RADIO OPERATED IRRIGATION

Installation and Operation Guide
Remote & Controller
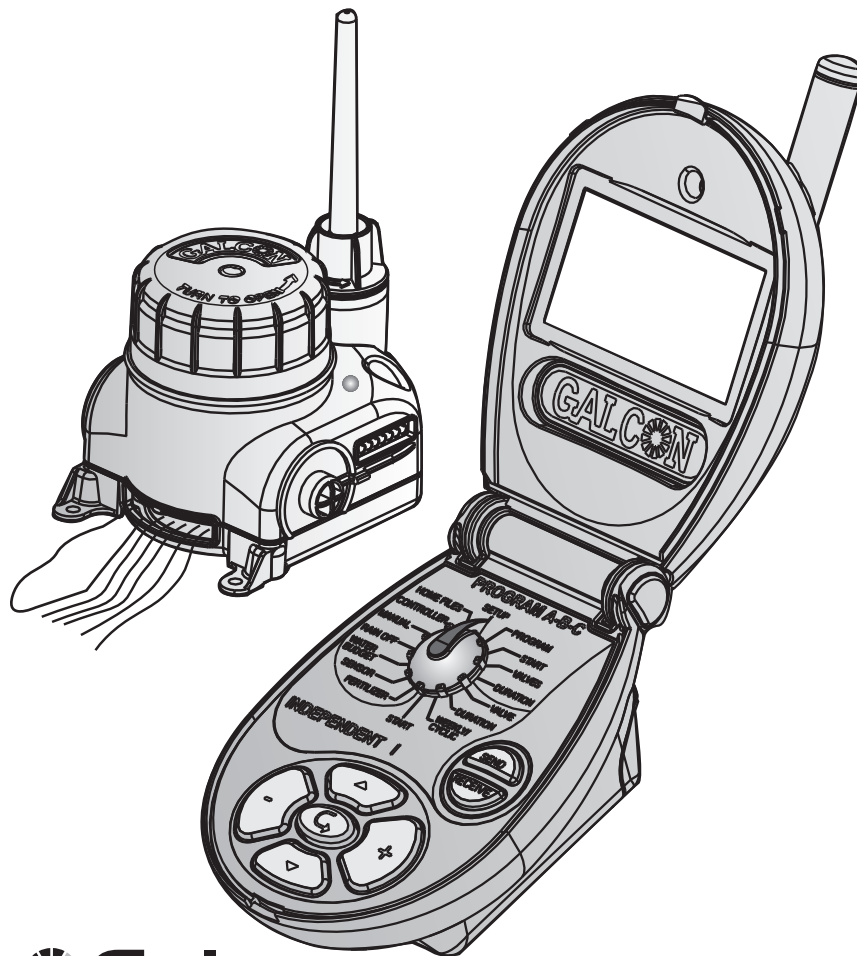
A wireless system comprised of a mobile, battery operated remote, commanding numerous controllers. Operation range between the remote and the controllers – up to 100 meters in open fild.

Remote Features
▸ A remote with a selector, user friendly and easily operated.
▸ Large liquid crystal display.
▸ 5 optional languages: English, Spanish, Italian French and Hebrew.
▸ Controls numerous controllers.
▸ The remote saves the memory of uo to 50 controllers.
▸ Weekly or cyclic irrigation programs for a group of valves.
▸ Weekly or cyclic irrigation programs for an individual valve.
▸ A fertilization program for each valve separately.
▸ Optional change of the irrigation duration in percentage(%)-water budget.
▸ Programmable Rain off from 1 day to 99 days.
▸ 8 start times per day for each program or individual valve.
▸ Irrigation duration from 1 minute up to 9 hours.
▸ An irrigation cycle from once a day up to 30 days.
▸ Option for manual computerized operation of each separate valve or a group of valves.
▸ Powered by four AA 1.5 VDC batteries.
▸ Permanent memory.
▸ Galcon Warranty and Service.

Controller Features
▸ Waterproof.
▸ Various models, to operate 1, 2, 4 and 6 valves including control valve for hydraulic fertilizer pump and an external sensor.
▸ Models 2,4,6 include a master valve.
▸ Can be installed on a solenoid, using the bracket (bracket included), or on a wall.
▸ Adjustable antenna.
▸ Powered by two C 1.5 VDC batteries.
▸ Galcon Warranty and Service.

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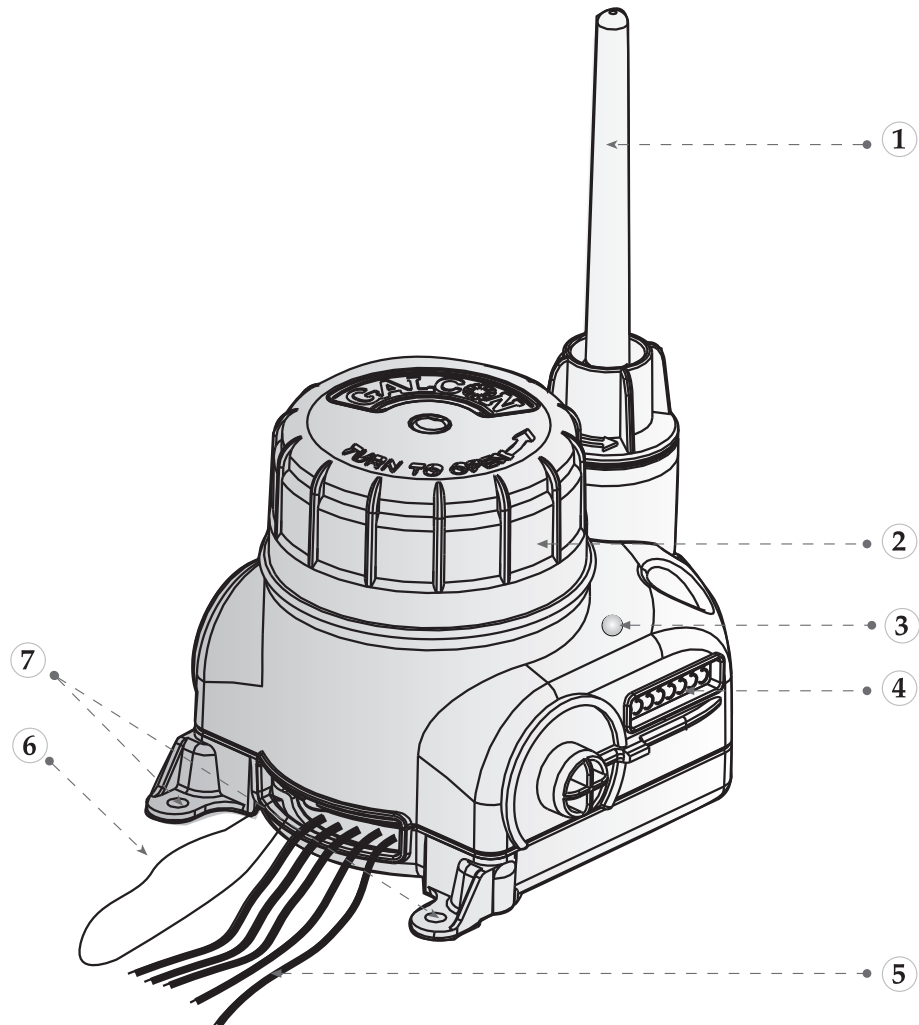**Galcon**

1. Antenna
2. Battery compartment cover
3. Control light
4. Identification Number
5. Cables to connect solenoids
6. Looped sensor cable
7. Holes for attachment to the wall

Connecting the Solenoid Wires to the Controller
Connect the valves to the cables which emerge from the controller. Refer to the drawing and the instructions below.
Labeled cables emerge from the controller (1). A protective cover is attached to the end of each cable. Remove the cover before you connect the cable. These cables are compatible with Galcon, DC type (3) irrigation valves.

The controller and its connections are waterproof.To maintain its impermeability, be sure to carry out the following instructions carefully:
• Do not remove the cover off a cable that will not be connected to a valve. Exposed wire strands may cause a short circuit upon contact between the strands or with conducting bodies.
• Connect the cables to the valves using waterproof connectors (2). The connectors are supplied with the product. Refer to the drawing.
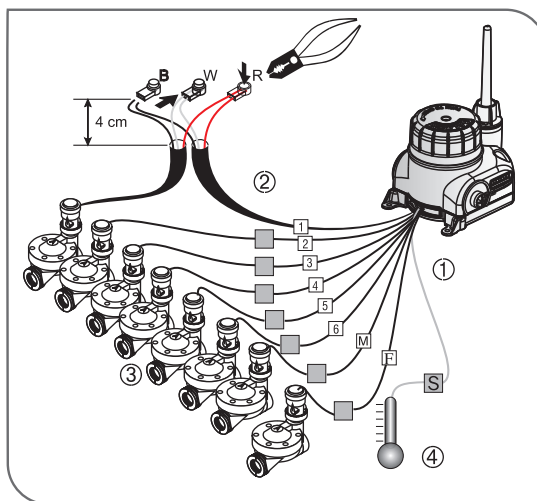
1. Cut the protective cover off the cable which emerges from the controller (1) and expose the cable strands beneath the black insulating sleeve. The cables to the solenoid have 3 strands: white, red and black. Do not remove the colored insulation off the strands.
2. Connect each strand to a separate waterproof connector (2).
3. A cable with 3 strands emerges from each solenoid: white, red and black. Connect the white strand of the solenoid to the connector you connected onto the white strand of the cable that emerges from the controller. Connect the red and

black strands in the same way. Refer to the drawing.
4. Connect the remaining controller cables to the cables of the solenoids, according to the number of valves in the system. Ascertain that the numbers of the valves correspond to the numbers marked on the controller cables.
5. Connecting a sensor (optional). The sensor is connected to the looped cable. Cut the looped cable in the middle, connect the wires of the sensor to both sides of the cable.
Note! Do not program a valve which is not conected with a waterproof connector!

☞ It is recommended to insert the batteries after connecting the solenoids.

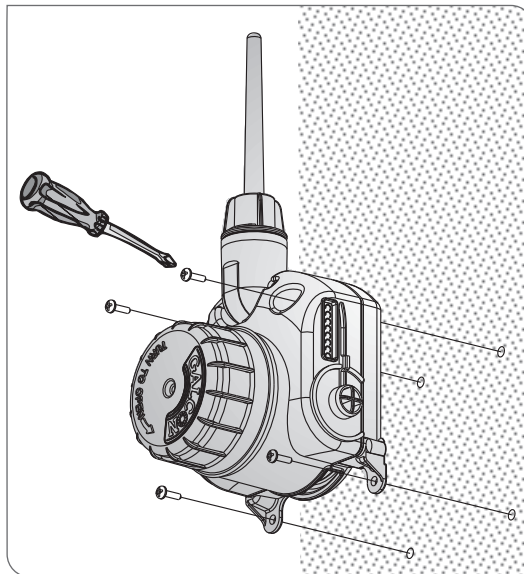You can install the controller in one of the following ways:

1. On a wall.

2. On a solenoid.

1. Installation on a Wall
Mount the controller on the wall, using screws.(refer to the drawing).

⚠ **Ascertain that the antenna is vertical.**

Refer to scaled drawing separate page included.

82.0

75.8
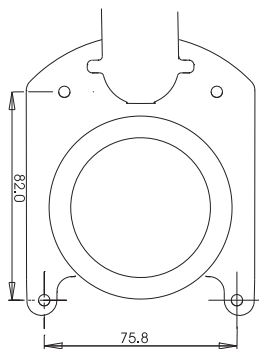
2. Installation on a Solenoid

Join the bracket onto the controller.
Tighten the bracket, using the bolt.

