WEATHERMATE™

ALL MODELS

Weathermatic®

The Purely Professional Source℠

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FEATURES

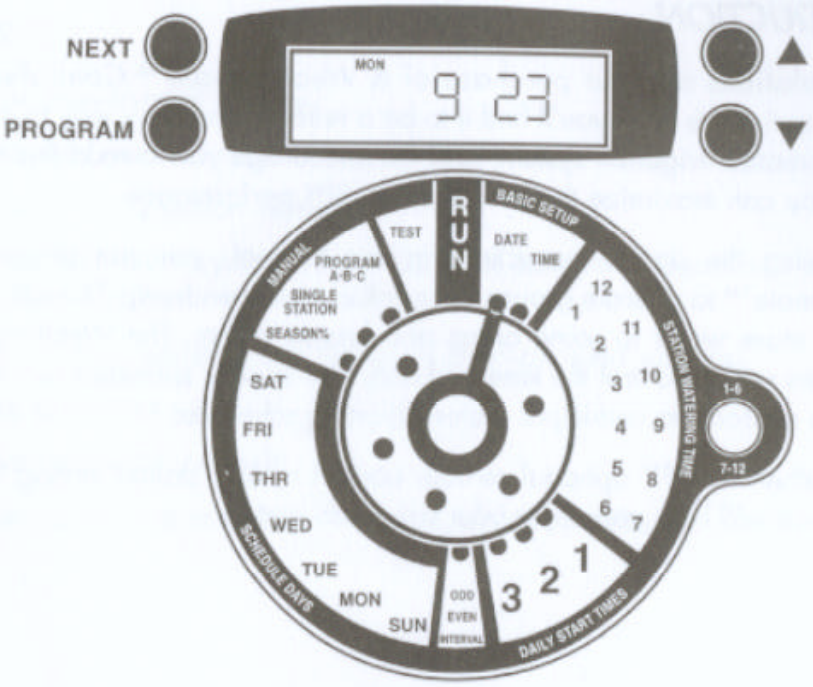
- Large, easy-to-read display
- Dial-based control
- Six, nine or 12-station models
- Non-volatile memory saves even the most complex programs in case of power outage
- Skip function automatically bypasses short-circuited stations
- Three programs
- Remote control (optional)
- Battery backup saves the correct time of day in case of a power outage

INTRODUCTION

Congratulations on your purchase of a Weathermate™ Controller from Weathermatic! We think you'll find it to be a reliable and easy way to manage your automated irrigation system, and we encourage you to read this manual so that you can maximize the Weathermate's™ performance.

By following the simple instructions in this manual, you can program the Weathermate™ to operate groups of sprinklers independently. This allows you to apply more water to some areas and less to others. The Weathermate™ also allows you to control the time and date that various sprinklers run, making it easy to conform to municipal water rationing schedules.

The Weathermate's™ optional remote control makes station testing simple. We know it will help you enjoy your irrigation system.



DATE

Rotate the dial to this position to set the current date.

The display shows

- the month (flashing)
- the day of the month
- the day of the week

To set the Date

Press the **up** or **down** button to select the month

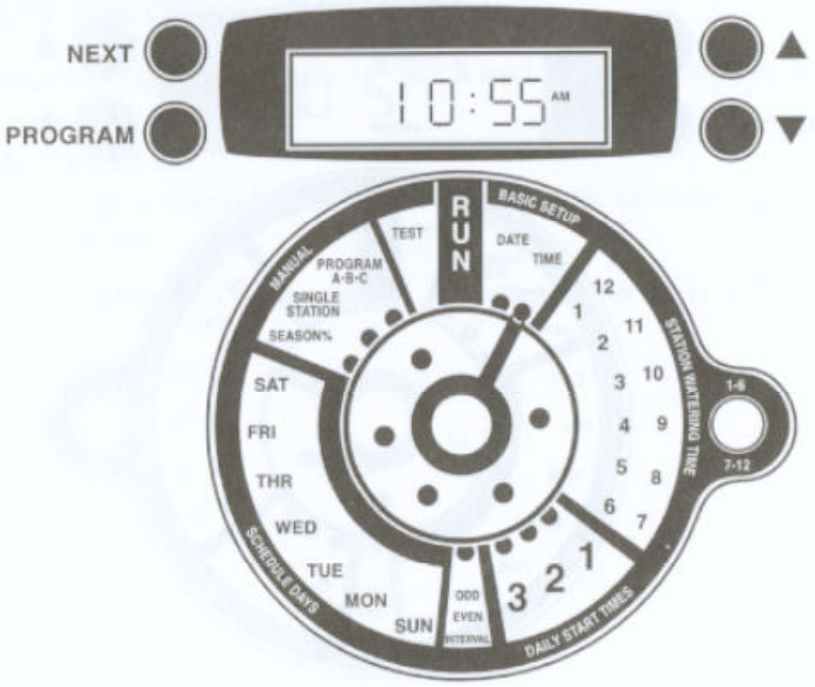
Press **next**

Press the **up** or **down** button to select the day of the month

Press **next**

Press the **up** or **down** button to select the day of the week

A flashing number or day in the display indicates the current function.



TIME

Rotate the dial to this position to set the current time.

