

This manual explains how to install your Lawn Genie sprinkler controller and program it for the watering schedule that's right for you. The following sections are arranged to match the most efficient installation sequence. Refer to them in the order presented for best results.

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Your Lawn Genie sprinkler controller is the heart of your automated watering system. It lets you supply different parts of your lawn and garden with precisely the water they require, exactly when they require it. All without any effort on your part once you've programmed your system.

This Lawn Genie controller gives you four ways to control how you distribute water to various parts of your yard. Here's how they work:

Zone control

Lawns, shrubs, flower beds and other foliage all need different amounts of water. You can tailor the water delivered to different parts of your yard by assigning

a different run time to one or more sprinkler valves. Each valve and the sprinklers it controls are called a Zone. The L60204 lets you divide your yard into as many as four Zones; the L60206P allows up to six; and the L60208P permits a maximum of 8 Zones.

Programming options

Certain parts of your yard may need water every day. Other parts may need water only twice a week. Dual programming lets you divide your Zones into two different groups, and assign each group a different interval between days or different specific days of the week to water. For example, Program A may water Zones 1,3,4 and 5 every third day, and

Program B may water Zones 2 and 6 only on Monday and Friday. For details, see "Selecting the right Program" on page 10.

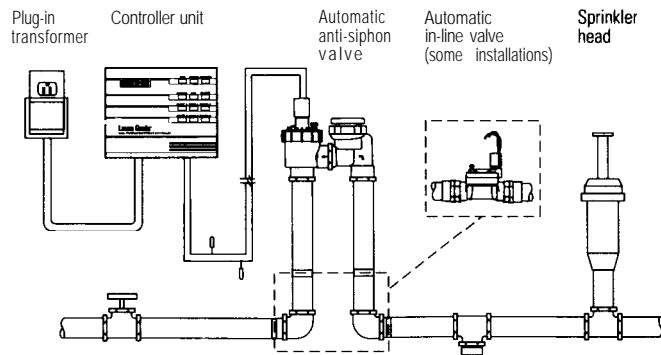
Start times

This controller lets you specify up to six different times to start watering the Zones it controls. Start times may be shared between Program A and Program B in any combination, for example, two start times in Program A; 4 in Program B. and so on.

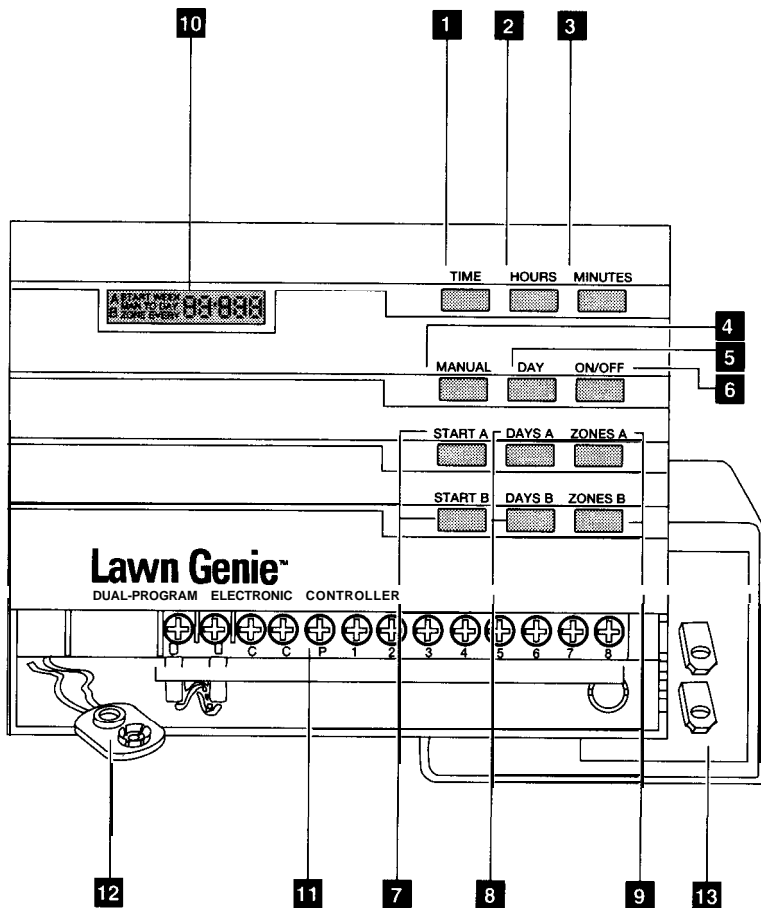
Watering run time

To deliver the correct amount of water to each Zone, you can program each Zone to shut off after a specified period of time—from 1 to 99 minutes.

