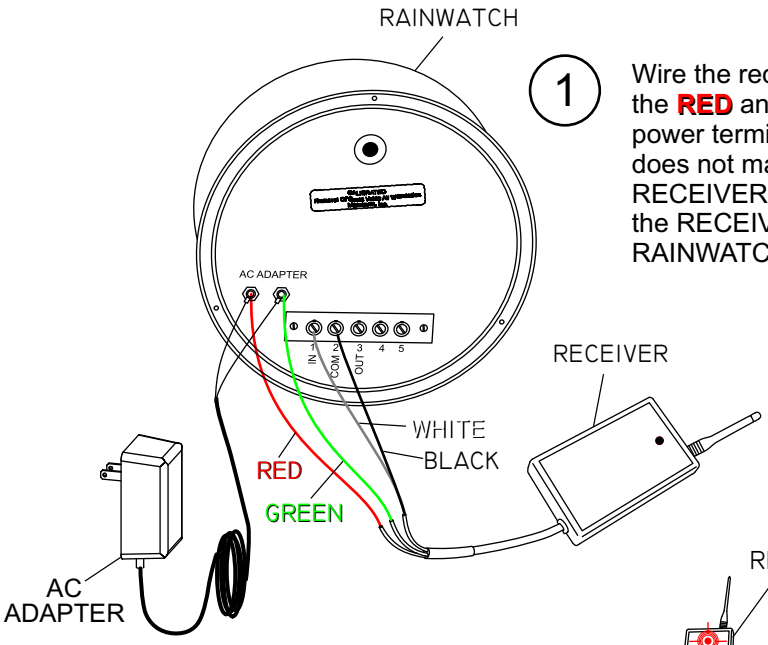
RAINWATCH
WIRELESS
INSTALLATION

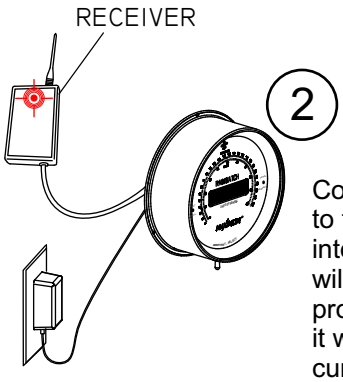
THIS MANUAL IS DESIGNED TO LEAD YOU STEP BY STEP THROUGH THE PROCEDURES REQUIRED TO TEST, INSTALL AND USE YOUR WIRELESS RAINWATCH. BY FOLLOWING THESE PROCEDURES AND SETTING UP THE SYSTEM CORRECTLY IN THE BEGINNING, YOU WILL BE ABLE TO ENJOY ALL THE FEATURES OF YOUR WIRELESS RAINWATCH FOR YEARS TO COME. WE STRONGLY SUGGEST THAT YOU PERFORM A TRIAL WIRING OF YOUR WIRELESS RAINWATCH PRIOR TO FINAL INSTALLATION.



1

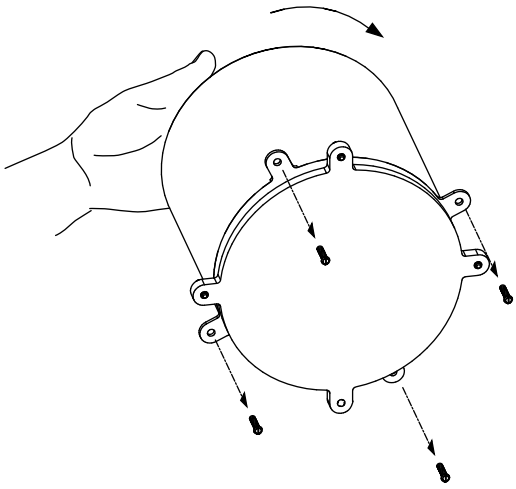
Wire the receiver to the RAINWATCH display unit. Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the RAINWATCH (the polarity does not matter). Connect the WHITE wire from the RECEIVER to TERMINAL #1 and the **BLACK** wire from the RECEIVER to TERMINAL #2 on the rear of the RAINWATCH indicator.

