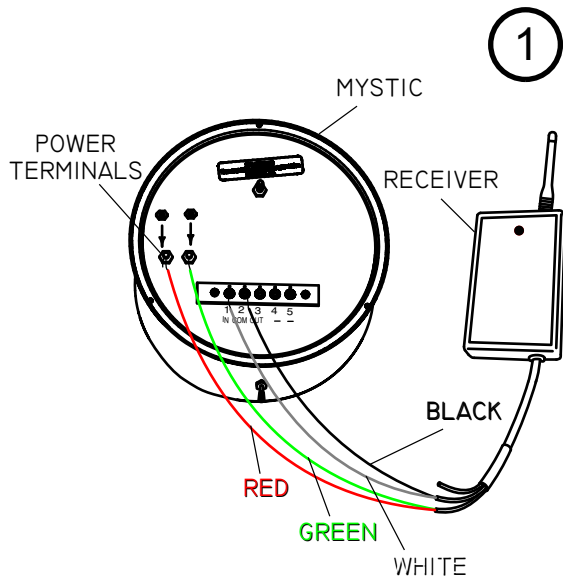


MYSTIC

WIRELESS

INSTALLATION

THIS MANUAL IS DESIGNED TO LEAD YOU STEP BY STEP THROUGH THE PROCEDURES REQUIRED TO TEST, INSTALL AND USE YOUR WIRELESS MYSTIC. 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 MYSTIC FOR YEARS TO COME. WE STRONGLY SUGGEST THAT YOU PERFORM A TRIAL WIRING OF YOUR WIRELESS MYSTIC PRIOR TO FINAL INSTALLATION.



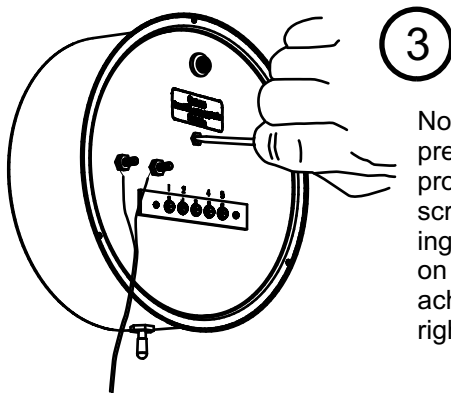
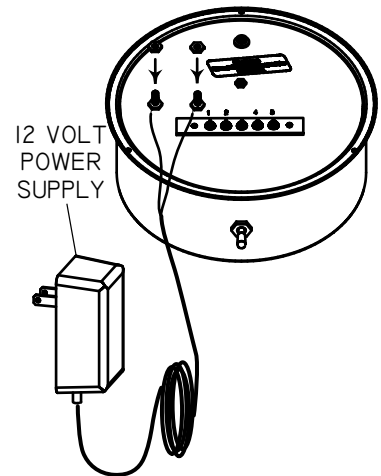
1

Wire the receiver to the Mystic display unit. Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MYSTIC (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 MYSTIC indicator.

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

Connect the AC adapter to Mystic and plug into outlet. The display will briefly light up all the indicator lights (self test). Next the display will show the unit of measurement codes, the barometer function light will illuminate and the center display will show a pressure reading. **Leave Mystic in this mode for two hours. Do not activate the switch at the bottom of the case.** At the end of this two hour period, Mystic will be ready to have the pressure adjustment performed.

2



3

Now calibrate the barometer for your altitude. Obtain the current barometric pressure for your area by calling a near-by airport or an individual who has a properly set barometer. Insert a small screw driver into the recessed slotted screw at the back of Mystic. Turn the screw while observing the pressure reading on the front of Mystic. Due to the sensitivity of this adjustment, the numbers on the display may fluctuate during this procedure. It may take a minute to achieve the exact setting. Once the unit is set, move the toggle switch to the right (auto) one time to lock in the setting.

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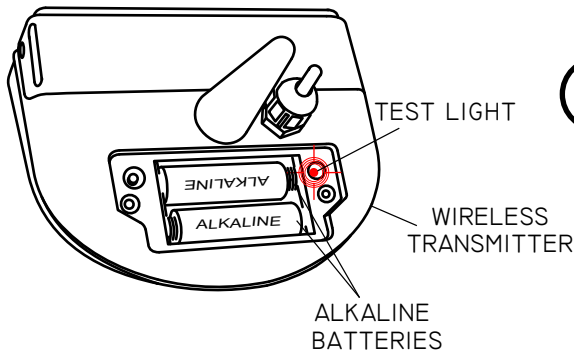
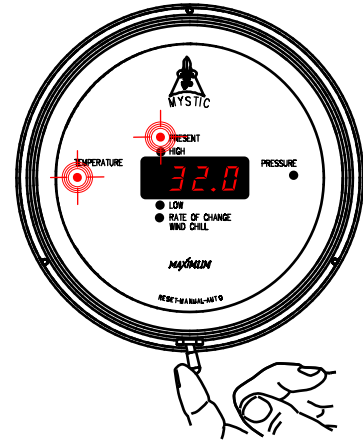
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MYSTIC

WIRELESS INSTALLATION

Once the barometer has been calibrated, toggle to a Present/Temperature display. Within a few seconds a default temperature reading of 32.0° will appear in the display window. Refer to the troubleshooting section if 32.0° does not appear.

4



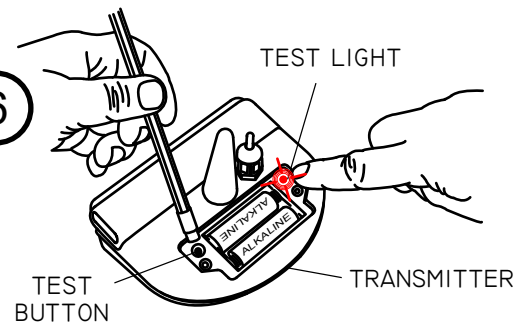
5

Open the battery compartment of the temperature transmitter by removing the stainless steel screws in the cover. Insert two Alkaline batteries. The test light in the wireless transmitter will blink red once to indicate that the batteries have been installed properly.

