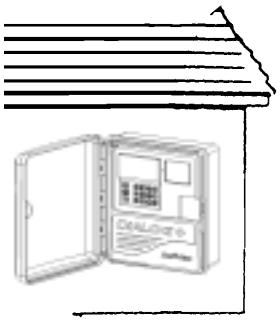
GB

DIALOG +



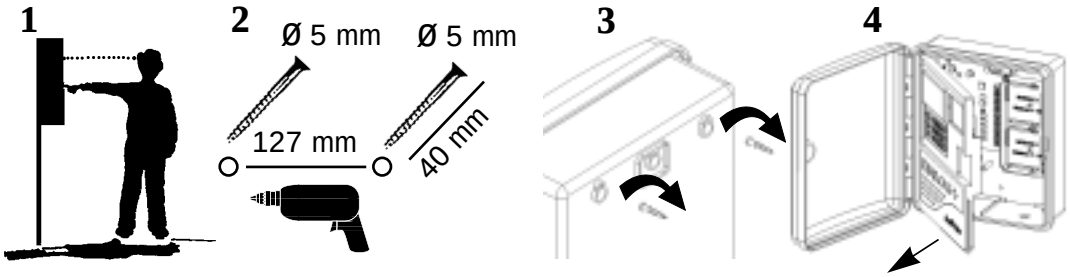
OUTDOOR WALL MOUNT

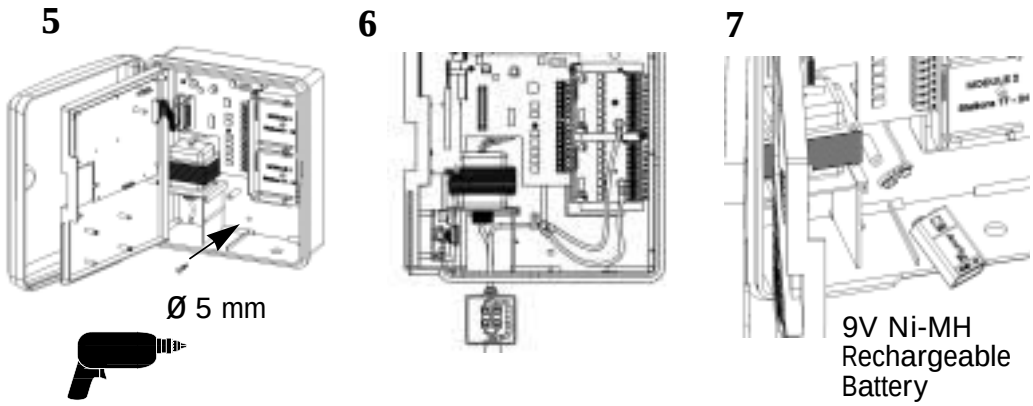
A/ INSTALLATION AND GENERAL INFORMATION

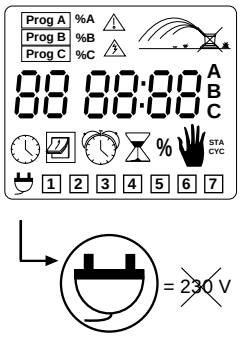
1/ Installation

IMPORTANT : Locate the controller near a 230V/50Hz power source equipped with a ground wire (Green/Yellow). Ground wiring reduces the risk of damage due to electrical power surge (lightning, etc.) The controller must be connected to an electrical installation that conforms to standards and is protected by a fuse in a electrical panel. Select a sheltered location where the controller will not be spattered by water.

Remove the "knock out" disk(s) in the bottom of the controller cabinet.







No light : No 230V input
Steady green light: controller is operating normally
Blinking green light: Controller is operating normally, but a sensor has prevented watering. This occurs when a RSD-Bex sensor or Rain Check automatic rain shutoff device are used.
Steady red light: overload or manual system shutdown mode.

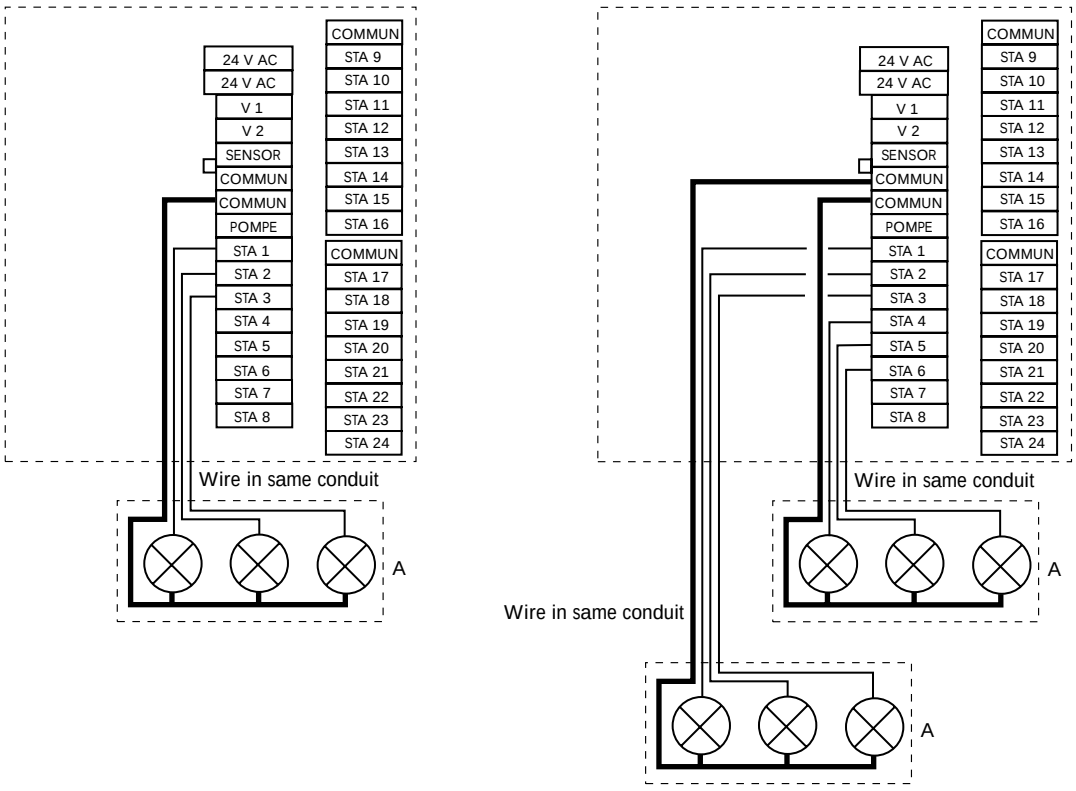
GB

2/ Wiring to the electric valves

Valve station capacity: up to 3 Rain Bird valves per station plus a master valve or pump start relay.
Make sure all wire from the controller to the valves is code-approved for underground low voltage use.

