be water smart

Environmental Utilities

Efficient Water Use
with Irrigation Timers

CITY OF
ROSEVILLE
C A L I F O R N I A

www.roseville.ca.us

our efficiency

An irrigation timer is a device that controls water flow when your irrigation system turns on and off. There are many makes and models of timers available. An efficient timer has various functions that allow you to adjust watering to the needs of the plants and turf grasses. Efficient timers may have the following:

A rain-delay manual feature that delays watering cycle for a specific period of time.

Water budget/season adjust allows for an increase or decrease in station run times from none to 200 percent, in 10 percent increments, without reprogramming run times.

Multiple programs/zones that offer independent programs for watering different parts of the yard on different days.

Battery backup that saves the programmed irrigation schedules in the event of a power outage.

Station run times to support low-volume systems (from 1 to 200 minutes).

A separate rain sensor device attached to the controller that stops the controller from watering when it's raining. Some sensors are mounted on the roof and capture a specified amount of water from rain. This will tell the timer to turn off until the device dries out. Other sensors are installed underground and will reduce the amount of applied water as needed.

Multiple start times for repeat watering in the same area on the same day.

Odd/even, weekly, and interval program capability up to 30 days for flexibility in which days to water.

Roughly half of our water supply is used to water lawns and landscape plants, so it's important to pay attention to how well your irrigation system works. Efficient irrigation saves water, but it also keeps grass, trees, and plants healthier. This brochure is designed to help you understand your irrigation timer's functions to ensure proper landscape watering.

our time

Smart Timers

Smart controllers reduce outdoor water use by monitoring and using information about specific site conditions (such as soil moisture, rain, wind, slope, soil type, and plant type) obtained from an on-site weather station or a data service. These controllers use the site specific data to apply the right amount of water to a landscape at the right time.

For example: During hot weather, plants require more water than during cooler periods. Smart timers adjust the amount of water delivered to the plant, based on current weather data and plant type. If significant rainfall occurs, rain sensors compensate by reducing the amount of water applied, as appropriate. Much of Roseville has clay soil that absorbs water slowly. For clay soils or a landscape with steep slopes, smart controllers will use that information and apply less water, more frequently, to minimize run off.

How much water for how long?

Additional factors that help determine how often and how long to schedule irrigation for landscapes include:

- Large trees and shrubs may need less frequent and longer watering cycles.

- Turf: Amount and frequency will depend upon soil type, turf species, and sun exposure.

- An established plant will need less water than a newly planted one.

- Initially, newly planted landscapes will need more frequent and shorter run times until plants are established.

- In peak summer months, plants require more water than any other time of year.

- Soil type is a big factor on how much water a landscape needs. Clay soils do not absorb water quickly and are prone to quick runoff. Sandy soils absorb water quickly and hold moisture.

- The weather directly affects plant evapotranspiration and water cycling demands. **NOTE:** Evapotranspiration is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues).

Keep in mind that even though controllers can simplify watering, it is still important to observe the condition of the landscape and how effectively the water is being applied. Never water during the heat of the day as water evaporates before the soil can absorb it.

Irrigation Timer Functions

Common functions you might find on a typical irrigation timer and their purpose:

Time of day: This feature presets the time into the clock's memory.

Day of the week: This feature presets the day of the week into the clock's memory.

Run time for each individual station: This feature allows you to program the running time through each valve. For example; Valve/Station A has 15 minutes running time, Valve/Station B has 8 minutes running time, etc.

Dual-program watering schedules: This feature allows you to set some stations to lawns and some stations to shrubs or drip. It also allows you to set a separate day program.

Program times: This feature tells the timer to turn the program on at the preset times. For example; 1:00 a.m., 3:00 a.m., 5:00 a.m. Clocks should have a multiple program schedule.

Automatic/manual switch: This feature allows you to: a) Water the complete program at any given time without losing your previous schedule, and b) turn any given station off or on at any time without interfering with the preset schedule.

Sample Irrigation Schedules

Program A Turf irrigated by sprinklers:

- Fall and spring: 1 to 2 days per week; summer 3 days per week

- For each assigned day of watering, water 3 times a day for 4 minutes each

- Schedule start times approximately 1 hour apart

Program B Moderate water use plants on drip system

Water 1 day per week or less during winter months (if not raining); 2 days per week during spring and fall; and 3 days per week during summer.

Program C Low water use plants on drip system

- Deep and infrequent water. How much water depends on type of emitter, type of plants and soil conditions.

- Observe plants for signs of stress (dull, wilted, burnt foliage). Check to make sure emitters are working property.

Set it Straight. There are a numerous irrigation clock brands sold today and each has different features. It is best to read the owner's manual of the irrigation clock that runs your system to understand its capabilities. If your manual has been misplaced, we've provided a list of common brands and contact information where you can obtain a manual. Some, but not all, manufacturers offer their manuals online.

Champion **www.championirrigation.com**
Hunter Industries **www.hunterindustries.com**
Irritrol Systems **www.irritrolsystems.com**
Lawn Genie **www.lawngeniestore.com**
Nelson **www.lrnelson.com**
Orbit **www.orbitonline.com**
RainBird **www.rainbird.com**
Toro **www.toro.com**