The display shows

- the Hour (flashing)
- the Minute
- AM or PM

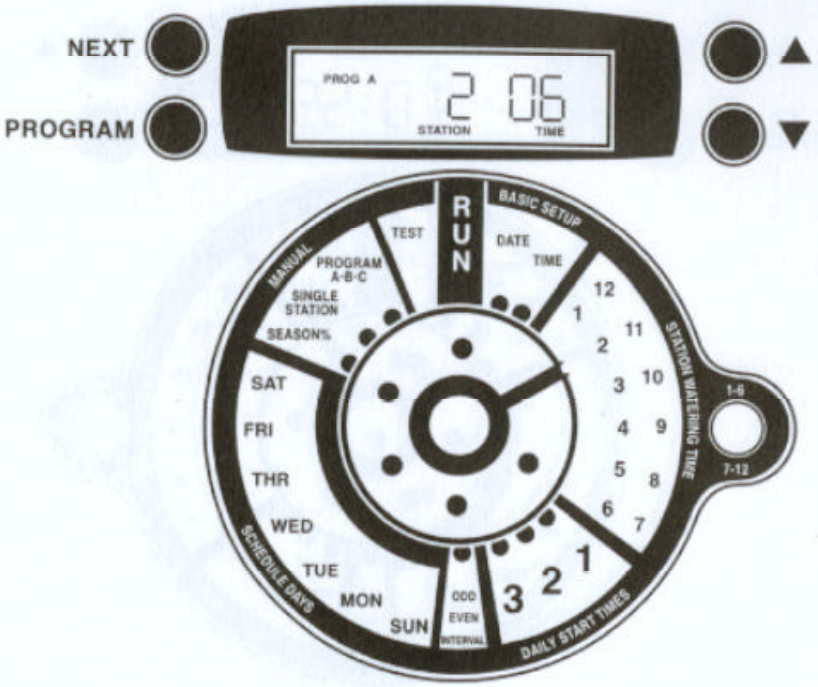
To set the Hour

Press the **up** or **down** button to select the current hour (AM or PM)

Press **next**

Press the **up** or **down** button to select the current minute

A flashing number in the display indicates the current function.



STATION WATERING TIME

Rotate the dial to this zone to set station watering times.

The display shows

- how long the station is scheduled to water (flashing)
- the station number
- the program the station operates in

To set the watering time on station 1

- rotate the dial to 1
- press the **up** or **down** button to select the amount of watering time (1–99 minutes)

To set the watering time on station 2

- rotate the dial to 2
- press the **up** or **down** button to select the amount of watering time (1–99 minutes)

To set the watering time on station 3

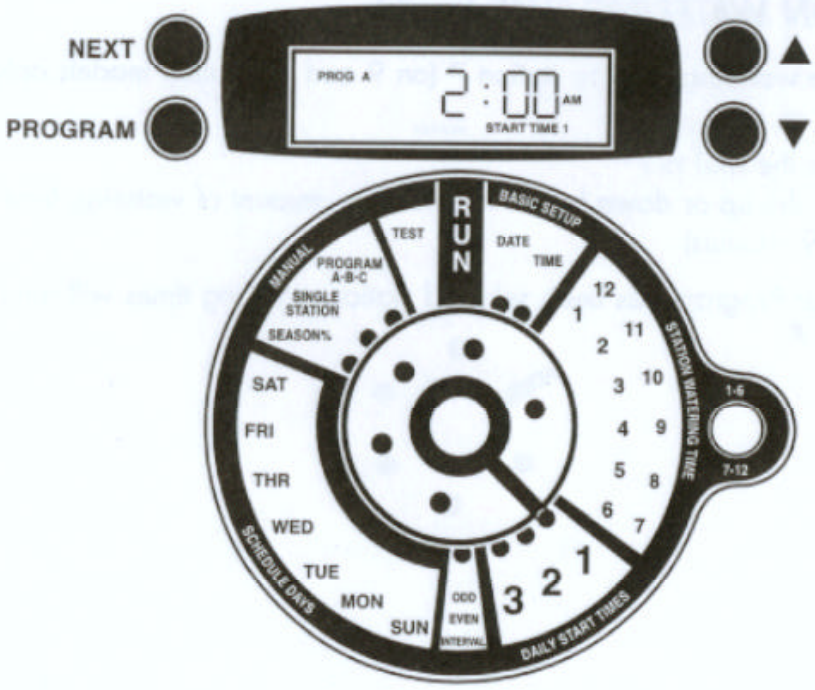
- rotate the dial to 3
- press the **up** or **down** button to select the amount of watering time (1–99 minutes)

STATION WATERING TIME (cont.)

To set the watering time on station 7 (on 9 and 12 station models only)

- press 7–12 Button
- rotate the dial to 7
- press the **up** or **down** button to select the amount of watering time (1–99 minutes)

If no other Program has been selected station watering times will run in Program A.



DAILY CYCLE START TIME

Rotate the dial to this zone to schedule the cycle start time.

The display shows

- "OFF" or a previously set start time (flashing)
- the minute the cycle is scheduled to start
- the program that the cycle operates in

To set a cycle start time

- rotate the dial to 1
- press the **up** or **down** button to select the hour the cycle start will occur
- press the **next** button
- press the **up** or **down** button to select the minute the cycle start will occur

To set a second cycle start time

- rotate the dial to 2
- press the **up** or **down** button to select the hour the cycle start will occur
- press the **next** button
- press the **up** or **down** button to select the minute the cycle start will occur

