

WatchDog Mini Station Short-Range Wireless Kit

Installation Instructions

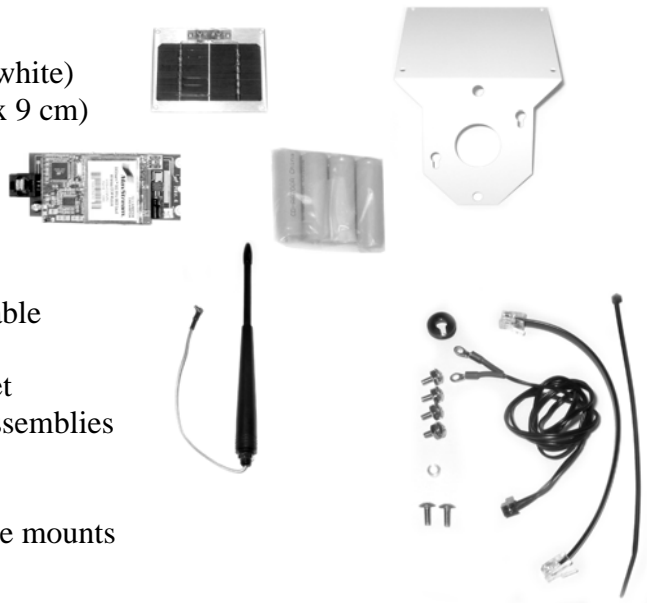
Catalog #3392M

Package Contents

Wireless Mounting Bracket (white)
Solar Panel, 4.5 x 3.5" (11.5 x 9 cm)
Radio assembly
Antenna with cable
4 AA NiCd batteries

Parts bag, containing:

4" communications cable
Solar cable
1 hard plastic grommet
4 screw-washer-nut assemblies
1 foam pad
2 cable ties
2 self-adhesive wire tie mounts



Tools required

Phillips screwdriver
Slotted tip screwdriver
5/16" wrench (or pliers)

Installation

Note: the installation process involves several small parts, and should not be attempted in the field. If the weather station is already deployed, then it should be brought inside so radio installation can be done on a workbench, table, or desk.

1. Loosen the four screws in the front of the case (they are captive, and should not be completely removed), and remove the front cover of the mini station.
2. **Remove the batteries from your mini station.**
3. Remove the black plastic cover from the right of the bottom of your mini station. Screw the hard plastic grommet in its place.
4. Grasp the end of the solar cable with the two ring terminals. From inside the station case, insert first one terminal, and then the other through the hard plastic grommet. Pull the cable through the grommet, leaving about 4" (10 cm) inside the case. Push the wire sideways into the slot in the grommet.
5. Remove the nut (and washer, if equipped) from the antenna, sliding it off the wire. From outside the station case, insert the antenna wire through the grommet, and screw the antenna into the grommet (see Fig. 1).
6. Disconnect all sensors from your mini station. Be sure to note the location of any sensors plugged into ports A through D.
7. Remove the four screws on the face of the circuit board. Use a thumb and finger to grasp the sides of the display panel, and carefully lift the combined boards straight up out of the case (see Fig. 2). Leaving the wires to the battery holder attached, set the board upside-down on the work surface (see Fig. 3).
8. Hold the radio assembly so that the red LED is on the right, and the black plastic "phone" jack is on the left. Place the radio assembly into the case, setting the "phone" jack between the two posts on the left (see Fig. 3).



Fig. 1

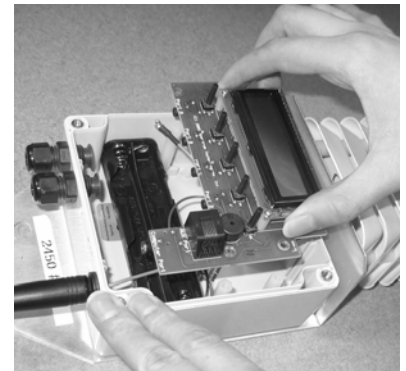


Fig. 2

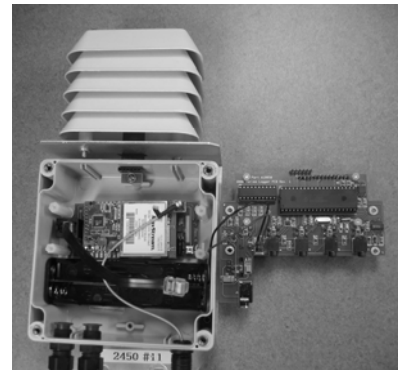


Fig. 3

9. Plug the 4" communications cable into the radio assembly's "phone" jack ("A" in Fig. 4).
10. Press the solar panel cable's red connector onto the white connector in the lower right corner of the radio assembly ("C" in Fig. 4). The red connector is recessed to accept the white clip.
11. Plug the antenna connector into the socket on the upper right corner of the upper radio board ("B" in Fig. 4).
12. Remove the adhesive liner, and attach the foam pad to the front of the radio (see Fig. 4).
13. Set the mini station circuit board loosely back in the case. Ensure that the loose end of the communications cable is accessible near the battery holder. As before, use a thumb and finger to grasp the sides of the display panel, and carefully lift the combined boards straight up slightly, and then straight down into the case (see Fig. 2). The six pins at the top of the board need to fit into the socket just below the top of the case. If you have inserted it correctly, the board will be centered left-to-right in the case, and the four screw holes in the board will be aligned with the mounting posts.
14. Secure the board using the four screws removed in Step 7.
15. Plug the loose end of the communications cable into the "AUX Port" on the board.
16. Reattach all the sensor cables disconnected in Step 6.
17. Attach the solar panel to the Wireless Mounting Bracket using the four screw-washer-nut assemblies. The screw terminals on the solar panel should be oriented toward the top of the bracket. The lock washers should be next to the nuts.
18. Feed the two connectors on the end of the solar cable up through the hole in the top of the wireless mounting bracket that is closest to the solar panel. Use the screws on the solar panel terminals to attach the two connectors: red to the left terminal (marked "+") and black to the right terminal (marked "-").
19. Loosen the two screws on the top of the radiation shield three turns.
20. Place the wireless mounting bracket on top of the radiation shield, slipping the two screw heads through the large portion of the "keyholes". The solar panel wires should be on the right side of the station (viewed from the front). Slide the bracket toward the rear so the screws slide into the keyhole slots. Tighten the two screws.
21. Remove the adhesive liners from the wire tie mounts, and apply them to the right side of the station, near the top and bottom of the case.
22. Slide the two cable ties through the wire tie mounts, fastening them around the solar panel wires. Cut off the excess length of the cable ties.
23. Insert the four AA NiCd batteries into the station.
24. Put the front panel back on the case, securing it with the four screws.
25. Use the SET button to set date and time, and then use the arrow button to display "CONFIGURE RADIO", and press SET twice to configure the wireless parameters.
26. When deploying the station, be sure to orient it so the solar panel receives the most sunlight.
27. See the WatchDog Wireless Modem Operation Manual for instructions on how to configure SpecWare and use your wireless modems.



Fig. 4

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