

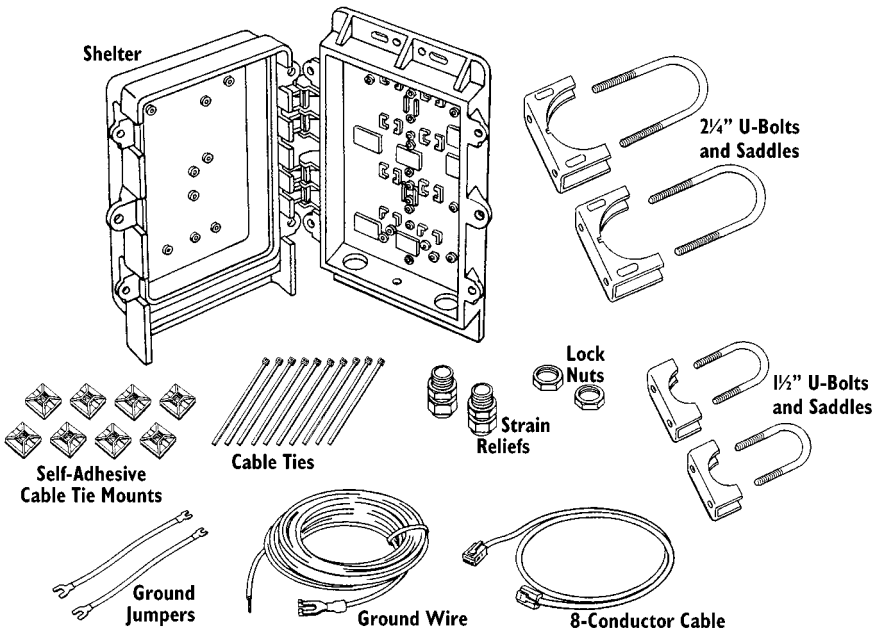
MULTI-PURPOSE SHELTER

The weather-resistant Multi-Purpose Shelter (MPS) may be used to protect a number of system components from the elements.

CAUTION: Please note that we have made every attempt to design and manufacture 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 MPS includes the following components. Please make sure that you have all the listed components before continuing.



COMPONENTS

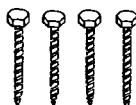
The hardware kit included with the MPS includes the following components. Please make sure that you have all the components before continuing.



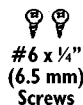
1/4" Flat Washers



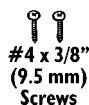
5/16" Flat Washers



1/4" Lag Screws



#6 x 1/4"
(6.5 mm)
Screws



#4 x 3/8"
(9.5 mm)
Screws



1/4" Hex Nuts



5/16" Hex Nuts



#6 x 1/2" (12.5 mm) Screws

HARDWARE KIT COMPONENTS

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



#10 Split Lock
Washers



#10-32 x 1"
(25 mm) Screw



#10 Hex
Nuts



#10 Flat
Washers

GROUND LUG KIT COMPONENTS

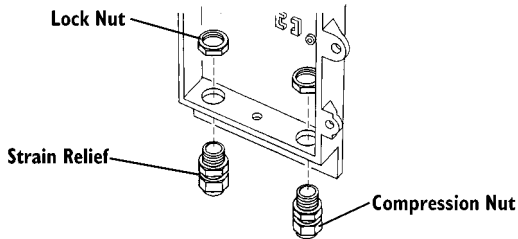
TOOLS AND MATERIALS NEEDED FOR INSTALLATION

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 MPS Configurations" on page 3.
- ◆ **Medium Flat Head Screwdriver**
- ◆ **Medium Phillips Head Screwdriver**
- ◆ **Wrench or 3/8" Nut Driver**
- ◆ **Large Adjustable Wrench (1 3/8" Opening)**
- ◆ **Wire Cutter**
- ◆ **Wire Stripper or Knife**
- ◆ **Pliers**
- ◆ **Electrical Tape and/or Silicone Caulking**
- ◆ **Double-Sided Tape**

ATTACHING CABLE STRAIN RELIEFS

Attach both strain reliefs to the MPS as shown below. You will need to install the strain reliefs before running cables into the MPS. Secure the strain reliefs by tightening the lock nuts. Do not tighten the compression nuts until you have completed your installation (see "Securing the Cables" on page 12).



