

Zone legend


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

Lawn Genie®

Electronic Sprinkler Timer

Installation and Operation Guide

For Models DPC 4, DPC 4PS,
DPC 6, DPC 6PS, DPC 8PS

		TIME	HOURS	MINUTES
<input type="checkbox"/> START WEEK <input type="checkbox"/> START TEST <input type="checkbox"/> B RISE EVERY				
		MANUAL	DAY	ON/OFF
		START A	DAYS A	ZONES A
		START B	DAYS B	ZONES B
 DUAL PROGRAM CONTROLLER				

is manual explains how to install your Lawn Genie sprinkler timer 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.

Introduction	3
Features	5
Installation	
Installing the timer	6
Connecting the valves	7
Connecting the transformer and battery	8
Programming	
Setting the current time	9
Selecting the right Program	10
Setting the start times	11
Setting the run time and Program for each Zone	12
Setting the day schedules	14
Typical program for lawn & garden	16
Additional information	
Installing a pump-start relay	17
Special functions	19
Trouble-shooting	20
Watering considerations	21
Warranty	22
Zone Legend	24

Your Lawn Genie sprinkler timer 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.

Your Lawn Genie DPC timer 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 DPC 4 and DPC 4PS let you divide your yard into as many as four Zones; the DPC 6 and DPC 6PS allow up to six; and the DPC 8PS 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 watering days. For example, Program A may water Zones 1, 3, 4 and 5 every third day, and Program B

may water Zones 2 and 6 daily. For details, see "Selecting the right Program" on page 10.

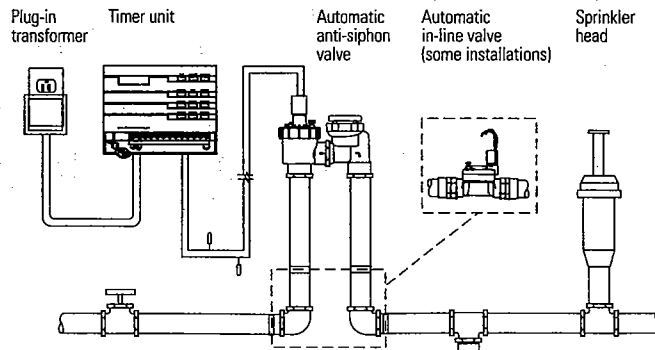
Start times

Your DPC timer 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.

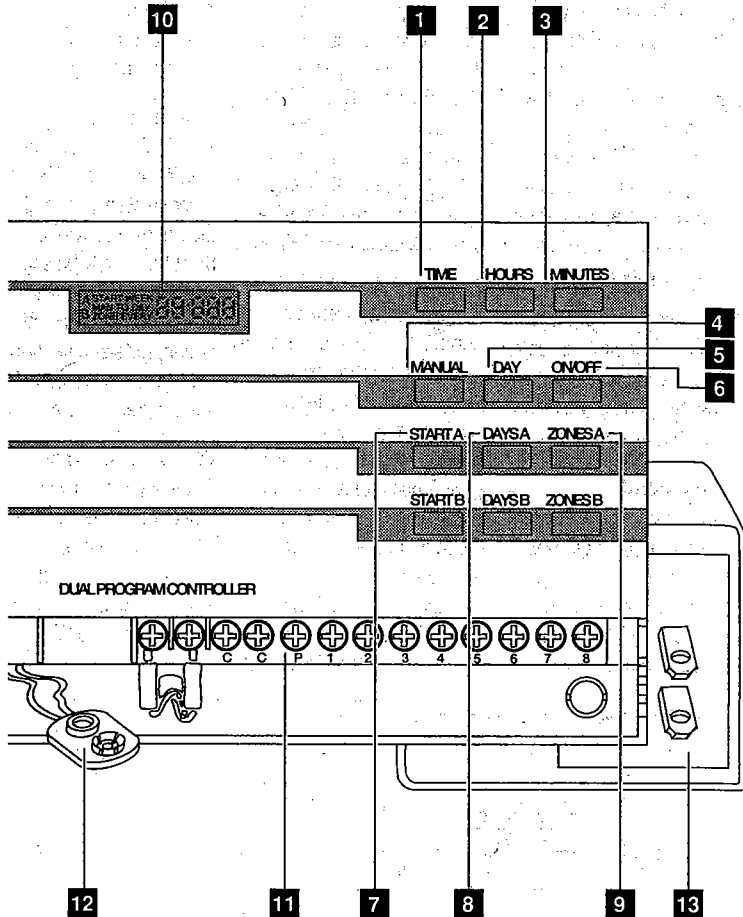
Watering run time

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 timer connects to your system



