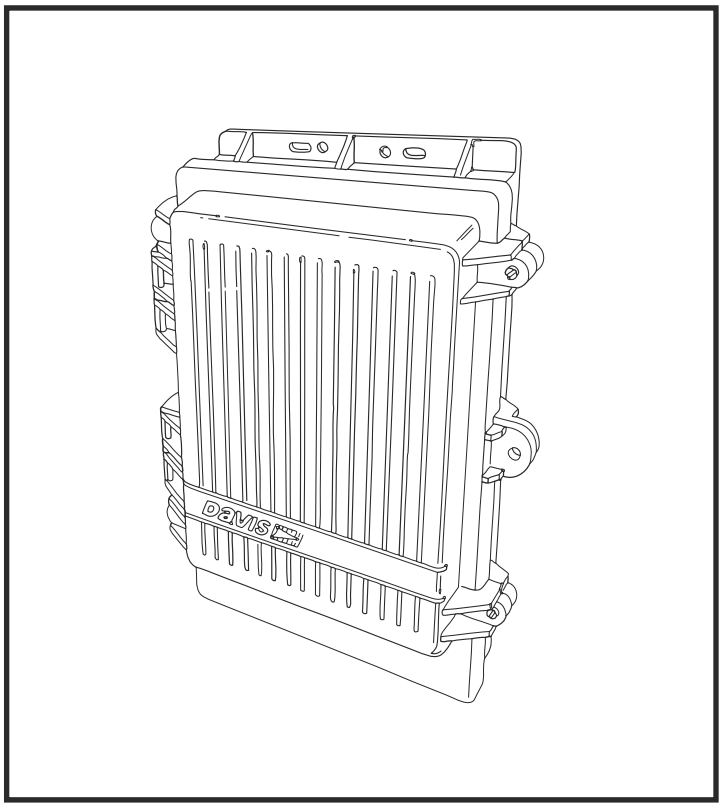
Multi-Purpose Shelter

Product Number 7728

For Davis Equipment Installed Outdoors



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Davis Instruments

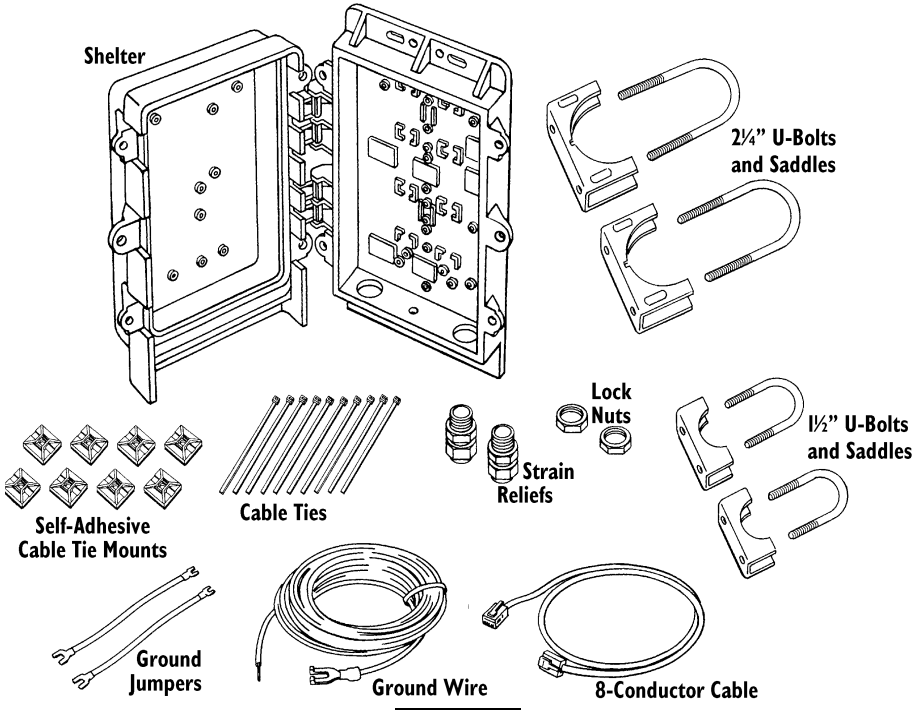
MULTI-PURPOSE SHELTER

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

CAUTION: *We have made every attempt to design and manufacture a safe product, however Davis Instruments assumes no liability for any injury or damage caused directly or indirectly by the installation or use of this product.*