RECEIVER WIRING	
WHITE	to TERMINAL #1
BLACK	to TERMINAL #2
RED	to Power (no polarity)
GREEN	to Power (no polarity)



2

Connect the AC adapter to the RAINWATCH and plug into the outlet. The display will go thru a start-up procedure. When done it will display the current rainfall reading.



3

Back out the four screws holding the base to the collector and rotate the collector to remove it from the base.

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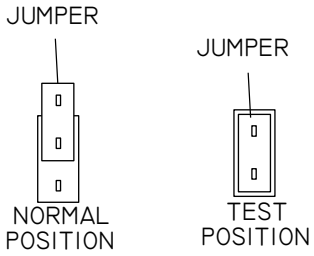
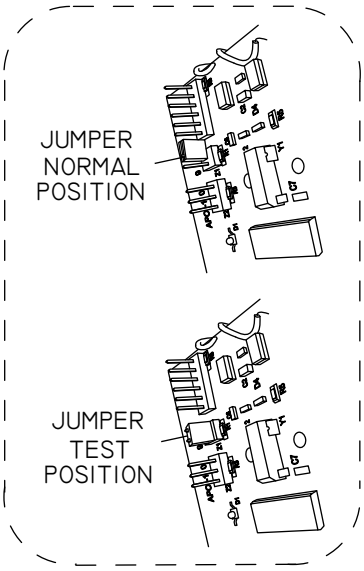
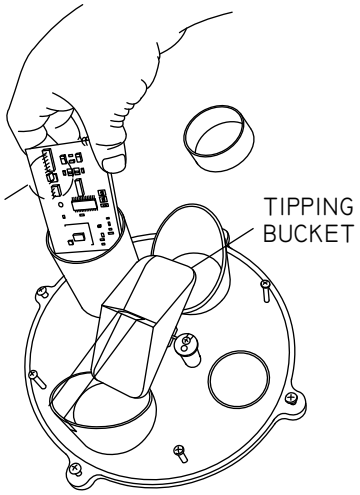
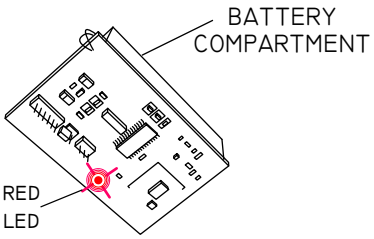
4

Remove the cap from the cylindrical housing and slip the transmitter board out of the rain collector base. Change the jumper position from NORMAL to TEST.







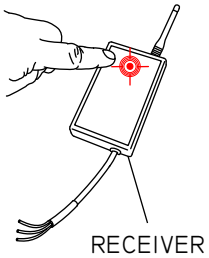


5

Insert two AA Alkaline batteries into the covered battery compartment. A **RED** LED should blink once as the batteries are installed. This indicates the batteries have been installed correctly.

6

Once the batteries are properly installed, the LED on the Receiver should blink **ORANGE** every four seconds. Refer to the troubleshooting section at the back of these instructions if the LED does not blink **ORANGE** every four seconds.



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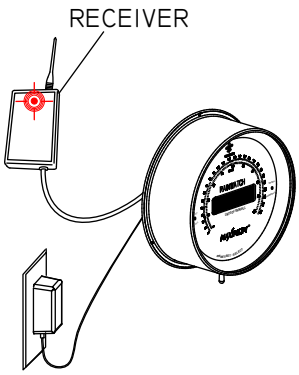
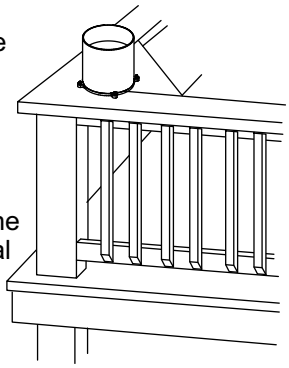


Move the active RAINWATCH transmitter as close as possible to your preferred final mounting location. Also move the RAINWATCH indicator and receiver combination as close as possible to their final mounting location. Select a location for the transmitter that is out in the open, away from obstructions (such as walls or trees) that would shelter the collector from the rain in various wind directions. Be sure that the LED on the receiver is flashing **ORANGE** every four seconds. If the signal has been lost, move the transmitter to an alternate mounting location and re-check for proper communication.