Features



- 1 Time key**
For setting time of day.
- 2 Hours key**
For setting current hour and hours of start times.
- 3 Minutes key**
For setting current minute and minutes of start times.
- 4 Manual key**
For temporarily interrupting a watering cycle in progress, or manually starting a watering cycle at other than the programmed time.
- 5 Day key**
For setting current day and watering days.
- 6 On/Off key**
For preventing automatic watering during wet weather or winter.
- 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 setting the run time and Program assignment 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 timer.
- 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 timer

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 timer 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, etc.). Malfunctions may result.

Mount the timer

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

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



NOTE: To install timer 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.

B. 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, or use Gel-Tite connectors 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 PS-Series models.)

Connect the valve wires to timer

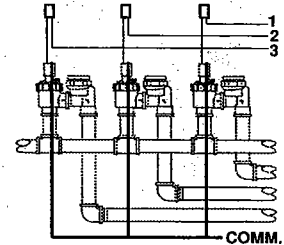
A. Run all valve wires up through hole in bottom of timer.

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

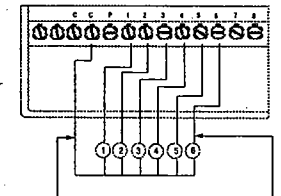
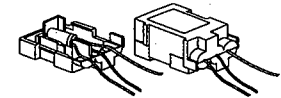
C. Connect the common wire to the terminal marked C.

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

Wires to individual timer terminals
Common wire to single timer terminal



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



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

Individual wires connect valves to separate terminals

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 timer.
- 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.



CAUTION: Use with supplied transformer ONLY!

Connect the battery

A battery back-up system is built into your Lawn Genie timer 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 timer 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.



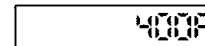
CAUTION: Do not allow the battery connector to touch the transformer power cable, or the terminal wiring to the right. Do not connect or disconnect valve wires while any Zones are in operation.



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

Selecting the current time and day number

In the timer's display, $\downarrow \uparrow$ represents 12 PM, or noon, and $\downarrow \uparrow \downarrow$ represents 12 AM, or midnight. When the power is first turned on, the timer always displays a time of $4:00 \downarrow \uparrow$ (4:00 PM). Setting the current time is easy.



Set the current time:

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



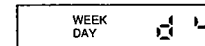
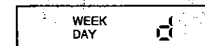
NOTE: You must begin setting time within **10 seconds** after pressing $\downarrow \uparrow$ TIME. Otherwise, you must press $\downarrow \uparrow$ TIME once again.

Set the current day number

- Press $\downarrow \uparrow$ DAY.
- Press $\downarrow \uparrow$ MINUTES repeatedly 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 $\downarrow \uparrow$ TIME to return to the clock mode.

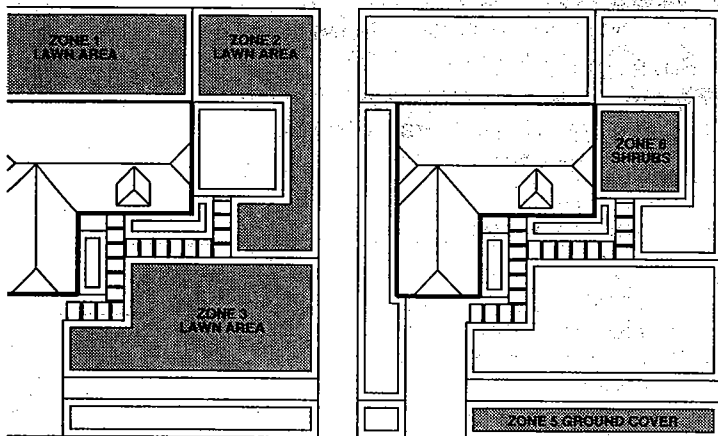


Selecting the right Program

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.



