# ᄃHERUBINI tocco italiano dal 1947 



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## TECHNICAL FEATURES

| MODEL | A510039 - A510040 | A510037 |
| :--- | :--- | :--- |
| - Power supply | $230 \mathrm{~V} / 50 \mathrm{~Hz}$ | $230 \mathrm{~V} / 50 \mathrm{~Hz}$ |
| - Power consumption | $0,5 \mathrm{~W}$ | $0,5 \mathrm{~W}$ |
| - Radio Frequency | $433,92 \mathrm{MHz}$ | $433,92 \mathrm{MHz}$ |
| - Decoder System | Rolling Code | Rolling Code |
| - Modulation | AM/ASK | AM/ASK |
| - Max. number storable transmitters 15 | 15 |  |
| - Max. motor power | 300 W | 600 W |
| - Operating temperature | $-10 \mathrm{C}^{\circ}+70 \mathrm{C}^{\circ}$ | $-10 \mathrm{C}^{\circ}+70 \mathrm{C}^{\circ}$ |
| - Dimensions | $114 \times 35 \times 20 \mathrm{~mm}$ | $120 \times 35 \times 20 \mathrm{~mm}$ |
| - Weight | 250 gr | 65 gr |
| - Protection degree | IP 44 | $\mathrm{IP55}$ |

## 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 2014/53/EU, Directive 2011/65/EU.
The full text of the EU declaration of conformity is available upon request at the following website: www.cherubini.it.

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## SAFETY INSTRUCTIONS

- 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.
- If not used, the white wire must be insulated. It is dangerous to touch the white wire when the motor is powered.



SKIPPER Series

230 V 50 Hz
CONNECTION POWER SUPPLY SIDE
1 - BLUE - NEUTRAL
2 - BROWN - PHASE
3 - WHITE- OPTIONAL WIRED SWITCH PE - YELLOW/GREEN - EARTH $\oplus$

A510037

CONNECTION
MOTOR SIDE
1 - BLUE - COMMON
2 - BROWN - UP (OR DOWN)
4 - BLACK - DOWN (OR UP)
PE - YELLOW/GREEN - EARTH

## COMPATIBLE REMOTE CONTROLS



## COMMAND SEQUENCES EXAMPLE

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:


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

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


ENABLE PROGRAMMING


Remove and replace a battery

Proceed with programming as the instructions booklet

## DISABLE PROGRAMMING



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

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 ( $\mathrm{A}+\mathrm{B}$ or $\mathrm{B}+\mathrm{C}$ ).

## 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



## OPERATIONAL MODES

The control units may be connected to motors with either mechanical limit switches or electronic limit switches.

## NOTES ON ADJUSTMENT OF THE LIMIT SWITCHES

To adjust the limit switches refer to the motor manual.

- MECHANICAL LIMIT SWITCH WITHOUT SAFETY DEVICE

Connect the control unit. Move the motor in the desired direction. Turn the motor's adjustment screws to bring the blind to the desired position.

- MECHANICAL LIMIT SWITCH WITH SAFETY DEVICE (closing force adjustment)

When there are safety devices installed (lock down hangers, physical stops or similars), it is possible to adjust the limit switch at the closing force adjustment. Connect the control unit. Move the motor in the desired direction. Turn the motor's adjustment screws to bring the blind to the mechanical stop. Stop the motor and again turn the motor adjustment screws in the + direction three (3) turns, adjust the mechanical limit stop position of the motor beyond the mechanical stop.

- ELECTRONIC LIMIT SWITCH (control panel)

Some motors with an electronic limit switch (e.g. Plug \& Play Plus) may require the limit switch to be set with the control panel. In this case, adjust the limit switch first, then connect the control unit.
With Plug \& Play motors no limit switch adjustment is required, so the control unit may be connected immediately.

## MOVING THE MOTORS WITH OVERRIDE DEVICE

This control unit is specifically suited for motors with mechanical limit switch and manual override device (Ocean).
After a safety action movement of the blind, the control unit resets the proper positions upon reaching a valid limit switch position.