⚠ **Ascertain that the antenna is vertical. Note the direction of the bracket & solenoid manual level (refer to the drawing).**

Controller

Bracket

Manual lever position Auto

Figure 3

Installation of the Batteries

a. Insert the batteries (C 1.5 VDC) according
   to Figure 4.
   Ascertain that the batteries are inserted
   in the correct direction of polarity (+/ -).
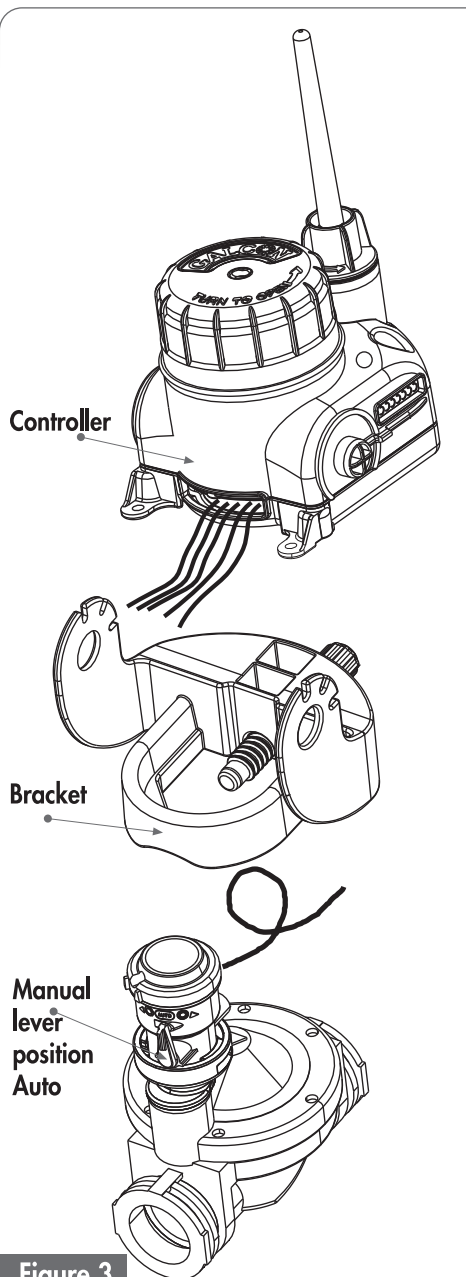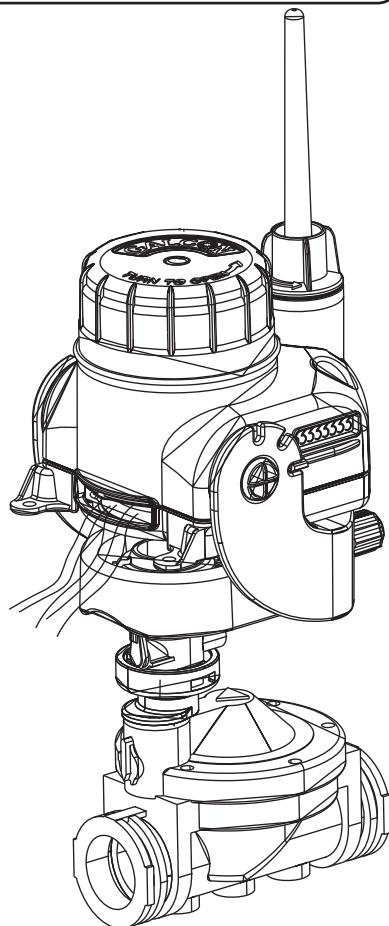
⚠ **It is recommended to use high quality
alkaline batteries.**

b. Close the cover of the battery
compartment tightly by hand, up to the
end of the thread (Figure 5). Do not use
a spanner.

c. Wait for 2-3 seconds after closing the
cover. The control light will blink 4 times
to confirm that the batteries are inserted
correctly.

Wait for one or two minutes after the
installation of the batteries. The controller
performs an initial closing of the valves.
The light blinks every time a valve is closed.

⚠ **When batteries are changed:
the program remains in the memory but
the valve opening time needs to be reset
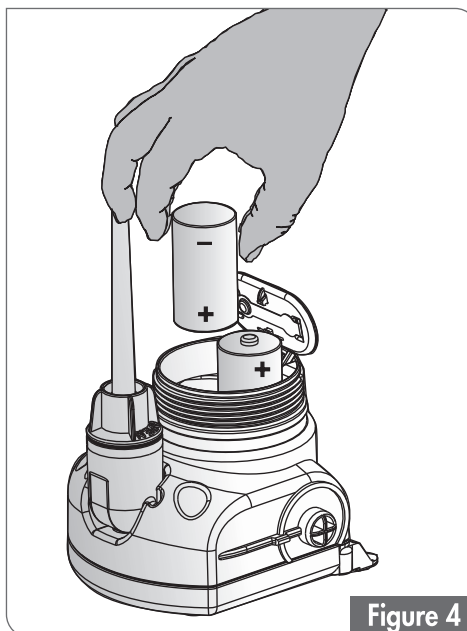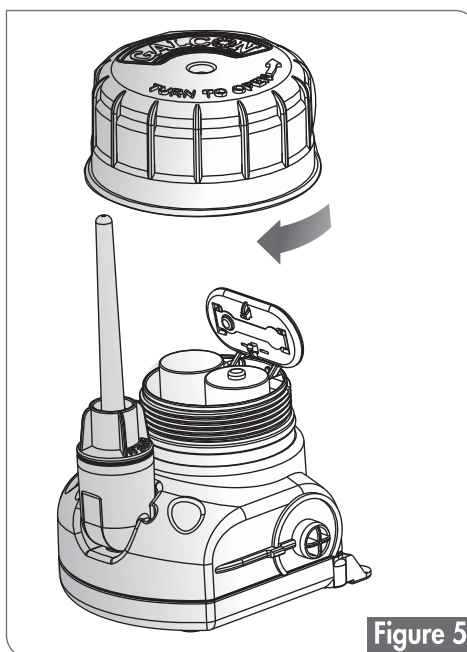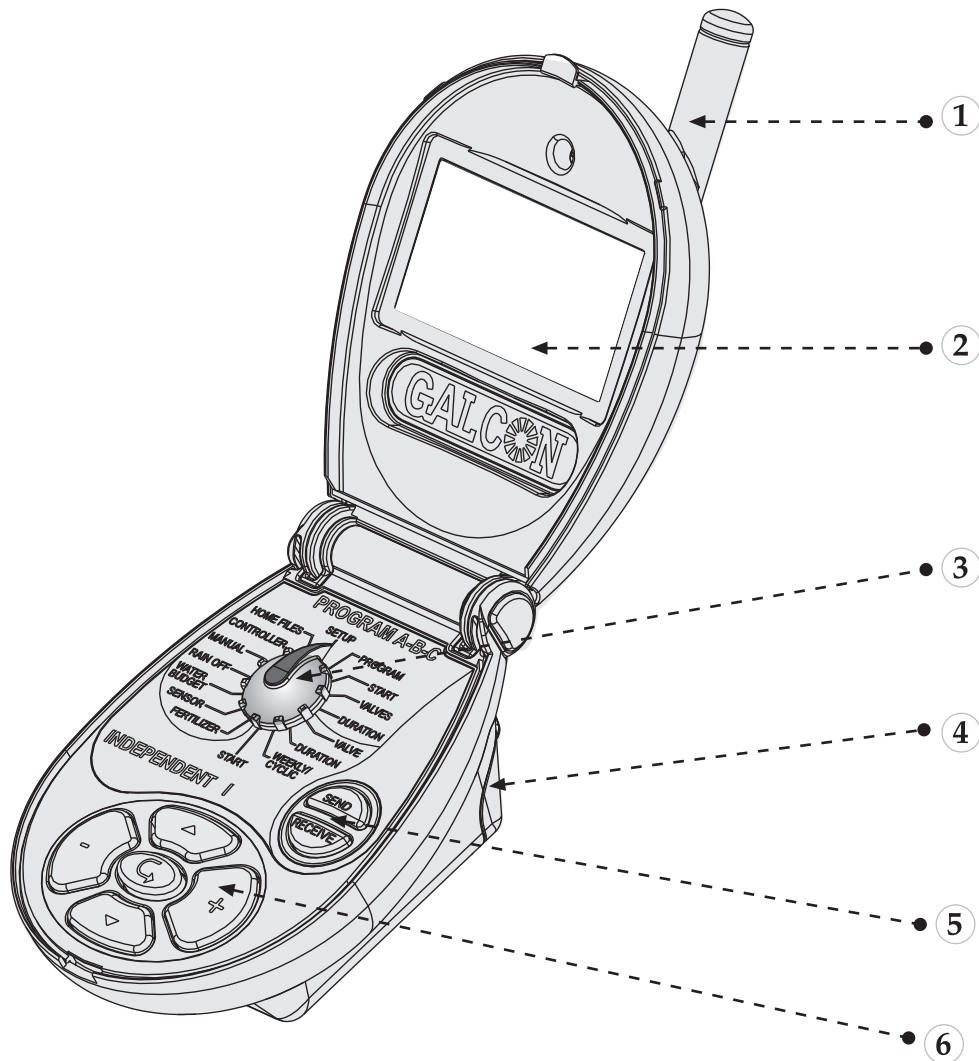(Refer to Manual page 29).**

Figure 4

Figure 5

⊛Galcon

1. Antenna.
2. Display.
3. Programs selector.
4. Battery compartment.
5. SEND and RECEIVE pushbuttons.
6. Programming pushbuttons.

① ② ③ ④ ⑤ ⑥

General information

The Remote is easily operated by a selector and five pushbuttons. You can save programs in home files (up to 4 programs), or send the programs directly to a controller. Programs that were sent to the controller and received are saved in the memory of the Remote according to the controller's code (up to 50 controllers).

By using the Remote you can transfer programs from home files to controllers, modify programs located in the controller and create new programs.

Note! The irrigation is programmed in the Remote only and not in the controller itself. The controller receives the programs and operates the valves. To transmit programs to the controllers, ascertain that the Remote is located within the reception range of the controller (up to 100 meters). When the transmission is completed successfully, the message **Send successful** is displayed on the screen, confirming reception of the program.

The Remote Offers 2 types of Irrigation Programs

. an irrigation program for a group of valves.
. an irrigation program for an individual valve.

Additional Options:

Fertilizing program for each valve.

An Irrigation Program for a Group of Valves, Pages 13-18

You can program three programs: A, B and C.

For each program, select the irrigation days on which the valves will operate. Set a starting time for the first valve only and define the irrigation duration for each valve separately. The valves open in sequence, according to their serial number on the display. When the first valve shuts off the second valve opens and so on. Only one valve operates at any given moment. When you program programs (A , B , C) with overlapping irrigation times, program A starts first and program B starts only after program A ends. Program C opens after Program B ends.

When no fertilization program is programmed, two valves can open simultaneously.

Independent I Program , page 19 – 24

Use this method to define an individual program for each valve. Select the desired valve first and then proceed to define the irrigation program: Set watering duration, irrigation days or irrigation cycles and the start time of that valve.

General Description

Program the controller, using the 16 position selector and 5 pushbuttons:

⊕ Increase pushbutton – to add to the selected value and confirm activity in certain conditions.

⊖ Decrease pushbutton – to deduct from the given value.

⇧ Scroll up pushbutton.

⇩ Scroll down pushbutton.

↵ Opens the field and moves from one field to another.

Open the cover of the battery compartment, using the designated lever.
Insert the batteries (AA 1.5 V) as shown in the figure below. Ascertain correct direction
of polarity (+ / -).
Close the cover of the battery compartment, using the designated lever.
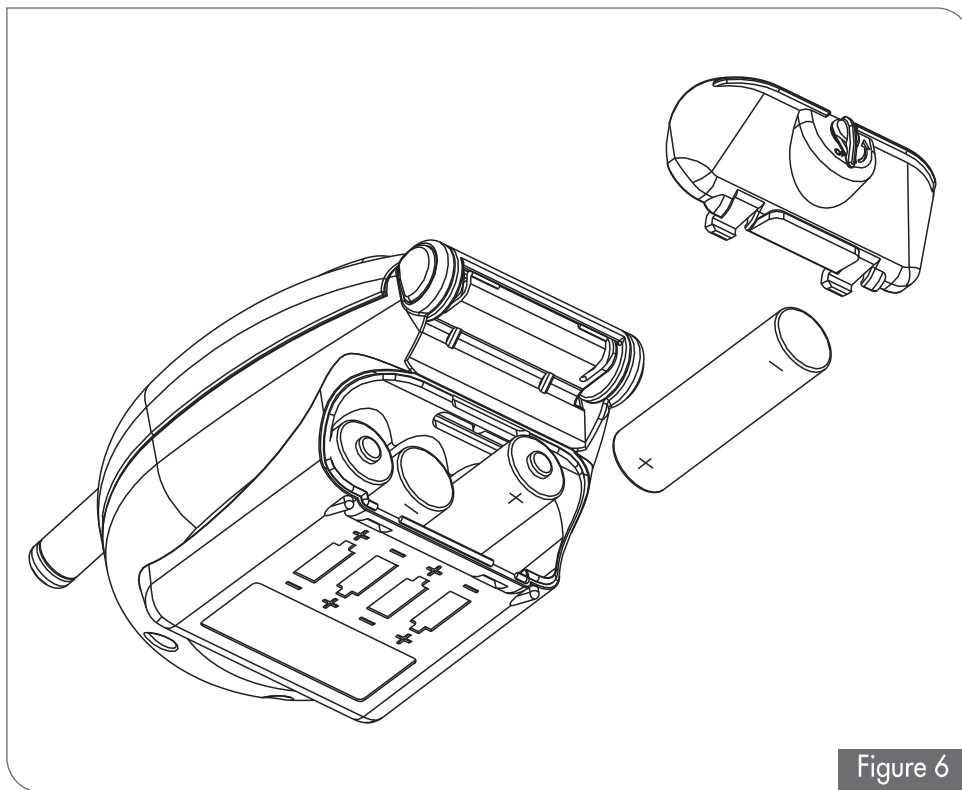
☞ **Use high quality alkaline batteries only.**

Figure 6

Language Selection, Current Date and Time Setting

When the display is turned off, press one of the programming pushbuttons, to start the display.

