

A510023 BLUE BUS A510024 BLUE BUS RX



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MODULO DI COMANDO E CENTRALIZZAZIONE PER AVVOLGIBILI	
CONTROL AND CENTRALIZATION MODULE FOR ROLLING SHUTTERS	GB
STEUER- UND ZENTRALISIERUNGSMODUL FÜR ROLLLADEN	D
MODULE DE COMMANDE ET DE CENTRALISATION POUR VOLETS ENROULABLES	F
MÓDULO DE MANDO Y CENTRALIZACIÓN PARA PERSIANAS ENROLLABLES	E

ISTRUZIONI - INSTRUCTIONS - EINSTELLANLEITUNGEN INSTRUCTIONS - INSTRUCCIONES

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# **PRODUCT FEATURES**

The Blue Bus control and centralisation module is indicated for the control of Cherubini mechanical and electronic motors intended for rolling shutters applications.



## **INSTALLATION NOTES**

- Only professional technicians must perform installation, complying with all safety instructions, especially those regarding electrical connections.
- To avoid short circuits, arrange an automatic bipolar switch with opening distance of the contacts of at least 3 mm before the circuit.
- We recommend reading the instructions attached to the motors you are using carefully, before using the Blue Bus module.





# NOTES FOR THE USER

- This unit should not be used by children or persons with reduced psycho-physical capacity unless supervised or instructed by an adult on its use and operation.
- Inspect the system regularly for any signs of damage or wear. Do not use the unit if it is in need of repair.
- ATTENTION: keep this instruction manual and comply with all important safety regulations herein. Failure to comply with these regulations could cause harm and serious accidents.

	Legend	
	RESET/AUX	Reset/Aux key (resets alarm /reverses motor rotation direction/clears remote control memory)
	LED	Led warning lamps
	CENTR CMD	Input push buttons for centralised motor control
	LOC CMD	Input push buttons for local motor control
	SENS IN	Sensor input signal
	SENS COM	Sensor common signal
т	+12V	+12 V DC output
S	0V	Reference 0V output
	SEQ IN	Cherubini wire BUS input signal
с U	SEQ OUT	Cherubini wire BUS output signal
z		Motor ascent control clean output contact
ш		Motor descent control clean output contact
	СОМ	Motor control common signal
	L1	Phase voltage power output from the integrated current sensor
	L	Phase voltage power input
	Ν	Neutral voltage power input
	<b>_</b>	Power input earth connection

# **KEY TO SYMBOLS ON THE CONTROL SWITCH**



 press the DOWN button on the LOC CMD switch



1 sec

- keep the DOWN button pressed for 1 second on the CENTR CMD switch



- press the UP or DOWN button on the LOC CMD switch



Sequence (0.5 sec)

- press the UP and DOWN button on the CENTR CMD switch quickly one after the other (0.5 seconds)



- release the button formerly pressed on the LOC CMD switch



 send a DOWN command (automatically) from the SEQ OUT connector (centralized command)



# COMPATIBLE REMOTE CONTROLS (BLUE BUS RX)









# **KEY TO SYMBOLS ON THE REMOTE CONTROL**



### **CONNECTION TO THE CHERUBINI 2-WIRE BUS**



Note: centralised control is transmitted from one Blue Bus module to the other by the Cherubini 2-wire BUS.

Maximum length of the wire from one card to the other	
Unshielded wire	10 m
Shielded or twist wire	50 m

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### BLUE BUS MODULE CONNECTION TO MOTORS WITH STANDARD WIRING



# **BLUE BUS MODULE CONNECTION TO WHITE-WIRE MOTORS**



Note 1: for complete installation examples refer to the diagrams at the back of the manual. Note 2: the the output connection from L1 is used to propagate the centralised control and the alarms signals through the Cherubini 2-wire BUS for the purposes of motor movement.

# COMMANDS FROM A REMOTE CONTROL (BLUE BUS RX)

It is possible to control the Blue Bus RX control unit by means of a Cherubini remote control. Follow the instructions shown in the following pages for programming. As far as all programming sequences are concerned, we recommend also consulting the remote control instruction leaflet.

# COMMAND SEQUENCES EXAMPLES (BLUE BUS RX)

Most of the command sequences have three distinct steps, at the end of which the motor indicates if the step has been concluded positively or not, by turning in different ways. This section is provided to demonstrate the motor indications. The buttons must be pressed as shown in the sequence, without taking more than 4 seconds between one step and the next. If more than 4 seconds are taken, the command is not accepted and the sequence must be repeated.

Command sequence example:

Т

S



As we can see from the example, when the sequence ends positively, the motor returns to its starting position in one long rotation. In fact, two short rotations in the same direction correspond to one long rotation in the opposite direction. The motor returns to the starting position even when the sequence is not completed; in this case by performing one or two short rotations.