Setting start times

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 timer lets you set as many as six start times a day shared in any combination between Programs A and B, ie. 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 **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 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 timer 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 timer 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 Zone 1 is set to run for 5 minutes on the days assigned to Program A.
- If you want Zone 1 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 remove Zone 1 from 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 **0FF**.
- Press **TIME** to return to clock mode.

A ZONE 105

A ZONE 115

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, because it's already assigned to Program A.
- To transfer the Zone to Program B, press **MINUTES** until the desired run time appears. Display will increase up to 99 minutes, and begin counting again from one minute.
- To leave the Zone in Program A, 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 **0FF**.
- Press **TIME** to return to clock mode.

B ZONE 10FF

B ZONE 115

B ZONE 20FF



IMPORTANT: You must set **0FF** 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 **0FF** appears, then press **ON/OFF** until display indicates **0FF**. Repeat this sequence using **ZONES B** for all unused Zones in Program B.

Setting watering day schedules

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:

WEEK DAY 1 0n

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

WEEK DAY 1 0FF

B. If you do not want Program A Zones to water on Sundays, press the **ON/OFF** until 0FF appears.

WEEK DAY 2 0n

C. Press **DAYS A** to display day 2 (Monday), and set to 0n or 0FF by pushing the **ON/OFF** key again.

D. Repeat the previous steps until all seven days of the week have been set, and 0FF appears in the display.

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

WEEK DAY 1 0FF

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

To set a Program for day intervals between watering days:

DAYS EVERY 0FF

A. Press **DAYS A** repeatedly eight times until DAYS EVERY 0FF is displayed.

DAYS EVERY 2

B. Press **MINUTES** repeatedly 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 **TIME** to return to clock mode.

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

Setting watering day schedules



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 0FF. Then press **ON/OFF** once to display 1 0n. Continue programming from Step B of the "specific days of the week" section, page 14.



NOTE: The DPC timers have 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 how you might use your Lawn Genie timer 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.

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

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.

RT 6:00A

RT 2:00P

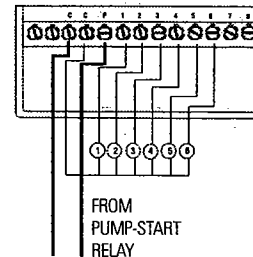
RT 10:00A

NE 4 15

NE 5 15

To connect your timer 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 timer can activate the pump relay.



- A. Bring two wires up through the same hole in the timer 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).
 - D. 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. A Lawn Genie 435 Pump Relay can be connected to the two wires to directly 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 timer's pump output will turn on whenever a Zone is watering manually or automatically.

Special functions

Manual watering

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

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**.

Special functions

Interrupting the watering cycle

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 timer 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. Do not unplug timer during extended period in the OFF mode.

Electronic circuit breaker operation

If the timer 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 timer 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 timer and display to normal operating mode after repairing the short, press **TIME**, **START A** or **START B**.

A MAN PSE

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 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>Zone and a Zone number are repeatedly 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. Timer on circuit controlled by a switch 2. Timer on same circuit as high power user (refrigerator, air conditioner, etc.) 3. Power failure and no battery or dead battery
<i>Valves 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 automatically</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.

In hot weather, plan on supplying about 1/2" of water every other day to a typical lawn. Clay soils do better with 1/4" every day to reduce runoff and puddling. Ask your local nursery for a schedule suited to the special weather and soil conditions in your area.

Once you know how much water to supply, and how often, place a flat pan or other container on your lawn and measure how long it takes your sprinkler system to deliver that precise amount. Use these run times to prevent over-watering.

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

Warranty

LIMITED WARRANTY

Lawn Genie warrants to the purchaser of its products for a period of one (1) year 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 one year 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*:

Lawn Genie

788 Fairview Drive
Carson City, Nevada 89701

Mailing Address:
P.O. Box "A"
Carson City, Nevada 87902

(702) 882-6786

(800) 231-5117