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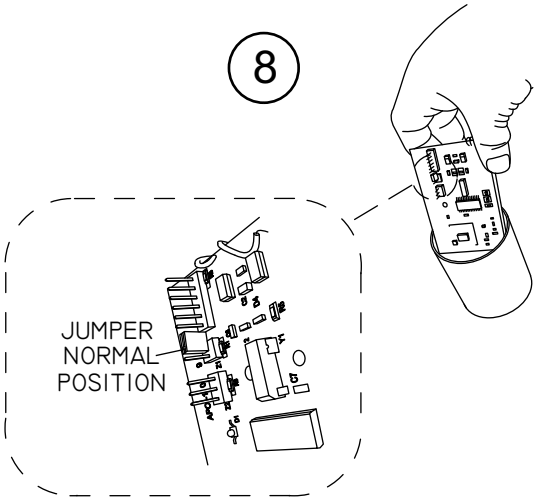
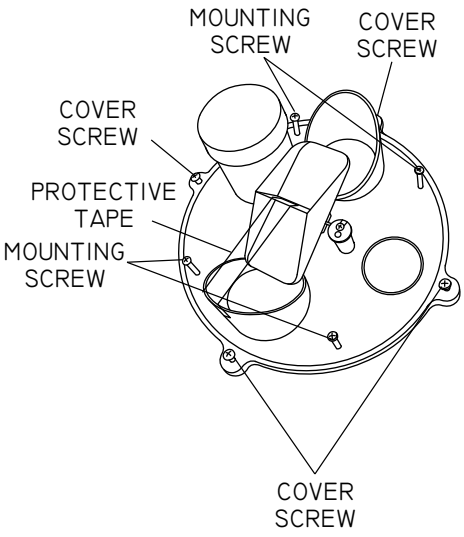
Once proper communication between the transmitter and the receiver has been verified, final installation of the rain collector can be made. Remove the batteries and reset the jumper to the NORMAL POSITION. Reinstall the batteries and slide the transmitter board back into it's housing. Replace the Cap.

8

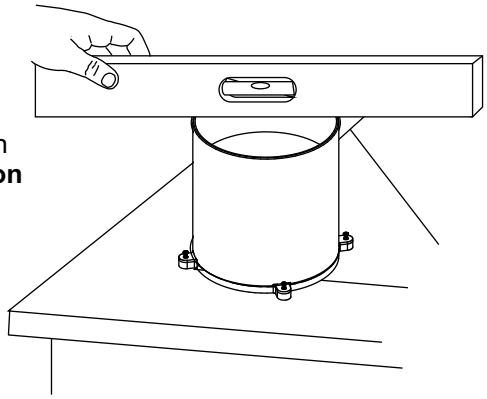




9

Remove the protective tape that is securing the TIPPING BUCKET.

10



Use the four mounting screws to mount the base to your chosen mounting surface. **The base must be level in order to function properly.** Install cover over base and secure using the four cover screws.

