

REMOTE DISPLAY UNIT

This instruction manual will take you through the procedure required to install and use your Remote Display Unit (RDU) with the Weather Monitor II®, Weather Wizard III®, II-S, or II. You may connect as many as 20 separate RDUs to a single weather station. The weather station to which the RDU is connected is referred to as the "master" station in this instruction manual. You should not attempt to place an RDU more than 300 feet away from the master station (including any length of cable running from the master station's console to the junction box) or the readings on the RDU will be inaccurate.

SYSTEM COMPONENTS

Please make sure you have the following components before installing the RDU.

- ◆ Remote Display Unit Console with Mounting Base (attached)
- ◆ AC-power adapter
- ◆ 8-Foot (2.4 m) Standard 8-Conductor Cable
- ◆ Y-connector
- ◆ 8-Pin Coupler

TOOLS AND MATERIALS NEEDED FOR INSTALLATION

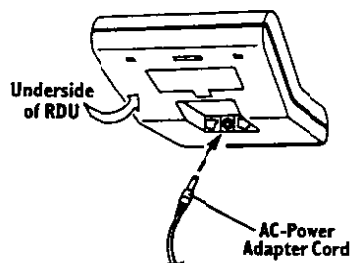
You may need some of the following tools and materials to complete your installation.

- ◆ **Standard 8-Conductor Cable**
The 8' (2.5 m) length of cable included with the RDU makes it possible to mount the RDU console 8' (2.5 m) from the master station's junction box. You may obtain extra 8-conductor cable from Davis in order to mount the RDU up to 300 feet from the master station's console.
- ◆ **Two #8 Pan Head Screws**
For mounting the RDU console on a wall.

POWERING THE RDU

Follow the instructions below to power the RDU. Both the master station and the RDUs must be powered before you connect them.

1. Remove the mounting base from the RDU by pushing down on the large tab until it will easily slide out from the notch.
2. Lift the mounting base away from the RDU.
Place the mounting base aside until you mount the RDU.
3. Slide the power adapter plug into the jack marked **POWER** on the underside of the RDU.



POWERING THE RDU

4. Plug the other end of the power adapter into an appropriate power outlet.

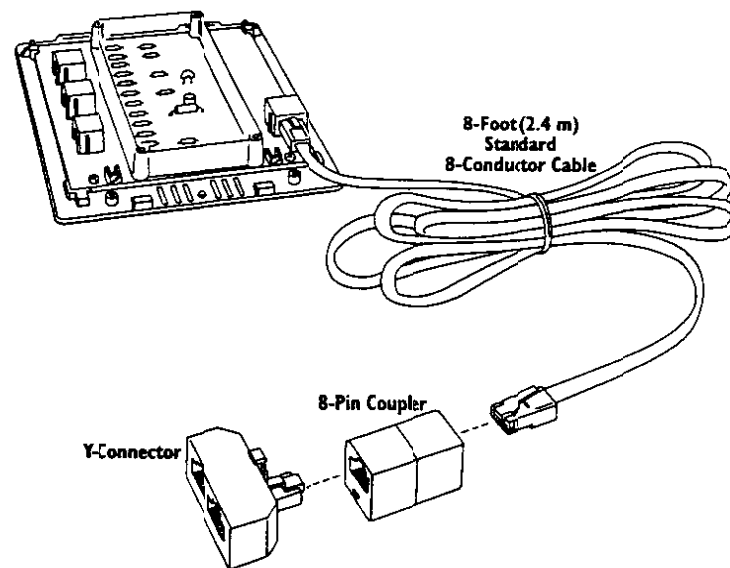
Note: Consult your weather station manual for instructions on installing the battery backup.

CONNECTING THE RDU TO THE MASTER STATION

There are separate instructions for connecting a single RDU and connecting multiple RDUs to your master station. Make sure both the master and RDUs are powered before connecting them. Failure to do so can cause the readings on the RDU to be inaccurate.

Connecting to the Protected Junction Box

If you are using the Protected Junction Box, the first Y-connector must be placed outside of the Protected Junction Box. You will need to use the 8-foot (2.4 m) standard 8-conductor cable, 8-pin coupler, and Y-connector as shown below. This replaces the step below where you are instructed to insert the cable connector on the Y-connector into the cable jack marked **WEATHER COMPUTER** on the junction box. All other instructions remain the same.