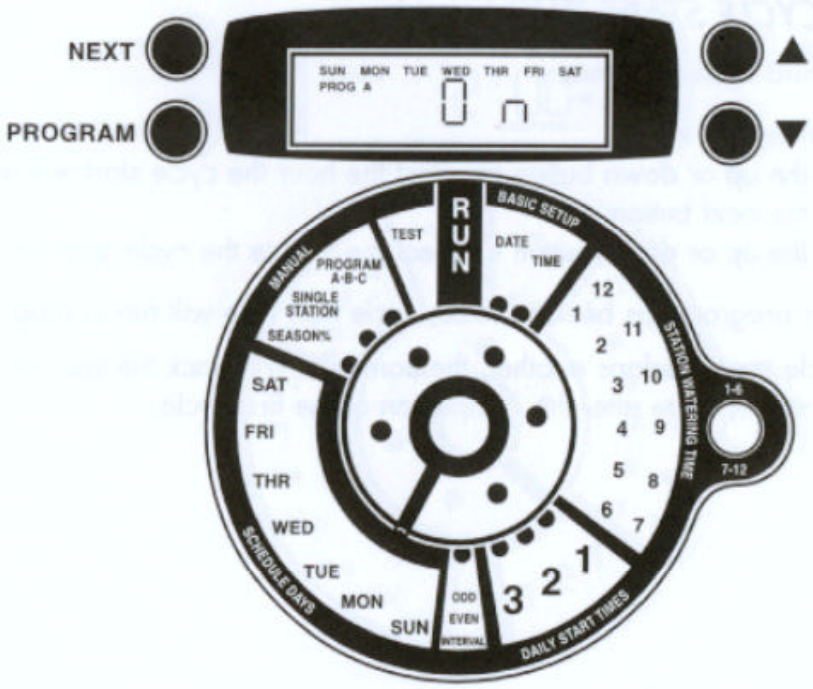
DAILY CYCLE START TIME (cont.)

To set a third cycle start time

- rotate the dial to 2
- press the **up** or **down** button to select the hour the cycle start will occur
- press the **next** button
- press the **up** or **down** button to select the minute the cycle start will occur

If no other program has been selected, cycle start time will run in program A.

If one cycle start overlaps another, the controller will stack the second cycle and will only operate after the completion of the first cycle.



SCHEDULE DAYS

Rotate the dial to this zone to schedule the days for watering to occur.

The display shows

- the selected day
- on or off
- all days that watering is scheduled
- the program for the scheduled watering day

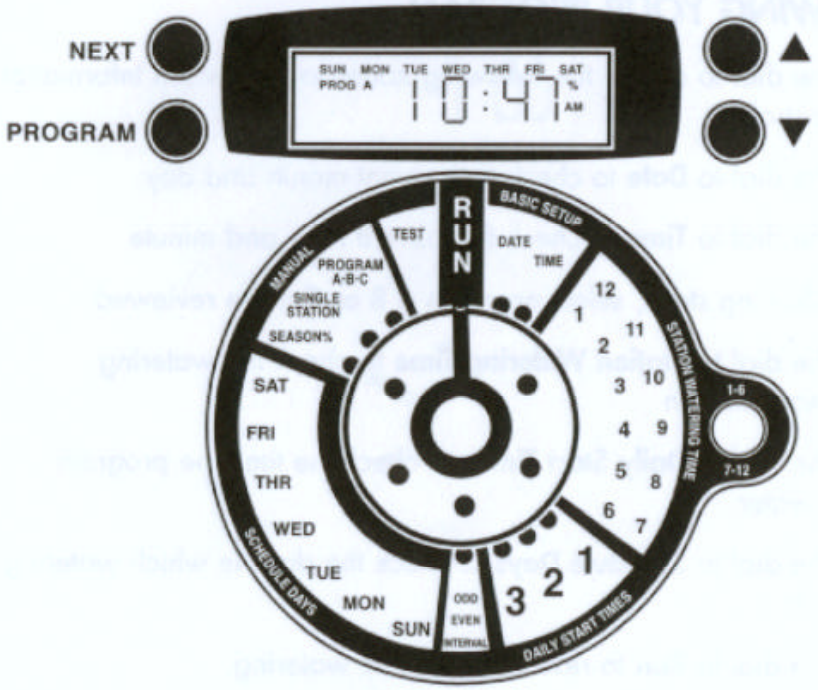
To schedule a day to water

- rotate the dial to the day (Sun–Sat)
- press the **up** button to select on

To schedule a day not to water

- rotate the dial to the day (Sun–Sat)
- press the **down** button to select off

If no other Program has been selected schedule will run in Program A.



RUN

Rotate the dial to this position for normal automatic watering.

The display shows

- current time of the day
- days of the week Program A is schedule to run
- odd, even, or interval water days if they are scheduled

While in operation the display will show

- the program that is running
- the station that is watering
- the time left on the station that is watering

If the **water/off/sensor** button is pressed while controller is in operation, watering will stop.

If the next button is pressed during watering the controller will advance to the next station scheduled to water.

REVIEWING YOUR PROGRAM

Rotate the dial to any of the following zones to review the information in the controller.

Rotate the dial to **Date** to check the current month and day

Rotate the dial to **Time** to check the current hour and minute

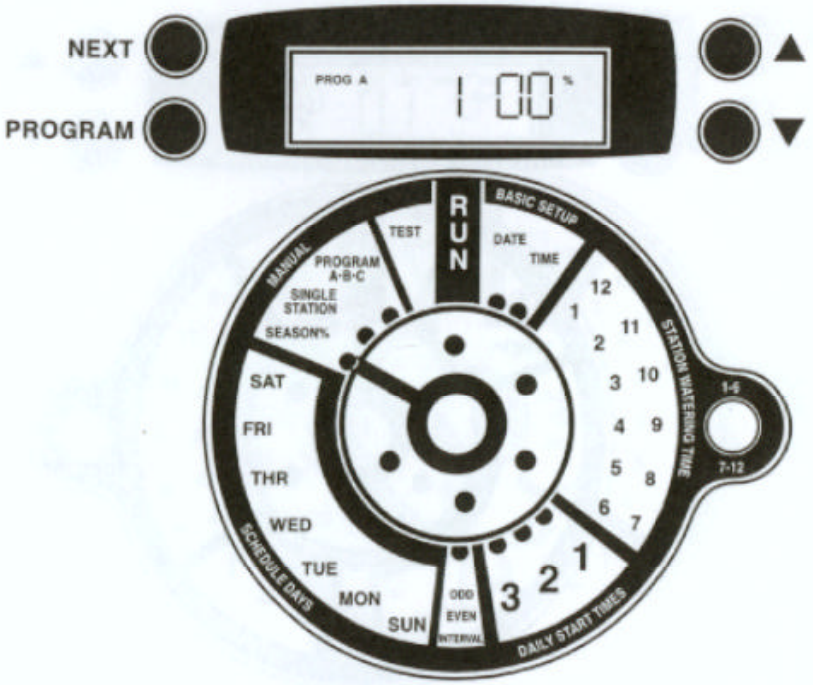
In the following steps, select **program A B or C** to be reviewed

Rotate the dial to **Station Watering Time** to check the watering time of each station

Rotate the dial to **Daily Start Times** to check the time the program is set to water.

