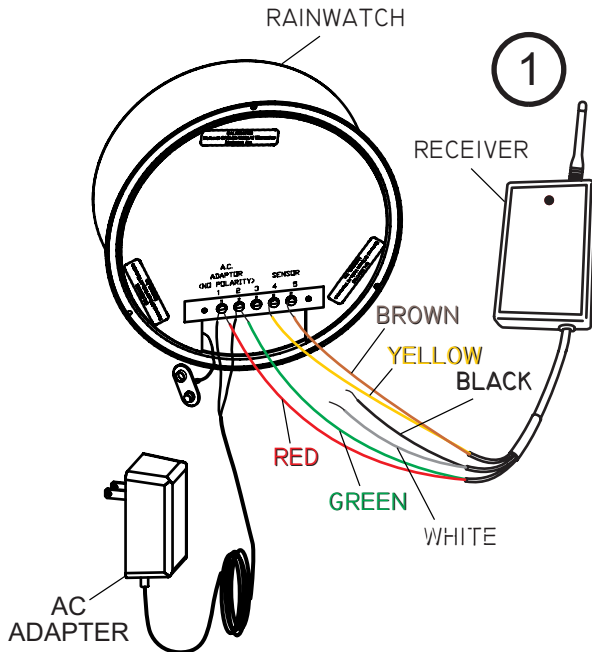


RAINWATCH

WIRELESS INSTALLATION

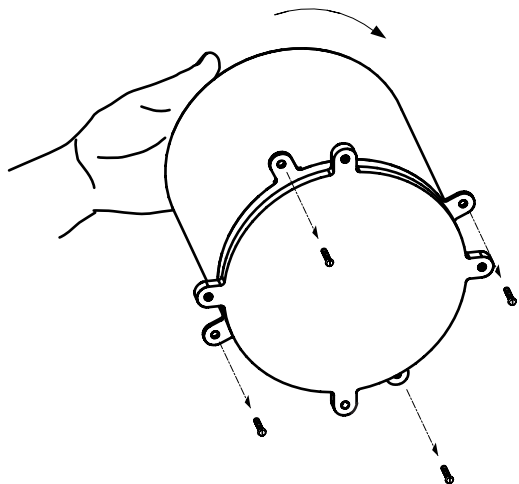
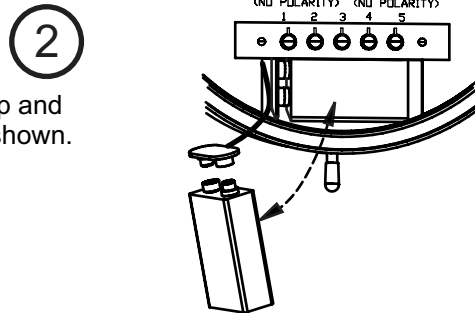
THIS MANUAL IS DESIGNED TO LEAD YOU STEP BY STEP THROUGH THE PROCEDURES REQUIRED TO TEST, INSTALL AND USE YOUR WIRELESS RAINWATCH. BY FOLLOWING THESE PROCEDURES AND SETTING UP THE SYSTEM CORRECTLY IN THE BEGINNING, YOU WILL BE ABLE TO ENJOY ALL THE FEATURES OF YOUR WIRELESS RAINWATCH FOR YEARS TO COME.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



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 **YELLOW** wire from the RECEIVER to TERMINAL #4 and the **BROWN** wire from the RECEIVER to TERMINAL #5 on the rear of the RAINWATCH indicator.

RECEIVER WIRING	
RED	to.....Power (no polarity)
GREEN	to.....Power (no polarity)
YELLOW	to.....Rainwatch
BROWN	to.....Rainwatch

Connect a 9 volt alkaline battery to the battery snap and insert into the opening under the terminal strip as shown. Now plug in the power supply.



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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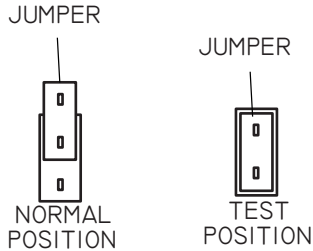
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RAINWATCH

WIRELESS INSTALLATION

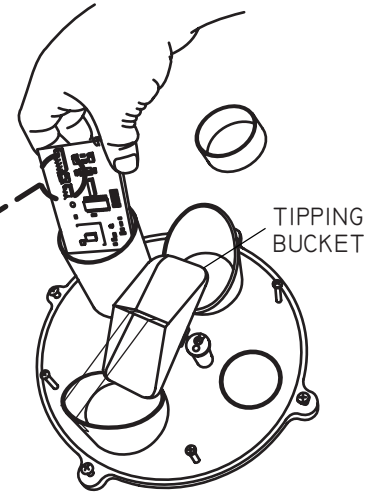
4

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.



