Optical IR Rain Sensor

Operation & Installation Manual

⚠ *IMPORTANT*

Disconnect power and read installation and operation instructions before installing or operating.

Installation Instructions
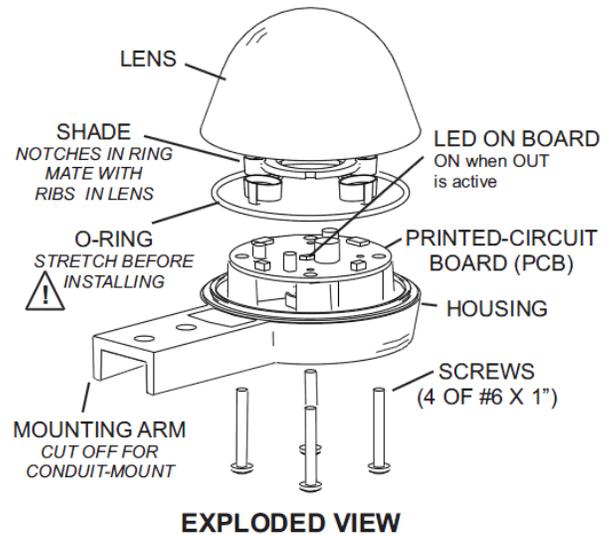
1. Determine the Mode / Set DIP switches.

You must set the DIP switches so that the sensor behaves the right way for your application. The pages that follow describe each of the possible modes, and how to set the DIP switches.

2. Mount the Rain Gauge

Mount the rain gage where it gets a clear measurement of precipitation— away from overhangs, etc. The mounting arm is designed to fit over a strap 0.75″ (19 mm) wide. Two 0.25″ (holes 6.35 mm) are placed 0.75″ (19 mm) part. The gland style connector goes in the bottom hole. Be sure to use wire rated for outdoor (high-UV) use. For conduit applications, the mounting arm may be removed, and the wiring hole drilled out using a step drill to accommodate a ½″ EMT compression connector or similar style of conduit connector.
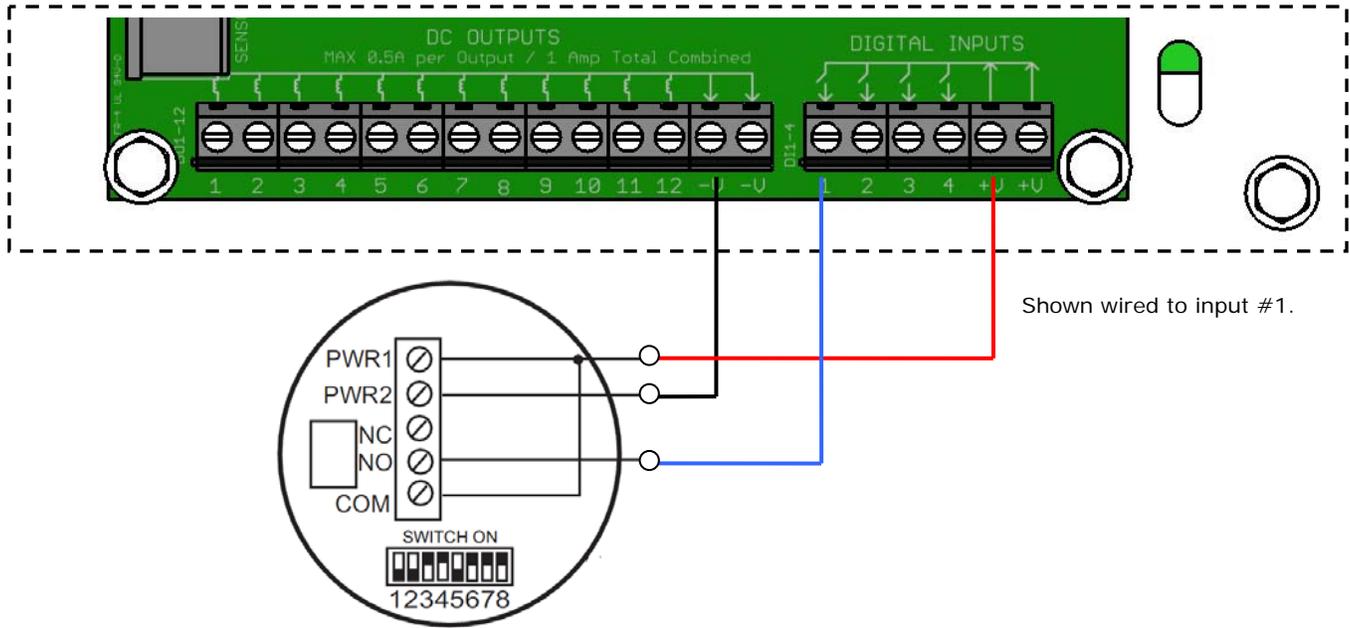
3. Assemble the Rain Gauge as shown.

Stretch and release the silicone o-ring (size -036) a few times, so it fits easily in the groove. Optionally, you may coat the O-ring and screws with silicone grease. The Rain Gage must be assembled when dry. Any water trapped inside can condense and cause corrosion. You may optionally add extra desiccant packets (not supplied.) If the Rain Gage is not subject to splashing or sprayed water, you may optionally vent the enclosure by drilling a 1/8″ (3 mm) hole in the bottom of the case.

LENS

SHADE
NOTCHES IN RING MATE WITH RIBS IN LENS

LED ON BOARD
ON when OUT is active

O-RING
STRETCH BEFORE ⚠ INSTALLING

PRINTED-CIRCUIT BOARD (PCB)

HOUSING

SCREWS
(4 OF #6 X 1")

MOUNTING ARM
CUT OFF FOR CONDUIT-MOUNT

EXPLODED VIEW

Wiring Connections

Three wires are required to connect a rain sensor to GrowControl systems; V+, V- and the input signal. Connect the input signal to any available digital input terminal and set this value in the rain sensor control settings.

Rain Sensor Connection to Digital Inputs

Shown wired to input #1.

DIP Switch Positions

The DIP switches determine how sensitive the sensor will be to rain and how long it will remain activated after rain has stopped.

Switch							Sensitivity	Function
7	6	5	4	3	2	1		
0	0	1	0		0	0	High	First detection of a rain drop.
					0	1	Normal	Light rain fall (0.1" per hour.)
					1	0	Medium	Medium rain fall (0.25" per hour.)
					1	1	Low	Heavy rain fall (1"+ per hour.)
Switches 4-7 must be set as shown.				0				Sensor Off when rain stops.
				1				Monostable 15 minute delay.

⚠ *IMPORTANT*

TO AVOID DAMAGE TO THE SENSOR ensure wiring is correct before applying power to the controller.