Rotate the dial to **Schedule Days** to check the days in which watering will occur

Rotate the dial to **Run** to resume automatic watering.



SEASON %

Rotate the dial to this position to scale a programs watering times up or down by percentage.

The display shows

- 100 % (flashing)
- the selected program

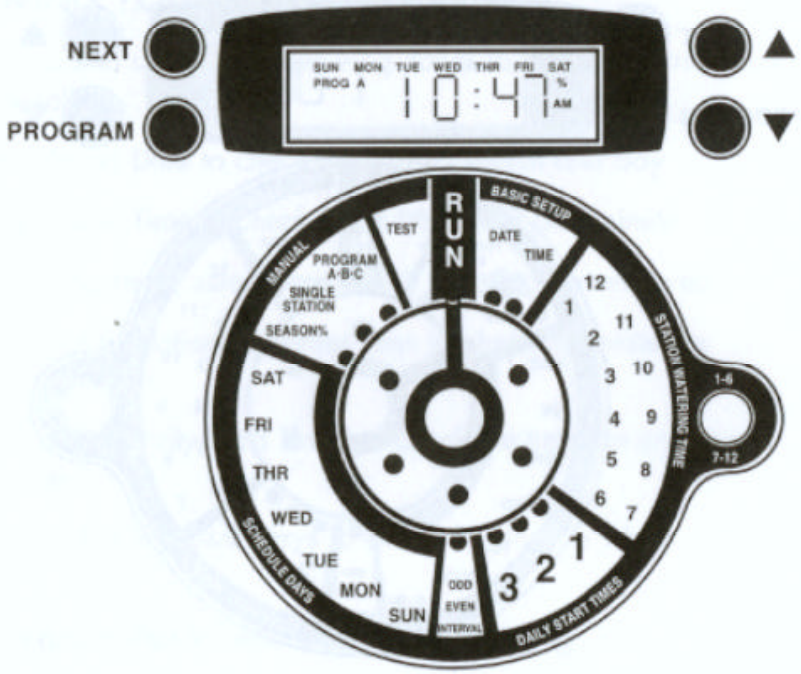
To increase the watering time on program A

- press the **up** button to increase a program's watering time. (10%–200%)

To decrease the watering time on program A

- press the **down** button to decrease a program's watering time. (10%–200%)

If no other program has been selected seasonal % adjustments will affect water times in Program A. To make seasonal adjustments to other programs press the program button. Seasonal adjustment will only be shown in display when cycle is in operation.



SINGLE STATION

Rotate the dial to this position to manually operate a single station.

The display shows

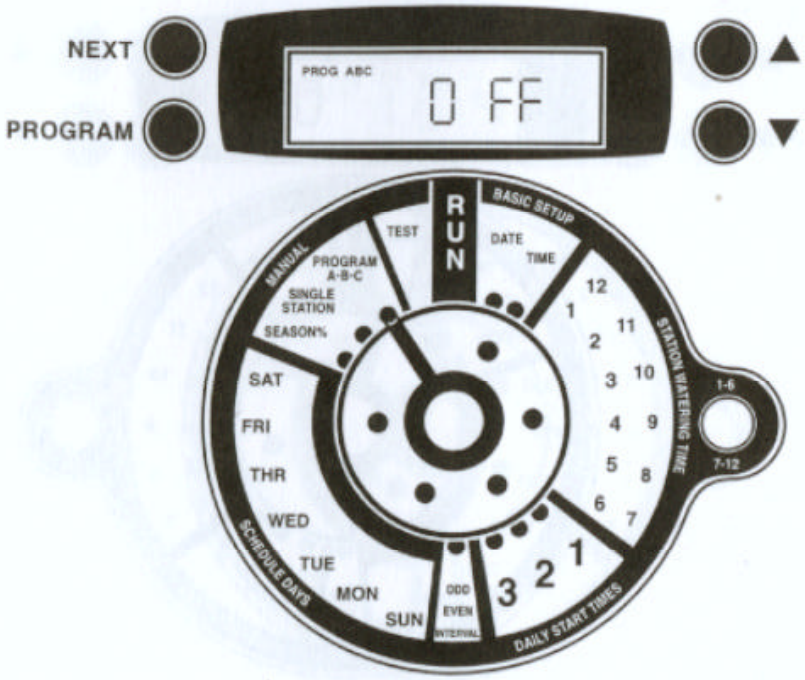
- station (flashing)
- station run time

To select single station to be operated

- press **up** or **down** button to select a station
- press the **next** button to select run time (0–99 minutes)
- press **up** or **down** button to select a station run time
- rotate the dial to **run** to start the cycle

Controller will operate selected station for the amount of time programmed.

Pressing the **off/water/sensor** button at any time during the cycle stops watering before scheduled watering time runs out.



PROGRAM A•B•C

Rotate the dial to this position start a watering cycle semi-automatically.