Example of a wrong sequence:



# FUNCTION OPEN/CLOSE PROGRAMMING REMOTE CONTROL SKIPPER PLUS - SKIPPER LUX - SKIPPER P-LUX REMOTE CONTROL POP PLUS - POP LUX - POP P-LUX

To prevent accidental changes to the programming of the motor during the daily use of the remote control, the possibility of programming is disabled automatically 8 hours after sending the last sequence (A+B or B+C).

CHECKING THE STATUS OF THE FUNCTION



To change the status of the function, see the sequences "ENABLE/DISABLE PROGRAMMING".

### **ENABLE PROGRAMMING**



Proceed with programming as the instructions booklet.

### DISABLE PROGRAMMING



# FUNCTION OPEN/CLOSE PROGRAMMING REMOTE CONTROL SKIPPER - SERIES GIRO - REMOTE CONTROL POP

To prevent accidental changes to the programming of the motor during the daily use of the remote control, the possibility of programming is disabled automatically 8 hours after sending the last sequence (A+B or B+C).

### CHECKING THE STATUS OF THE FUNCTION



To change the status of the function, see the sequences "ENABLE/DISABLE
 PROGRAMMING".

### ENABLE PROGRAMMING



Remove one battery and wait minimum 5 seconds or press any button.

Proceed with programming as the instructions booklet.

### DISABLE PROGRAMMING



# SETTING THE FIRST REMOTE CONTROL (BLUE BUS RX)

This operation can only be performed when the control unit is new, or after a total delete of the memory.

### During this step, power up only one control unit at time!

T1: First remote control to be set.



# AUTOMATIC DISABIING OF THE FIRST **REMOTE CONTROL SETTING FUNCTION**

Every time you connect the power supply to the control unit, you have 3 hours to store the first remote control. After this time, the ability to store the remote control is disabled. To reset the timer of the function you have to disconnect and reconnect the power supply to the control unit.

# SETTING THE ROTATION DIRECTION OF THE MOTOR

This operation is necessary if the rotation direction of the motor does not match to the UP and DOWN buttons of the remote control or of the control switch.

Setting the rotation direction using the button **RESET/AUX**:



max 2 sec

Interchanging the BROWN and BLACK motor wire on the terminals of the control unit, will also reverse the rotation direction.

The control unit will keep this setting even after complete memory clearing!!

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# SETTING OF ADDITIONAL REMOTE CONTROLS (BLUE BUS RX)

Up to 15 remote controls can be set.

Tn: Already programmed remote control Tx: Additional remote control





Tx (2 sec)

Tn

Т

LIS

C

z

ш

# **REMOTE CONTROL MEMORY CLEARING (BLUE BUS RX)**

It is possible to delete each memorized remote control individually. As the last one is deleted the control unit initial condition is restored. The same applies to the single channels of a multichannel remote control: just select the channel to cancel.

Tn: Remote control to be cleared



Tn

Tn

Tn (2 sec)

# FULL MEMORY CLEARING (BLUE BUS RX)

The full memory clearing can be performed in two ways:

### 1) WITH THE REMOTE CONTROL

Tn: Already programmed remote control



# 2) WITH THE BUTTON **RESET/AUX**:







(8 sec)



# SPECIAL FUNCTIONS (BLUE BUS RX) SHORT-TERM SETTING OF A REMOTE CONTROL

This function makes it possible to store a remote control temporarily, for example, with the purpose of setting the limit switches during assembly in the factory. A later final saving of the remote control will be possible using the appropriate command sequence (see: "SETTING THE FIRST REMOTE CONTROL").

The operations described below can be carried out only when the control unit has just come out of the factory or after a full memory clearing (see: "FULL MEMORY CLEARING"). The control unit makes the following operations possible only within the time limits described in order to make sure that the short-term setting is used only in the installation or factory setting phase and not during daily use.

Power up the control unit, make sure that no other control units having an empty memory are powered up in the same operating range.

Within 30 seconds after start, press the B and C buttons simultaneously until the motor gives a confirmation signal.

**The remote control will remain stored for 5 minutes**, while the control unit is powered up. After 5 minutes or when the control unit has its power cut off, the remote control will be cancelled.

T1: First remote control to be set



# **CONFIGURATION OF THE BLUE BUS MODULE**

The Dip Switch present on the module makes it possible to configure some functions.