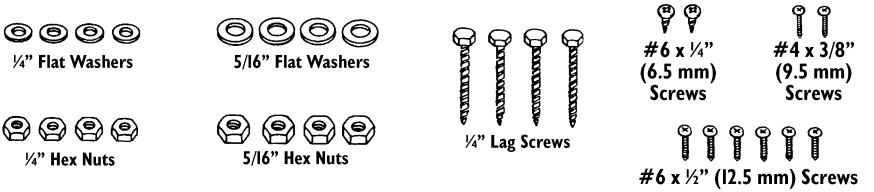
COMPONENTS

The Multi-Purpose Shelter (MPS) includes the following components. Please make sure that you have all the listed components before continuing.



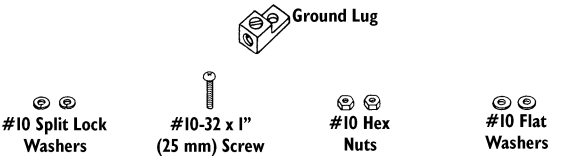
COMPONENTS

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



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 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

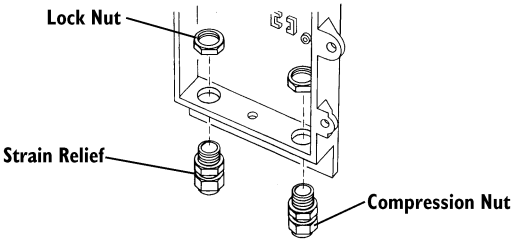
Pliers

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 9).



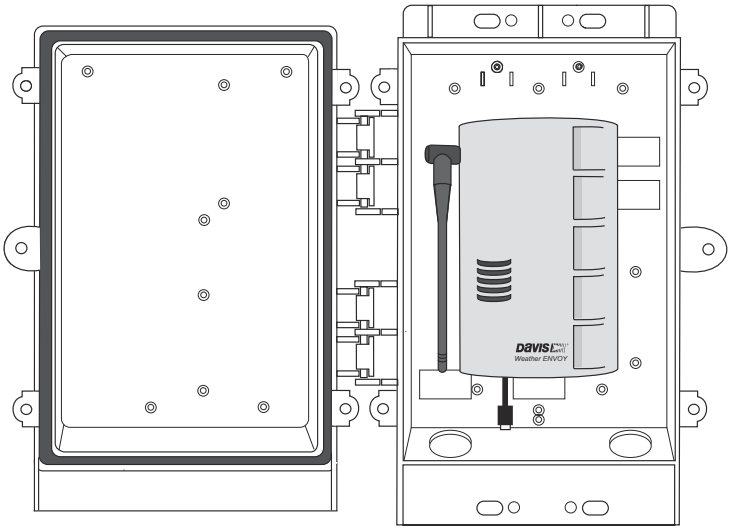
Installing Strain Reliefs

Sample MPS Configurations

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

Weather Envoy

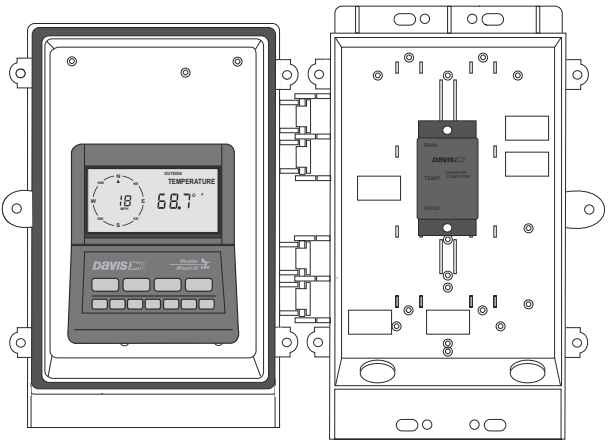
The illustration below shows an MPS installation for a wireless Weather Envoy.



