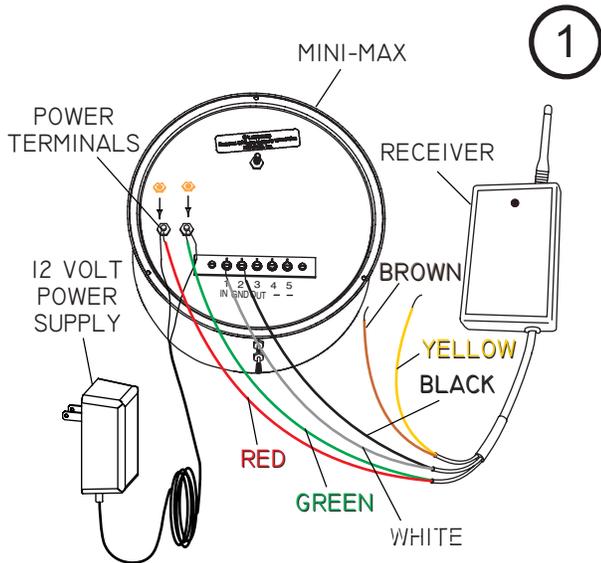


# MINI-MAX

## WIRELESS

## INSTALLATION

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



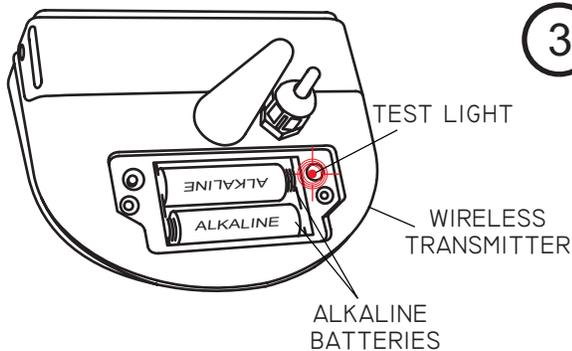
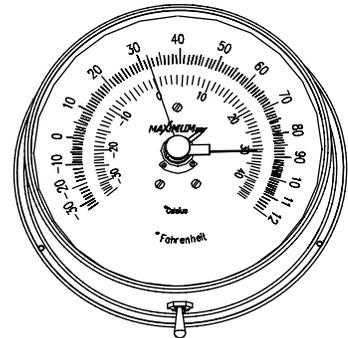
- 1 Wire the receiver to the MINI-MAX display unit. Connect the **RED** and **GREEN** wires from the RECEIVER to the power terminals on the back of the MINI-MAX (the polarity does not matter). Connect the wires from the 12 volt power supply to the same power terminals (again the polarity does not matter). 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 MINI-MAX meter.

### RECEIVER WIRING

WHITE	to	TERMINAL #1
BLACK	to	TERMINAL #2
RED	to	Power (no polarity)
GREEN	to	Power (no polarity)
YELLOW	to	Rainwatch (optional)
BROWN	to	Rainwatch (optional)

The MINI-MAX should now show a default temperature reading of approximately 32°. Refer to the troubleshooting section if the reading is not approximately 32°.

2



3

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.

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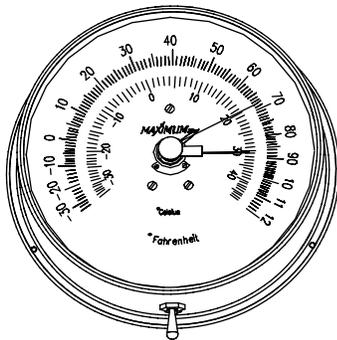
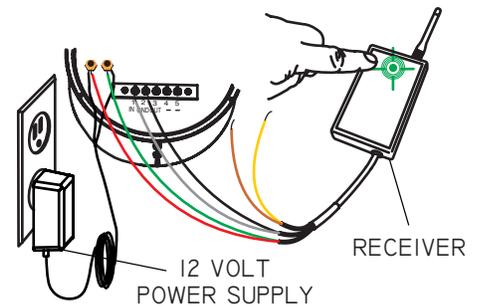
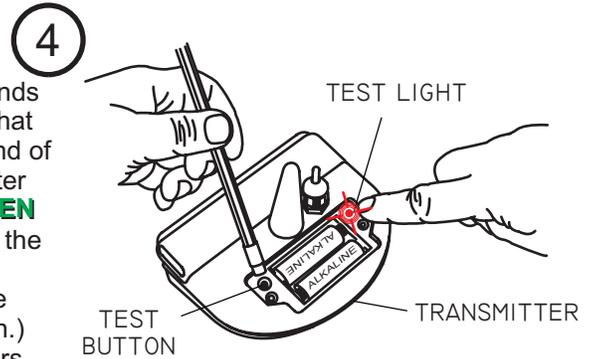
# MINI-MAX

## WIRELESS INSTALLATION

Test the transmitter by depressing the test button. After a few seconds the test light should blink **RED** 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 transmitter was pushed, it will need to be pushed again.) The light on the receiver will blink other colors when different sensors are installed.