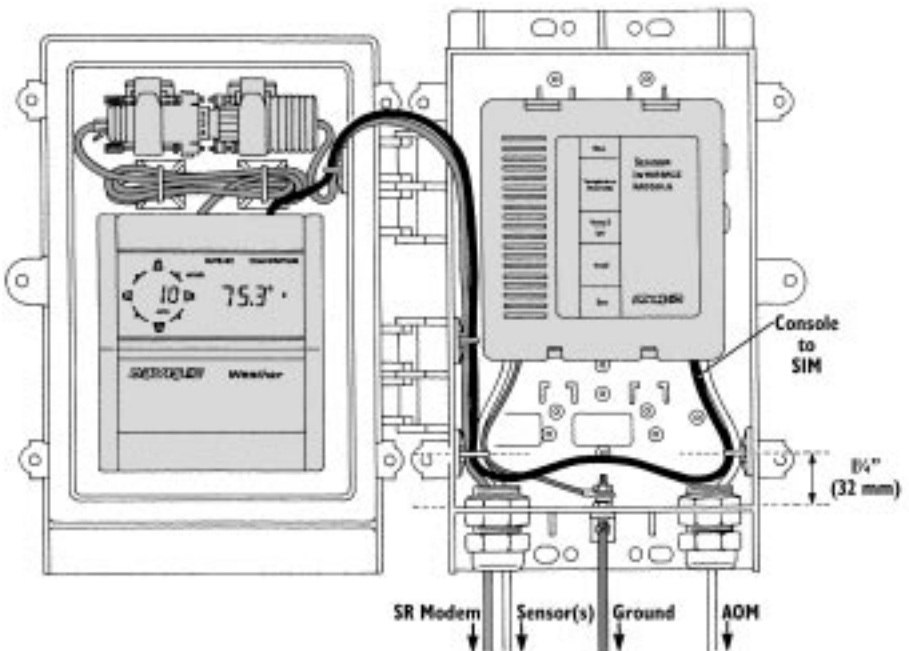
INSTALLING STRAIN RELIEFS

SAMPLE MPS CONFIGURATIONS

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

Console, Sensor Interface Module (SIM), and Short-Range (SR) Modem

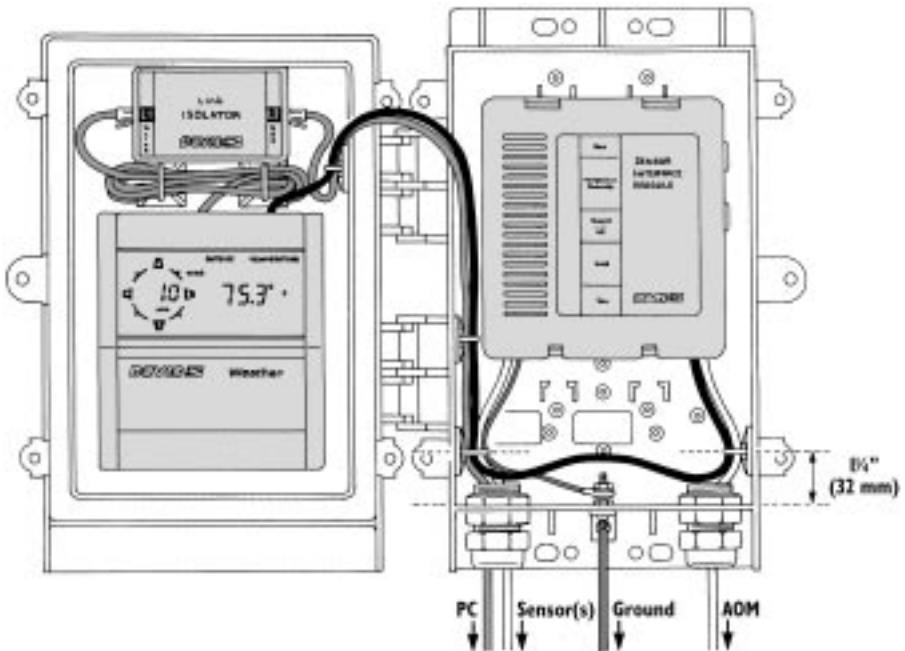
The illustration below shows an MPS installation which includes the console, SIM, and SR Modem. When installing, make sure the indicated cable tie mounts are attached to the MPS so the centers of the mounts are 1-1/4" (32 mm) from the bottom of the shelter.



