Radiance Instruments Co. Ltd.

Flat 2002, 20/F, CEO Tower, 77 Wing Hong Street Lai Chi Kok, Kowloon, Hong Kong, China.
Phone: +852 2466-8608 Fax: +852 2466-1231

PRODUCT SPECIFICATION

Product number: TMW023-4P Product name: **SMOKE X4**   Versions: V1.0

Features:
- 4 Channels BBQ/Oven monitor.
- LORA WAN connectivity
- IP66 waterproof.
- High/low alarm setting.
- Min/max temperature reading
- Loud alarm sound
- Clear LCD display with backlight
- External adapter and battery power
- Fan control

Specification:

Measuring range	-58 ~ 572 °F / -50 ~ 300°C
Temperature accuracy	±1.8°F(±1 °C) between -4°F to 248°F （-20 to 120°C）
	±3.6°F(±2 °C) between -58°F to -4°F / 248 to 392°F（-50 to -20 °C /120 to 200°C）
	±5.4°F (±3 °C) between 392~572°F(200 to 300°C)
Wireless distance	About 2000 meters in open areas
Display resolution	Current temperature 0.1°,min/max and alarm limit set 1°
Alarm sound volume	About 90dB (300mm distance)
Unit reading update	1 second
Receiver reading update	30 seconds
Water resistant rating	IP66
Power	2 pieces AA alkaline batteries, external adapter power input
Battery life	Transmitter about 125 hours, receiver about 1800 hours
Display size	Transmitter 59(W) X 78 (H) mm, receiver 35(W) X 59 (H) mm,
Probe	Curved probe: 3.5(∅) x 150(L) mm, tip 2.2(∅) x 10(L) mm, cable length 1200mm.
	Straight probe: 3.5(∅) x 51(L) mm, cable length 1200mm.
Product size	Transmitter 90 (W) x 119(H) X 28(D)mm , receiver 52 (W) x 113(H) X 28(D)mm
Working temperature	Main part 32 ~ 122 °F/0 ~ 50 °C, cable 700°F/371°C, probe handle 644°F/340°C
Attachment	3 pieces curved probes, 1 piece straight probe, 1 piece air clip.

Operation
1. Insert all the probes with the correct number. Connect the external power.
2. Press [ON-OFF] button to turn on the unit, the backlight will turn on 10 seconds.
3. Press [ON-OFF] button and hold for 3 seconds to turn off the unit.
4. Press [ON-OFF] button and hold for 10 seconds then release to reset the unit.

Select temperature unit
Press [°C/°F] button to select the temperature unit.

Low and high temperature alarm setting
1. Press [CH] button to select the channel for alarm setting. All the icons flashing that you selected.
2. Press [SET] button to enter alarm on-off setting. Press [▼] or [▲] button to set the alarm on or off.
3. Press [SET] button once again to enter high alarm limit setting mode, high alarm value will be flashing. Press [▼] or [▲] button to set the high alarm limit.
4. Press [SET] button once again to enter low alarm limit setting mode, low alarm value will be flashing. Press [▼] or [▲] button to set the low alarm limit.
5. Press [SET] button once again to finish the alarm setting.
6. If the temperature reading is out of the limited, the alarm will sound, the "LOW" or "HIGH" icon flash, press any key to stop the alarm sound, the low alarm or high alarm icon will be flashing continue.
7. Alarm sound: the channel 1 alarm sound is "di - - -", the channel 2 alarm sound is "di di - -", the channel 3 alarm sound is "di di di -", the channel 4 alarm sound is "di di di di ".
   * If the both alarms sound active, the last alarm sound will be instead the before one.
   * The default low alarm value is 32°F, the default high alarm value is 160°F,

Backlight control
1) Press [☼] button to switch backlight on or off. The backlight will be turn on 20 seconds, and then turn off automatically.

Volume adjustment
1. Press [VOL] button to adjust volume level.
2. When the volume class is ✕, it mean that the alarm sound is off.
3. When power up, the sound volume level is the third class.

Calibration
1) Press [CH] button to select the channel for calibrate.
2) Press [CAL] button to enter the calibration mode, "CAL" flash, press [▼] or [▲] button to set reading error.
3) Press [CAL] button again to exit the calibration mode.
● The errors adjust range is -4~4°F.

Wireless control
1. Press [«•»] button to turn on or off the wireless function. When power on, transmission function is on.

Receiver control
1. Press [☼] button to turn on the unit.
2. Press [☼] button to turn on the backlight 20 seconds.
3. Press [☼] button and hold for 3 seconds to turn off the unit.
4. Press [VOL] button to adjust volume level.
5. When the unit alarm, press any button to stop the alarm sound. This situation will send back to the transmitter and mute the alarm sound.

Code rematch
1. The transmitter has already been synchronized with the receiver at ex-factory setting. If rematch is needed, press and hold [«•»] button for 5 seconds. Rematch mode would start and "Sync" icon will appear in the display.
2. Press and hold [VOL] button for 5 seconds to start rematch.
3. The units would restore the code automatically and return to normal mode.

NOTE:
1. Clean the probe immediately with cleaning wipes after each measurement to avoid cross contamination.
2. Do not expose thermometer to temperatures over 50°C/ 122 °F or use in ovens, otherwise incorrect readings or damage to the thermometer may result.

ERROR SYMBOLS:

Symbol	Description	Action required
🔋	Full battery	
▭	Low battery	Replace the battery with the same type
■■■	Battery level indication	(75%/50%/25%)
EXT POWER	Power adapter connecting	
CAL	Calibrating	
✪ SET TEMP	Fan connecting	
LLL.L	The reading is out of low range(-58 °F -50°C)	Keep the measurement above low range
HHH.H	1.Sensor short circuit 2.The reading is out of high range (572 °F/300°C)	1.Return the thermometer for repair 2. Keep the measurement below high range
NO PROBE!	1.The sensor open circuit 2.The sensor probe is not connect	1.Return the thermometer for repair 2.Connect the sensor probe correctly

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Transmitter: FCC ID: 2AI67-S4T, IC: 22116- S4T. Receiver: FCC ID: 2AI67-S4R, IC: 22116- S4R.

Mark Wu
2019OCT15