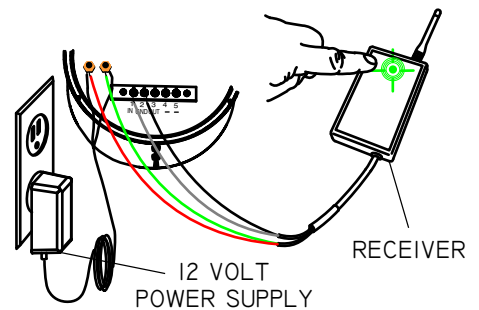
Test the transmitter by depressing the test button. After a few seconds the test light should blink every four seconds. This indicates that the transmitter is in test mode, which lasts for 15 minutes. At the end of 15 minutes the transmitter will return to normal operating mode. After initial power up, the indicator light on the receiver should blink **GREEN** every four seconds. This indicates proper communication between the receiver and the temperature transmitter.

(NOTE: If more than 15 minutes has passed since the button on the temperature transmitter was pushed, it will need to be pushed again.) The light on the receiver will blink other colors when different sensors are installed.

6



RECEIVER INDICATOR	TRANSMITTER
RED.....	WIND
GREEN.....	TEMPERATURE
ORANGE.....	RAIN



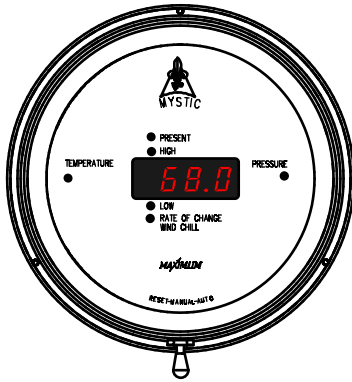
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MYSTIC

WIRELESS

INSTALLATION

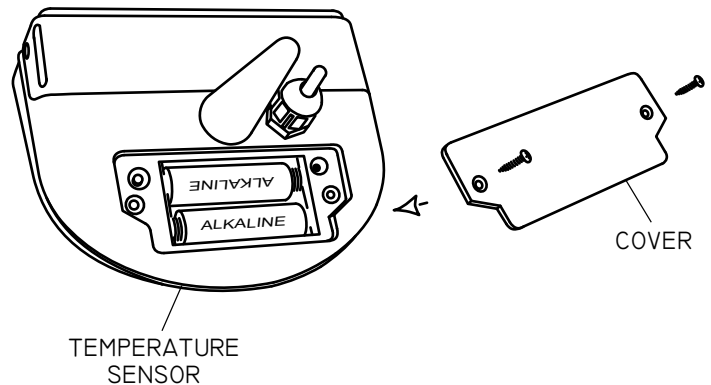


7

Once the transmitter has been activated, the default 32.0° temperature reading should be replaced by a present temperature reading. Refer to the troubleshooting section if a present temperature reading does not appear.

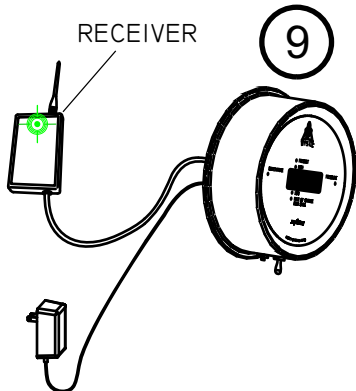
8

Replace the plastic battery cover. Make sure to seat the cover properly over the glued in gasket.

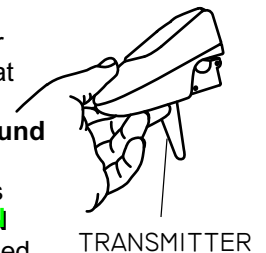


RECEIVER

9



Move the active temperature transmitter as close as possible to your preferred final mounting location. Also move the MYSTIC indicator and receiver combination as close as possible to their final mounting location. Select a location for the transmitter that is protected from direct sunlight and sheltered from rain or physical damage. **A North exposure, six feet above the ground will give the best results.** Check to make sure that proper communication between the transmitter and receiver still exists by verifying that the light on the receiver is still flashing **GREEN** every four seconds. NOTE: If more than 15 minutes has passed since the test button on the temperature transmitter was pushed, it will need to be pushed again. If the signal has been lost, move the transmitter to an alternate mounting location and re-check for proper communication.