CONSOLE, SIM, SR MODEM INSTALLATION

Console, Sensor Interface Module (SIM), and Link Isolator

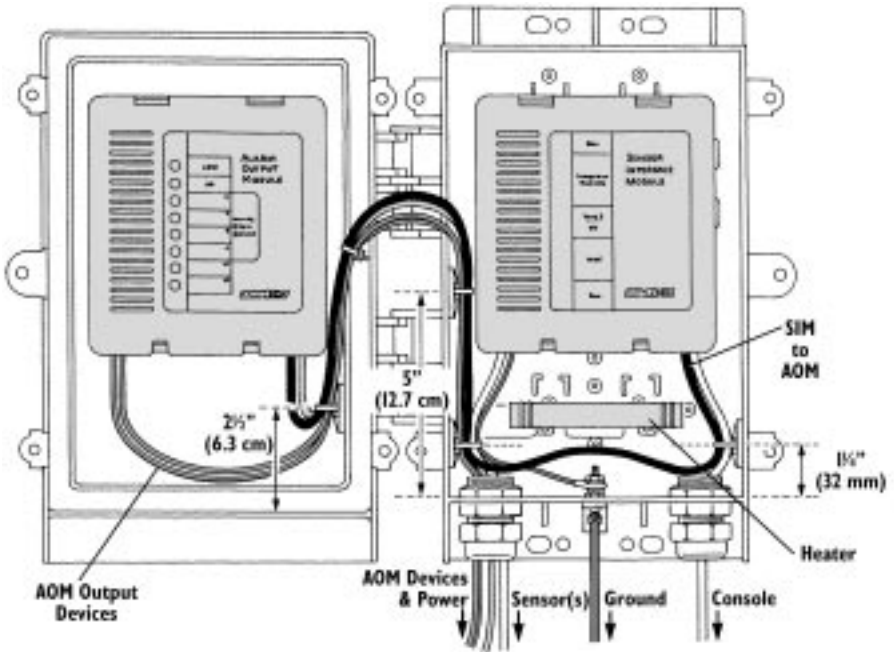
The illustration below shows an MPS installation which includes the console, SIM, and Link Isolator. Make sure the indicated cable tie mounts are attached to the MPS so the centers of the mounts are 1-1/4" (32 mm) from the bottom of the shelter.



CONSOLE, SIM, AND LINK ISOLATOR, INSTALLATION

Sensor Interface Module (SIM), Alarm Output Module (AOM), and Heater

The illustration below shows an MPS installation which includes the SIM, AOM, and a heater. When installing, make sure the cable tie mounts are attached to the MPS wall so the centers of the mounts are the indicated distance from the bottom of the shelter, as shown below.