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RAINWATCH
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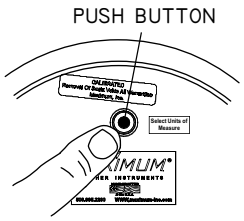
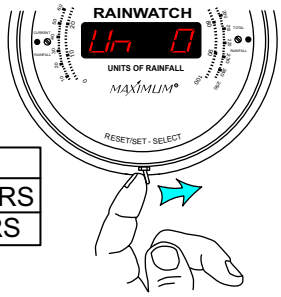
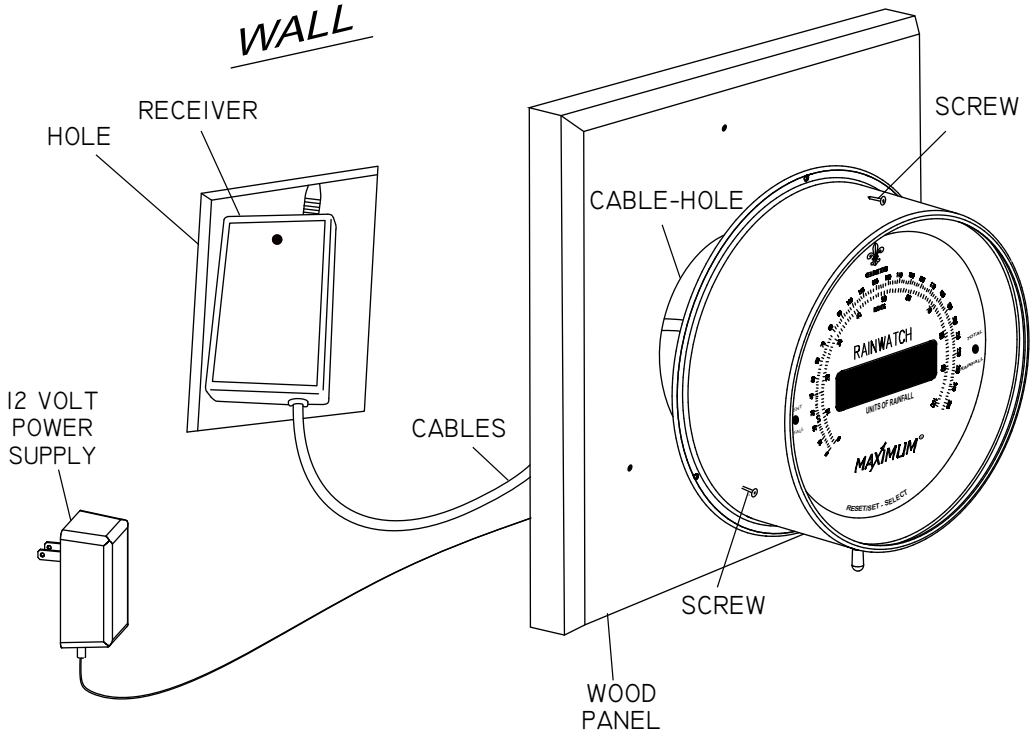


Select Unit of Measure. Unit is factory set to display in inches. To change from inches to other available units of measure, press the small push button switch on the back of the indicator. The display will show “Un” and a number. The number indicates the unit of measurement. Press the push button again to advance through the available units. When you have the code showing the unit of measurement you want, operate the toggle switch on bottom of the case to the right, (SELECT). Rainwatch will then return to normal operation with the display using the selected units.



Un 0	INCHES
Un 1	CENTIMETERS
Un 2	MILLIMETERS



12

Mount the RAINWATCH indicator directly over the cable hole that is also used to route power to the instrument. For the cleanest installation, we recommend making a hole in the wall large enough to insert the wireless receiver. We also recommend mounting the brass meter to one of our pre-drilled mounting panels.

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RAINWATCH
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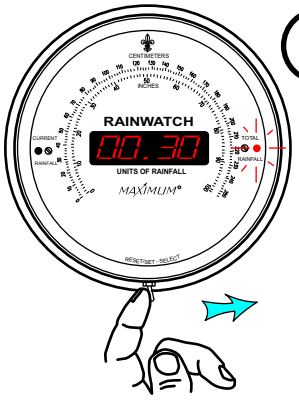
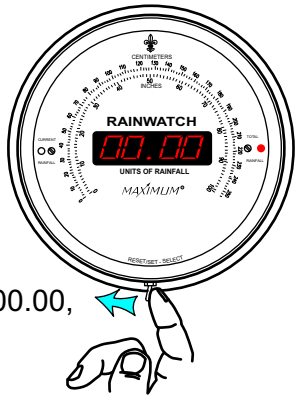
OPERATION

RAINWATCH has two "counters". They are shown on the face of the instrument as “CURRENT" and "TOTAL”. The counters are controlled by the switch at the bottom.



1 To switch between the “CURRENT” and “TOTAL” rainfall, toggle the switch to the right (SELECT).

2



To reset the selected Rainfall counter, hold the switch to the left (RESET/SET) for 6 seconds and the count will reset to 00.00, then release.

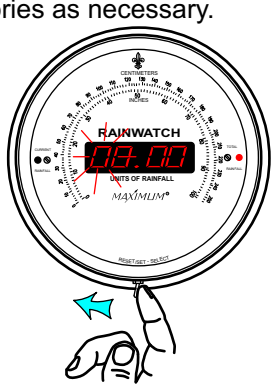
OPERATION RELATED INFORMATION

Power Outages: During a power outage, Rainwatch will retain the values in it’s counters indefinitely. No further accumulation will be added until power is restored. The Receiver, Transmitter and instrument will automatically re-sync within one hour of power being restored. If continuous operation of Rainwatch is required, plug Rainwatch into an U.P.S. (uninterruptible power source).

