

CLEVER01 (M)

CUADRO DE MANIOBRA PARA ACCIONADOR MONOFÁSICO
MANUAL DEL INSTALADOR

ARMOIRE DE COMMANDE POUR ACTIONNEUR MONOPHASÉ
MANUEL DE L'INSTALLATEUR

CONTROL PANEL FOR SINGLE PHASE OPERATOR
INSTALLER'S MANUAL

QUADRO DE MANOBRA PARA ACCIONADOR MONOFÁSICO
MANUAL DO INSTALADOR

STEUERUNG FÜR EINPHASENANTRIEBE
INSTALLATEUR-BEDIENUNGSANLEITUNG

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1 SYMBOLS USED IN THIS MANUAL

This manual uses symbols to highlight specific texts. The functions of each symbol are explained below:

⚠ Failure to respect the safety warnings could lead to accident or injury.

❗ Instructions which must be followed to prevent deterioration.

⌚ Work sequences or procedures.

📖 Important details which must be respected for correct assembly and operation.

ℹ Additional information to help the installer.

♻ Information on care for the environment.

2 IMPORTANCE OF THIS MANUAL

⚠ Read this guide in its entirety before carrying out the installation, and obey all instructions. Failure to do so may result in a defective installation, leading to accidents and failures.

ℹ Moreover, this guide provides valuable information which will help you to carry out installation more efficiently.

📖 This manual is an integral part of the product. Keep for future reference.

3 ENVISAGED USE

This device has been designed for installation as part of an opening and closing system for shutter gates (for example tubular or core shaft operators).

⚠ This device is not suitable for installation in inflammable or explosive environments.

⚠ Failure to install or use as indicated in this manual is inappropriate and hazardous, and could lead to accidents or failures.

⚠ The installer shall be responsible for ensuring the facility is set up for its envisaged use.

4 INSTALLER'S QUALIFICATIONS

⚠ Installation should be completed by a professional installer, complying with the following requirements:

- He/she must be capable of carrying out mechanical assemblies in doors and gates, choosing and implementing attachment systems in line with the assembly surface (metal, wood, brick, etc) and the weight and effort of the mechanism.

- He/she must be capable of carrying out simple electrical installations in line with the low voltage regulations and applicable standards.

⚠ Installation should be carried out bearing in mind standards EN 13241-1 and EN 12453.

5 AUTOMATIC SAFETY ELEMENTS

⚠ The safe and correct operation of the installation is the responsibility of the installer.

This device complies with all current safety regulations. However, the complete system comprises, apart from the control panel referred to in these instructions, other elements which should be acquired separately.

📖 The safety of the complete installation depends on all the elements installed. Install only Erreka components in order to guarantee proper operation.

⚠ Respect the instructions for all the elements positioned in the installation.

⚠ We recommend installing safety elements.

1 CONTROL PANEL FEATURES AND APPLICATIONS

CLEVER01 and CLEVER01M control panels are built to form part of an automatic shutter gate system, driven by way of a single phase motor with permanent capacitor. The operator must have serially connected limit switches (for example, tubular or centre shaft operators).

It is necessary to install additional safety items (photocells or strips) in order to fulfil the requirements of Standard EN 12453.

Features

- Power supply:
CLEVER01: 230Vac, 50Hz; CLEVER01M: 125Vac, 60Hz
- Control of run by timing
- Adjustable standby time in automatic cycle
- Closing safety device cable connectors (photocells or mechanical strips)
- Connector for plug-in receiver
- 24VAC cable connector for peripheral connection

2 FUNCTIONING MODES

Step-by-step mode (J2=SEMI)

Opening: this starts by briefly pressing the A.T. key command (transmitter, magnetic key, key switch, etc).

If the key command is activated during opening, the shutter gate comes to a stop. The shutter gate closes if activated again.

- The opening finishes when the time programmed by T.M. finishes

Standby: the shutter gate remains open until an A.T. key command is received.

Close: closing begins by briefly running the A.T. key command (transmitter, magnetic key, key switch, etc).

If the key command is activated during closing, the shutter gate comes to a stop. The shutter gate opens if activated again.

- Closing finishes when the time programmed by way of T.M. finishes

Automatic mode (J2= AUTO)

Opening: this starts by briefly pressing the A.T. key command (transmitter, magnetic key, key switch, etc).