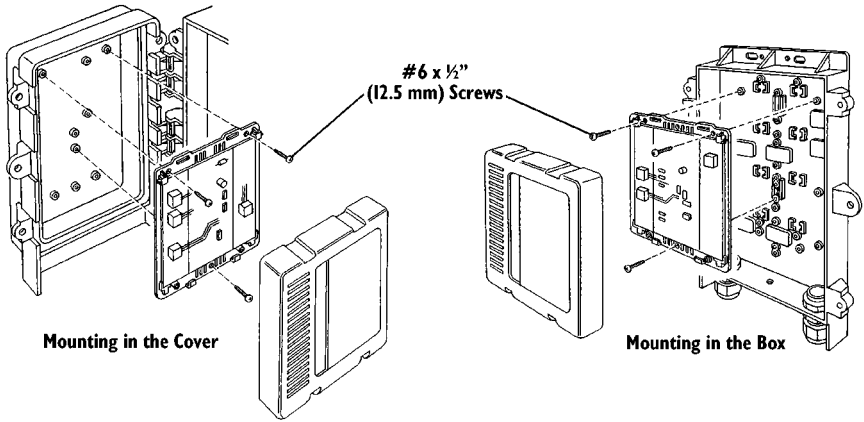
SIM, AOM, AND HEATER

INSTALLING COMPONENTS INTO THE MPS

The sections below show where and how the various system components install into the MPS. You will need to consult the installation manuals supplied with each system component for instructions on wiring your installation. You may want to wait until you have actually mounted the shelter (See “Mounting the MPS” on page 9) before routing cables into the shelter.

Installing a "Module"

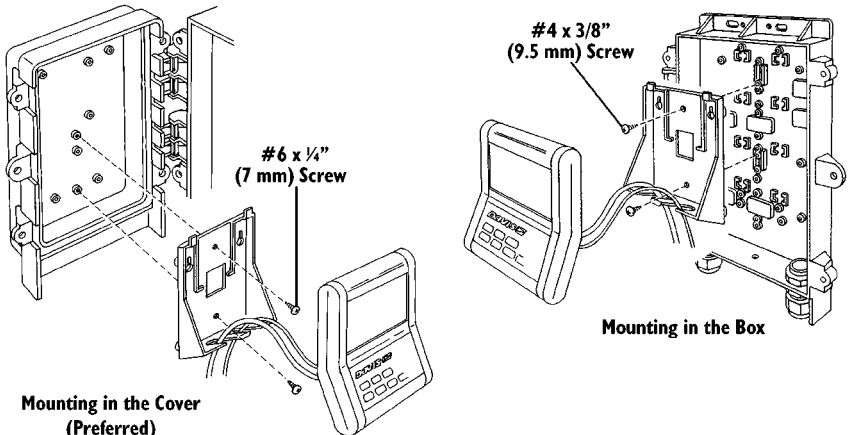
You may install any of the following "modules" into the MPS: sensor interface module, Protected Junction Box, Alarm Output Module (AOM), or Interface Cable Adapter Module. Use the #6 x 1/2" (12.5 mm) self-tapping screws as shown below. If you mount a module on the box's cover, you will not be able to ground it (the ground jumpers cannot reach the ground lug) so only install a module on the door if it does not require grounding (such as the AOM). When grounding "modules" installed in the shelter's main box, use the ground jumpers supplied with the MPS to connect to the shelter's ground lug as shown in "Grounding the Shelter and Components" on page 11.



INSTALLING A MODULE

Installing a Console

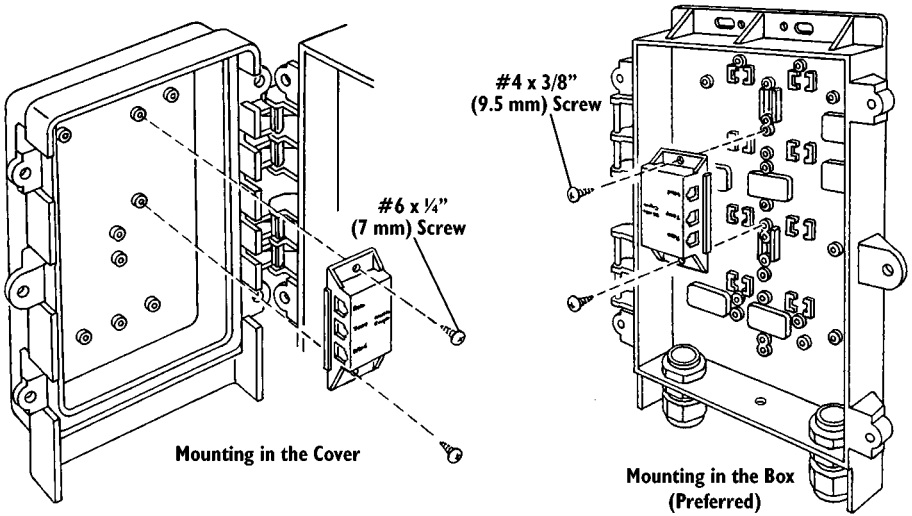
You may install the station console into the box or the cover, using the screws shown below.