Manually Adding Counts: It is possible to manually add counts to both memories as necessary.

1) Make sure the Rainwatch is displaying the counter you want to set or add to (Total or Current).

2) Operate the mode switch left (RESET/SET) and hold it for 10 seconds to enter the rainfall counter setting mode. The display will reset to zero after 6 seconds and the most significant digit (left most) will begin blinking after the mode switch is held for an additional 4 seconds (10 seconds total) indicating that it can be preset. Release the toggle switch.



3) To set the blinking display digit, operate the mode switch to the left (RESET/SET) side and let it return to the middle. The display number will advance by one. Continue to toggle the mode switch left, advancing to the number desired.

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RAINWATCH
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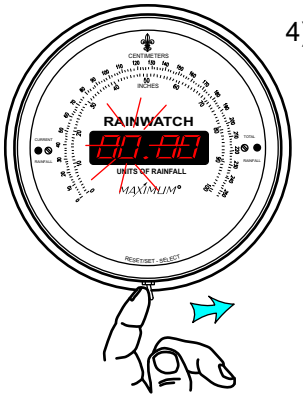
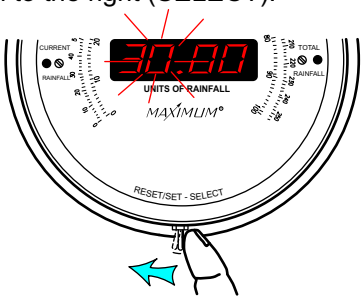
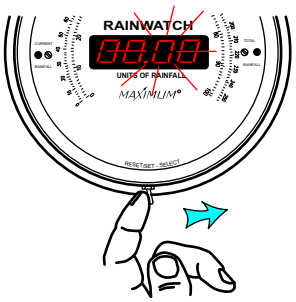
OPERATION



4) To advance to the next digit, toggle the Mode switch to the right (SELECT). The next digit to be set will begin blinking. Toggle the mode switch to the left to advance to the desired number.





5) Repeat step 4 for the third and fourth digit.

6) When complete, or after no activity for 10 seconds, the Rainwatch will automatically return to normal mode.

Freezing Weather: Freezing weather will not damage the unit. However, readings of snow or freezing rain may not correlate to actual rainfall amount.

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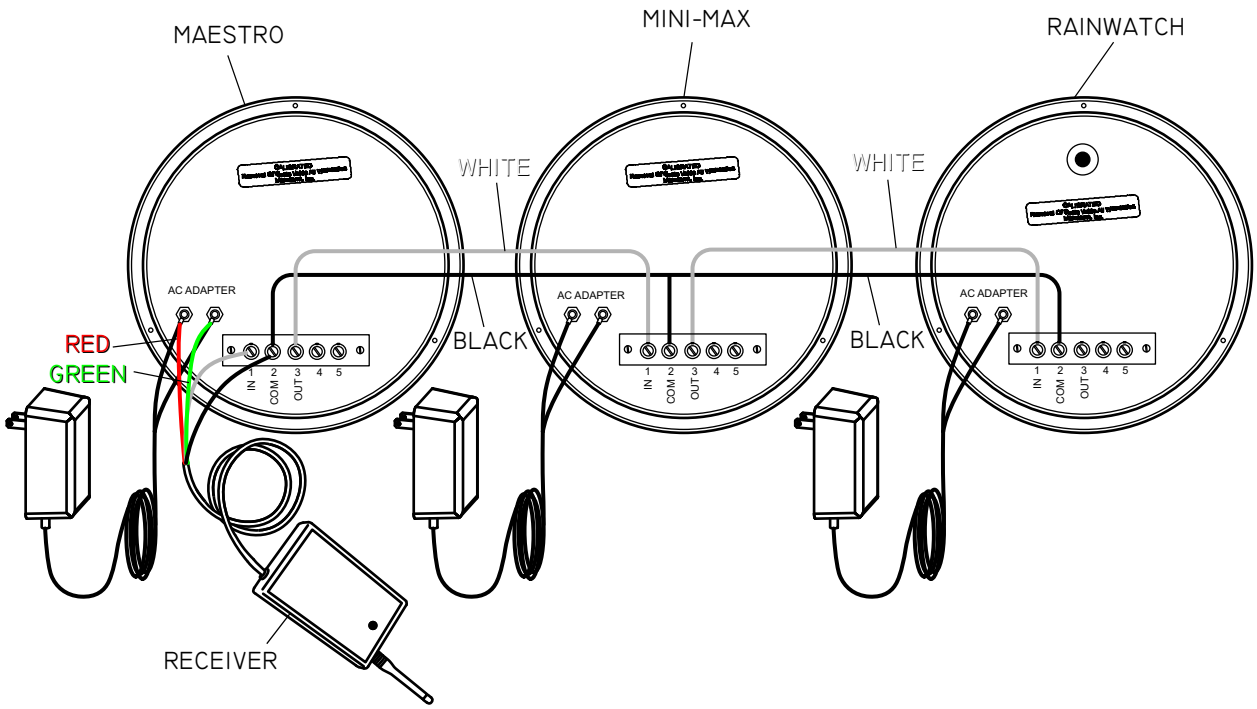
RAINWATCH

