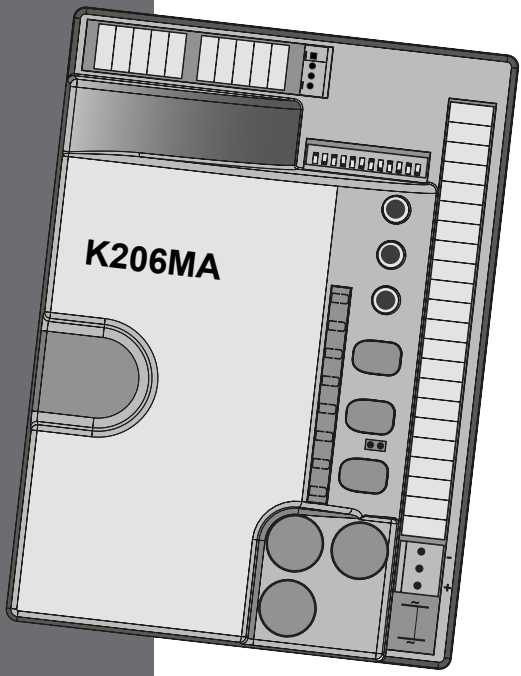
>MOVING LIFE

GUIDA ALL'INSTALLAZIONE
INSTALLATION GUIDE
INSTALLATIONSANLEITUNG
NOTICE D'INSTALLATION
GUÍA PARA LA INSTALACIÓN
GUIA DE INSTALAÇÃO