Select the suitable wire size. All connections to the valve leads and any wire splices in the field must be water-tight. Use Rain Bird Quick Connect connectors: DBY, DBR.
See wiring diagrams.

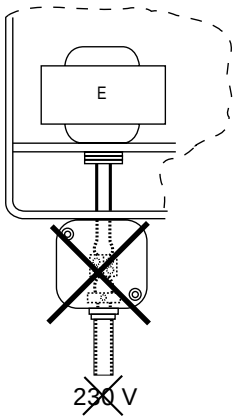
A : VALVE BOX
B : PUMP START RELAY
C : POWER RELAY
D : PUMP
E : TRANSFORMER
F : MASTER VALVE

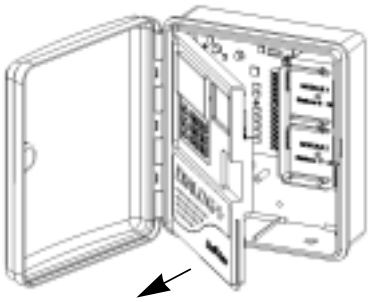


GB

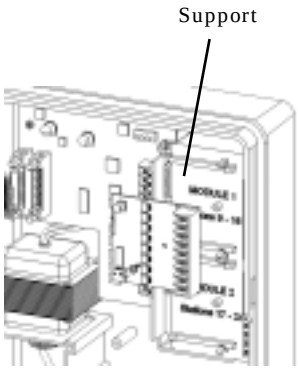
3/ Adding an extension module

1- Disconnect the 230VAC power supply wires.

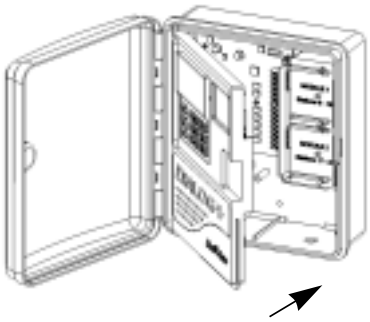




2 - Open the front panel.

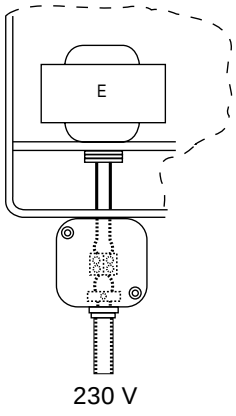


3 - Insert the 8-station extension module and snap it onto the support. Secure it to the support with the screw supplied with the extension module



4 - Close the front panel.

5 - Reconnect the 230VAC power supply wires.

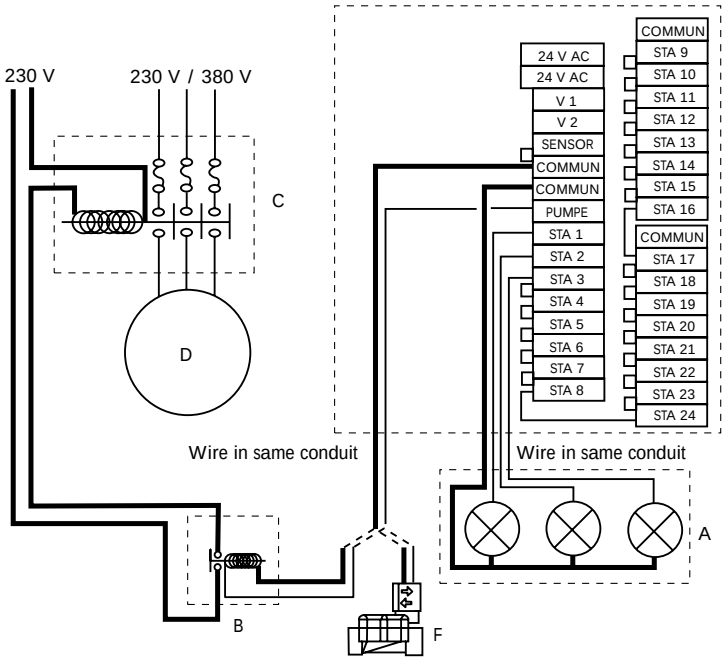


Note : the controller takes into account the presence of a new module as soon as the 230VAC power supply is reconnected.

GB

4/ Pump Start or Master Valve

The terminal marked "POMPE" is used to automatically start a pump start with a relay or to open a master valve. The "POMPE" terminal provides power only when one of the stations is operating.
Recommended relays : Finder 55-1, Hager E123-01 or equivalent.

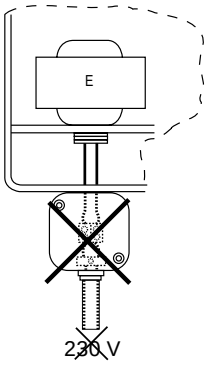


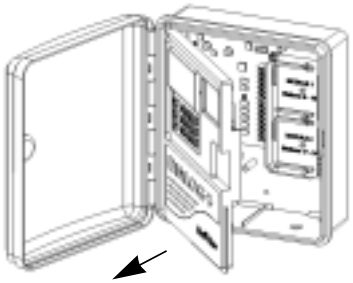
CAUTION :

If all the stations are not used, the unused stations must be jumpered (cross-connected) to a station being used. If unused stations are not jumpered and the controller reverts to the default program after a lengthy power outage, the pump will operate with no flow (deadhead).
Serious pump damage will occur.

5/ Modem connection (option for operation in the satellite mode with Tele Manager, see §C)

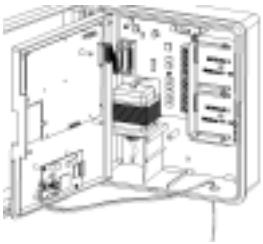
1- Disconnect the 230VAC power supply wires.



