# INTERFACE CABLE ADAPTER MODULE

The Interface Cable Adapter Module (ICAM) has two basic uses. First, it enables you to run shielded cable between the industrial sensor interface module (SIM) and the weather station console. The ICAM provides the means of transition from shielded cable to the standard cable that plugs into the console. Second, when the circuits being controlled by the Alarm Output Module (AOM) are closer to the console than to the SIM, the ICAM enables you to plug the AOM and the console into the ICAM and run standard or shielded 8-conductor cable from the ICAM to the SIM.
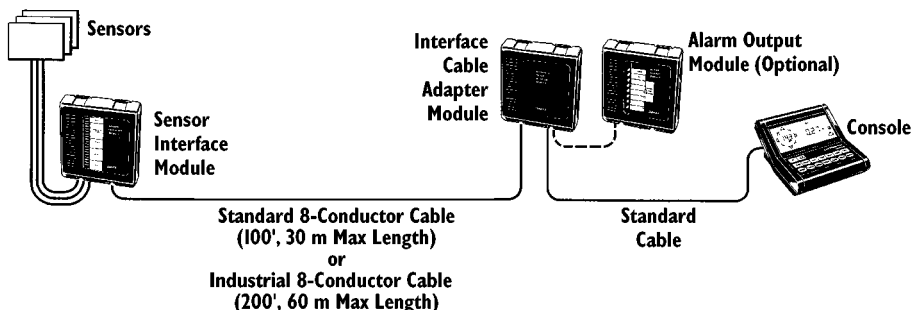

TYPICAL ICAM INSTALLATION

This instruction manual takes you step-by-step through the process required to connect and mount your ICAM. Please take the time to read this manual before beginning the process.

COMPONENTS

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

- ❖ **Interface Cable Adapter Module**
- ❖ **16.5-foot (5 m) Ground Wire (12 AWG)**
- ❖ **Three #6 x 1″ (25 mm long) Self-Threading Screws**
- ❖ **Two Cable Ties**
- ❖ **Four Adhesive Pads**
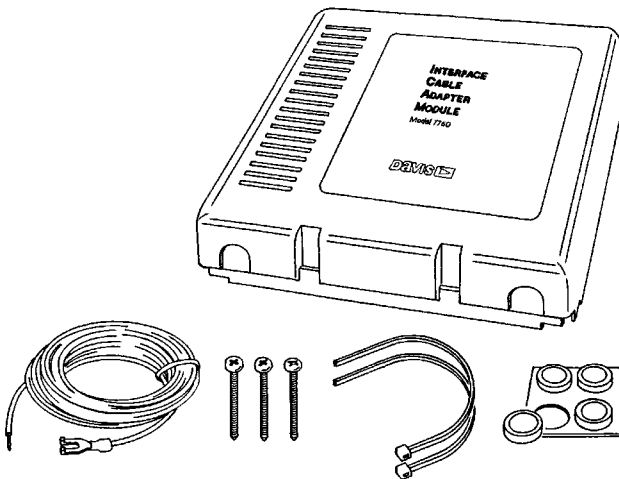
## TOOLS AND MATERIALS NEEDED

In addition to the components listed above, you may need some of the following tools and materials. Please be sure you have everything you need before beginning the installation.

- ❖ **Medium Phillips Screwdriver**
- ❖ **Small Slotted Screwdriver**
- ❖ **Wire Cutter**
- ❖ **Wire Stripper or Knife**
- ❖ **Modular Connector Installation Tool**

MOUNTING THE INTERFACE CABLE ADAPTER MODULE

You may mount the ICAM against a wall or other vertical surface or you may simply set it down on a horizontal surface.

