INSTALLATION MANUAL

TIS WEATHER STATION

Model: TIS-WS-71

TIS CONTROL EVERYTHING

PRODUCT INFORMATION

This product is a smart sensor with the capability to measure the outdoor temperature, humidity, rainfall, wind detection, speed, brightness, and ultraviolet levels with the purpose of maximum energy efficiency and user comfort.

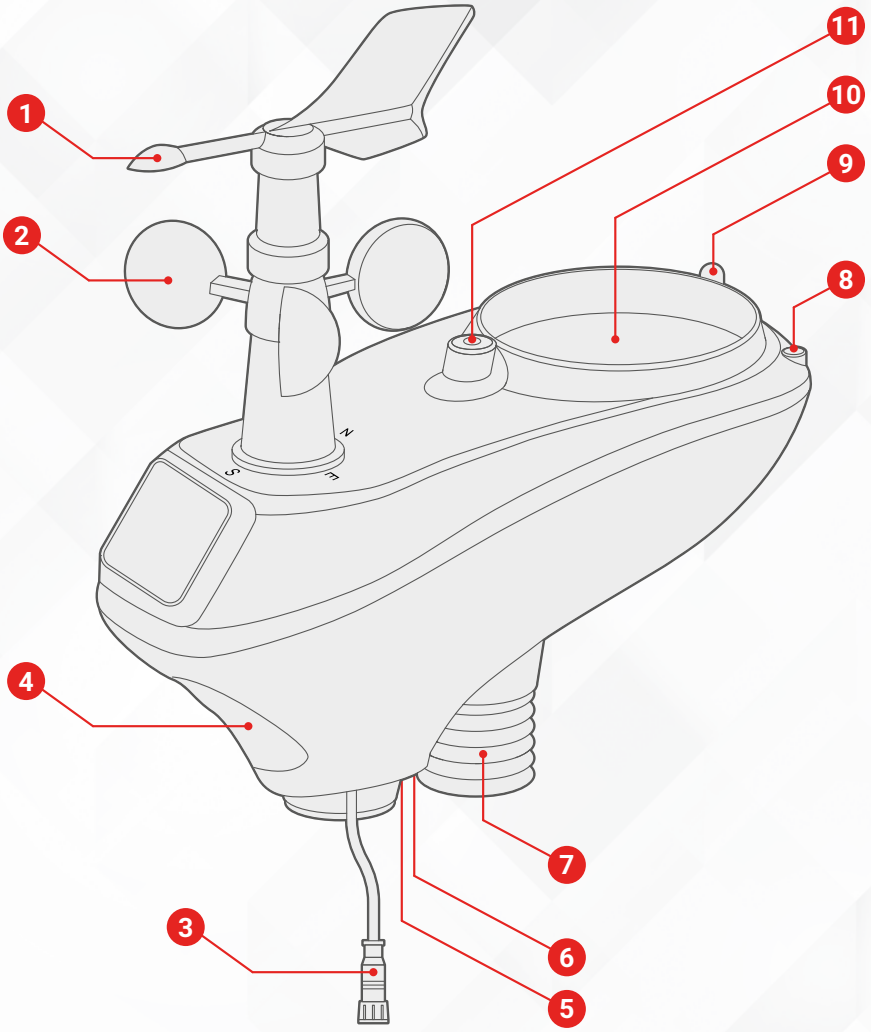
PRODUCT SPECIFICATIONS			
	Temperature Measuring	Range Accuracy	-30˚C - 60˚C +/- 1°C
	Humidity Measuring	Range Accuracy	10%~99% +/- 5%
	Rain Volume Display	Range Accuracy	0 – 9999mm +/- 10%
	Wind Speed	Range Accuracy	0-50m/s (0~100mph) +/- 1m/s (wind speed< 5m/s)
	Brightness	Range Accuracy	0-400000 Lux +/- 15%
TISBUS	**TIS Bus**	Number of devices on 1 line Bus voltage Current consumption	Max. 64 12-32 V DC <20 mA / 24 V DC
	Mounting	Outdoors	Special tool for roof installation
	Connection Terminal	Data / bus / 4 Pin plug	Resistive temp sensor
	Weight	Without packaging	800g
	Dimensions	Width × length × height	203mm × 83mm × 154mm
	Housing	Materials Casing color IP rating	ABS Gray IP 65 outdoor