INSTALLING A CONSOLE

Installing a Small Junction Box

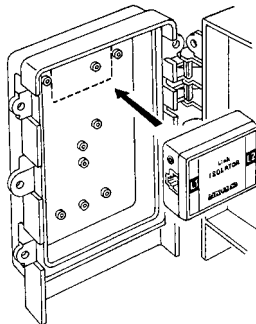
You may install the small junction box into the box or the cover, using the screws shown below.



INSTALLING A SMALL JUNCTION BOX

Installing Link Isolator

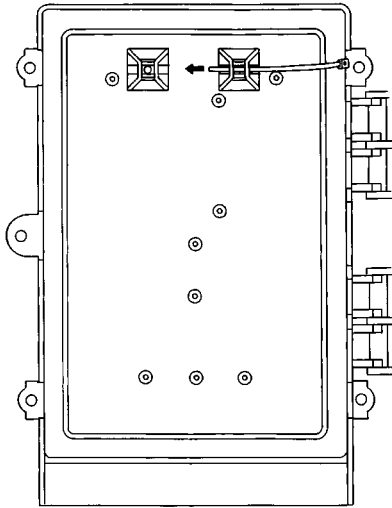
Use double-sided tape to attach the Link Isolator to the back wall of the MPS as shown below.



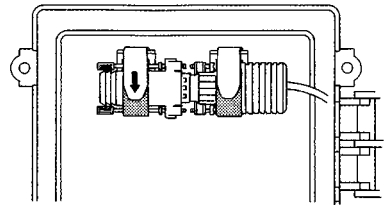
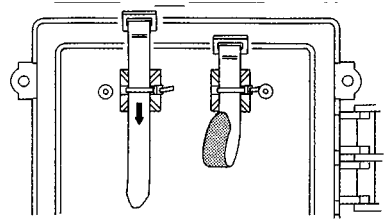
INSTALLING A LINK ISOLATOR

Installing Short-Range Modem

Install the Short-Range Modem (SR Modem) into the MPS by using self-adhesive cable tie mounts and cable ties to secure the VELCRO® straps (provided with the SR Modem) to the back wall of the MPS as shown below. Then use the VELCRO straps to secure the SR Modem and adapter in place.