Turn the selector to SETUP position.

🕐 **SET UP**

Time: 10:10:30
Date: Monday 1
Language:ENGLISH
Screen clarity: 19
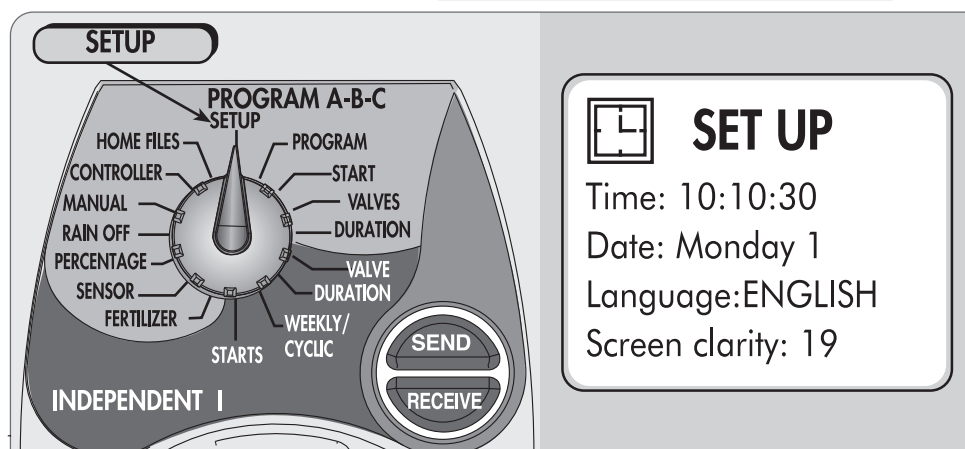
Language

Press on ⟳ until the cursor moves to the Language line. Set the required language, using the ⊕ or the ⊖ pushbutton. (You may also use the up ⬆ and down ⬇ arrows to reach the language line).

Setting Current Time

Press on ⟳ until the cursor moves below the hour digit.
The arrow on the left indicates the line you reached. Set the hour digit, using the ⊕ or the ⊖ pushbutton.

Press on ⟳. The cursor moves to the minutes. Set the minutes, using the ⊕ or the ⊖ pushbutton.

Setting the Date

Press on ⟳. The cursor moves to the days. Set the current date, using the ⊕ or the ⊖ pushbutton.

Brightness

Press on ⟳. The cursor moves to Brightness. Set the desired screen brightness, using the ⊕ or the ⊖ pushbutton.

☞ **You can use the up ⬆ and down ⬇ arrows to move quickly from one line to another. The arrow indicates the line you reached.**

Irrigation Program for a Group of Valves
The Remote offers two valve programming options:
1. Program **A, B, C** – a common program for a selected number of valves.
2. Independent **I** program – a separate program for each valve.

> ⟳ **Turn the selector to Program position**

Selecting a Program (weekly or cyclic)
Press on ⟳ until the cursor moves below the A B or C program icon.
Use the ⊕ or ⊖ pushbutton to select the desired program.
Press on ⟳. The cursor moves to On/Off.
Use the ⊕ or ⊖ pushbutton to define the On or Off program.

> ☞ You can stop a program by turning it to on position, even after you programmed it.

At this stage, select weekly or cyclic programming.
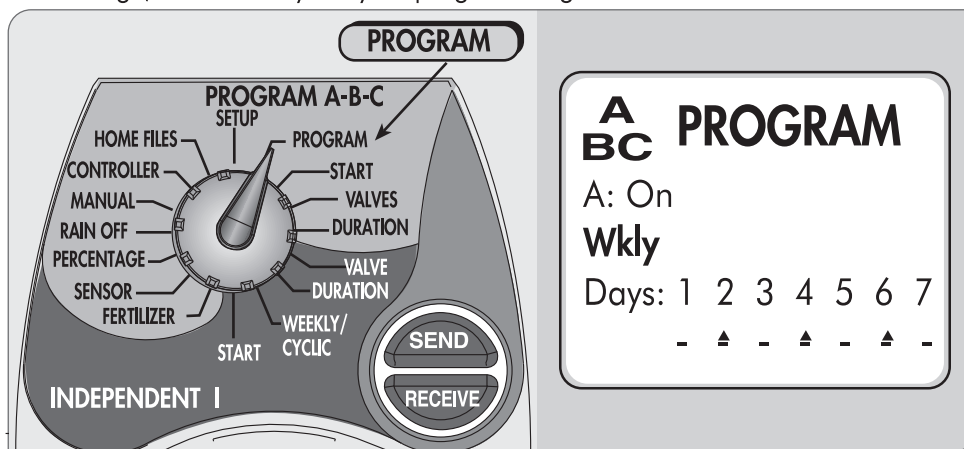
Weekly Program
This program sets the days of the week on which the valves assigned to the program will operate.
Select the desired program (A, B, C) and then press on ⟳.
Use the ⊕ or ⊖ pushbutton to select **Weekly**.

You have to select **Irrigation Days** for the weekly program.

Press on ⟳. The cursor appears under day 1.
Press on ⊕. A small triangle appears under the digit 1, Monday is selected as an irrigation day.
Upon pressing on ⟳ the cursor moves to 2 – Tuesday. Continue marking the desired days in the same way.
To delete selected days, press on ⊖.

Cyclic Program

Use this mode to program the Remote to operate the selected program at a fixed cyclic time. The cycle time can be from one day up to 30 days. The cycle time is identical for all the valves assigned to this program.
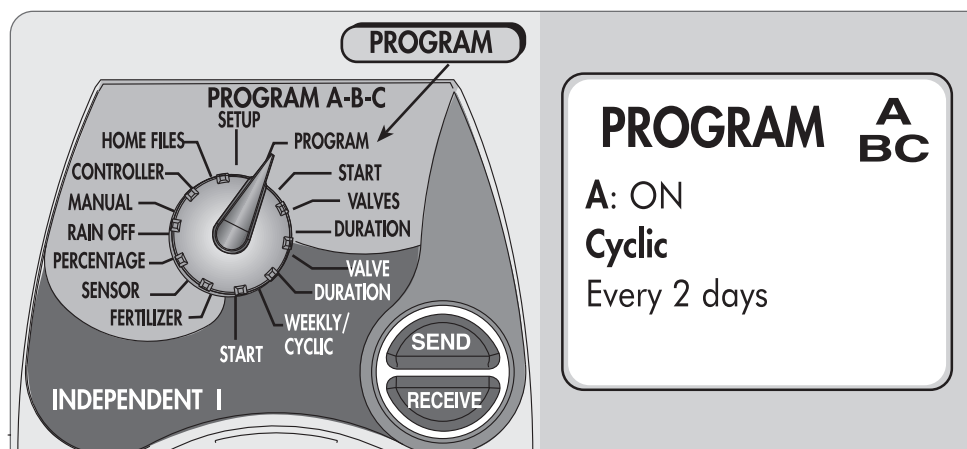
Select the desired program (A, B, C) and then press on ⊙.

Use the ⊕ or ⊖ pushbutton to select **Cyclic**.

Press on ⊙. The cursor appears under days digit.

Use the ⊕ or ⊖ pushbutton to set the desired cycle time (in days).

☞ You can use the up ⇧ and down ⇩ arrows to move quickly from one line to another. The arrow indicates the line you reached.

START

Use this screen to set the start time of the selected program. You have two options:
Start times for a weekly program – up to 8 starts.
Start time for a cyclic program – one start time.

> Turn the selector to START position

Start Time for a Weekly Program

You can set 8 start times for a weekly program. The first valve is operated at the desired time and the other valves open sequentially from the first to the last valve in the program.

> You cannot change the first two lines in this screen

START
Program **A: ON**
Wkly: - 6 - 4 - 2 -
Start 1: Am 6:00
Start 2: OFF
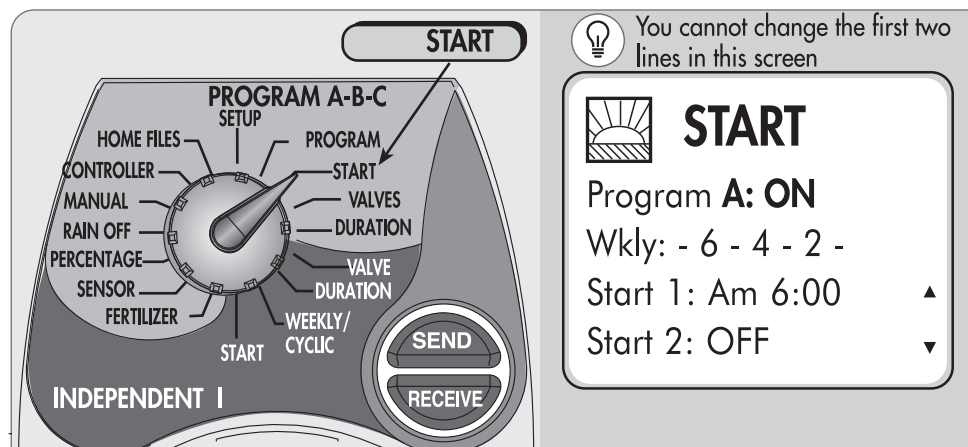
Press on ⊙. The cursor appears below the word **OFF** or under the hour digit in the **Start 1** line.

Use the ⊕ or ⊖ pushbutton to set the desired start time.

Press on ⊙. The cursor appears below the minutes digit. Use the ⊕ or ⊖ pushbutton to set the desired minute.

When you press again on ⊙ the cursor moves down to the hour digit in **Start 2**.

Use the ⊕ or ⊖ pushbutton to set the desired hour start No. 2.

Press on ⊙. The cursor appears below the minutes digit. Use the ⊕ or ⊖ pushbutton to set the desired minute start No. 2.

You can set 8 starts for each program in the same way.

To cancel a start: Select the start you wish to cancel, set the cursor on the hour digit and use the ⊕ or ⊖ pushbutton to bring it to the **OFF** status.

Galcon

Start Time for a Cyclic Program

If you selected a cyclic program, set the start time and the number of days up to the cycle start of the first valve (a cyclic program has only one start time). All other valves programed for this program open after the first valve closes, in sequence.

Turn the selector to START position

START

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE DURATION
SENSOR
FERTILIZER — WEEKLY/CYCLIC
START
SEND
RECEIVE

INDEPENDENT I

You cannot change the first two lines in this screen

START
Program **A: ON**
Cycle: 2 days
Start: 6:00
Delay 0 days
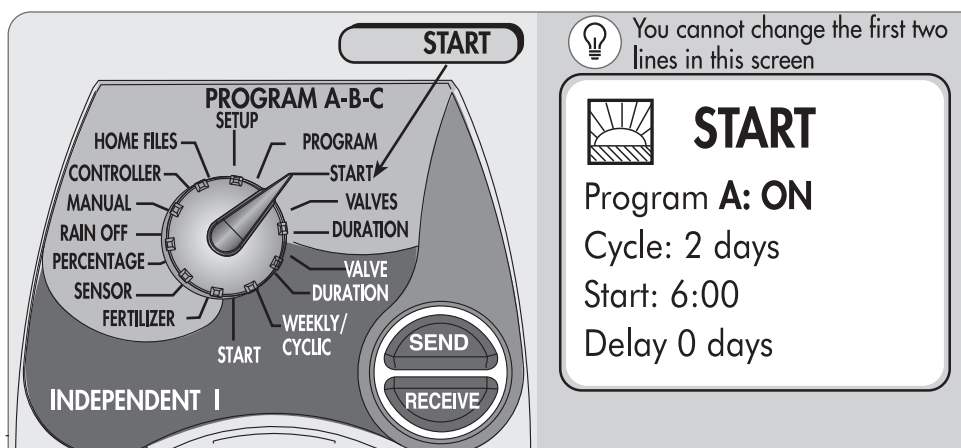
Press on Ⓒ. The cursor appears below the word OFF or under the hour digit in the **Start** line.

Use the ⊕ or ⊖ pushbutton to set the desired start time.

Press on Ⓒ. The cursor appears below the minutes digit.

Use the ⊕ or ⊖ pushbutton to set the desired minute.

Delay - You can start the irrigation cycle after a delay of 0 to 30 days.

Press on Ⓒ the cursor appears under the number of days in the delay line.

Use the ⊕ or ⊖ pushbutton to set the number of days up to the beginning of the first cycle.

0 - open on the current day; 1 - open in one day's time; 2 - open in 2 days time, and so on, up to 30 days.

☞ You can use the up ⇧ and down ⇩ arrows to move quickly from one line to another. The arrow on the left indicates the line you reached.