BARCODE (UPC-A)

6 58921 79909 3

CE RoHS COMPLIANT FC

OVERVIEW



- 1. Wind vane
- 2. Wind speed sensor
- 3. RS485 connector
- 4. Battery compartment
- 5. LED indicator: Light will display for 4s when the unit powers up. Then, the LED will flash once every 16 seconds (the sensor transmission update period).
- 6. Reset button
- 7. Thermo-hygro sensor
- 8. UV sensor
- 9. Light sensor
- 10. Rain collector
- 11. Bubble level

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Wanchai, Hong Kong

INSTALLATION STEPS

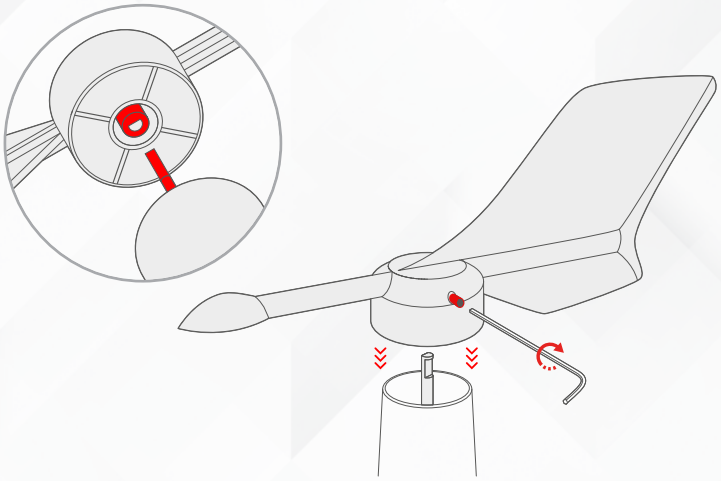
Before placing and installing all Weather Station components in their final destination, please set up your work area with all parts nearby so that you can test each function.

1 ATTACH THE WIND VANE

Push the wind vane into the shaft, as shown in in the left figure.

Tighten the set screw with the Allen wrench (included).

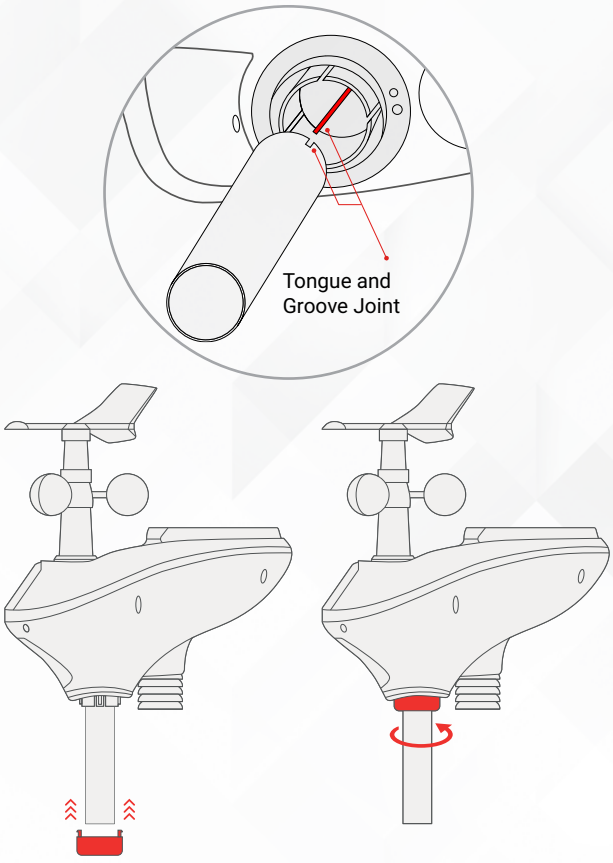
Make sure the wind vane can spin freely.