Weather Envoy Installation

Console and Small Junction Box

The illustration below shows an MPS installation which includes a console and small junction box.



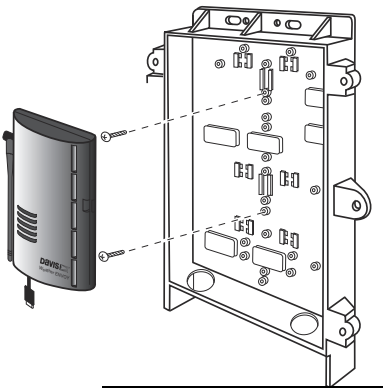
CONSOLE,AND SMALL JUNCTION BOX

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 6) before routing cables into the shelter.

Installing a Weather Envoy

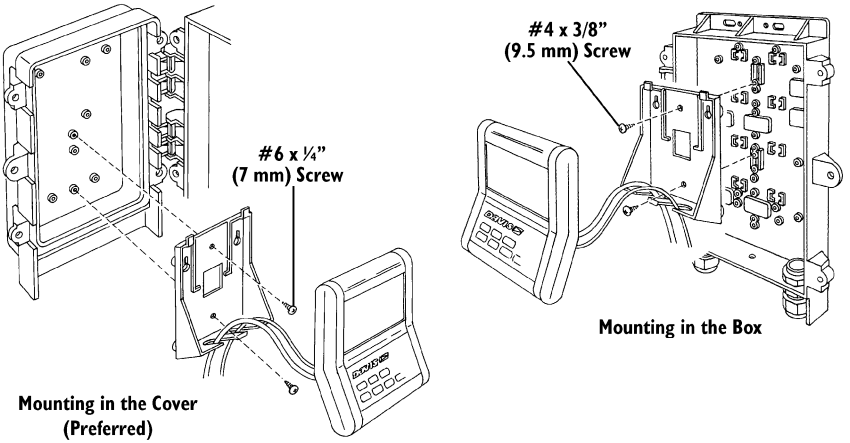
Use the #6 x 1/2" (12.5 mm) self-tapping screws as shown below.



INSTALLING A WEATHER ENVOY

Installing a Console

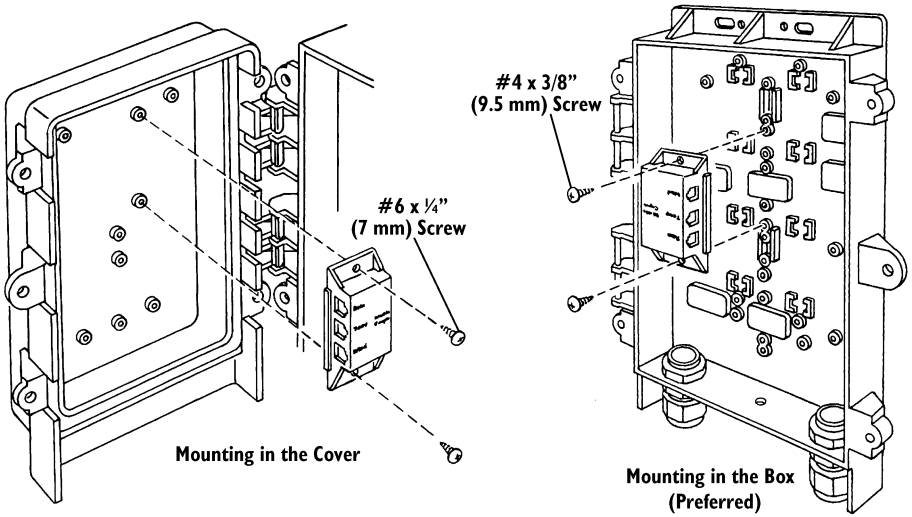
You may install the station console into the box or the cover, using the screws shown below.