K206MA



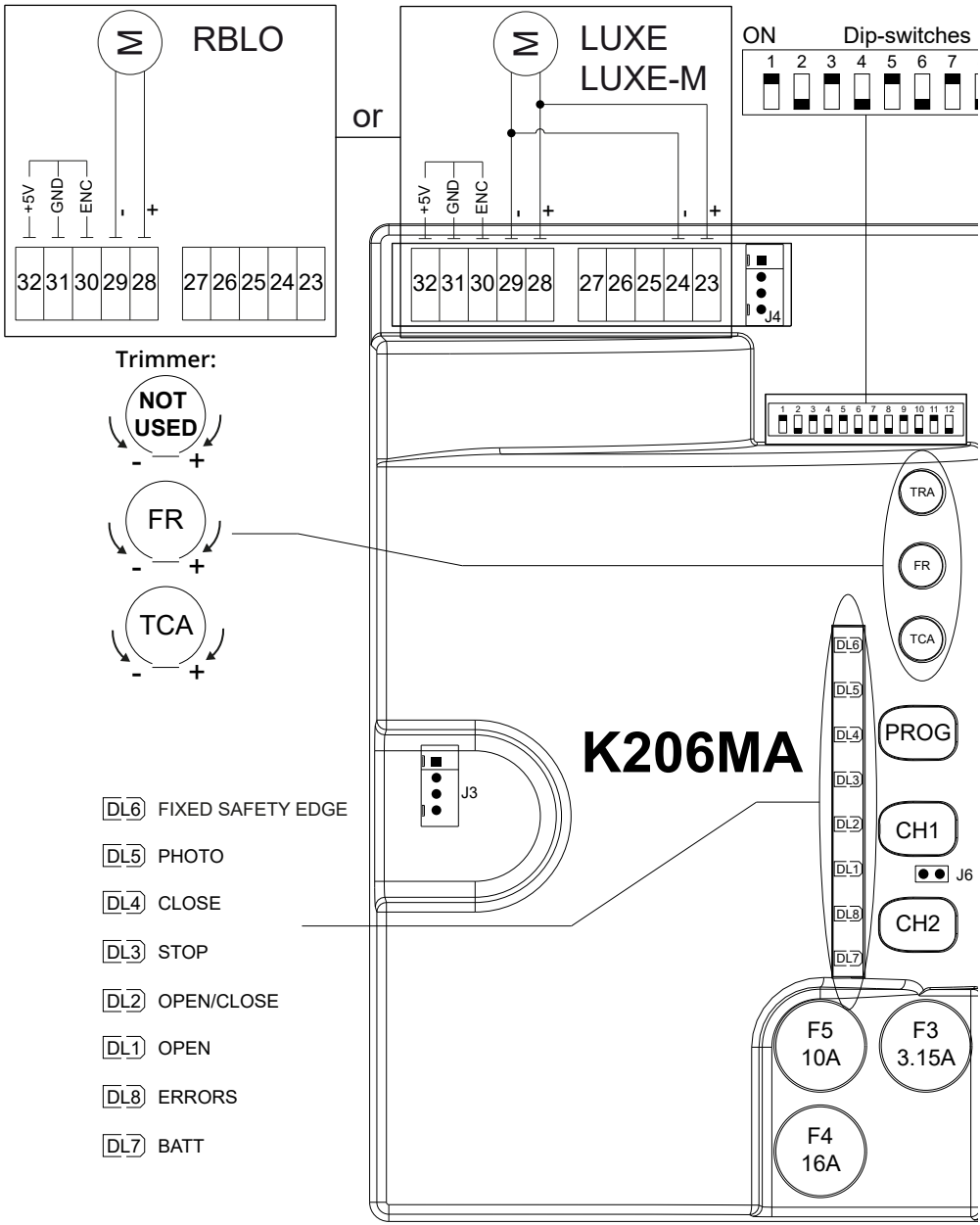
Ver. Firmware 9.01

D-MNLOK206MA 20-01-2023- Rev.28

IT - Istruzioni originali

MADE IN ITALY

SCHEMA CABLAGGIO K206MA / K206MA WIRING DIAGRAM / SCHALTPLAN DER K206MA



DL6 FIXED SAFETY EDGE

DL5 PHOTO

DL4 CLOSE

DL3 STOP

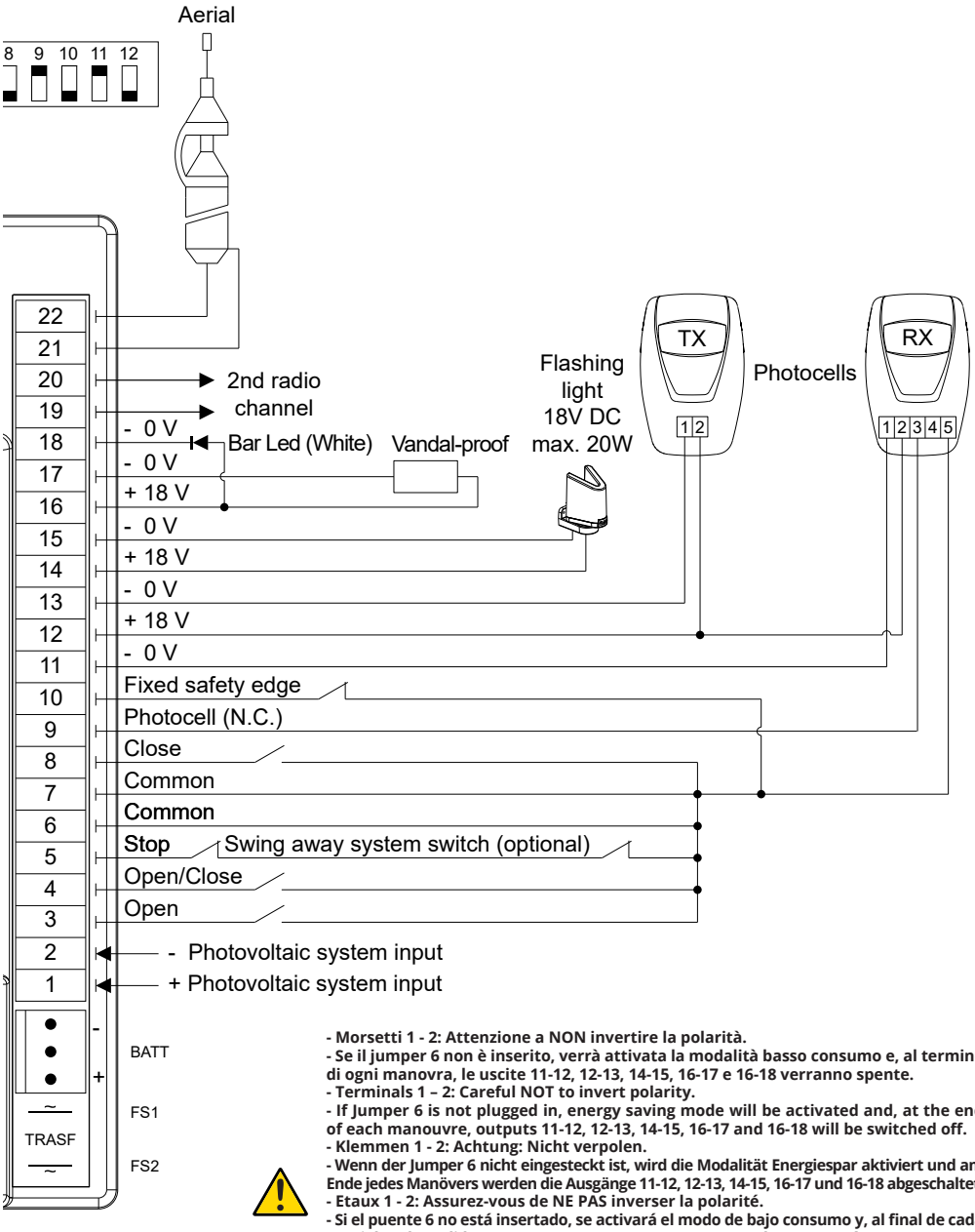
DL2 OPEN/CLOSE

DL1 OPEN

DL8 ERRORS

DL7 BATT

SCHÉMA CÂBLAGE K206MA / ESQUEMA DEL CABLEADO K206MA / ESQUEMA DE LIGAÇÕES K206MA



- Morsetti 1 - 2: Attenzione a NON invertire la polarità.
- Se il jumper 6 non è inserito, verrà attivata la modalità basso consumo e, al termine di ogni manovra, le uscite 11-12, 12-13, 14-15, 16-17 e 16-18 verranno spente.
- Terminals 1 – 2: Careful NOT to invert polarity.
- If Jumper 6 is not plugged in, energy saving mode will be activated and, at the end of each manouvre, outputs 11-12, 12-13, 14-15, 16-17 and 16-18 will be switched off.
- Klemmen 1 - 2: Achtung: Nicht verpolen.
- Wenn der Jumper 6 nicht eingesteckt ist, wird die Modalität Energiespar aktiviert und am Ende jedes Manövers werden die Ausgänge 11-12, 12-13, 14-15, 16-17 und 16-18 abgeschaltet.
- Etaux 1 - 2: Assurez-vous de NE PAS inverser la polarité.
- Si el puente 6 no está insertado, se activará el modo de bajo consumo y, al final de cada maniobra, las salidas 11-12 , 12-13 , 14-15 , 16-17 y 16-18 se desconectarán.
- Bornes 1 - 2: Tenga cuidado en NO invertir la polaridad.
- Si le cavalier J6 n'est pas inséré, la fonction modalité consommation réduite sera activée et, à la fin de chaque manœuvre, les sorties 11-12, 12-13, 14-15, 16-17 e 16-18 seront désactivées.
- Terminais 1 – 2: Cuidado NÃO inverter a polaridade.
- Se o jumper J6 não está conectado, ele irá alternar para o modo de baixo consumo de energia e, ao final de cada manobra, as saídas 11-12, 12-13, 14-15, 16-17 e 16-18 serão desligados.

WARNINGS

This manual is designed to assist qualified installation personnel only. It contains no information that may be of interest to final users. This manual is attached to the K206MA control unit mounted on the LUXE or RBLO(X) automatic bar, therefore it may not be used for different products!

Important warnings:
Disconnect the mains power supply to the board before accessing it.