	Configurating the local command and s	etting the type of motor
ENGLISH	Motor command "dead man" ON Dip Switch 1 OFF 2 OFF	The motor operates in the "dead man mode". This means that it moves as long as one of the LOC CMD push buttons is kept pressed.
	Motor command "continuous mode" ON Dip Switch 1 ON 1 2 3 4 5	The motor works in the "continuous mode". This means that it keeps moving even after one of the LOC CMD push buttons has been released. To stop the movement of the motor it is necessary to press any LOC CMD push button once again or the STOP push button on the remote control.
	Setting for Clima RX (orientable rolling shutters type Persyroll/Solomatic) ON Dip Switch 1 OFF 1 2 3 4 5 Dip Switch 1 OFF 2 ON	The board can control the Clima RX motor having electronic limit switches, with the possibility of tilting the slats of orientable rolling shutters of the Persyroll or Solomatic type. Pressing UP/DOWN in rapid sequence within the CENTR CMD initiates the tilting mode of the motor and signals the same command to the following module (see Clima RX manual).
	Setting for Clima RX (orientable rolling shutters of the BBC type) $\bigcirc N$ 1 $2$ $3$ $4$ $5$ Dip Switch 1 ON 2 ON 2 ON	The board can control the Clima RX motor having electronic limit switches WITHOUT the possibility of tilting the slats of orientable rolling shutter of the BBC type. Pressing UP/DOWN in rapid sequence within the CENTR CMD makes the movement of the motor with the slats completely open and signalling the same command to the following module (see the Clima RX manual) possible.

Configuration of the centralized command		
Timed or automatic transmission of the centralized command	The board which has received a centralized command from the control switch or through the BUS controls its own local motor and	
ON $1 \ 2 \ 3 \ 4 \ 5$ Dip Switch 3 OFF	re-transmits the command to the following board after 10 seconds (or earlier, if the movement of the local motor has ended).	
Exclusively automatic transmission of the centralized command $ \begin{bmatrix} ON \\ Dimension \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \end{bmatrix} Dip Switch 3 ON $	The board which has received a centralized command from the control switch or through the BUS controls its own local motor and re-transmits the command to the following board only after the movement of the local motor has ended.	

<b>Configuration of the auxiliary "Sensor" input</b> for connection of a clean normally closed contact (NC), e.g. an emergency push button or the NC contact of a safety sensor).		
Non-managed "sensor" input	The auxiliary "sensor" is not managed.	
ON Dip Switch 4 OFF 5 OFF		
Generation of alarms	When the NC contact is opened, an alarm is generated and	
ON Dip Switch 4 ON 5 OFF	the LED on the Blue Bus module blinks. The module controls the UP direction. Over the whole duration of the alarm, it is not possible to control the module from the control switch. The alarm ends when the NC contact is closed.	I S H
UP/DOWN commands of the module		
ON Dip Switch 4 OFF 1 2 3 4 5 5 ON	When the NC contact is opened, the module controls the DOWN direction without generating an alarm.	Z Ш
ON Dip Switch 4 ON 1 2 3 4 5 5 ON	When the NC contact is opened, the module controls the UP direction, when it is closed, the module controls the DOWN direction and no alarm is generated.	

# **COMMANDS FROM THE CONTROL SWITCH**

The Blue Bus and the Blue Bus RX control units make it possible to control the motor both locally and centrally, when the instructions shown in the following pages are followed. The switches must be interlocked mechanically and electrically to avoid the UP and DOWN arriving at the same time. Both commands must be of the unstable type (push button). When the push buttons are released, the contacts open. Should the rotation direction of the motor not correspond with the push buttons of the switch (for example, if you press "UP" and the rolling shutter goes down), carry out the operation described on the paragraph SETTING THE ROTATION DIRECTION OF THE MOTOR.

### **OPERATION OF LOCAL COMMANDS**

The motor can be controlled locally by means of a switch connected with the LOC CMD terminals of the J3 connector of the control unit, by means of three wires (up, down, common) or by using a remote control, if the module is of the Blue Bus RX type. By pressing one of the LOC CMD push buttons, the motor moves in the desired direction, until the limit switch is reached and stops according to the settings of Dip Switch 1 and 2.



# **OPERATION OF CENTRALIZED COMMANDS**

The module can be controlled centrally by means of a switch connected with the CENTR CMD terminals of the J3 connector of the control unit through three wires (up, down, common) and by bringing the switch to a level parallel to all the boards one wishes to control. Otherwise it is possible to centralize modules in a sequence using the CHERUBINI 2-wire BUS present on the J2 connector.

Centralized commands are delayed by 1 second, have priority over local commands, can move the motor only UP or DOWN and make an entry sequence involving the tilting of the slats in a motor of the Clima RX type possible, if the setting of the related Dip Switch allows it (page 36 - CONFIGURATING THE LOCAL COMMAND AND SETTING THE TYPE OF MOTOR).

