

RAIN BIRD®

**Operation Manual
STPi Controller**
English... Page 1

**Manuel d'utilisation du
Programmateur STPi**
Français... Page 19

**Manual de instrucciones del
Programador STPi**
Español... Página 37

**Manual de Funcionamento do
Programador STPi**
Português...Página 55

**Manuale di funzionamento del
Programmatore STPi**
Italiano... Pagina 73



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Welcome! **Simple To Program (STPi) Controller**

Installation, Programming & Operation Guide

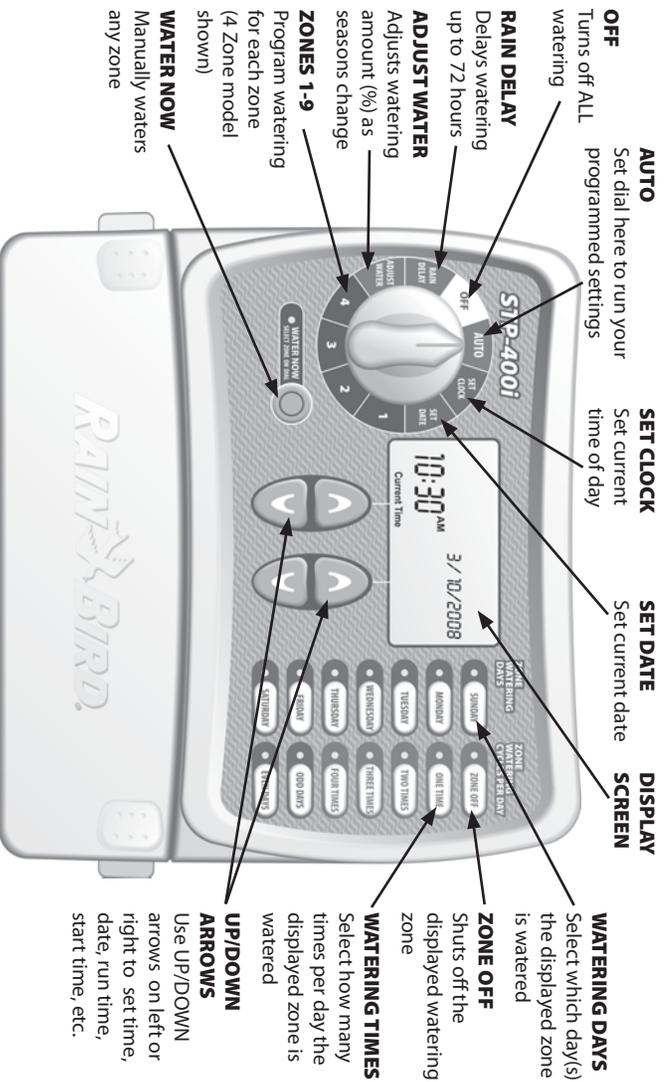
Thank you for Purchasing the Rain Bird Simple To Program Controller! In the following pages, you will find step by step instructions on how to use every function included in your STPi Controller. Thanks again and we hope you enjoy your new Controller.

Contents

Controller Functions..... 2
Set Clock..... 3
Set Date..... 4
Schedule Watering 5
Water Now 6
Rain Delay 7
Adjust Water..... 8
Normal Operation..... 9
Mounting Controller..... 10
Connecting Power Cord 11
Master Valve or Pump Start Relay 12
Connecting Rain Sensor 14
Troubleshooting..... 15
Programming Chart..... 16

Controller Functions

The diagram below shows the controls and displays for your new Controller. Use this to become familiar with the Controller functions.



NOTE: Always begin by turning the dial to the position you want to make a change to and then make your changes using the options and information displayed to the right of the dial. For example, if you want to set a schedule for Zone 1 in your yard, first turn the dial to "1" and then make your changes using the buttons to the right and below the display screen.