RECEIVER INDICATOR	TRANSMITTER
RED	WIND
GREEN	TEMPERATURE
ORANGE	RAIN

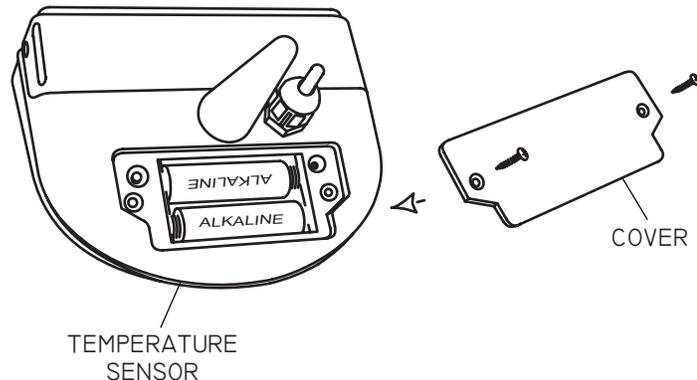


5

Once the transmitter has been activated, the default temperature reading of approximately 32° should be replaced by a present temperature reading. Refer to the troubleshooting section if a present temperature reading does not appear.

6

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

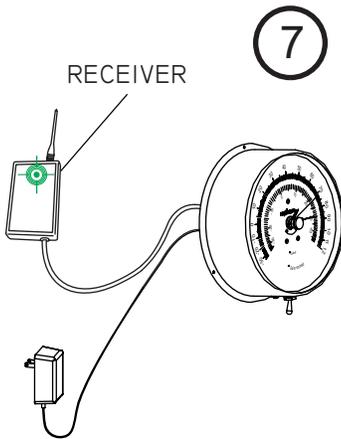


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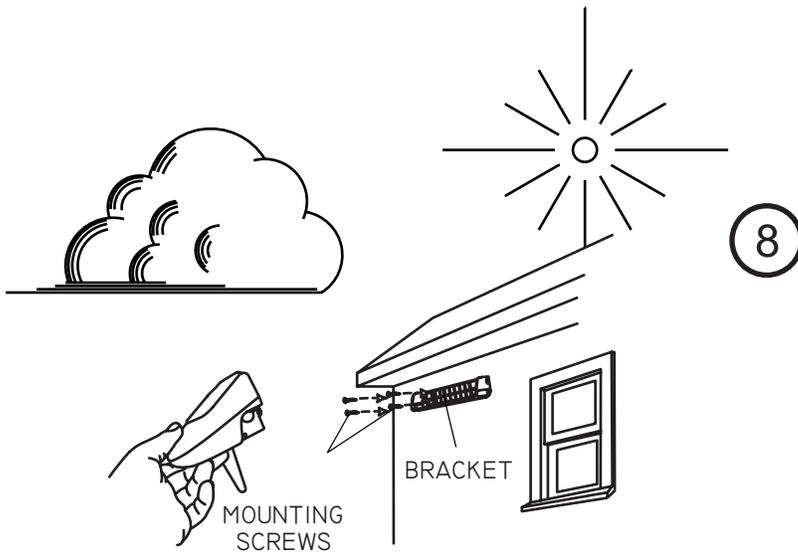
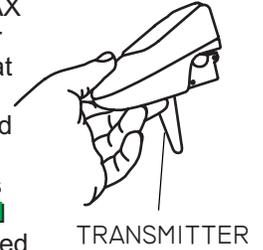
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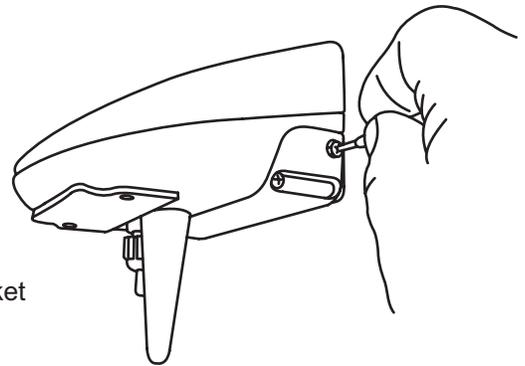
## WIRELESS INSTALLATION



Move the active temperature transmitter as close as possible to your preferred final mounting location. Also move the MINI-MAX 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.



