

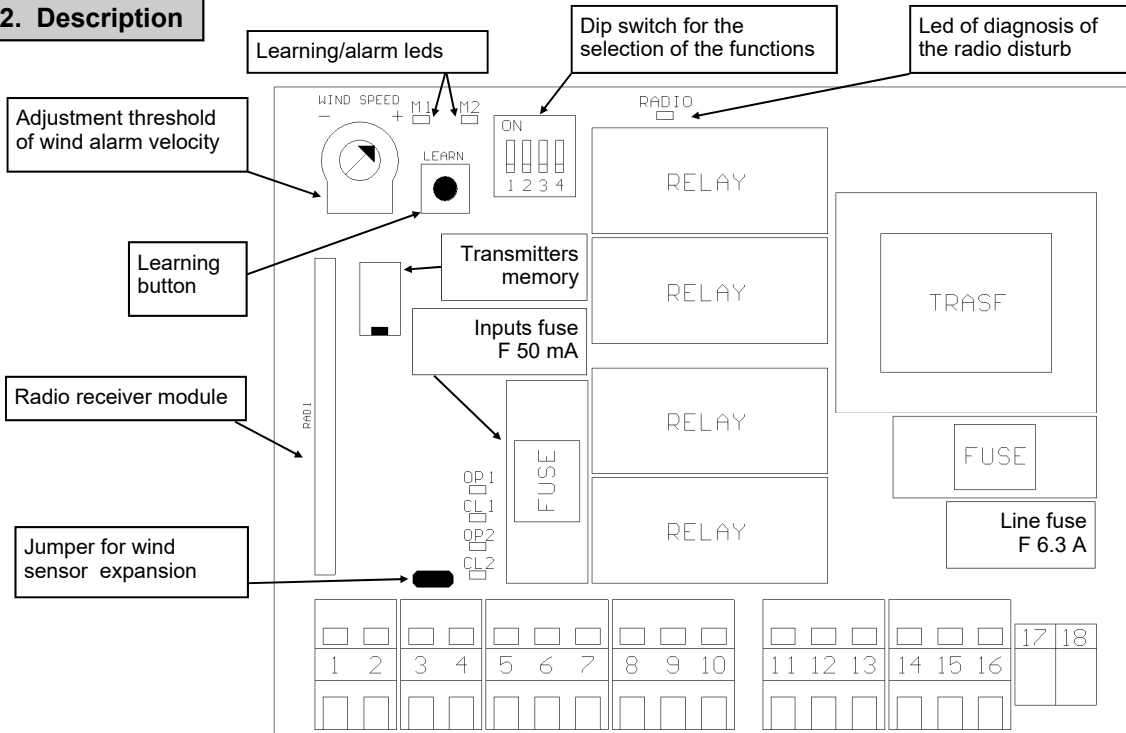
# Control unit for 2 motors with anemometer input

## 1. Introduction

The control units of the series B2VR PROX are devices suitable to carry out the activation and the control of awnings and shutters in a simple and complete way, designed to meet any requirement. This product can control independently 2 230Vac motors up to 500W (max) of power. B2VR PROX control units, if equipped with the radio receiver module, use the innovative system of rolling code decoding, easy and intuitive on the installation. In the extractable memory it is possible to memorize up to 1000 channel (8000 with optional memory) of the series Birol® and CLARUS. Includes an input for a wind sensor (WIN Allmatic series), which allows to close the automation in case of danger situation, due to an excessive velocity of the wind. There are also 4 separate inputs for the opening and the closing buttons, to command independently the two motors also for programmed opening ("clock function" see section 7). In case where the radio receiver is not installed, the presence of the buttons is necessary to control the automation.