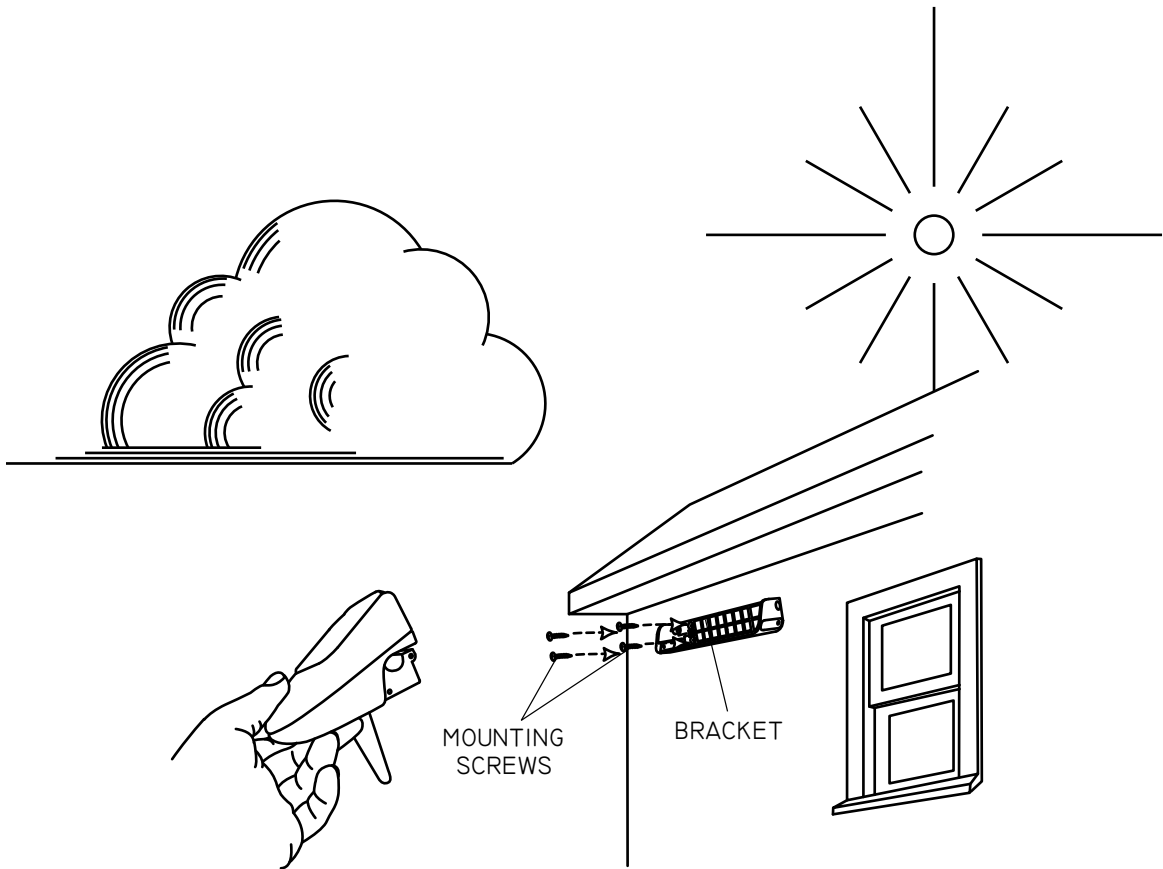


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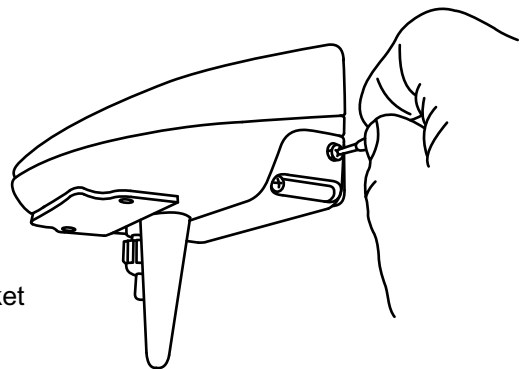
MYSTIC

WIRELESS
INSTALLATION



10

Once proper communication between the transmitter and receiver is verified, final installation of the transmitter can be made. Remove the four screws on the sides of the mounting bracket and remove the bracket from the transmitter housing. Attach the mounting bracket to the wall using the four stainless steel mounting screws supplied in the hardware package. Once the bracket is installed simply re-attach the transmitter housing to the bracket using the four screws initially removed to separate the bracket from the housing.

