

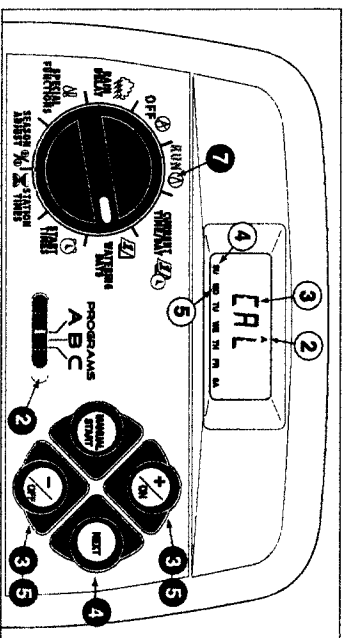
Setting the Watering Day Schedule

Each program can have its own Calendar, Interval, Odd or Even schedule, but only one schedule can be active at a time for that program. The watering day schedule or OFF shown in the display when the control dial is in the **WATERING DAYS** [Z] position will be the active schedule for that program.

- To set a Calendar schedule, continue below.
- To set an Interval schedule, continue on page 23.
- To set an Odd or Even schedule, continue on page 24.
- To turn a program Off, refer to page 26.

Setting a Calendar Schedule

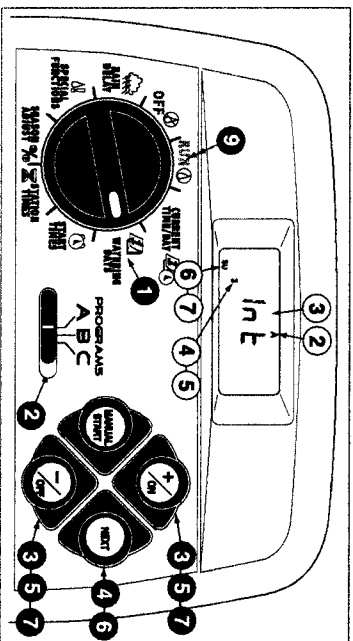
- 1 - Turn the control dial to the **WATERING DAYS** [Z] position.
- 2 - Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.
- 3 - The current watering schedule will be displayed. If **CAL** (Calendar) is not displayed, press the **+ / ON** or **- / OFF** button as needed to select **CAL**.
- 4 - Press the **NEXT** button. The watering days currently set for this program will be displayed; **SU** (Sunday) will begin flashing.
- 5 - To select Sunday as a watering day, press the **+ / ON** button. To remove Sunday from the schedule, press the **- / OFF** button; **mo** (Monday) will now begin flashing. Continue to select or remove each day of the week until only the desired watering days are shown.



6. - To set a Calendar schedule for another program, return to step 2.
7. - When you have completed setting the Calendar schedule for each program (as needed) return the control dial to the **RUN** [O] position.

Setting an Interval Schedule

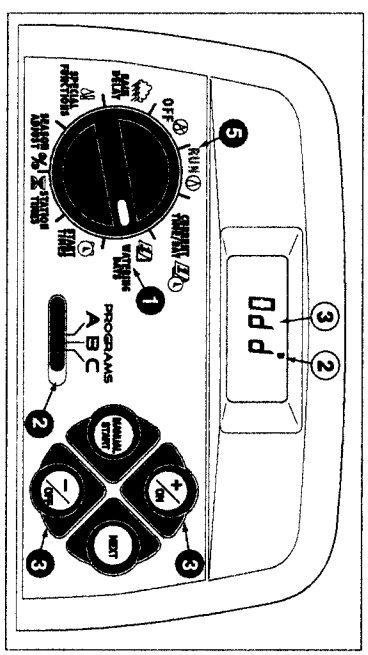
- 1 Turn the control dial to the **WATERING DAYS** [Z] position.
 - 2 Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.
 - 3 The current watering schedule will be displayed. If **Int** (Interval) is not displayed, press the **+ / ON** or **- / OFF** button as needed to select **Int**.
 - 4 Press the **NEXT** button. The current Interval number (1-7) will begin flashing. The day of the week on which the Interval will start will be shown.
 - 5 To change the Interval number, press the **+ / ON** or **- / OFF** button until the desired number is flashing.
 - 6 Press the **NEXT** button. The Interval start day will begin flashing.
 - 7 To change the Interval start day, press the **+ / ON** button or the **- / OFF** button until the desired day is flashing.
 - 8 To set an Interval schedule for another program, repeat all of the steps beginning at step 2.
 - 9 When you have completed setting the Interval schedule for each program (as needed), return the control dial to the **RUN** [D] position.
- Note:** The Day Exclusion feature enables you to select any day(s) of the week to be excluded and remain off when using an Interval or Odd/Even watering schedule.
- See page 25 for detailed information.