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.



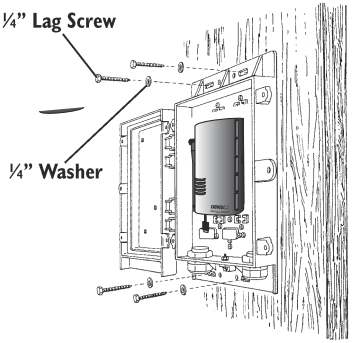
INSTALLING A SMALL JUNCTION BOX

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.

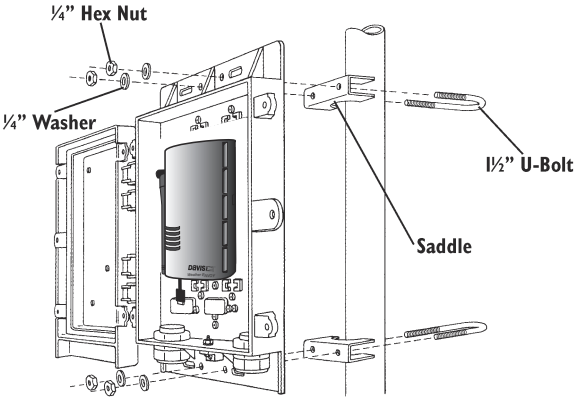


MOUNTING ON A WALL OR POST

Mounting On a Pipe

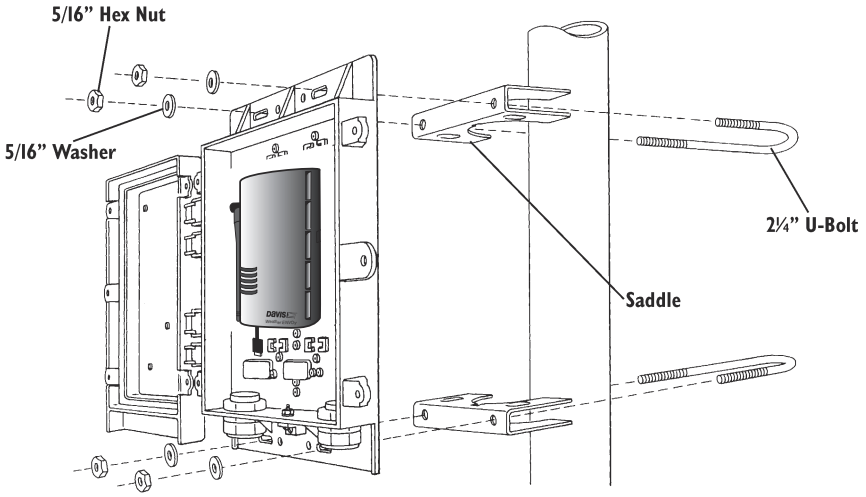
Hold the rear of the shelter and the U-bolt saddles against the pipe and slide the ends of the U-bolts through the holes in the saddles and shelter so that the U-bolts wrap around the pipe as shown below. Secure the shelter using a flat washer and hex nut on each end of the U-bolts. Tighten the hex nuts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

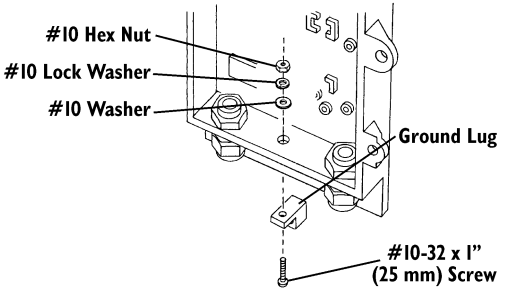
If mounting on a pipe with outside diameter between 1-1/2" and 2 3/8" (38 mm and 60 mm) use the 2-1/4" U-Bolts and saddles, and the 5/16" washers and hex nuts.