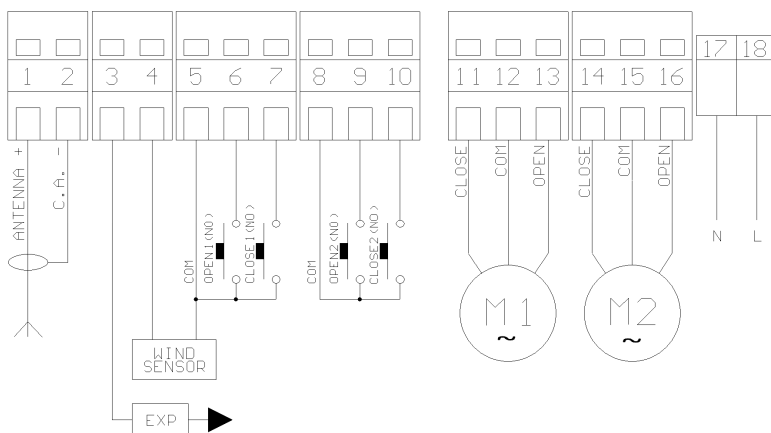
**WARNING: DO NOT INSTALL THE CONTROL UNIT WITHOUT READING THE INSTRUCTIONS BEFORE!!**

## 2. Description



## 3. Electrical connections

### Installation and advices



- Connect the motor 1 to the terminal boards 11,12,13 and the motor 2 to the terminal boards 14,15,16 respecting the scheme and the polarity of the motor (open =unrolling awning, close= rolling up awning).
- Connect the buttons open and close of the motor 1 to the terminal boards 5,6,7 and the buttons open and close of the motor 2 to the terminal boards 8,9,10 respecting the scheme and **trying to separate as much as possible these cables from those of the line tension and of the motor.**
- Connect the clock for motor 1 to terminal boards 5 and 6, for motor 2 to terminal boards 8 and 9 (refer to the sections 7).
- Connect the wind sensor to the terminal boards 4 and 5. **Also in this case, avoid to make the cable slide near to the cables of the line tension and of the motor, in order to insulate it from external interferences.** For a connection scheme of an anemometer with more control units, refer to the section 9.
- Connect the cables of the line tension 230Vac to the terminal boards 17, 18.

### Connections wind sensor

**WIN S:**  
Connect cables on inputs **N°4** and **N°5** of the terminal board B2VR.

**KAIROS S:**  
Connect cables on inputs **N°4** and **N°5** of the terminal board B2VR.

**NOTE:** connection cables have no polarity.  
**NOTE:** the control unit is also compatible with WIN EX sensor.

### Preliminary checks

Move manually the automation in the middle of stroke, set the wind trimmer about at minimum and move manually the anemometer, be sure that the automation closes when the wind alarm appear. If the automation opens check the connections of the motors.

## 4. Functions selectable by dip – switch

The control unit can work in different ways, according to how the dip – switches of selection are set, dip switches 1 and 2 set the functioning of motor 1, the dip switches 3 e 4 set the functioning of motor 2, independently one motor to the other.

### 4.1. Dip 1 and 3 OFF

- Open and close button transmitters: with the use of a memorized transmitter Birol with 2 or 4 buttons and CLARUS, pressing the key open, the awning opens completely, a second pressure of the key does not stop the awning. If you want to stop the movement you must press the key related to the opposite movement, in this case the key close or the key STOP for the CLARUS series. You must press again the key close in order to close. The same is for the other key.
- Open and close keys/switches at dead man: the automation is activated only during the closing of the contact, releasing the key the automation stops itself.
- If switches/deviators with fix position are used and leaved on open or close, the automation will be completely open or close, independently from the commands given by the transmitter.



### 4.2. Dip 1 and 3 ON ( NOT USED WITH FIX POSITION SWITCHES)

- Transmitters with a step by step key: with the use of a memorized transmitter, pressing more times the key “a” or “a1” you will obtain in sequence the function open – stop – close – stop – open.....
- Open and close buttons: pressing for a short instant the opening key, you will obtain the complete opening of the automation until the end of the working time (fix as 7 minutes). In the same way, pressing for a short instant the closing key, you will obtain the complete closing of the automation until the end of the working time.
- If you keep pressed the open or close button for a short instant during the movement phase, you will stop the automation.



### 4.3. Dip 2 and 4 OFF

- In this modality of functioning, after a wind alarm, the control unit closes the automation. After 7 minutes the automation can be opened only with a command given by transmitter, by key, or by a switch with fix position on open. If a wind alarm arrives unexpectedly, the automation will be closed.



### 4.4. Dip 2 and 4 ON

- In this modality of functioning, after a wind alarm, the control unit closes the automation and at the end of the alarm time (7 minutes) opens it again, in the starting position only if the awning was stopped. Instead, if the automation was in movement, the control unit will totally re – open if the automation was in opening phase or will remain closed if the awning was in closing phase at the moment of the alarm.
- If switches/deviators with fix position are used and left on open, when the alarm time expires the automation will be completely re-opened. You will obtain the same result by giving the command by transmitter or pressing the key open once expired the alarm time.