Setting an Odd or Even Schedule

- 1- Turn the control dial to the **WATERING DAYS** position.
 - 2- Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.
 - 3- The current watering schedule will be displayed. If **Odd** or **Even** is not displayed, press the **+/ON** or **-/OFF** button as needed to select **Odd** or **Even**.
- Note:** When **Odd** is selected, the 31st day of the month and February 29th of a leap year will not be active watering days.


- 4.- To set an Odd or Even schedule for another program, repeat steps 2 and 3 as needed.
 - 5- When you have completed setting the **Odd** or **Even** schedule for each program as needed, return the control dial to the **RUN** position.
- Note:** The Day Exclusion feature enables you to select any day(s) of the week to be excluded and remain off when using an Interval or Odd/Even watering schedule.
See page 25 for detailed information.

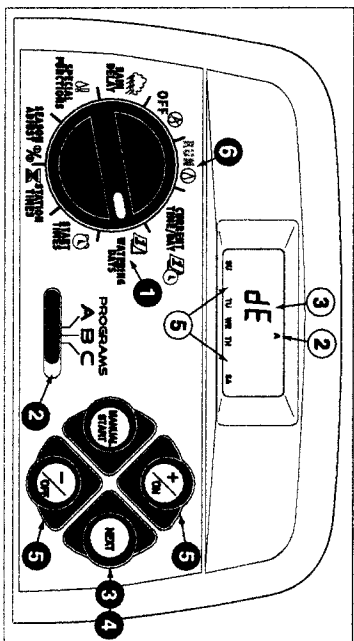


Using the Day Exclusion Feature


A Calendar schedule is generally used to exclude or select specific days of the week for watering. However, if an **Interval** or **Odd/Even** watering schedule is preferred (or required), the Day Exclusion feature enables you to select any day(s) of the week to be excluded and remain off regardless of the program schedule.

Note: The selected program must have an **Interval** or **Odd/Even** watering schedule to use the Day Exclusion feature.

- 1 Turn the control dial to the **WATERING DAYS**  position.
- 2 Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.
- 3 The current watering schedule (Interval or Odd/Even) will be displayed. Press the **NEXT** button as needed to display **dE** (flashing) and the days of the week.
- 4 Press the **NEXT** button again. **SU** (Sunday) is selected and will begin flashing.
- 5 To **exclude** Sunday from the watering schedule, press the **-/OFF** button; **SU** will be removed from the display. To keep Sunday in the program schedule, press the **+/ON** button; the next day in sequence will be selected. Repeat this procedure for each day of the program schedule.





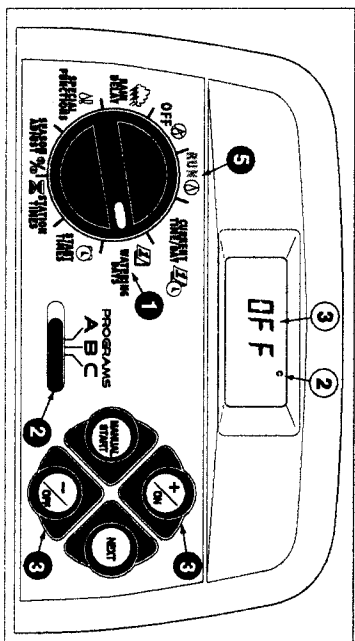
Example: Monday and Friday have been excluded from program A.

- 6 When finished, return the control dial to the **RUN**  position.

Turning Off a Program

Note: Turning off a program does not alter or erase a preset watering day schedule. Selecting **Off** simply places the program on hold until one of the watering day schedules is selected.

- 1 - Turn the control dial to the **WATERING DAYS**  position.
- 2 - Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.
- 3 - Press the **+ON** or **-OFF** button until **OFF** is flashing.
4. - To turn off another program, repeat steps **2** and **3** as needed.
- 5 - Return the control dial to the **RUN**  position.



Setting Program Start Times

A program **start time** is the time of day that an automatic watering cycle will start. The TMC-212 enables you to assign up to four automatic start times per program.

- 1 Turn the control dial to the **START TIMES** (TV) position. Start times are designated by numbers 1–4 shown at the top of the display.
- 2 Check the **PROGRAMS** switch setting. Position the switch as necessary to select the desired program.
- 3 Start time number 1 and its current setting are selected (flashing). To adjust start time number 1, continue at step 5.

Note: To enable a start time to be set or changed, it must be flashing.