2

STP Controller Operation Manual

Set Clock

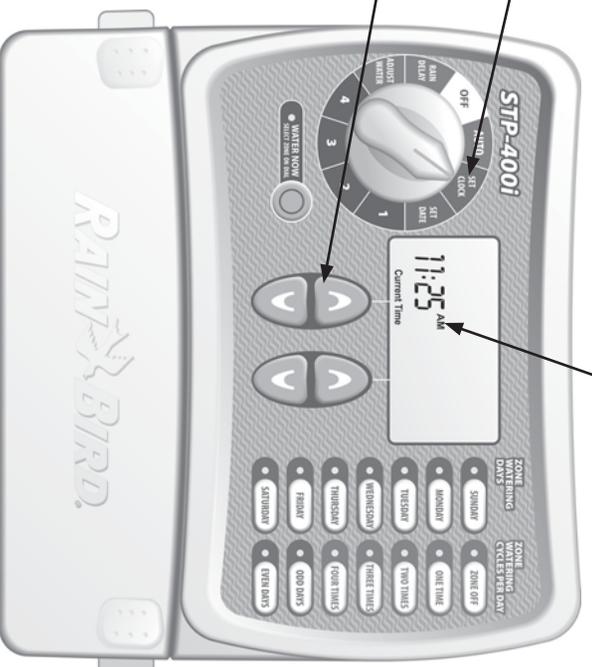
To input the current time into the Controller, follow these steps below:



NOTE: Verify that the AM/PM setting is correct when setting time

Step 1
Turn dial to SET CLOCK

Step 2
Use left UP/ DOWN arrow keys to adjust current time



NOTE: Reset dial to AUTO position after making any adjustments to the programming.

Set Date

To input the current date into the Controller, follow these steps below:

- Step 1**
Turn dial to SET DATE
- Step 2**
Use left UP/DOWN arrow keys to select current year
- Step 3**
Use right UP/DOWN arrow keys to select current month and day



NOTE: Reset dial to AUTO position after making any adjustments to the programming.

4

STP/Controller Operation Manual

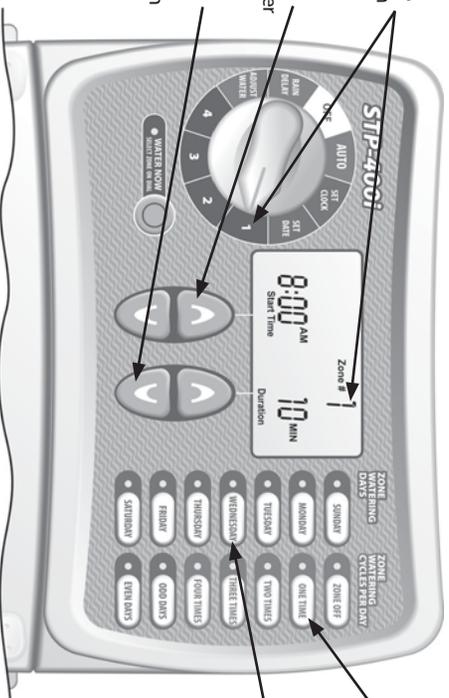
Schedule Watering

To set up a watering schedule for each zone in your yard, follow these steps below:

Step 1
Turn dial to the zone you wish to program

Step 2
Use left UP/DOWN arrow keys to select 1st start time to water

Step 3
Use right UP/DOWN arrow keys to select the run time for each zone



Step 4
Select number of times per day to water. Default is once per day (see table below)

Step 5
Select the DAY(s) of the week or ODD/EVEN days you wish to water

Step 6
Turn dial to each active zone and repeat steps 2-5

Watering Times Per Day Options	Hours From First Start Time
2 times per day	6 hours
3 times per day	4 and 8 hours
4 times per day	3, 6 and 9 hours

EXAMPLE: If the first start time for Zone 1 is programmed for 8:00 AM and the user has selected THREE TIMES, then the second start time will be at 12:00 PM and the third start time will be at 4:00 PM.



For start time details see page 16.