The K206MA control unit is suitable for the control of a direct-current electromechanical gearmotor for the automation of sliding gates.
Any other use is considered improper and is consequently forbidden by current laws.
Please note that the automation system you are going to install is classifi ed as "machine construction" and therefore is included in the application of European directive 2006/42/EC (Machinery Directive).
This directive includes the following prescriptions:
- Only trained and qualified personnel should install the equipment;
- the installer must first make a "risk analysis" of the machine;
- the equipment must be installed in a correct and workmanlike manner in compliance with all the standards concerned;
- after installation, the machine owner must be given the "declaration of conformity".

This product may only be installed and serviced by qualified personnel in compliance with current, laws, regulations and directives.
When designing its products, TAU observes all applicable standards (please see the attached declaration of conformity) but it is of paramount importance that installers strictly observe the same standards when installing the system.
Unqualified personnel or those who are unaware of the standards applicable to the "automatic gates and doors" category may not install systems under any circumstances.
Whoever ignores such standards shall be held responsible for any damage caused by the system!
Do not install the unit before you have read all the instructions.

INSTALLATION

Before proceeding, make sure that the mechanical part is working perfectly and that the boom has been properly balanced.
Note: it is compulsory to earth the system and to observe the safety regulations that are in force in each country.
CAUTION:
- do not use single-wire cables (single conductor), eg. intercom ones, in order to avoid interruptions on the line and false contacts;
- do not reuse old pre-existing cables.
IF THESE ABOVE INSTRUCTIONS ARE NOT FOLLOWED IT COULD PREJUDICE THE PROPER WORKING ORDER OF THE EQUIPMENT AND CREATE HAZARDOUS SITUATIONS FOR PEOPLE. FOR THIS REASON THE "MANUFACTURER" DECLINES ALL RESPONSIBILITY FOR ANY MALFUNCTIONING AND DAMAGES THUS RESULTING.