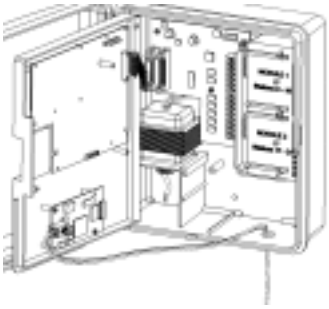


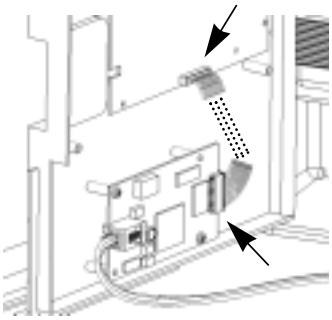
2 - Open the front panel.

3 - Install the modem on the inside of the front panel as shown in the drawing. Secure the modem with the 2 screws supplied.

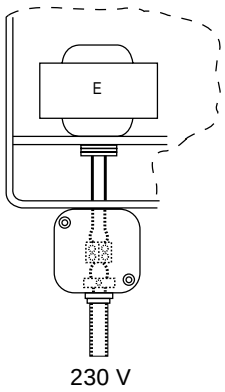


4 - Connect the transformer wires to the mother board as shown in diagram 4

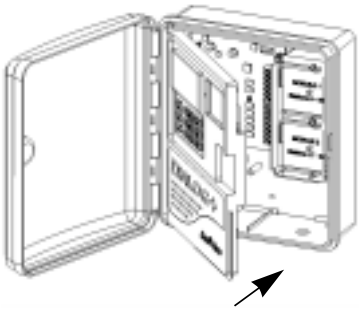




5- Connect the phone line to the modem as shown in diagram 5



6- Close the front panel.



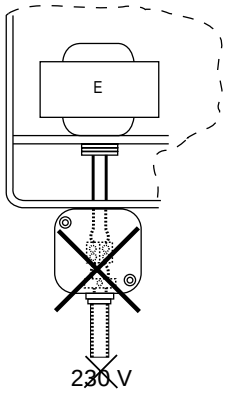
7- Reconnect the 230VAC power supply wires.

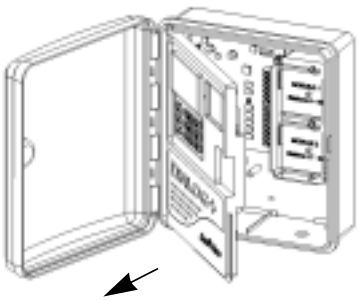
Note: the controller takes into account the presence of the modem as soon as the 230VAC power supply is reconnected.

6/ Extension cabinet connection

Dialog+ can operate a total of up to 48 stations. To add station capacity aver 24 stations, it is necessary to add an extension cabinet. The extension cabinet includes 8 stations. It is modular. It can accept 2 additional 8-station modules for a total of 24 stations. The 8-station extension modules are the same as those discribed in point 3.

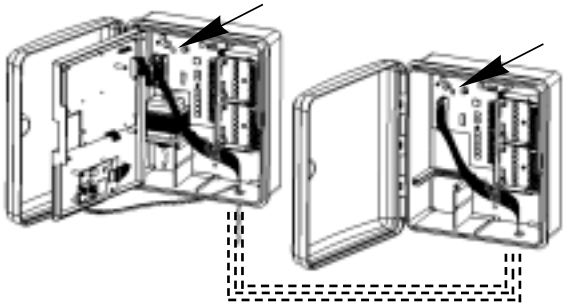
1- Disconnect the 230VAC power supply wires.

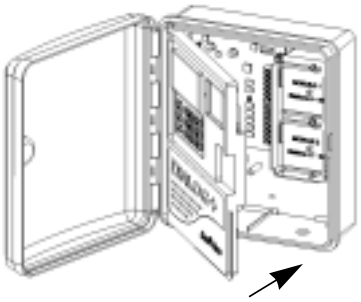




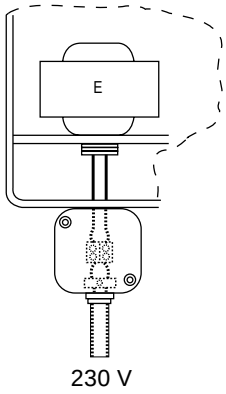
2 - Open the front panel.

3- Connect the extension cabinet wire as shown in diagram 3.





4- Close the front panel.

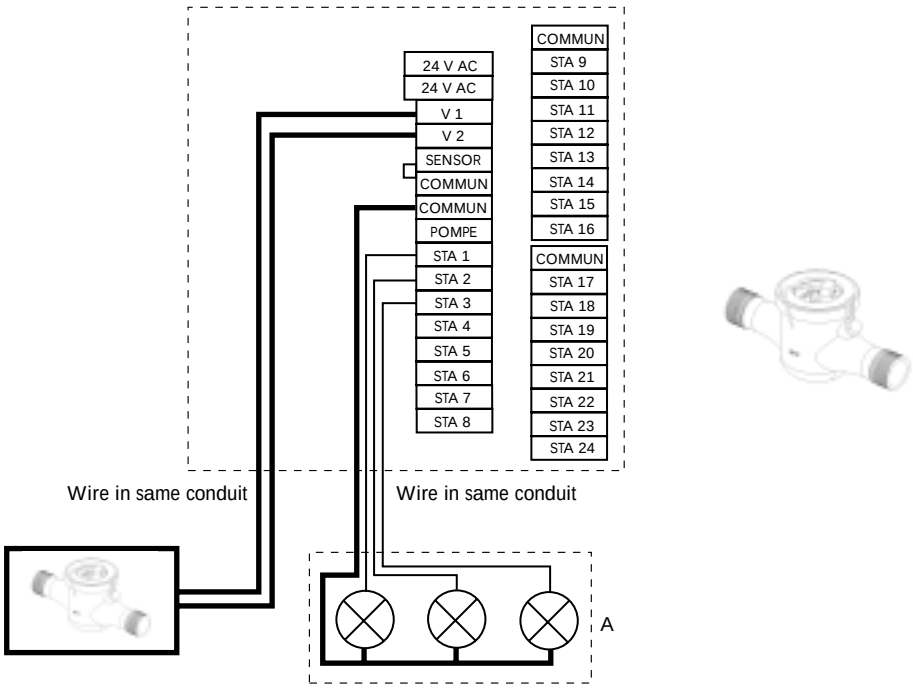


5- Reconnect the 230VAC power supply wires.