1. Before installing, consult your system installation manual for instructions on labeling cables.

2. Remove the cover from the ICAM by pushing down on the tabs at the top until you can remove the tabs from the slots.
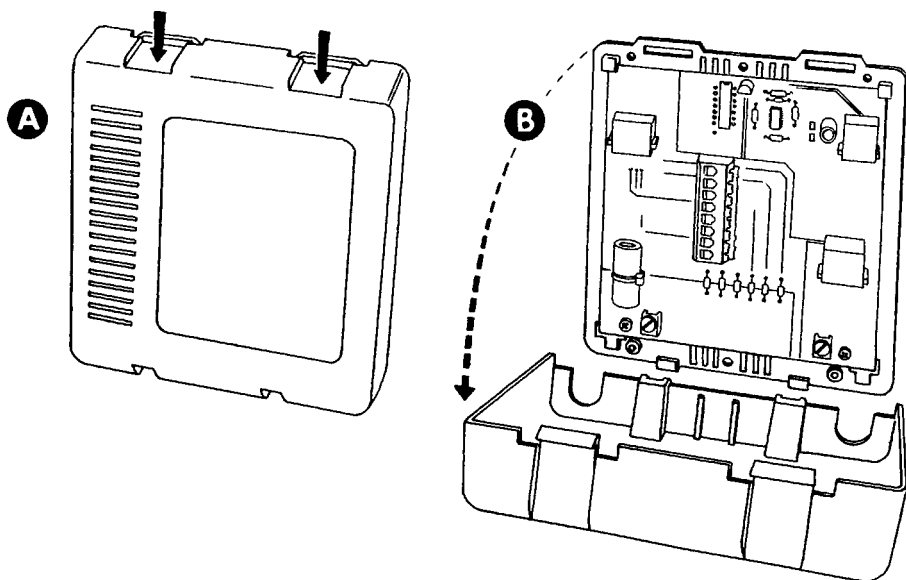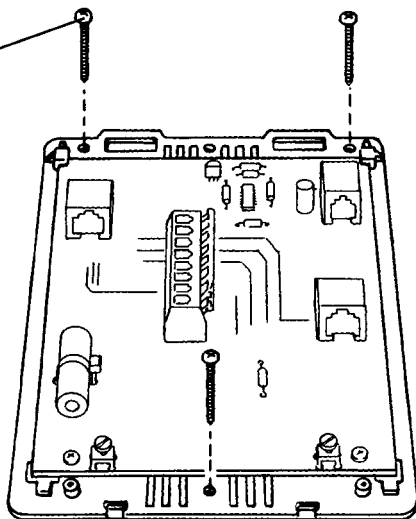

REMOVING THE COVER

3. **If you plan to mount the ICAM against a wall or other vertical surface, attach the base to the mounting surface using the #6 x 1" screws. Otherwise, skip this step.**

   Use two screws (as pictured below) when attaching to a stud. Use three screws (as pictured below) in any other case. Tighten the screws until the base is securely fastened to the mounting surface. Do not overtighten.
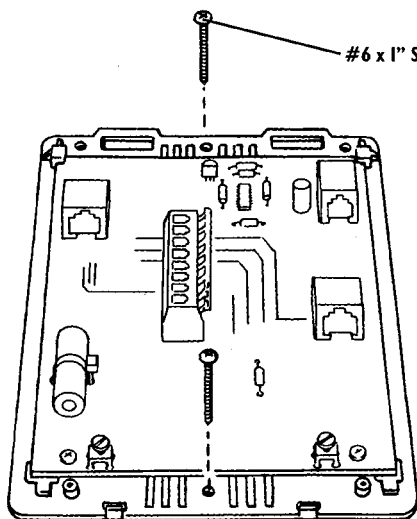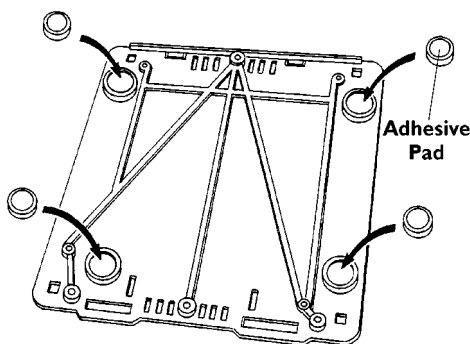