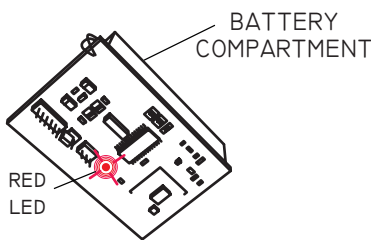
JUMPER
NORMAL
POSITION

JUMPER
TEST
POSITION



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.



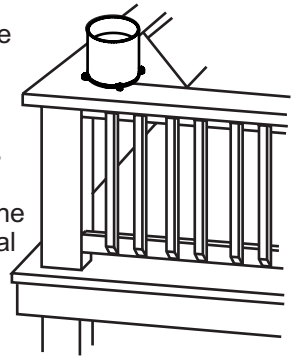
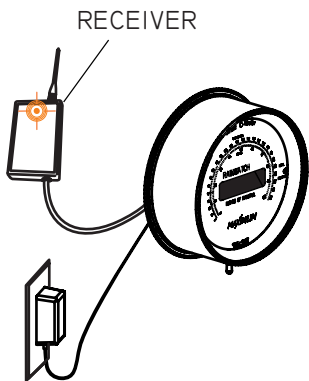
6

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.



7

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.



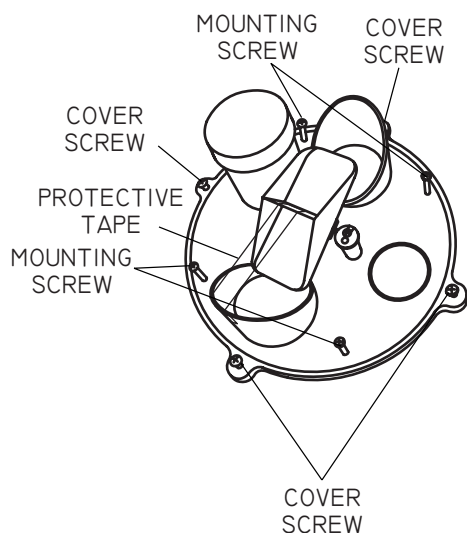
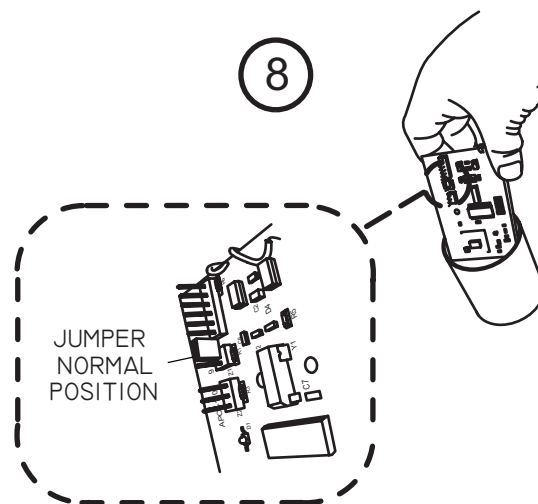
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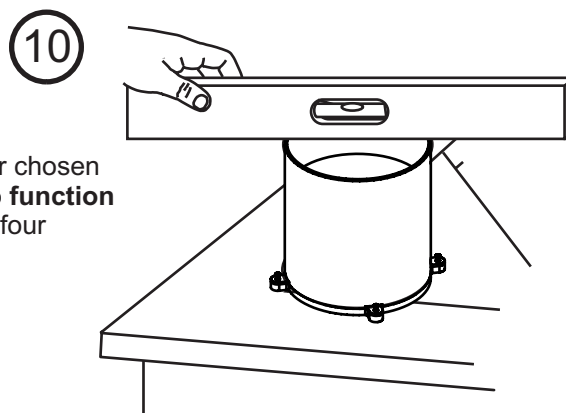
RAINWATCH

WIRELESS INSTALLATION

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.



Remove the protective tape that is securing the TIPPING BUCKET.



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.

