CONTROL UNIT FOR SLIDING SHUTTERS SHU2



Description	SHU2	
Power supply	230 Vac / 50-60Hz	
Power	45W max	
Dower consumption	0,05 A Standby	
Power consumption	0,25 A Max	
Control unit power	12 Vdc	
Motor power supply	12 Vdc / 1,4 A	
Motor absorption	1,7 A max	
Energy saving	reduced consumption in stand-by and during use	
Radio frequency	integrated, frequency 433 MHz	
Number of motors	1	
Torque / Thrust	18,1 Nm	
Operating temperature	-20 ÷ 55°C	
Degree of protection	IP44	
Storable remote controls	100	
ODS - Obstacle detection	Sì	
Opening command	Sì	
Closing command	Sì	
Dead man command	Sì	
Centralized opening command	Sì	

TYPE OF INSTALLATION







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SUMMARY

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GENERAL SAFETY WARNINGS

- 1. Read the instructions carefully before proceeding with the control unit installation.
- 2. Keep these instructions for any future reference.
- 3. This product is designed and manufactured exclusively for the use intended and indicated in this document. Any other use not expressly indicated could affect the integrity of the product and/or represent a source of danger.
- 4. For the safety of all individuals, the instructions provided in this manual must be carefully followed. Incorrect installation or incorrect use of the product may cause serious personal injury.
- 5. Materials used for packaging should not be left within the reach of children, as they are potential sources of danger, and should be properly recicled.
- 6. AB TECNO SRL disclaims any responsibility for any consequences arising from improper use or use other than that for which the device was designed and built.
- 7. AB Tecno Srl is not responsible for non-compliance with current CE standards in the construction of the locks to be motorized or from other deformations that may occur during use.
- 8. Before starting the installation, check the integrity of the product.
- 9. Do not install the device in an explosive environnement: the presence of flammable gases or fumes is a serious safety hazard.
- 10. Installation must be carried out in compliance with EN 12453 and EN 12445. For non-EEC countries, in order to achieve a sufficient and adequate level of safety, the above standards must be observed in addition to the individual national regulatory references.
- 11. Before carrying out any work on the system, disconnect any batteries and cut off the power supply.
- 12. It is advisable to provide a single-pole switch with contact opening distance of 3 mm or more on the automation power supply. The use of a 6A thermal-magnetic circuit breaker with a single-pole breaker is recommended.
- 13. Verify that there is a residual current circuit breaker with a 0.03A threshold upstream of the system.
- 14. Verify that the grounding system is properly made and connect the metal parts of the lock to it.
- 15. Handling of electronic parts should be done by wearing anti-static conductive wristbands.
- 16. Even automations that have an internal anti-crushing sa-

fety function shall in all cases require functional verification in accordance with the standards indicated in Section 10.

- 17. Safety devices (standard EN 12978) provide protection for possible danger areas from mechanical hazards related to movement, such as crushing, conveying, shearing and lifting. These devices must be installed properly considering regulations, the directives in force, the criteria of Good Technology, the installation environment, the operating logic of the system and the forces developed.
- 18. For each installation, we suggest using at least one warning light (ex flashing light), as well as a properly secured and clearly visible warning sign.
- 19. AB Tecno Srl disclaims any responsibility related to safety and proper operation of the automation, in case of use of components not manufactured by AB Tecno Srl for the realization of the system.
- 20. The installer must provide the User with all information related to the manual operation of the automation in case of emergency.
- 21. Do not allow children or others to stand near the system during operation.
- 22. Keep any remote control or pulse-giver device out of the reach of children to prevent possible inadvertent uage of the automation.
- 23. The transit of persons and vehicles is permitted only and exclusively when the automation is fully open.
- 24. The User of the automation must refrain from any attempt to repair and/or direct intervention and refer only to qualified personnel. Otherwise, AB Tecno Srl declines all responsibility for any possible consequences.
- 25. Anything not expressly indicated in these instructions is not permitted.