Use two screws if attaching to a stud.   **Use three screws if attaching anywhere else.**
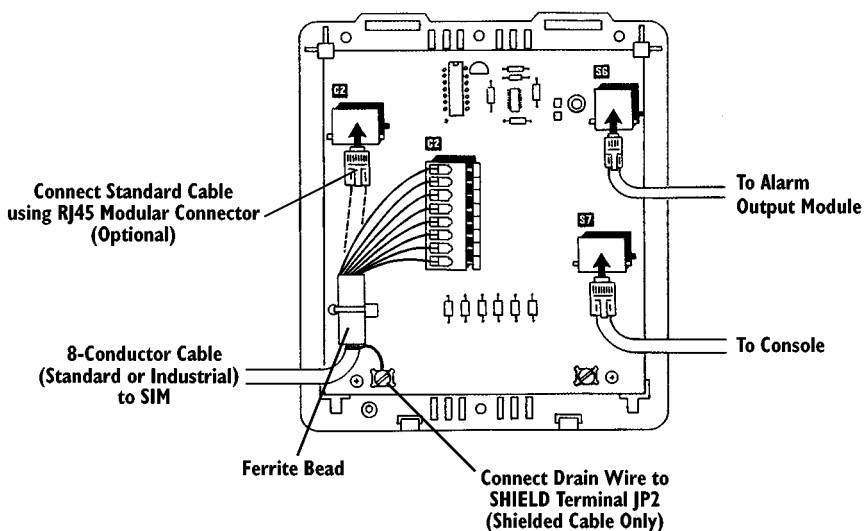
ATTACHING THE BASE TO THE MOUNTING SURFACE

4. **If you plan to place the ICAM on a horizontal surface, attach an adhesive pad to each of the four raised circles on the underside of the base. Otherwise, skip this step.**


Adhesive Pad

ATTACHING ADHESIVE PADS

5. **Attach cables to the ICAM as shown below.**

Connect Standard Cable using RJ45 Modular Connector (Optional)

To Alarm Output Module

8-Conductor Cable (Standard or Industrial) to SIM

To Console

Ferrite Bead

Connect Drain Wire to SHIELD Terminal JP2 (Shielded Cable Only)

CONNECTING THE CABLES

✦ If connecting to the AOM from the ICAM, connect one end of the AOM cable to connector S6.

✦ Attach one end of the standard 8-conductor cable which runs from the ICAM to the console to connector S7 on the ICAM.

✦ If running shielded 8-conductor cable from the SIM to the ICAM, strip 4" (10 cm) of cable jacket and shield (the grey outer covering and foil-like inner covering) and strip 5/16" (8 mm) of insulation (the colored covering) from each wire. Feed the wires through the ferrite bead and insert into terminal block connector C2 according to the wire colors printed on the circuit board. (To place wires into a terminal, use a small screwdriver to push down on the lever next to the terminal, insert the exposed wire into the opening created, and release the lever. When you release the lever, the wire(s) will be held in place.) Connect the bare drain wire to the Shield terminal (JP2). Cut off any excess drain wire.

✦ If running standard 8-conductor cable from the SIM to the ICAM, you may connect to either modular connector C2 or terminal block connector C2 (continued on next page).

If you wish to connect to the terminal block connector, you will need to determine the wire assignments for the terminal block. To do this, hold the standard cable, latch lever upward, facing the terminal block, as shown in the illustration below. The wires in the cable are now in the same sequence as the terminals. For future reference, write the wire colors into the spaces provided below if they do not match the colors marked on the circuit board.
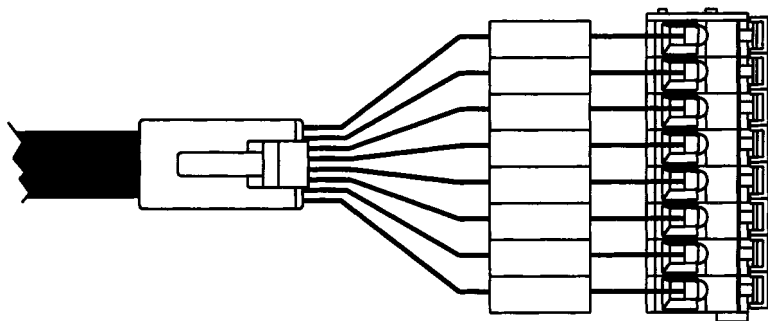

DETERMINING WIRE ASSIGNMENTS

To connect standard cable, first strip 4" (10 cm) of cable jacket (the grey outer covering) and strip 5/16" (8 mm) of insulation (the colored covering) from each wire. Run the wires through the ferrite bead. You may then attach a new RJ45 connector and plug into the modular connector C2. Or you may connect to the terminal block connector C2. To place wires into a terminal, use a small screwdriver to push down on the lever next to the terminal, insert the exposed wire into the opening created, and release the lever. When you release the lever, the wire(s) will be held in place.