2 INSTALL MOUNTING POLE

Insert the pole into the base.

Tighten the lid by rotating it into the base, as shown in Figure.



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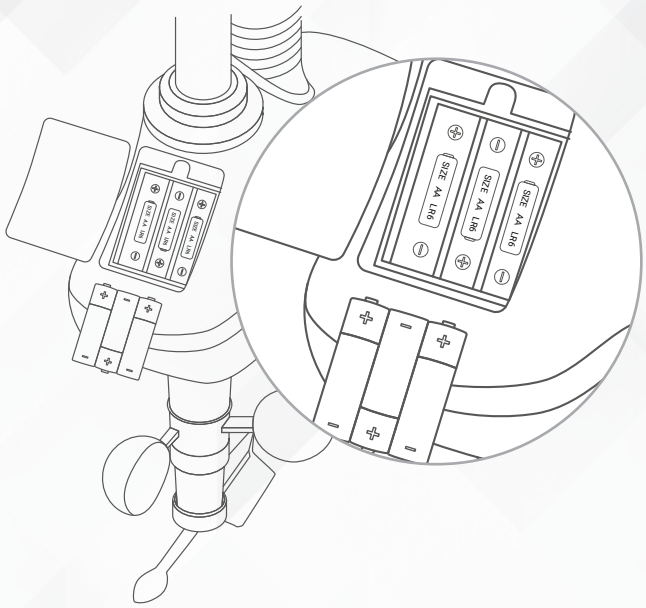
INSTALLATION STEPS

3 INSTALL THE BATTERIES

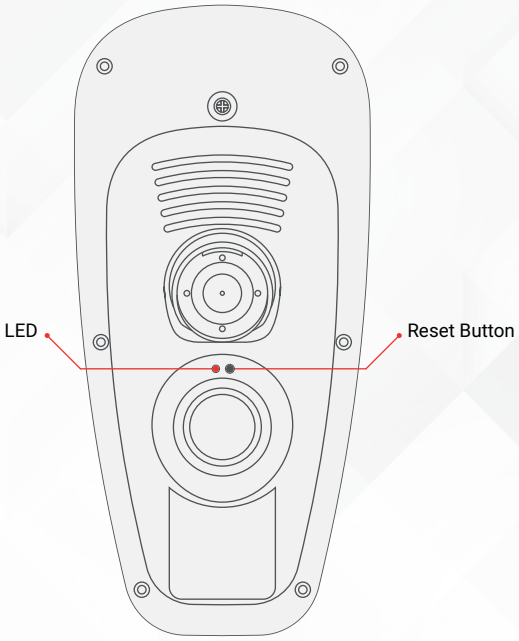
(Optional if you do not use TIS- bus Converter power)

Locate the battery door on the thermo-hygrometer / rain gauge transmitter, as shown in the figure. Turn the set screw counter clockwise to loosen the screw to open the battery compartment. Insert 3XAA rechargeable batteries in the battery compartment. The LED indicator on the back of the transmitter will turn on for 4 seconds. After that, it will regularly flash once every 16 seconds (the sensor transmission update period).



NOTE: If the LED indicator does not turn on or stays on permanently, make sure the batteries are inserted correctly or the device is reset properly.

Do not install the batteries reversely; this can permanently damage the thermo-hygrometer.