1. CONTROL PANEL FOR AUTOMATIC BARS

- LOGICS WITH MICROPROCESSOR
- STATUS OF INPUTS SIGNALLED BY LEDs
- INCORPORATED FLASHING CIRCUIT
- ENCODER SENSOR FOR SELF-LEARNING OF TRAVEL
- 433.92 MHz 2 CHANNEL BUILT-IN RADIO RECEIVER (CH)
- BATTERY CHARGER BOARD (INTEGRATED)
- BATTERY CONNECTOR
- DIAGNOSTICS OF MALFUNCTIONS SIGNALLED BY LED
- POSSIBILITY OF ENERGY SAVING OPERATION
- COMPATIBILITY WITH OUR APPS: TAUOPEN AND TAUAPP

ATTENTION:
- do not use single cables (with one single wire), ex. telephone cables, in order to avoid breakdowns of the line and false contacts;

- **do not re-use old pre-existing cables;**

2. INTRODUCTION

The K206MA board has two working modes, selectable through the J6 jumper (see wiring diagram).
J6 Jumped: standard mode, i.e. the control unit is powered all the time;
J6 Not jumped: low-energy mode, i.e. the control unit is switched off after each operation and on after each command (mode where power is supplied by other energy sources, ex. batteries charged by a photovoltaic panel).
Once the connection is achieved, in low-energy mode, press the PROG button briefly:

- All the green LEDs must be on (each of them corresponds to a Normally Closed input). The go off only when the controls to which they are associated are operated. Except for the green led DL4, which corresponds to CLOSE input (a Normally Open contact).
- All the red LEDs (and the green led DL4) must be off (each of them corresponds to a Normally Open input). The light up only when the controls to which they are associated are operated.

3. TECHNICAL CHARACTERISTICS

Board power supply	13,5V AC - 50 Hz
Max. absorption DC motor	14 Ah - 18V DC
Fast acting fuse for protection of input power supply 13,5V AC (F4 - 5x20)	F 16A
Fast acting fuse for battery charger protection (F5 - 5x20)	F 10A
Fast acting fuse for protection of auxiliary circuits 18V DC (F3 - 5x20)	F 3.15A
Motor power supply circuits voltage	18V DC
Auxiliary device circuits supply voltage	18V DC
Logic circuits supply voltages	5V DC
Operating temperature	-20 °C ÷ +55 °C

4. CONNECTIONS TO TERMINAL BOARD

Terminals	Function	Description
FS1 - FS2	*POWER SUPPLY*	13,5V AC control unit power supply input – Fed by the toroidal transformer and protected by the fuses on the 230V AC power supply.
1 - 2	*AUX INPUT*	external power input (ex. Photovoltaic system 12V DC). **NB: In the latest versions of the control boards, the voltage change through jumper J7 is no longer necessary (make sure whether it is present on the control board or not). ATTENTION: POWERING THE CONTROL UNIT WITH AN EXTERNAL SOURCE, ALL THE OTHER 18V DC OUTPUTS BECOME THE SAME AS THE OUTSIDE VOLTAGE.**
3 - 6	*OPEN*	OPEN button N.O. input – Controls the total opening of the barrier. (3= OPEN - 6= COM)
4 - 6	*OPEN/CLOSE*	OPEN/CLOSE button N.O. input – Controls the opening and closing of the barrier and is regulated based on the function of dip-switches 2 and 4. (4= O/C - 6= COM)
5 - 6	*STOP*	STOP button N.C. input – Stops the bar in any position, temporarily preventing the automatic closure, if programmed. Bridge the connectors if not used. (5= STOP - 6= COM)
7 - 8	*CLOSE*	CLOSE button N.O. input – Controls the total closure of the barrier. (7= COM - 8= CLOSE)