If the key device is operated during opening, the shutter gate stops and remains halted. Closing takes place automatically once the programmed standby time has passed. It can be closed in advance by running the key device.

- Opening finishes when the time programmed using T.M. finishes

Standby: the shutter gate remains open during the programmed time. If A.T. is pressed briefly during standby, the shutter gate closes.

Closing: closing begins automatically after standby.

If the key device is operated during closing, the shutter gate stops and remains halted. Running the A.T. key device again will open the shutter gate.

- Closing finishes when the time programmed by way of T.M. finishes

3 DETECTION BY SAFETY DEVICE (PHOTOCELL OR MECHANICAL STRIP)

Closing safety device (SG.C)

During opening: the closing safety device (SG.C.) does not run in any case.

During closing: if the closing safety device (SG.C) is activated during closing, the shutter gate inverts operation direction and opens completely.

4 DECLARATION OF CONFORMITY

Erreka Automatismos declares that the CLEVER01/ CLEVER01M electromechanical operator has been designed for use in a machine or for assembly along with other elements in order to form a machine in line with Directive 2006/42/EC.

The CLEVER01/CLEVER01M control panels comply with safety legislation, in line with the following directives and regulations:

- 2006/95/CE (low voltage materials)
- 2004/108/EC (electromagnetic compatibility)
- EN 60555-2



1 TOOLS AND MATERIALS REQUIRED

- Set of screwdrivers
- Electrician's scissors
- Marker pencil
- Drill and broaches
- Electrical cables

2 INITIAL CONDITIONS AND CHECKS

Initial installation conditions

- ▲ Ensure the operator is correctly installed in the shutter gate.
- ▲ A 230Vac / 50Hz (CLEVER01) or 125Vac / 60Hz (CLEVER01M) power connection is required.

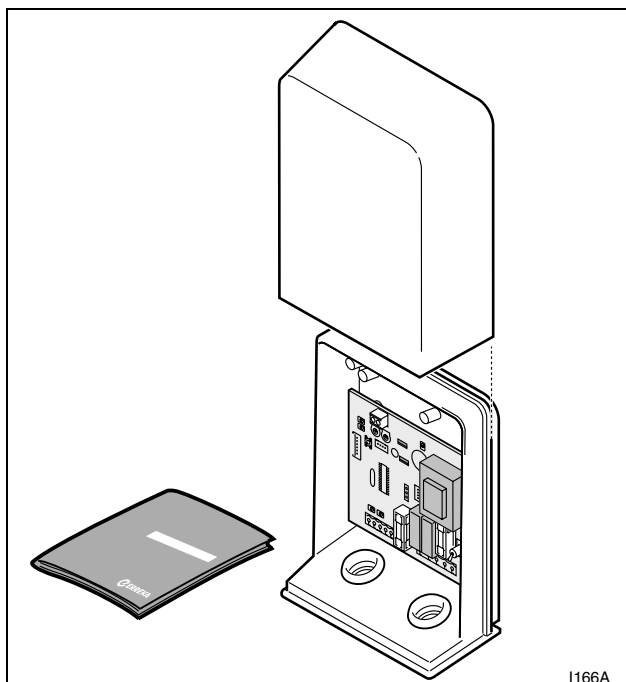
Environmental conditions

- ▲ This device is not suitable for installation in inflammable or explosive environments.
- ▲ Check that the admissible environmental temperature range for the control panel is suitable for the location.

Electrical power supply installation

- ▲ Ensure the direct current connection and installation fulfil the following requirements:
 - The nominal voltage of the installation must coincide with that of the control panel.
 - The installation must be able to support the power consumed by all the automatic key devices.
 - The installation must be earthed.
 - The electrical installation must comply with low voltage regulations.
 - The installation elements must be properly secured and in a good state of conservation.
 - The direct connection point must be high enough to be out of the reach of children.
- ▲ If the electrical installation does not comply with the foregoing requirements, repair before installing the automatic key device.

