FCC ID: M5ZPRO1

Installation and Operation Instructions for the Wireless Temperature Probe, Model WOW-PRO.

Point Six, Inc.

Wireless Temperature Sensor Probe
Model WOW-PRO1

Installation and Operation Instructions

The WOW-PRO1 wireless temperature sensor transmits both a digital temperature and a unique serial number to a 418 MHz receiver. The WOW is enclosed in a 304 stainless steel tube enclosure for direct food penetration in the environment to be measured. WOW-PRO1 is battery operated.

Application: Apply the sensor to the food object by penetrating the food to be monitored with the pointed end of the tube. Make sure that the penetration is at least 1 inch past the tapered point.

Service Function: The wireless temperature sensor probe has an installation mode switch. A momentary magnetic reed switch will start the convert/transmit cycles. When new and until this is feature is activated the WOWPRO1 will not transmit. The WOWPRO1 will transmit a special installation status mark in the data packet immediately after the installation/start switch is activated. After the start further activations of the installation switch will result in the immediate transmission of temperature, ID and installation status mark.

Battery: A 3.0-3.6 Volt lithium battery powers the WOWPRO1 wireless temperature sensor probe. The battery will last for more than 10 years in the idle state (as shipped from the manufacturer). The WOWPRO1 will transmit data for as long as 10 years at a rate of once each minute once started. The WOW is completely enclosed in 304 stainless steel tupe. The user cannot replace the battery. The WOWPRO1 may be placed in a quiescent state (battery life greater than 10 years and no transmissions) by holding a magnet at the base of the antenna between the 304 stainless steel tube and the SMA connector for more than 5 seconds.

The Point Six, Inc. 418 MHz wireless temperature transmitters require a compatible receiver with the ability to receive, error check and provide RS232 and RS422/485 interface. This document describes the data format provided by the **HA8-WOW, HA9-WOW or HA10-WOW** 418 MHz. Receivers.

The transmit packet from a receiver is approximately 15 milliseconds in duration and consists of 13 bytes of data:

1-byte ID/Mode field
8-byte serial number
2-byte temperature data
2-byte CRC-16 error check

The WOW receivers process this packet. The receivers perform a CRC-16 error check on the packet. If the data is not accurate it is discarded. When a packet is received that is error free it is converted to a 29-character packet and transmitted out the serial port at 19,200 Baud. The data is transmitted serially in ASCII Hex format and terminated with a CR character. This format requires two bytes for each byte of data; 14 data bytes x 2=28 plus the CR is 29 characters

The resulting binary data format of the packet is:

1-byte ID field	this field will contain a byte whose LSBit indicates the service state of the transmitter, 0=normal, 1=service mode.
8-byte serial#	this field contains the serial number of the 1-Wire sensor.
2-byte temperature	this field contains the temperature data stored MSB first in two's compliment 16-bit form of 1/16 deg. C units.
2-byte CRC-16	this is the originally received data packet CRC as described above.
1-byte checksum	the checksum is a mod 256 sum of all the ASCII character values in the response but does not include the CR

Example:

D4287F44040000005A01602ED477<CR>

This field is the mode indicator, the LS-bit which indicates the service state of the transmitter, 0=normal, 1=service mode.

D4**287F44040000005A**01602ED477<CR>

This field is the unique serial number of the 1-Wire temperature sensor.

D4287F44040000005A**0160**2ED477<CR>

This is the temperature data field; two's compliment 16-bit data stored MSB first in 1/16 deg. C units. The value shown is +22 Deg. C.

D4287F44040000005A0160**2ED4**77<CR>

This field is the CRC-16 error check as was originally received and checked. This CRC is over the first 11 bytes of the packet starting with the mode flags and ending with inclusion of the temperature data.

D4287F44040000005A01602ED4**77**<CR>

This field is the mod 256 sum of all the ASCII character values in the response but does not include the <CR>.

D4287F44040000005A01602ED477**<CR>**

This is the CR terminator, 0Dhex.

FCC Radio Frequency Interference Statement

Wireless Temperature Sensor **FCC ID: M5ZPRO1**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, Subpart B, of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications.

The limits are designed to provide reasonable protection against such interference in a residential situation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- *Reorient or relocate the receiving antenna of the affected radio or television*
- *Increase the separation between the equipment and the affected receiver.*
- *Connect the equipment and the affected receiver to power outlets on separate circuits.*
- *Consult the dealer or an experienced radio/TV technician for help.*

MODIFICATIONS

Changes or modifications not expressly approved by ***Point Six Inc.*** could void the user's authority to operate the equipment.

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MADE IN USA

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 UNDESERED OPERATION