Selecting Valves

Use this screen to assign valves to the selected program. You can assign up to 6 valves to each program. You can assign each valve to one program only.

> **Turn the selector to VALVES position**

You cannot change the first two lines in this screen

🚰 **VALVES**

Program **A: ON**
Weekly: 1 - 3 - 5 - -
Valves: 1 2 3 4 5 6
        ▲ ▲   ▲
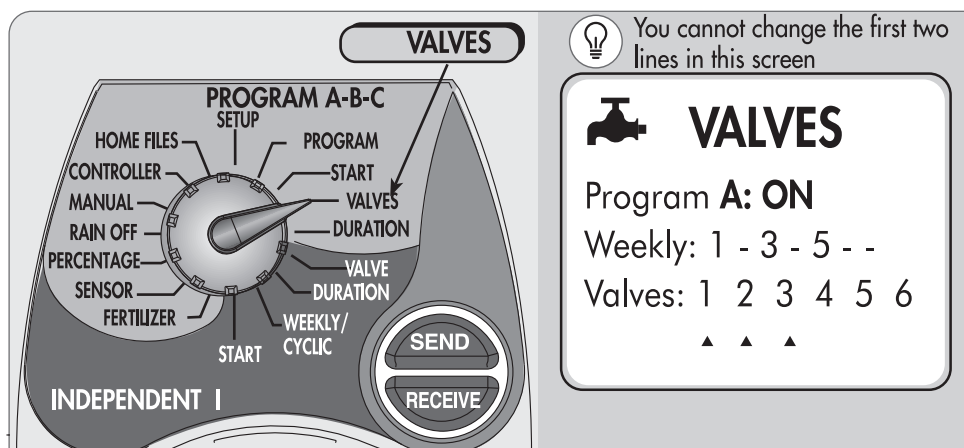
Press on Ⓒ. The cursor appears below the first selected valve.

Use the ⊕ to set the valve you wish to assign to the selected program.

A small triangle appears below the valve thereby marking the valve as assigned to the program.

Use ⊖ to remove a valve from the program (the triangle disappears).

In the event that this screen does not display valve numbers, it indicates that these valves were selected for another program.

Irrigation Duration per Valve

Use this screen to set the irrigation duration for valves assigned to the selected program. You can set an irrigation duration from 1 minute up to 9 hours (8:59) for each valve.

Turn the selector to DURATION position

DURATION

PROGRAM A-B-C

SETUP
HOME FILES — — PROGRAM
CONTROLLER — — START
MANUAL — — VALVES
RAIN OFF — — DURATION
PERCENTAGE — — VALVE DURATION
SENSOR —
FERTILIZER — WEEKLY/
START CYCLIC

SEND
RECEIVE

INDEPENDENT I

You cannot change the first two lines in this screen

⧗ **DURATION**

Program **A: ON**
Weekly: 1 - 3 - 5 - -
Valve: 1
Duration: 0:30
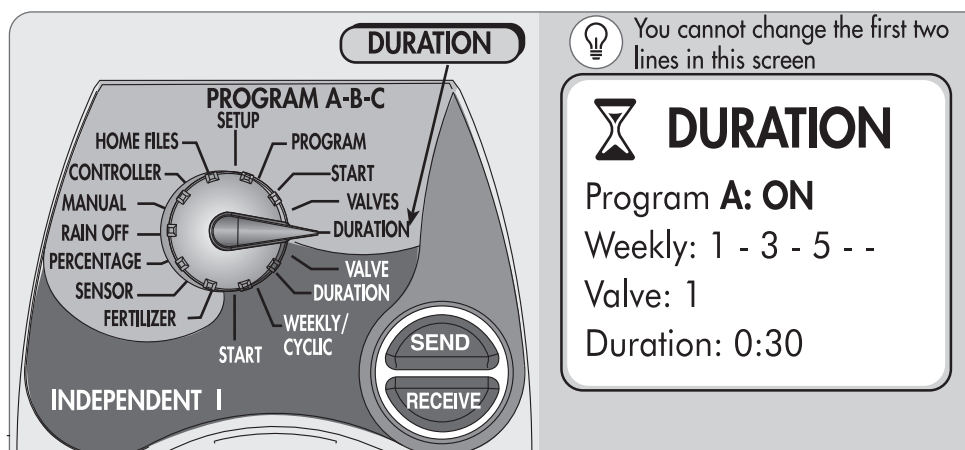
Press on ⊙. The cursor appears below the number of the first selected valve.
Use the ⊕ or ⊖ pushbutton to select the valve number.
Press on ⊙. The cursor appears below the hour digit.
Use the ⊕ or ⊖ pushbutton to set the desired hours duration.
Press on ⊙. The cursor appears below the minutes digit.
Use the ⊕ or ⊖ pushbutton to set the desired minutes duration.
Move to the next selected valve and set the desired irrigation duration.

You have now completed programming the first program, containing:
✿ selecting a program ✿ starting irrigation (weekly / cyclic) ✿ selecting valves
✿ Irrigation duration per valve.
To proceed to program additional options (fertilizing, sensor, Percent %) go to page 25.
 To select an additional program repeat the programming steps in pages 13-17.

Irrigation Program for an Individual Valve

First select the desired valve and then program all the programming steps continuously:
Irrigation Duration, Weekly/ Cyclic, Start Time.

Turn the selector to the Valve position in the INDEPENDENT I dark blue section

VALVE

PROGRAM A-B-C
SETUP
HOME FILES　　　PROGRAM
CONTROLLER　　　START
MANUAL　　　VALVES
RAIN OFF　　　DURATION
PERCENTAGE　　　VALVE
SENSOR　　　DURATION
FERTILIZER　　　WEEKLY/
START　CYCLIC

SEND
RECEIVE

INDEPENDENT I

You cannot change the first line in this screen

VALVE

Independent
Valve: <u>6</u>
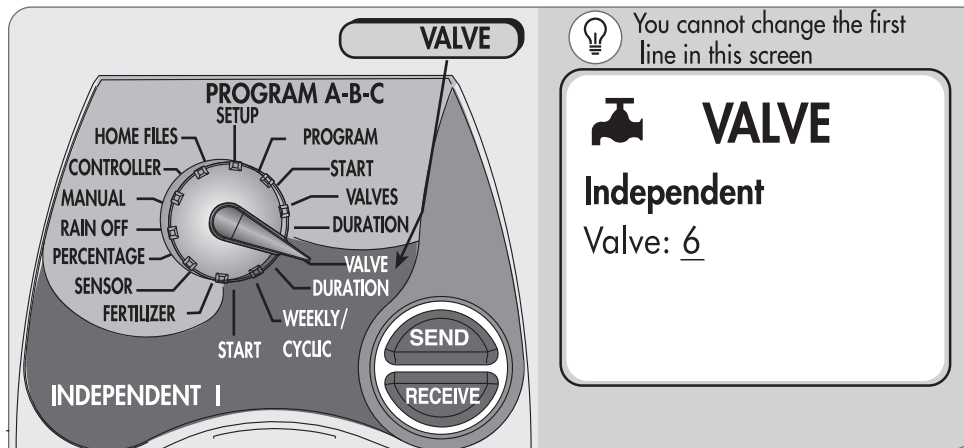
Selecting a Valve

Press on ⏎. The cursor appears below the number of the valve.

Use the ⊕ or ⊖ pushbutton to select the desired valve.

In the event that this screen does not display valve numbers, it indicates that these valves were selected for a previous program.

Irrigation Duration per Valve

Turn the selector to the **DURATION** position
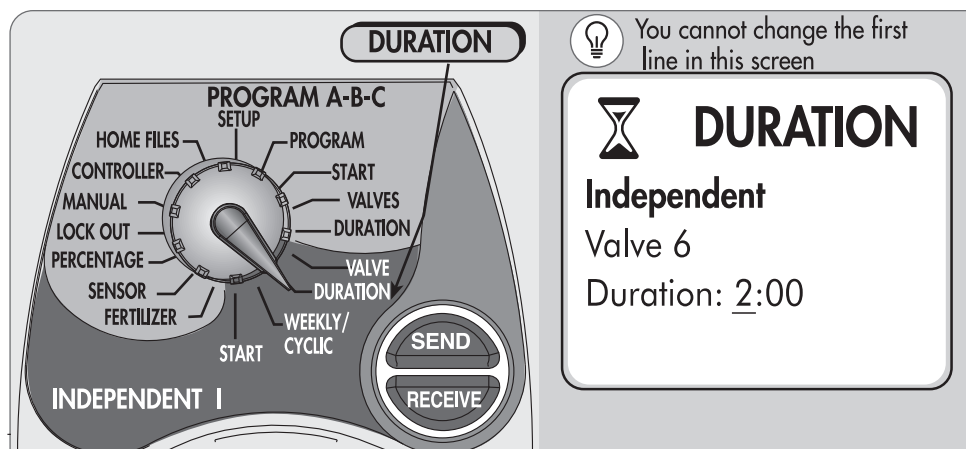
DURATION

PROGRAM A-B-C
SETUP
HOME FILES — — PROGRAM
CONTROLLER — — START
MANUAL — — VALVES
LOCK OUT — — DURATION
PERCENTAGE — VALVE
SENSOR — DURATION
FERTILIZER — WEEKLY/
CYCLIC
START
INDEPENDENT I
SEND
RECEIVE

💡 You cannot change the first line in this screen

⌛ **DURATION**

Independent
Valve 6
Duration: 2:00

Press on ⊙. The cursor appears below the hour digit.

Use the ⊕ or ⊖ pushbutton to set the desired number of hours.

Press on ⊙ . The cursor appears below the minutes digit.

Use the ⊕ or ⊖ pushbutton to set the desired number of minutes.

⚠ Note! A valve with an irrigation duration of 0:00 never opens!

Weekly – Cyclic
Selecting Irrigation Days in a Weekly Program

Turn the selector to WEEKLY/ CYCLIC position

WEEKLY/CYCLIC

PROGRAM A-B-C
SETUP
HOME FILES —   PROGRAM
CONTROLLER —   START
MANUAL —   VALVES
RAIN OFF —   DURATION
PERCENTAGE —   VALVE DURATION
SENSOR —
FERTILIZER —   WEEKLY/ CYCLIC
START
SEND
RECEIVE
INDEPENDENT I

You cannot change the first two lines in this screen

WK/CYC

Independent
Valve: 6
Wkly
Days: 1 - - - 5 -
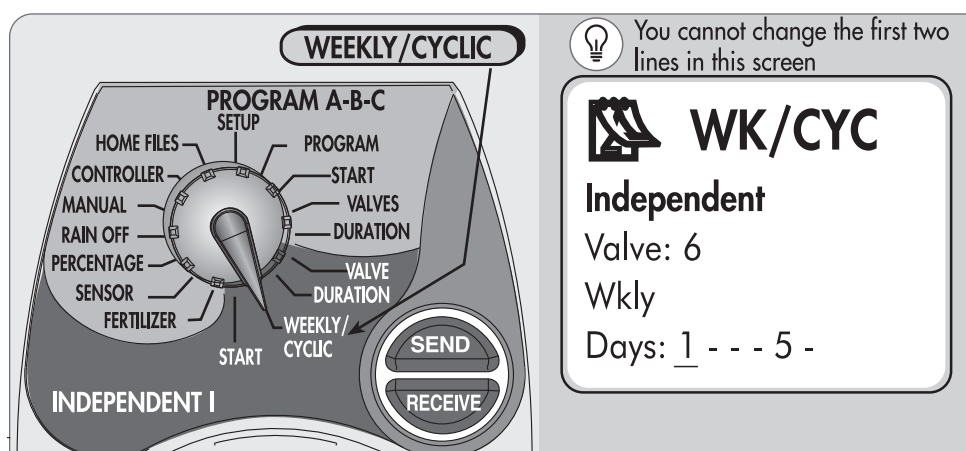
Press on ⟳ and use the ⊕ or ⊖ pushbutton to select **weekly**.

Press on ⟳. The cursor appears below the mark on the left. Press ⊕ to turn the mark to 1.

<u>Monday</u> is set as the selected day.

Press on ⟳. The cursor appears below the next day.

Use the ⊕ or ⊖ pushbutton to select additional days.

The numbers of the days displayed are the selected days.

To cancel a day, press on ⟳ until you reach the desired day.

Use ⊖ to cancel the day: the number disappears from the display - the irrigation day is cancelled.