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.

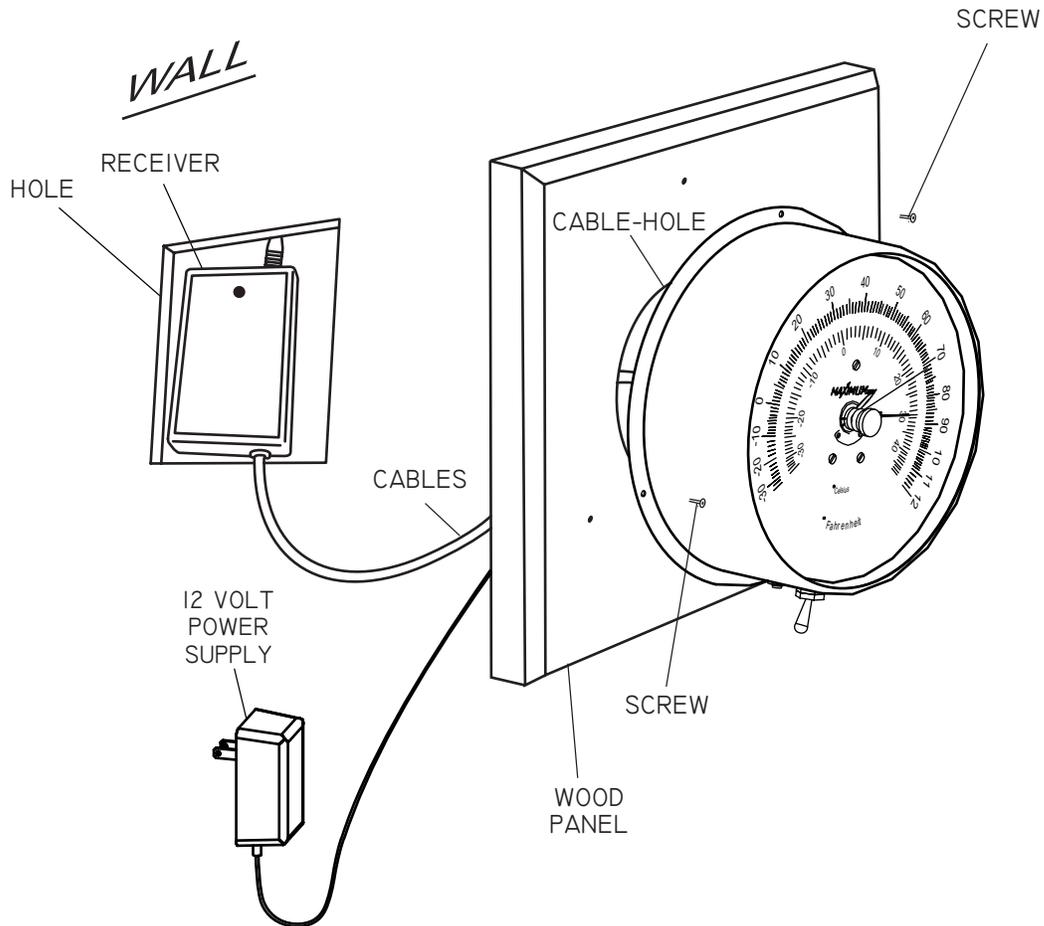


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# MINI-MAX

WIRELESS  
INSTALLATION



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Mount the MINI-MAX 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.

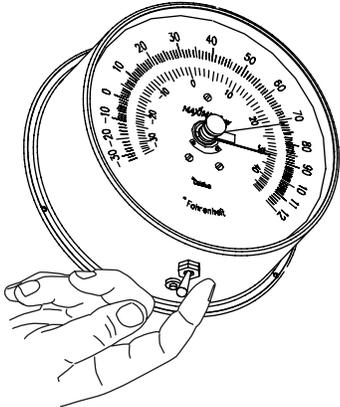
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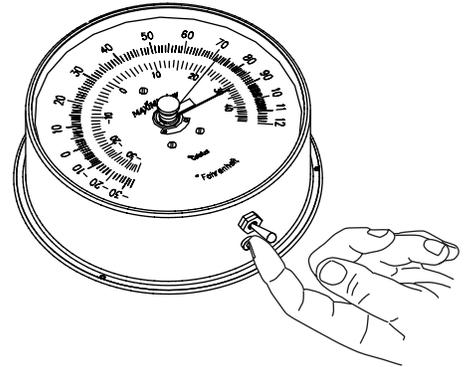
# MINI-MAX

## WIRELESS OPERATION

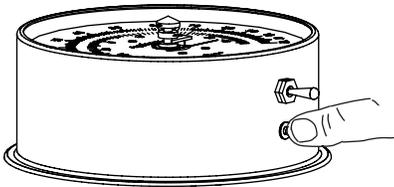
Your Mini-Max has two switches. The toggle switch is for selecting the function. The small push button switch behind the toggle is for resetting the memories.



