



**Rain Bird Sales, Inc.  
Contractor Division**

970 West Sierra Madre Avenue  
Azusa, CA 91702 USA  
Phone: (626) 812-3400  
Fax: (626) 812-3411

Technical Assistance (USA and Canada only):  
800-247-3782

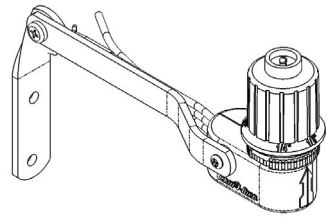
**Rain Bird Sales, Inc.  
Commercial Division**

6640 S. Bonney Avenue  
Tucson, AZ 85706 USA  
Phone: (520) 434-6200  
Fax: (520) 434-6246

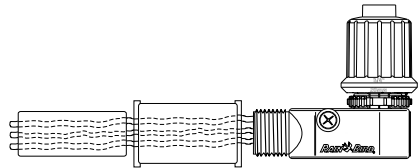
Specification Hotline (USA and Canada only):  
800-458-3005

**Rain Bird International, Inc.**

145 North Grand Avenue  
Glendora, CA 91741 USA  
Phone: (626) 963-9311  
Fax: (626) 963-4287  
www.rainbird.com



**RSD-BEx**



**RSD-CEx**

**RSD RAIN SENSOR**

Installation & Operating Instructions

**RSD RAIN SENSOR**

Manuel d'Installation et de Fonctionnement

**RSD REGENSENSOR**

Anleitung für Installation und Bedienung

**EL SENSOR DE LLUVIA RSD**

Guía de Instalación y Operación

**SENSOR DE CHUVA RSD**

Guia da Instalação e da Operação

**SENSORE PIOGGIA RSD**

Guida all'Installazione e Utilizzazione

**RSD REGENVOELER**

Instructies voor Installatie en Bediening

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# RSD Rain Sensor

The RSD Rain Sensor automatically monitors rainfall and shuts off your sprinklers to prevent unnecessary watering.

**NOTE:** The RSD Rain Sensor is a low-voltage device compatible with all 24 volt alternating current (VAC) control circuits and 24 VAC pump start relay circuits. DO NOT USE with any 110/250 VAC devices or circuits, such as direct-acting pump start systems or pump start relays.

The RSD Rain Sensor is rated for use with up to three Rain Bird 24VAC, 7VA solenoid valves per station, plus one master valve.

## 1. Selecting a Location

Select a mounting location where the rain-sensing head will receive direct rainfall. Make sure the head extends beyond the roof line, tree limbs, and any other obstructions. Install the Rain Sensor in an area that receives as much rain and sunlight as the grass.

Be sure to mount the sensor above spray from sprinklers. Avoid mounting locations such as those shown in **Illustration 1**.

## 2. Operation

### Set Rainfall Setting

The rainfall setting determines the amount of rainfall needed to prevent your irrigation system from watering. You can adjust the rainfall setting from 1/8" to 3/4" (5mm to 20mm).

The ideal rainfall setting for your location depends on soil type, humidity, amount of direct sunlight the sensor receives, and frequency and amount of rainfall. The table below gives some guidelines to help determine the appropriate rainfall setting.

Irrigation site conditions	Rainfall setting
<ul style="list-style-type: none"><li>• Dry climate / low humidity</li><li>• Infrequent, light rains</li><li>• Sensor receives long periods of direct sun</li><li>• Clay-type soils</li></ul>	1/8" to 1/4" (5mm to 10 mm)
<ul style="list-style-type: none"><li>• Moist climate / high humidity</li><li>• Frequent, heavy rains</li><li>• Sensor mounted in a mostly shady area</li><li>• Sandy soils</li></ul>	1/2" to 3/4" (15mm to 20mm)

**NOTE:** At the 1/8" or 5mm setting, a very light rainfall will activate the sensor and suspend watering. The 1/8" or 5mm rainfall setting is not recommended in areas with high humidity.

To set the rainfall setting, turn the sensor dial cap until the desired rainfall setting lines up with the arrow on the sensor body (A), as shown in **Illustration 2**.

## Set Vent Ring

The vent ring determines “drying time” — the length of time the sensor turns off irrigation after a rainfall. For most installations, set the vent ring to the fully open position.

For some installations, such as sites where water pools after rainfall, set the vent ring to a partially open position. This will shut down the irrigation system a little longer after a rain.

To set the vent ring, turn the vent ring knob below the dial cap to the desired position, as shown in **Illustration 3**.

## 3. Mounting

**NOTE:** Follow the installation instructions carefully and install the unit only in full compliance with the National Electrical Code (NEC) or your local electrical code.