Programming an Irrigation Cycle

Turn the selector to WEEKLY/ CYCLIC position
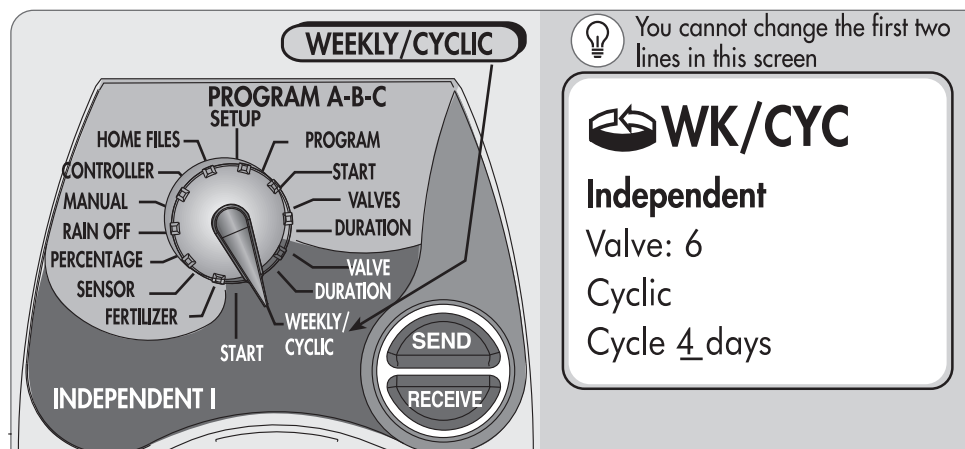
WEEKLY/CYCLIC

PROGRAM A-B-C
SETUP
HOME FILES   PROGRAM
CONTROLLER   START
MANUAL   VALVES
RAIN OFF   DURATION
PERCENTAGE
                   VALVE
SENSOR   DURATION
FERTILIZER
          START WEEKLY/
                 CYCLIC   SEND
INDEPENDENT I   RECEIVE

💡 You cannot change the first two lines in this screen

⌖WK/CYC

Independent
Valve: 6
Cyclic
Cycle 4 days

Press on ⟲ and use the ⊕ or ⊖ pushbutton to select **Cyclic**.

Press on ⟲. The cursor appears below the number of cycle days.

Use the ⊕ or ⊖ pushbutton to select the number of cycle days (1 – 30).

Galcon

Programming a Start Time – Weekly Program

You can program up to 8 different starts every 24 hours.

The selected valve opens at each of the start times and operates for the set duration.

> Turn the selector to START position in the Individual valve section
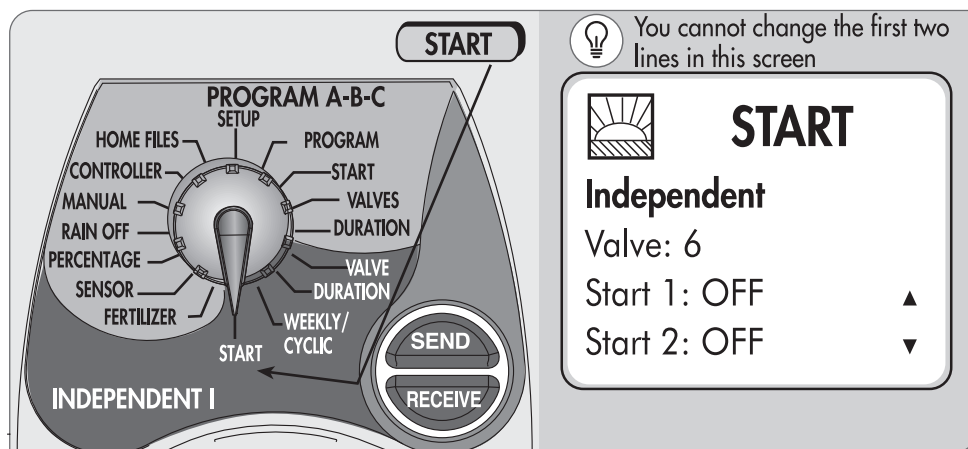
> You cannot change the first two lines in this screen

START

Independent

Valve: 6

Start 1: OFF   ▲

Start 2: OFF   ▼

Press on ↻. The cursor appears below the word **OFF** or under a previously chosen start time.

Press on ⊕ . The cursor appears below the hour digit in **Start 1** line.

Use the ⊕ or ⊖ pushbutton to set the desired start hour.

Press on ↻. The cursor appears below the minutes digit.

Use the ⊕ or ⊖ pushbutton to set the desired minute.

When you press again on ↻ the cursor moves down to **Start 2** and sets the start time for the second opening of the valve.

To set additional start hours, use the down ⇩ arrow.

To cancel a start: Select the appropriate line, set the cursor on the hour digit and use the ⊕ or ⊖ pushbutton to bring it to the **OFF** status.

> ☞ You can use the up ⇧ and down ⇩ arrows to move quickly from one line to another. The arrow on the left indicates the line you reached.

Programming the start of an irrigation cycle (time and day) for a cyclic program

Turn the selector to START position in the Individual valve section
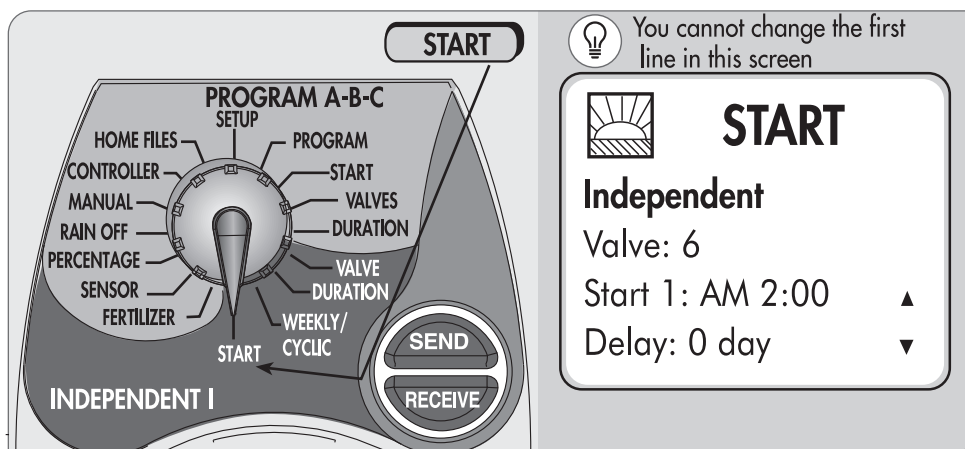
START

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE
SENSOR — VALVE DURATION
FERTILIZER — WEEKLY/CYCLIC
START — SEND
INDEPENDENT I — RECEIVE

You cannot change the first line in this screen

START
Independent
Valve: 6
Start 1: AM 2:00　▲
Delay: 0 day　▼

Press on 🔁. The cursor appears below the word **OFF** or under a previously chosen start time.

Press on ⊕ . The cursor appears below the hour digit.

Use the ⊕ or ⊖ pushbutton to set the desired hour digit.

Press on 🔁. The cursor appears below the minutes digit.

Use the ⊕ or ⊖ pushbutton to set the desired minute.

Delay - You start the irrigation cycle after a delay of 0 to 30 days.

Press on 🔁 the cursor appears under the number of days.

Use the ⊕ or ⊖ pushbutton to set the number of days up to the beginning of the first cycle.

0 - open on the current day; 1 - open in one days time; 2 - open in 2 days time and so on.

You have now completed programming the first individual valve, including:

Selecting a valve, irrigation duration, selecting irrigation days in the weekly program or an irrigation cycle in a cyclic program and a start time.

To proceed to program additional options (fertilizing, sensor, Percent %) go to page 25. To program an additional individual valve, repeat the programming steps in pages 19-24.

Fertilizing

In fertilizing mode, set the fertilizing duration for each valve separately.
Define the fertilizing according to a % of the irrigation duration (from 10% to 90% of the irrigation duration of the valve).
The fertilizer always starts in the middle of the irrigation.
Example: A valve is programmed to irrigate for 1 hour. The fertilizing time is 50%.
In practice, the irrigation is performed as follows: The first 15 minutes, regular irrigation without fertilizer. Then 30 minutes of irrigation with fertilizer (50% of the time) followed by 15 minutes of regular irrigation without fertilizer

Turn the selector to FERTILIZER position

15 minutes irrigation		15 minutes irrigation
Without fertilizer	Fertilizing duration 30 minutes	Without fertilizer
	Irrigation duration 60 minutes	
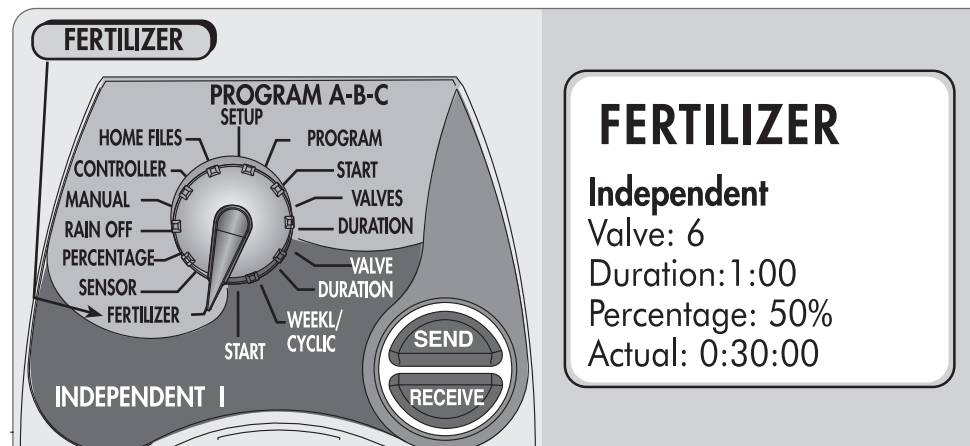
FERTILIZER

Independent
Valve: 6
Duration:1:00
Percentage: 50%
Actual: 0:30:00

Press on ⓒ. The cursor appears below the number of the valve.

Use the ⊕ or ⊖ pushbutton to set the desired valve number.
You cannot change the second line (irrigation duration for the valve is set at a previous stage).

Press on ⓒ. The cursor appears below the percent number.

Use the ⊕ or ⊖ pushbutton to set the fertilizing duration in percents, from 10 to 90, at intervals of 10.
The bottom line displays the actual fertilizing time.
You can set fertilizing only for valves with preset irrigation duration programmed at a previous step.

Assigning a Valve to a Sensor

The sensor operates by shutting off the valve to which it is assigned, according to the conditions (rain, humidity, temperature). When the sensor is activated, it prevents the valve from opening. You can assign each valve to the sensor according to your requirements.

Turn the selector to SENSOR position

SENSOR

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENT AGE —
SENSOR — VALVE DURATION
FERTILIZER — WEEKLY/CYCLIC
START

SEND
RECEIVE

INDEPENDENT I

🌡 **SENSOR**
Valve: 1 2 _ _ _ _
Sensor: _ _ _ _ _
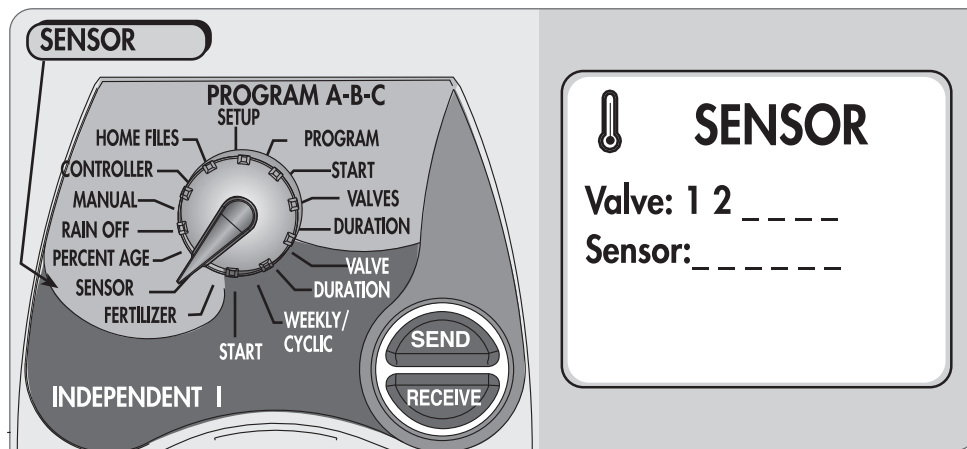
The valve numbers programmed are displayed on the screen.

Press on ©. The cursor appears below the first selected valve.

Use the ⊕ to assign the valve to the sensor. A triangle is displayed below the valve assigned to the sensor.

Repeat the same steps for the other valves.

To cancel assignment of the Sensor to a valve:

Press on ©. The cursor appears below the assigned valve.

Press on ⊖ to cancel the assignment of the valve to the sensor.

Irrigation percentage - Change the Irrigation Duration in %.
You have an option to increase or decrease the duration of the irrigation in %, in all the valves.
You have 2 options:
1. An identical increase in % for **all** valve groups.
2. A different Percent for each group: A, B, C and Independent I. program.
90% to 10% - a decrease at intervals of 10%.
110% to 190% - an increase at intervals of 10%.
Note:
When a % change rate was set for one of the programs (A, B, C, I) you cannot access **All**.
When a % change rate was set for **All** you cannot access **A, B, C, I**.