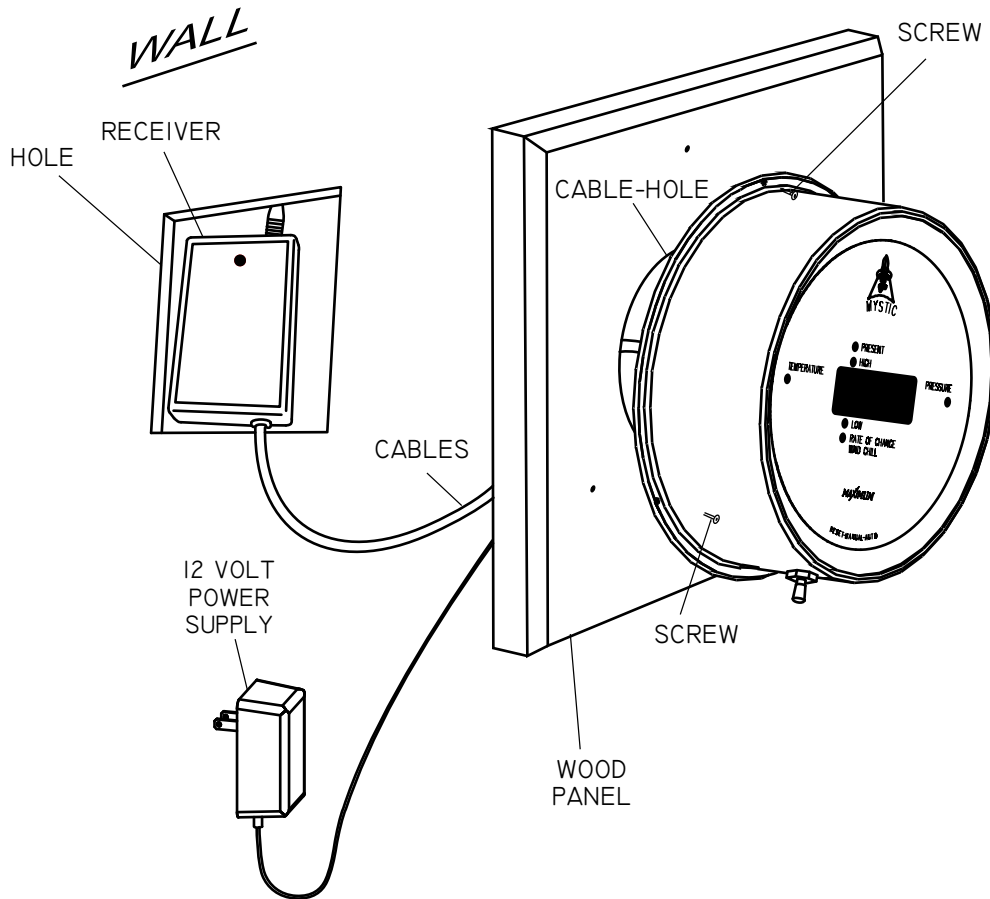


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MYSTIC

WIRELESS
INSTALLATION



11

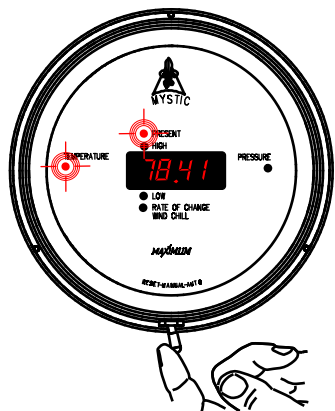
Mount the MYSTIC indicator directly over the cable hole that is also used to route power to the instrument. For the cleanest installation, we recommend making a hole in the wall large enough to insert the wireless receiver. We also recommend mounting the brass meter to one of our pre-drilled mounting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

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MYSTIC

WIRELESS OPERATION

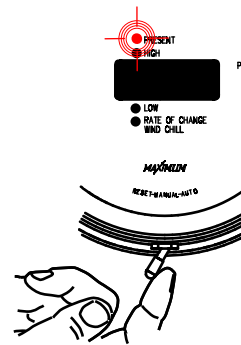


Move the toggle switch at the bottom of the case to the right (auto) and allow it to return. This manually moves the Mystic through the individual functions. The illuminated function LED's indicate which function and setting is being displayed.

Moving the toggle switch to the right (auto) and holding it for at least three seconds will put Mystic into its Auto sequencing mode. You will see each function light stay on and that particular information displayed for approximately four seconds and then move to the next function automatically.

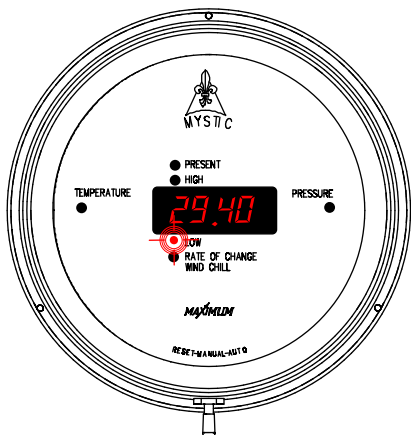
If Mystic is Auto sequencing and you wish to turn that function off - move the toggle switch to the right (auto) and release it. You can now manually step through the functions as previously mentioned.

Any Individual function's memory can be independently reset. Move the toggle switch to the right (auto) until that particular function is displayed. Then move the toggle switch to the left (reset) and hold it for six seconds. The display will quickly blank, indicating that the memory for that function has been reset.



A "FULL" reset may also be done to clear all the memories simultaneously or if an adjustment to the barometer setting is needed. Toggle through Mystic's settings until either the Present/Temperature or Present/Barometer function is displayed. Then move the toggle switch to the left (reset) and hold it for six seconds. All the memories will reset, the display will quickly blank and then enter into the barometer adjustment mode. If necessary the barometer may be reset at this time by adjusting the set screw on the backplate. Exit the barometer adjustment mode by moving the toggle switch to the right (auto) and releasing it.

NOTE: After any "FULL" reset, temperature and/or wind chill data will be displayed and stored after ten seconds. Pressure data will be displayed and stored after two minutes. However, Rate of Change/Pressure will show "HOLD" for 72 minutes following a "FULL" reset.



When the toggle switch is in the center position Mystic will display the information that is indicated by the function light. Data for all the other functions is being recorded and stored.

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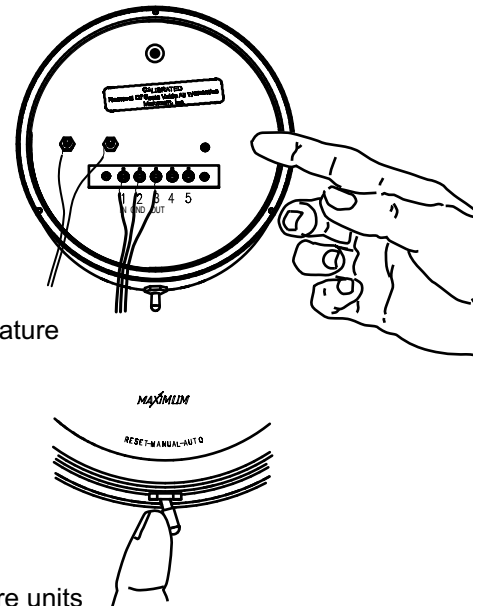
MYSTIC

WIRELESS

OPERATION (CONTINUED)

Mystic can be set to display the temperature in Fahrenheit or Celsius. The barometric pressure can be set to inches of mercury, millimeters of mercury, millibars or kilopascals. To change the units of measurement follow these steps:

1. Press the small red push button switch on the back of the indicator. The display will show "F" or "C" (F=Fahrenheit, C=Celsius).
2. Press the red push button again to advance through the available temperature units until the code you want is showing.
3. Move the toggle switch to the right (auto position) to lock in your choice.
4. The display will now show "P" and a number. The number indicates the units of measurement for pressure.
P0 = inches of mercury
P1 = millimeters of mercury
P2 = millibars
P3 = kilopascals
5. Press the red push button again to advance through the available pressure units until the code you want is showing.
6. Move the toggle switch to the right (auto position) to lock in your choice. Mystic will now perform a self-test and return to normal operation.