7 - 9	*PHOTOCELLS*	N.C. photocell input - it cuts in during the closing. Bridge the connectors if not used. (7= COM - 9= FOT) **Note: the photocell transmitter must always be supplied by terminals no. 12 and no. 13, since the safety system test (phototest) is carried out on it. Without this connection, the control unit does not work. To override the testing of the safety system, or when the photocells are not used, set dip-switch no. 6 to OFF.**
7 - 10	*SENSITIVE EDGE*	SENSITIVE EDGE input (resistive sensitive edge or fixed edge); It works only during the closing phase and causes the total reopening of the boom. Bridge the terminals if not used. In case of an active automatic closing: After the first intervention of the fixed edge and the consequent total opening, the boom will try an automatic closing. If the CF contact is engaged again, the automation will reopen up to the opening limit switch and temporarily disable the automatic closing. It will return to normal operation only after the first maneuver of the automation, which requires a manual command. (7 = COMMON - 10 = SENSITIVE EDGE)
11 - 12 **	*AUX*	auxiliary circuits output 18 V DC max. 15 W for photocells, receivers, etc... (11= NEGATIVE - 12= POSITIVE)
12 - 13 **	*TX PHOTOCELLS*	18V DC output for transmitter photocell – phototest - max. no. 1 photocell transmitters. (12 = POSITIVE - 13 = NEGATIVE)
14 - 15 **	*FLASHING LIGHT (LED CABINET LUXE)*	18V DC max. 20W output for flashing light supply, flashing signal supplied by the control unit, rapid for closing, slow for opening. (14 = POSITIVE - 15 = NEGATIVE)
16 - 17* **	*ELECTROMAGNET (VANDAL-PROOF)*	Output for vandal-proof 18V DC, 3 W max; Output for electromagnet to be connected to the end of the rod to hold the barrier closed (vandal-resistant device). With the barrier closed, the electromagnet is constantly powered. Every time a command is given, the electromagnet is turned off before the motor starts running. (16= POSITIVE - 17= NEGATIVE)
16 - 18* **	*BAR LED (WHITE)*	bar LED power output. (16=POSITIVE - 18= NEGATIVE). **See instructions LA4/8 LARG 4/8**
19 - 20*	*2nd CH RADIO*	2nd radio channel output - for control of an additional automation or for switching on lights, etc... (N.O. clean contact) **Warning: to connect other devices to the 2nd Radio Channel (area lighting, pumps, etc.), use an additional auxiliary relay (see note at end of paragraph). WARNING: the default outlet is active monostable 2 sec. To switch it to active bistable or to modify the activation time it is necessary to use the TAUPROG hand-held programmer (see relative instructions).**
21 - 22	*AERIAL*	plug-in radio-receiver aerial input , for 433.92 MHz receivers only. (21 = GROUND - 22 = SIGNAL)
23 - 24 - 28 - 29	*MOTOR*	motor supply output 18V DC max. 50 W. (23-28 = POSITIVE - 24-29 = NEGATIVE). **See note below.**
25 - 26 - 27	*OPTIONAL ENCODER*	encoder supply and input (25 = WHITE signal - 26 = BLUE negative - 27 = BROWN positive). **See note below.**
30 - 31 - 32	*MAIN ENCODER*	encoder supply and input (30 = WHITE signal - 31 = BLUE negative - 32 = BROWN positive).

* The outlets can be configured using the TAUPROG (see relative instructions). The standard configuration is shown in the table.

** If Jumper 6 is not plugged in, energy saving mode will be activated and, at the end of each manouvre, outputs **11-12, 12-13, 14-15, 16-17** and **16-18** will be switched off.

Terminals 23-24 must be used in parallel to 28-29 in the case of LUXE automatic barriers (you have to observe the same polarity between the 2 outputs).
Terminals 25-26-27 are available if the circuit present on the K206MA relative to the encoder, terminals 30-31-32, is faulty

IMPORTANT:
- **Do not connect auxiliary relays or other devices tot he 18 V DC output (terminals 11 – 12) to avoid malfunctions of the control unit. Use separated power supply / transformers instead;**
- **do not connect switching feeders or similar apparatus close to the barrier that may be a source of disturbance;**

5. LOGIC ADJUSTMENTS

Make the logic adjustments.
Note: when any adjusting devices (trimmers or dip-switches) on the control panel are operated, a complete manoeuvre must be carried out in order for the new settings to take effect.

TRIMMER

T.R.A. not used;
T.C.A. Automatic Closing time adjustment: from about 0,1 to 12 seconds (see dip-switch no. 1);
FR. obstacle detection sensitivity adjustment.

Note: by rotating the TRIMMER FR. clockwise the sensitivity of the gearmotor to obstacles diminishes and therefore the thrust force increases**; vice-versa, by rotating it counter-clockwise, the sensitivity of the gearmotor to obstacles increases** and therefore the thrust force diminishes**.**

Dip switch

1	*AUTOMATIC CLOSING*	**On**	when completely open, closure is automatic after the set time on the T.C.A. trimmer has past.
		Off	the closing manoeuvre requires a manual command.
2	*2 / 4 STROKE*	**On**	when the automation is operating, a sequence of opening/closing commands causes the bar to OPEN-CLOSE-OPEN-CLOSE, etc.
		Off	in the same conditions, the same sequence of commands causes the bar to OPEN-STOP-CLOSE-STOP-OPEN-STOP, etc . (step-by step function) (see also dip switch 4).
3	*CLOSES AGAIN AFTER THE PHOTOCELL*	**On**	after the photocell is activated (input 7 - 9), the automation closes automatically after 1 seconds.
		Off	function off.
4	*NO REVERSE*	**On**	the automation ignores the closure command during opening and autoclose time.
		Off	the automation responds as established by dip switch No. 2.
5	*PRE-FLASHING*	**On**	the pre-flashing function is enabled.
		Off	the pre-flashing function is disabled.
6	*FOTOTEST*	**On**	the “photocell test” function is enabled.
		Off	the “photocell test” function is disabled. **Note: to be used when the photocells are not used.**
7	*MASTER/ SLAVE*	**On**	enables the MASTER mode in the master/slave configuration (see T-COMM instructions).
		Off	enables the standard operation (single motor) or SLAVE mode in the master/slave configuration (see T-COMM instructions).
8	*BAR LED*	**On**	when the boom is lifted all LEDs remain OFF.
		Off	when the boom is lifted all LEDs behave as per setting of wire terminals 16-18 (default: FLASHING).

