

LIMITED 1 YEAR WARRANTY

Richdel warrants to the purchaser of its products for a period of one (1) year from the date of original purchase for use that any defective product proved to be caused by faulty workmanship or faulty material, when installed per instructions and used in a normal manner, will be repaired or replaced at Richdel's option at no charge, providing the product is sent to the Richdel factory, or authorized factory service center, with all transportation charges prepaid. This warranty does not apply to the damages or malfunctions resulting from accidents, misuse, or neglect. No allowances will be made for labor, for removal or reinstallation of any so-claimed defective products.

To exercise your warranty, send unit, with photocopy of dated receipt, postage prepaid, to:

INSTALLATION AND OPERATING INSTRUCTIONS

RICHDEL MODEL R402HLG

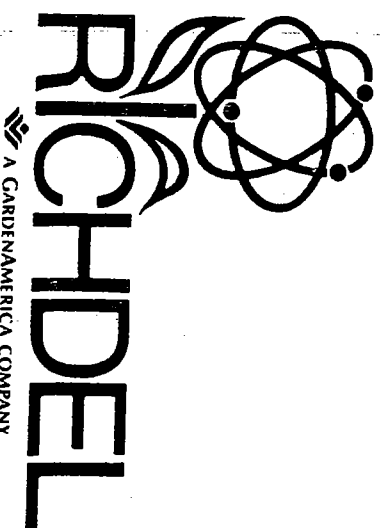


LAWN GENIE™

6 STATION

LAWN SPRINKLER

CONTROL



1851 Roop Street
Carson City, Nevada 89701
P.O. Drawer A
Carson City, Nevada 89702
800-RICHDEL

INSTALLATION INSTRUCTIONS

The R402HLG is a 6 station controller that can be programmed to water from six times a day to once a week. The watering time can be adjusted from approximately 5 to 30 minutes for each circuit. The controller is in a weather proof case that can be mounted anywhere and has a lockable latch to discourage unauthorized adjustment. This controller uses an approved class 2, 24V transformer as a power source.

Step 1. Assemble the hanger (1) to the back of the box with the screw provided. Remove the screw (2) and voltage plate (3). This will allow access to all mounting holes. Install one No. 8 screw at desired location, leaving head of screw extended 1/4". Hang controller on screw using keyhole provided in the hanger (1). Straighten controller into desired position and install two No. 8 screws through holes provided in the bottom portion of box.

