# WN30BN Probed Thermometer

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## 1. Introduction

Thank you for your purchase of the WN30BN probed thermometer. The following user guide provides step by step instructions for installation, operation and troubleshooting.

The sensor is not a stand-alone device, and requires a WS-290B (or greater revision), WS-2000 or WS-5000 weather station to view and upload the data to our cloud hosting service.

### 2. Features

- 10' water-proof probed thermometer
- Long wireless range up to 330 feet (100 meters) in open areas
- Transmits readings approximately once per minute.
- Suspension eye for easy mounting



Figure 1

# 3. Getting Started

The WN30BN probed thermometer includes the following:

#### **3.1Parts List**

QTY	Item		
1	Probed Thermometer (LxHxW): 4.75 x 1.5 x 0.6 in (12 3x 42 x 14 mm)		
1	User Manual		

#### **3.2 Recommend Tools**

• Drill for mounting screw

# 4. Setup Guide

#### 4.1 Batteries and Dip Switches

The WN30BN probed thermometer requires  $2 \times AA$  batteries (not included). We recommend Energizer Lithium batteries for longer life and a wider operating temperature range.

1. Remove the battery door on the back of the transmitter(s) by sliding down the battery door, as shown in Figure 2 .



- 2. **BEFORE** inserting the batteries, locate the dip switches on the inside cover of the lid of the transmitter.
- 3. Channel Number: The WS-2000 and WS-5000 supports up to eight transmitters. To set each

channel number (the default is Channel 1), change Dip Switches 1, 2 and 3, as referenced in Figure 3.

4. **Temperature Units of Measure:** To change the transmitter display units of measure ( F vs. C), change Dip Switch 4, as referenced in Figure 3.

Switch in down position.  $\Box$  Switch in up position.



Figure 3

- 5. Insert two AA batteries.
- 6. Verify the correct channel number (CH) and temperature units of measure ( F vs. C) are on the display, as shown in Figure 4.



- (1) temperature units ( $\mathbb{F}$  vs.  $\mathbb{C}$ )
- (2) temperature
- (3) channel number
- 7. Close the battery door.
- 8. Repeat for the additional remote transmitters, verifying each remote is on a different channel.

#### 5. Sensor Placement

To mount or hang the sensor:

- Use a screw or nail to affix the remote sensor to the wall, as shown in Figure 5 (a) or
- Hang the sensor using a string or zip tie, as shown in Figure 5 (b).



Figure 5

**Note:** Make sure the sensor is mounted vertically and not lying down on a flat surface. This will insure optimum reception. Wireless signals are impacted by distance, interference (other weather stations, wireless phones, wireless routers, TVs and computer monitors), and transmission barriers, such as walls. In general, wireless signals will not penetrate solid metal and earth (down a hill, for example).

The following is a table of reception loss vs. the transmission medium. Each "wall" or obstruction decreases the transmission range by the factor shown below.

Medium	<b>RF Signal Strength Reduction</b>
Glass (untreated)	5-15%
Plastics	10-15%
Wood	10-40%
Brick	10-40%
Concrete	40-80%
Metal	90-100%

# 6. Console

The temperature will be displayed in the indoor / 8-channel section of the display, as shown in Figure 6.



# 7. Specifications

#### 7.1 Wireless Specifications

- Line of sight wireless sensor array RF transmission (in open air): 330 feet, 100 feet under most conditions
- Update Rate: about one minute
- RF Frequency: 915 MHz

#### 7.2 Measurement Specifications

The following table provides the specifications for the measured parameters.

Measurement	Range	Accuracy	Resolution
Probe Temperature	-40 to 140 °F	±2 F	0.1 F

#### 7.3 Power Consumption

• 2 x AA batteries (not included).

# 8. Liability Disclaimer

Please help in the preservation of the environment and return used batteries to an authorized depot. The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment. Reading the "User manual" is highly recommended. The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.

This product is designed for use in the home only as indication of weather conditions. This product is not to be used for medical purposes or for public safety information.

The specifications of this product may change without prior notice.

This product is not a toy. Keep out of the reach of children.

No part of this manual may be reproduced without written authorization of the manufacturer.

### 9. FCC Statement

#### Statement according to FCC part 15.19:

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.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

#### Statement according to FCC part 15.21:

Modifications not expressly approved by this company could void the user's authority to operate the equipment.

#### Statement according to FCC part 15.105:

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.