- 1 Lightly holding the toggle switch to the left will display the recorded low temperature since the last reset.



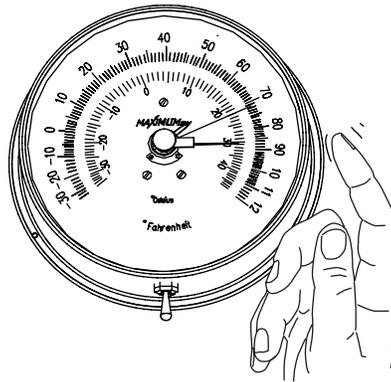
- 2 Lightly holding the toggle switch to the right will display the recorded high temperature since the last reset.



- 3 Fully depressing the small push button switch for five seconds resets both memories. The instrument will now display current temperature and the memories will once again begin storing the new high and low temperatures.

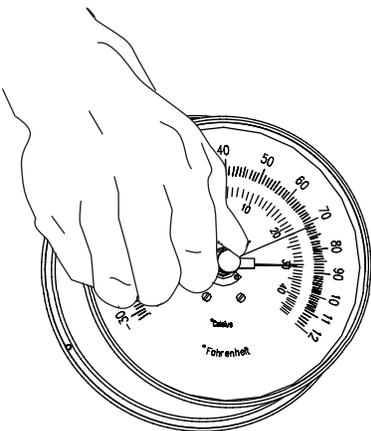
(After resetting wait 10 seconds before activating the toggle switch.)

**NOTE:** Before reading your thermometer, you should lightly tap the case with your finger. A tap change of 1-2 degrees is a common occurrence with any slow moving precision meter movement.



4

The trend register needle can be set by turning the center knob on the indicator dial.



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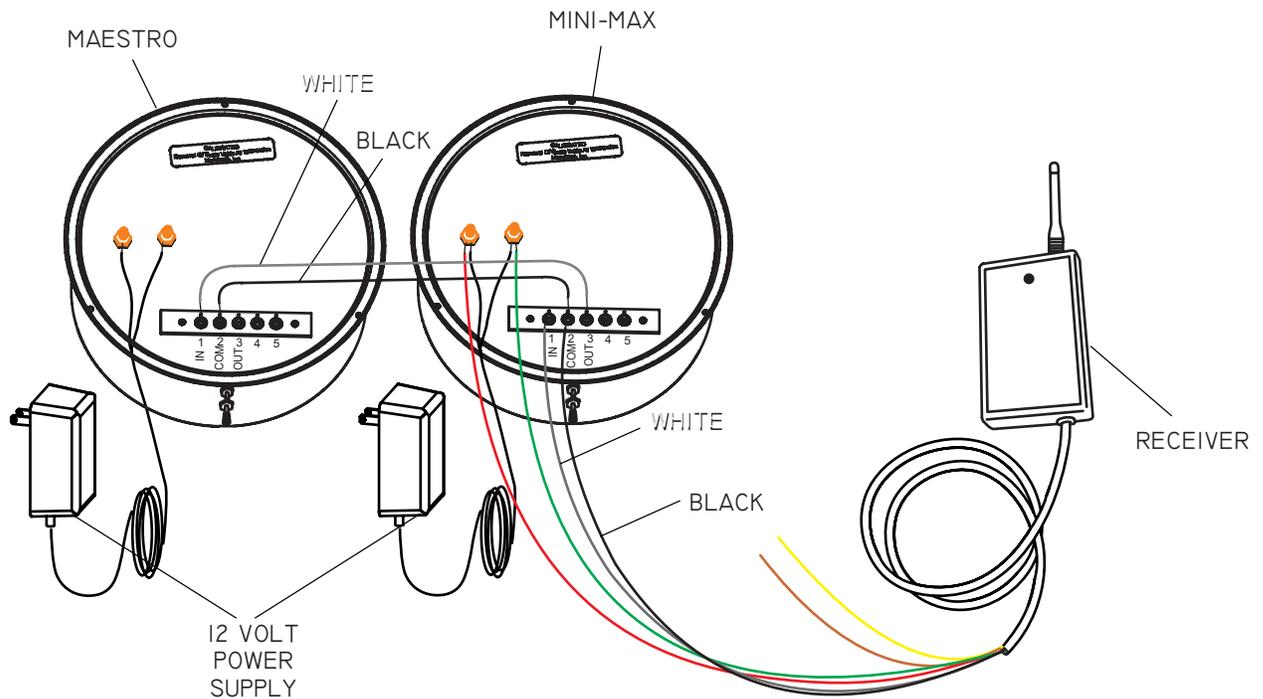
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# MINI-MAX

