RAINWISE
TIPPING BUCKET RAIN GAUGE
TECHNICAL PRODUCT SHEET

Overview

The Rainwise Tipping Bucket Rain Gauge features an 8" diameter collector that measures precipitation at 1/100th of an inch at a time.

Specifications

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Measurement Range	Unlimited – bucket tips as precipitation fills the sensor's tipping bucket
Signal Type	Switch closure (momentary single pole, normally open (SPNO) contact), typical closure time is 0.1 second
Transfer Function	Default Slope: 0.254 Default Offset: 0
Supply Voltage	Excitation Supply 5 V DC to 12 V DC typical
Supply Current	Dry contact, 0.5 A max
Sensor Cable	2 conductor (2C), 20 AWG, Shielded
Mounting	Tower Mount Bracket or Mounting Pole

Tools Required

- #2 Phillips screw driver
- 5/16" nut drill (electric or manual)
- 11/32" or 9mm or adjustable wrench
- Electrical tape
- Small NRG screw driver

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Tipping Bucket Rain Gauge Installation Process

1. If using a tower mounted bracket:

   a. Feed the hose clamps through the slots in the bracket and wrap them around the tower. Feed the end of the hose clamp into the worm drive. Tighten the hose clamp around the tower, being careful not to pinch anything as the clamps tighten.

   b. Place the base of the rain bucket onto the bracket or mounting plate. Line up the mounting holes and place four provided screws down through the holes. Use a Phillips screwdriver and a wrench to tighten the screws into nuts (being careful not to over-tighten them and damage the plastic.)

   c. Secure the cable to the tower and route the sensor cable down the tower to the data logger.

2. If using a ground-mounted pole:

   a. Find a suitable spot, approximately 6' (2 meters) away from the base of the tower.

   b. Use a large hammer to pound the mounting pipe into the ground. Protect the top of the pipe with cardboard or something similar to keep from bending.

   c. Once the pipe is adequately secured into the ground, attach the sensor to the top of the pipe. *See 1b above.*

   d. Run the wires from the rain gauge to the base of the met station.

3. Wire the sensor cable into the data logger.

4. Program SymphoniePRO Logger.

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Sensor Wire		Logger
		EXC
Blk	Ground	GND
Red	Signal	SIG
	Shield	SHD

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Description	Rain Gauge		
Serial Number			1
Height	2	Meters	2
Boom Bearing	90	Degrees	3
Sensor Transfer Function			
Scale Factor	0.254	mm per Sum	4
Units	millimeters		
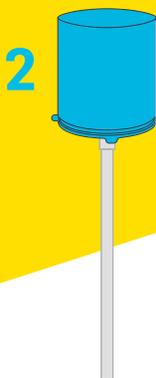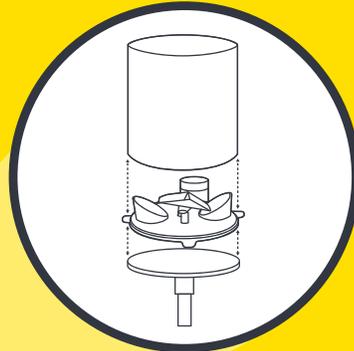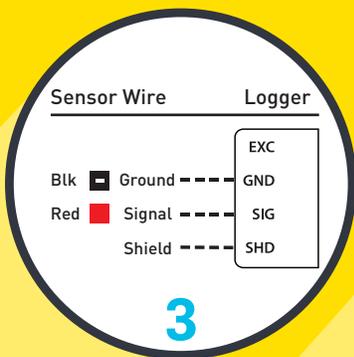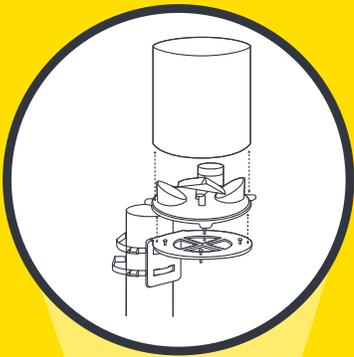
SymphoniePRO Logger Programming

Use the SymphoniePRO Desktop Application to program the sensor settings into the data logger:

1. Serial number

2. Height of the top of the collector.

3. Direction or face of the tower that the rain gauge is facing.

4. Scale factor should remain 0.254 for readings in mm.

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