IMPORTANT FACTS ABOUT YOUR MYSTIC

- **Latch Up**- Power Line disturbances, improper powering up or an error in wiring can cause a blank or improper display reading. If MYSTIC is "latched up" in this way proceed as follows:
 1. Unplug the AC adapter from the 110 VAC power outlet.
 2. Wait 15 seconds.
 3. Plug the AC adapter in to the 110 VAC power outlet.
- During power outages MYSTIC's display will blank out and the instrument will not continue to accumulate data. It will preserve the previously accumulated data for up to 10 years.
- Moving the switch to "Auto" does not erase stored information.
- You do not need to time the 6 second reset time. Mystic will blank out the display to indicate that the memory has been erased.
- Set barometer by obtaining an accurate reading from a source as close to your location as possible. The closest airport, weather bureau or an individual with an accurate barometer would be a few examples.
- Rate-of-Change indicates the measure of the rise or fall of the barometric pressure observed over a one hour period. It is updated every 12 minutes.

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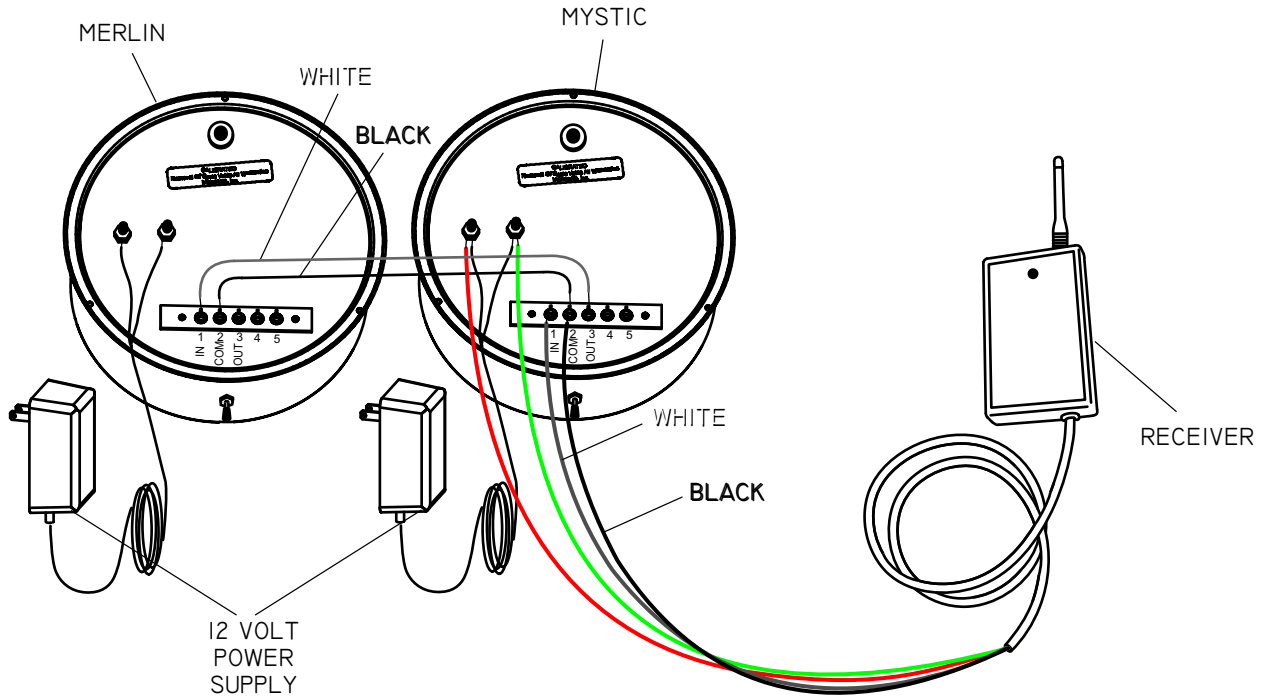
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MYSTIC

WIRELESS

OPTIONAL INSTALLATION

MYSTIC WITH MERLIN



MYSTIC AND MERLIN CONNECTIONS

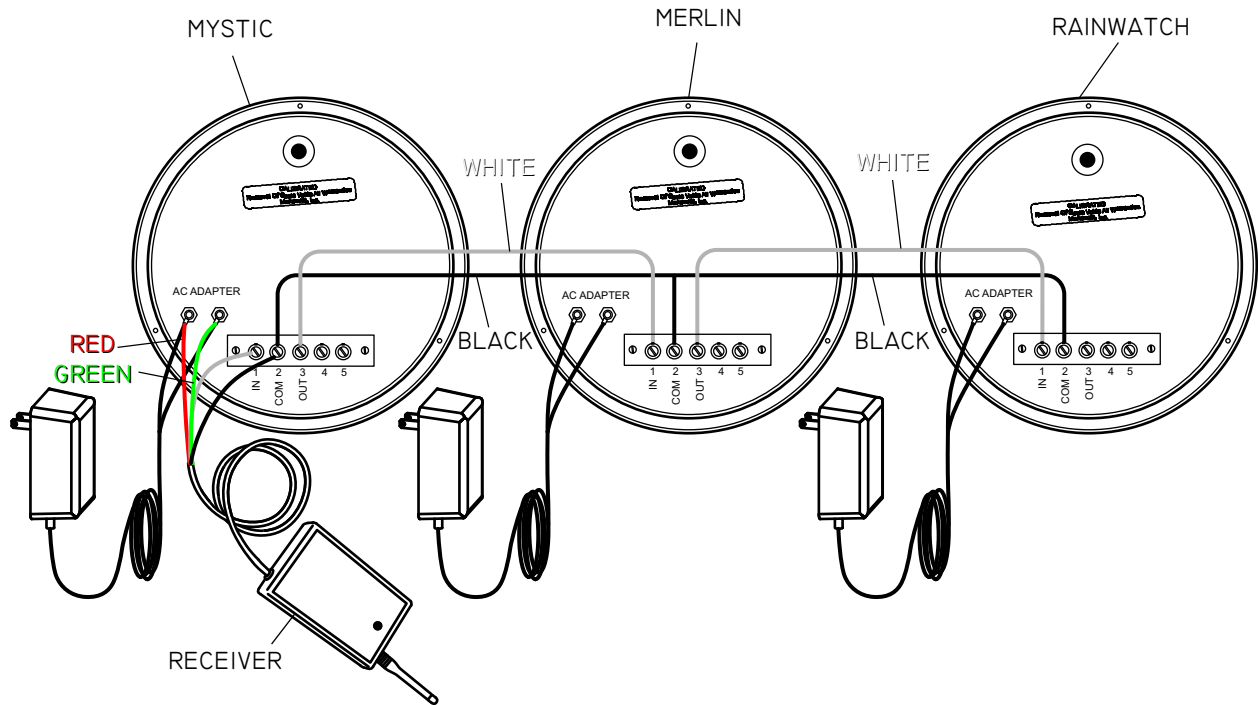
- ① Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MYSTIC (no polarity).
Connect the wires from the 12 VOLT POWER SUPPLY to the same MYSTIC power terminals (no polarity).
- ② On the MYSTIC, connect the **WHITE** wire from the RECEIVER to TERMINAL #1 (IN) and the **BLACK** wire from the RECEIVER to TERMINAL #2 (COM).
- ③ Connect the two 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 wires from the 12 VOLT POWER SUPPLY to the MERLIN power terminals (no polarity).