230 V

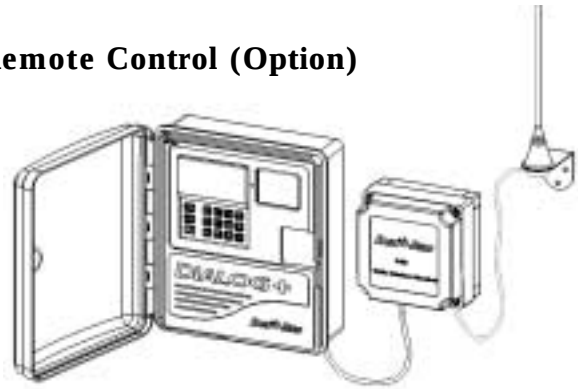
Note: the controller takes into account the presence of the extension cabinet as soon as the 230VAC power supply is reconnected.

7/ Water meter connection (Option)



GB

8/ Radio Remote Control (Option)



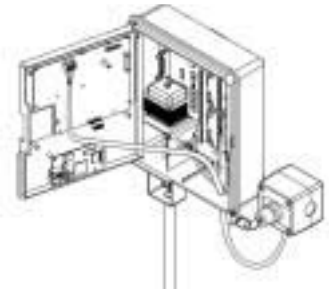
9/ EXTERNAL ON/OFF SWITCH CONNECTION (OPTION) :

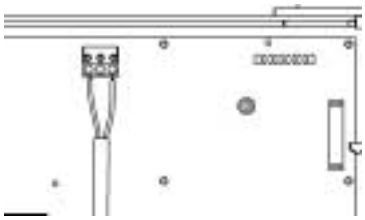
You can connect an external switch to allow A program manual start.
Important : The switch type must be a dry contact NO type (Normally Open).
To control this switch, you can use a key or a simple pushbutton.

The maximum distance between the switch and the controller using wire sized 0.8mm^2 (IRRICABLE) is 100 m.

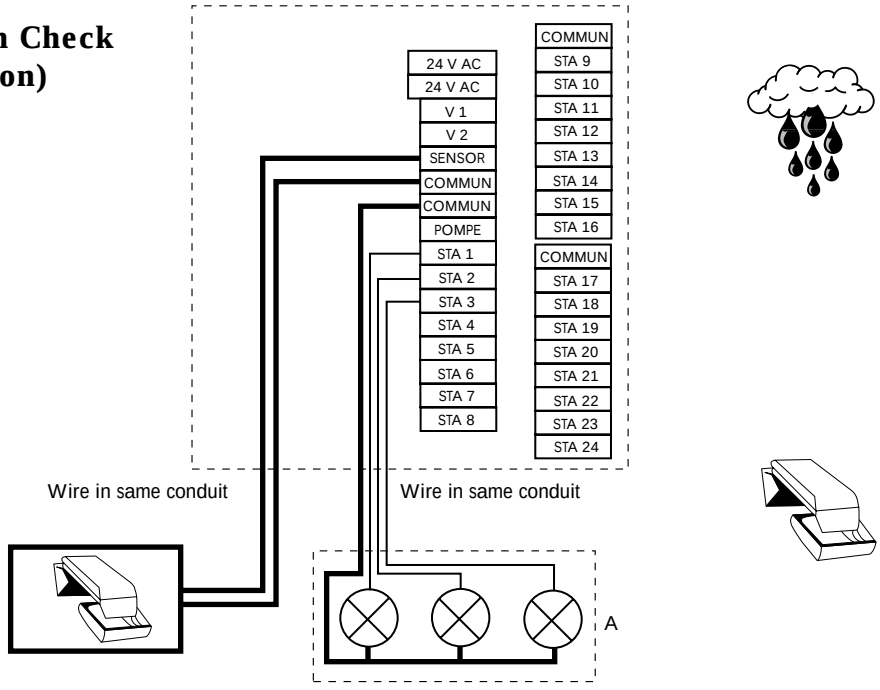
Operation :

ON Function :
Activate the external switch to start the A program manually. This action has priority over all the other operations in progress.
OFF Function :
Once the A program is manually started, you can stop it when you want by activating the switch again.



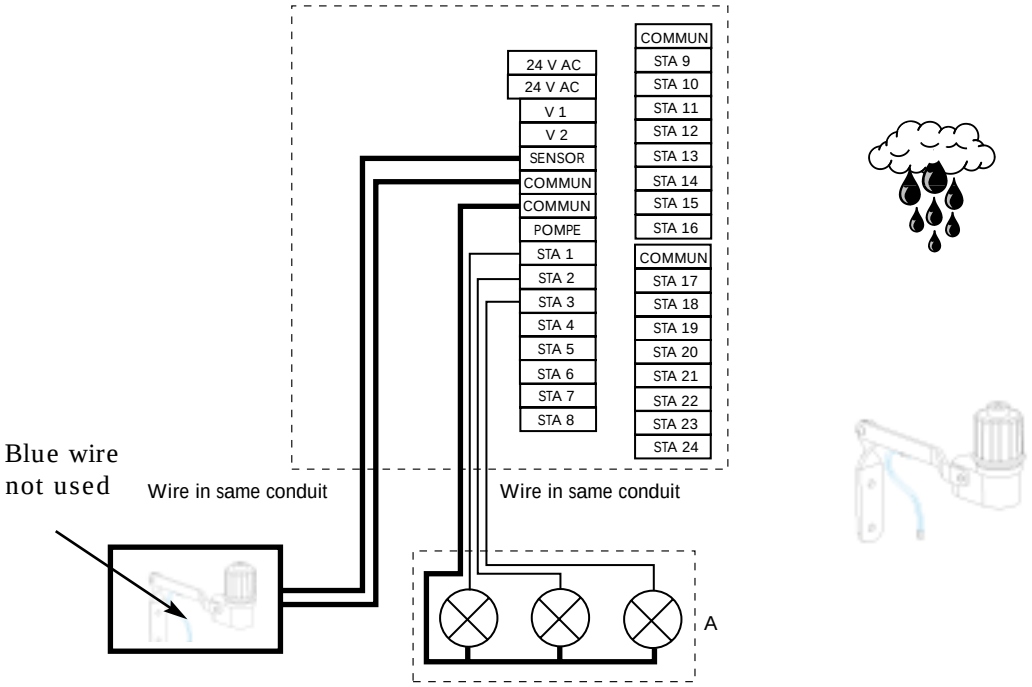


10/ Rain Check (Option)