## SETTING THE FIRST REMOTE CONTROL AND SETTING THE ROTATION DIRECTION OF THE MOTOR

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


T1


T1


T1 (2 sec)

After the last confirmation movement, the motor starts a series of UP and DOWN movements: the first lasts 2 seconds, the next ones go to the limit switch positions (motors with mechanical limit switches) or long movements - max 10 seconds (motors with electronic limit switches). To properly associate the UP and DOWN buttons, press the button corresponding to the motor movement for one second as indicated below:


## AUTOMATIC DISABLING 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.

## LIMIT SWITCHES AND OBSTACLE DETECTION (Only motors with mechanical limit switches)

After having memorized the first remote control and properly assigned the rotation direction, the control unit is ready for operation.
Run two complete ascent and descent cycles with the A and C buttons on the remote control to memorise the operating times and enable obstacle detection.
In the event an obstacle is detected, the control unit will perform a safety movement in reverse equal to about $1 / 4$ of the blind travel.


## CLOSING FORCE ADJUSTMENT <br> (Only motors with mechanical limit switches)



In the event that safety and anti-burglary devices have been installed such as lockdown hangers, this system ensures that the blinds remain completely closed without the slats undergoing excessive compression or requiring excessive force to open in the event there is a limit stop installed with fixed/removable safety lugs in the guides.
The control unit has been set in the factory to a predetermined closing force setting, equal to $20 \%$ of

the rated torque. With the remote control it is possible to change this setting, reducing it to $10 \%$, or increasing it to $40 \%$, depending on the desired result. Near the end stop positions a short slackening movement is performed to reduce the force and pressure put on the bars.

## SUPER-SENSITIVITY OBSTACLE DETECTION MANAGEMENT DURING DOWNWARDS MOVEMENTS <br> (Only motors with mechanical limit switches)

Where required, even in applications without lockdown hangers or physical stops, it is possible to activate/deactivate a high level of obstacle detection sensitivity during downwards movement. This Super-sensitivity is automatically disabled when the blinds slats begin to pile up.

ACTIVATING THE SUPER-SENSITIVITY FUNCTION


DEACTIVATING THE SUPER-SENSITIVITY FUNCTION


## FIRST MIDDLE POSITION

This optional function enables the blinds to be moved to a first preferred middle position. The first middle position is memorized as descent time starting from the upper limit switch.

SETTING FIRST MIDDLE POSITION

| Procedure | Command sequence |
| :---: | :---: |
| 1) Press the A+B buttons for at least 2 s. <br> The motor will immediately perform a brief confirmation movement and after 2 s will start again in ascent. |  |
| 2) Wait for the blind to ascend completely. <br> The motor is now running in dead man mode, enabling the fine adjustment of the first middle position. |  |
| 3) Confirm the position by pressing B for 2 s . <br> The motor will perform three (3) confirmation movements. |  |

MOVEMENT TO THE FIRST MIDDLE POSITION

| Procedure | Command sequence |  |
| :--- | :--- | :--- |
| 1) Give a long (>2 s) stop impulse |  |  |
| with the motor stopped. |  |  |
| After 2 seconds, the motor will perform <br> the movement into position. |  |  |
| Note: in motors with electronic limit <br> switches the proper positioning is <br> ensured only if the blind starts from the <br> upper limit position. |  |  |

## DELETING THE FIRST MIDDLE POSITION



4 sec

## SECOND MIDDLE POSITION

This optional function enables the blind to be brought to a second preferred middle position, which may be used, for example, as a ventilation position. The second middle position is memorized as ascent time starting from the bottom limit switch.
SETTING SECOND MIDDLE POSITION

| Procedure | Command sequence |
| :---: | :---: |
| 1) Press the $B+C$ buttons for at least 2 s . <br> The motor will immediately perform a brief confirmation movement and after 2 s will start again in descent. |  |
| 2) Wait for the blind to descend completely. <br> The motor is now running in dead man mode, enabling the fine adjustment of the second middle position. | $\downarrow$ |
| 3) Confirm the position pressing B for 2 s . <br> The motor will perform three (3) confirmation movements. |  |

## MOVEMENT TO THE SECOND MIDDLE POSITION

| Procedure | Command sequence |
| :---: | :---: |
| 1) Press the $A+C$ buttons with the motor stopped. The motor will perform the movement into position. Note: in motors with electronic limit switches the proper positioning is ensured only if the blind starts from the lower limit position. |  |

## DELETING THE SECOND MIDDLE POSITION



## 2-BUTTON SWITCH

It is possible to run the motor through a switch connected to the control unit with three wires (up, down and common).
The switch must be equipped with mechanical or electrical interlock, to prevent two commands being sent simultaneously. Furthermore, the switch must be an unstable pushbutton: releasing it, the switch opens.