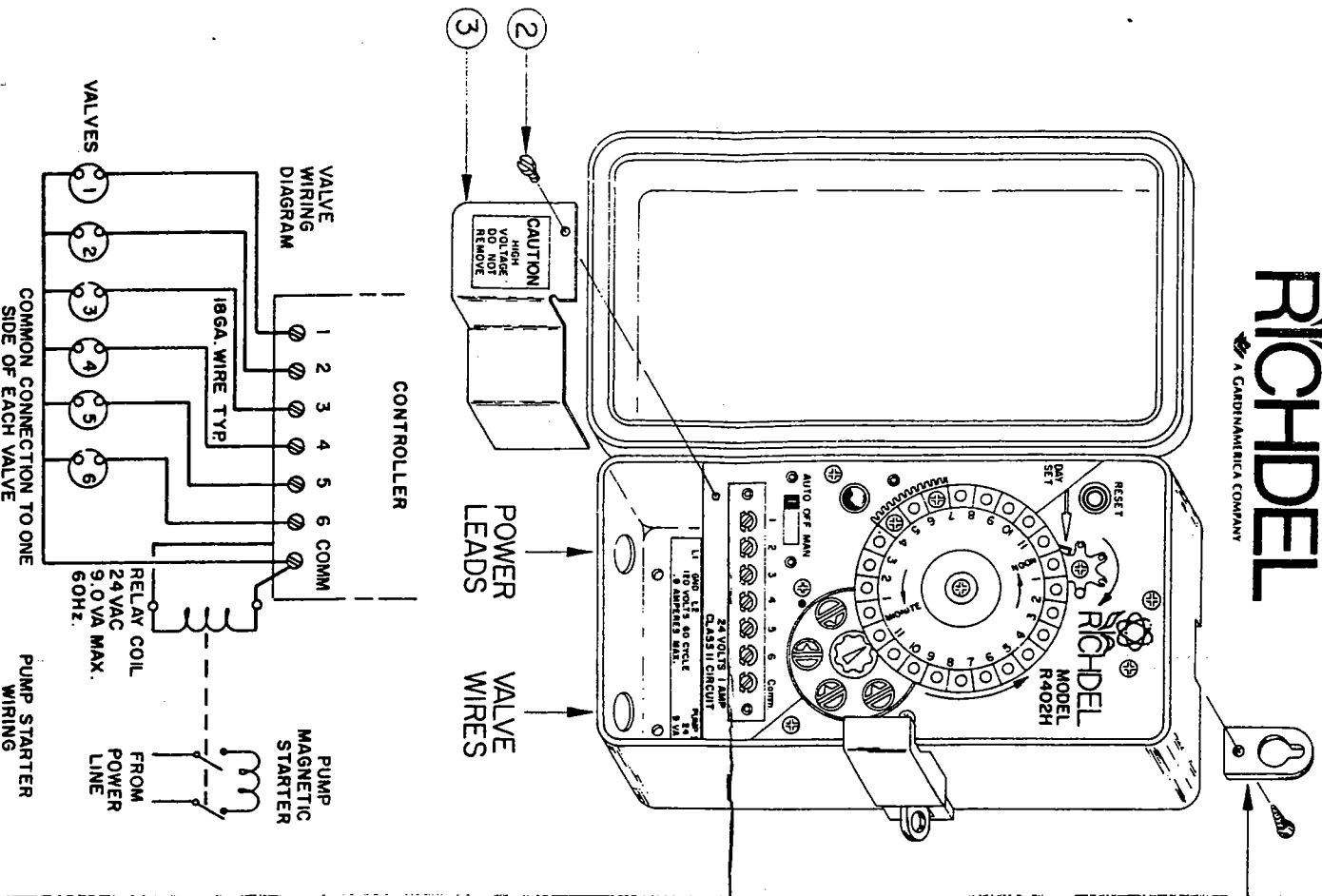
Step 2. Assemble conduit for power leads and wires. **NOTE:** Left hole for power leads, right hole for valve wires. When water for sprinklers is obtained from a private supply, an additional 24 volt lead is provided to operate a pump motor starter. The pump will operate only when sprinklers are in use. (See schematic opposite page). The pump start lead may be routed through the right hole with valve wires.

Step 3. Route power leads and connect to provided wires colored as: green for common ground, black for Line 1 and white for Line 2 using wire nuts. **CAUTION:** Replace voltage plate (3) and screw (2) making sure that the power leads are contained under voltage plate.

