



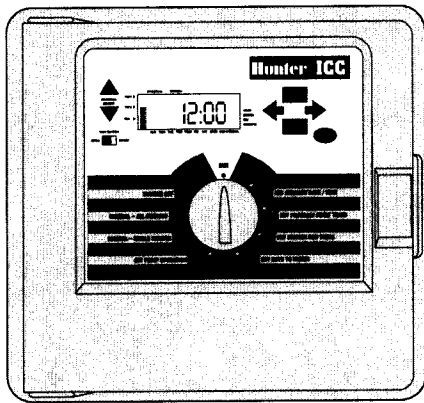


PROGRAMMING THE CONTROLLER

Two key features of the ICC that make programming a snap are its clear, easy-to-read LCD display and its easy-to-use dial design.

The ICC display shows time and day when the controller is idle. The display changes when the dial is rotated to indicate the specific programming information to enter. When programming, the flashing portion of the display can be changed by pressing the  or  buttons. To change something that is not flashing, press  or  until desired field is flashing.

The ICC controller offers maximum scheduling flexibility including four programs, each with up to 8 daily start times, permitting plants with different watering requirements to be separated on different day schedules. Multiple start times permit morning, afternoon and evening watering, perfect for the establishment of new lawns and thirsty annual flowers. A built in 365-day calendar clock accommodates odd/even watering restrictions without requiring monthly reprogramming. Or, just simply designate the days of the week you want to water or use the convenient day interval watering. The ICC makes it easy.



NOTE: A basic programming rule is that whatever symbol or character is flashing will be the item programmed. For instance, if the hour is flashing when setting the time, the hour can be changed or programmed. For illustration purposes, flashing characters are in GRAY type. Setting The Current Date And Time

To activate a program in your controller, you must enter the following information:

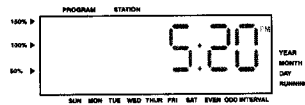
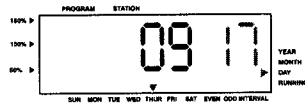
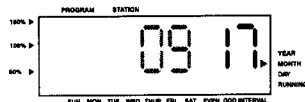
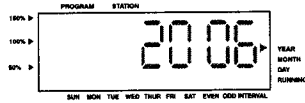
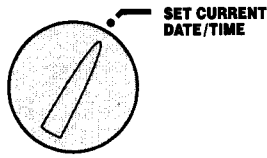
1. Set current day and time—turn dial to **SET CURRENT DATE/TIME.**
2. Set what time of day you would like the program to start—turn dial to **SET PROGRAM START TIMES.**
3. Set how long each valve will water—turn dial to **SET STATION RUN TIMES.**
4. Set the day(s) you would like the program to water—turn dial to **SET DAYS TO WATER.**



NOTE: All stations operate in numerical order. Only one program start time is required to activate all stations in the watering program.

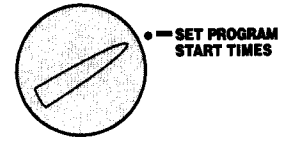
Setting The Current Date And Time

1. Turn the dial to the **SET CURRENT DATE/TIME** position.
2. The current year will be flashing in the display. Use the **+** and **-** buttons to change the year. After setting the correct year, push the **▶** button to proceed to setting the month.
3. The month and day will be in the display. The month will be flashing. Use the **+** and **-** buttons to change the month. Press the **▶** button to proceed to setting the day.
4. The day will be flashing: Use the **+** and **-** buttons to change the day of the month. (The day of the week is automatically indicated by an arrow in the bottom of the display pointing to the day.) Press the **▶** button to proceed to setting the time.
5. The time will be displayed: Use the **+** and **-** buttons to select AM, PM, or 24 hr. Press the **▶** button to move to hours. Hours will be flashing. Use the **+** and **-** buttons to change the hour shown on the display. Press the **▶** button to move onto the minutes. Minutes will be flashing. Use the **+** and **-** buttons to change the minutes shown in the display. The date, day, and time have now been set.



Setting Program Start Time

1. Turn the dial to the **SET PROGRAM START TIMES** position.
2. The factory preset is set on program A. If necessary you can select program B, C, or D by pressing the **PRG** button.
3. Use the **+** and **-** buttons to change the start time. (Advances in 15-minute increments.)
4. Press the **▶** button to select the next start time, or **PRG** for the next program.