GB

11/ RSD-BEx (Option)

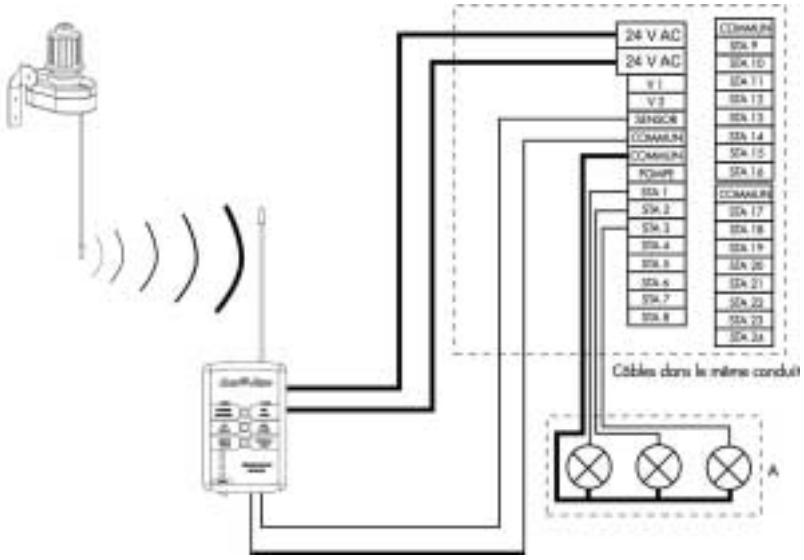


12/ 24VAC ACCESSORY CONNECTION (OPTION) :

A terminal strip on the mother board allows you to directly connect a 24VAC accessory such as: MS-100 Sensor or WRS (Wireless Rain Sensor).

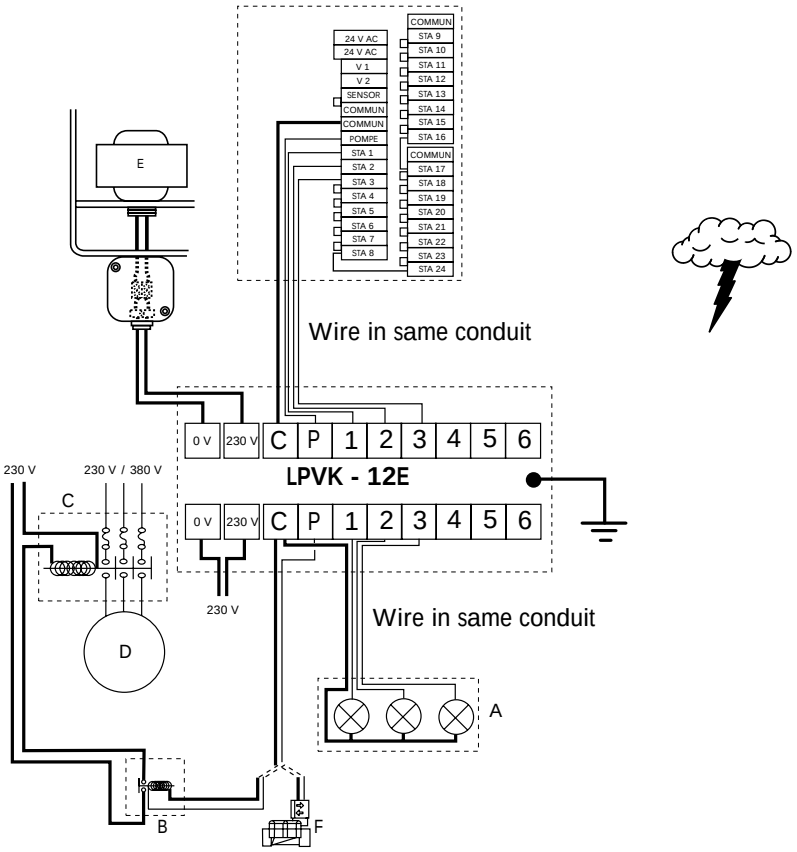
Note : the maximum distance between the 24VAC terminal and the device using wire sized 0.8mm^2 (IRRICABLE) is 10 meters.
Important : The device must not consumes more than 120mA using 24VAC (2.8W).

To operate the accessory, please refer to the corresponding manual.



GB

13/ LPVK-12 E (Option)



13/ Declaration of " CE " conformity

I declare that the Dialog + type device conforms to the contents of the following Council directives :

- N°73/23/CEE of 19/02/73 modified by directive N°93/68/CEE of 22/07/93
- N°89/336/CEE of 03/05/89 modified by directives N°92/31/CEE of 28/04/92 and N°93/68/CEE of 22/07/93 and conforms to the following standards :

EN 60065-ed 93 for electrical safety
EN 55022 and EN 55024 concerning electromagnetic compatibility

The Dialog + type device is powered by 230VAC/50Hz, single phase

Aix-en-Provence, January 1, 2003

Général Manager
RAIN BIRD EUROPE

Signature

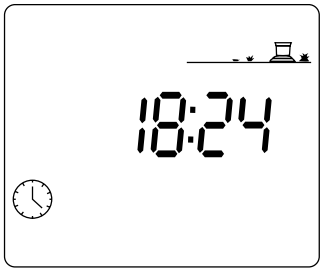
GB

B/ CONVENTIONAL MODE

I - SETTING UP YOUR DIALOG + :

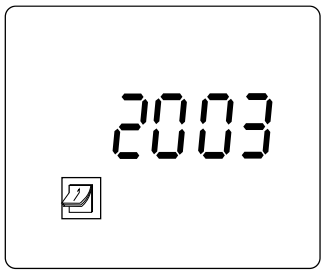
THE BLUE KEYS

1. Clock : set current time
Press the key and this display will appear. Use the +/ON and -/OFF keys. The +/ON key will move the time up and the -/OFF key will move the time down. Maintain a steady pressure on either key to speed up adjustment.