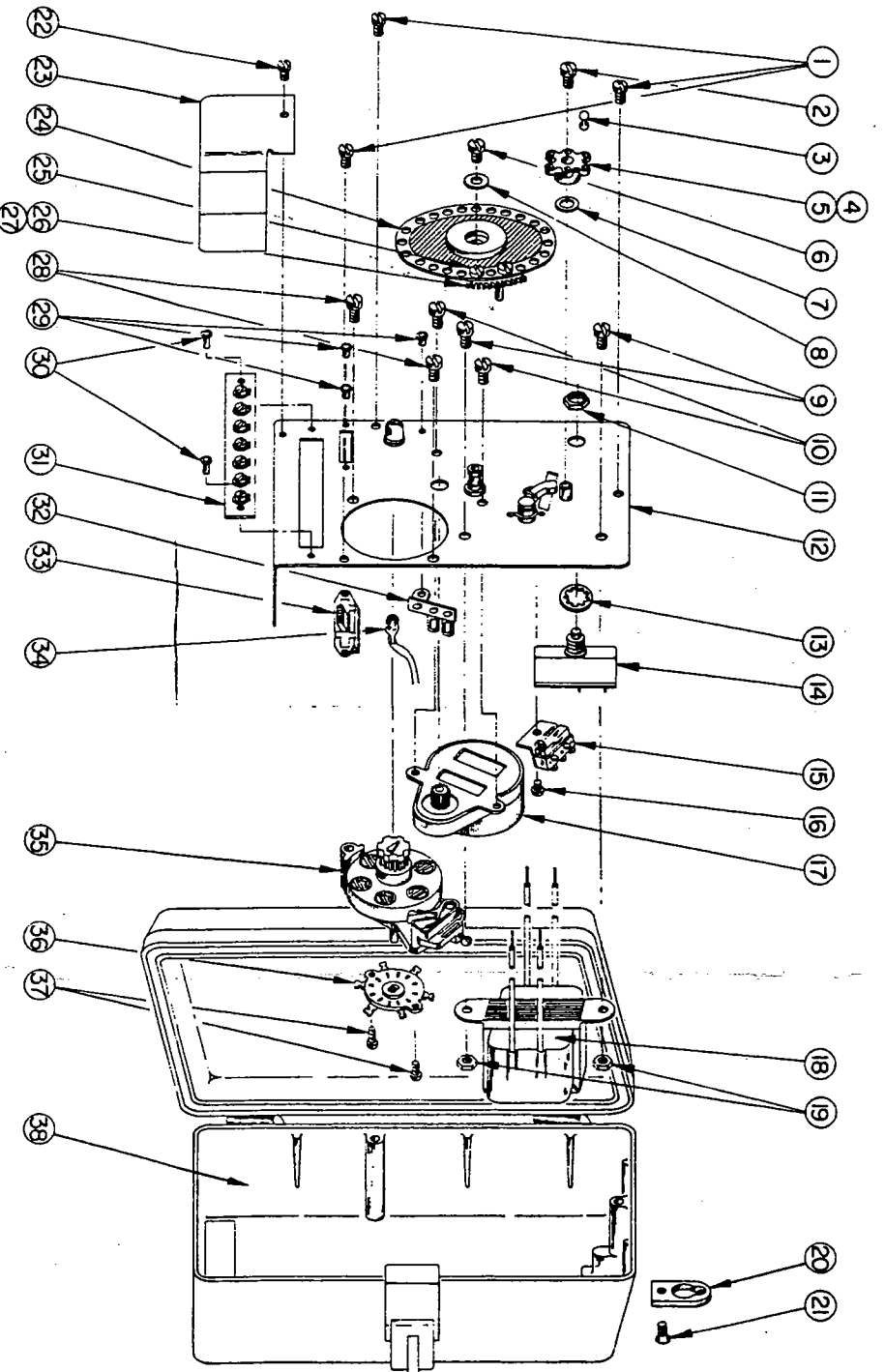
Step 4. Wiring to the valves can be placed underground alongside the pipes. Run one common wire to each location to serve all the valves at that location. Use 18 gauge solid wire plastic jacketed thermostat control wire for runs not over 800 feet and 16 gauge over 800 feet. Be sure all splices are soldered or joined with wire nuts and sealed with vinyl cement or other suitable water-proofing cement. This wire is available from your dealer in 2, 3, 4, 5, 6, 7 and 8 color coded wires. **IMPORTANT:** The power transformer is protected by a circuit breaker. Do not connect more than 2 valves to one circuit or use a valve that requires more than 1 AMP. at 24 VAC. When water for sprinklers is obtained from a private supply, an additional 24 volt lead is provided to operate a pump motor starter. The pump will operate while the sprinklers are in use.

Step 5. Connect the wire from valve No. 1 to the terminal on control chassis marked No. 1, connect valve No. 2 to terminal No. 2, etc. Connect common wires to the terminal on chassis marked Comm.

NOTE: Due to varying regulations check your local codes.