NOTE: The Controller is designed to prevent any two zones from irrigating at the same time. This feature is called "Program Stacking"

TIP: The best way to condense the irrigation schedule is to set each zone's start time the same. For example: if both Zone 1 and Zone 2 are scheduled to irrigate on the same day and both start times are set for 8:00 AM (with a 10 minute run time), then Zone 1 would begin irrigating at 8:00 AM and Zone 2 would begin irrigating at 8:10 AM (after Zone 1 has stopped).

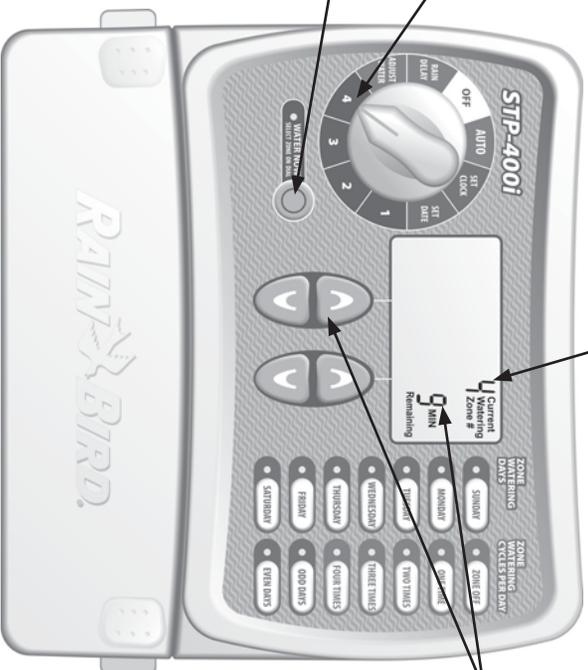
Water Now

This option allows you to water any single zone on demand instead of waiting for the programmed schedule.



NOTE: Any watering you do with this function will not affect your normal schedule.

Current Watering Zone



Step 1
Turn the dial to the zone you wish to water

Step 2
Press WATER NOW. The zone will start watering for a default 10 minutes

Step 3
Use the UP/DOWN arrows to adjust the number of minutes

Step 4
To stop watering before the time is up, return dial to AUTO position

Rain Delay

Use this function to suspend watering for up to 3 days (72 hours) due to weather or other reasons.



NOTE: Once the Controller has waited the amount of time you select for Rain Delay, it will resume normal scheduled watering. Any scheduled watering that falls into the delay period will not occur.

Step 1
Turn the dial to RAIN DELAY

Step 2
Use the right UP/DOWN arrows to adjust the amount of delay time

Step 3
Return dial to AUTO position

Screen displays current time and the number of rain delay hours that are left until regularly scheduled watering resumes.

8:00 AM
12 Hours
Rain Delay Remaining
Current Time



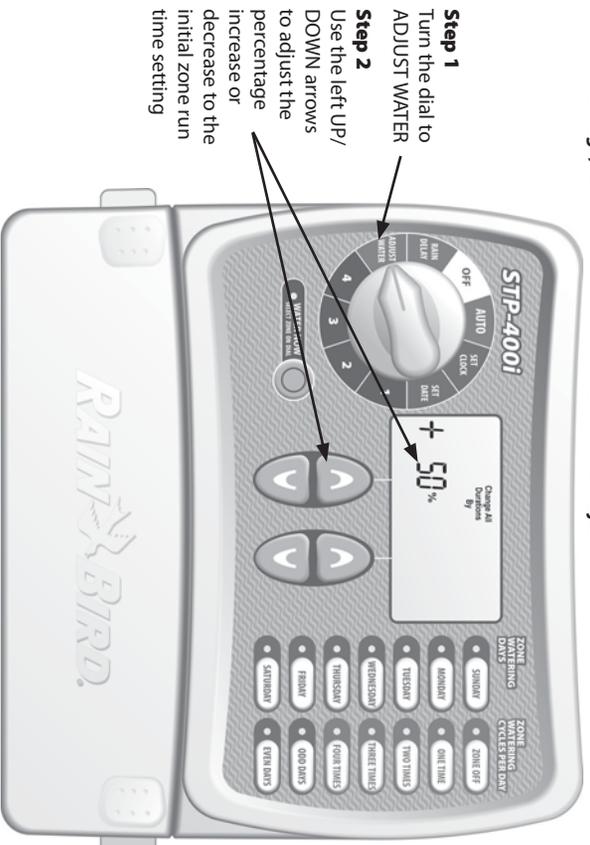
NOTE: Reset dial to AUTO position after making any adjustments to the programming.