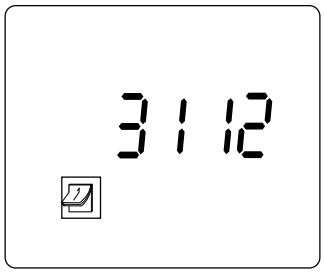


Note : the current time has 2 blinking digits between the hours and the minutes.

2 - Calender : 3 steps
a/Set current year
Press . Use the +/ON and -/OFF keys to set the current year.



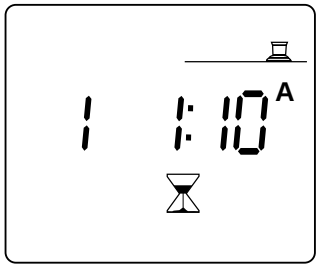
b/Set current month
Press . The 2 numbers representing the month begin to blink. Use the +/ON and -/OFF keys to set the current month.
c/Set the current date of the month
Press again. The 2 numbers representing the date of the month begin to blink. Use the +/ON and -/OFF keys to set today's date. In this example, it is December 31ST.



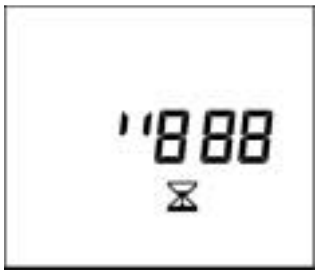
II - PROGRAMMING THE STATIONS
THE PURPLE COLORED KEYS

1. Hour-glass : set the irrigation run time for each station
Press the key. This display will appear.
Use the +/ON and -/OFF keys to set the irrigation run time from 1 minute to 12 hours per station in 1-minute increments. Holding the key pressed down will speed up the adjustment. You must also assign each station to a program. Press the ABC (purple) key until the desired program appears.

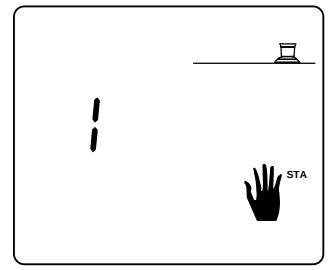
Use the key to move on to the next station. The station number appears on the lefthand side of the display. The program (A, B, or C) appears on the right. The default program is A.



RUN TIME IN SECONDS :
You can set the run time of the 1st 5 minutes in seconds in 1-second increments. This feature can be used to perform short irrigation run times in case of artificial athletic field applications.
To access to the « Run Time in seconds » mode, press simultaneously on +/ON and -/OFF keys for more than 1 second. This type of screen will be displayed.
To return to the « Run Time in minutes » mode (default setting), repeat the previous operation.



2 - Manual station start
Press the key to obtain this display. The station number appears on the lefthand side of the screen. In our example, it is station 1. Press the key to move to station 2.
Once you have selected the station you wish to start, press the +/ON key. The watering starts and is symbolized by the sprinkler with a blinking stream. (See drawing below).
The irrigation run time will be displayed after 1 second. The remaining run time is counted down in 1-minute increments.
If you wish to stop irrigation, within the first minute, press the -/OFF key. If irrigation has taken place for longer than 1 minute, press the again, and then the -/OFF key.

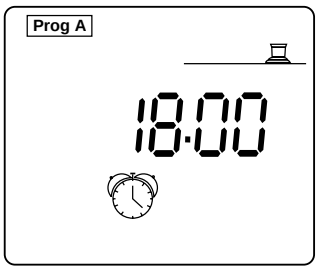


III **- SETTING THE PROGRAMS :**

THE MAGENTA COLORED KEYS

The programs
Three programs are available : A, B, and C. You must enter a schedule for A, and if required, for B and C. In other words, you must set the start times and water days for each program. Remember that the DIALOG + triple program is intended to provide efficient water application based on sprinkler precipitation rates, sun/shade parameters and soil type for each area to be irrigated.

1 - Alarm clock : set program (A, B, C) start times
Press the key to obtain this display.
In the upper lefthand corner of the display, you see the program A, B, or C. Use the key to select the program you want.
The dashes indicate that a start time is available to be programmed.
Use the +/ON and -/OFF keys to set the start time. Note that there is only 1 non-blinking digit between the hours and minutes in a start time display.



You can repeat the same irrigation cycle up to 8 times a day = 8 start times to meet your water application requirements. At each start time, all the stations assigned to the same program will operate in sequence for the scheduled run times.
After setting the first start, press to move on the 2nd start.

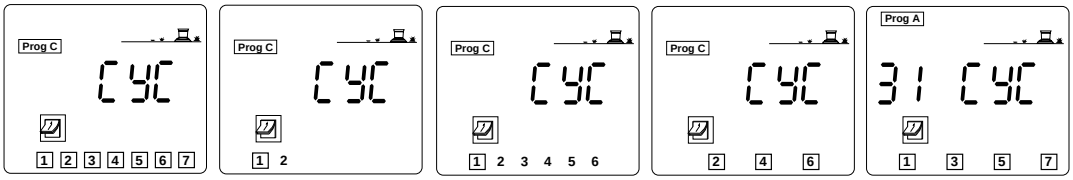
NOTE : it is not necessary to use all 8 start times !

To cancel an unwanted start time, press the key repeatedly to display all the entered start times.

When the start time appears that you wish to cancel, hold down the key for at least 2 seconds.

NOTES :
* Only 1 non-blinking digit separates the hours and minutes in a start time display.
* The DIALOG + automatically files the start times in chronological order from 00.00 to 23.59.
Example : you enter 4 start times for program A : 22.00, 23.00, 01.00, 04.00.
You will therefore water 4 times. If you select Monday as a water day (see point 3), the 1st start will be at 1:00 on Monday morning, then at 4:00, and then at 22:00 and 23:00 on Monday night.

2 - **Cycle : Select the type of cycle for each program (A, B and C)**
It is necessary to select a cycle type for each program (A, B and C).
Reminder : Dialog + offers you a choice of 9 cycle types : Weekly (any day can be a water day), 1 water day once every 2 days, once every 3 days, etc...up to 1 water day once every 6 days, even days/dates, odd days/dates, odd days/dates including 31st and February 29th.
To access the cycle display, press once. To move from one cycle type to another, press . When you see the type of cycle you want, assign it to the program you wish (A, B or C) by pressing .
Note : that “CYC” appears on all the displays while you are working in this function.
Here are a few cycle type displays.