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 Page 8

MYSTIC WIRELESS

OPTIONAL INSTALLATION MYSTIC WITH MERLIN AND RAINWATCH



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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WIRELESS

TROUBLE-SHOOTING

Occasionally, you may experience disruptions in data transmission. The most likely cause will be expired batteries in the Exterior Sensor/Transmitters. When the following error codes appear in the LED readout, the batteries will most likely need replacing (please note the location of the horizontal dash lines):



Wind sensor not transmitting



Temperature sensor not transmitting



Rain sensor not transmitting



Wind and Temperature sensor not transmitting



Wind and Rain sensor not transmitting



Temperature and Rain sensor not transmitting



Wind, Temperature and Rain sensor not transmitting

NS=No Signal

The following pages of this manual contain more detailed information regarding the specific error displays.

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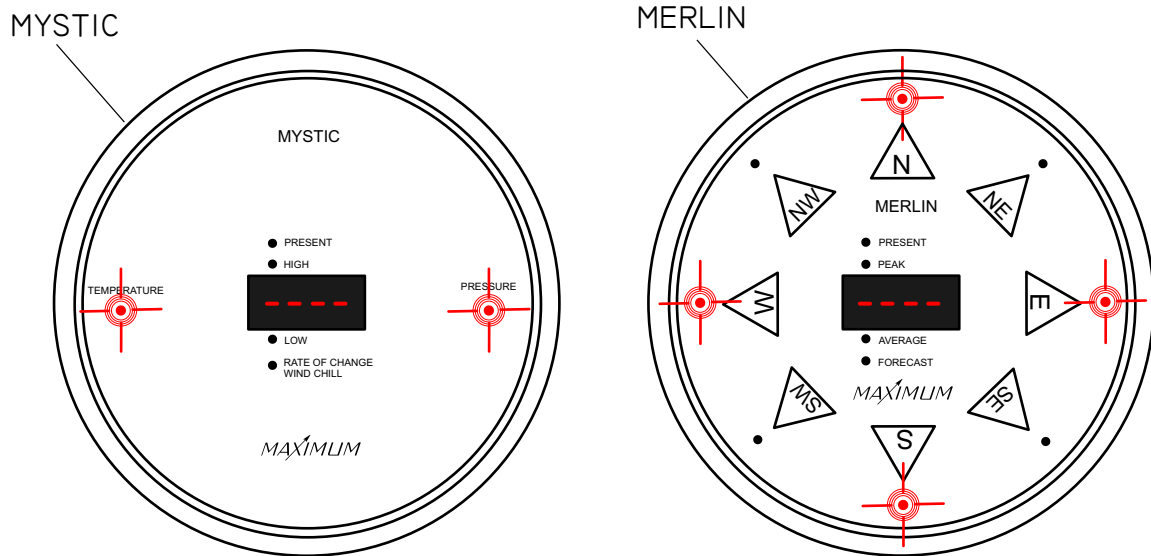
WIRELESS

TROUBLE-SHOOTING

THE FOLLOWING ILLUSTRATIONS SHOW HOW THE INSTRUMENT DIAL WILL INDICATE IMPROPER OPERATION.

NO SERIAL DATA

(Instrument has never recognized a receiver)



SYMPTOM:

- Center (Numeric) LED's display "----".
- Mystic Temperature and Pressure LED's are illuminated.
- Merlin Primary Wind Direction LED's are illuminated.

REMEDY:

- Check all wire connections (Refer to installation diagrams)
- Re-boot the system by unplugging the power supply, wait 30 seconds, plug it back in.
- The light on the receiver will flash **RED** and then **GREEN** five times, indicating that the receiver is now powered-up.
- If the instrument continues to display the error code, call Maximum for further assistance.

Note: Depending on the origin of the problem, error codes may not display on all instruments.