Here's how the controller connects to your system



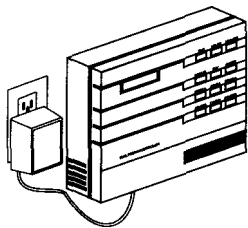
Features



- (1) Time key
For setting time of day.
- (2) Hours key
For setting current hour, start-time hour, and advancing run time in 1-minute increments.
- 3** Minutes key
For setting current minute, start-time minutes, and advancing run time in 1-minute increments.
- (4) Manual key
For temporarily interrupting a watering cycle in progress, or manually starting a watering cycle at other than the programmed time.
- 5** (5) Day key
For setting current day.
- 6** On/Off key (Rain Switch)
For preventing watering during wet weather or winter, and de-activating Zones using the Zones and Days keys.
- 7** Start keys
For setting up to six start times per day shared between Program A and B in any combination.
- 8** Days keys
For setting watering days for each Program.
- 9** Zones keys
For programming run times for each Zone.
- 10** Display
Shows current time of day, Zone being watered and watering run time.
- (11) Terminal screws
For connecting valve wires to controller.
- 12** Battery connector
For installing 9-volt battery for backup power in case of power failure.
- (13) Plug-in transformer
For converting 120-volt household current into safe, low-voltage power. (250-volt source on 50 Hz units.)

Installing the controller

Select the location

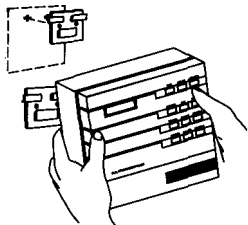


A. Choose an indoor location near a standard 120-volt dual electrical outlet. (250-volt outlet for 50 Hz international units.)



CAUTION: Don't place the controller where temperatures may exceed 130° Fahrenheit (55° Centigrade), on a circuit controlled by a switch, or on the same circuit as a high power user (refrigerator air conditioner garage door opener, etc.). Malfunctions may result.

Mount the controller



A. Install the controller mounting bracket at eye level using two screws.

B. Position controller over mounting bracket engaging tabs into recessed slots in back of controller housing. To lock in place, pull down on controller until tabs reach built-in stops,



NOTE: To install controller on a plaster or masonry wall, use plastic or lead shields to secure screws.

Connecting the valves

Wire the valves

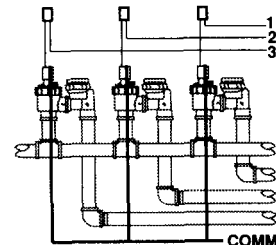
A. Run valve wiring underground wherever possible. For line runs less than 800 feet long, use 18-gauge, plastic jacketed thermostat control wire; over 800 feet, use 14-gauge wire. Your dealer can provide this wire in 2.3.4.5.6.7 and 8-wire color-coded strands.

8. Connect a single common wire to one of the wires from each valve.

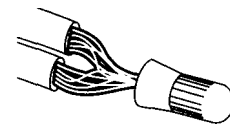
C. Solder or join all splices with wire nuts; then seal with vinyl or waterproof cement to assure a water-resistant connection.

IMPORTANT The power transformer is protected by an electronic circuit breaker. Do not connect a combination of valves requiring an inrush current of more than 1 amp at 24 VAC. (One valve only for regular models. Two valves for P-Series models.)

Wires to individual controller terminals
Common wire to single controller terminal



One wire from each valve connects to a single common wire running to controller.



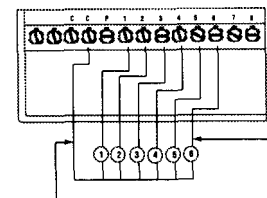
Connect the valve wires to controller

A. Run all valve wires up through hole in bottom of controller.

B. Connect the wire from valve number 1 to the terminal screw marked 1 on the controller; the wire from valve number 2, to the terminal 2, and so on. This allows your controller to selectively water the Zone controlled by a valve.

C. Connect the common wire to the terminal marked C.

D. If using a water pump or master valve, refer to page 17 for installation details (P-Series controllers only).



Single common wire connects all valves to Common (C) terminal

Individual wires connect valves to separate terminal

Connecting the transformer and battery

Connect the transformer

- Run the power cable from the transformer up through the smaller of the two openings in the bottom of the controller.
- Connect one lead to each terminal screw marked 24V. Make sure terminals at the end of the cable do not touch.
- Plug in the transformer.