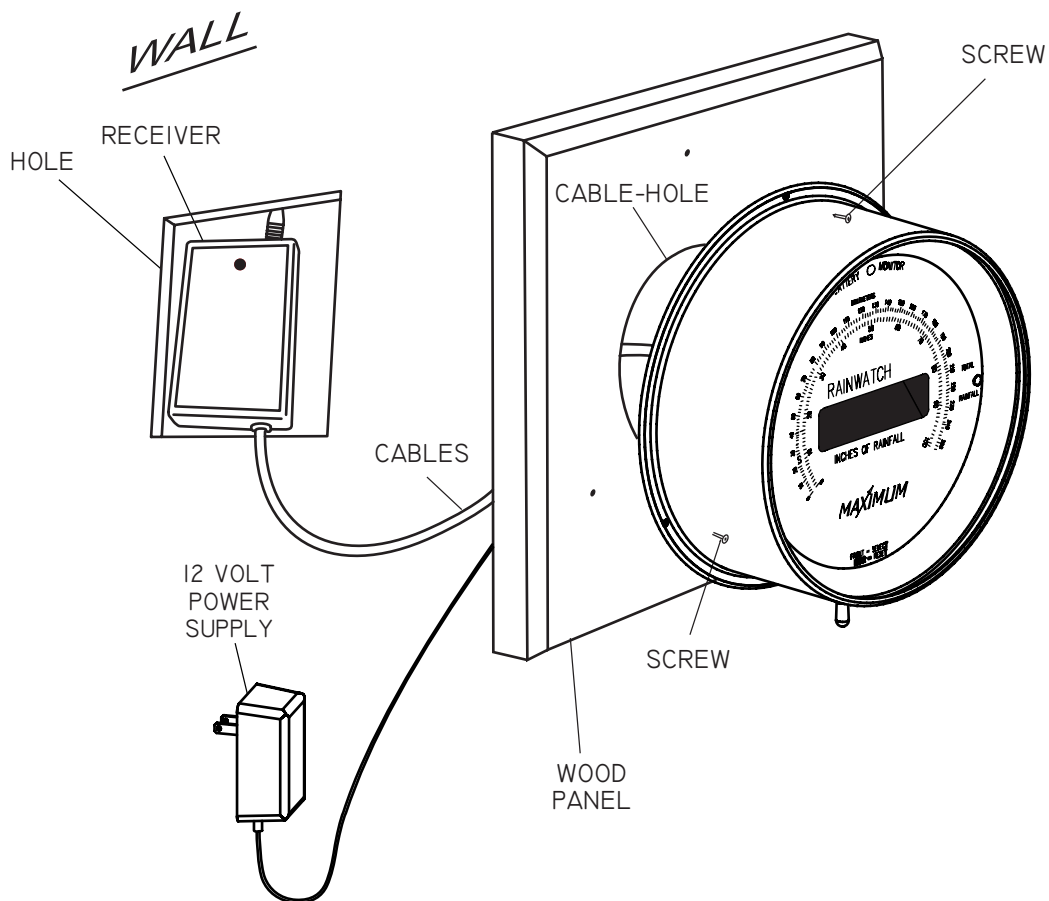
Remove the hardware package taped inside the base and reinstall the collector cover over the collector base. Use the four screws to mount the collector to the mounting surface. **The collector must be mounted level in order to function properly.**

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RAINWATCH

WIRELESS INSTALLATION



11

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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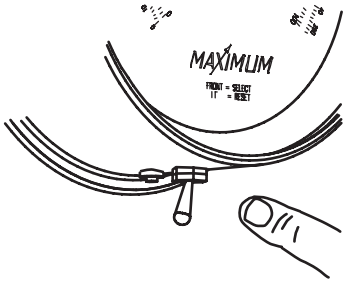
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Page 4

RAINWATCH

WIRELESS OPERATION

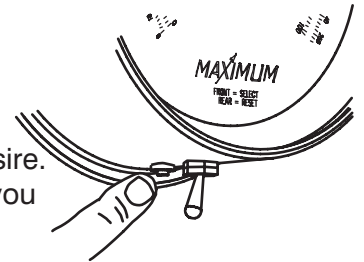
RAINWATCH has two "counters". They are shown on the face of the instrument as "Current" and "Total". There are two switches located at the bottom of the case.