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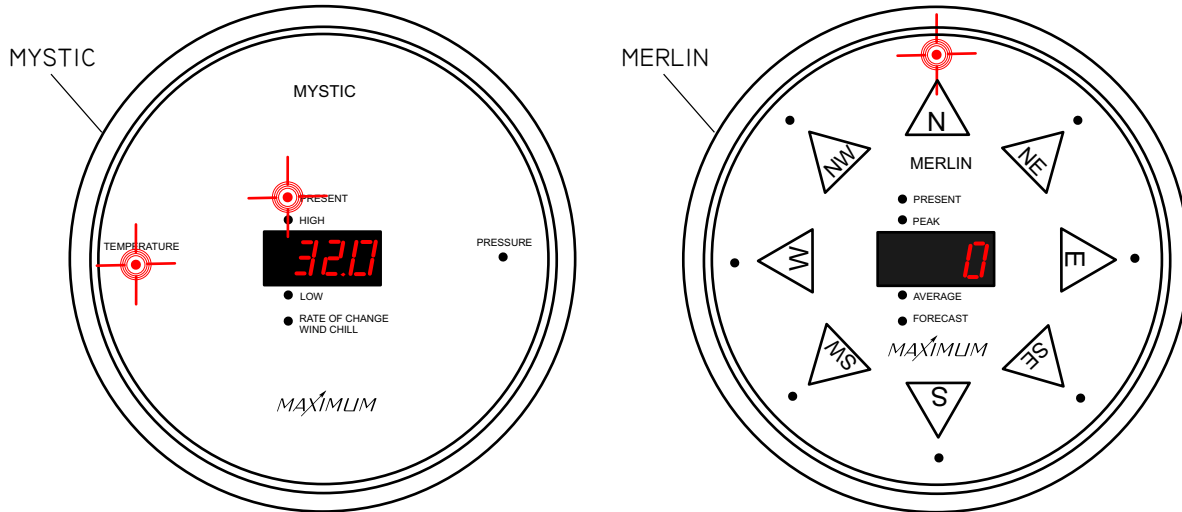
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WIRELESS

TROUBLE-SHOOTING

NO SIGNAL FROM ANY TRANSMITTER

(Instrument recognizes the receiver, but the receiver does not recognize the sensor(s))



SYMPTOM:

- Mystic reads 32° F and the Temperature and Present LED's are illuminated.
- Merlin reads 0 mph and the North direction LED is illuminated.

REMEDY:

- Test the batteries in each external SENSOR/TRANSMITTER and replace if necessary.
- Put the TRANSMITTER(S) into TEST MODE by pressing TEST BUTTON in the battery compartment of TRANSMITTER.
- Remove the RECEIVER from the wall and confirm receipt of TRANSMISSION(S) based on the color of the flashing light.

RECEIVER INDICATOR	TRANSMITTER
RED.....	WIND
GREEN.....	TEMPERATURE
ORANGE.....	RAIN

-If the instrument continues to display the error code, call Maximum for further assistance.

Note: Depending on the origin of the problem, error codes may not display on all instruments.

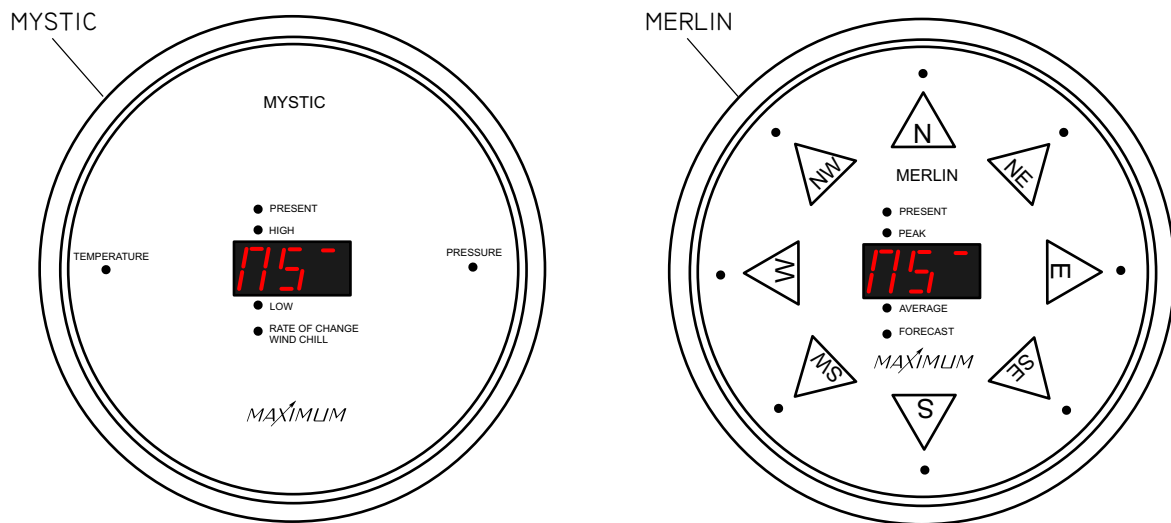
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WIRELESS

TROUBLE-SHOOTING

NO SIGNAL FROM WIND 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:

- Re-charge and/or replace the **AA NiCad** batteries in the WIND TRANSMITTER.
- Put TRANSMITTER into TEST MODE by pressing the TEST BUTTON in the battery compartment of TRANSMITTER. This should cause the LED on the receiver to flash **RED** every 2 seconds.
- If the instrument continues to display the error code, call Maximum for further assistance.