Adjust Water

Use this simple option to make run time adjustments that account for seasonal variation, without changing all of the initial zone settings.



NOTE: Instead of changing the settings for each zone, you can adjust the amount of time you water for each zone with one simple adjustment using the WATER ADJUST function. Your scheduled start times will not change, but the actual zone run time will be adjusted.



Step 1
Turn the dial to
ADJUST WATER

Step 2
Use the left UP/
DOWN arrows
to adjust the
percentage
increase or
decrease to the
initial zone run
time setting



NOTE: Reset dial to AUTO position after making any adjustments to the programming.

TIP: Automatically adjust watering of each individual zone by using left UP/DOWN arrows to adjust from -90% to +100%. It is important to note that the baseline schedule is set at 0% and not 100%.

EXAMPLE: If Zone 1 is scheduled to water for 10 minutes and you set ADJUST WATER to +50% then Zone 1 run time will be increased to 15 minutes.

Normal Operation

Below are different screens your Controller might display while in AUTO position mode.



Normal Operations
Screen displays current time, the zone that is scheduled to be watered next, and the date and time it will be watered.



Watering Now
Screen displays current time, which zone is currently being watered, and the number of minutes remaining in the cycle for that zone.



With Rain Delay
Screen displays current time and the number of rain delay hours that are left until regularly scheduled watering resumes.



Error Detected
When an error is detected, screen displays the affected Zone # in upper-left corner.

Connecting Power Cord

Follow these instructions to connect the power cord:

Step 1

Attach the transformer connector to the 24VAC POWER pin connection on the Controller.

Step 2

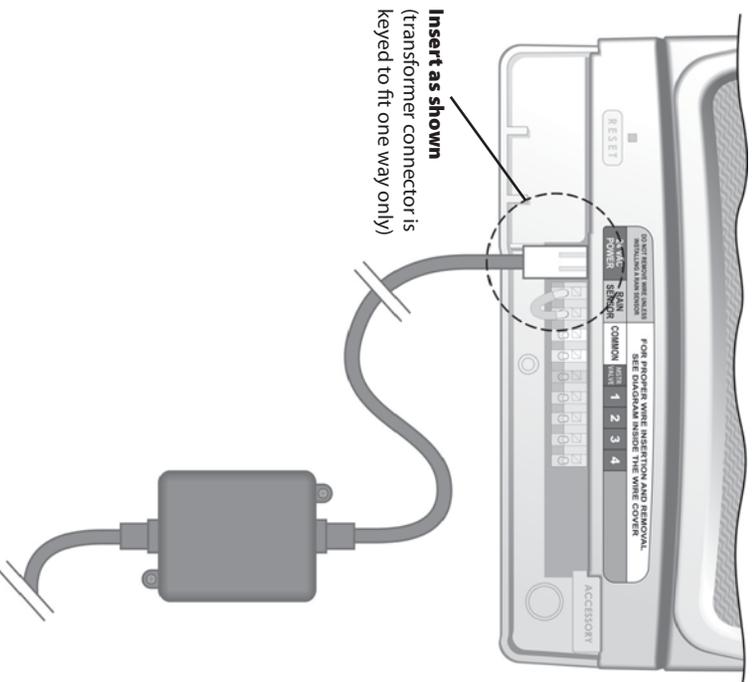
Plug transformer into the wall socket.



