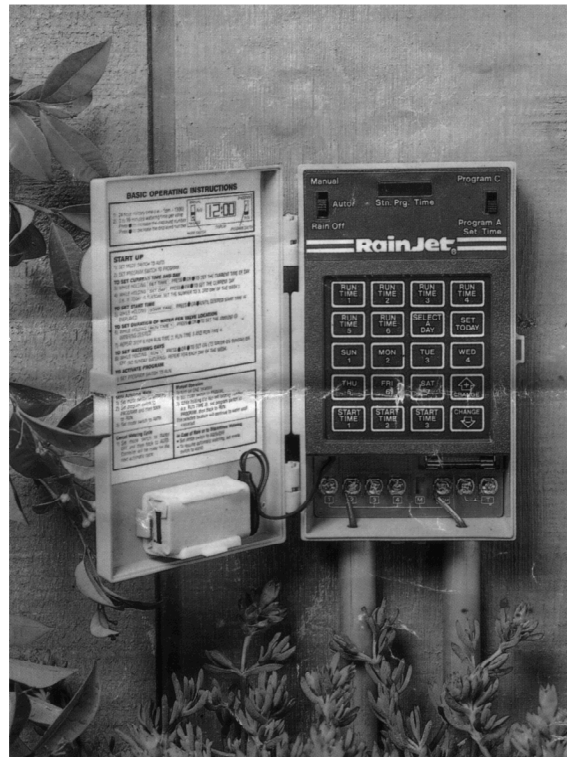# HARDIE RainJet®

Sprinkler System Timer
Installation/Operation

RJC-44   4 Station Controller

RJC-66   6 Station Controller

Sprinkler System Timer Installation/Operation

Read all instructions before beginning.
1. Mount controller near 117VAC outlet.
2. Wire valves to controller.
3. Wire transformer to controller.
   a. Plug in transformer.
4. Program controller.

1. Mounting the Controller.

Install the controller near a 117VAC outlet preferably located in a weather protected area. Once the site is chosen, drive the provided screw into the wall stud, leaving about 1/4" of the screw exposed. If necessary, use a toggle bolt or masonry shield. Hang the controller from the keyhole slot located in the back of the case. If further security is desired, add an additional screw to the bottom of the case where indicated.

2. Connecting the Valves

CAUTION: Never connect the valves while the transformer is plugged in.

Route one wire from each valve through the hole at the left bottom of the case. Insert under a numbered screw and tighten. The ground wire from each valve should be attached to a single "common" wire. Route this wire through the same hole as the valve wires and connect to the screw marked "COM." If more space is needed or if conduit is used, remove the large plug by inserting a screwdriver through the hole and twisting.

NOTE: This controller is designed for use with 24VAC, 5VA solenoid operated valves. A maximum of two valves per station may be used and no more than three valves (or solenoids) should be on at any one time. This includes the master valve if one is being used. Current requirements should not exceed .32 Amp. for each solenoid.

2a. Connecting a master valve or pump.

NOTE: The circuitry required for a master valve or pump is optional and found only on the – 1 model.

To use a master valve which operates throughout the watering run times, simply connect one solenoid lead wire to the terminal screw marked "M" and the remaining lead to the terminal screw marked "C." NOTE: The master valve must be equipped with a 24VAC, 5VA solenoid.

If a pump is to be used, simply connect a relay lead to the same terminal used for the master valve connection. The pump relay should have a nominal coil voltage of 24VAC at .25A maximum.

CAUTION: If you are using a pump start and a pump start circuit, the "fail safe" program will activate the pump for each of the six stations for 10 minutes each. If less than six stations are being used, the pump will be running against a "dead head" on each unused station. This can cause a burn-out of the pump.

To avoid this, simply connect a jumper wire from the unused station terminal over to a station terminal that is being used.

3. Connecting the Transformer.

CAUTION: Do not plug in the transformer until after the transformer leads are connected.

Route the two transformer leads through the small hole at the right bottom of the case. Insert one lead under each screw marked with a "T." Tighten the screws. If desired, standard conduit may be used by removing the plug in transformer inlet hole.

3a. Now, plug in the transformer. In areas where power surges occur, install a surge protector between the transformer and outlet (supplied by the user).

3b. Using a nine-volt alkaline battery (supplied by the user), connect it to the battery terminal.

In case of a power outage, this battery will provide back-up power to retain the program and to advance the clock. (NOTE: The battery does not contain enough power to operate the valves.) A typical alkaline battery contains enough power for between 6 and 12 hours of power loss.

