

## Double Dial-12: Programming Guide

ON & OFF  $\nabla$  - These buttons are used for three functions:

1. To MANUALLY or SEMI-AUTOMATICALLY turn ON or OFF a station or stations.
2.  $\Delta$  to increase or  $\nabla$  decrease a time function or current day on the display.
3. Press  $\Delta$  &  $\nabla$  together in the PE position, to erase all previously programmed data, except CURRENT TIME and DAY.

\*NOTE: When pressing  $\Delta$  or  $\nabla$  buttons, count will advance slowly for approximately 5 seconds, then it will accelerate for expediency.

AUTO RUN - The FUNCTION DIAL should be placed in AUTO RUN position after programming or manual operation is completed.

CURRENT TIME - In this mode the Current Time of Day can be displayed or changed.

To change time use:  $\Delta$  To Increase;  $\nabla$  To Decrease.

CURRENT DAY - In this mode the Current Day of the week can be displayed or changed. (Sun=1 ... Sat=7)

To change Current Day use:  $\Delta$  To Increase;  $\nabla$  To Decrease.

At this point, the Double Dial 12 controller will operate the factory preset program, which means that each station will water for 10 minutes, starting at 4:00 a.m., everyday (according to slide switch).

If you wish to establish your own program, follow the programming instructions.

At this point, before reprogramming you may use the PE, PROGRAM ERASE switch.

PROGRAM ERASE (PE) - To erase all the Watering Times and all the Watering Start Times, dial to the PE position and push BOTH the " $\Delta$ " and " $\nabla$ " buttons at the same time (PE on display will flash).

STATION WATERING TIME - In this position the Station watering time can be changed or displayed. The watering duration can be set from 0 to 99 minutes in one minute increments.

To change Station Watering time use:  $\Delta$  To Increase;  $\nabla$  To Decrease.

\*Watering time must be individually set for each station. \*If a station is currently watering, it's displayed watering time will be flashing.

WATERING START TIME - In each position (1-4) the watering start time can be displayed or changed.

To change Watering Start Time(s) use:  $\Delta$  To Increase;  $\nabla$  To Decrease.

To cancel a Watering Start Time set time to "zero".

Note: The controller can water up to four times per day. Each WATERING START TIME initiates all programmed stations sequentially. (To water once a day, enter 1 WATERING START TIME).

RAIN OFF / 2 MIN TEST - When the FUNCTION DIAL is in this position it has two functions.

1. RAIN OFF - The unit will not allow any automatic WATERING STARTS.

2. 2 MIN TEST - To test or Syringe, press the "On" button. Each station will water for 2 minutes and return to the RAIN OFF status.

To terminate Test before sequence is completed, press "OFF" button.

Note: This mode will not alter the program entered.

To resume Automatic operation, return dial to AUTORUN.

MANUAL - In this position any station can be turned on manually. Turn STATION DIAL to desired station number and use "ON", "OFF" Buttons. Station will water until turned OFF.

\*Note - If any station is unintentionally left ON, it will automatically turn OFF at 12:00 a.m. (midnight).

SEMI-AUTOMATIC WATERING - In this position you can initiate a manual WATERING CYCLE. All stations will water sequentially for the programmed STATION WATERING TIME.

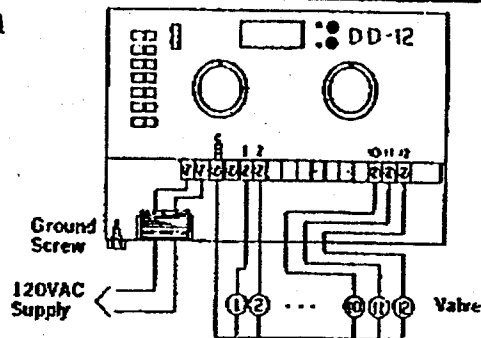
Turn Station Dial to first station, use "ON", "OFF" buttons.

WATERING DAYS SCHEDULE - The unit has a standard 6 or 7 day watering schedule. Use Slide switches to select scheduled Days to water. (Slide switch to LEFT is ON - Slide switch to RIGHT is OFF).

## Electrical Hook-Up Instructions:

1. Mount controller on wall or pedestal.
2. Remove lower panel.
3. Connect ground screw to grounding rod or verified ground.
4. Connect 120VAC supply to black and white transformer wire. Follow all applicable electrical wiring codes.
5. Wire valve solenoids following figure #1.
6. Install ~~four~~ 1.5 volt batteries after installation and programming are completed. (Batteries are not included.)
7. Secure lower panel.

Fig. 1



## Warning:

1. All electrical hook-ups must be performed as instructed or warranty is void. Follow all applicable, local electrical wiring codes.
2. To insure proper operation of unit, the box MUST be properly grounded.
3. Electrical power must be disconnected prior to:
  1. Hook-up.
  2. Service of controller.
  3. Service of valves.
 This is to prevent power drain.
4. Do not install back-up batteries before installation and programming are completed.

## Trouble Shooting Guide:

### A. NO DISPLAY

1. Check fuse.
2. Check primary and secondary voltage to transformer.
3. Remove batteries (check voltage). Disconnect power to controller and press push buttons for 30 seconds. Reconnect power and reprogram. Install good batteries.

### B. ALL STATIONS WILL NOT TURN ON AUTOMATICALLY

1. Check Watering Starts (1-4) for proper start times.

2. Verify current and Watering Days schedule.
3. Check that station watering time is not zero.

### C. STATION STAYS ON

1. Check station Watering Time.
2. Check solenoids for shorts or obstructions.
3. Check valve for obstructions or malfunctions.

### D. STATION WILL NOT TURN ON

1. A station will not operate with zero Watering Time.
2. Check if common wire is correctly connected.
3. Check continuity to each valve.