The display shows

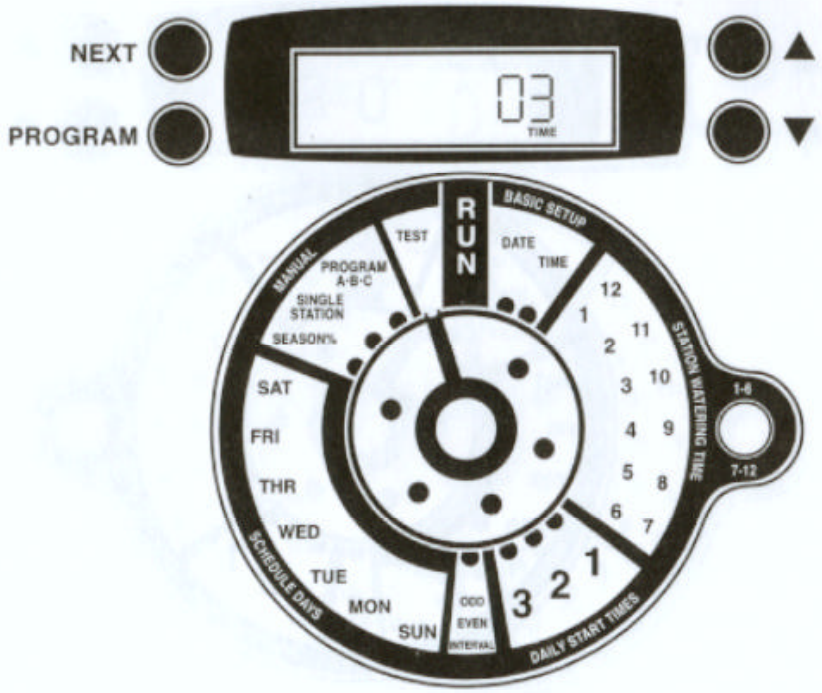
- off (flashing)
- program A B C

To select a watering cycle

- press **program** to select A B or C
- press the **up** button to select On
- rotate the dial to **run** to start the cycle

Controller will rotate through each station for the amount of time programmed in the A B C program selected.

Pressing the water/off/sensor button at any time during the cycle stops watering before scheduled watering time runs out.



TEST CYCLE

Rotate the dial to this position to water all stations for selected amount of time.

The display shows

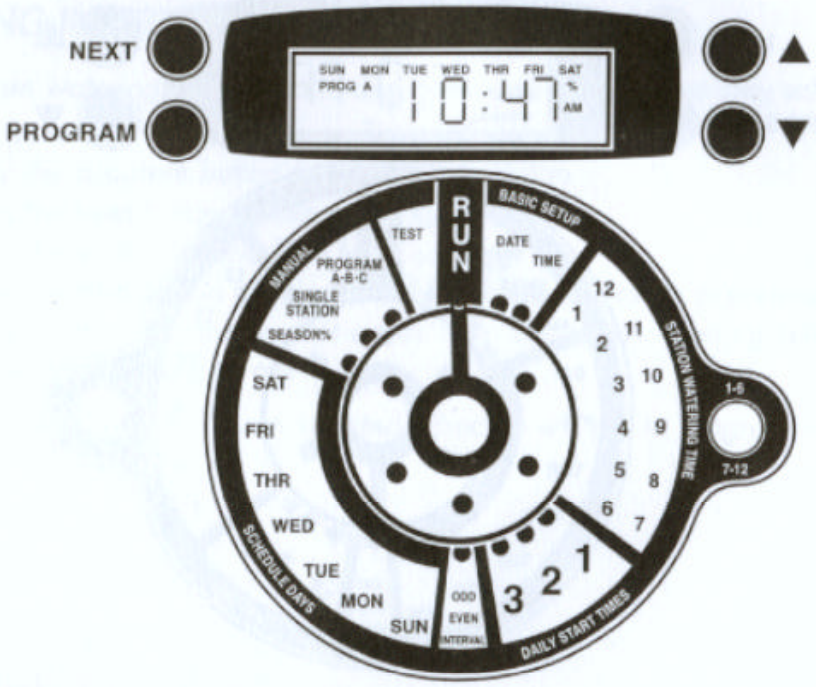
the watering time set for all stations (flashing)

To manually run all stations for a set time limit

- press the **up** or **down** button to select the station water time (1–10 minutes)
- rotate the dial to **run**

Pressing the **water/off/sensor** button will stop watering before scheduled watering time runs out.

Test function will only run stations on which run time has previously been set.



SETTING MULTIPLE WATERING PROGRAMS

Press the program button to set up additonal programs to water.

The display shows

- how long the station is scheduled to water (flashing)
- the station number
- the program the station operates in

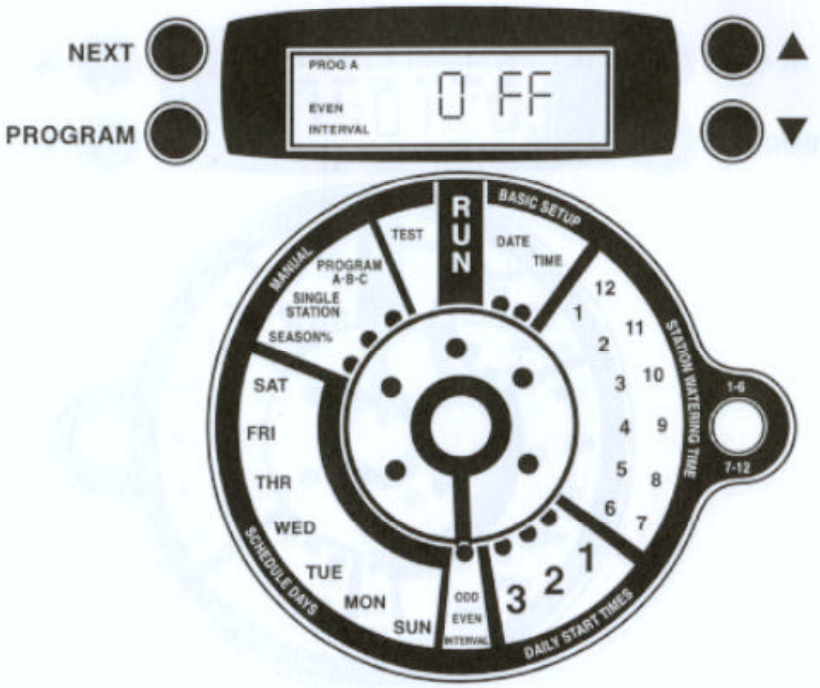
To set up an additional program to water (program B)

- press the **program** button
- set station watering time for all stations on program B
- set daily cycle start time
- set scheduled watering days

To set up an additional program to water (program C)

- press the **program** button
- set station watering time for all stations on program C
- set daily cycle start time
- set scheduled watering days

If a start time is inadvertently set to water before another program has completed its cycle the second program will start upon the completion of the first program.