The motor automatically recognizes the switch-type (with 1 or 2 buttons) and sets the proper operational mode.

## COMMAND MANAGEMENT FROM WHITE WIRE UP-STOP-DOWN-STOP / UP-DOWN / UP-DOWN "DEAD MAN"

NB: The default function provided in the motors leaving the factory is: UP-STOP-DOWNSTOP for singular UP/DOWN button switch. (Not for the switch with two independent UP-DOWN buttons!)


The possible settings are 3 and are available in the following order:

- UP-STOP-DOWN-STOP (factory setting)
- UP-DOWN (for 2 independent buttons)
- UP-DOWN "DEAD MAN" (for 2 independent buttons)

To switch from one setting to the following, perform the sequence as many times as necessary to reach the desired setting.

## OPERATION IN UP-DOWN MODE (for 2 independent buttons)



Pressing one of the two buttons and releasing, the motor drives to the desired direction until it reaches the limits.


To stop the motor before reaching the limits press again the same button.


If during the movement the other button is pressed the motor changes the direction.

MOVEMENT TO THE FIRST MIDDLE POSITION


MOVEMENT TO THE SECOND MIDDLE POSITION


In "DEAD MAN" mode it is not possible to move to the middle positions from the switch.

## DELETING THE LIMIT SWITCH POSITIONS

During operation, the control unit automatically acquires the mechanical limit switch positions set on the motor. In the event that the length or position of the mechanical limit switches need to be changed, the positions already acquired by the control unit will need to be deleted.


At the end of the sequence, the control unit is ready to automatically acquire the new limit switch positions.
ATTENTION! This operation deletes all the memorized middle positions.

## SETTING OF ADDITIONAL REMOTE CONTROLS (Skipper or Giro Series)

Up to 15 remote controls can be set.
Tn: Already programmed remote control
Tx: Additional remote control


Tn


Tn


Tx (2 sec)

## SETTING THE A530058 REMOTE CONTROL WITH 4 INDEPENDENT CHANNELS

The A530058 remote control must be set from another Skipper or Giro Series remote control that has already been programmed.

- Press the $A$ and $B$ buttons at the same time.
- The motor makes a short movement.
- Then press the B and C buttons at the same time.
- The motor makes a short movement again.
- Then, press the desired button on the A530058 remote control for at least 2 seconds.
- The motor makes a long movement.

Tn: Already programmed remote control
Tx: Additional remote control


## REMOTE CONTROL MEMORY CLEARING

It is possible to delete singly all the memorized remote controls. When 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


## FULL MEMORY CLEARING

The full memory clearing can be performed in two ways:

1) WITH THE REMOTE CONTROL

Tn: Already programmed remote control


## 2) WITH THE WHITE WIRE

Do this operation only in case of emergency, if all remote controls are no longer operating. To delete the memory we have to access the white wire of the control unit.
The sequence of this operation is the following:

1) Disconnect the control unit from the power supply, via the main switch for example.
2) Connect the white wire to the brown wire (phase) or to the blue wire (neutral).
3) Connect the control unit to the power supply. This will make the motor rotate briefly in one direction.
4) Disconnect the control unit from the power supply for at least 4 seconds.
5) Connect the control unit to the power supply, which after about 4 seconds will make the motor rotate briefly in one direction and then a longer one in the opposite direction.
6) Disconnect the control unit from the power supply.
7) Separate the white wire from the brow/blue wire. Insulate the white wire, in an appropriate way, before reconnecting the power supply.
At this point it is possible to proceed with the setting of the first remote control.


## SPECIAL FUNCTIONS

## SHORT-TERM SETTING OF A REMOTE CONTROL AND SETTING THE ROTATION DIRECTION OF THE MOTOR

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.
T1: First remote control to be set


After the last confirmation movement, the motor starts a series of UP and DOWN movements: the first lasts 2 seconds, the next ones go to the limit switch positions (motors with mechanical limit switches) or long movements - max 10 seconds (motors with electronic limit switches). To properly associate the UP and DOWN buttons, press the button corresponding to the motor movement for one second as indicated below:


The motor stops: the UP and DOWN buttons are now properly associated.

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.

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