NOTE: DO NOT plug in the transformer until you have completed and checked all wiring connections. Also, do not attempt to link two or more Controllers together with a single transformer.



NOTE: Do not plug Controller into socket that is controlled by a secondary ON/OFF light switch.



Master Valve or Pump Start Relay

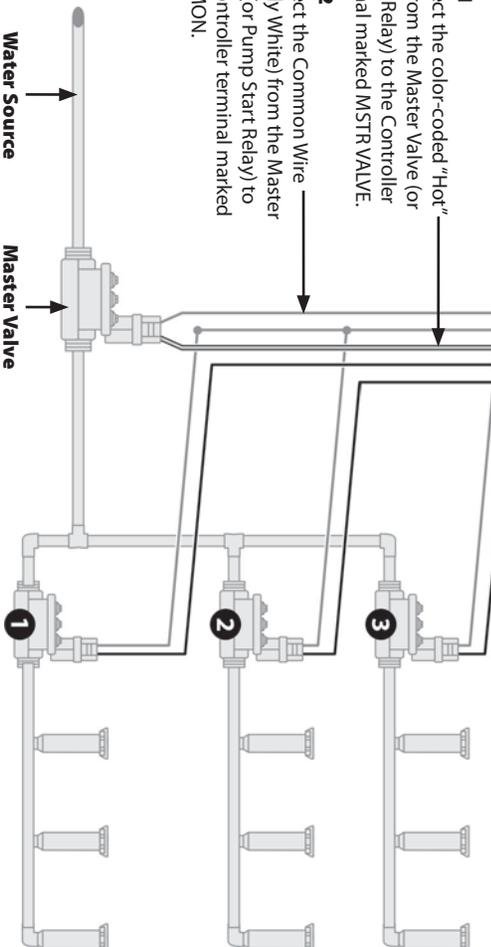
This example shows what a Master Valve connection would look like. A Pump Start Relay would connect differently at the water source.



NOTE: STPI Series Controllers allow a Master Valve or Pump Start Relay to operate whenever a valve is operating (pumps are used in some places to draw water from a well or other source). If you are activating a pump from the Controller, you must also install a Pump Control Relay.

Step 1
Connect the color-coded "Hot" Wire from the Master Valve (or Pump Relay) to the Controller terminal marked MSTR VALVE.

Step 2
Connect the Common Wire (usually White) from the Master Valve (or Pump Start Relay) to the Controller terminal marked COMMON.



12 STPI Controller Operation Manual

Master Valve or Pump Start Relay

Note these additional instructions when connecting a Pump Start Relay:

Step 3

To avoid possible pump damage when using a Pump Start Relay, connect a short jumper wire from any unused zone terminal(s) to the nearest zone terminal screw in use.

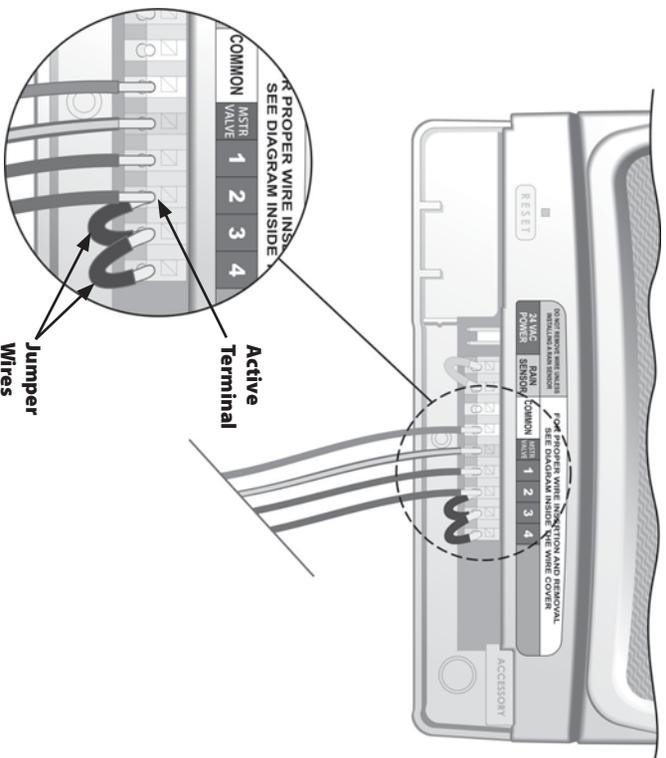
EXAMPLE: if you have a 4 Zone Controller with only two zones in use, route the terminals for Zones 3 and 4 to the nearest active terminal (in this example, Zone 2).