MOUNTING ON A LARGE PIPE

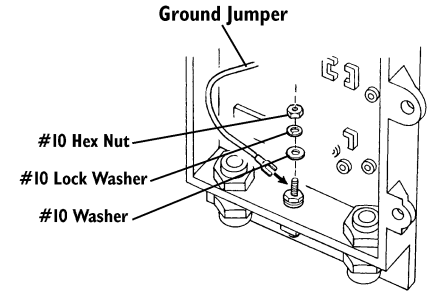
GROUNDING THE SHELTER AND COMPONENTS

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.



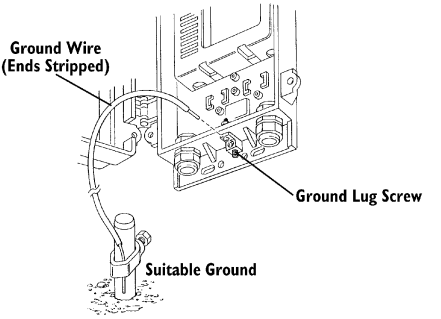
INSTALLING GROUND LUG

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

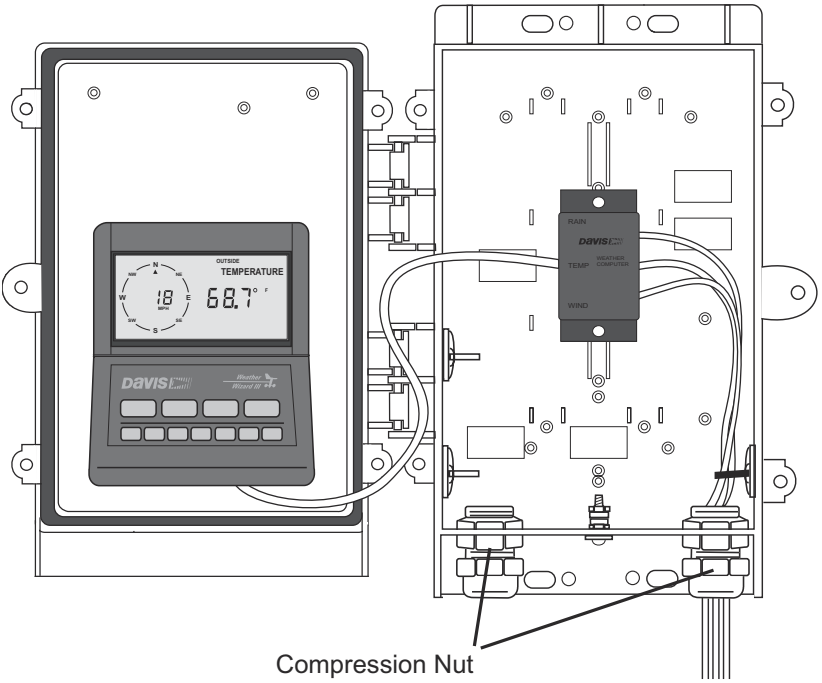
Ground the MPS using the provided ground wire. If you anticipate heavy surges, you may wish to use a heavier wire or multiple wires. Cut the ground wire to the length required to reach from the MPS to a suitable ground.. The ground wire should be as short as possible. Strip both ends of the ground wire (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.



SECURING CABLES

Product Numbers: 7728

Davis Instruments Part Number: 7395.114
Multi-Purpose Shelter
Rev. C Manual 12/15/09

This product complies with the essential protection requirements of the EC EMC Directive 2004/108/EC.

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