PLACING Y-CONNECTOR OUTSIDE PROTECTED JUNCTION BOX

Connecting a Single RDU

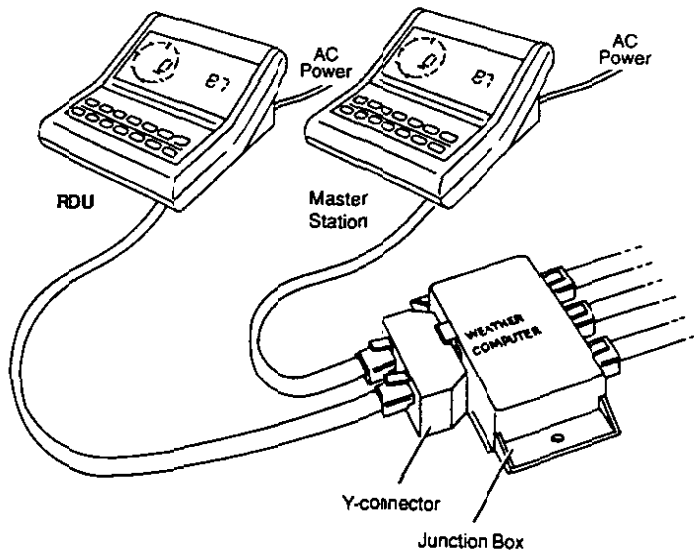
Follow the instructions below to attach a single RDU to your master station.

1. **Insert the RDU's 8-conductor cable into the jack marked **JUNCTION BOX** underneath the RDU's console.**

Unless you are planning to mount the RDU 8' (2.5 m) from the master station, the 8-conductor cable described in this step will be an extra length of 8-conductor cable you purchased from Davis, not the 8' (2.5 m) 8-conductor cable supplied with the RDU.

2. **Remove the master station's 8-conductor cable from the junction box.**
 3. **Insert the cable connector on the Y-connector into the cable jack marked **WEATHER COMPUTER** on the junction box.**
- If connecting to a Protected Junction Box, see "Connecting to the Protected Junction Box" on page 3.
4. **Insert the master station's 8-conductor cable into one of the jacks on the Y-connector.**
 5. **Make sure both the master station and the RDU are powered, then insert the RDU's 8-conductor cable into the other jack on the Y-connector.**

You may want to delay this step until you mount the RDU to simplify running the cable(s) from the RDU to the junction box.



CONNECTING A SINGLE RDU

Connecting Multiple RDUs

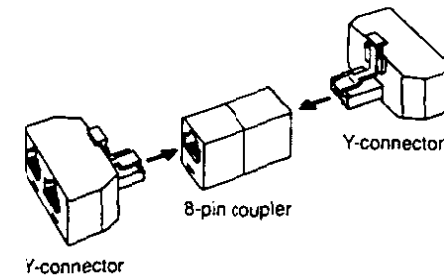
The instructions below describe the process for connecting three RDUs to a single master station. The instructions, therefore, provide a guideline for connecting multiple RDUs to a single master station. You will need to adapt these instructions to your needs if you have more than 3 RDUs.

1. **Insert each RDU's 8-conductor cable into the jack marked **JUNCTION BOX** underneath the console.**

Unless you are planning to mount the RDU 8' (2.5 m) from the master station, the 8-conductor cable described in this step will be an extra length of 8-conductor cable you purchased from Davis, not the 8' (2.5 m) 8-conductor cable supplied with the RDU.

2. **Remove the master station's 8-conductor cable from the junction box.**
 3. **Insert the cable connector on the Y-connector into the cable jack marked **WEATHER COMPUTER** on the junction box.**
- If connecting to a Protected Junction Box, see "Connecting to the Protected Junction Box" on page 3.
4. **Insert the master station's 8-conductor cable into one of the jacks on the Y-connector.**
 5. **Insert the end of one of the 8' (2.5 m) 8-conductor cable (supplied with the RDU) into the other jack on the Y-connector.**
 6. **Connect the remaining two Y-connectors together using the 8-pin coupler as shown below.**

This combination of Y-connectors and couplers is referred to as the Y-connector assembly in the instructions below.