3 CONTENT



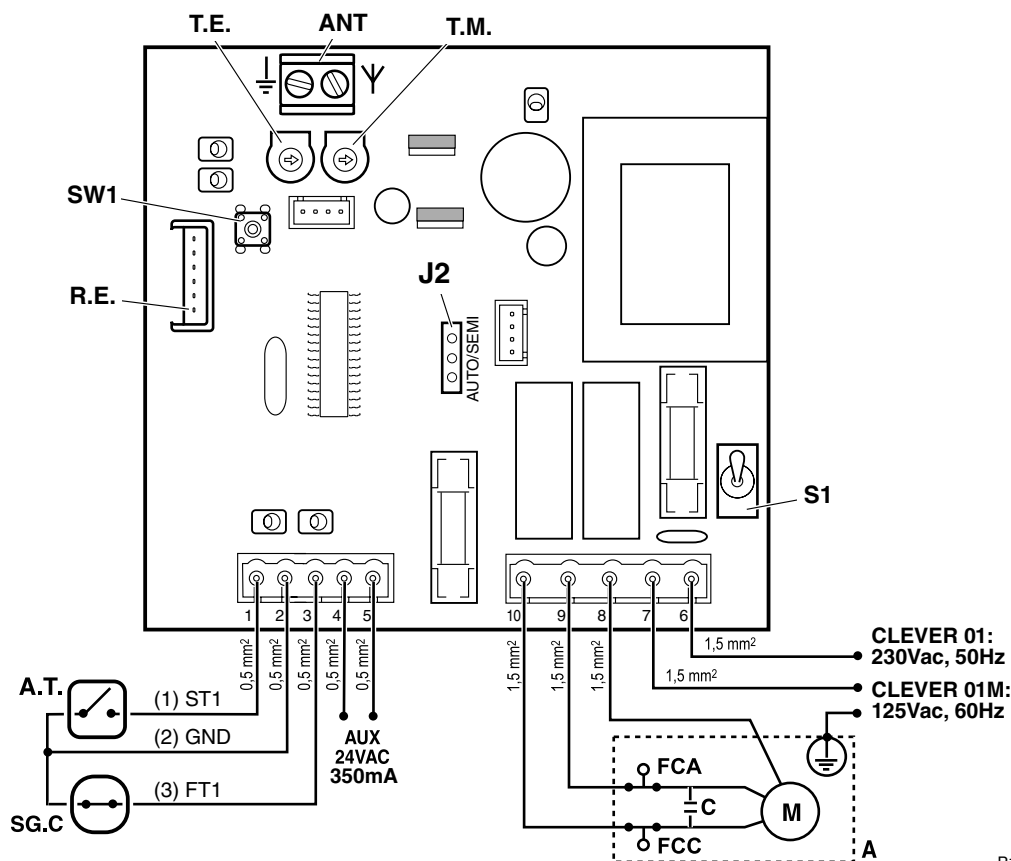
- 1 Open the package and remove the contents from within.
 - ♻ Discard the packaging in an environmentally friendly manner, using recycling containers.
 - ▲ Do not leave the packaging within the reach of children or handicapped people, as it may cause injury.
 - 2 Check the content: control panel with box and instructions manual.
- ✋ Should it be noticed that a piece is missing or deteriorated, contact the nearest technical service.

4 ELECTRICAL CONNECTIONS

- ▲ Complete the installation in line with low voltage regulations and applicable rules.
- ▲ Use cables with sufficient section, always earthed.
- ▲ Check the manufacturer's instructions for all the elements installed.
- ▲ Make the connections with the power supply cut off.



General connections



P166Z

CONNECTIONS:

- ANT Cable connectors for antenna
- R.E. Connector for plug-in receiver
- A.T (ST1) Opening and closing key device
- SG.C (FT1) Closing safety device (photocell or mechanical strip)
- AUX Output (24Vac, 350mA). Constant output in order to feed peripheral devices
- A Operator
- C Operator capacitor
- M Operator motor
- FCA Operator opening limit switch
- FCC Operator closing limit switch

CONTROLS:

- S1 Main switch
- SW1 Radio code programming mini-pushbutton RSD receiver (see "Radio code programming" on page 26)
- T.E Standby time regulation (only functional in automatic mode)
Minimum value: 5 seconds;
maximum value: 140 seconds
- T.M. Operation time adjustment
Minimum value: 1 second;
maximum value: 70 seconds
- J2 Automatic/step-by-step closing mode switch (see "Operation mode selection" on page 27)