BEFORE YOU BEGIN PROGRAMMING
1. Set the MODE switch to AUTO.
2. Set the program switch to PROGRAM A/SET TIME.
3. Push ⬆ or ⬇ until the current time of day appears.

NOTE: This controller is based on military time. Hours 1–12 are a.m.; hours 13–24 are p.m.

NEXT
While pressing ⎮ SET TODAY ⎮, press ⬆ or ⬇ to indicate the current numerical day of the week in the display (SUN = 1, MON = 2, etc.).
The controller is now set to the current time and day.

4. Automatic Operation

This controller has the capacity of running two separate and totally independent watering schedules called program "A" and "C." Use program "A" for your main watering requirements and program "C" for special requirements.

Programming involves just 3 main steps:
1. Setting what days watering is to occur.
2. Setting the time(s) the watering cycle is to start.
3. Setting how long each area (station) is to water.

1 Setting the Days Watering is to Occur

Be sure the program switch is set to either Program A or C.

NOTE: This controller has the capability of two types of watering cycles: one waters on specific days of the week. The other waters at specific intervals (every third day, fourth day, etc.).

2 To Water on Specific Days of the Week

1. Press SELECT-A-DAY and press either ⌔ or ▽ at the same time to indicate "OFF" in the display.

2. While pressing each day of the week in turn, press either ⌔ or ▽ to indicate on the display which days are to water. The display will read "ON" when watering will occur and "OFF" when watering is not needed.

TO WATER AT SPECIFIC INTERVALS (EVERY THIRD DAY, FOURTH DAY, ETC.)

1. Select SELECT-A-DAY to "ON."

2. Determine the interval you wish watering to occur. If you wish to water on every third day, press TUE 3 and the ⌔ or ▽ until "ON" is indicated in the display. If you wish to water every other day do the same thing with MON 2 . The number under the day of the week indicates the interval.

3. Now press all remaining days (numbers) so they display "OFF." Only the desired interval number should display "ON" when pressed.

3 Setting the Time(s) the Watering Cycle is to Start

This controller can start up to three times for each program during the same day.

1. While pressing START TIME 1 , depress ⌔ or ▽ until the time of day you wish to water appears in the display.

2. Repeat this procedure for START TIME 2 and 3. If you do not need three start times, set START TIME 2 and 3 to "OFF." (Not 0:00, which represents midnight.)

4 Setting How Long Each Area (Value Station) is to Water

This is called "run time." There are four watering zones or valve "stations" on RJC-44 and six zones on the RJC-66. Each of these zones is capable of watering from one minute to 99 minutes (per start time). Set all stations not being used to "00."

1. While pressing RUN TIME 1 , depress ⌔ or ▽ until the desired watering time is displayed.

2. Repeat for each station.

Return the PROGRAM switch to RUN and you're done!

If you're using both programs, repeat the programming steps for those stations on Program C. Usually, you will have a valve operate on only one of the programs.

HOW TO USE DUAL PROGRAMMING

You may not want to water all parts of your yard with the same frequency. This controller is designed to allow two independent watering schedules.

Your primary watering schedule (lawns, etc.) should be set on Program A, as described in "Automatic Operation." Areas of your yard that require a different frequency of watering (shrubs, vegetable gardens, hillsides, etc.) can be scheduled on Program C.

For example, you may program your lawn valves 1 and 2 (Run Time 1 and Run Time 2) to water every day on Program A. Valves 3 and 4 (Run Time 3 and Run Time 4) may be set to water Monday and Thursday only on Program C.

Those valves scheduled for Program C should display "00" on Program A. The valves scheduled on Program A should display "00" on Program C. Usually, a valve is only scheduled to run on one program.

DEFINITIONS

Manual — Used to initiate unscheduled watering. Will continue to water until turned off by user.

Auto — Will initiate programmed schedule when program switch is in RUN mode.

Rain/Off — Interrupts watering schedule without interfering with the set program.

Set Time — Used to program current time of day.

Program A — Used for programming or initiating primary watering schedule.

Program C — Used for programming or initiating secondary watering schedule.

Run — Will operate programs when mode switch is set to AUTO.

Run Time 1–6 — Amount of watering time in minutes for indicated station.

Select-A-Day — Used to program watering at specific intervals (every third day, etc.).

Set Today — Used to program current day of the week.

Sun 1–Sat 7 — Used to program watering on specific days of the week.

Start Time 1–3 — Time(s) of day that watering cycle is to begin.

+ / – — Increase or decrease the displayed number.