SETTING INTERVAL WATERING DAYS

Rotate the Dial to this zone to schedule odd, even, or interval watering days.

The display shows

- the selected watering interval (Flashing)
- on or off (Flashing)
- all days that watering is scheduled for

To set up an odd or even day watering schedule

- rotate the dial to the **odd/even/interval**
- press the **next** button to select odd or even
- press the **up** button select On
- rotate the dial back to **run**

To set up an interval watering schedule

- rotate the dial to the **odd/even/interval**
- press the **next** button to select Interval
- press the **up** or **down** button to select the number of days between watering
- press the **next** button
- press **up** or **down** buttons to select the day in current week on which interval should begin
- rotate the dial back to **run**

SETTING INTERVAL WATERING DAYS (cont.)

To prevent watering on a specific day during an odd or even day schedule.

- rotate the dial to the **odd/even/interval**
- press the **program** button to select the program
- press the **next** button to select odd or even
- press the **up** button and hold for 5 seconds
- press the **next** button to select the day watering is to be prevented
- press the **down** button to omit a day from odd/even watering schedule
- rotate the dial back to **run**

If no other Program has been selected schedule will run in Program A.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
No Display	No power to transformer	Check circuit breaker panel Check GFI outlet reset button
	No output from transformer	Transformer damaged by power surge
Battery icon in display	Battery backup only to control	Check power supply to control
Program cycle will not come on automatically	Valve power switch toggled to "OFF"	Toggle Valve Power Switch to "WATER" or "SENSOR"
	Dial not in RUN position	Set Dial to RUN position
	No Start Time entered	Enter a Daily Start Time
	No Water Days Scheduled	Program days ON or set interval schedule
	No station watering time entered	Enter watering time
Display shows a operating but no watering occurs	Shorted solenoid or field wire has caused fuse to blow	Replace shorted solenoid station or repair shorted field wire. Replace fuse
	Sensor has interrupted watering cycle	Allow time for sensor to clear or toggle Valve Power Switch to "Water" to bypass sensor
	Sensor leads have been cut and Valve Power Switch is set to "SENSOR"	Toggle Valve Power is Switch to "Water" to bypass sensor
Cycle starts on wrong day	Day schedule programmed incorrectly Day programmed incorrectly	Reprogram the Day Schedule Verify that the day entered in Date is today
Cycle starts at the wrong time	Start time set incorrectly Time of day set incorrectly Additional Start times set	Check Daily Start Time Reprogram time of day Check or eliminate start times
Station does not come on	Water is not turned on at source	Turn on water to system
	No station watering time entered	Enter watering time

Station does not come on (cont'd)	Sensor has interrupted watering	Allow sensor to reset or use Valve Power Switch set to "WATER" to bypass sensor
Display shows "ERR" message (along with station number)	A short circuit in the valve solenoid or field wiring caused station to be skipped.	Repair shorted condition or replace solenoid for the station shown. Check for bare wires or loose wire connections
Display shows "ERR" message and "Station 0"	A short circuit in the valve solenoid or field wiring for the Master Valve caused all stations to be skipped	Repair shorted condition or replace solenoid of master valve circuit
To clear "ERR" message, first repair the shorted condition, i.e. shorted solenoid or wiring problem, then cycle controller through a test.		
Scrambled Display	Power surge scrambled microprocessor	Use unfolded paper to press reset button located through small hole on right side of panel
To clear programming information rotate the dial to "Program A B C" then press the reset button. Reprogram controller.		

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Sprinkler Division/Telsco Industries
P.O. Box 180205 • Dallas, Texas 75218-0205

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WEATHERMATE™

6, 9, AND 12 STATION MODELS

WM6-O	(Outdoor)	E-WM6-O	(Export)
WM6-N	(Indoor)	E-WM9-O	(Export)
WM9-O	(Outdoor)	E-WM12-O	(Export)
WM9-N	(Indoor)		
WM12-O	(Outdoor)		
WM12-N	(Indoor)		

Dimensions

9-1/2" W x 10" H x 4-1/8" D

(24.1cm W x 25.4cm H x 10.5cm D)

Features

- Strong, attractively styled housing is available in both indoor and UV resistant outdoor models
- Large, easy to read liquid crystal display
- Optional remote control offers a wireless link to the controller (Range 500ft. line of site)
- Simple, dial based programming
- Non-volatile memory retains programs in the event of a power outage
- Three fully independent programs
- Adjustable test cycle from 1–10 minutes
- Input surge protection against power spikes
- Short detection system protects controller from field wiring problems and indicates stations requiring service
- Weekly, interval (up to 30 days), odd, and even day scheduling
- Black out day option during odd or even day watering accommodates weekly grounds maintenance and strict water rationing requirements
- Percent scaling provides easy seasonal adjustments to station watering time (10–200%)
- External sensor input with manual override on face panel
- Terminal block test post offers easy identification for field wiring designation
- Keyhole port insures easy controller mounting
- Flexible station water times (1 min. to 9.9 hours)
- Three stackable start times simplify the programming of overlapping schedules
- Master Valve/Pump circuit
- Simultaneously operates up to two Weathermatic valves or one Weathermatic valve and one master valve (Maximum draw up to 1 AMP)
- Reset button provides quick clearance of existing programs
- Year 2000 compliant

