



Wireless Pool Thermometer

E9310

Operating Manual

Please read these instructions carefully from start to finish before initial start-up to avoid functional breakdown and faulty operation. The manual contains important information about the installation and operation. Keep the manual available for future reference. If you sell or give away this unit, please include this manual.

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1. General information and function

This wireless battery-operated pool thermometer is a high quality instrument which will measure the water temperature in swimming pools, garden ponds, spas, etc. It is water-proof and will float on the water's surface. The thermometer includes a temperature display. Water temperature can be displayed in degrees Fahrenheit (°F) or Centigrade (°C).

The thermometer includes a transmitter which will broadcast the temperature data to a wireless receiver. The E9310 is compatible with the following receivers from P3 International:

E9250 Weather Station

E9300 Weather Station

E9311 Display Panel

The Weather Stations will display temperature data from the E9310 as they do with other remote temperature sensors in the series. To use the E9310 Pool Thermometer with the above products, it must be configured with an address. Please refer to this manual as well as the manual included with your weather station to complete this step.

2. Intended usage

This product is intended for household consumer use. It is not suitable for medical purposes or commercial applications.

This product is designed to display water temperature in pools, ponds, spas, etc. It is only designed for use with water, not any other liquid.

This product is battery-operated. It transmits data via radio frequency to a compatible receiver. It uses a frequency of 433 MHz and has a maximum open-field range of 300 ft.

Any use other than described in this manual may damage the product or cause other dangers.

This product has been tested for emissions and meets the requirements of national guidelines.

3. Safety Instructions

We shall not assume any liability for damage to items or persons caused by improper handling or non-observance of the safety instructions! In such cases, any guarantee claims shall become null and void.

- Do not use this product in hospitals or medical institutions. Although the outdoor sensor only emits relatively weak radio signals, these may cause interference to life-support systems. The same can also apply in other areas.
- Do not use the unit, if there is damage to the housing.
- Do not subject the device to temperatures below 32°F (0°C) or above 158°F (70°C).
- Caution: Freezing can cause damage! Take the unit out of the water, if the temperature goes to 32°F (0°C).
- For safety and licensing reasons (FCC), it is not permitted to convert or modify the product.
- Do not leave the packaging material laying around. Plastic foil and bags, polystyrene parts etc. are dangerous in the hands of children.
- This product is not a toy. It contains glass and small parts. Children can be injured by swallowing them. Use the unit out of the reach of children.
- This product is not a toy for pets. It contains glass and small parts.. Pets can be harmed if they or play with the unit.

4. Battery and environment instructions

- Batteries do not belong in the hands of children.
- Observe the right polarity when inserting the batteries.
- Do not leave batteries laying around. Pets or small children may swallow them. If they are swallowed, contact a doctor immediately.
- Leaking or damaged batteries may lead to injury to the skin. For this reason, use suitable protective gloves when changing them.
- Make sure that batteries or rechargeable batteries are not thrown into the fire or short-circuited. There is a likelihood of explosion!
- Never dismantle batteries!
- Do not recharge normal batteries. There is a risk of explosion!
- If the product is not used for longer periods of time (e.g. in case of storage), please remove the inserted batteries in order to prevent damage caused by leaking batteries.

5. Preparing for operation

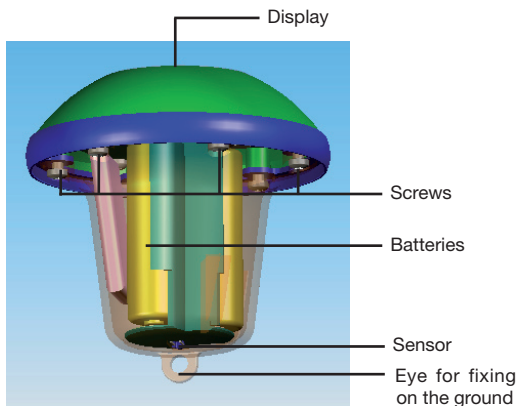
5.1. Open the housing

- Rotate the unit and unscrew the 6 screws (see below)
- Lift up the upper part carefully.

5.2. Inserting the batteries

- The unit is operated with 3 x 1,5 V AA batteries. Use alkaline batteries for longer life and better protection against leaking.
- Insert the three batteries into the battery holder with right polarity as shown in the battery holder.
- If you want to make settings (addresses or measuring unit), go to the next chapter.
- Finally, close the housing. Be sure the temperature sensor is placed in the correct position in the housing and most importantly that the neoprene seal ring is aligned properly before you close the housing and tighten the screws. Tighten the screws carefully in a diagonal sequence.

5.3. Setting address and measuring units



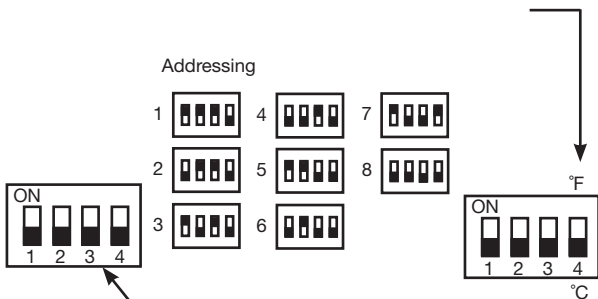
When you open the unit, you will see the DIP switch located on the circuit board (see diagram below).