NOTE: the functioning of the motors can be set independently one motor to the other.

## 5. Wind alarm function

The control unit is equipped with an input for the reading of the velocity of the wind through anemometer. This function is helpful in order to avoid that the automation can be damaged by a strong gust of wind: in this case the control unit enters in wind alarm and closes the automation.

- During the phase of alarm, the leds M1 and M2 signal the alarm by flashing. The alarm phase will lasts for about 7 minutes.
- When alarm time is expired, if the wind is dropped under the alarm threshold, the automation will reopen in the same position than before the alarm (function of automatic reopening). If the wind persists, the awning remains on closed position until the alarm stops.
- If any fix position switch left on open is installed, when 7 minutes expire the automation will be completely reopened, instead if they are positioned on close the automation won't be reopened.
- It is possible to adjust the intervention threshold of the wind alarm acting on the regulation trimmer, keeping in mind that by turning in clock – wise sense it is possible to reach an higher threshold, so it will be necessary a stronger wind to make the control unit enter on alarm.
- During the installation it is possible to cancel the waiting time of 7 minutes; to do this, press LEARN key few seconds after the dropping down of the wind.

**Important : in case of black out at first wind alarm the automation is reclosed and it does not open.**

- ⇒ The functioning of the control unit after a wind alarm depends on the DIP 2 setting for motor 1 and DIP 4 setting for motor 2.
- ⇒ The intervention of the alarm has the control on all the other controls (transmitters, buttons).

**NOTE:** in case that the control unit is on the closing position and, through a manual moving, the automation is brought to the opening position, an intervention of the sensor will not command a closing of the automation, because the control unit is still under the closing position.

## 6. Transmitter learning

### 6.1 Transmitter learning with learning key

The control unit B2VR PROX (if radio receiver module is installed) can be controlled by all the Allmatic transmitters of the B.RO 433 MHz series and by the CLARUS series. On the control unit there is the learning button (LEARN) with which it is possible to select where to memorize the transmitter.

The first pression of LEARN button turns on the led M1 and let you memorize a transmitter to command the first motor, the second pression turns on the led M2 and let you to memorize a transmitter to command the second motor, the third pression turns on both leds M1 and M2 and let you to memorize a transmitter that commands both motors. With a fourth pression of the button you will leave the learning phase.



1. Press and release the learning key (LEARN) present on the card, selecting where to memorize the channel of the transmitter; relative red led turns on.
2. Press the key "a" or "a1" of the transmitter. The control unit automatically memorizes also the "b" or "b1" and the "c" key for the CLARUS series ("a" or "a1" like "open" key, "b" or "b1" like "close" key and "c" like "stop" key). The control unit signals the memorization of the channel with two flashings if the channel was not memorized, with one if the channel was already learned.
3. Once memorized the channel, the control unit goes back to normal modality of functioning. If no signal is transmitted by 20 seconds, the control unit automatically exits from the learning modality.



**Pay attention to the inversion state of the buttons (see paragraph 6.3)**

### 6.2 Learning of the successive transmitters with a transmitter already learnt

1. **Opening of the memory:** to open the memory from transmitter, make reference to the instructions of the transmitter in possession. Once opened the memory of the control unit, this one signals it turning on the red led M1.
2. With the same procedure of point 6.1 choose where to memorize the new transmitter (M1, M2, M1 + M2).
3. Press the key "a" or "a1" of the transmitter. The control unit automatically memorizes also the "b" or "b1" or "c" for the series CLARUS ("a" or "a1" like "open" key, "b" or "b1" like "close" key and "c" like "stop" key). The control unit signals the memorization of the channel with two flashings if the channel was not memorized, with one if the channel was already learned.
4. Once memorized the channel, the control unit goes back to the normal modality of functioning. If no signal is transmitted by 20 seconds, the control unit automatically exits from the learning modality.