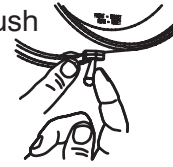
- ① The switch closest to the front of the case selects which counter (memory) you wish to display. Regardless of this switch's position, both counters are accumulating data.

②

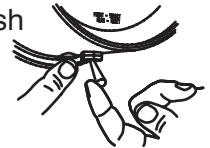
The push button switch closest to the rear of the case is the reset switch. This switch resets either counter when you desire. The front toggle switch position determines which memory you wish to erase.



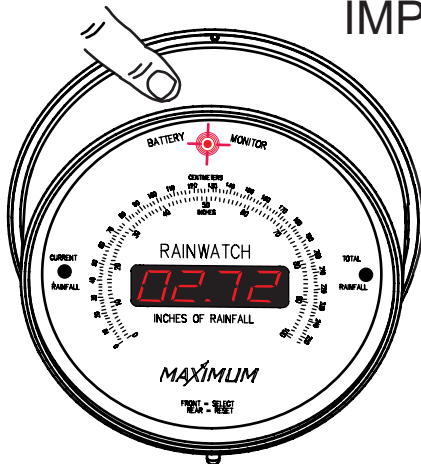
- A. Pushing the select switch to the left and holding the push button switch for six seconds erases "Current".



- B. Pushing the select switch to the right and holding the push button switch for six seconds erases "Total".



IMPORTANT FACTS ABOUT YOUR RAINWATCH



- An illuminated battery monitor LED indicates that the battery is in good condition.
- During a power failure, RAINWATCH will continue to collect and store data as long as the battery is in good condition.
- Leaving the transmitter set in test mode will drain the batteries in 2-3 months vs.. 1-2 years in normal mode.
- Freezing weather will not damage the unit, however, readings of snow or freezing will no be accurate.

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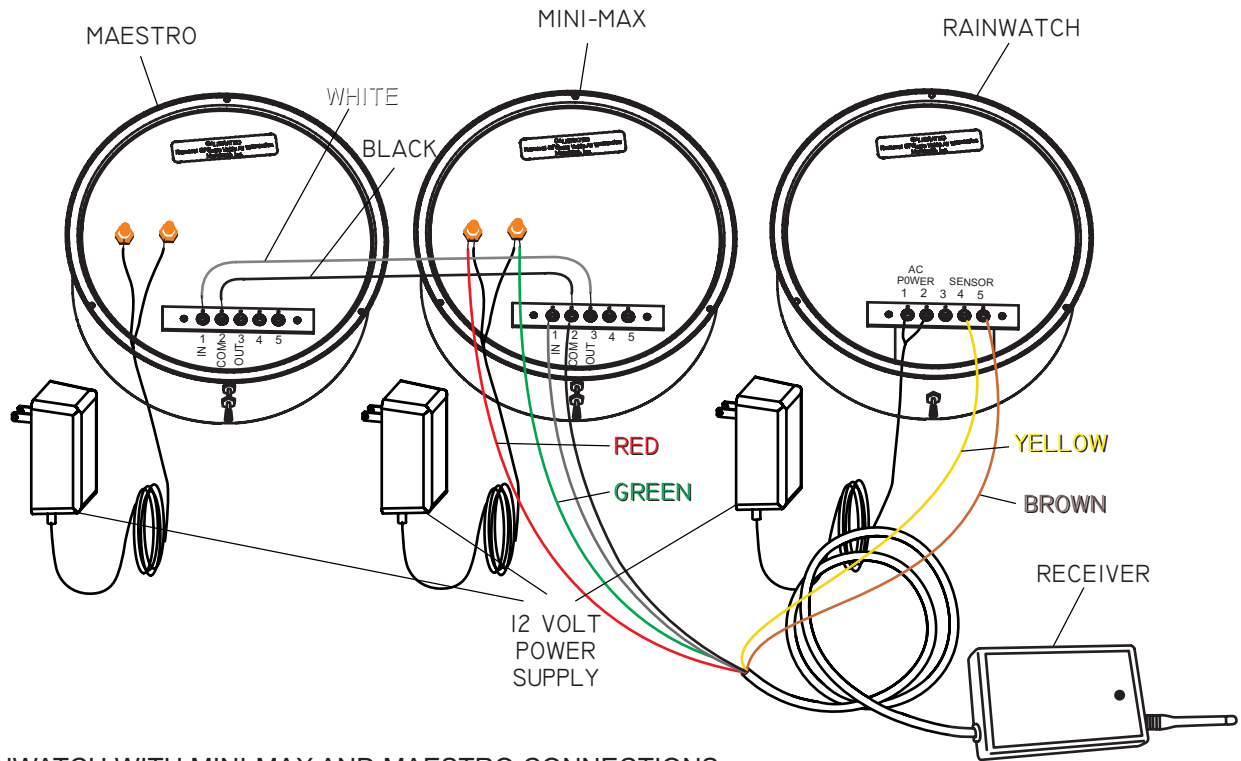
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RAINWATCH