Options

- Remote control kit specify #WM-RC
- Receiver only specify #WM-RR
- Transmitter only specify #WM-RT
- Rain-Stat rain sensor specify #950
- Conduit junction box specify #951-05
- Pump circuit accessory package specify #952
- Wall anchor kit specify #955
- Weathermatic screwdriver specify #AD410

Electrical Requirements

Input: 120 VAC, 60HZ

Output: 24 Volt VAC, 24VA

Fuse: 1 Amp slow blow, 5 x 20 mm

Conduit Size: Line wiring 1/2" and valve wiring 3/4"

Battery: Nine volt alkaline

Export

Input: 220/240 VAC, 50HZ

Output: 24 Volt VAC, 30VA

Fuse: 1 1/4" Amp slow blow, 5 x 20 mm

Conduit Size: Line wiring 1/2" and valve wiring 3/4"

Battery: Nine volt alkaline

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P.O. Box 180205,Dallas, TX 75218-0205
Telephone: (972) 278-6131 Fax: (972) 271-5710
http://www.weathermatic.com

6/99 AD 197

WEATHERMATE™ INSTALLATION INSTRUCTIONS

SPECIFICATIONS

Input: 120 VAC
Output: 24 Volt VAC, 24VA
Fuse: 1 Amp slow blow, 5 x 20 mm
Conduit Size: Line wiring 1/2" and valve wiring 3/4"
Battery: Nine volt alkaline
Pump Circuit: Optional Weathermatic Pump Circuit Accessory # 952
Remote Sensor: Optional Weathermatic Rain-Stat # 950

LOCATION

Select a suitable location to install the controller. The temperature should not exceed 70°C (160°F) at any time. Consideration should be made as to the power supply and should be kept separate from circuits used by other electric power devices. The controller should be installed at a height equal to the eye level of the user.

WALL MOUNTING

Using the provided template, mark the locations for 4 wall fasteners (not included). Drill pilot holes for screws and install fasteners. Install upper screw leaving about 3/8" between the wall and screw head. Position the controller and the corresponding keyhole over the screw head. Pull the controller housing down slightly to insure proper seating in the keyhole slot. Locate the three lower knock out ports provided at the back of the housing. Run three screws through the ports and into the wall fasteners securing the housing to the wall.

CAUTION! DISCONNECT THE POWER SOURCE BEFORE WIRING

LINE WIRING

WM6O, WM9O, WM12O Wiring should be done by a qualified licensed electrician in accordance with the local Electrical Code. Power wiring should be routed to the **LEFT** side in 1/2 inch conduit with a condulet box (not included) installed on the threaded transformer bushing. Connect the line to the transformer's BLACK and WHITE primary leads. Connect **GREEN** transformer lead to the grounding conductor (or to a copper cold water pipe or ground rod with minimum 14 AWG wire). Proper grounding **MUST BE CONNECTED** to suppress line surges. Secure all wiring connections with wire nuts and install the cover on the condulet box. At this point, the power source may be turned on.

NOTE: EXPORT ONLY, dual input 220/240 volt models. Connect transformer's **BLUE** and **RED** primary leads for 220 volt service or **BLUE** and **BROWN** primary leads for 240 volt service. Insulate unused leads with a wire nut. Connect **GREEN/YELLOW** wire to grounding conductor.

WM6N, WM9N, WM12N — These models utilize a 3-prong plug-in type transformer. Connect the **BLACK** and **WHITE** leads to the 24 VAC terminals. Connect the **GREEN** lead to the **G** terminal. **AFTER** completing this step, simply plug the transformer into a **GROUNDED** household receptacle.

VALVE WIRING

Each station (zone) will operate two Weathermatic valves or one valve if the master valve terminal is also being used. All field-wiring connections **MUST** utilize a waterproof connection specifically designed for underground use.

Valve wiring should be routed to the **RIGHT** side in 3/4 inch conduit and connected to the controller. The terminal block will accept solid or stranded wire up through 16 AWG.

When testing the valve wires to determine station location please observe the following steps to prevent damage to the valve output circuits and the transformer. The **VALVE COMMON WIRE** must be connected to the terminal block at **C** after which the valve lead wire can be tapped across the terminal block marked **TEST** to identify station location. **Press Water/Off/Sensor** button to **OFF** position before attaching the lead wires to the terminal block.

PUMP CIRCUIT

An optional pump circuit relay (Weathermatic #952) may be installed in conjunction with the Weathermate™ controller. Please refer to the instructions provided with this accessory for details regarding its installation.

EXTENDED TIMING

Program 3 has the capability of operating in long timing mode (up to 9.9 hours in .1 hour increments). To utilize this feature, disconnect power and remove the wiring access cover. Locate the square contact cover just above the fuse. Gently pull the contact to the left, and remove it from the 2 pins. Replace the access cover and reconnect the power. Program 3 will now operate in long timing mode. To restore the original program, reverse this procedure and replace the contact.

BATTERY

A 9-volt alkaline battery can be installed (not included) to retain the current time during a power outage. All other program information is retained in the controller's non-volatile memory. To install a 9-volt alkaline battery, disconnect the power supply to the controller and remove the access cover and the upper panel. Connect the battery to the provided 9-volt connector, and insert it into the battery holder. Reinstall the upper panel and reconnect to the power supply. Replace access cover. Insert a paper clip into reset hole and depress the button momentarily.