WIRELESS
OPTIONAL INSTALLATION
WITH MINI-MAX AND MAESTRO



RAINWATCH WITH MINI-MAX AND MAESTRO CONNECTIONS

1. Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MAESTRO (no polarity).
   Connect the wires from the 12 VOLT POWER SUPPLY to the same MAESTRO power terminals (no polarity).

2. On the MAESTRO, connect the WHITE wire from the RECEIVER to TERMINAL #1 (IN) and the **BLACK** wire from the RECEIVER to TERMINAL #2 (COM).

3. Connect the MAESTRO and MIN-MAX instruments using the supplied grey sheathed **BLACK** and WHITE wires as follows:

   A. Connect the WHITE wire from MINI-MAX TERMINAL #1 (IN) to MAESTRO TERMINAL #3 (OUT).
   B. Connect the **BLACK** wire from MINI-MAX TERMINAL #2 (COM) to MAESTRO TERMINAL #2 (COM).

4. Connect the MINI-MAX and RAINWATCH instruments using the supplied grey sheathed **BLACK** and WHITE wires as follows:
   A. Connect the WHITE wire from RAINWATCH TERMINAL #1(IN) to MINI-MAX TERMINAL #3 (OUT)
   B. Connect the **BLACK** wire from RAINWATCH TERMINAL #2(COM) to MINI-MAX TERMINAL #2(COM).

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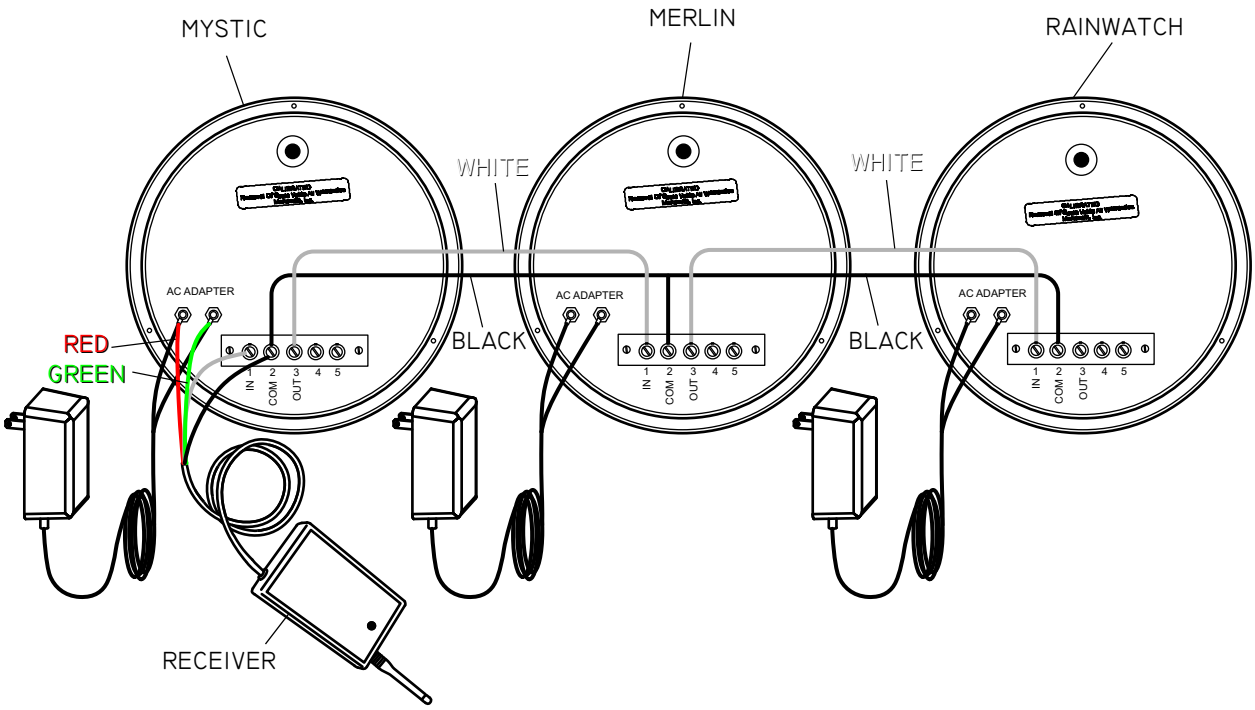
RAINWATCH
WIRELESS
OPTIONAL INSTALLATION
WITH MERLIN AND MYSTIC