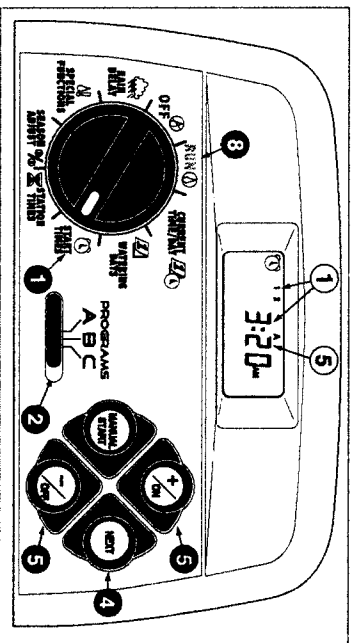
- 4 To set or adjust start time number 2, 3 or 4, press the **NEXT** button as needed to select the number.

- 5 Press the **+/ON** button to increase or **-/OFF** button to decrease the displayed time. To change the display rapidly, press and hold the button for more than 7 consecutive seconds.

Note: When using the 12-hour clock format, make sure the desired **AM/PM** designator is displayed.

Note: To quickly remove a start time, press the **+/ON** and **-/OFF** buttons at the same time until **OFF** is displayed.

- 6 To set or adjust additional start times for this program, repeat the procedure beginning at step 1.



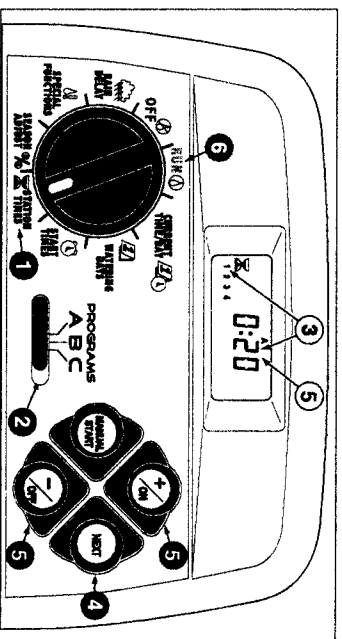
- 7 To set or adjust start time(s) for another program, repeat the procedure beginning at step 2.
- 8 When finished, turn the control dial back to the **RUN** (TV) position.

Setting Station Run Times

Station run time determines how long the station will operate during a program watering cycle. Each station can have a different run time assignment in each program. Run time is adjustable from OFF to 4 hours, in 1-minute increments.

- 1- Turn the control dial to the **STATION TIMES** position. All station numbers with a run time set in the selected program will be shown at the bottom of the display.
- 2- Check the **PROGRAMS** switch setting. Position the switch as necessary to select the desired program.
- 3- Station 1 and its current run time (or OFF) will be flashing. To adjust the run time, continue at step 5.
- 4- To select a different station number, press the **NEXT** button.
- 5- Press the **+ON** button to increase or **-OFF** button to decrease the time display.
Note: To change the display rapidly, press and hold the button for more than 7 consecutive seconds. To quickly reset the start time to Off, press the **+on** and **-off** buttons **at the same time** until **OFF** is displayed.
- 6- To set station run times for another program, repeat the procedure starting at step 2.
- 7- When finished, turn the control dial back to the **RUN** position.

Note: Basic programming is now complete. For optional Pump Start/Master Valve control setup procedures, continue at "Setting Pump Start/Master Valve."



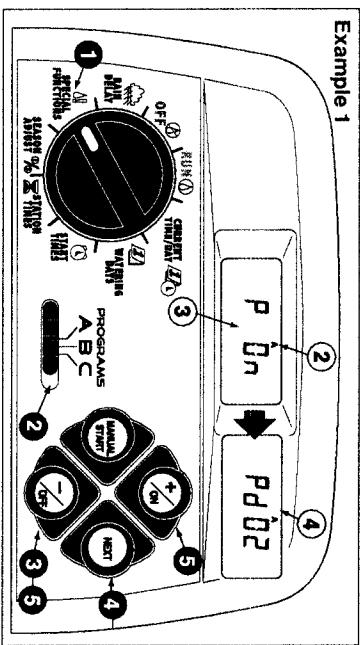
Setting Pump Start/Master Valve Control

The following procedures enable you to select and set the Pump Start/Master Valve (PS/MV) control options for each watering program. (Default shown in parenthesis.)