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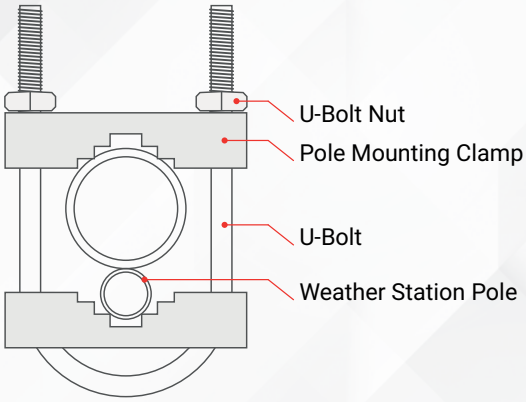
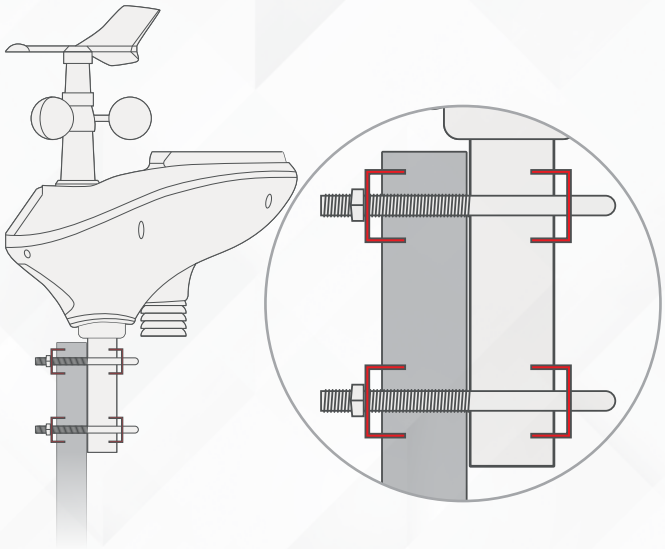
INSTALLATION STEPS

4 MOUNT OUTDOOR SENSOR

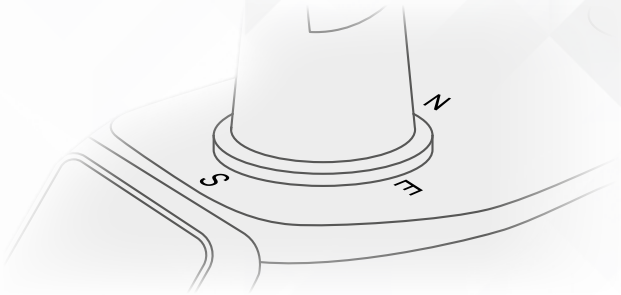
Fasten the mounting pole to your mounting pole or bracket purchased separately) with the two U-bolts, mounting pole brackets and nuts, as shown in here.



- Tighten the mounting pole to your mounting pole with the U-Bolt assembly, as shown in this figure.



- The four letters N, E, S and W represent the directions North, East, South, and West. The wind direction sensor has to be adjusted so that the directions on the sensor match your real location. A permanent wind direction error will occur if the wind direction sensor is not positioned correctly during installation.



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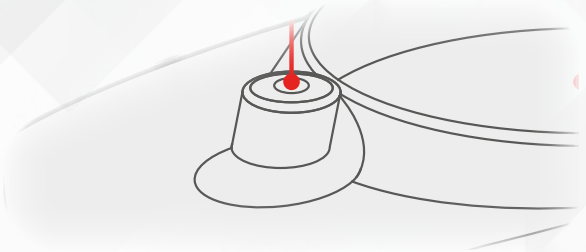
LEVEL THE SENSORS

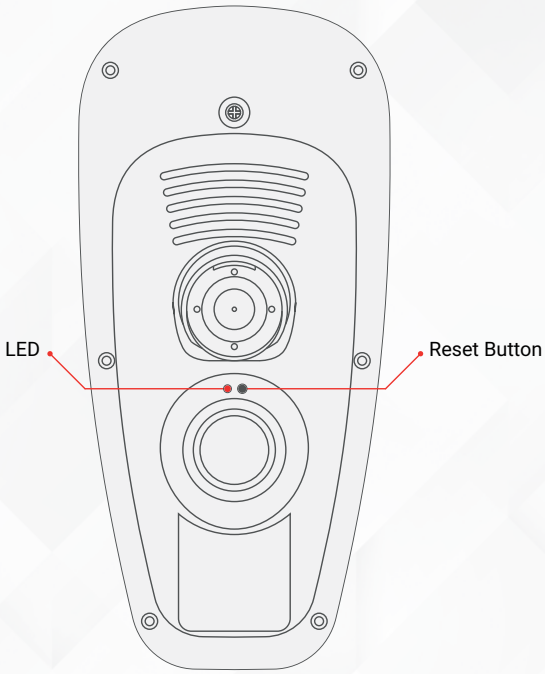
Use the bubble level on the rain sensor as a guide to verify that the sensors are level.