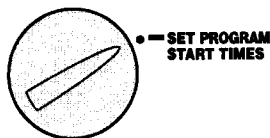
NOTE: Regardless of the order in which the start times are entered, the ICC will always arrange the start times in chronological order when the dial is moved off the **SET PROGRAM START TIMES** position.

One start time will activate stations sequentially in that program one at a time. Multiple start times in a program can be used for separate morning, afternoon, or evening watering cycles. Do not enter a start time for each station.

PROGRAMMING THE CONTROLLER (continued)

Eliminating A Program Start Time

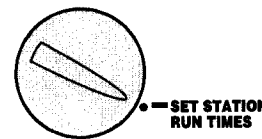
With the dial set to the **SET PROGRAM START TIMES** position, push the **▶** and **◀** buttons until you reach 12:00 AM (Midnight). From this position push the **◀** button once to reach the **OFF** position.



NOTE: If a program has all eight start times turned off, then that program is off (all other program details are retained). Because there are no start times, there will be no watering with that program. This is a convenient way to stop watering on one program only without turning the dial to the off position.

Setting Station Run Times (Length of Watering for Each Area)

1. Turn the dial to the **SET STATION RUN TIMES** position.
2. The display will show the last program selected (**A, B, C, or D**). You can switch to another program by pressing the **◀** button.
3. Use the **▶** and **◀** buttons to change the station run time on the display.
4. Press the **▶** button to advance to the next station.
5. Repeat steps 4 and 5 for each station.
6. You may set station run times from 1 minute to 2 hours. If the station is assigned program **D**, the run time can be set for up to 12 hours.
7. You can move between programs while staying on the same station. However, it is recommended that one program is completed before going on to the next program. Jumping between programs can be confusing and may result in program errors.

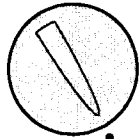




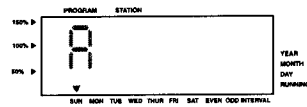
NOTE: If a station is assigned a run time on program A, B, or C, then that station cannot be assigned to Program D. If this is attempted, the word **USED** will appear in the display. Likewise, a station with a run time on Program D cannot be assigned to program A, B, or C. This is to prevent the accidental assignment of a rotor or spray zone to the D program which is normally reserved for drip applications.

Setting Days To Water

1. Turn the dial to the **SET DAYS TO WATER** position.
2. The display will show the last program selected (**A, B, C,** or **D**) the station number selected, and the run time for that station will be flashing. You can switch to another program by pressing the **PREV** button.



SET DAYS TO WATER



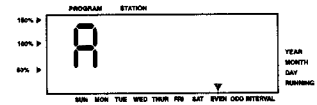
3. The controller displays currently programmed active day schedule information. This dial position provides four different water day options: choose to water on specific days of the week, you can choose interval watering, or choose to water on odd days or even days. Each program can only operate using one type of water day option.

Selecting Specific Days of the Week to Water

1. With the arrow cursor on a specific day (the cursor always starts with Sunday), press the **+** button to activate a particular day of the week to water. Press the **-** button to cancel watering for that day. After pressing a button the cursor automatically advances to the next day.
2. Repeat step 1 until desired days have been selected. The selected days arrows will show on the display to indicate their status as **ON**. The last solid arrow is the last day of watering for that program.

Selecting Odd or Even Days to Water

This feature uses a numbered day of the month for watering instead of specific days of the week (Odd days 1st, 3rd, 5th, etc.; Even days 2nd, 4th, 6th, etc.).



1. Press the **➡** button until the arrow cursor is above either **EVEN** or **ODD** on the display.
2. Press the **+** button to select or the **-** button to cancel either **Odd Days** or **Even Days**. The previous selected days of the week will revert to active if **Odd Days** or **Even Days** is cancelled.



NOTE: The 31st of any month and February 29th are always "off" days if Odd watering is selected.