A CAUTION: Use with supplied transformer ONLY!

Connect the battery

A battery back-up system is built into your Lawn Genie controller to maintain your programmed watering schedule in memory in case of temporary power failure.

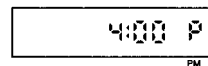
- Connect a 9-volt alkaline battery (not supplied) to the battery connector in the wiring compartment of the controller case.
- Place the battery in the wiring compartment by pushing the connector end, in and under the transformer power cable terminals.
- Replace the wiring compartment cover.
- Replace the battery once a year. More often if frequent power failures occur.

A CAUTION: Do not allow the battery connector to touch the transformer power cable, or the terminal wiring to the right. DO not connect or disconnect valve wires while any Zones are in operation,

 NOTE: Check local codes to ensure that wiring and installation meet all requirements.

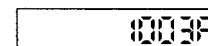
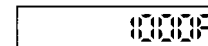
Selecting the current time and day number


In the controller's display, **12P** represents 12PM, or noon, and **12A** represents 12 AM, or midnight. When the power is first turned on, the controller always displays a time of **4:00P** (4:00 PM). Setting the current time is easy.



Set the current time:

- Press **TIME**.
- Press **HOURS** and hold key down until display shows current hour and A (AM) or P (PM).
- Press **MINUTES** and hold key down until display shows current minute. To advance time quickly, hold down **HOURS** or **MINUTES** until desired time approaches. To advance time slowly, digit by digit, press **HOURS** or **MINUTES** once for each hour or minute of advance.



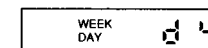
 NOTE: You must begin setting time within **30 seconds** after pressing **TIME**. Otherwise, you must press **TIME** once again.

Set the current day number

- Press **DAY**.
- Repeatedly press **MINUTES** until the current day number is displayed. Days are represented by the following numbers.

Sunday = 1
Monday = 2
Tuesday = 3
Wednesday = 4
Thursday = 5
Friday = 6
Saturday = 7

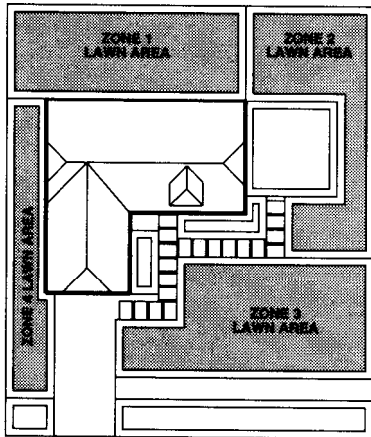
- Press **TIME** to return to the clock mode



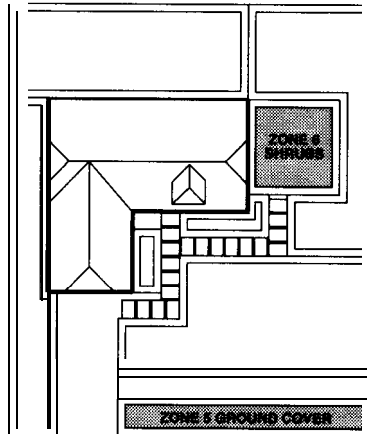
Divide up your yard

To accommodate the special watering needs of different parts of your yard, You can assign Zones to two separate watering Programs (A and B). Each Program activates the Zones assigned to it as a group with its own specific set of watering days and start times.

Decide how frequently each Zone should be watered. If, for example, Zones covering lawn areas need water every day, and Zones covering shrubs and ground cover need water every third day, you might assign all lawn Zones to Program A and all shrub/ground cover Zones to Program B.



Program A









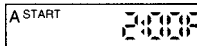
Program B

Assign start times to each Program

Now You're ready to select the times of day that each Program will begin watering the Zones assigned to it. Your controller lets you set as many as six start times a day shared in any combination between Programs A and B, i.e. 2 in Program A, 4 in Program B. or 3 starts in each Program and so on. Remember, when you enter a start time for a program, all Zones in that program will water in sequence one after the other.