INSTRUCCIONES DE INSTALACIÓN

ESPECIFICACIÓNES
Entrada: 120 C.A
Salida: 24 Volt CA, 24VA
Fusible: Quemado despasio, 1AMP 5 x 20 mm
Tamano del Conducto: Cableado de línea 1/2 pulg. y cablado de válvula 3/4 pulg
Batería: 9-voltios ALCALINA
Circuito de la bomba: Juego de accesorios para la bomba # 952 (opcional)
Detector de Lluvia: Rain-Stat # 950 (opcional)

LOCALIZACIÓN
Seleccionar una localización adecuada para instalar el controlador. (En Ningún momento la temperatura deberá exceder los 70°C (160°F). Deberán tomarse consideraciones acerca del el suministro de energía eléctrica, que deberá estar por separado de los circuitos de los circuitos usados por otros mecanismos electricos. El controlador deberá instalarse a una altura igual al nivel de ojos del usario.

MONTAJE EN LA PARED
Usando la plantilla provista, marque las localizacianes para los 4 sujetadores (no incluidos). Taladre agujeros piloto para tornillos e instale los sujetadores. Instale el tornillo superior dejando como 3/8" de pugada entre la pared y la cabeza del tornillo. Coloque elcontrolador en el orificio correspondiente sobre la cabeza del tornillo. Deslice la cja del controlador ligeramente hacia abajo para asegurar un asentamiento apropiado en la apertura del orificio. Localice las tres orificios provistos en la parte posterior de la caja. Atornille tres tornillos a través de los puertos en los sujetadores asegurando la caja a la pared.

¡PRECAUCION! DESCONCETE LA ENERGÍA ELECTRICA ANTES DE CABLEAR

CABLEADO DE LÍNEAS
El cableado de **WM60, WM90, WM120** deberá ser hecho por un electricista calificado y con licencia en concordancia con el Código Local de Electricidad. Las líneas de suministro deberán ser dirigidas hacia el lado **IZQUIERDO** en tubo de conducción de 1/2 pulgada hacia una caja de registro (no incluida) instalada en el cojinete con rosca del transformador. Conecte la línea **NEGRA y BLANCA** de las puntas del transformador. Concete la línea **VERDE** del transformador a un conductor de tierra física (o a una tubería de cobre de agua fría o a una varilla e tierra con un mínimo de calibre de 14 de cable de 14 AWG, **DEBERÁ SER CONECTADA** la tierra física adecuada para suprimir descargas en la línea. Asegure todas las conexiones de los cables con nudo para cable e instale la taba de la caja de registro de cables. En este punto se puede encender la fuente de energía.

NOTA: EXPORTACIÓN SOLAMENTE, entrada dual para los modelos a 220/240 voltios. Conecte las líneas **AZUL y ROJO** para el servicio de 220 voltios o **AZUL y MARRON** para el servio de 240 voltios. Aísle las puntas no usadas con un nudo para cables. Conecte el cable verde/amarillo a conducción de tierra física.

WM6N, WM9N, WM12N — Estos modelos utilizan un transformador con 3 puertos de conexión de cuña. Conecte las líneas **NEGRO Y BLANCO** a las terminales de **24 VAC**. Conecte el cable Verde a la terminal **G. DESPUES** de completado este paso, simplemente enchufe o conecte el transformador a un enchufe o conector casero con **TIERRA FÍSICA**.

CABLEADO DE VÁLVULAS
Cada estación (zona) puede operar dos válvulas Weathermatic o uno válvula si la terminales de la válvula maestra esta siendo usada también. Todas las conexiones de campo **DEBERÁN** utilizar conectores a prueba de agua específicamente diseñados para uso bajo tierra. El cableado de válvulas deberá dirigirse hacia el lado **DERECHO** en tubo de conducción de 3/4" de pulgada y conectado al controlador. El bloque de la terminal acepta cable de calibre 16 AWG sólido o trenzado.

Al probar cables de válvulas para determinar la localización de la estación pro favor observe los siguientes pasos para prevenir daños a las salidas de los circuitos de las válvulas y el transformador. **El CABLE COMUN DE VÁLVULA** debe conectarse a al bloque de la terminal en **C** depués de lo cual el cable de válvula puede introducirse en el bloque marcado **TEST** (prueba) para identificar la localización de las estaciones. Presione la tecla **Water/OFF/Sensor** (sensor/agua/APAGADO) en la posición de **OFF** (desactivada) antes de conectar los cables al bloque de la terminal.

CIRCUITO DE BOMBA
Un circuito relevador de bomba (Weathermatic #952) puede ser instalado en conjunción con del controlador Weathermate. Favor de referirse a las instrucciones provistas con este accesorio para detalles concernientes a su instalación.

TIEMPO EXTENDIDO
El programa 3 cuenta con la capacidad de operar en modo de tiempo extendido (hasta 9.9 horas en incrementos de 1 hora). Para utilizar esta característica, deconecte la energía y remueva la tapa de acceso al cableado. Localice la tapa cuadrada de contacto justo arriba del fusible. Suavemente jale el contacto hacia la izquierda, y remuévalo de las dos puntas. Reemplace la tapa de acceso y vuelva a conectar la energía. El programa 3 ahora operara en el modo de tiempo extendido. Para restaurar el programa original, invierta este procedimiento y remplace el contacto.

BATERÍA
Una batería alcalina de 9-voltios (no incluida) puede ser instalada para retener la hora actual durante un corte de energía. Toda la información de programación restante es retenida por la memoria no volátil del controlador. Para instalar una batería alcalina de 9-voltios, desconecte el suministro de energía al controlador y remueva la tapa de acceso y el panel superior. Conecte la batería al conector de 9-voltios provisto, e insértelo en el sujetador de batería. Vuelva a instalar el panel superior y vuelva a conectar el suministro de energía. Reemplace tapa de acceso. Inserte la punta de un sujetador de papel en el orificio de **reset** y presione momentáneamente.