ELECTRICAL CONNECTIONS AND BUTTONS

LED SIGNALS





LED	colour	function		
DL1	Green	Engine running		
DL2	Yellow	Not used in sliding shutter functionality		
DL3 Red	Dud	Red Multifunction	STANDARD flashing > Long flashing every 0.8s	XXXXXX
			Safety active > Brief flashing every 0.8s	X
			SETUP COMMANDS phase flashing (SW3) > Double blink every 0.8s	x_x
	Red		MECHANICAL SETUP phase flashing (SW1) > Triple blink every 1.2s	x_x_x_
			CONFIRMED settings > lit for 1.6s	XXXXXXXXXXXXXXXXXX
			Setting FAILED > fast flashing for 1.6s	X_X_X_X_X_X_X_X_
DL4	Blue	12V power supply present		

INPUT FEATURES AND OPERATION LOGIC



INPUT FEATURES

(3)(4) SECURITY

NB: Jumper the SAFETY input (4) with common if not photocells are used.

- Activation of terminals 3 and 4 with open contact:
- Deactivates the engine (if active)
- Restores initial conditions: any ongoing operation is cancelled

(1) OPENING

Activation of terminals 1 and 3 with closed contact:

- Activates the engine during opening phase
- Wait until the inrush phase is over: if the motor current is higher than the drive limit, a stop is executed

(2) CLOSING

Activation of terminals 2 and 3 with closed contact:

- Activates the engine during closing phase
- Wait until the inrush phase is over: if the motor current is higher than the drive limit, a stop is executed

(5)(7) CENTRALISED OPENING and CLOSING

Activation of terminals 5 and 7 with closed contact:

• Same functionality as the OPEN and CLOSE inputs, can be connected with other control units allowing centralisation of commands. They are equipped with a decoupling diode.

OPERATION LOGIC

OPEN/CLOSE

- Separate OPEN and CLOSE commands; the movement proceeds automatically in the direction of the command Opening or Closing received
- STOP with any command
- STOP with Safety barrier on SAFETY input
- STOP with mechanical stop (motor absorption)

STEP-BY-STEP

- Single command in sequence: OPEN > STOP > CLOSE > STOP etc...
- STOP with Safety barrier on SAFETY input
- STOP with mechanical stop (motor absorption)

Time-out driving Motor 3 min.

INSTALLATION SET UP

After the mechanical installation of the SHU automation, proceed with the first start-up of the system and perform the following installation procedures: before powering up the control unit, set the Dip Switches 2 for the selected functions.



DIP	position	function
2	ON	Logica Passo-passo
	OFF	Step-by-step logic

STORING THE FIRST REMOTE CONTROL

ATTENTION: As an alternative or in addition to the radio control, it is also possible to have control via wired buttons connected on the input terminal block.

If step-by-step logic will be used, only one input must be wired (regardless of whether opening or closing), if the open-close logic is to be used, the two inputs must be wired.

The open button is connected to terminals 1 (open) and 3 (common) while the close button is connected to terminals 2 (close) and 3 (common).

After the first power-up, you must proceed with the memorising the first remote control:

- Control unit switched on, **DL3** with STANDARD flashing
- Press SW3 for at least 4 seconds
- DL3 with SETUP flashing
- Release SW3

The following steps must start within the setup time of 25sec., after this time the procedure is interrupted and normal operation is resumed

- Press the Open or Close button on the remote control
- DL3 with STANDARD flashing
- Procedure completed

LIMIT SWITCH/SLOWDOWN SETTING

The following procedure is used to store the limit switches (opening and closing stops) in the control unit:

- System is turned on, red LED with standard flashing
- Select "closing" to bring leaves to fully closed position
- Press SW1 for at least 4 seconds
- Red LED with mechanical set-up flashing L-L-----L
 - a) Press SW2 to enable or disable the SLOWDOWN, each press changes the settings:
 - » Red LED one long flashing (1.5 sec.) > Slowdown ENABLED
 - » Red LED a single short flashing (0.5 sec.) > Slowdown DISABLED
 - b) Select "**opening**" wait until fully open
 - c) Select "**closing**" wait until fully closed
 - d) Press SW1 for at least 4 seconds to save the setting:
 - » Red LED with standard flashing
 - » Procedure completed
 - e) Pressing SW3 cancels the procedure; the setting remains as before:
 - » Red LED with standard flashing
 - » Procedure aborted