To set the start times for Program A

- Press **START A** 
- Press **HOURS**  and hold until display shows the desired hour and  (AM) or  (PM).
- Press **MINUTES**  and hold until display shows the desired minute (minutes advance in increments of 5).
- Repeat Steps A through C to set additional start times for all Zones in Program A.
- Press **TIME**  to return to clock mode



To set the start times for Program B



NOTE: Skip this step if all Zones will be set to run on the same day, using the same start times. Simply place all Zones in Program A.

- Press **START B**
- Press **HOURS** and hold until display shows the desired hours and A (AM) or P (PM).
- Press **MINUTES** and hold until display shows the desired minute (minutes advance in increments of 5).
- Repeat Steps A through C to set additional start times for all Zones in Program B.
- Press **TIME** to return to clock mode.



NOTE: Since all Zones on a Program water in sequence, beginning with the lowest numbered Zone, make sure all Program start times are far enough apart to prevent watering cycles from overlapping. If overlap occurs, the controller will automatically delay the next start time to allow completion of the current watering cycle. A watering cycle that runs past midnight will cancel any overlapping start times before midnight.

Setting the watering run time-how long to water

Your controller gives you a wide range of run times to provide precisely the right amount of water to each Zone. Run times may vary from 1 to 99 minutes.

Set Program A Zones

- Press **ZONES A** once to display **105**. This indicates Zone1 is set to run for 5 minutes on the days assigned to Program A.
- If you want Zone1 to remain in Program A, press **MINUTES** until the desired run time appears. Display will increase up to 99 minutes, and begin counting again from one minute.
- To prevent Zone1 from watering in Program A, press **ON/OFF** to display **10FF**.
- Continue pressing **ZONES A** and repeating Steps B and C until all Zones have been set to the desired run times or to **OFF**.
- Press **TIME** to return to clock mode.

A ZONE 105

A ZONE 15

A ZONE 10FF

Set Program B Zones

- Press **ZONES B** once to display **10FF**. This indicates Zone 1 is not set to run in Program B.
- To make the Zone water in Program B instead of A, press **MINUTES** and **HOURS** until the desired run time appears. Display will begin counting again from 1 minute after reaching 99.
- To keep the Zone from watering in Program B (and leave it active in A, if so programmed), press **ZONES B**.
- Continue pressing **ZONES B** and repeating steps B and C until all Program B Zones have been set to the desired run times or to **OFF**.
- Press **TIME** to return to clock mode.

B ZONE 100F

B ZONE 15

B ZONE 20FF

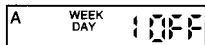
IMPORTANT You must set **OFF** all Zones that are not connected or that you do not wish to water. Do this by pressing **ZONES A** repeatedly until each Zone number to be set to **OFF** appears, then press **ON/OFF** until display indicates **OFF**. Repeat this sequence using **ZONES B** for all unused Zones in Program B.

You can program a group of Zones to water either on specific days of the week (Sunday through Saturday) or at specific intervals between watering days, (every day, every 2nd day, every 3rd day, etc.). If using the dual program option for example, you could schedule Program A Zones to water by days of the week and Program B Zones to water by day interval.

To set a Program to water on specific days of the week:



A. Press **DAYS A**. 1 is displayed (representing Sunday, see chart on pg. 9), and **ON** Program A Zones are now set to water on Sundays.



B. If you do not want Program A Zones to water on Sundays, press the **ON/OFF** until **OFF** appears.

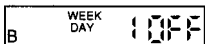


C. Press **DAYS A** to display day 2 (Monday), and set to **ON** or **OFF** by pushing the **ON/OFF** key again,

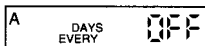
D. Repeat the previous steps until all seven days of the week have been set, and **OFF** appears in the display.

E. Press **TIME** to return to clock mode.

F. Follow the same steps to set Program B for specific days of the week, using **DAYS B**.



To set a Program for intervals between watering days:



A. Repeatedly press **DAYS A** eight times until **DAYS EVERY OFF** is displayed.



B. Repeatedly press **MINUTES** until the number of days desired between waterings appears, i.e. 1 indicates watering every day, 2 every other day, 3 every third day, etc.

C. Press **DAY**, then repeatedly press **MINUTES** until today's position in the watering interval appears, e.g. day "2" of a 3-day interval.