WIRELESS

## OPTIONAL INSTALLATION

### MINI-MAX WITH MAESTRO



#### 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 two 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 wires from the 12 VOLT POWER SUPPLY to the MAESTRO power terminals (no polarity).

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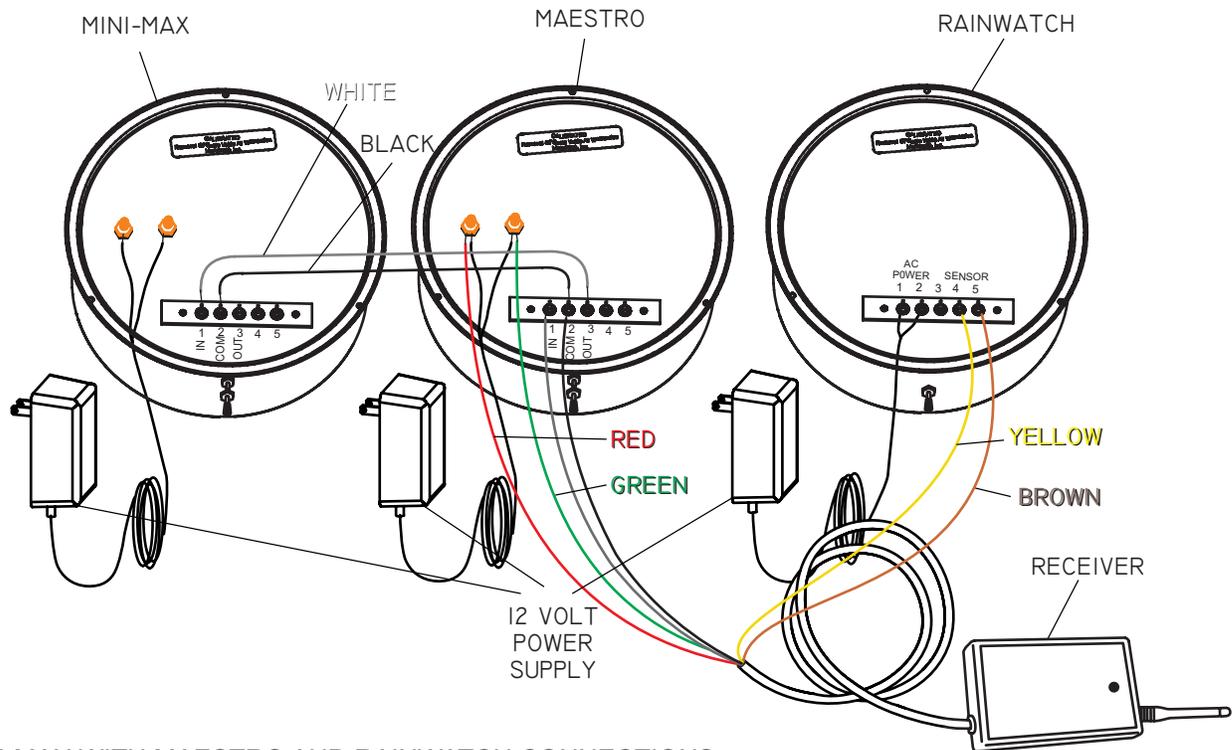
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# MAESTRO