- **PS/MV Master Switch (On)**
Enables the PS/MV circuit to be switched On or Off for each program.
- **PS/MV Pre-start (2 Seconds)**
The PS/MV circuit is switched on prior to the first station in a watering cycle enabling a pump or master valve to be fully operational before watering begins. Adjustable from 2 to 60 seconds in 1-second increments.
- **Well Recovery Delay (0 Seconds)**
This feature enables a timed delay period to be placed between consecutive watering stations to facilitate well or reservoir recovery during a watering cycle.
- **PS/MV Operation During Well Recovery (Yes)**
This feature enables the PS/MV circuit to be switched On or Off during a Well Recovery delay period.

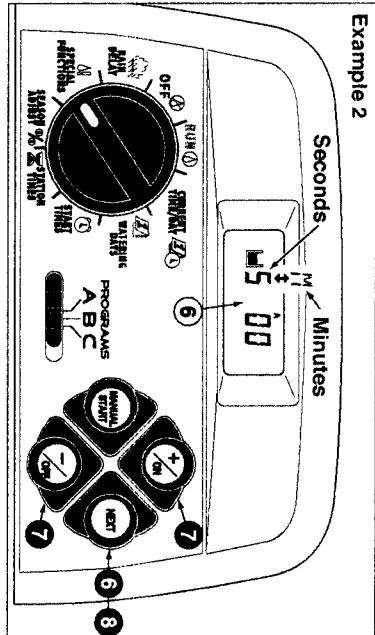
Note: For information regarding the practical application of the PS/MV control features, refer to the examples provided on pages 38 and 39.

- 1 Turn the control dial to the **SPECIAL FUNCTIONS A1** position. See **Example 1**.
- 2 Check the **PROGRAMS** switch setting. If necessary, reposition the switch to select the desired program.



- 3 The display will be flashing **P On** (Pump On). To toggle PS/MV circuit operation Off for this program, press the **-OFF** button to display **P OFF** (Pump Off).
- 4 Press the **NEXT** button to display the Pump Delay feature. **Pd 02** (Pump Delay - 2 seconds) will be displayed.
- 5 To change the delay period, press the **+/ON** or **-/OFF** button to select 2 to 60 seconds.

- 6 Press the **NEXT** button to display the Well Recovery delay period. Well Recovery symbol  and **S 00** (0 seconds) will be displayed. See **Example 2**.



- 7 To select a Well Recovery delay period from 1 to 60 seconds or 1 to 60 minutes, press the **+/ON** or **-/OFF** button. The display will change from **S** (Seconds) to **M** (Minutes) as the displayed time is increased past 59 seconds.

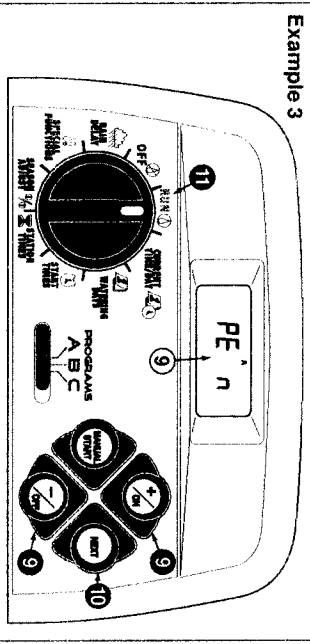
Note: The Well Recovery  symbol will remain displayed as a reminder that a delay time is set.

- 8 Press the **NEXT** button to display the Pump Enable option. **PE Y** (Pump Enable-Yes) will be displayed by default.

Note: If the PS/MV circuit is enabled during a Well Recovery delay period, it will operate during the delay period between stations and turn off with the last operating station in the program.

(Continued on page 30.)

- 9 - To toggle the Pump Enable option Off for this program, press the **OFF** button to display **PE n** (Pump Enable no). See **Example 3**.



- 10 - To apply the PS/MV circuit control features to another program, press the **NEXT** button once, then repeat steps 2 through 9.
- 11 - When finished, return the control dial to the **RUN** position.

Controller Operation

The TMC-212 controller has three modes of operation: **Automatic, Manual and Off**.

- **Automatic mode** – The controller tracks the current time and day and automatically runs a watering program when a scheduled start time occurs.
- **Manual mode** – Automatic watering programs or select stations can be manually operated at any time.
- **Off mode** – Shuts off and prevents all watering activity.

Automatic Mode

In the Automatic mode, the TMC-212 keeps track of the current time, day of the week and the automatic watering program schedule. Automatic operation will occur whenever a programmed watering day and a start time match the current time and day.

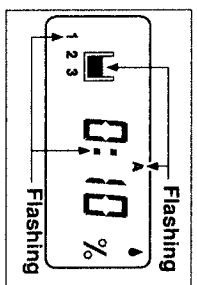
The Automatic mode is selected when the control dial is in the **RUN** position. While in the automatic mode, the display will show two types of information: **Status and Operating**.