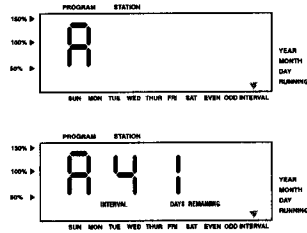
PROGRAMMING THE CONTROLLER (continued)

Selecting Interval Watering

This feature is convenient if you want to have a more consistent watering schedule without having to worry about the day of the week or the date. The interval you select is the amount of days between watering. The days remaining indicates how many days until the next watering. For example if you select an interval of 4 with 1 days remaining, watering will begin tomorrow at the scheduled time.

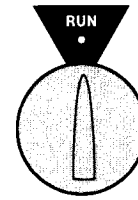
1. Turn the dial to **SET DAYS TO WATER** the triangle above Sunday should be flashing.
2. Use the **▶** button and move the flashing arrow cursor above the **INTERVAL** designator.
3. Press the **+** button. The display will now show two numbers, the interval and the days remaining in the interval.
4. The number of days between waterings, or the interval will be flashing. Use the **+** and **-** buttons to select the number of days desired between waterings.
5. Press the **▶** button. The days remaining in the interval are now flashing. Use the **+** and **-** buttons to select the number of days until the next desired watering. One day remaining means it will water the next day.

After programming, set dial to **RUN** to enable automatic execution of all selected programs and start times.



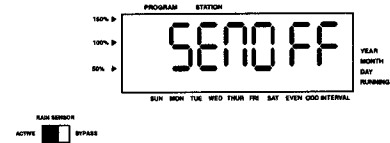
Run

After programming is complete, turn the dial to **RUN** to enable automatic execution of all selected programs and start times. **Watering will not occur unless dial is in the RUN position.**



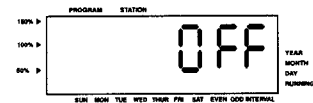
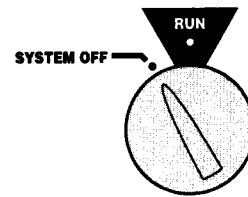
Weather Sensor Bypass

With this built-in feature, there is no need for an additional manual bypass switch when using rain sensors (the ICC works with the Hunter Mini-Click®, plus some other rain, wind, and freeze sensors on the market today). If the system is preventing system operation (or no sensor is installed and the switch is in the **ACTIVE** position), **SEN OFF** will be displayed. Simply move the switch to **BYPASS** and the weather sensor will be bypassed. This allows you to use the system.



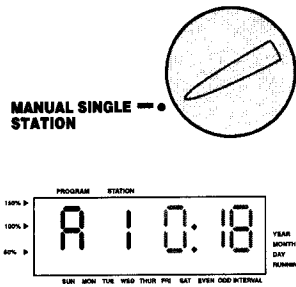
System Off

Valves currently watering will be shut off after the dial is turned to the **SYSTEM OFF** position for two seconds. All active programs are discontinued and watering is stopped. To return controller to normal automatic operation, simply return dial to **RUN** position.



Manually Run a Single Station

1. Turn the dial to the **MANUAL-SINGLE STATION** position.
2. Station run time will flash in the display. Use the **▶** button to move to the desired station. You may then use the **+** and **-** buttons to select the amount of time for a station to water.
3. Turn the dial to the **RUN** position to run the station (only the designated station will water, then controller will return to automatic mode with no change in the previously set program).



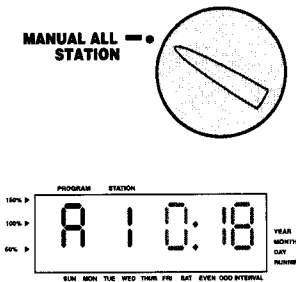
5. Use the **▶** button to move to the next station.
6. Repeat steps 3 and 4 to customize each station if desired.
7. Press the **▶** button until desired starting station is displayed.
8. Return the dial to **RUN** (custom program will water the entire program beginning with the station number last left in the display, then controller will return to automatic mode with no change in the previously set program).



NOTE: The station that is on the display when you turn the dial to **RUN** will be the first station to run. The controller will then proceed to water in sequential order only. It will not water previous stations. Example: If you turn the dial to **RUN** with the display reading station 3, the controller will water Stations 3 through 9 in the program, but not return to Stations 1 and 2.

