

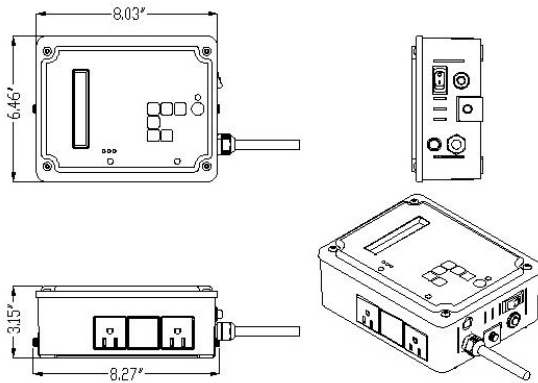
Specifications

DRT-1

Amps / Volts requirements	15 amps @ 120 volts
Min / Max operating temperature	32 to 120° F
Min / Max Humidity	0-99% RH
Minimum time setting	1 second
Maximum time setting	23 Hours 59Min 59Sec
Timer Modes	Day, Night, 24-hour
Weight / Dimensions	7 lbs / 8" x 6.5" x 3.1
Life Expectancy	> 10 years

All Sentinel Timers and controllers offer a **3-year** warranty.

Ask your retailer for details.



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Instruction Manual

DRT-1

Digital Recycling Timer



Welcome to the future... The DRT-1 Digital Recycling Timer represents a new level of intelligent design and function in a simple to use and reliable timer. It is 100% digital and programmable. It can be set to any range from 1 second to 24 hours. It even has a built-in photocell to operate the unit at night, day or 24-hours.

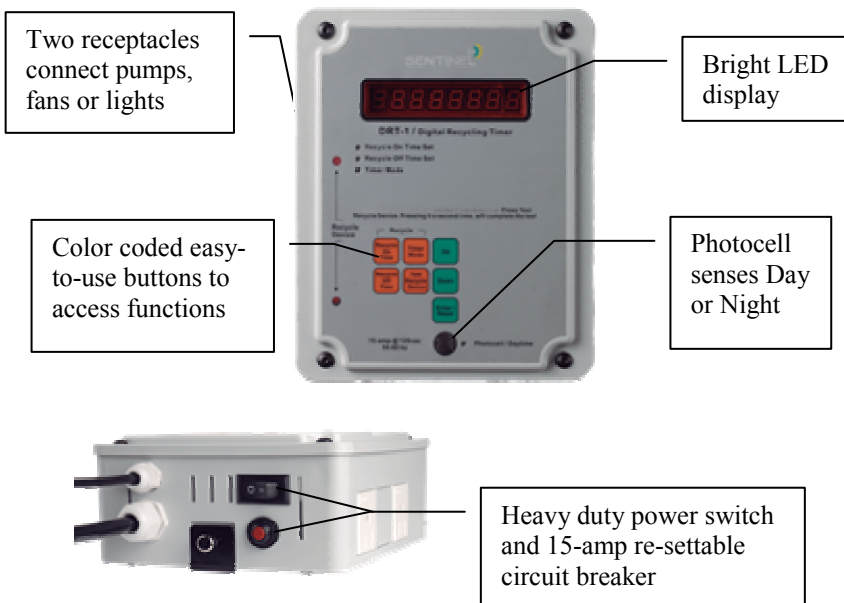
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The DRT-1 has been designed to control any 120 volt device that has to be “recycled” ON and OFF at precise intervals. Unlike old “analog” timers that must be set using dials that turn, you enter EXACTLY the time range you need to have in Hours, minutes and seconds. Mechanical timeclocks don’t allow settings less than 15 minute intervals. Other “digital” timers only allow you to set

a few cycles and programming them can be a complicated process. It easy to set-up and use the DRT-1.

A quick look at the DRT-1...



Troubleshooting

Problem: The unit does not power up at all.

Check and reset the circuit breaker. A small red button will pop out at the bottom of the unit, press it in to reset. If the problem continues, reduce the number of devices connected to the unit.

Problem: The recycling timer is not working when I want it to.

The Digital Recycling Timer can be set to work during the “Day”, “Night” or 24-hours a day. Select the mode the best suits your needs.

Problem: I want to manually over-ride or test the Recycle timer.

Press the **TEST RECYCLE DEVICE** button for 1 second to activate the Recycle receptacle and start the Recycle ON time. When the ON time completes, the Recycle receptacle will turn OFF completing the test. If the user wants to end the test, pressing the **TEST RECYCLE DEVICE** button a second time will return the unit to normal operation.

Problem: What happens if the power is interrupted?

If power is interrupted to the DRT-1 while the Recycle ON timer is functioning, (Recycle device energized) the timer will retain the remaining time and complete the On cycle when power is reapplied. If power fails while the Off timer is active and timing, the timer will continue to time out and start up with the Recycle ON time.