**! Pay attention to the inversion state of the buttons (see paragraph 6.3)**

### 6.3. Buttons inversion.

This option lets you to invert the functions of the buttons of the transmitters of B.RO. or CLARUS series: you can change from *direct mode* ("a" or "a1"=>movement open, "b" or "b1"=>movement close, c=>stop only for CLARUS) to *inverse mode* ("a" or "a1"=>movement close, "b" or "b1"=>movement open, c=>stop only for CLARUS)

As default the control unit is set under *direct mode*. To change into the *inverse mode*, with powered control unit and still motor it will be enough:

1. Press and keep pressed the LEARN button
2. Keeping pressed the LEARN button change the state of the Dip.1
3. The control unit will execute 2 blinkings
4. Release the LEARN button and put back the Dip.1 in the desired position.

In order to come back to the *direct mode* repeat the procedure: this time the control unit will execute 3 blinkings.

**NOTE:** *inverse mode* has no effect on wired buttons.

The modification has effect on ALL the memorized transmitters, and on the transmitters that will be memorized on the control unit. Reset the unit back to the direct mode.

DIRECT MODE (Activation with 3 blinkings)	"a" or "a1"	open
	"b" or "b1"	close
	"c" (only CLARUS)	stop

INVERSE MODE (Activation with 2 blinkings)	"a" or "a1"	close
	"b" or "b1"	open
	"c" (only CLARUS)	stop

### 6.4 Erasing of a transmitter from the memory of a control unit



PRESS the hidden key "e"

PRESS at the same time the hidden key "e" + the "a" key

#### ERASING transmitter series B.ro:

- 1) Press the hidden key "e" present on the transmitter; the red led M1 turns on. This operation is equivalent to press the LEARN key, but without access to the control unit.
- 2) Press at the same time for some seconds the hidden key and "a" key of the radio transmitter to erase ("e" + "a"). The control unit signals the happened erasing with 4 long blinks. After that the control unit goes back to the normal modality of functioning. This procedure will erase completely the transmitter from the control unit.

#### ERASING transmitter series CLARUS:

To erase one channel or the whole transmitter it is necessary to access to the internal menu of the transmitter. To do this refer to the instructions of the transmitter in possession.



**Warning: do not use this procedure in presence of more control units in function, because the opening of the memory would happen for all the devices in which the channel is memorized. In this case cut off tension to the control units not interested.**

### 6.5 Total erasing of the memory and reset of the factory setting

It is possible to reset the factory setting at every moment resetting the control unit. This operation erases also all the transmitters.

**This operation must always be carried out with closed automation.** To reset of the control unit:

1. Cut off the power supply to the control unit
2. Keep pressed the learning key
3. Give power supply to the card, always keeping pressed the self – learning key. After about 5 seconds, the leds M1 and M2 starts to blink.
4. Release the learning key
5. At the switching off of the leds, all the transmitters are erased and the default setting restored

## 6.6. Functioning of the shared channel M1 + M2

A transmitter memorized on the shared channel has the following working:

If DIP 1 and 3 set in the same way: functioning set by the DIP

If DIP 1 and 3 set in different way: functioning set by the DIP to OFF (see 4.1)

A command received by a transmitter memorized on the shared channel synchronizes the movement.

Example: awning 1 opening, awning 2 closing: the first command received stops the automations, with a second command the automations move in the same direction.

## 7. Clock function

### **The clock function cannot be used with the dead man modality (DIP 1 and 3 OFF)**

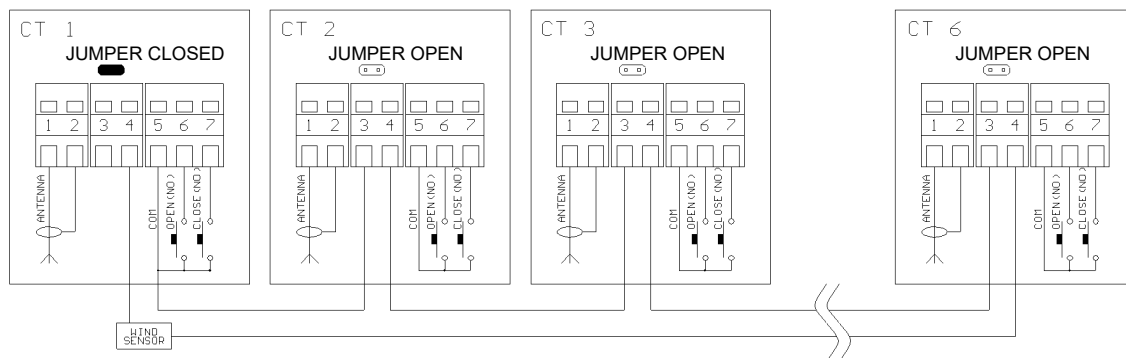
The clock function is used in those situations where you want to open and close the automation at specific times.