Manually Run All Stations

1. Turn the dial to **MANUAL-ALL STATIONS**.
2. You can select program **A, B, C,** or **D** by pressing the **PRG** button.
3. Press the **▶** button until desired starting station is displayed.
4. Station run time will flash in the display. Use the **+** and **-** buttons to select the amount of run time for the station to water if different from the run time displayed.



One Touch Manual Start and Advance

You can also activate all stations to water without using the dial.

1. Hold down the **▶** button for 2 seconds.
2. This feature automatically defaults to program **A**. You can select program **B, C** or **D** by pressing the **PRG** button.
3. The station number will be flashing. Press the **◀** or **▶** button to scroll through the stations and use the **+** and **-** buttons to adjust the station run times. (If no buttons are pressed during step 2 or 3, the controller will automatically begin program **A**.)
4. Press the **▶** button to scroll to the station you wish to begin with. After a 2 second pause, the program will begin.

This feature is great for a quick cycle when extra watering is needed or if you would like to scroll through the stations to inspect your system.

PROGRAMMING THE CONTROLLER (continued)

Seasonal Adjustment

Seasonal Adjust is used to make global run time changes without reprogramming the entire controller. This feature is perfect for making small changes that are necessary as the weather changes without reprogramming the entire controller. For instance, hotter times of the year may require a bit more water. Seasonal adjust can be increased so that the stations will run longer than the programmed time. Conversely, as Fall approaches, the seasonal adjust can be reduced to allow for short watering durations.

To use the seasonal adjust, simply press the ▲ or ▼ seasonal adjust buttons to set the percentage desired. The watering run time can be adjusted from 10% to 150% of original program. The season adjust can be changed at any time regardless of the programming dial position. To view the new adjusted run time, simply turn the rotary dial to the **SET RUN TIMES** position, the displayed run time will be updated accordingly as the seasonal adjustment is made. The seasonal adjustment will affect all station run times programmed



NOTE: The controller should always be initially programmed in the 100% position.

ADVANCED PROGRAMMING CAPABILITIES.....

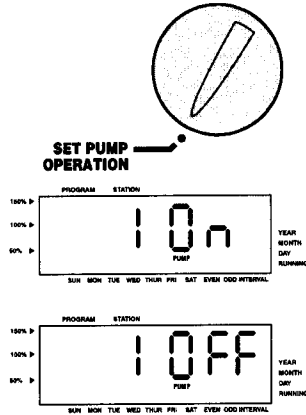
There are four advanced features available to customize the ICC to more complex watering requirements. Two of these features are "hidden" to make accidentally programming them nearly impossible.

Set Pump/Master Valve Operation

The default is for all stations to have the master valve/pump start circuit **ON**. The master valve/pump start can be set **ON** or **OFF** by station, regardless of which program the station is assigned. This feature may be utilized on systems where it is desirable for a booster pump not to operate with certain zones.

To program pump operation:

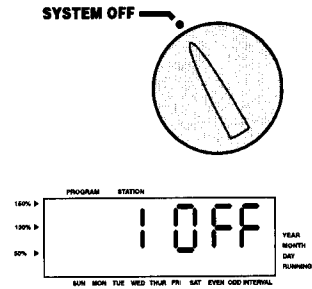
1. Turn the dial to **SET PUMP OPERATION** position.
2. Press the **+** or **-** buttons to toggle the master valve/pump start **ON** or **OFF** for the specific station.
3. Press the **→** button to advance to the next station.
4. Repeat steps 2 and 3 for all necessary stations.



Programmable Rain Off

This feature permits the user to stop all programmed waterings for a designated period from 1 to 7 days. At the end of the Rain Delay, the controller will resume normal automatic operation.

1. Turn the dial to the **SYSTEM OFF** position.
2. Press the **+** button and a 1 will be displayed and the **DAYS** icon will illuminate. The 1 will be blinking at this point.
3. Press **+** as many times as needed to set the number of days off desired (up to 7).
4. To validate this setting (and to make sure the controller comes back on after the period is over), turn the dial back to the **RUN** position at which time, **OFF**, a number and the **DAYS** icon all remain on.
5. Leave the dial in the **RUN** position.



NOTE: The days off remaining will decrease at midnight of each day. When it goes to zero, the display will show the normal time of day and normal irrigation will resume at the next scheduled start time.