WIRELESS

## OPTIONAL INSTALLATION

### MAESTRO WITH MINI-MAX AND RAINWATCH



#### MINI-MAX WITH MAESTRO AND RAINWATCH 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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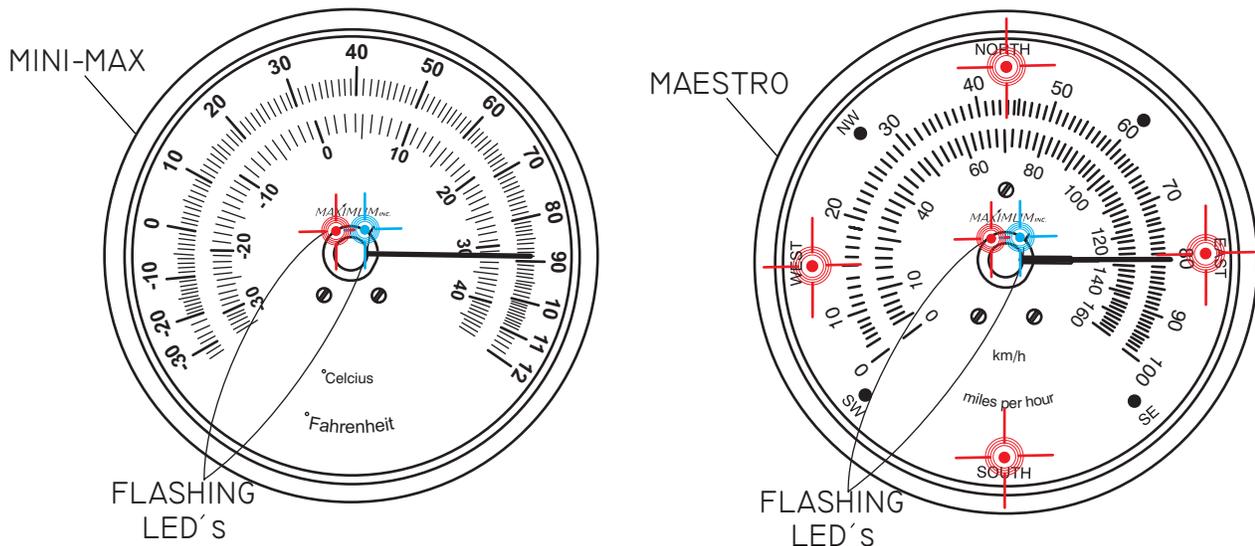
# WIRELESS

## TROUBLE-SHOOTING

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

### NO SERIAL DATA

(Instrument has never recognized a receiver)



#### SYMPTOM:

- The pointer is in the 3 o'clock position
- The central LED's are flashing
- The (Maestro) primary 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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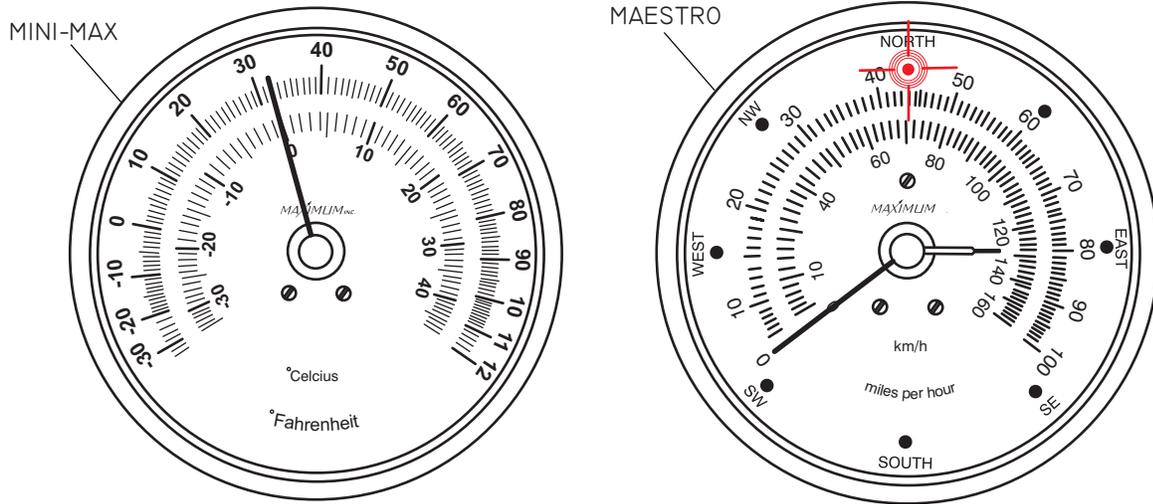
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# WIRELESS

## TROUBLE-SHOOTING

### NO SIGNAL FROM ANY TRANSMITTER

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



#### SYMPTOM:

- Mini-Max needle points to 32°F (or 0°C)
- Maestro needle points to 0 MPH, the North 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.