5 RESET BUTTON AND TRANSMITTER LED

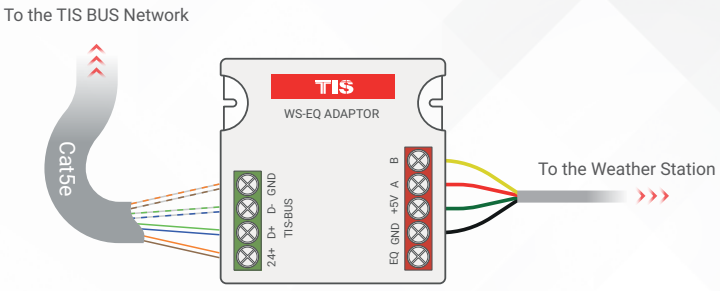
In the event that the outdoor sensor is not transmitting, reset the outdoor sensor.

- With the tip of a straightened paperclip, press and hold the RESET BUTTON for three seconds to completely discharge the voltage.
- Take out the batteries, and wait one minute, while covering the solar panel, to drain the voltage.
- Put batteries back in, and resynchronize with console by powering it down and back up with the sensor about 10 feet away.



6 CONNECT TO CONVERTER

You can cut the connector wire head and use the 4 color wires to connect it to the TIS WS-EQ adaptor by connecting the yellow wire to B, the red wire to A, the green wire to +5V, and the black wire to GND. Then, connect the WS-EQ TIS-BUS wires to the TIS network.



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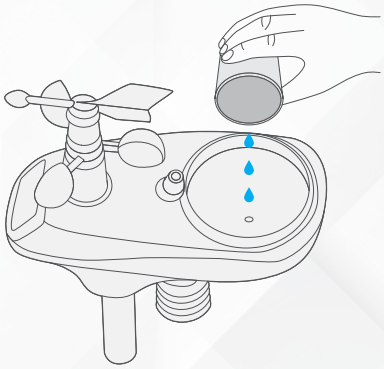
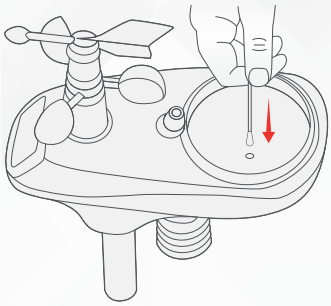
MAINTENANCE

Clean the rain gauge once every 3 months as follows:

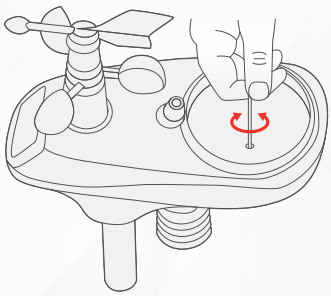
1 Pour water into the rain collector to moisturize the dirt inside the rain bucket.



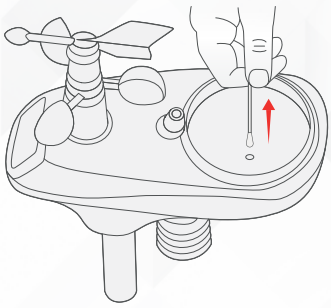
2 Use an approximately 3-inch (80 mm) long cotton swab, and push the cotton tip through the rain collector hole until it reaches the self-emptying mechanism. Then, press until the mechanism no longer rotates.



3 Rotate the cotton swab, removing dirt from the tipping mechanism and the rain collector hole.



4 Remove the cotton swab, and flush with water to remove any remaining dirt.



Clean the solar radiation sensor every 3 months with water and towel.

Replace rechargeable batteries every 2 to 3 years.

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