Turn the selector to PERCENTAGE position

PERCENTAGE

PROGRAM A-B-C
SETUP
HOME FILES   PROGRAM
CONTROLLER   START
MANUAL   VALVES
RAIN OFF   DURATION
PERCENTAGE
SENSOR   VALVE
                    DURATION
FERTILIZER
                    WEEKLY/
STARTS   CYCLIC   SEND

                                  RECEIVE
INDEPENDENT I

% PERCENTAGE
Water Budget
Program: A
Precentage 110%
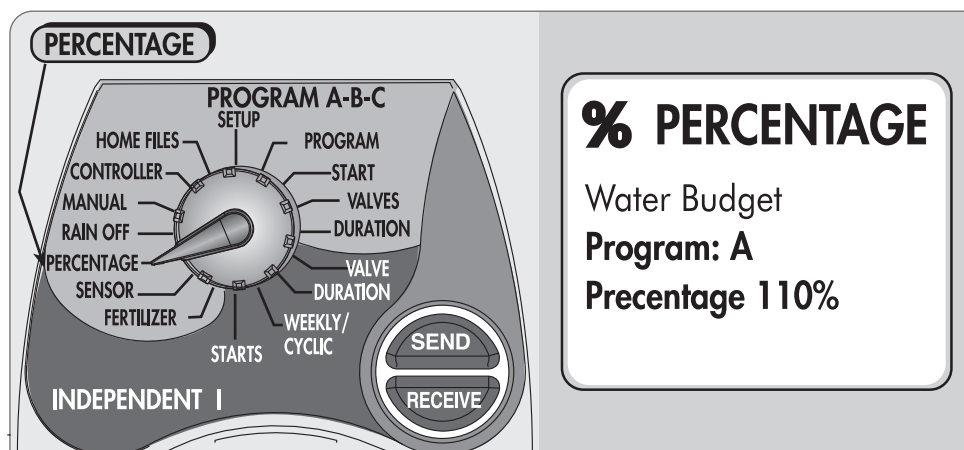
Press on ⊙ until the cursor appears below the desired program, A, B, C, I or All.
Use the ⊕ or ⊖ pushbutton to select the program.
Press on ⊙ until the cursor appears below the desired % digit. Use the ⊕ to set increase %.
Use the ⊖ to set the decrease %.

Rain off

Use this option to cancel the control of the remote over some valves or all the valves, temporarily (e.g., when it rains).

The irrigation program is saved but the irrigation will not start.

You can lock out **All** the valves together in **All** position and also lockout one valve or several valves according to valves assignment to program A, B, C, or I. The lockout is for one day and up to 99 days. When the Rain off duration ends, the controller resumes the original program.

Note: If you locked out valve or program you cannot lockout all the valves through **All**.

If all the programs and a valves were locked out through **All**, you cannot lockout single programs.

Turn the selector to RAIN OFF position

RAIN OFF

PROGRAM A-B-C
SETUP
HOME FILES ── PROGRAM
CONTROLLER ── START
MANUAL ── VALVES
RAIN OFF ── DURATION
PERCENTAGE ── VALVE
SENSOR ── DURATION
FERTILIZER ── WEEKLY/
START   CYCLIC

SEND
RECEIVE

INDEPENDENT I

⌂ **RAIN OFF**
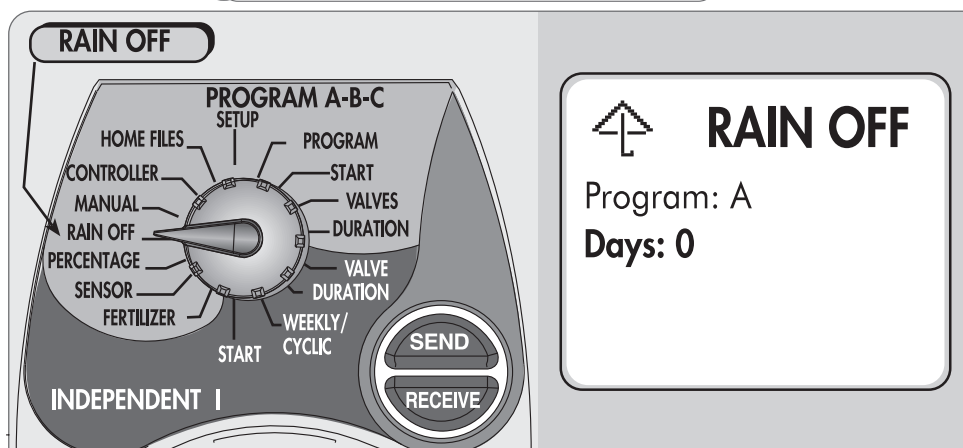
Program: A
Days: 0

Press on Ⓒ until the cursor appears below the desired program.

Use the ⊕ or ⊖ pushbutton to select the program.

Press on Ⓒ until the cursor appears below the days digit. Use the ⊕ or ⊖ pushbutton to set the desired number of lockout days (1-99 days).

Select another program and additional Rain off days in the same way.

Manual
This mode enables you to:
- Open a program/ valve manually from the remote.
- Shut a currently open valve.
- Close the program.
- Shut all the currently operating valves/programs, or those in line to start.
- Send from the Remote to the controller: current time, increase % of the irrigation, Rain off.
- Serial test of all the valves.

Turn the selector to MANUAL position

MANUAL

PROGRAM A-B-C
SETUP
HOME FILES   PROGRAM
CONTROLLER   START
MANUAL   VALVES
RAIN OFF   DURATION
PERCENTAGE   VALVE
SENSOR   DURATION
FERTILIZER   WEEKLY/
START   CYCLIC
SEND
RECEIVE
INDEPENDENT I

☛ **MANUAL**
Code: 0000000   ▲
Name: ▼
Open: A
Press: SEND
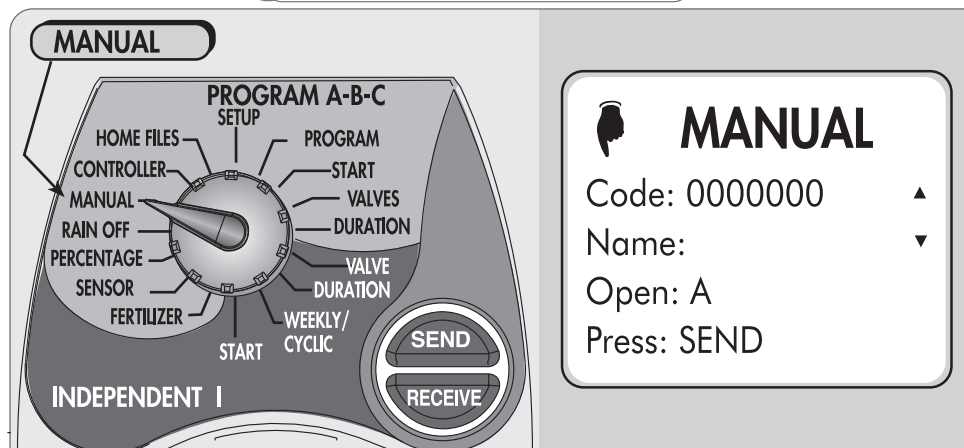
Use the up ⇧ and down ⇩ arrows to select the desired controller (according to code number).
Use the ⊕ or ⊖ pushbutton to select the desired operation (see all the options in the next page). After you select the option, send the command to the controller – press on SEND, the Remote displays SENDING in the bottom line. If the message is transmitted, **Successfully Sent** is displayed. If the communication fails **Out of Range** is displayed.
- A valve with no defined irrigation duration cannot be opened manually.
- The fertilizing valve opens with the valves to which it is assigned and according to the fertilizing %.
- You may use the ⊕ or ⊖ pushbuttons to move among the programs and the individual valves continuously. You cannot open individual valves which are assigned to a program.
- **Note: Manual operation or any change in the program stops the operation of valves which are open at that time.**

☞ **In a cyclic program, the irrigation starts again.**
Sending current time, irrigation %, Rain Off does not stop the operation of the valves.

Available Commands in Manual Mode

Open/ Close All

Open- set the valves / programs sequentially which are programmed.

Open A	Open- program A (if it includes programmed valves).
Open B	Open- program B (if it includes programmed valves).
Open C	Open- program C (if it includes programmed valves).
Open I	Open/ only valves with set irrigation duration.
Open 1	Open/ valve No. 1. (only if it is set as an independent).
Open 2	Open/ valve No. 2. (only if it is set as an independent).
Open 3	Open/ valve No. 3. (only if it is set as an independent).
Open 4	Open/ valve No. 4. (only if it is set as an independent).
Open 5	Open/ valve No. 5. (only if it is set as an independent).
Open 6	Open/ valve No. 6. (only if it is set as an independent).
Open All	Open all the valves.
Close A	Close program A.
Close B	Close program B.
Close C	Close program C.
Close I	Close all the individual valves/ cancel valves in line.
Shut irrigating valve	Shut the currently irrigating valve and open the next (if any).
Current time	Send current time to the controller.
Serial test	Close all irrigation activities, perform a serial test – open shut all the valves, one after the other, each for 10 seconds.

The communication line is displayed after pressing <Send> pushbutton. When communication is successful: **Success** indicates successful transmission. When communication fails: **Fail** indicates that you are out of range and must go closer to the controller.

Note: Manual operation or any change in the program stops the operation of valves which are open at that time.

Controllers Operation

Communication between the Remote and the controller is established in this mode.

Turn the selector to CONTROLLER position

The opening screen displays the available options:
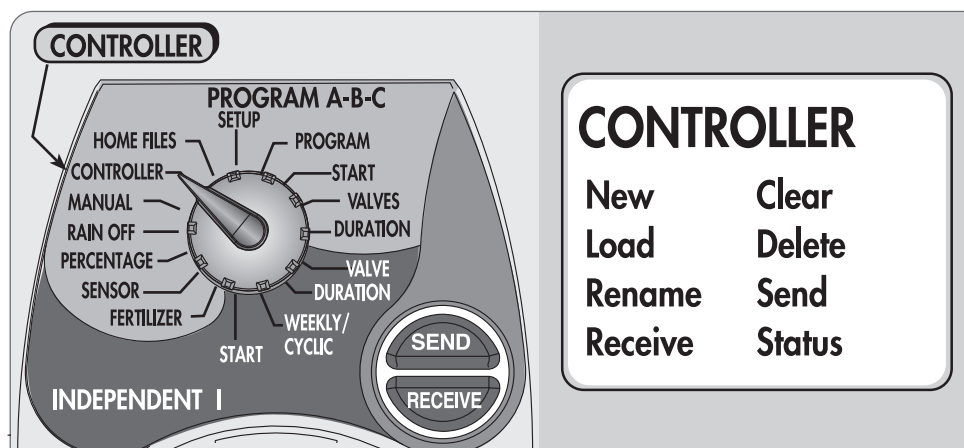
New – enter a new controller name into the system, set an ID No. and a name.

Load – Load a program from the memory.

Rename – Change the name of the controller (ID cannot be changed).

Receive – Read a program from a controller.

Clear – Erase the current editor.

Delete – delete the controller and memory from the system.

Send – Send a program to a controller and save in memory.

Status – Read the status of a controller.

Press on ⊡ to bring the cursor to the desired operation.

Use the ⊕ to select the operation. The screen changes accordingly.

New

When you add a new controller to the system or during the initial stage, when the system is still empty, give names to the different controllers, according to the ID numbers of the controllers.

Turn the selector to CONTROLLER position

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE
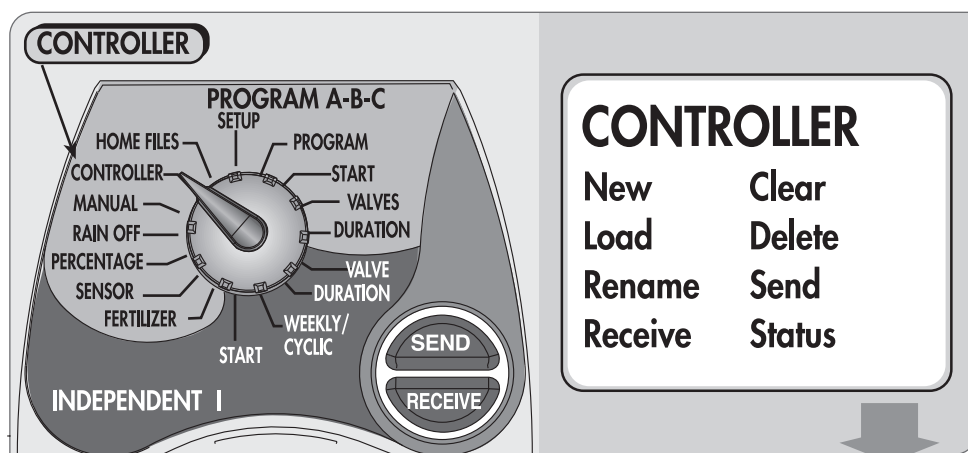SENSOR — DURATION
FERTILIZER — WEEKLY/
START CYCLIC
SEND
RECEIVE
INDEPENDENT I

CONTROLLER

New	Clear
Load	Delete
Rename	Send
Receive	Status

Press on ⟲ until the cursor appears below the word **New**.