NOTE: Make sure that the total draw of the Master Valve or Pump Start Relay, plus the draw of the valves does not exceed 0.650 Amps at 24VAC, 60 Hz.



NOTE: This Controller does not provide main power for a pump.



Troubleshooting

Watering Issues

Problem	Possible Cause	Possible Solution
Automatic and Manual cycles do not begin watering.	Water source not supplying water.	Make sure the main water line and all supply lines are open and operating properly.
	Wires not properly connected.	Make sure all field wires and master valve/pump start relay wiring is connected properly.
	Wires loose or cut; corroded connections.	Check field wiring for broken, cut, or "skinned" wires and replace if necessary. Check all wire connections and replace with watertight splice connectors as needed.
	Dial not set to AUTO position.	Make sure the dial is on AUTO position—not any other dial position.
	If you have a Rain Sensor, it may be activated.	You can either wait until the Rain Sensor dries out, or disconnect the Rain Sensor from the yellow terminals on the Controller and replace it with a wire connecting the two yellow terminals.
If you do not have a Rain Sensor, the wire connecting the two yellow Rain Sensor terminals may be damaged or missing.	An electrical surge may have damaged the Controller's electronics.	Connect the two yellow Rain Sensor terminals in the Controller's terminal bay with a short length of 14 to 18 gauge wire.
		Press the reset button under the wiring cover. If there is no permanent damage, the Controller should resume normal operation. You will need to input the current time and date, but your watering schedule should remain intact.

Electrical Issues

Problem	Possible Cause	Possible Solution
LCD Display is blank.	Transformer not plugged in or wall socket not supplying power (Red light on the transformer is not illuminated).	Make sure the two-prong connector is connected and the transformer is securely plugged in. Make sure the main AC power supply is working properly.
LCD Display is "frozen" and controller will not accept programming.	An electrical surge may have damaged the Controller's electronics.	Unplug the Controller for 3 minutes. Plug the Controller back in. If there is no permanent damage, the Controller will accept programming and resume normal operation.

Programming Chart

Zone	Zone Description	Run Time (max 240 min.)	Watering Days (circle days that apply)	* Start Time No. 1 (15 min. increments)	Total Start Times (circle number of starts)
1		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
2		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
3		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
4		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
5		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
6		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
7		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
8		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4
9		___ Min	S M T W T F S ODD EVEN	___:___ AM PM	1 2 3 4

NOTE: A total of 4 start times can be assigned for each zone (this can be helpful for zones irrigating tight soils and slopes).

* Start Time Sequence (hours after first programmed start time)					
No. of Start Times	1st Start Time	2nd Start Time	3rd Start Time	Start Time	
One Time	as programmed	n/a	n/a	n/a	
Two Times	as programmed	6 hours	n/a	n/a	
Three Times	as programmed	4 hours	8 hours	n/a	
Four Times	as programmed	3 hours	6 hours	9 hours	

EXAMPLE: If the first start time for Zone 1 is programmed for 8:00 AM and the user has selected THREE TIMES, then the second start time will be at 12:00 PM and the third start time will be at 4:00 PM.

Ouverture découpée pour pouvoir accrocher le manuel à côté du programmeur.