An external timer is necessary with a dry contact which remains closed for all the time where the automation must remain open, and must open the contact when the automation must close. The contact must be connected to the input "open" of the respective motor, after 4 minutes of closed contact the control unit enters the "Clock function". The wall buttons can be normally used if the "Clock" function is not active, on the contrary any command, also by transmitter is ignored. As usual, a wind alarm closes the automation which will completely reopens itself as soon as this is finished, independently from the position of the dials of automatic reopening (dip 2 and 4).

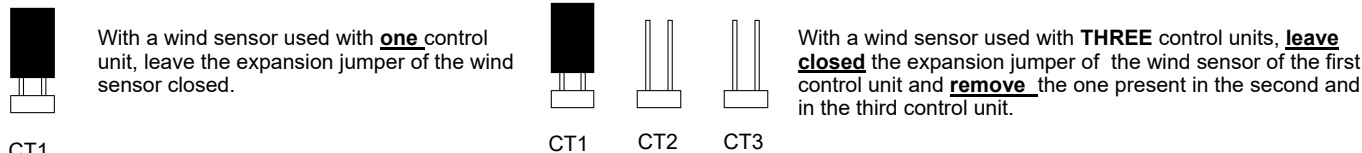
## 8. Limit switch and working time adjusting

The position of limit switch in opening of the automation is settable by the limit switches of the used motors. However the control unit is provided with a maximum working time of 7 minutes, to allow the automatic stop of the motor also in case of failure of the limit switches of the motor.

## 9. Expansion of the wind sensor



### Setting of the jumper for expansion wind sensor



With a wind sensor used with **one** control unit, leave the expansion jumper of the wind sensor closed.

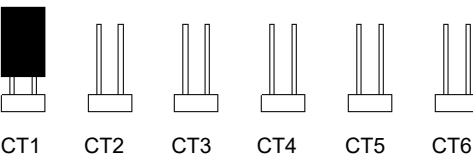
With a wind sensor used with **THREE** control units, **leave closed** the expansion jumper of the wind sensor of the first control unit and **remove** the one present in the second and in the third control unit.

CT1

CT1

CT2

CT3



With a wind sensor used with **SIX** control units, **leave closed** the expansion jumper of the wind sensor of the first control unit and **remove** the one present in the second and in the third, fourth, fifth and sixth control unit.

CT= CONTROL UNIT

Technical specifications B2VR PROX			
Power voltage	230 Vac +10% -15%		
Motor output	2 x 230Vac 500W MAX cosΦ > 0.8		
Card absorption	3W MAX (excluding accessories and utilities)		
Motor operation time	7 minutes		
Standby time after wind alarm	7 minutes		
Operating temperature	-10°C ... +60°C		
Frequency (*)	433.92 MHz Super-reactive band	433.92 MHz Super-reactive band	40.665 MHz Quartzed
Radio range in open field (*)	20 – 40m	30 – 60m	30 – 60m
Type of antenna (*)	incorporated stylus		
Number of available codes (*)	18 billion billion (reception BIROL® VARIABLE CODE AND CLARUS)		
Memorisable channels (*)	1000 with B.RO 1000 memory module (VARIABLE CODE)		

(\*) technical features valid only in presence of a radio receiver

**GUARANTEE** - In compliance with legislation, the manufacturer's guarantee is valid from the date stamped on the product and is restricted to the repair or free replacement of the parts accepted by the manufacturer as being defective due to poor quality materials or manufacturing defects. The guarantee does not cover damage or defects caused by external agents, faulty maintenance, overloading, natural wear and tear, choice of incorrect product, assembly errors, or any other cause not imputable to the manufacturer. Products that have been misused will not be guaranteed or repaired. Printed specifications are only indicative. The manufacturer does not accept any responsibility for range reductions or malfunctions caused by environmental interference. The manufacturer's responsibility for damage caused to persons resulting from accidents of any nature caused by our defective products, are only those responsibilities that come under Italian law.