RICHDEL
A CARDINAMERICA COMPANY
MODEL R402HLG
SIX STATION
CONTROLLER



ITEM	PART NO.	DESCRIPTION
1	RS120P06-ABP06	Screw
2	RS122P08-32P03	Screw
3	402-96	Skip-A-Day Pin
4	402-94	Six Day Skip Wheel
5	402-95	Seven Day Skip Wheel
6	RS122P08-32P04	Screw
7	402-91	Thrust Washer
8	402-61	Dial Washer
9	RS122P08-32P08	Screw
10	RS120P08-F-P04	Screw
11	RS130-38-27FC	Hex Nut
12	402-162	Chassis, Staked
13	RS110138-035FZ	Int. Tooth Lock Washer
14	406-9	Circuit Breaker
15	402-105	Microswitch/Bracket Assy.
16	RS122R04-40P02	Screw
17	406-3	Motor 24VAC
18	402-130	Transformer
19	RS130-08-32FC	Hex Nut

ITEM	PART NO.	DESCRIPTION
20	402-113	Hanger
21	RS120C06-ABP08	Screw
22	RS120P06-ABP06	Screw
23	402-124	Voltage Plate Assy.
24	406-85BE	Time Dial Assy.
25	RS122P06-32P03	Screw
26	402-59	Tripper Gear/Post
27	402-92	Tripper Gear (Repeat Cycle)
28	RS120P08-ABP06	Screw
29	SE47	Screw
30	SE47	Eyelet
31	402-103	Terminal Board (Wired)
32	402-70	Tie Point
33	406-2	Slide Switch
34	406-5	Pilot Lamp
35	406-70	Selector Assy.
36	402-93	Water Switch
37	RS122P04-40P04	Screw
38	402-148	Case Assy., complete
	NOT ILLUSTRATED:	
	402-88	Acc. Pack. (Skip-A-Day)

OPERATING INSTRUCTIONS

- Step 1. TO SET TIME OF DAY:** Rotate the time dial (8) counterclockwise until the proper time of day coincides with the arrow on the circuit selector knob, (9). **CAUTION:** The time dial is made to rotate in one direction only. **DO NOT FORCE THE DIAL IN THE REVERSE DIRECTION.** Then gently rotate the time dial in a clockwise direction until a positive stop is felt to remove the backlash in the clutch and gears (failure to do so may result in up to an hour delay in initial rotation of the time dial).
- Step 2. TO USE SKIP-A-DAY DIAL:** Each spoke of the skip-a-day (4) represents a day of the week. To eliminate watering on certain days, insert a skip-a-day pin in the spoke for that day. For example, to water every other day, place pin in every other spoke of a six day dial. Use the seven day dial for a watering program which follows the actual days of the week. After inserting pins, turn the dial until that spoke which represents the day is opposite the index arrow on the chassis. **CAUTION:** Be sure pawl arm (5) is in full detent position, as shown, when setting.
- Step 3. AUTOMATIC-OFF-MANUAL (RAIN) SWITCH:** For programmed watering, move switch (11) to automatic position. For shutdown of system (Rain), move switch to off. This position turns off power to valves but permits clock to maintain operation. For manual operation, turn switch to off position, rotate circuit selector knob (9) until desired circuit number aligns with dot on chassis, then move switch to manual. The circuit indicator light (12) will remain on when switch is in manual position. **NOTE:** Always return circuit selector knob to index position with arrow pointing directly to time dial and move switch to off or automatic position after manual operation.
- Step 4. WATERING PERIOD:** Locate tripper gear (7) on time dial to cover the period for which watering is to occur. An additional tripper gear, 402-92, may be added if more than one watering period a day is desired. A minimum of one hour is required between watering periods. **AUTOMATIC REPEAT CYCLE:** If more than one watering per day is normally required a repeat tripper gear can be added to recycle again in 1 hour (minimum). For a repeat tripper gear 402-92, mail eighty cents (Calif. & Nev. residents please include sales tax) to main office in Carson City, Nevada.
- Step 5. TO ADJUST WATERING TIME:** Each of the six circuits can be individually adjusted for watering time. To change time simply move switch (11) to off position, rotate circuit selector knob (9) until timing cam (10) is visible, insert a dime or screw driver into slot and rotate until arrow on timing cam aligns with minute designation required. Indicated time settings are approximate. After circuit timing adjustment is completed rotate circuit selector knob to index position with arrow pointing directly to time dial and move switch (11) to automatic position.
- Step 6. CIRCUIT BREAKER:** A tripped circuit breaker (6) indicates an electrical problem in the wiring to the valves or in the valve. If the circuit breaker trips, the controller will stop on the circuit causing the problem. To reset the circuit breaker, push the reset button.