### Bracket Model

To install the RSD-BEx Rain Sensor bracket model:

1. Select an appropriate mounting location within 25' (7,6m) of your controller.
2. Drive two mounting screws through the mounting holes (A) in the main mounting bracket, as shown in **Illustration 4 (A)**. Use fasteners appropriate for the mounting surface (wood, tile, masonry, etc.)

### Conduit Model

To install the RSD-CEx Rain Sensor conduit model:

1. Thread the Rain Sensor's lead wires through an adaptor fitting appropriate for your installation and screw the sensor into the adaptor, as shown in **Illustration 5**.
2. Make sure the Rain Sensor head is level and extends far enough beyond the roofline to receive unobstructed rainfall.
3. Run the extension wires through the conduit (if necessary, follow the procedure for wiring a “Normally Open” controller, as described in Section 4 “Rain Sensor Wiring”).
4. Secure the adapter fitting to the conduit. Then connect the Rain Sensor to the controller using the appropriate procedure, as described in Section 4.

## 4. Rain Sensor Wiring

All Rain Bird controllers, and most controllers by other manufacturers, are installed using a “Normally Closed” method. Select the appropriate procedure to install the RSD Rain Sensor to your controller.

## Normally Closed Installation

**NOTE:** The short lead wire labeled “Normally Open” is not used with this installation method.

### **Controllers With Rain Sensor Terminals**

Many modern controllers (such as Rain Bird’s E Class, ESP-LX+, and ESP-MC) include built-in terminals for rain sensor lead wires. Dedicated rain sensor terminals are usually labeled “sensor” or “SN” on the controller’s terminal strip.

1. To connect the rain sensor, remove the jumper wire (if present) from the controller’s rain sensor terminals.
2. Connect the lead wires from the rain sensor to the controller’s sensor terminals, as shown in **Illustration 6**.

### **Controllers Without Rain Sensor Terminals**

Use the procedure below if your controller does NOT have dedicated rain sensor terminals.

1. Disconnect the wire from the common terminal (“C” or “COM”) on the controller’s terminal strip. Then connect this wire to either of the Rain Sensor’s leads.
2. Connect the remaining Rain Sensor lead to the common (“C” or “COM”) terminal on the controller’s terminal strip, as shown in **Illustration 7**.

## Normally Open Installation

Some non-Rain Bird controllers require rain sensors to be installed “Normally Open” (N.O.) Use the following procedure if your controller requires normally open installation.

1. Cut either of the Rain Sensor’s colored lead wires and connect it to the short lead labeled “Normally Open.”
2. Seal the connection in accordance with the National Electrical Code (NEC) or your local electrical code.
3. Consult your controller manufacturer’s manual to determine the appropriate procedure for connecting the Rain Sensor to your controller.

## **5. Testing the System**

To make sure the RSD Rain Sensor is properly installed, turn on any controller irrigation zone and verify that the zone comes on. Then press the Rain Sensor plunger located in the top of the dial cap, as shown in **Illustration 4 (B)**.

The irrigation system should stop watering within a few seconds. If the system does not shut off, check all wiring connections to make sure the rain sensor system is correctly installed.

## **6. Maintenance**

The RSD Rain Sensor operates automatically and usually requires no regular maintenance.

However, the fibrous disks inside the dial cap sometimes become contaminated with debris or insects. If this happens, use the following procedure to clean the Rain Sensor.

1. Turn the dial cap to the 3/4" rainfall setting, as shown in **Illustration 2**.
2. Press the tab labeled "Press" on the side of the sensor body, as shown in **Illustration 8 (A)**. Then turn the dial cap about 1¼ turns further to remove the cap from the sensor body.
3. Remove the plunger and disks from the sensor body, and wash them in clean water.
4. Reinstall the plunger and disks. Then reset the rainfall setting to the desired position, as shown in **Illustration 2**.

### ***Declaration of Conformity***

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Application of Council Directive: 89/336/EEC

Standards To Which Conformity Is Declared:	EN55022 AS/NZS3548 Class A EN50082-1:1992 EN61000-4-2 EN61000-4-3 ENV50204 EN61000-4-4 EN61000-4-6 EN61000-4-8
Manufacturer's Name:	Clemar Manufacturing Inc.
Manufacturer's Address:	7590 Britannia Court San Diego, CA 92713 USA (619) 661-4416
Equipment Description:	Irrigation Controller
Equipment Class:	Generic Res, Comm, LI - Class A
Model Name:	Rain Sensor

*I the undersigned, hereby declare that the equipment specified above,  
conforms to the above Directive(s) and Standard(s).*

Place:  
Tijuana, B.C., México  
Signature:



Full Name:  
John Rafael Zwick  
Position:  
General Manager

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