This example shows the **Status** display. The current time is 2:45 p.m. and the current day is Monday. Programs **A** and **B** are scheduled to operate today and a Well Recovery delay is set.



When watering starts, the **Operating** display appears with the Watering On symbol and indicates the current controller watering activity.

In this example, program **A** is currently operating. Station 1 has 10 minutes of run time remaining; stations 2 and 3 are also scheduled operate during this watering cycle.



A Well Recovery delay period will occur between station operations. Program **A** also has a season adjust factor in use, indicated by the **%** symbol.

Note: If the control dial remains in any position except **OFF** for more than 8 minutes, the controller will revert to the Automatic mode and Status display.

Note: The position of the **PROGRAMS** switch does not determine which program will run during automatic controller operation. In other words, if a program has an assigned watering day schedule, start time and a station with run time, it will operate automatically regardless of the position of the **PROGRAMS** switch.



Manual Mode

Manual mode enables automatic watering programs and their assigned stations to be operated at any time.

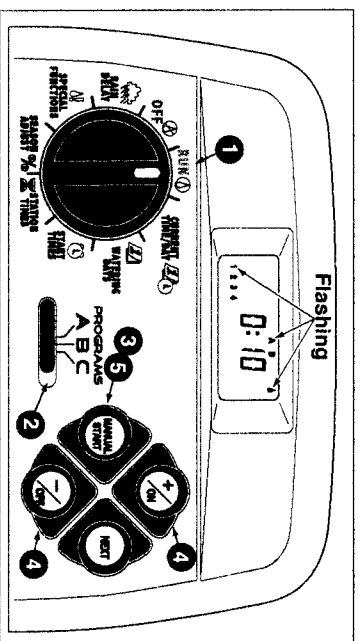
Note: Once watering has started, refer to page 32 for additional manual control operations.

Note: Upon completion of a Manual mode operation, the controller will return to the Automatic mode.



Operate Watering Program(s)

- 1 Confirm that the control dial is in the **RUN**  position.
- 2 Position the **PROGRAMS** switch to select a program.
- 3 Press the **MANUAL START** button **two times** to start the program watering cycle. The first active station number and the Watering On  symbol will begin flashing.
- 4 To select additional programs, repeat steps 2 and 3.

Note: Additional programs are stacked (staged to run sequentially) in the order they are selected. The watering program identifier (**A**, **B** or **C**) will be displayed as each program is selected. The program currently operating is indicated by the flashing program identifier. As one program finishes, the next program in the stacked sequence will start.



Operate Selected Stations


- 1 Confirm the control dial is in the **RUN**  position.
- 2 Position the **PROGRAMS** switch to select a program.
- 3 Press the **MANUAL START** button **one time**.
- 4 The station numbers assigned to the program will be displayed. The first station number in sequence will begin flashing. To select the station(s) to operate, use the following procedure:
 - To select the station, press the **+/ON** button.
 - To skip the station press the **-/OFF** button.
- 5 When the desired station numbers are displayed, press the **MANUAL START** button one time to start watering. The active station number and the Watering On  symbol will begin flashing.

Watering Control Features

Once the sprinkler system is running, the following manual control features become available:

Pause Watering

To pause watering, press the **+/ON** and **-/OFF** buttons **at the same time**.

- The station will temporarily turn off.
- The Watering On  symbol will begin flashing.
- The display will show the amount of station time remaining.



Note: If watering is not resumed within 8 minutes, all watering operations will be canceled and the controller will return to the Automatic mode.

To release Pause and resume operation, press the **NEXT** button.

- Watering activity will resume from the point of interruption.

Cancel Watering

Two methods of canceling current watering are available:

Method 1: Turn the control dial to the **OFF**  position, pause for two seconds, then turn the dial back to the **RUN**  position.

Method 2: Press the **+/ON** and **-/OFF** buttons **at the same time – two times**.

Once canceled, all watering operations will be terminated and the controller will return to the Automatic mode.

Skip Stations

Press the **NEXT** button one time.

- The station currently watering will shut off and the next station will start.
- If the last station is skipped, the program will end. If additional programs have been set to operate, the next program in alphabetical order will start.

Adjust the Operating Station Run Time

To temporarily adjust the run time of the currently operating station:

Press the **+/ON** button to increase run time, or the **-/OFF** button to decrease run time.

- If the run time is decreased to less than 1 minute, the station will shut off and the next station in sequence will begin watering.
- The adjusted run time is temporary and does not alter the station run time set for automatic watering program operation.