If one of the two push-buttons of the CENTR CMD is kept pressed for at least 1 second, the motor moves in the desired direction, until the limit switch is reached.

The command is signalled to the following module through the SEQ OUT signal of the J2 connector according to the settings of Dip Switch 3.



If during the movement of a centralized command a push-button corresponding to an opposite direction is pressed, the motor reverses the direction of rotation.



# SPECIAL COMMANDS (using Clima RX)

If the module is connected with a Clima RX motor, it is possible to control the start of the tilting mode and to determine its orientation according to the settings of DIP switch 1 and Dip Switch 2. The commands are signalled to the following module through the SEQ OUT signal of the J2 connector according to the settings of Dip Switch 3.

### **BBC CONFIGURATION**

### **OPENING THE SLATS**



### IN THE TILTING MODE: CLOSING THE SLATS



### **CONFIGURATION OF THE PERSYROLL/SOLOMATIC**

### TILTING MODE START



0.5 sec

the slats

### LEAVING THE TILTING MODE



# SPECIAL COMMANDS (using MODULES A510008)

This operation mode is useful when one intends to use the Blue Bus module to control one or more Cherubini A510008 expansion modules (see, for example, connection on page 44).

The Blue Bus module is equipped with a current sensor able to manage switching off the exits when the connected motor reaches the limit switch or stops because of an obstacle. To use this management mode, the L1 terminal of the J1 connector must be connected. If this management mode is not being used, the module controls the exits designed for the motor with a standard time-out of 180 seconds. "TIME-OUT" refers to the operation time of the control unit from the moment in which the command is given (opening or closing). The opening/closing time of all the rolling shutters connected must always be shorter than the time-out time.

The time-out is set to zero only after a set time has elapsed or after a stop.

### **OPERATION MODE "DEAD MAN":**



### **OPERATION MODE "CONTINUOUS MOVEMENT":**



### **TECHNICAL FEATURES**

- Power supply 110 V - 230 V AC
- Power consumption

2 W

- Max. motor power 500 W
- Operating temperature

-10°C +55°C

- Dimensions 80 x 80 x 45 mm (plastic case) - Weight
  - 300 q
- IP44 (plastic case) - Degree of protection

### Additional features for **BLUE BUS RX**

- Radio Frequency	433,92 MHz
- Decoder system	Rolling Code
- Modulation	AM/ASK
- Max number storable transmitters	15







# **CENTRALIZATION WITH A BLUE BUS MODULE AND A510008 EXPANSION MODULES** ((GARDA - OCEAN - ROLL - etc..)



# **GARANZIA** Il mancato rispetto di queste istruzioni annulla la responsabilità e la garanzia CHERUBINI.

### DICHIARAZIONE DI CONFORMITÀ UE

CHERUBINI S.p.A. dichiara che il prodotto è conforme alle pertinenti normative di armonizzazione dell'Unione: Direttiva 2014/35/UE, Direttiva 2014/30/UE, Direttiva 2011/65/UE (BLUE BUS) Direttiva 2014/53/UE, Direttiva 2011/65/UE (BLUE BUS RX)

Il testo completo della dichiarazione di conformità UE è disponibile facendone richiesta sul sito: www.cherubini.it.

**GB GUARANTEE** Failure to comply with these instructions annuls CHERUBINI's responsibilities and guarantee.

### **EU DECLARATION OF CONFORMITY**

CHERUBINI S.p.A. declares that the product is in conformity with the relevant Union harmonisation legislation: Directive 2014/35/UE, Directive 2014/30/UE, Directive 2011/65/UE (BLUE BUS) Directive 2014/53/EU, Directive 2011/65/EU (BLUE BUS RX).

The full text of the EU declaration of conformity is available upon request at the following website: www.cherubini.it.

**D** GARANTIE Bei nichtbeachten der Gebrauchsanweisung entfällt die CHERUBINI Gewährleistung und Garantie.

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CHERUBINI S.p.A. erklärt der produkt erfüllt die einschlägigen Harmonisierungsrech tsvorschriften der Union: Richtlinie 2014/35/UE, Richtlinie 2014/30/UE, Richtlinie 2011/65/UE (BLUE BUS) Richtlinie 2014/53/EU, Richtlinie 2011/65/EU (BLUE BUS RX)

Der vollständige Text der EU-Konformitätserklärung kann unter unserer Web-Seite www.cherubini.it, gefragt werden.

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Directiva 2014/35/UE, Directiva 2014/30/UE, Directiva 2011/65/UE (BLUE BUS)

Directiva 2014/53/UE, Directiva 2011/65/UE (BLUE BUS RX)

El texto completo de la declaración UE de conformidad puede ser solicitado en: www.cherubini.it.



# Note - Bem - Notes - Notas:

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