WIRELESS

OPTIONAL INSTALLATION

RAINWATCH WITH MINI-MAX AND MAESTRO



RAINWATCH WITH MINI-MAX AND MAESTRO CONNECTIONS

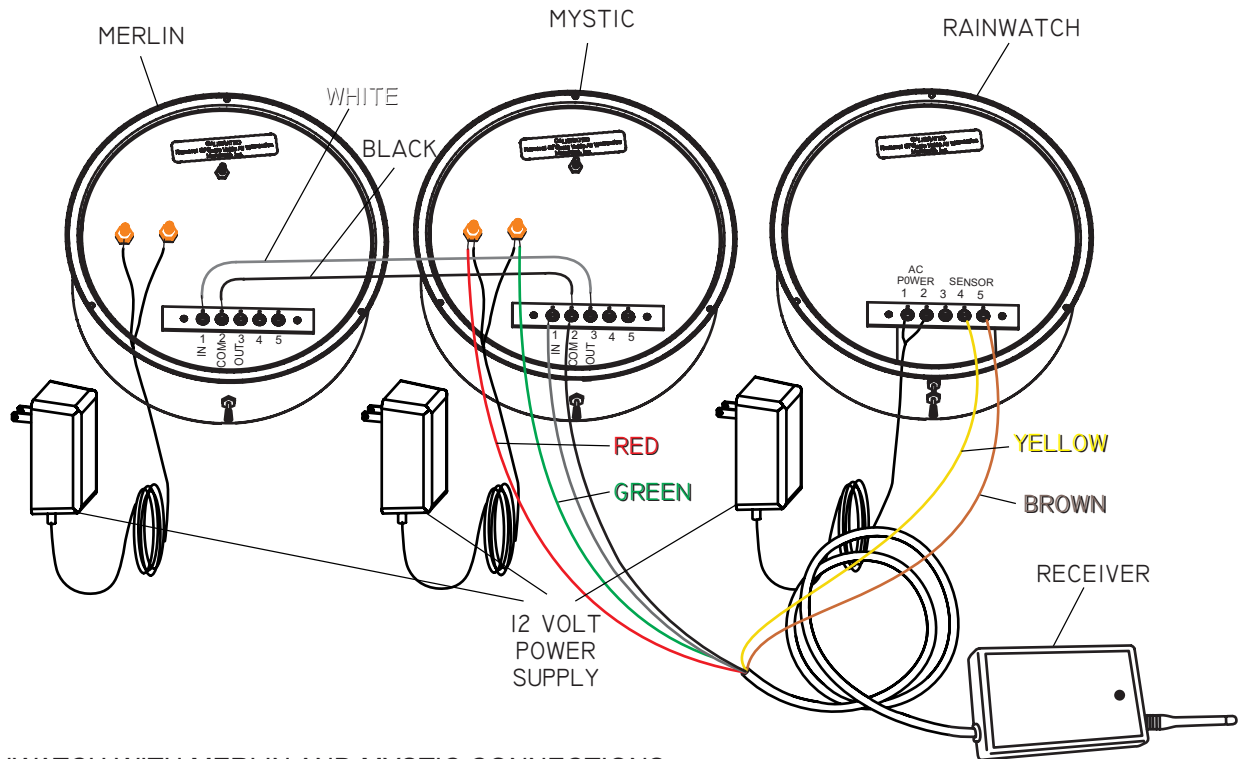
- 1 Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MINI-MAX (no polarity).
Connect the wires from the 12 VOLT POWER SUPPLY to the same MINI-MAX power terminals (no polarity).
- 2 On the MINI-MAX, connect the **WHITE** wire from the RECEIVER to TERMINAL #1 (IN) and the **BLACK** wire from the RECEIVER to TERMINAL #2 (COM).
- 3 Connect the MINI-MAX and MAESTRO instruments using the supplied grey sheathed **BLACK** and **WHITE** wires as follows:
 - A. Connect the **WHITE** wire from MAESTRO TERMINAL #1 (IN) to MINI-MAX TERMINAL #3 (OUT).
 - B. Connect the **BLACK** wire from MAESTRO TERMINAL #2 (COM) to MINI-MAX TERMINAL #2 (COM).
- 4 Connect the **YELLOW** wire from the RECEIVER to TERMINAL #4 on the RAINWATCH. Connect the **BROWN** wire from the RECEIVER to TERMINAL #5 of the RAINWATCH.
- 5 Connect the wires from the 12 VOLT POWER SUPPLY to terminals 1 and 2 of the RAINWATCH (no polarity).
Connect the wires from the other 12 VOLT POWER SUPPLY to the power terminals on the MAESTRO (no polarity).