RAINWATCH WITH MERLIN AND MYSTIC CONNECTIONS

1. Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MYSTIC (no polarity).
   Connect the wires from the 12 VOLT POWER SUPPLY to the same MYSTIC power terminals (no polarity).

2. On the MYSTIC, connect the WHITE wire from the RECEIVER to TERMINAL #1 (IN) and the **BLACK** wire from the RECEIVER to TERMINAL #2 (COM).

3. Connect the MYSTIC and MERLIN instruments using the supplied grey sheathed **BLACK** and WHITE wires as follows:
   A. Connect the WHITE wire from MERLIN TERMINAL #1 (IN) to MYSTIC TERMINAL #3 (OUT).
   B. Connect the **BLACK** wire from MERLIN TERMINAL #2 (COM) to MYSTIC TERMINAL #2 (COM).

4. Connect the MERLIN and RAINWATCH instruments using the supplied grey sheathed **BLACK** and WHITE wires as follows:
   A. Connect the WHITE wire from RAINWATCH TERMINAL #1(IN) to MERLIN TERMINAL #3 (OUT)
   B. Connect the **BLACK** wire from RAINWATCH TERMINAL #2(COM) to MERLIN TERMINAL #2(COM).

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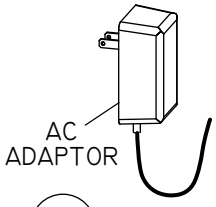
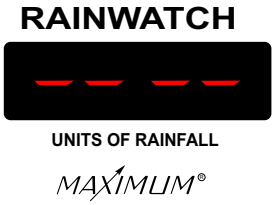
RAINWATCH
WIRELESS
TROUBLESHOOTING

1. If the display is NOT lit check the voltage output from the AC Adaptor. This particular adaptor puts out between 11 and 15 VAC. If the voltage is not correct, then the adaptor is faulty.