The DIP switches numbered 1-3 are used for addressing. The DIP switch numbered 4 is used for choosing measuring units ($^{\circ}\text{F}$ or $^{\circ}\text{C}$). The default values set at the factory are address 8 and degrees Fahrenheit ($^{\circ}\text{F}$).

If you plan on using this unit in conjunction with a compatible receiver, choose an unused address in your set. Check the addressing diagram below.

Choose the measuring units as per the diagram below.

Close the housing carefully as described in chapter 5.2



6. Operation

Gently set the tightly closed unit on the water's surface. Wait until the temperature display shows a stable value. The temperature of the inner housing will take some time to match the water temperature.

Caution!

Do not throw the unit into the water. Do not use the unit as a toy or sporting equipment.

Mind your pets. Do not allow them to use the unit as a toy.

Do not submerge the unit. It is designed to float and work on the water's surface.

Do not use the unit in water that is too hot ($>158^{\circ}\text{F}/70^{\circ}$) or icy water.

Remove the unit from the water when not in use.

7. Range

The free field range, i.e. the range of the line of sight contact between the transmitter and the receiver is 300 ft. under optimum conditions. Walls and even reinforced concrete can be penetrated, which does, however, reduce the range. A reduced range can occur due to the following reasons:

- High-frequency interference of all kinds
- Built structures and vegetation of all types
- The distance of the transmitter or receiver from conductive surfaces or objects (even to the human body or the ground) has an effect on the transmission characteristics and therefore the range.
- Wide band interference in built up areas can reach levels that reduce the signal-noise ratio throughout the frequency band which results in a reduced range.
- Devices with adjacent working frequencies can also influence the receiver.
- Badly shielded PCs can irradiate the receiver and limit its range.

8. Maintenance

8.1. Changing the batteries

- If the flat battery symbol appears in the display (Lo Bat) all batteries must be changed for ones of the same type as described in Section 5.2 (p. 6).



Lo-Bat

Always change all 3 batteries and use only high-quality alkaline cells.

8.2. Cleaning

- Clean the unit using only a soft cloth. Do not use cleaners containing solvents. Make sure that no moisture enters the interior of the unit.
- Do not exert any pressure on the display.

9. Disposal

9.1. General

- Dispose of the unusable product according to valid legal regulations

9.2. Dispose of exhausted batteries properly.

10. Technical Data

Measurement range:	.....32°F to 158°F (0°C to 70°C)
Resolution:	..... 0,1°F/°C
Accuracy:	.....±1,8°F/±1°C
Display updating:	..... every 5 sec.
Data transmission interval:	.....about 3 min.
Transmission frequency:	..... 433,92 MHz
Free field range:	.....max. 300 ft.
Voltage supply:	..... 3 x 1.5 V/AA battery
Battery service life:	.....2-3 years
Dim. (H x ø):	......88 x 84 mm

11. FCC Information

FCC ID: RNT-PT3

Changes or modifications not expressly approved in writing by P3 International Corporation may 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 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.

The internal antenna used for this mobile transmitter must provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

P3 INTERNATIONAL CORPORATION LIMITED WARRANTY

P3 INTERNATIONAL CORPORATION („P3“) warrants to the original retail purchaser only, that its product is free from defects in material or workmanship under the condition of normal use and service for a period of six (6) months from the date of purchase. In the event that a defect, malfunction or failure occurs or is discovered during the warranty period, P3 will repair or replace at its option the product or component part(s) which shall appear in the reasonable judgment of P3 to be defective or not to factory specifications. A product requiring service is to be returned to P3 along with the sales receipt or other proof of purchase acceptable to P3 and a statement describing the defect or malfunction. All transportation costs shall be borne by the owner and the risk of loss shall be upon the party initiating the transportation. All items repaired or replaced thereunder shall be subjected to the same limited warranty for a period of six (6) months from the day P3 ships the repaired or replaced product. The warranty does not apply to any product that has been subject to misuse, tampering, neglect, or accident or as a result of unauthorized alterations or repairs to the product. This warranty is void if the serial number (if any) has been removed, altered, or defaced. This warranty is in lieu of all warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose which are expressly excluded or disclaimed. P3 shall not be responsible for consequential, incidental or other damages, and P3 expressly excludes and disclaims liability for any damages resulting from the use, operation, improper application, malfunction or defeat of any P3 product covered by this limited warranty. P3's obligation is strictly and exclusively limited to the replacement or repair of any defective product or component part(s). Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. P3 does not assume or authorize anyone to assume for it any other obligation whatsoever. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you. It is the owner/user's responsibility to comply with local, state, or federal regulations, if any, that may pertain to P3 products or their use. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you experience difficulty in the operation of your unit, or if your unit requires repair please contact:

P3 INTERNATIONAL CORPORATION

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