9-10-11 Selection of barrier model and bar lenght

Dip 9	Dip 10	Dip 11	Modello
Off	**Off**	**Off**	LUXE-S bar ≥ 2 m ≤ 2,5 m
On	**Off**	**Off**	LUXE-S bar > 2,5 m ≤ 3,5 m - RBLO-R 24 Vdc
Off	**On**	**Off**	LUXE-S bar (with FPL) > 3,5 m ≤ 4 m
On	**On**	**Off**	LUXE-M bar > 3,5 m ≤ 5 m (elliptical boom) / ≤ 6 m (round boom)
Off	**Off**	**On**	LUXE bar ≥ 4 m ≤ 4,5 m (including accessories)
On	**Off**	**On**	LUXE bar > 4,5 m ≤ 5,5 m (including accessories)
Off	**On**	**On**	LUXE bar > 5,5 m ≤ 6,5 m (including accessories)
On	**On**	**On**	LUXE bar > 6,5 m (including accessories)

IMPORTANT: In case the boom length change, a new setting of the dips # 9, 10 and 11 will be required. Before the new setup, however, it is necessary to proceed to a HARD RESET (see page 23) of the controller.

12	*SENSITIVE EDGE*	**On**	RESISTIVE SENSITIVE EDGE (terminal No. 10).
		Off	FIXED EDGE (NC contact – terminal No. 10). **Note: if not used, keep the DIP in the OFF position.**

6. MEMORIZATION PROCEDURE

NOTE: Before starting the memorization procedure, make sure that the barrier boom is perfectly balanced and that the mechanical limit switches of the boom are adjusted both in opening and closing (see barrier assembly instructions).

WARNING: After powering the control panel, wait 2 seconds before you start performing the adjustment operations.
When you have completed the installation procedures:

Check the position of dip-switches 9, 10 and 11. Dip-switches must be set according to the barrier model and the bar length (see table of dip-switches 9-10-11, "Logic adjustments" section).

It is recommended to start the learning process with the bar down.
Press without releasing the PROG button till the DL8 LED starts flashing (yellow):
- the automation starts to open slowly looking for the opening limit stop;

If the automation closes instead of opening, stop the run of the gate (by cutting the photocells or closing the STOP contact), invert the polarity of the motor, take the gate in the closed position (on the mechanical stop) and restart the procedure from the beginning.

Note: if the automation does not work, check the input connections. The DL6, DL5 and DL3 green LEDS must be on.
- once the limit stop is reached, the automation starts closing looking for the closing limit stop (in this phase the control unit gathers all the parameters regarding the run);
- the automation carries out one complete opening to optimize the opening power;
- after a short pause, the automation carries out one complete closure to optimize the closing power.

WARNING:
- **The procedure can be stopped by pressing the STOP button.**
- **During the various stages of the operation, if the sensor is activated saving is stopped. To restart the procedure from the beginning (with the DL8 yellow LED flashing), use the AP/CH control, the remote control (if programmed) or press the PROG button briefly.**

Please remember that an obstacle during saving is interpreted as a mechanical limit stop (the system does not start any safety operation, it just stops the motors).
Make sure you don't stand near the bar during saving.

7. K206MA CHARACTERISTICS

TIMER-OPERATED OPENING AND CLOSING CYCLES
The opening/closing of the automation can be controlled by means of a timer that has a free N.O. output contact (relay). The timer must be connected to terminals 4 - 6 (OPEN/CLOSE button) and can be programmed so that, at the desired opening time, the relay contact closes until the desired closing time (when the timer's relay contact opens, enabling the automatic closing of the gate).
Note: the automatic closing function must be enabled by setting Dip-switch no. 1 to ON).

BATTERY CHARGER BOARD (INTEGRATED)
If the battery is connected the automation will operate in any case if there is no mains power supply. If the voltage drops below 11.3 Vdc, the automation ceases to operate (the control unit remains fed); whereas, when the voltage drops below 10.2 Vdc, the card completely disconnects the battery (the control panel is no longer fed).

OBSTACLE DETECTION
Obstacle detection function that can be set using the FR trimmer: intervening during the automation closing phase, it causes the total opening.

WARNING: the control panel logics may interpret mechanical friction as an obstacle.