RELEARNING OF LIMIT SWITCHES IN THE CASE OF MECHANICAL STOP MOVEMENT

- Control unit switched on, **DL3** with STANDARD flashing
- · Command Closing to position the wing in the fully closed position
- Press SW1 for at least 4 seconds
- DL3 with MECHANICAL SETUP flashing
- Release SW1

The following steps must start within the SETUP time of 25sec. after this time the procedure stops and normal operation is resumed

- Press the Open command and wait until fully open
- · Press the Close command and wait until fully closed
- DL3 with STANDARD flashing
- Procedure completed

NB: If it is necessary to enable/disable slowdowns for reaching the limit switches, follow the chapter from the start.

MAXIMUM TORQUE/CURRENT SETTING (5 INTERVENTION THRESHOLDS)

- System is turned on, red LED with standard flashing
- Press SW2 on board for at least 4 seconds
- LED flashing with intensity equal to the current level. 5 current levels are available: the lowest in intesity
 - corresponds to the lowest LED light
 - a) Press SW1 to select the highest current, if already at maximum it starts from the lowest
 - b) Press SW2 for at least 4 seconds to save the setting:
 - » Red LED with standard flashing
 - » Procedure completed
 - c) Press SW3 to cancel the procedure; the setting remains as before:
 - » Red LED with standard flashing
 - » Procedure aborted

REMOTE CONTROL MANAGEMENT

STORING THE FIRST REMOTE CONTROL

- Control unit switched on, **DL3** with STANDARD flashing
- Press SW3 for at least 4 seconds
- DL3 with SETUP flashing
- Release SW3

The following steps must start within the setup time of 25sec., after this time the procedure is interrupted and normal operation is resumed

- Press the Open or Close button on the remote control
- DL3 with STANDARD flashing
- Procedure completed

STORING ADDITIONAL REMOTE CONTROLS

The procedure can be carried out in 2 ways:

1.as for the first remote control, from the board with SW3

> (see STORING THE FIRST REMOTE CONTROL)

2.remotely with remote control **A** already memorised and remote control **B** to be added

(Attention: this procedure is not active with EGO remote control with 53200 coding):

- With the control unit switched on, **DL3** with STANDARD flashing
- On remote control **A** simultaneously press the OPEN and CLOSE buttons for at least 10 seconds

The following steps must start within the setup time of 25sec. after this time, the procedure is interrupted and normal operation is resumed

- On remote control **B**, press the Open or Close button
- **DL3** with standard flashing
- Procedure completed

DELETING A SINGLE REMOTE CONTROL

The procedure can be performed in 2 ways:

1.as for the first remote control, from the board with SW3

2.remotely with remote control **A** already memorised and remote control **B** to be added

(Attention: this procedure is not active with EGO remote control with 53200 coding):

Control unit switched on, **DL3** with STANDARD flashing

• On remote control **A**, press the Open and Close buttons simultaneously for at least 10 seconds.

- The following steps must begin within the SETUP time of 25 sec. after this time the procedure stops and normal operation is resumed
- On remote control **B**, press the Open or Close button for at least 10 seconds
- **DL3** with STANDARD flashing
- Procedure completed

COMPLETE CANCELLATION OF REMOTE CONTROLS

- Control unit switched on, **DL3** with STANDARD flashing
- Press SW3 for at least 4 seconds
- DL3 with SETUP COMMANDS flashing
- Release SW3

The following steps must start within the SETUP time of 25sec. after this time the procedure stops and normal operation is resumed

- Press SW3 for at least 4 seconds
- DL3 with CONFIRM CANCELLATION flashing
- Release SW3
- **DL3** with STANDARD flashing
- Procedure completed