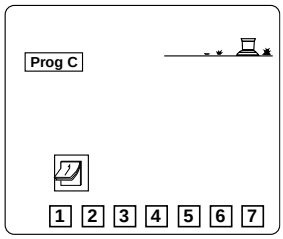
Weekly | 1 water day every 2 days | 1 water day every 6 days | even days/dates | odd days/dates + the 31st and Feb. 29th

Note : If you press CYC a second time, you will exit from the cycle type function.

3 - **Water days : Setting the water days after selecting the cycle type for each program (A, B and C), you must set the water days.**
This is necessary for the following cycle types :
- Weekly : select which days of the week to water
- 1 water day once every 2 days, once every 3 days, etc...up to 1 water day once every 6 days : you must decide which day in the cycle is considered "today".

No further programming is required for the following cycle types :
- Even days/dates,
- odd days/dates,
- odd days/dates including 31st and February 29th.

Weekly calender (1-7 days) :
Press ▨ .
Select the program (A,B, or C) which you wish to have a 7-day cycle by pressing ABC . In our example, it is C.

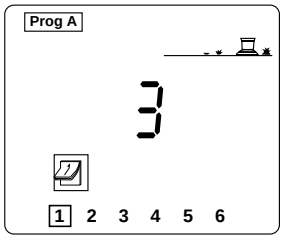


This screen appears. 1 = Monday, 2 = Tuesday, etc... By default, every day is a watering day as indicated by a square around the number. Use the +/ON and -/OFF keys to validate or remove the square. No square = no watering on that day. Not that watering will occur if there is no square. Move the cursor from one day (number) to the next by pressing ↵

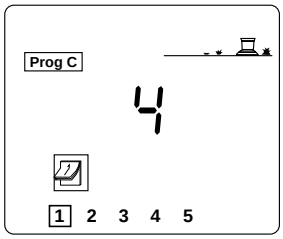
If you have selected a cycle type such as 1 water day every 2 days, 1 water day every 3 days,...,1 water day every 6 days, follow these steps :
- Press ▨ .
- Press ABC to select program A, B, or C.

Important : regardless of the cycle you select, number 1 always appears within a square. It is the only watering day in the cycle.
- Now you must set the day in the cycle which you decide to designate "Today". Repeatedly press ↵ until the desired day number appears.

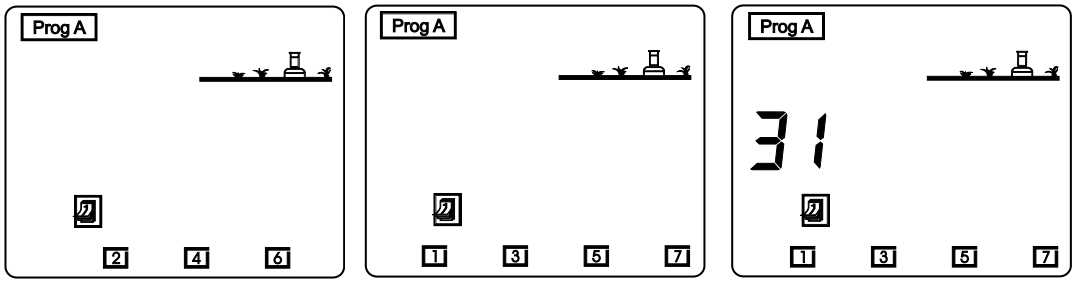
In this example, the cycle type is 1 water day every 6 days. "Today" is "3". That means that "Today" is considered the 3rd day of the cycle. Irrigation will therefore occur 4 days later.



Here is another example. The cycle type is 1 water day every 5 days."Today" has been designated as day "4". That means that "Today" is the 4th day of the cycle. Watering will therefore occur after 2 days.



Even days/dates, odd days/dates, odd days/dates + 31st and Feb 29th : There is no need to select water days, they are automatically selected. One of these screens will appear.

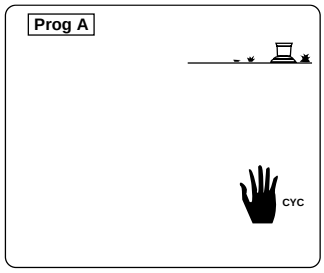


Even days/dates | odd days/dates | odd days/dates + 31st and Feb 29th

GB

4 - Manual cycle start

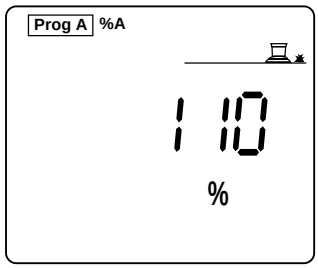
Remember that a cycle consists of all the stations operating in sequence within a program.
Repeatedly press the key to obtain this display.



Press the ABC key to select the program you want to start manually. Then press the +/ON key. A blinking sprinkler stream will be displayed. Station 1 will be displayed and the remaining watering time for station 1 will be counted down in 1-minute increments. Then the next station number assigned to the program will appear along with the remaining watering time. The screen will display each station until the cycle is completed.
If you wish to stop irrigation, press the +/OFF key during the 1st minute of the manually started cycle. If the cycle has operated for longer than 1 minute, you can stop irrigation by first pressing the key, and then the +/OFF key. The LCD will automatically return to the current time of day display.
NOTE : If the controller is in the off position (see Irrigation Shutdown) it is impossible to water using the manual start. Even if the display shows the sprinkler with a blinking stream, no irrigation will take place.

5 - Water budget function

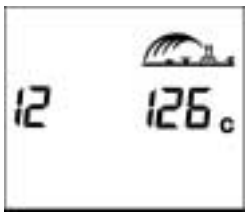
During spring and fall, the irrigation requirement is reduced compared to summer. It is therefore necessary to reduce the water application of each station. The Water Budget function enables you to modify the irrigation run time of a program. You can either increase or decrease the run time without having to reprogram the controller. The Water Budget key affects all stations assigned to a given program (A, B, or C). Press the %/dL key. This display will appear.
Now select the program you wish to modify. Press the ABC key. Then press the +/ON key to increase the run time or the key -/OFF to decrease the run time. The run time is modified in increments of 10 %. When the program begins to operate, this display appears.
The display uses the % A, % B and % C messages to indicate that the program is operating on Water Budget. The absence of the "%" sign means that no Water Budget is used.