8. DIAGNOSTICS LED

DL1 - Red	OPEN button LED signal
DL2 - Red	OPEN/CLOSE button LED signal
DL3 - Green	STOP button LED signal
DL4 - Green	CLOSE button LED signal
DL5 - Green	PHOTOCELL LED signal
DL6 - Green	SENSITIVE EDGE LED signal

LED - DL7
Apart from highlighting the presence of the battery, LED DL7 displays any mistakes with a series of pre-set flashes in various colours:
Key: ● led always on; ○ led flashing;

● always on: (green)	**fully-charged battery, main voltage present;**
● always on: (yellow)	**battery charging;**
○ 1 flash every 4 seconds: (green)	**fully-charged battery, no main voltage;** *Check the main voltage;*
○ 1 flash every 4 seconds:: (yellow)	**power supply through photovoltaic panel (terminals 1-2), battery charger disabled**
○ 1 flash every 2 seconds: (red)	**low battery;** *Charge the battery, replace the battery;*
○ fast flashing: (red)	**faulty battery;** *Replace the battery;*

LED - DL8
The DL8 LED indicates mistakes in the board logic with a series of pre-set flashes in different colours:
Key: ● led always on; ○ led flashing;

○ 1 flash every 4 seconds: (green)	**normal operation;**

🔴 / 🟢 alternate flashing: (red/green)	**saving to be performed;**
🟡 fast flashing: (yellow)	**learning process;**
🔴 1 flash: (red)	**phototest error** *Disable phototest (dip-switch 6 OFF), check the operation of the photocells and their connection;*
🟡 1 flash: (yellow)	**unknown status, next operation REALIGNMENT;**
🔴 2 flashes: (red)	**obstacle for motor;** *Check there are no obstacles on the path of the bar and its balancing;*
🔴 3 flashes: (red)	**no motor encoder signal;** *Check wiring, check encoder by TEST-ENCODER (optional);*
🔴 4 flashes: (red)	**no motor signal;** *Check wiring, check the motor rotates freely and is powered directly by the battery, check fuse F5;*
🔴 5 flashes: (red)	**max current limit for motor exceeded;** *Excessive absorption peaks of the gearmotor, check there are no obstacles on the bar path, check the current absorption of the motor when in a no-load condition and when applied to the bar;*
🟡 6 flashes: (yellow)	**master/slave communication error;** *Check wiring between the controllers, efficiency of slave controller (fuses), efficiency of interface boards;*
🔴 7 flashes (red):	**Sensitive edge safety intervention** *A command pulse is required to carry out the closure;*
🔴 8 flashes: (red)	**Eeprom external memory fault;** *Replace the external memory module;*
🟡 8 flashes: (yellow)	**Eeprom data error (internal/external);** *Perform procedure RADIO MEMORY RESET;*

Apart from the logic mistakes, the DL8 LED indicates also the status of the control unit during the saving of the radio controls.

🟢 always on: (green)	**channel CH1 waiting to be saved;**
🟢 fast flashing: (green)	**CH1 channel memory full;**
🟡 always on: (yellow)	**channel CH2 waiting to be saved;**
🟡 fast flashing: (yellow)	**CH2 channel memory full;**

🟢 flashing: (green)	**CH1 channel waiting to be cancelled;**
🟢 always on: (green)	**cancelling of channel CH1 in progress;**
🟡 flashing: (yellow)	**CH2 channel waiting to be cancelled;**
🟡 always on: (yellow)	**cancelling of channel CH2 in progress;**

When LEDs DL7 and DL8 flash at the same time they indicate:

flashing 🔴 + 🔴 : (red + red)	**factory reset procedure waiting for confirmation;**
flashing 🟡 + 🟡 : (yellow + yellow)	**waiting for total cancellation of the radio channels;**

Multiple errors are signalled by a 2-second pause between signals.
Should the encoder (obstacle detection) activates while closing, the controller will reverse the direction and slowly open until the boom reaches its fully opened position. Auto Close function will be deactivated until a further command pulse is given. In case of 5 consecutive safety interventions the controller will progressively increase the Auto Close delay. Once the closing has been succesfully achieved, the Auto Close delay will go back to standard setting.

9. ABSORPTION CHECK FUNCTION (from 5.17 release onwards)

This function allows to monitor the absorption during a complete cycle in order to value the motor stress. To activate this function press and hold for 2 seconds simultaneously CH1, PROG, CH2 and them start the motor (OP/CL contact, remote, PROG button).

CH2 CH1 PROG

The absorption registered is shown according to the following diagram:

Level	DL7	DL8
	(Off)	(Off)
	(Green)	(Off)
	(Green)	(Green)
	(Green)	(Yellow)
	(Yellow)	(Green)
	(Yellow)	(Yellow)
	(Yellow)	(Red)
	(Red)	(Yellow)
	(Red)	(Red)

After 5 minutes from the function activation, the board automatically resumes to the standard LED visualization (to resume manually press simultaneously CH1, PROG and CH2).