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RAINWATCH

WIRELESS OPTIONAL INSTALLATION RAINWATCH 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 **YELLOW** wire from the RECEIVER to TERMINAL #4 on the RAINWATCH. Connect the **BROWN** wire from the RECEIVER to TERMINAL #5 of the RAINWATCH.
- 5 Connect the wires from the 12 VOLT POWER SUPPLY to terminals 1 and 2 of the RAINWATCH (no polarity).
Connect the wires from the other 12 VOLT POWER SUPPLY to the power terminals on the MERLIN (no polarity).

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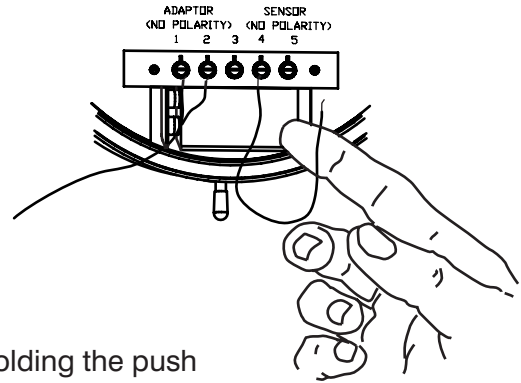
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RAINWATCH

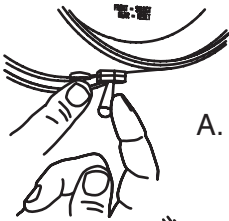
WIRELESS TROUBLESHOOTING

- 1 Check and replace (if necessary) the batteries in the transmitter. Proper operation would be indicated by the receiver's LED flashing **ORANGE** every four seconds when transmitter is set in test mode (see installation steps 4-6 for information on how to set the transmitter to test mode).
- 2 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.
- 3 If the display IS lit but the unit is not counting then remove the indicator from the wall and disconnect the collector wires from terminals #4 and #5.

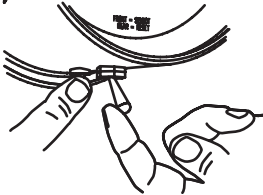
- 4 Connect one end of a 3" to 4" long wire to terminal #4.



- 5 Reset the "counters" (memories) to 00.00.

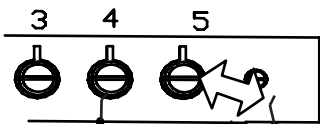


A. Pushing the select switch to the left and holding the push button switch for six seconds erases "Current".



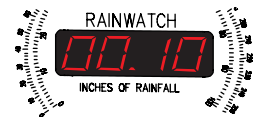
B. Pushing the select switch to the right and holding the push button switch for six seconds erases "Total".

- 6 Using the free end of your test wire, touch terminal #5 and release it. The display should read 00.01.



- 7

Repeat step 6 nine more times. The display should then read 00.10. This indicates that the instrument is alright and that the problem lies in the Rain Collector or the Transmitter Board.



- 8 Contact the factory for advice as to how to troubleshoot the Rain Collector or the Transmitter.