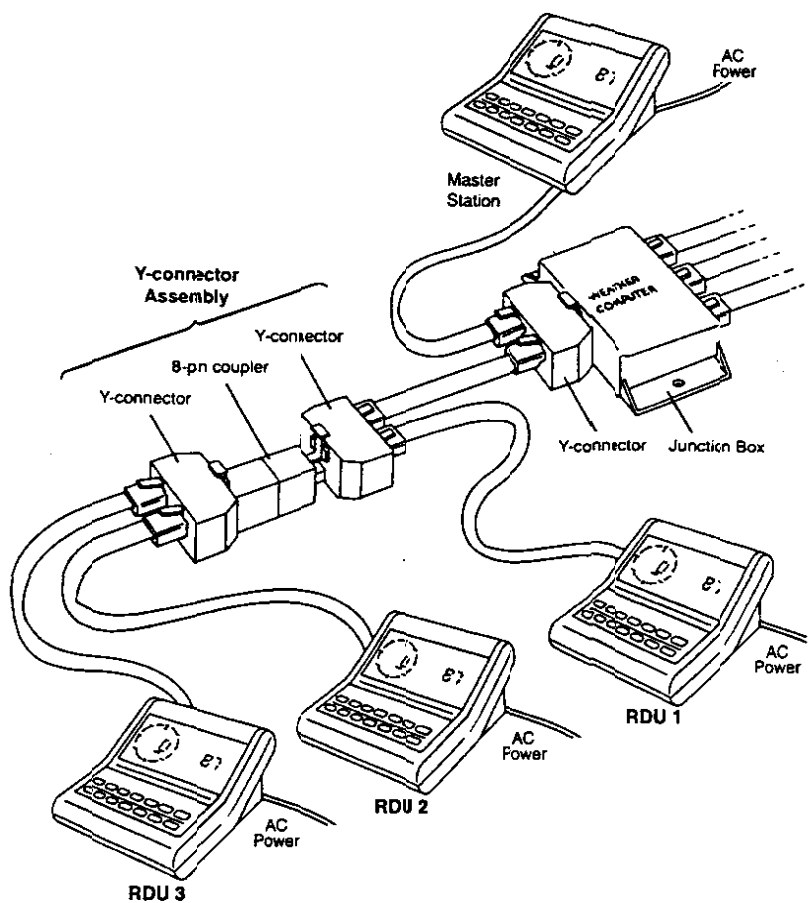


CREATING Y-CONNECTOR ASSEMBLY

7. **Insert the end of the 8' (2.5 m) 8-conductor cable (coming from the Y-connector at the junction box) into an empty jack on the Y-connector assembly.**

You may want to delay the final step until you mount the RDUs to simplify running the cable(s) from the RDUs to the Y-connector assembly.

8. Make sure both the master station and the RDUs are powered, then insert the 8-conductor cable from each of the RDUs into an empty jack on the Y-connector assembly as shown below.



CONNECTING MULTIPLE RDUS

MOUNTING THE RDU

Consult your weather station's manual for instructions on mounting the RDU. You should make sure that you do not run more than 300 feet of cable between the master station and the RDU (including any length of cable running from the master station's console to the junction box).

USING THE RDU

Each of the items below describe the functions displayed by the RDU. In general, you should consult your weather station's manual for instructions on displaying and using functions (including highs and lows, alarms, etc.). Exceptions and differences are noted in the sections below. Also indicated below are which functions the RDU reads itself and which it reads from the master station.

Note: If your readings seem wrong, try disconnecting the RDU's 8-conductor cable from the Y-connector and then reconnecting the cable. Make sure both the master station and RDU are powered when you do this.

✦ Highs and Lows

The RDU keeps track of highs and lows separately from the master station. Differences in the time and date on the two units and differences in the readings on the two units can cause the highs and lows to differ slightly.

✦ Time and Date

The RDU keeps time and date separately from the master station. You must set time and date on the RDU before using it.

✦ Inside Temperature

The RDU keeps inside temperature separately from the master station. The inside temperature reading on the RDU reflects the temperature in the vicinity of the RDU.

✦ Outside Temperature

The RDU reads outside temperature from the master station. It is possible for a difference of as much as 0.5°F to exist between the two units. If you have a discrepancy between the outside temperature readings, adjust the outside temperature calibration number on the RDU to "smooth out" the error. (Consult your weather station's manual for instructions.)

✦ Wind Chill

The RDU calculates wind chill from the outside temperature and wind speed readings, both of which come from the master station. Any errors in the outside temperature or wind speed reading will affect the wind chill reading.

✦ Rainfall

The RDU reads rainfall from the master station.

◆ **Barometric Pressure**

The RDU cannot read or display barometric pressure.

◆ **Wind Speed and Wind Direction**

The RDU reads wind speed and wind direction from the master station. Users of the Weather Wizard II should note the following regarding the compass rose. The compass rose is divided into 16 points, each corresponding to a different compass point 22.5° apart. Wind direction is indicated by a flashing arrow at one of these points. The wind speed reading always appears inside of the compass rose on the left side of the display, along with the unit of measure in which it is being displayed.

Wind speed readings may become unreliable if you have more than 300 feet of 8-conductor cable between the junction box and the RDU.

◆ **Humidity and Dew Point**

The RDU cannot read or display humidity or dew point.

FCC Part 15 Class B Registration Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.
5. Changes or modifications not expressly approved in writing by Davis Instruments may void the user's authority to operate this equipment.

Product Number: 7815

Davis Instruments Part Number: 7395-018

Remote Display Unit

Rev. C Manual (8/28/96)

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

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