Connection examples

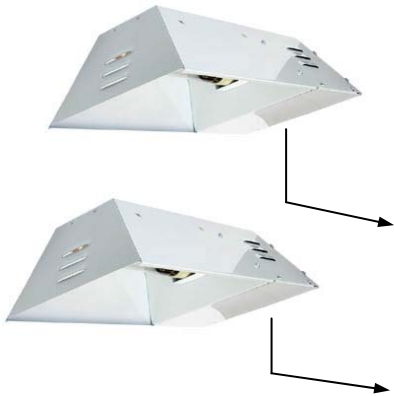
Common use: Hydroponics pumps



Connect multiple hydroponic pumps to Digital Recycling timer. Watering times are precisely controlled day, night or 24-hours.



Alternate use: HID lights



Unlike other timers, the DRT-1 allows the user to operate a modified photoperiod. Set the light ON and OFF time at whatever duration you would like. Try that with any other timer!

Installing the DRT-1

- 1) Mount the unit to a wall using the external mounting holes. Four holes are provided to secure it properly.
- 2) The unit requires a 120 volt, 15-amp power supply. Plug the power cable into a standard Nema 5-15 wall outlet.
- 3) The device that will be controlled must be 15-amps or less.
- 4) Turn the power switch to the ON position and you are ready to go.

There are 7 buttons on the unit that control all the functions.

- **On Time:** Press this button for 1 second to display and change the current On timer setting.
- **Off Time:** Press this button for 1 second to display and change the current Off timer setting.
- **Test Recycle Device:** Press this button for 1 second to activate the Recycle receptacle and start the Recycle ON time. When the ON time completes, the Recycle receptacle will turn OFF. Pressing Enter/Reset will also complete the test and return the unit to normal operation.
- **UP:** Press this button to display to increase the setting.
- **Down:** Press this button to display to increase the setting.
- **Timer Mode:** Press this button for 1 second to display and select the Day, Night or 24-hour timer mode.
- **Enter/Reset:** Press this button enter the new setpoint or hold for three seconds to restart the timer. (Restarting the timer begins with the On cycle)

NOTE: The display has been programmed to “count down” the time remaining. When the On time is counting down, a “N” is displayed on the right of the digital readout. When the Off time is counting down, a “F” is displayed on the right of the digital readout.

Operating the DRT-1

“Programming” doesn’t have to be complicated. The DRT-1 has been designed to be simple to set-up and “program”. Separate buttons for each function make changes easy.

The DRT-1 Digital Recycling Timer works by turning On and Off a pump, or fan, or other device that only needs to run once in a while. The timer “cycle” is set with two timers, one to control how long the device will be On for the other timer determines how long the device will be Off for. The timer continues to “recycle” over and over again.

The DRT-1 also has a built-in photocell which allows you to select whether you want the timer to recycle during the Day, Night or 24-hours a day.

Setting the On timer: Lets set the On time. The On time is the amount of time you want the device to be On for. Later we will change the Off time. The Off time is the amount of time the device will be Off. Press and hold the **On Time** button for 1-second. The display changes to show you the current setpoint. Use the **Up** or **Down** button to change the setting. Press **Enter** to accept the new setpoint.

Setting the Off timer: Now lets set the Off time. The Off time is the amount of time you want the device to be Off for. Press and hold the **Off Time** button for 1-second. The display changes to show you the current setpoint. Use the **Up** or **Down** button to change the setting. Press **Enter** to accept the new setpoint.

Setting the timer Mode: You have the choice of having the timer operate only during the day, only at night or 24 hours a day. The photocell on the front of the enclosure will “sense” whether or not it is day or night by measuring the light level. The photocell has a 30-second time delay to eliminate false sensing of light levels. Press and hold the **Timer Mode** button for 1-second. The display changes to show you the current setpoint either Day, Night or 24-hour. Use the **Up** or **Down** button to change the setting. Press **Enter** to accept the new setpoint.

Restarting the timer: The recycling timer always starts with the On time first. In order to easily restart the unit press and hold the Enter/Reset button for 3 seconds. If the Timer Mode is set to 24-hours, the timer will energize immediately and begin to count down the On time. If the Day or Night Timer Mode is selected, the timer will not be energized until the 30 second time delay for the photocell expires.

Testing the Recycling timer: In order to easily test the device connected to the Recycle receptacles, press the **Test Recycle Device** button. The recycling timer always starts with the On time first. The timer will energize the Recycle receptacles immediately and begin to count down the On time. While the test is in process, the green “Recycle On time Set” LED will be flashing. When the timer times out, the unit will return to normal operation. To end the test early, press the **Test Recycle Device** button.

NOTE: If power is interrupted to the DRT-1 while the Recycle ON timer is functioning, (Recycle device energized) the timer will retain the remaining time and complete the On cycle when power is reapplied. If power fails while the Off timer is active and timing, the timer will continue to time out and start up with the Recycle ON time.