D. Press **TIME** to return to clock mode.

E. Follow the same steps if you wish Program B to water by day interval, using **DAYS B**.



*NOTE: If setting a day interval schedule, today is the first watering day of that schedule, unless the start times have already passed. For example, if you press **MINUTES** until 3 appears, and today is Monday, the program will water today and again on Thursday.*

*To change a Program from day-interval mode to day-of-the-week mode, press the appropriate **DAYS A** or **DAYS B** key three times to display **OFF**. Then press **ON/OFF** once to display 1. Continue programming from Step B of the "specific days of the week" section, page 14.*



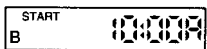
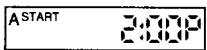
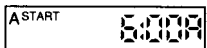
NOTE: Your controller has a preset factory program which will keep your system operating in the event of a power failure and an inactive battery. This preset program will start a watering cycle every day beginning at 2:00 AM, and will water all Zones for 5 minutes.

Here's an example of how you might use your Lawn Genie controller to program a watering schedule for a typical lawn and garden. Please refer to instructions on the preceding pages for details on specific keystroke procedures.

Set watering day schedule for each Program:

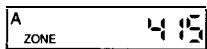
1. For lawn areas: assign Zones to Program A for watering Mondays, Thursdays and Saturdays.
2. For shrub areas: assign Zones to Program B to water every other day. (Note: either Program can water on an interval or specific-day schedule.)

Set start times (up to a total of 6 per day for both Programs combined):



1. Press to set 6:00 AM and 2:00 PM start times for Program A. Watering cycle will start at 6:00 AM in the lowest-numbered Zone assigned to Program A, and progress sequentially through all other Zones assigned to this Program. The cycle will begin again at 2:00 PM.
2. Push to set 10:00 AM start time for Program B. Watering cycle for the lowest-numbered Zone assigned to Program B will start at 10:00 AM and progress sequentially through all other Zones assigned to this Program.

Set run times and Program assignments for each Zone:



1. Set Zones 1-4 to water lawn areas for 15 minutes under Program A.
2. Set Zone 5 and 6 to water shrubbery for 15 minutes under Program B.

To connect your controller to a well pump or master valve:

If your water doesn't come from the pipes of a standard public water supply, you may be using a pump to draw directly from a well, pond, or similar source. In these cases, you'll need to make the following wiring connections so your sprinkler controller can activate the pump relay.

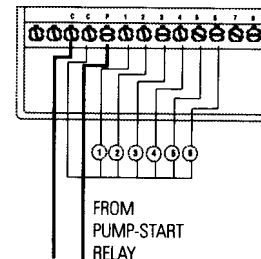
- A. Bring two wires up through the same hole in the controller cabinet used for the valve wiring.
- B. Connect one wire to the terminal marked P (PUMP).
- C. Connect second wire to the terminal marked C (COMMON).

O. For pump start relay installations, connect the two wires to an auxiliary relay with a coil rated at 24 VAC and a current no greater than 9 VA. Then wire the relay's contact to supply voltage to the pump's contactor. A qualified electrician can make these connections for you. For best results, use Lawn Genie's L30000W Pump Starter to control a pump up to 2 HP at 240 volts.

E. For master valve installations, connect both wires to a master valve rated at 24 VAC and a current no greater than 9 VA.



NOTE: The controller's pump output will turn on whenever a Zone is watering manually or automatically.



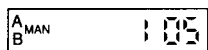
Manual watering- to water a selected Zone



To water a single Zone at a time, press **MANUAL** once, then repeatedly press **ZONES A** or **ZONES B** to advance to the Zone number you wish to water. Press **ON/OFF** once to begin watering the selected Zone. The display will flash MAN, the Zone number being watered, and the minutes remaining. Only this Zone will water. Cancel the manual mode at any time by pressing **ON/OFF**.



Semi-automatic watering-to water all Zones




A. To water all Zones in Programs A and B, press **MANUAL** once, then **ON/OFF** once. The display will flash MAN, the Zone number being watered, and the minutes remaining. Cancel the manual mode at any time by pressing **ON/OFF**.



B. To water only the Zones in Program A, press **MANUAL** twice, then **ON/OFF** once. The display will flash MAN, the Zone number being watered, and count down the minutes remaining. All Program A Zones will water once in sequence. Cancel the manual mode at any time by pressing **ON/OFF**.


C. To water only the Zones in Program B, press **MANUAL** three times, then **ON/OFF** once. The display will flash MAN, the Zone being watered, and count down the minutes remaining. All Program B Zones will water once in sequence. Cancel the manual mode at any time by pressing **ON/OFF**.

 **NOTE:** The controller will automatically revert to your programmed schedule after watering has finished in manual or semi-automatic mode.