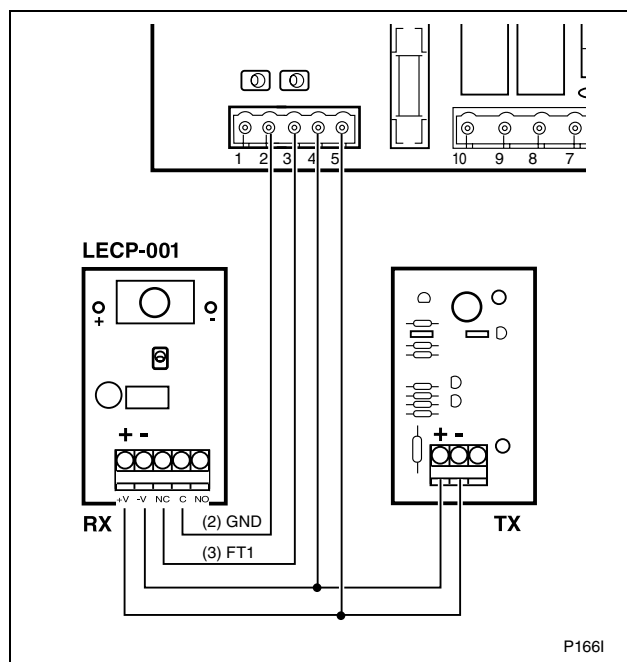
Limit switches (FCA, FCC) of the operator

- ❗ The shutter gate stops at the end of the operation by way of the FCA and FCC limit switches built into the operator. It is therefore **necessary to always have FCC and FCA and adjust them accordingly.**

Turning direction check

- 1 Connect the electrical power supply and press A.T. (ST1). The first operation carried out after connecting the power supply is opening.
- 2 If closing is to be carried out instead of opening, interchange the cables connected to cable connectors 9 and 10.

Connection of safety transmitter-receiver photocells in closing (SG.C, FT1)

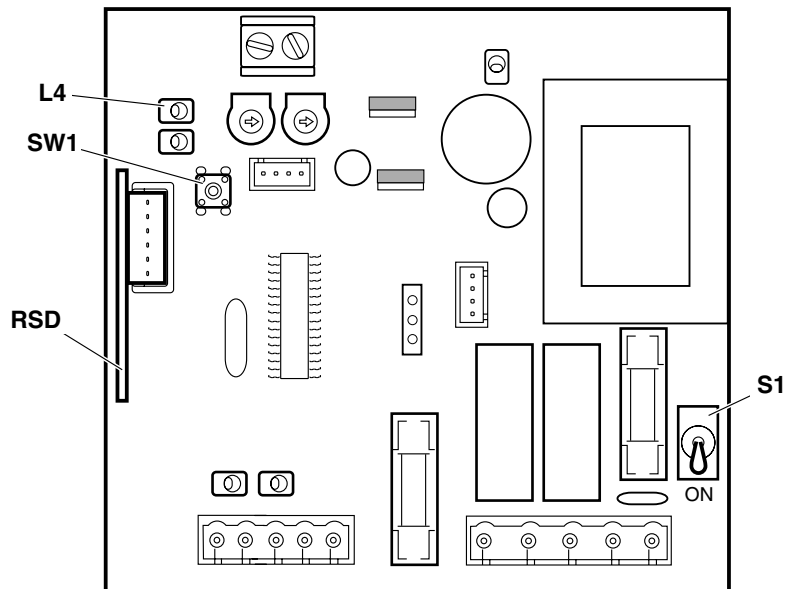


▲ We recommend installing safety photocells.

- 1 Complete the connections as shown in the figure.
- ❗ If neither photocells nor a mechanical strip are connected, make an electrical bridge between cable connectors (2) GND and (3) FT1.

5 PROGRAMMING

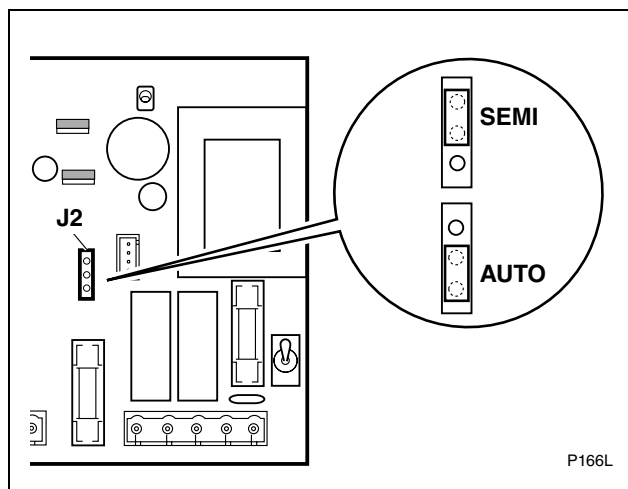
Radio code programming



✎ When using the ERREKA RSD plug-in receiver (decoder-free receiver, trinary code, 433Mhz), the radio code can be recorded in the control board itself, as explained below. In other cases, follow the instructions of the plug-in receiver used.