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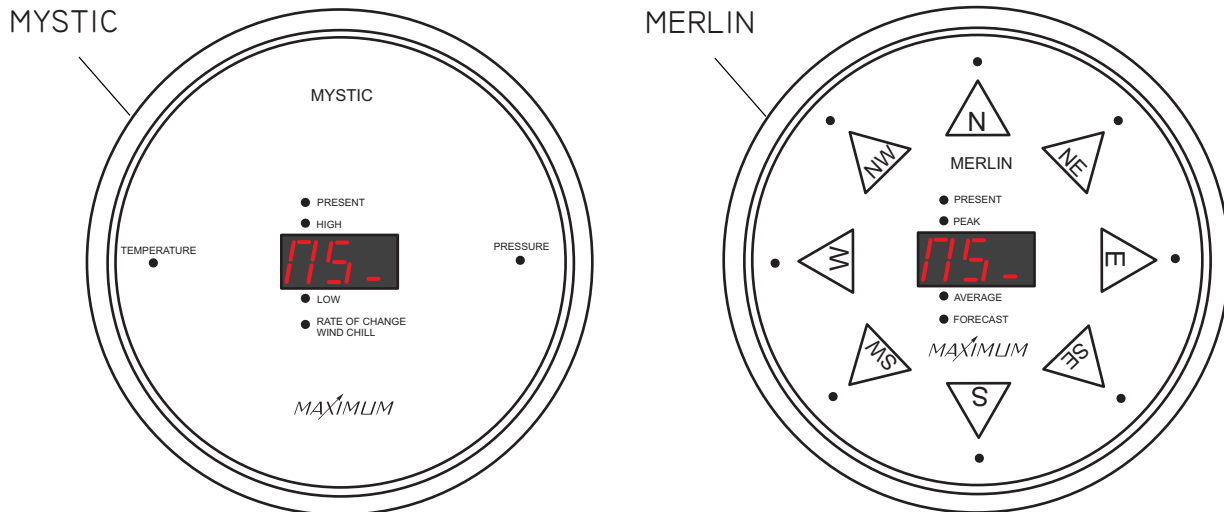
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WIRELESS

TROUBLE-SHOOTING

FOR INSTALLATIONS INCLUDING MYSTIC AND/OR MERLIN

NO SIGNAL FROM RAIN TRANSMITTER
(Instrument has received, then lost sensor signal)

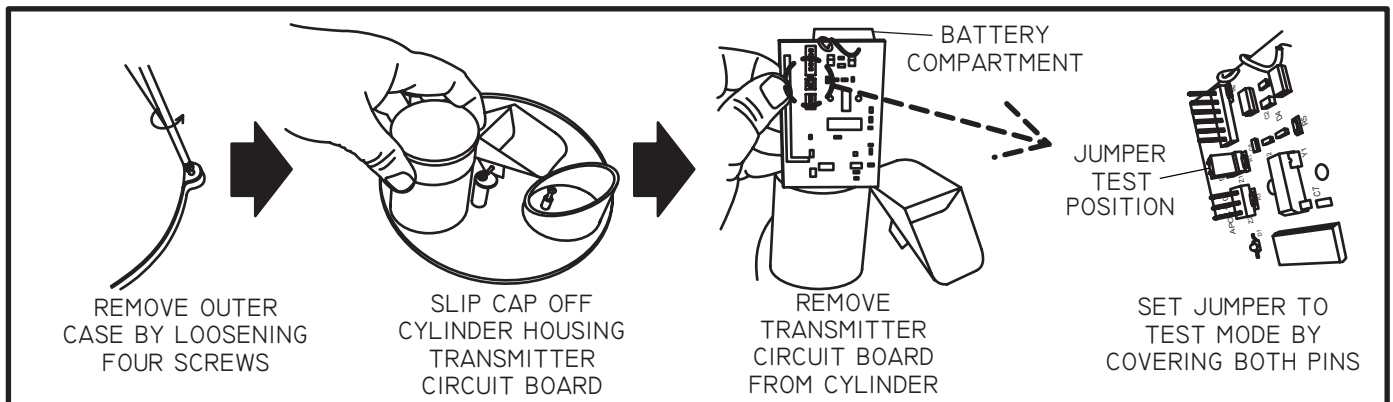


SYMPTOM:

- Mystic Reads "NS." (No Temperature or Pressure LED's illuminated).
- Merlin Reads "NS." (No Direction LED's illuminated).

REMEDY:

- 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 the error code, call Maximum for further assistance.