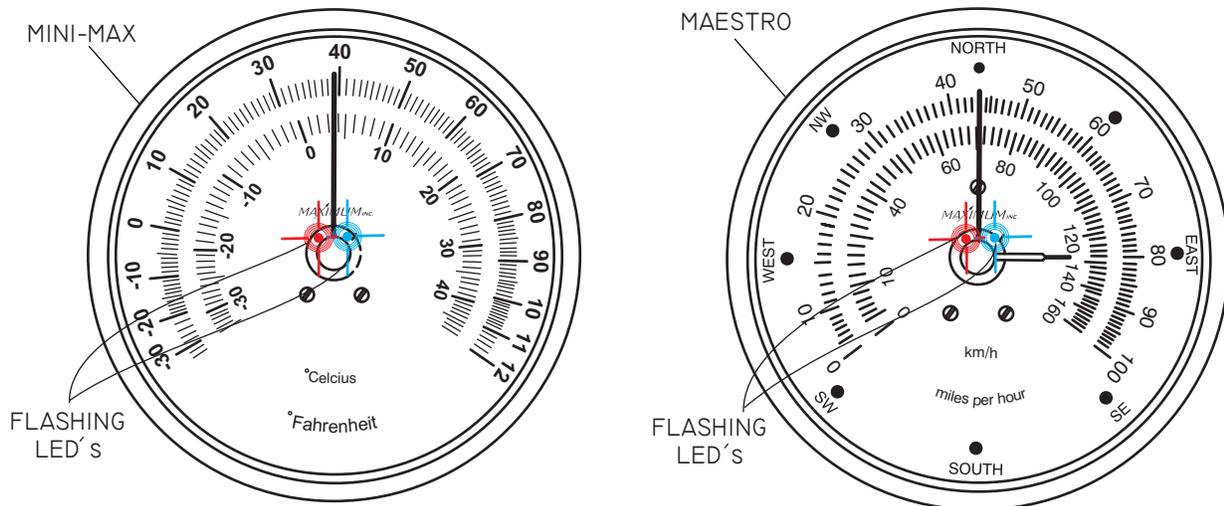
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# WIRELESS

## TROUBLE-SHOOTING

### NO SIGNAL FROM WIND TRANSMITTER (Instrument has received, then lost sensor(s) signal)



#### SYMPTOM:

- The pointer is in the 12 o'clock position.
- Central LED's flashing.

#### REMEDY:

- Re-charge and/or replace the **AA NiCad** batteries in the WIND TRANSMITTER.
- Put TRANSMITTER(S) 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.

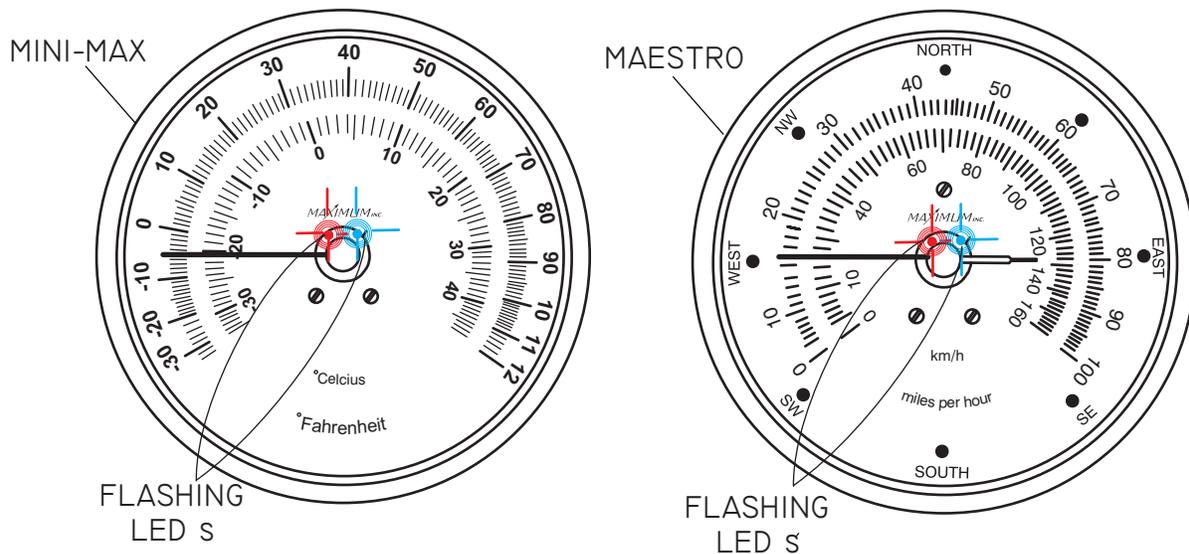
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# WIRELESS

## TROUBLE-SHOOTING

### NO SIGNAL FROM TEMPERATURE TRANSMITTER (Instrument has received, then lost sensor(s) signal)



#### SYMPTOM:

- The pointer is in the 9 o'clock position.
- Central LED's flashing.