- 1 Connect the control panel power supply (S1 in ON).
- 2 Briefly press mini-pushbutton SW1. LED L4 flashes.
- 3 Press the transmitter button to be programmed. The L4 LED flashes to show that the code has been correctly programmed.

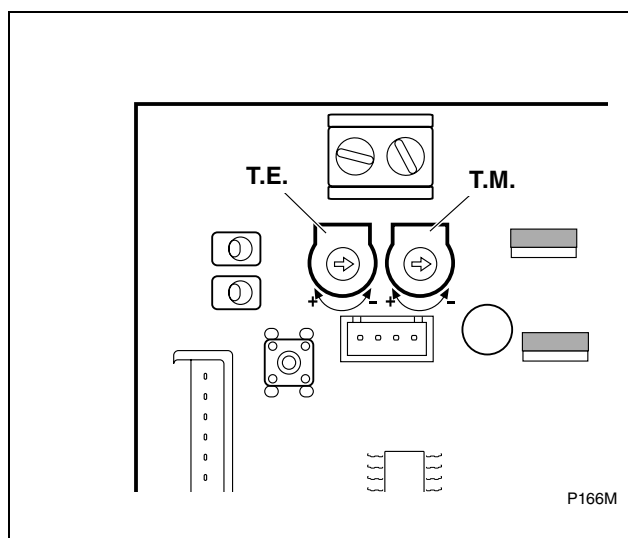
Operation mode selection



Place J2 in the required position:

- **Step-by-step mode (J2=SEMI)**
 - Opening is done by briefly running the key device.
 - Closing is done by briefly running the key device.
- **Automatic mode (J2= AUTO)**
 - Opening is done by briefly running the key device.
 - Closing is carried out automatically when standby time finishes, which can be set using the T.E. power meter

Potentiometer adjustment



Open shutter gate standby time (T.E.) adjustment

If automatic operation mode has been programmed, adjust T.E. to set standby time with the shutter gate open (before automatic closing begins).

- ❗ Minimum value: 5 seconds;
maximum value: 140 seconds

Duration of the operations (T.M.)

The duration of the opening and closing operations is adjusted using T.M.

- 1 Adjust the FCC and FCA limit switches of the operator.
 - 2 Adjust T.M. to ensure the shutter gate completes the runs (it must reach the FCC and FCA limit switches of the operator).
- ❗ Minimum value: 1 second;
maximum value: 70 seconds

6 STARTING UP

Final checks

Following installation and programming, start up the shutter gate and check all the devices installed:

- key commands (transmitter, push button and wall key)
- safety devices (photocells or mechanical strips)

⚠ **If the system does not work correctly, find out why and put it right (see section "Failure diagnosis" on page 28).**

User instruction

- 1 Instruct the user with regards to the use and maintenance of the installation and provide him/her with the user guide.
- 2 Signpost the shutter gate, showing that it opens automatically and indicating how to operate it manually. Where appropriate, indicate that operation is using the radio transmitter.

1 MAINTENANCE

⚠ **Disconnect the device from the power supply before carrying out any maintenance operation.**