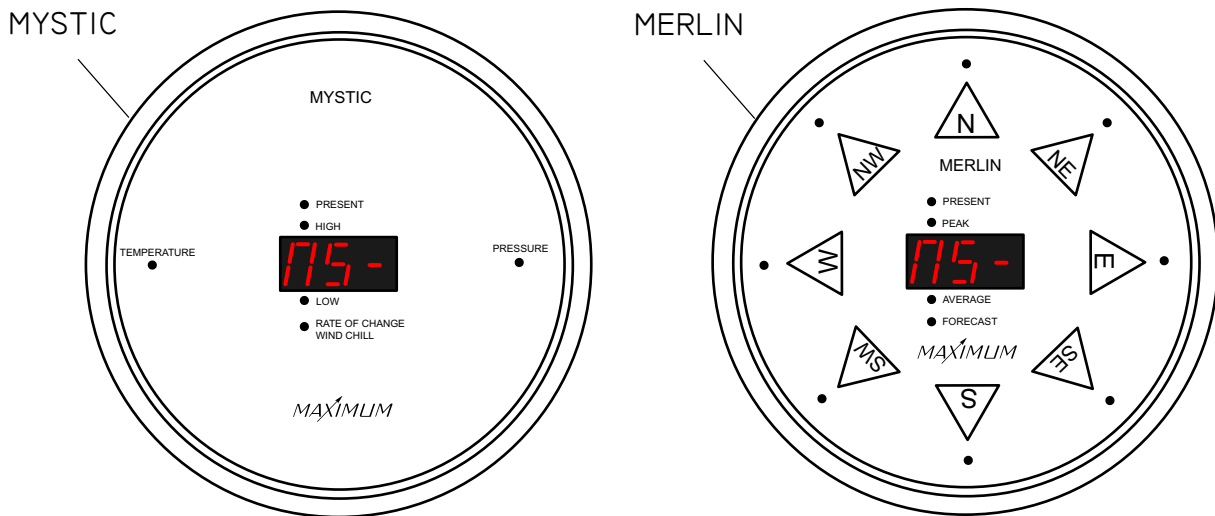
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WIRELESS

TROUBLE-SHOOTING

NO SIGNAL FROM TEMPERATURE 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 TEMPERATURE TRANSMITTER.
- Put TRANSMITTER into TEST MODE by pressing the TEST BUTTON in the battery compartment of the TRANSMITTER. This should cause the LED on the receiver to flash **GREEN** every 4 seconds.
- If the instrument continues to display the error code, call Maximum for further assistance.

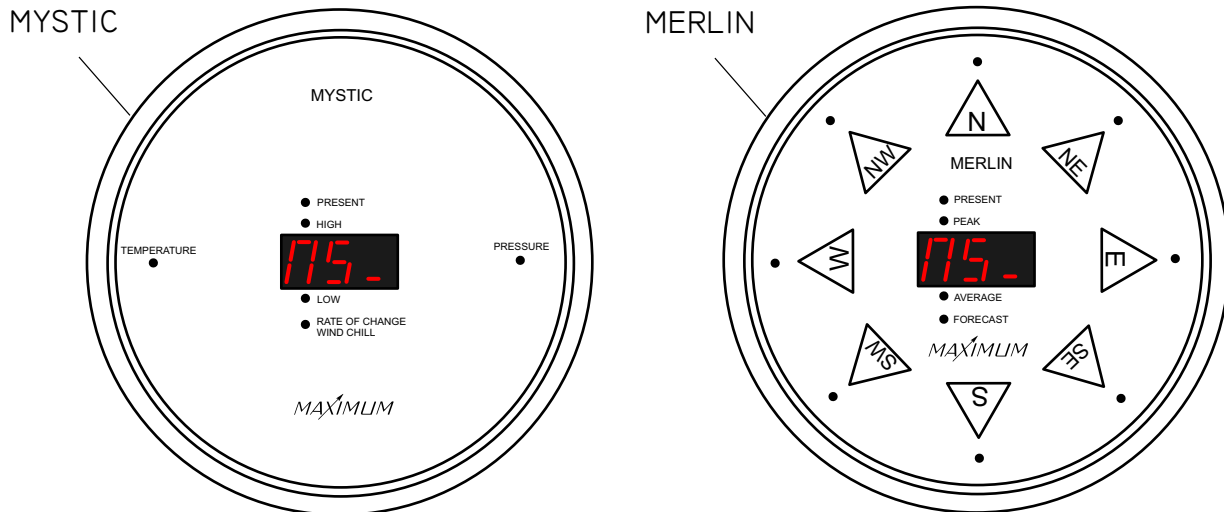
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WIRELESS

TROUBLE-SHOOTING

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

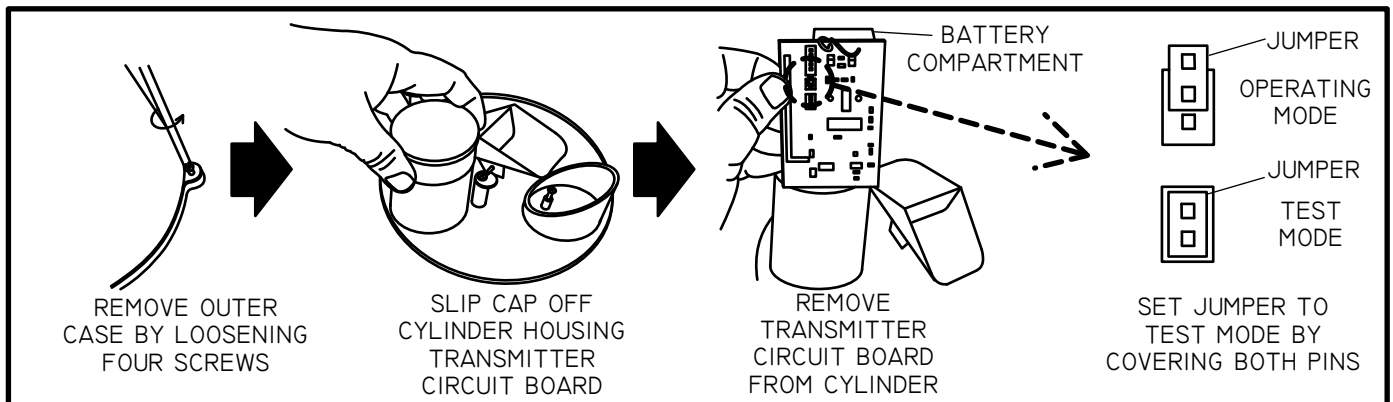


SYMPTOM:

- 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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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.