#### REMEDY:

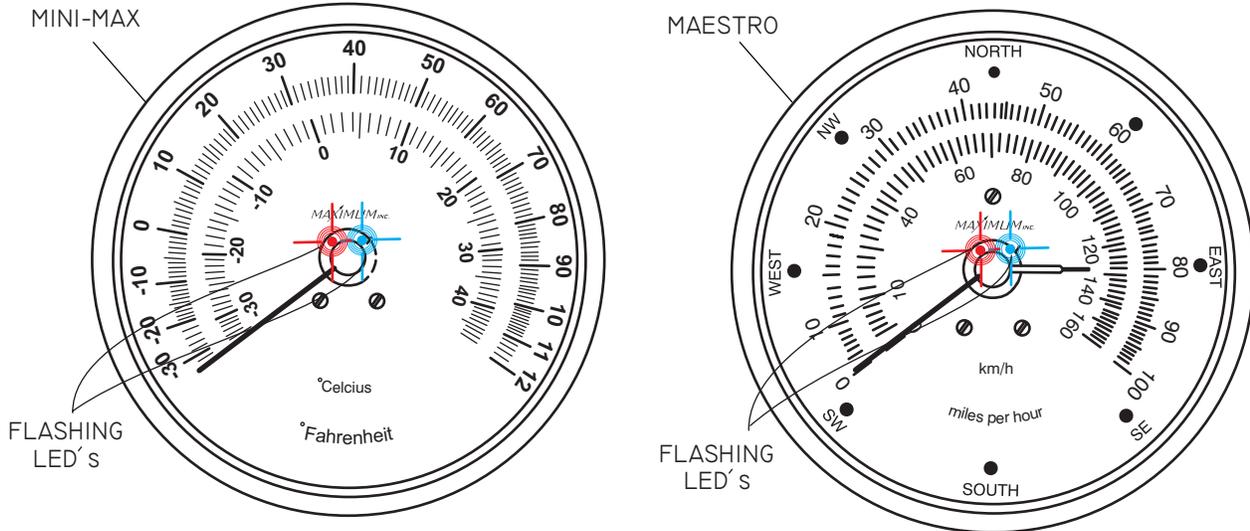
- Check and replace (if necessary) the AA Alkaline batteries in the TEMPERATURE TRANSMITTER.
- Put TRANSMITTER(S) into TEST MODE by pressing the TEST BUTTON in the battery compartment of the TRANSMITTER. This should cause the LED on the receiver to flash **GREEN** every 4 seconds.
- If the instrument 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(s) signal)

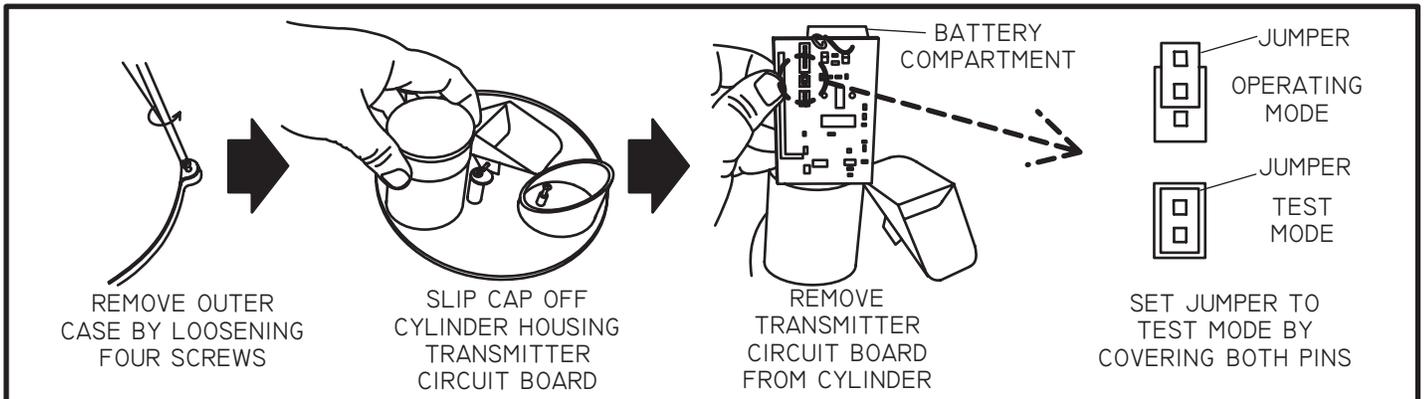


### SYMPTOM:

- Mini-Max needle points to -35°.
- Maestro needle points to 0 MPH.
- 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.