6. **For most effective RFI (noise) filtering, connect the spade lug on the ground wire to the Shield terminal (JP2) and connect the other end of the ground wire to ground. In most installations, it will be sufficient to use a short piece of the ground wire to connect the Shield terminal (JP2) to the Ground terminal (JP1). In this case, no additional ground is required.**

   Choose one of the two grounding options. Do not run one ground wire from JP1 to JP2 and another from JP2 to ground.
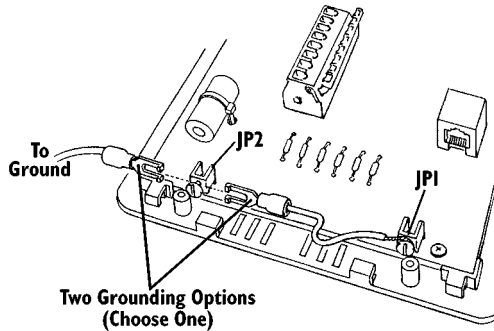
GROUNDING THE ICAM

7. **Gather the cables connected on the left of the ICAM (including the ground wire, if used) and secure them to the cable tie lug using a cable tie.**

   Even if you have only one cable, secure it to provide strain relief. When tightening the cable tie, make sure the cables are on top of the lug.
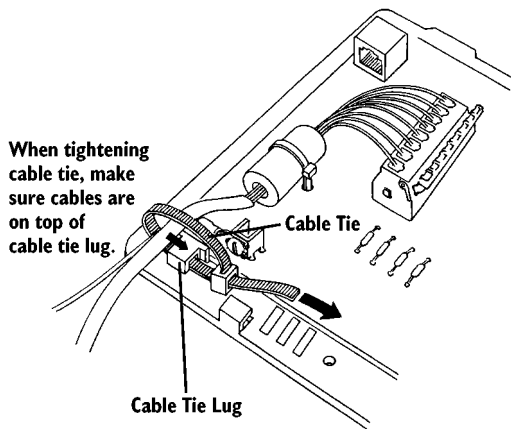

SECURING CABLES TO CABLE TIE LUG

8. **Gather the cables connected on the right of the ICAM and secure them to the cable tie lug using a cable tie.**

   Even if you have only one cable, secure it to provide strain relief. When tightening the cable tie, make sure the cable is on top of the lug.

9. Reattach the cover by putting the cover into place (as shown below) and pushing it onto the base until the tabs on top of the cover snap back into their slots.

Make sure to route the cables out the bottom of the ICAM as shown below.
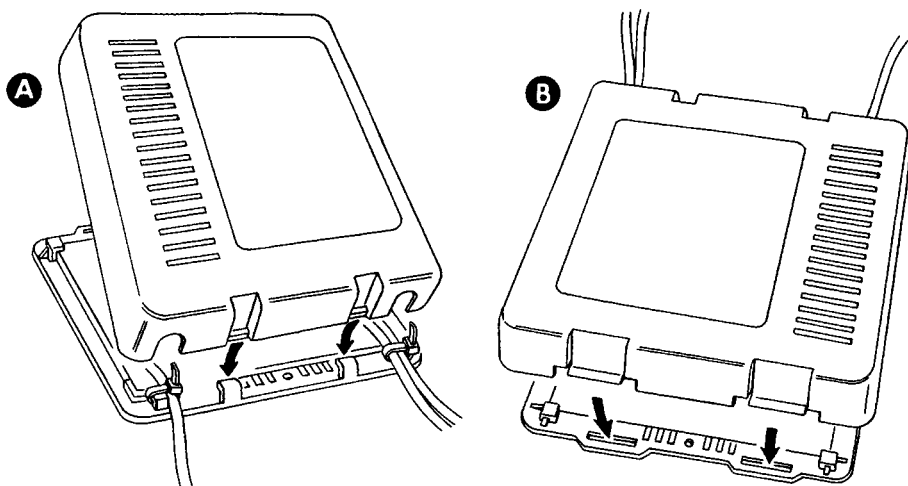
REATTACHING THE COVER

Product Number: 7760

Davis Instruments Part Number: 7395-109
Interface Cable Adapter Module
Rev. A Manual (7/7/99)

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

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