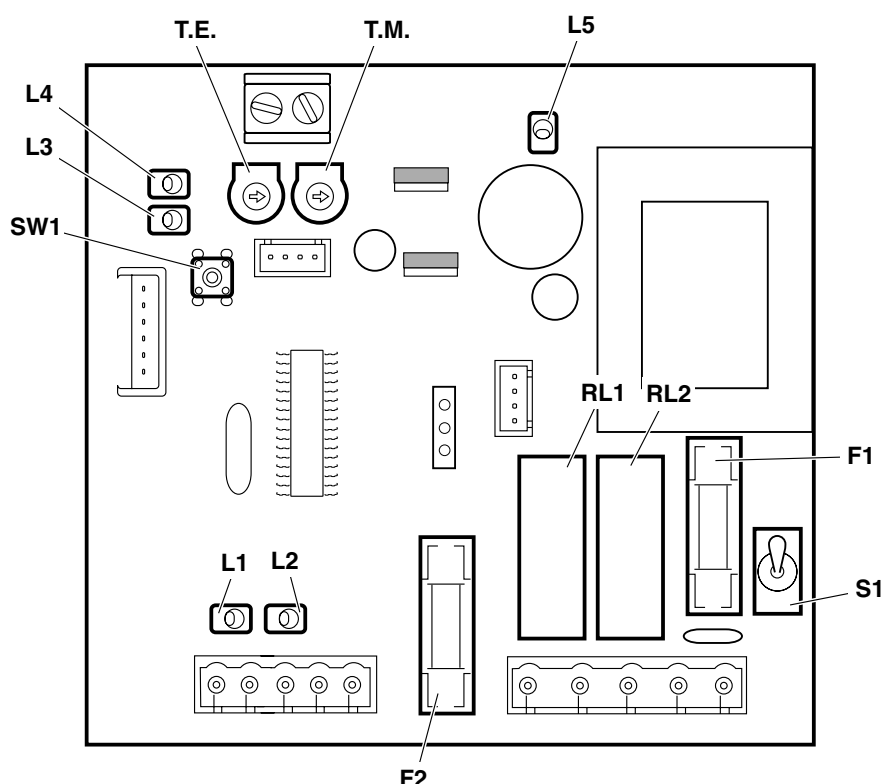
- 1 Frequently check the installation in order to detect any imbalance or sign of deterioration or wear. Do not use the device if any repair or adjustment is necessary.
- 2 Check that the operation and safety devices (photocells or safety strips), as well as their installation, have not suffered any damage from the weather or external agents.

2 SPARE PARTS

⚠ **If the device needs repairing, go to an authorised assistance centre or manufacturer; never try to repair it yourself.**

⚠ **Use only original spare parts.**

3 FAILURE DIAGNOSIS



Diagnosis items

- | | | | |
|----|---|------|--|
| L1 | Opening device (A.T.) indicator activated | F1 | Main fuse (5x20):
CLEVER01: 6.3A (230V/50Hz);
CLEVER01M: 6.3A (125V/ 60Hz) |
| L2 | Closing safety device contacts (SG.C) indicator closed | F2 | Peripheral power supply fuse (5x20): 350mA |
| L3 | Shutter gate open indicator | T.E. | Standby time regulation |
| L4 | Radio code programming / receiving radio code indicator (RSD) | T.M. | Operation time adjustment |
| L5 | Power supply indicator | S1 | Main switch |
| | | SW1 | Radio code programming mini-push button |
| | | RL1 | Close relay |
| | | RL2 | Open relay |

Problem	Cause	Solution
The control panel does not work and no LED indicator comes on	Main circuit breaker S1 in "OFF"	Place S1 in "ON"
	Power supply voltage absent	Restore the power supply voltage
	Main fuse F1 blown	Replace F1 using another fuse of the same value and investigate the cause of failure of F1
	Transformer or board failed	Call the technical service
The operator does not work when the key devices are activated L5 lit up, L2 lit up, L1 off when running the A.T. key device	The key commands signal does not reach the control board	Check the key command devices and the connections
The leaf does not reach the stopper L2 lit up	Hard points in the shutter gate run	Move by hand and remove the hard points
	Operation time incorrectly set	Adjust the T.M. power meter
	Limit switches incorrectly adjusted	Adjust the operator limit switches (FCC, FCA)
The shutter gate opens but does not close L2 off	Closing safety device (photocell or strip) enabled or defective	Check the safety devices and the connections
	Peripheral power supply fuse F2 blown	Replace F2 using another fuse of the same value and investigate the cause of failure of F2
The shutter gate opens but does not close L2 lit up	Closing limit switch continuously enabled or deteriorated	Check FCC (of the operator) and its connections
The control panel works correctly but does not obey the transmitter	Transmitter code incorrectly programmed	See "Radio code programming" on page 26
	Transmitter batteries flat	Replace the batteries, checking the instructions for the transmitter



4 SCRAP

⚠ The control panel, up until the end of its useful life, must be dismantled at its location by an installer who is as well qualified as the person who completed the assembly, observing the same precautions and safety measures. In this manner possible accidents and damage to adjacent facilities will be avoided.

♻ The control panel must be deposited in the appropriate containers for subsequent recycling, separating and classifying the different materials in line with their nature. NEVER deposit it in domestic rubbish or in landfills which are not suitably controlled, as this will cause environmental contamination.