Attach Cable Tie Mounts to MPS Wall

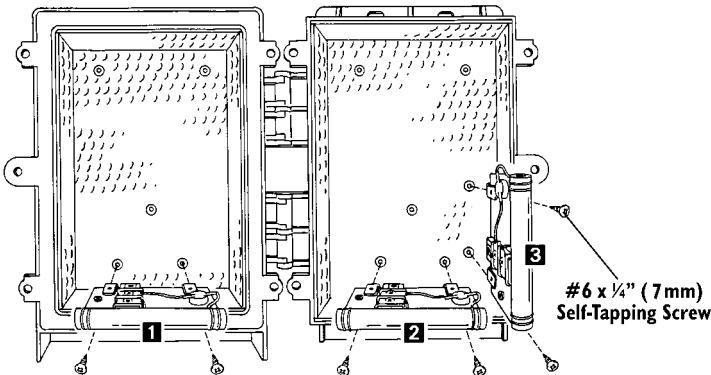


Use VELCRO Straps to Secure SR Modem

INSTALLING A SR MODEM

Installing a Heater

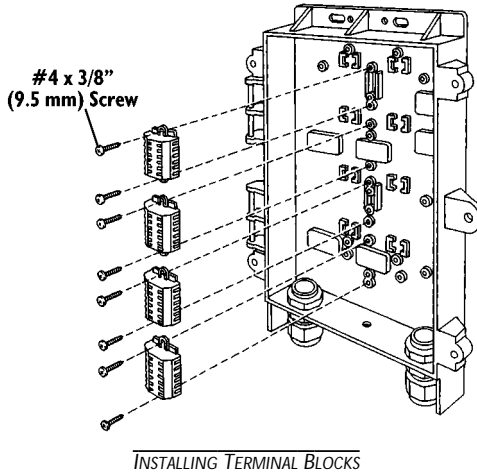
There are three possible heater locations. Install the shelter heater in one of these locations, as shown below. Note that you must install the heater insulation blankets before installing the heater. Consult the shelter heater manual for more complete instructions.



INSTALLING HEATER INTO MPS

Installing Terminal Blocks

Install terminal blocks into the MPS using the #4 x 3/8" (9.5 mm) self-tapping screws (supplied with terminal blocks) as shown below.

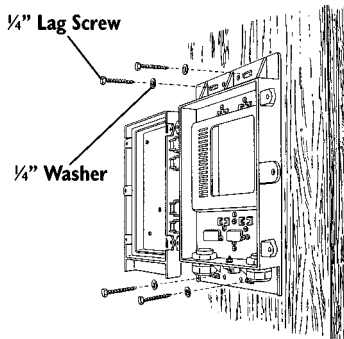


MOUNTING THE MPS

The instructions below will show you how 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 lag screws and 1/4" flat washers as shown below.

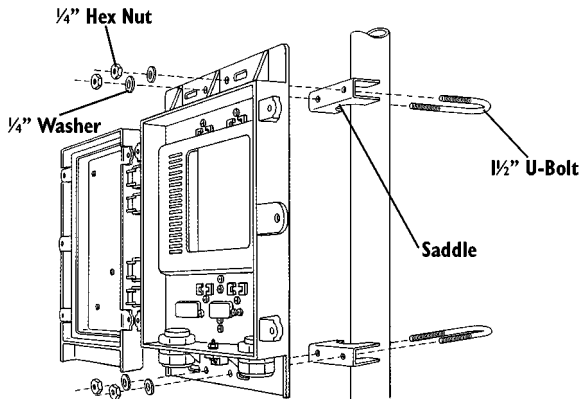


MOUNTING ON A WALL OR POST

Mounting On a Pipe

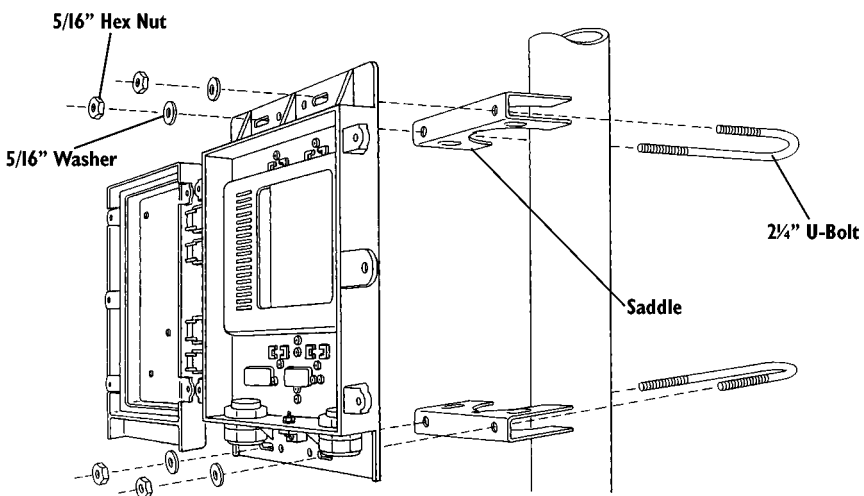
Hold the rear of the shelter and the U-bolt saddles against the pipe and slide the ends of the U-bolts through the holes in the saddles and shelter so that the U-bolts wrap around the pipe as shown below. Secure the shelter using a flat washer and hex nut on each end of the U-bolts. Tighten the hex nuts until the shelter is firmly attached to the pipe.

