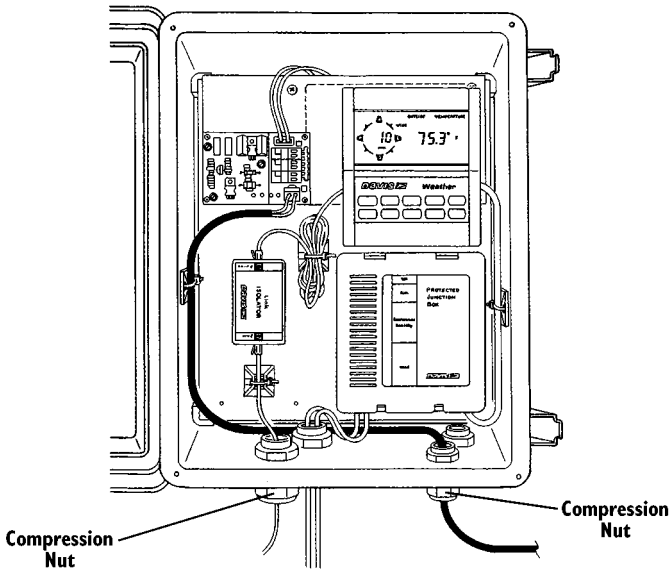
Connect the CSS to ground using the provided ground wire. If you anticipate heavy surges, you may wish to use a heavier wire, strap, or multiple wires. Cut the ground wire to the length required to reach from the CSS to a suitable ground, such as Davis Instruments' Grounding Kit (Product #7780). The ground wire should be as short as possible. Strip both ends of the ground wire (remove the spade lug if necessary) and insert one end into the ground lug. Secure in place by tightening the ground lug screw. Attach the other end to a suitable ground.



GROUNDING THE CSS (INDUSTRIAL SIM SHOWN)

SECURING CABLES

Secure cable to the inside of the shelter using self-adhesive cable tie mounts and cable ties. When finished installing components, tighten the compression nuts on the strain reliefs to secure the cables and create a weather-resistant seal. If there is a large air space around the cables, fill the space by wrapping the cables in electrical tape and/or sealing with silicone caulking.



SECURING CABLES

Product Number: 7724

Davis Instruments Part Number: 7395-113

Complete System Shelter

Rev. C Manual (7/7/99)

Controlled Online: DI:WM:Accessories:Complete System Shelter

This product complies with the essential protection requirements of the EC EMC Directive 89/336/EC.

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