Press on ⊕ , the screen changes.

Press on ⟲ . The cursor appears below the left digit of the ID line.

Use ⊕ ⊖ and ⟲ to copy the ID No. that is displayed on the body of the controller.
This ID number is imprinted on the controller and cannot be changed.

Press on ⟲. The cursor appears to the left of **Name**.

Use ⊕ ⊖ and ⟲ to give a name to the controller, for your convenience.

Press on ⟲ until the cursor is below the required mode**Save, Cancel** or **Clear**.

Press on ⊕ to select the required mode and wait for confirmation:
Save – Saves the name.
Cancel – does not save.
Clear – clears the current name.

CONTROLLER

ID: 5055011
Name: 5th Ave. NY
Save   Cancel Clear

At this stage, you can send the program to the controller, refer to page 37.

Clear

Used to erase the program you are editing.

Turn the selector to CONTROLLER position

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
LOCK OUT — DURATION
PERCENTAGE — VALVE
SENSOR — DURATION
FERTILIZER — WEEKLY/
START   CYCLIC
SEND
RECEIVE
INDEPENDENT I

CONTROLLER

New	Clear
Load	Delete
Rename	Send
Receive	Status

CONTROLLER

Clear editor?

Yes   No
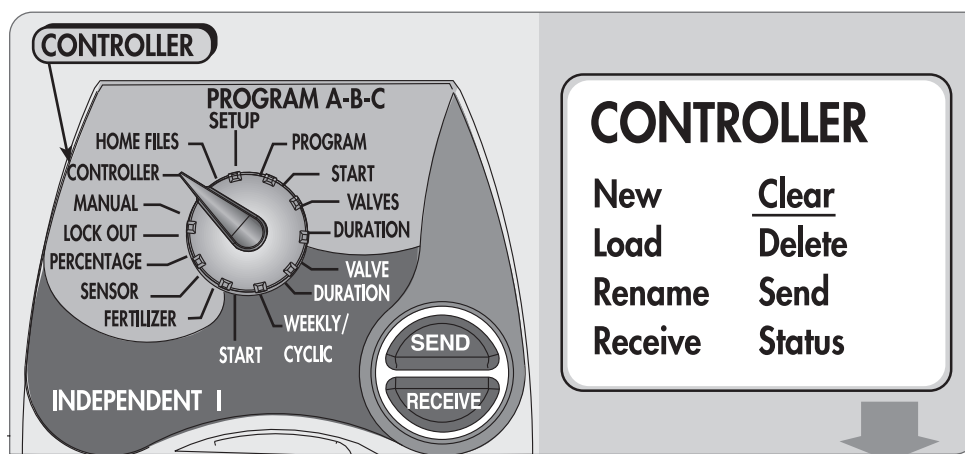
⚠ **Note: clear - erases complete program from the editor.**

Press on Ⓒ until the cursor appears below the word **Clear**.

Press on ⊕ , the screen changes.

Use Ⓒ to indicate if you wish to delete or not.

Press on ⊕ to receive confirmation of the delete.

Load

Used to read or review a program of a chosen controller, when you are not near the controller. You can read the program from the memory of the Remote.

Turn the selector to CONTROLLER position

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE
SENSOR — DURATION
FERTILIZER — WEEKLY/
START   CYCLIC

SEND
RECEIVE

INDEPENDENT I

CONTROLLER

New   Clear
Load   Delete
Rename   Send
Receive   Status
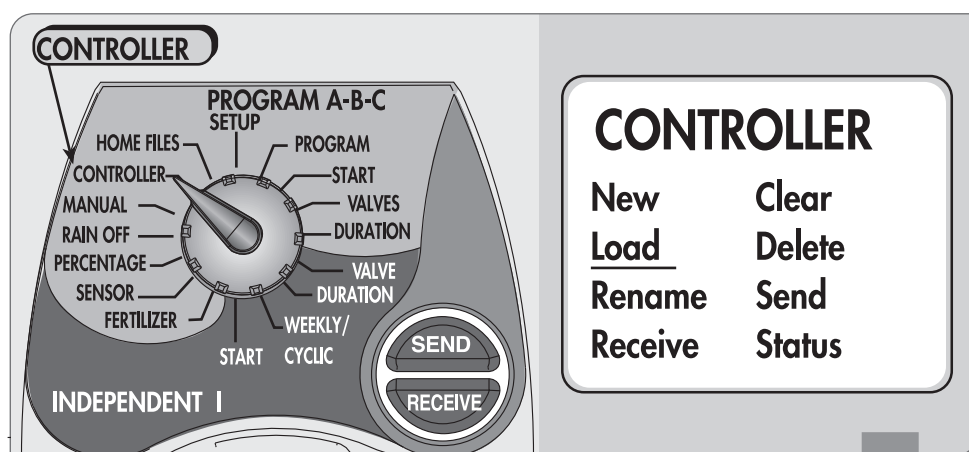
Press on Ⓖ until the cursor appears below the word **Load**.

Press on ⊕ , the screen changes.

Use the up ⇧ and down ⇩ arrows to select the ID and name of the controller you wish to read.

Press on ⊕. Upon receiving confirmation: *program was transferred to the editor and you can review and read it.*

CONTROLLER

Command: **Load**
ID: 5055011
Name: 5th Ave. NY
Select controller

Delete
Used to delete a chosen controller from the system.

Turn the selector to CONTROLLER position

CONTROLLER

CONTROLLER

New	Clear
Load	Delete
Rename	Send
Receive	Status
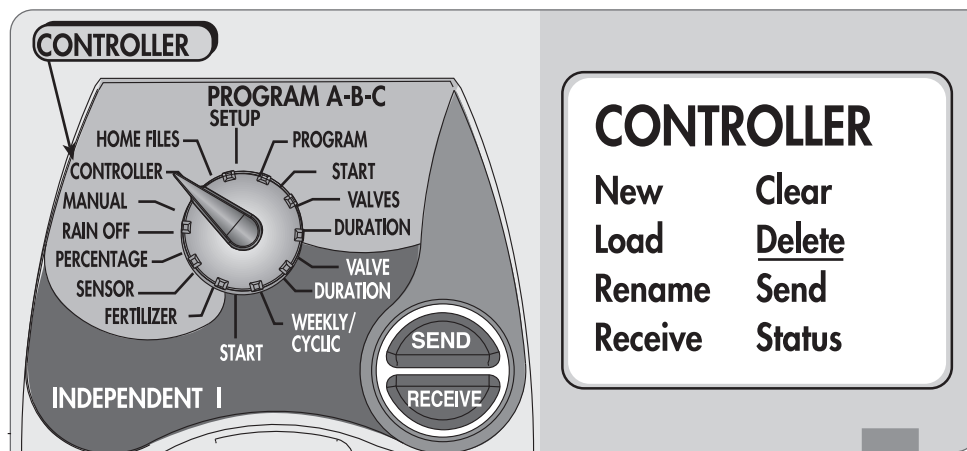
Press on Ⓒ until the cursor appears below the word **Delete**.

Press on ⊕ , the screen changes.

Use the up ⬆ and down ⬇ arrows to select the ID and name of the controller you wish to erase.

Press on ⊕. Upon receiving confirmation, the controller is deleted.

CONTROLLER
Command: **Delete**
ID: 5055011   ▲
Name: 5th Ave. NY   ▼
 Select controller

⚠ **The controller does not exist in the system nor in the memory of the Remote.**

Rename
Used to change the name of a controller.

Turn the selector to CONTROLLER position

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES   PROGRAM
CONTROLLER   START
MANUAL   VALVES
RAIN OFF   DURATION
PERCENTAGE   VALVE
SENSOR   DURATION
FERTILIZER   WEEKLY/
START   CYCLIC   SEND
INDEPENDENT I   RECEIVE

CONTROLLER
New   Clear
Load   Delete
Rename   Send
Receive   Status
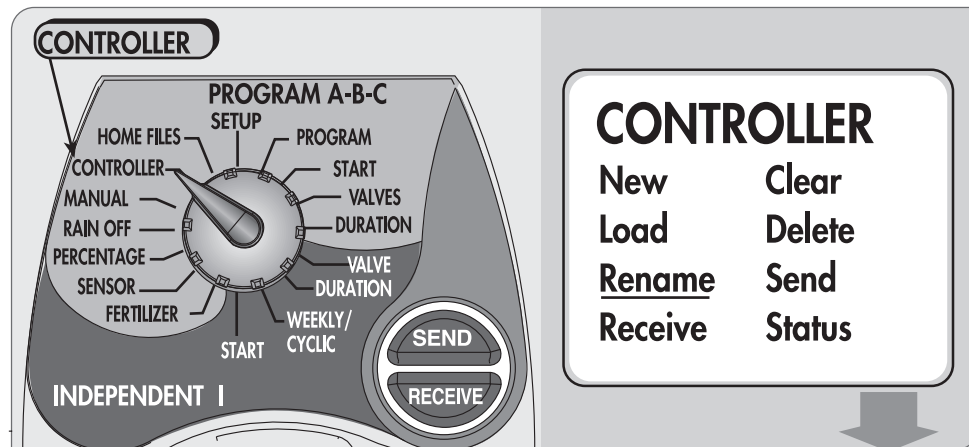
Press on Ⓒ until the cursor appears below the word **Rename**.

Press on ⊕, the screen changes.

The command: **Rename**

Use the up ⬆ and down ⬇ arrows to select the ID and name of the controller you wish to change.

Press on ⊕, the screen changes.

Select a controller

Press on Ⓒ. The cursor appears below the first letter of the controller's name.

Use ⊕ ⊖ and Ⓒ to give a new name to the controller. Once you enter the new name, move the cursor below **Save** and press on ⊕.

The name change has been performed.

CONTROLLER
Command:**Rename**
ID:5055001   ▲
Name: 5th Ave. NY   ▼
Select controller

CONTROLLER
Command: **Rename**
ID: 5055001
Name: 5th Ave. NY
Save Canel Clear

Send

Used to send the program from the Remote to the controller.

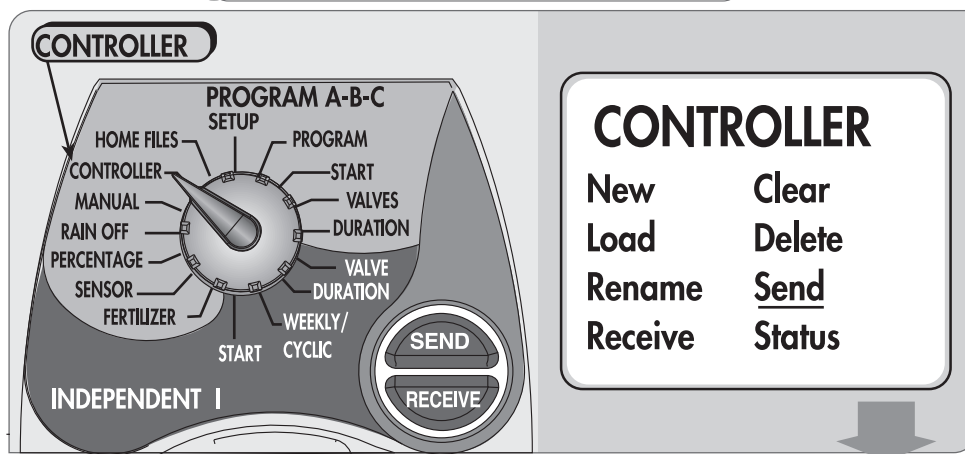**Turn the selector to CONTROLLER position**

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE DURATION
SENSOR — WEEKLY/CYCLIC
FERTILIZER
START

SEND
RECEIVE

INDEPENDENT I

CONTROLLER

New   Clear
Load   Delete
Rename   Send
Receive   Status

Press on ⊙ until the cursor appears below the word **Send**.
Press on ⊕, the screen changes.
Use the up ⇪ and down ⇩ arrows to select the controller to which you wish to send the program (ID and name).
Press on ⊕ , the screen changes. The controller's ID and name are displayed. Press on **SEND** and wait for the confirmation that the loading succeeded.
Note the progress of the command input by the progress of the transmission bar at the bottom of the screen. If the communication fails, improve your position in relation to the controller and repeat the command.
The program received by the controller is also saved in the Remote's memory (up to 50 controllers).