HIDDEN FEATURES









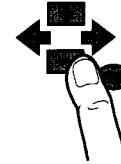
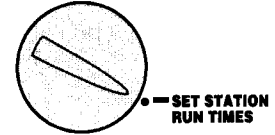
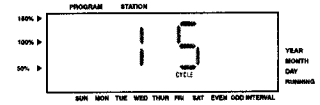
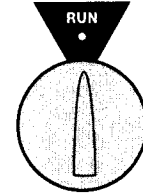
NOTE: The hidden features described below can only be entered by starting with the dial in the **RUN** position and holding down various buttons while the knob is turned to various setup positions. This makes it virtually impossible for someone to stumble onto these features.

Cycle and Soak

The Cycle and Soak feature allows the user to split each station's run time into more usable, shorter duration waterings. This feature is particularly applicable for slopes and tight soil (such as clay) because Cycle and Soak will help prevent excessive run off. You should enter the Cycle time as a fraction of the station's watering time and the Soak time as the minimum soak required before watering the next portion. The total number of cycles is determined by taking the total programmed station run time and dividing it by the Cycle time.

For example: Suppose Station 1 required 20 minutes worth of water but after only 5 minutes, runoff occurred. However, after 10 minutes all the water was absorbed. The solution would be to program 20 minutes for the Station Run Time, 5 minutes for the Cycle time, and 10 minutes for the Soak. Station 1 will then water for 5 minutes and then the rest of the stations in the program will water. After all the other stations have watered the controller will check to see if Station 1 had soaked for at least 10 minutes. If it had, then Station 1 will water for another 5 minutes. This process would continue to repeat itself until Station 1 watered 4 times for 5 minutes each time, a total of 20 minutes.

1. Start with the dial in the **RUN** position.
2. Press and hold the  button down while turning the dial to the **SET STATION RUN TIMES** position.
3. Release the  button. At this point, the display will show the station number, the cycle time will be blinking. The **CYCLE** and soak icons will also be lit.
4. Press the  or  buttons to increase or decrease the cycle time from 1 to 60 minutes in 1 minute increments.
5. Press the  key to advance to the next station and its cycle time.
6. Pressing the  key will display the previous station and its cycle time.
7. Return the Dial to the **RUN** position after setting all the cycle and soak times.



Setting the Soak Times

It is only necessary to set a **SOAK** time if the accumulated **CYCLE** times on any single program will not provide an adequate soak time. For instance, if the sum of the cycle times for all stations in a program exceeds 10 minutes and each station will require no more than 20 minutes of soak time, then the accumulated cycle times are sufficient and no soak time will need to be programmed. However, if the necessary soak time did exceed the 10 minutes, then a soak time must be entered for those stations requiring a longer soak between waterings. The soak time default is 10 minutes.

Pressing the **PRG** button at any time while in the cycle time setup will allow the user to enter the soak time setup for that station. Pressing **PRG** again will go back to the cycle time setup. The soak time works identically to the cycle time setup except that the **SOAK** icon will be on as opposed to the **CYCLE** icon.

NOTE: If the dial is moved from the **SET STATION RUN TIMES** position, then the entire sequence of going back to **RUN** and holding the **PRG** key down must be repeated to reenter the cycle and soak setup. The cycle and soak feature is a station dependent function and will be used whenever the station operates regardless of which program or programs the station is assigned.

Programmable Delay Between Stations

This feature allows the user to insert a delay between when one station turns off and the next station turns on. This is very helpful on systems with slow closing valves or on pump systems that are operating near maximum flow or have slow well recovery.

1. Start with the dial in the **RUN** position.
2. Press and hold the **PRG** button down while turning the dial to the **SET STATION RUN TIMES** position.
3. Release the **PRG** button. At this point the display will show a delay time for all stations in seconds, which will be blinking. The **DELAY** icon shall also be lit at this time.
4. The display will show "SEC". Use the **+** and **-** buttons to increase or decrease the delay time between 0 and 10 minutes in 1 second increments.
5. Pressing either the **←** button or the **→** button will allow for programming a longer delay between stations. The display will show the delay in minutes.
6. Press the **+** and **-** buttons to increase or decrease the delay time from 0 to 10 hours in 5 minute increments.
7. Return the dial to the **RUN** position.