Interrupting the watering cycle- Pause Function

To freeze a manual or semi-automatic watering cycle at any point in the Zone's run time, press **MANUAL**. The display will flash **PSE**. To resume the watering cycle, press **MANUAL** again, and the Zone's count will continue.



 **NOTE:** If PAUSE is activated and forgotten, the controller will automatically reset itself at midnight and resume its normal programmed schedule.

Turning off the system

To prevent automatic watering when no cycle is in progress (for example if rain is expected, or during the winter), press **ON/OFF** once. The display will flash **OFF**. Press **ON/OFF** again to resume automatic watering, (programming is automatically retained). To conserve backup battery, do not unplug controller during extended period in the OFF mode.

Electronic circuit breaker operation

If the controller detects a short circuit, it will automatically turn off power to the shorted Zone's automatic valve. The display will alternately flash **FUS** and the shorted Zone's number and run time. The controller will continue to automatically water all other Zones under the programmed watering cycles, while the display continues flashing the Zone number with the short circuit.

To return the controller and display to normal operating mode after repairing the short, press **TIME**, **START A** or **START B**.

Malfunctions aren't common, but when they occur, they're often due to one of these frequently overlooked causes.

Problem	Possible Cause
<i>One or more valves do not water</i>	<ol style="list-style-type: none"> 1. Faulty solenoid 2. Poor wire connection 3. Possible break in wire 4. Valve flow stem screwed down too far
<i>FUS and a Zone number are alternately flashing on display and no watering will occur</i>	<ol style="list-style-type: none"> 1. Faulty solenoid 2. Poor or shorted wire connection
<i>Clock won't keep correct time</i>	<ol style="list-style-type: none"> 1. Controller on circuit controlled by a switch 2. Controller on same circuit as high power user (refrigerator, air conditioner, garage door opener, etc.) 3. Power failure and no battery or dead battery
<i>Zones turn on when they're NOT programmed to start</i>	<ol style="list-style-type: none"> 1. Total combined run times have overlapped with another start time 2. Too many start times
<i>Clock has correct time and Zones appear to be functioning properly, but no valves will turn on</i>	<ol style="list-style-type: none"> 1. One or more Zone are set to OFF 2. The common wire is not connected 3. Valve flow stem is screwed down too far
<i>One Zone won't shut off electrically</i>	<ol style="list-style-type: none"> 1. Faulty valve 2. Particles of dirt or debris are stuck in valve

WARNING: Do not link two or more controllers using a common transformer or common wire.

If possible, schedule watering cycles in the early morning, when water pressure is at its highest. This allows ample time for water to soak in while evaporation and wind drift are low. Evening watering can leave foliage damp for too long, leading to mildew under some circumstances.

Ask your local nursery or garden center for a schedule suited to the special weather and soil conditions in your area.

For additional assistance, call our Customer Service Hot-line (800) 231-5117.

2 Year Limited Warranty

LIMITED WARRANTY

Lawn Genie warrants to the purchaser of its products for a period of two (2) years from the date of original purchase that any defective product proved to be caused by faulty workmanship or faulty materials, when installed per instructions and used in a normal manner, will be repaired or replaced at Lawn Genie's option at no charge, providing the product is received at the Lawn Genie factory, or authorized factory service center, with all transportation charges prepaid within two Years of the date of original purchase. This warranty does not apply to damages or malfunctions resulting from accidents, misuse or neglect. Lawn Genie will not pay labor or other costs of removal or reinstallation of any so-called defective products.

NO IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO) FITNESS FOR A PARTICULAR PURPOSE, WHERE APPLICABLE, AND MERCHANTABILITY SHALL EXTEND BEYOND THE PERIOD OF THE EXPRESS WARRANTY DESCRIBED ABOVE. IN NO EVENT SHALL LAWN GENIE BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES TO PROPERTY WHICH MAY ARISE FROM OR RELATE TO THE PURCHASE OF ANY LAWN GENIE PRODUCT.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so one or both of the above limitations may not apply to you.

This warranty gives you specific legal rights, and You may also have other rights which vary from state to state.

To exercise Your warranty, send unit, with photocopy of dated receipt, postage prepaid to the address on next page

Zone legend

Zone	Watering Days	Run lime	location
1			
2			
3			
4			
5			
6			
7			
8			
Start limes	(maximum total of six)		
	Program A or Program B		
1.			
2.			
3.			
4.			
5.			
6.			

LawnGenie

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