CONTROLLER
Command:**Send**
ID: 5055001   ▲
Name: 5th Ave. NY ▼
Select controller

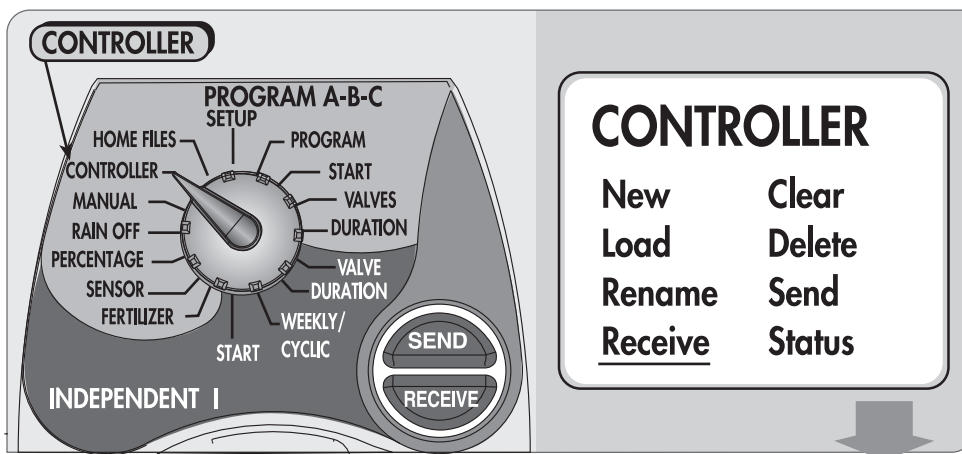**CONTROLLER**

Code: 5055001
Name: 5th Ave. NY
Press **Send**

Receive
Used to read the existing program from the controller in the field, in order to review or make changes.

Turn the selector to CONTROLLER position

CONTROLLER

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE
SENSOR — DURATION
FERTILIZER — WEEKLY/
START — CYCLIC
SEND
RECEIVE

INDEPENDENT I

CONTROLLER

New   Clear
Load   Delete
Rename   Send
<u>Receive</u>   Status

Press on Ⓖ until the cursor appears below the word **Receive**.

Press on ⊕ , the screen changes. The command is **Receive**.

Use the up ⇧ and down ⇩ arrows to select the controller's ID and name. Press on ⊕ , the screen changes. Press on RECEIVE and wait for the confirmation that the reading succeeded.
Note the progress of the command input by the progress of the transmission bar at the bottom of the screen. If the communication fails, improve your position in relation to the controller and repeat the command. Maintain the correct distance from the controller.
You can now read the program that resides in the controller on the screen of the Remote.

CONTROLLER
Command: **Send**
ID: 5055001   ▲
Name: 5th Ave. NY   ▾
Select controller

CONTROLLER
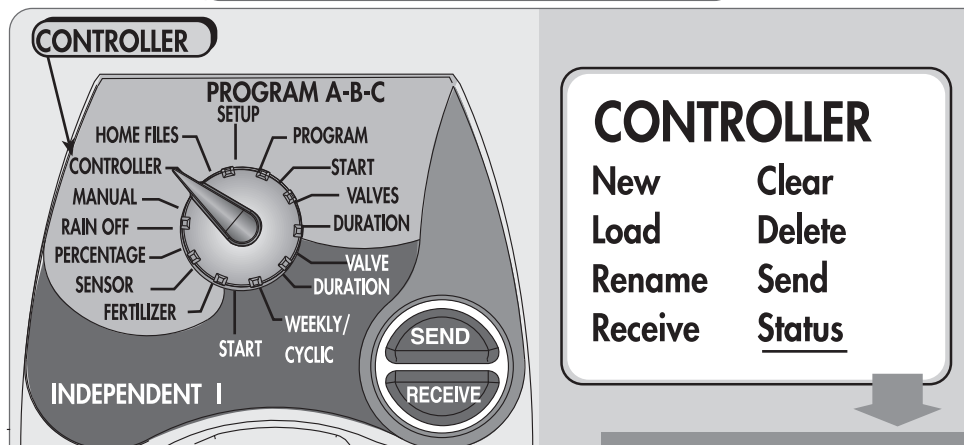Command: Receive
ID: 5055001
Name: 5th Ave. NY
Press **Receive**

Status

Used to check the status of the controller in the field from the Remote. You can receive data of: Number of valves in the controller; current day and time; battery condition; open valve; Rainoff activated; Sensor status.

⟳ Turn the selector to CONTROLLER position

CONTROLLER
New   Clear
Load   Delete
Rename   Send
Receive   **Status**

CONTROLLER
Name: ▲
Valves:1,2,3,4.......
AM: 10:01 WED 3   ▼
Battery OK

CONTROLLER
Name: ▲
All valves closed ▼

Press on ⟳ until the cursor appears below the word **Status**.
Press on ⊕, the screen changes.
Use the up ⇧ and down ⇩ arrows to select the desired controller. Press on ⊕, the screen changes. Verify that this is the controller you wish to check. Press on **RECEIVE** and wait until you receive data from the controller.

The First Screen displays:
a. Controller model-No. of valves.
b. Updated time and day.
c. Condition of the battery. Use the up ⇧ and down ⇩ arrows to move to another screen.
The Second Screen displays:
a. Open program or valve

b. remaining time for open valves. Use the up ⇧ and down ⇩ arrows to move to another screen.
The Third Screen displays:
a. Status of sensor- wet or dry.
b. If the Rainoff is activated Press on ⊖ to return to the main screen.

☞ **Use the up ⇧ and down ⇩ arrows to move among screens**

Home Files

In this mode you can save up to 4 files (programs) in the memory of the Remote. You can retrieve these files (Home Files) from the memory and send them to the controllers at any time you wish.

Save to File – Transfers a file from the editor to Home Files.
Load to Edit – Transfers one of the Home Files to the editor.
Change File Name – Changes the name of a file, for your convenience.

Turn the selector to HOME FILES position

Change File Name – Sets and changes the name of a chosen file in Home Files.

HOME FILES

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE
SENSOR — VALVE DURATION
FERTILIZER — WEEKLY/CYCLIC
START
SEND
RECEIVE
INDEPENDENT I

HOME FLS
Load into Editor
Save into Home file
›Rename into Name file

HOME FLS
H1:Central Lawn
H2: Un named
H3: Un named
H4: Un named

HOME FLS
Home : 1
Name:
Save   Cancel   Clear

Press on Ⓒ to select a file. Use ⊖ ⊕ and Ⓒ to enter a name for the file, for your convenience.

Use the up ⤒ and down ⤓ arrows to move to **Save**.
Press on ⊕ and wait for:
Successful.
The name was set.

You can change the name of the file at your convenience by following the steps on this page.
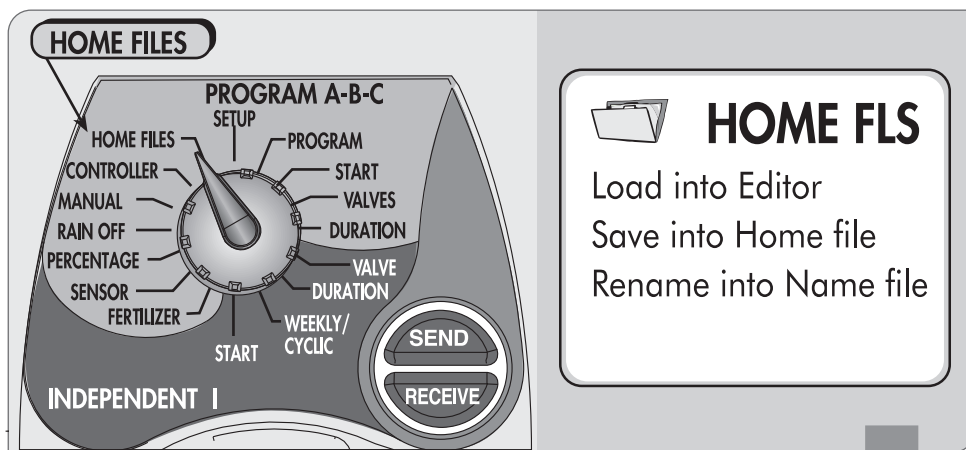
Save to File

Turn the selector to HOME FILES position

HOME FILES

PROGRAM A-B-C
SETUP
HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE
VALVE
SENSOR DURATION
FERTILIZER
WEEKLY/
START CYCLIC
SEND
RECEIVE

INDEPENDENT I

📁 **HOME FLS**
Load into Editor
Save into Home file
Rename into Name file

Use this mode to save a chosen file, that is in the editor, in one of the Home Files, under a chosen Name.

Press on Ⓒ until the cursor appears under the words **Save to File**.

Press on Ⓒ until you reach the place where you wish to save the file.

Press on ⊕ and wait for: **Save Successful**.
The file is saved.
The screen returns to the main menu.

📁 **HOME FLS**

H1:Central Lawn
H2: Un named
H3: Un named
H4: Un named

Load to Edit

Turn the selector to HOME FILES position

HOME FILES

PROGRAM A-B-C
SETUP

HOME FILES — PROGRAM
CONTROLLER — START
MANUAL — VALVES
RAIN OFF — DURATION
PERCENTAGE — VALVE DURATION
SENSOR — WEEKLY/CYCLIC
FERTILIZER —
SRART

SEND
RECEIVE

INDEPENDENT I

📁 **HOME FLS**
Load into Editor
Save into Home file
Rename Home file

📁 **HOME FLS**
H1 Central Lawn
H2 Unnamed
H3 Unnamed
H4 Unnamed

Load to Edit Retrieves a program out of a home file to the Remote for entering changes or review. A program saved in a home file is a program you prepered in advance which does not reside in any of the controllers or the memory.

Press on Ⓖ until the cursor appears under the words **Load into editor**.
4 file names are displayed.
Press on Ⓖ to select the desired file.
Press on ⊕. Approval of successful loading is displayed in the bottom line.
The screen returns to the main menu. The program is residing in the editor for review/change or for sending to a chosen controller.

Summary of Operations
1. Initial programming and sending a program to the controller in the field.
2. Read a program from the controller in the field for testing or changes.
3. Read a program from memory for testing.
4. Read controller status in the field.
5. Manual Operation.
6. Program at home or in the office and save in Home File.
7. Read a program from Home File and send to a chosen controller.

1. Initial programming and sending program to a controller in the field
a. Program the controller in the Remote (editor).
b. Access **controller** mode using the selector.
c. Select **Send** mode.
d. Execute **Send** command to a chosen controller
e. Receive confirmation. Program sent to the controller and saved in the memory of the Remote.

2. Read a program from the controller in the field for test and change.
a. Access **Controller** mode using the selector.
b. Select **Receive** mode.
c. Execute **Receive** command.
d. Receive confirmation. Program transferred from the controller to the Remote for test or change.

3. Read program from memory for testing

a. Access **Controller** mode using the selector.
b. Access **Load** mode.
c. Execute **Load** command. The program resides in the Editor.

4. Reading the Controller Status
a. Use the selector to access **Controller** mode.
b. Access **Status**.
c. Reach status command
d. Receive confirmation. If the command fails, repeat the request.
e. Read status.

5. Manual Operation
a. Access **Manual** mode using the selector.
b. Select controller, name and ID.
c. Select desired type of operation.
d. Press **SEND** to implement the command and receive confirmation.

6. Save in Home File
a. Full programming of a controller according to a defined program.
b. Access **Home File** mode using the selector.
c. Access **Save to File** mode.
d. Access files table and select a file.
e. Save the program in the file.

7. Load a program from Home Files to the Editor
a. Access **Home Files** using the selector.
b. Access **Load to Edit**.
c. Access files table and select a file.
d. Receive confirmation. The program resides in the Editor.

The FCC Wants You to Knows

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

a. Reorient or relocate the receiving antenna.

b. Increase the separation between the equipment and receiver.

c. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

d. Consult the dealer or an experienced radio/TV technician.

This device complies with part 15 of the fcc rules. Operation is subject to the following two conditions: (1) this device may Not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

<p align="center">FCC WARNING</p>

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

E

SCALED DRAWING-

ATTACHMENT OF

CONTROLLER TO

WALL - RATIO 1:1

Drawing from Page 6

F

**DESSIN DE
L'ACCESSOIRE
DESTINÉ À ATTACHER
LE R´RGULATEUR
AU MUR,
À L'ECHELLE DE 1:1**

Dessin de la page 6

S

**ADJUNTO DIBUJO
EN ESCALA DEL
CONTROLADOR A
LA PARED
PROPORCIÓN 1:1**

Dibujo de la página 6

I

**IN ALLEGATO LO
SCHEMA DI
INSTALLAZIONE
A MURO DEL
DISPOSITIVO DI
CONTROLLO IN
SCALA 1:1**

Schema da pagina 6

TOP ⬆

82.0 mm

75.8 mm

Cat. No.: B88F

✳ **Galcon**