2. If the display IS lit and shows "Err" the power needs to be cycled to clear this message.



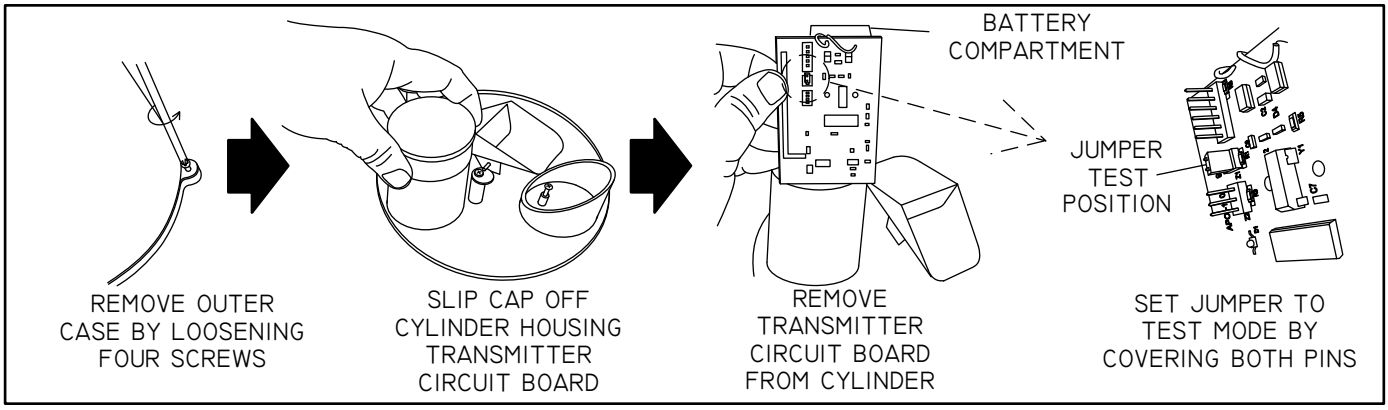
1) Unplug the AC adaptor from the 110 VAC power outlet.
2) Wait 15 seconds
3) Plug the AC adaptor back into the 110 VAC power outlet.
4) If the "Err" message does not clear, the unit needs service.



3. If the display IS lit and shows - - - -
1) Check receiver to make sure it has power
2) Check to make sure WHITE wire is connected to terminal 1 and **BLACK** wire to terminal 2 on Rainwatch.

4. If the Rainwatch appears to display a normal reading but fails to count up during a significant rain event then proceed with the following steps:

-Test and replace (if necessary) the AA Alkaline batteries in the RAIN TRANSMITTER.
-Put the RAIN TRANSMITTER into TEST MODE by removing the batteries, then moving the jumper on the RAIN TRANSMITTER circuit board to cover both pins of the 2-pin terminal.



-Re-install the AA Alkaline batteries in the RAIN TRANSMITTER once the jumper has been moved.
-Check LED on receiver to make sure it is blinking **ORANGE** every 4 seconds.
-Check the instruments to see if the error has been corrected.
-Unlike the WIND and TEMPERATURE TRANSMITTERS, the RAIN TRANSMITTER will not automatically exit test MODE after 15 minutes. Therefore, you must take the rain transmitter out of test mode manually. To do so: remove the batteries, then move the jumper on the RAIN TRANSMITTER circuit board back to covering only one pin of the 2-pin terminal (it does not matter which pin is covered). Re-install the batteries and cover.
-If the instrument continues to display one of the error messages listed above or still does not record a count, call Maximum for further assistance.

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WIRELESS

FCC NOTICE

Warning: Changes or modifications to this equipment not expressly approved by Maximum, Inc. in writing as the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTES

MAXIMUM®

WEATHER INSTRUMENTS

Electrical Damage - Common Causes & Recommended Prevention

Electrical damage can be caused by many different factors. Below are some of the more common causes and some suggested methods of minimizing potential problems.

Common Causes:

Storm Activity - lightening in your area can do damage to your instruments in different ways. The obvious way is due to a direct or nearby strike. In addition, lightening storms, dust storms, dry snowstorms and strong dry winds can all cause static electricity to build up on and around your external sensors. Regardless of the cause, this built up electricity itself through the cable connecting the external sensors to the instrument.

Power Surges - A surge may come from the electric company's switching generators or power grids, from local industries or after power interruption when accumulated power suddenly surges back through AC lines. Even the on-and-off switching of large electrical appliances, such as refrigerators or clothes dryers can create damaging fluctuations. This is especially true with sensitive weather recording devices.

Yourself - Are you constantly giving and/or receiving a shock every time you touch a doorknob or other person? If so, you have a great deal of static electricity in your environment. In either case, it is possible for a person to carry enough of a charge to damage an instrument.

Recommended Prevention:

Use Surge Protectors - for the AC adapter, a UL 1449 rated surge protector with EMI/RFI filtering is recommended. This rating will be clearly listed on the packaging of all good quality surge protector.

Discharge Yourself - If the instruments are located in an environment where static electricity is a problem, make sure that you discharge yourself before touching the instrument(s). The shock that you get from touching a doorknob or another person can often be sufficient to damage an instrument.