NOTE : a Water Budget adjustment does not affect the run time of stations started manually.

6 - Set the delay between station

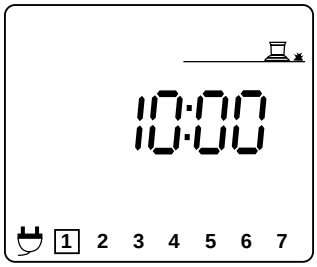
The Dialog + has a function to allow the programming of a start delay between each station assigned to the same program. During the delay, no station will operate. The delay can be set from 0 to 999 seconds. You can set a different delay between stations assigned to the A, B and C programs. Note that the delay does not affect the pump start or the opening of a master valve (Terminal “Pompe”). and the start time of the first station in a program. Also note that the pump or the master valve will remain activated during the delay between two stations.
Press %/dL twice to display this screen.
Use the ABC key to select the program for which you wish to set a start delay between each station assigned to that program. (program C in our example). The delay between stations is set with the +/ON and -/OFF keys in 1-second increments. The default value is “0” which means that there is no delay between stations. The maximum setting is 999 seconds.



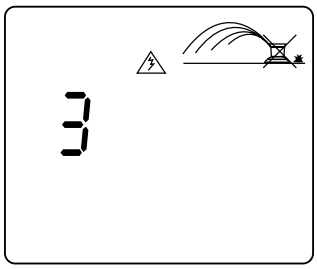
During the delay phase, the 2 following screens will be alternatively displayed. The 1st one shows the next station scheduled to operate (station 12 of C program in this example). The 2nd one shows the remaining time delay counted down, in this example 126 seconds remain before station 12 will start.

IV - ALARM MESSAGES

1. 230 V power (plug)
If there is no 230V input to the controller, the display will show a blinking plug (see illustration) The plug disappears as soon as the power is restored.



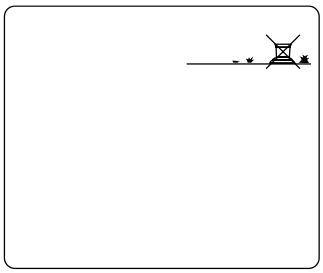
2. Station problem / short circuit
If a short circuit occurs or if there is an electrical overload (more than 4 valves per station) this display will appear.
The DIALOG is provided with an automatic, diagnostic circuit breaker system which indicates the problem station number. The controller will continue to water with all other operable stations. Locate and fix the problem and the controller will return to normal operation of that station at the next cycle.
Note that a short circuit affecting the "Pompe" output will shut down all the stations.
If several stations have short circuits, the controller will display the station with the lowest number.



V - OTHER FUNCTION

1 - Irrigation Shutdown : blue ON/OFF key

The "off" setting is good for rainy weather shutdown or shutdown during system maintenance. The default position of the key is "on" which permits the programmed irrigation to be carried out. However, you can prevent watering without affecting the programmed schedules.
Press the ON/OFF key and this screen will appear.
No irrigation is now possible; neither automatic nor manual starts will operate any station.
Press the ON/OFF key again to permit irrigation.



C/ SATELLITE MODE

Your controller can operate as a satellite in the Tele Manager central control system.

To operate in the satellite mode, a modem must be installed. See §A-5. You must also have a PC equipped with Tele Manager software.

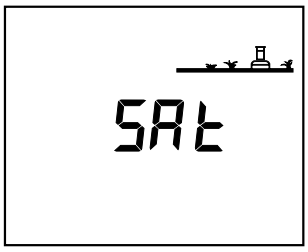
The satellite mode provides additional displays on the controller LCD and additional status information descibed below :

IMPORTANT :
- In the Satellite mode, you can always manually start stations or programs. (see B/ CONVENTIONNAL PROGRAMMING § II, § 2 et § III, § 4)
- In the Satellite mode, you cannot modify the program currently in operation. However, you can always display the stored program. Just press the appropriate function keys
- In the Satellite mode, it is always possible to shut down the DIALOG + on the site if necessary.
- During any communication for whatever reason between the DIALOG + and the Tele Manager, the program stored in the DIALOG + is automatically replaced by the program selected in the Tele Manager.

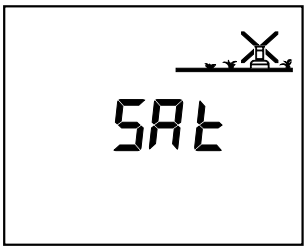
GB

Additional screens in Satellite Mode :

1 - Standby Screen. 2 possibilities :

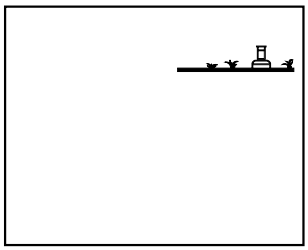


a) Automatic watering mode (ON)

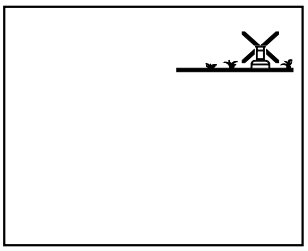


b) Automatic watering is prevented (OFF)

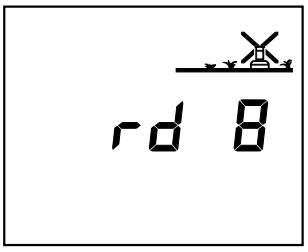
2 - ON-OFF Screen. Press the blue ON/OFF key.
There are 3 possibilities :



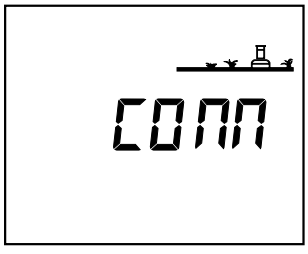
a)There is no cross. Automatic watering will occur.
You can prevent it by pressing -/OFF



b) There is a blinking cross. You can press +/ON to allow scheduled automatic watering or press -/OFF to prevent it.
c) There is a non-blinking cross. You cannot make an On-Site modification.
No automatic watering will occur but you can manually start a station or cycle.
Only Tele Manager Software can modify the status.



3 - Rain Delay
This function can only be programmed from a PC equipped with Tele Manager. You cannot modify the Rain Delay on site. However, manual station and program starts are still possible .



4 - Communication Screen
This screen indicates that your Satellite is in communication with the Tele Manager software.