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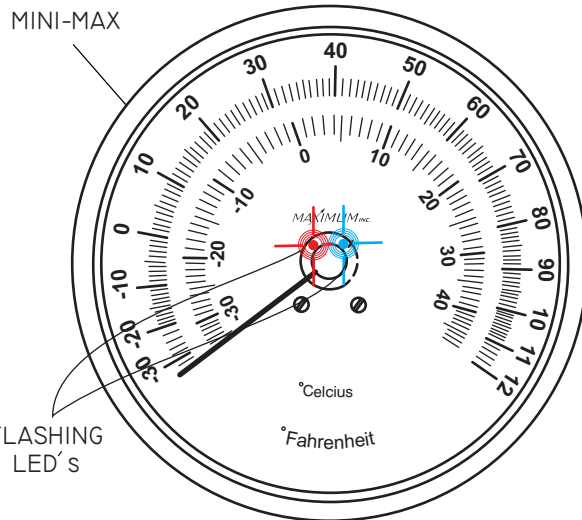
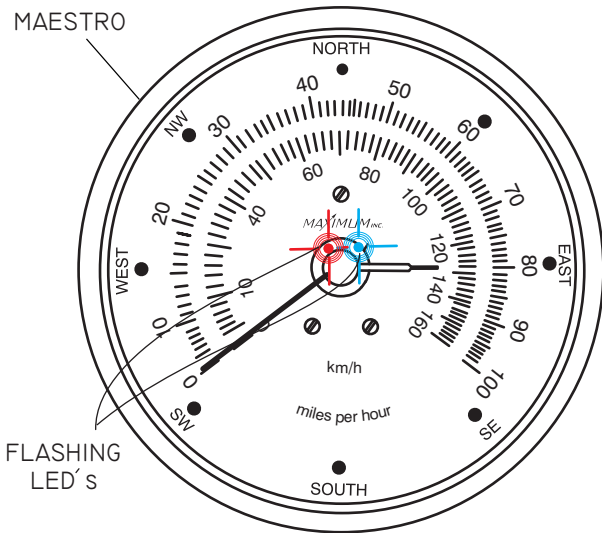
WIRELESS

TROUBLE-SHOOTING

FOR INSTALLATIONS INCLUDING MAESTRO AND/OR MINI-MAX

NO SIGNAL FROM RAIN TRANSMITTER

(Instrument has received, then lost sensor(s) signal)

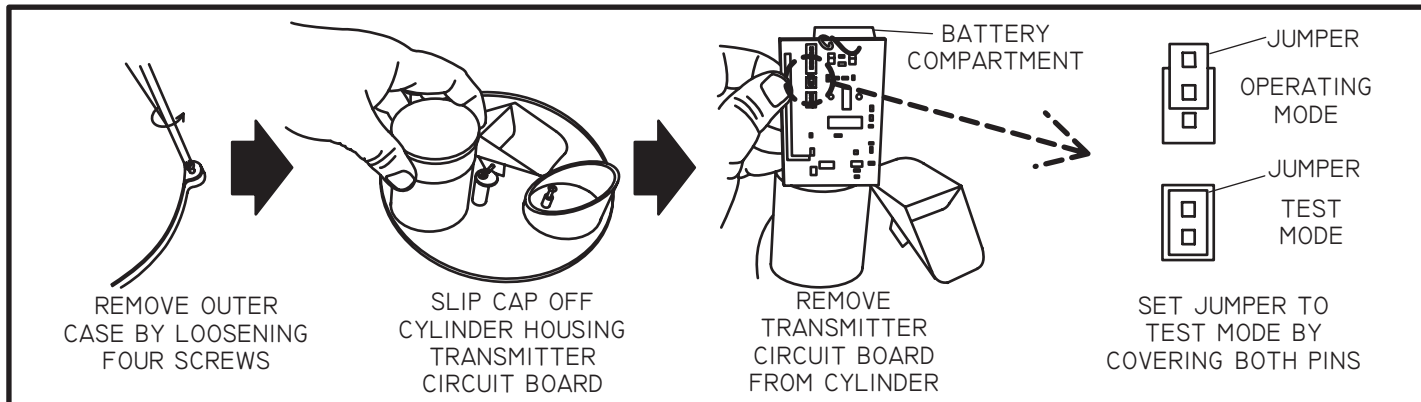


SYMPTOM:

- Maestro needle points to 0 MPH.
- Mini-Max needle points to -35°.
- Central LED's flashing.

REMEDY:

- Remove and test the AA Alkaline batteries in the RAIN TRANSMITTER. If dead, replace batteries and check operation. If good, continue to next step.
- 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 the error code, call Maximum for further assistance.

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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 can discharge 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 another person? If so, you have a great deal of static electricity in your environment. Depending on where you live, static electricity may be a year round problem or only a seasonal problem. 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.