- ◆ If mounting on a pipe with outside diameter between 3/4" and 1-1/4" (19 mm and 31 mm) use the 1-1/2" U-Bolts and saddles, and the 1/4" washers and hex nuts.



MOUNTING ON A SMALL PIPE

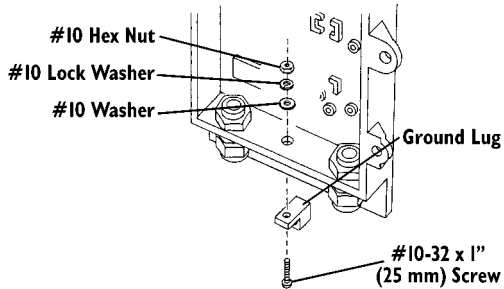
- ◆ If mounting on a pipe with outside diameter between 1-1/2" and 2 3/8" (38 mm and 60 mm) use the 2-1/4" U-Bolts and saddles, and the 5/16" washers and hex nuts.



MOUNTING ON A LARGE PIPE

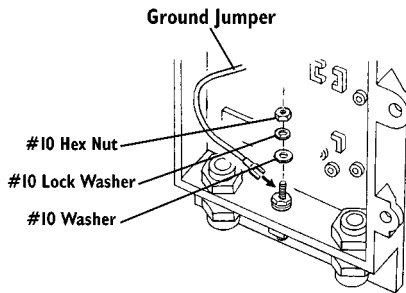
GROUNDING THE SHELTER AND COMPONENTS

Attach the ground lug to the bottom of the MPS using a #10-32 x 1" (25 mm) screw, washer, lock washer, and hex nut as shown below.



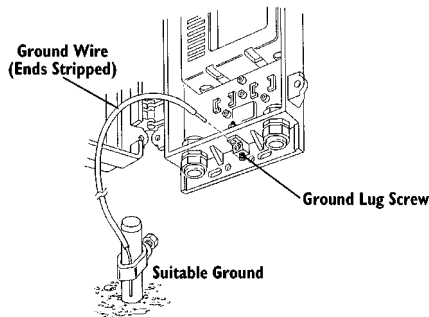
INSTALLING GROUND LUG

Run any ground jumpers from your system components to the ground lug and attach using the other #10 washer, lock washer, and hex nut as shown below.



ATTACHING GROUND JUMPERS TO GROUND LUG

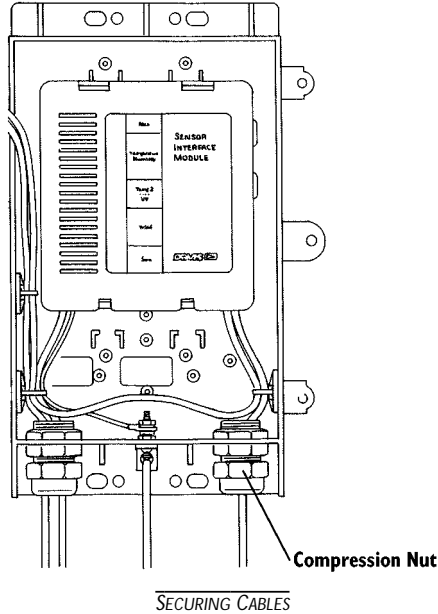
Ground the MPS using the provided ground wire. If you anticipate heavy surges, you may wish to use a heavier wire or multiple wires. Cut the ground wire to the length required to reach from the MPS to a suitable ground, such as Davis Instruments' Grounding Kit (Product #7780). The ground wire should 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 MPS

SECURING THE CABLES

After attaching all cables, 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 cables in electrical tape and/or sealing with silicone caulking.



Product Numbers: 7728

Davis Instruments Part Number: 7395-114
Multi-Purpose Shelter
Rev. B Manual (7/7/99)

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

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