10. RESTORING AUTOMATIC OPERATION

Should the Bar need to be operated manually, use the release system. After the manual operation:

- after a Mains Power Failure, such as a black-out (controller remains disconnected for a certain time), the automation will be moving slowly to allow the Controller to establish its Limits (REALIGNMENT);
- after a Manual Operation without Mains Power Failure (controller remains connected) it will take 1 complete cycle to complete the realignment procedure. During this cycle, Limits and Soft-Stops will not be working.

11. 433.92 MHz BUILT-IN RADIO RECEIVER

The radio receiver can learn up to a maximum of 30 rolling codes (S-2RP, S-4RP, K-SLIM-RP, T-4RP) which can be set on the two channels as required.
The first channel directly commands the control board for opening the automatic device; the second channel commands a relay for a N.O. no-voltage output contact (terminals 19 - 20, max. 24V AC, 1 A).

LEARNING SYSTEM FOR RADIO CONTROL DEVICES
CH1 = OPEN/CLOSE CH2 = 2nd channel

1_ press button CH1 briefly to associate a radio control device with the OPEN/CLOSE function;
2_ the (green) DL8 LED is ON to indicate the code learning mode has been activated (if no code is entered within 10 seconds the board exits the programming function);
3_ press the button of the relative radio control device;
4_ the (green) DL8 LED turns off to indicate saving is complete and then on again immediately waiting for other radio control devices (if this is not the case, try to re-transmit or wait 10 seconds and restart from point 1);
5_ to memorise codes to other radio control devices, press the key to be stored on other devices within 2-3 sec. After this time (DL8 LED turns off) must repeat the procedure from point 1 (up to a maximum of 30 transmitters);
6_ if you wish to save on the 2nd channel, repeat the procedure from point 1 using the CH2 key instead of CH1 (in this case the DL8 LED is yellow);

7_ to exit the learning mode without memorising a code, press button CH1 or CH2 briefly.

If the maximum number of radio controls is reached (30), the LED DL8 will begin to flash rapidly for about 3 seconds but without performing memorisation.

REMOTE PROGRAMMING BY MEANS OF T-4RP, K-SLIM-RP, S-2RP AND S-4RP (V 4.X)
With the new version of software V 4.X it is possible to carry out the remote self-learning of the new version of transmitters T-4RP, K-SLIM-RP, S-2RP and S-4RP (V 4.X), that is without pressing the receiver's programming buttons.

It will be sufficient to have an already programmed transmitter in the receiver in order to start the procedure of remote programming of the new transmitters. Follow the procedure written on the instructions of the transmitter T-4RP, K-SLIM-RP, S-2RP and S-4RP (V 4.X).

CANCELLING CODES FROM RADIO CONTROL DEVICES
1_ keep button CH1 pressed for 3 seconds in order to cancel all the associated radio control devices;
2_ LED DL8 flashes slowly to indicate that the cancellation mode has been activated;
3_ press button CH1 again for 3 seconds;
4_ LED DL8 turns off for approx. 3 seconds and then remains steady to indicate that the code has been cancelled;
5_ repeat the procedure from point 1 using button CH2 to cancel all the associated radio control devices;
6_ to exit the learning mode without memorising a code, press button CH1 or CH2 briefly.

MEMORY CAPACITY
The code memory capacity* can be expanded from 30 to 126, 254 or 1022 codes (transmitters) by replacing the memory cards as follows (plug them onto J3 connector, see wiring diagram):

126	codes	Art.	**250SM126**
254	codes	Art.	**250SM254**
1022	codes	Art.	**250SM1022**

* Control units are supplied with a standard built-in 30-code memory. The memory card for enhancing the code memory capacity must be ordered separately.

WARNING: Control unit must be turned OFF to insert / remove a memory card.
IMPORTANT: when a memory card is used, the control unit's built-in 30 codes memory is disabled.

RADIO MEMORY RESET:
- press without releasing keys CH1 and PROG till LEDs DL7 and DL8 start flashing quickly with a yellow light. At this point release the keys and press them again till the LEDs go off confirming the operation is complete (if they are not pressed the board reverts to normal operation after about 12 seconds);

HARD RESET (factory setting):
- press without releasing keys CH2 and PROG till LEDs DL7 and DL8 start flashing quickly with a red light. At this point release the keys and press them again till the LEDs go off (reset in progress), confirming the operation is complete (if they are not pressed the board reverts to normal operation after about 12 seconds); When the unit starts again saving will be required;

In case of Hard Reset the memory of the radio receiver will not be erased: all existing transmitters remain programmed.

12. MALFUNCTIONS: POSSIBLE CAUSES AND SOLUTION

The automation does not start

a- Check there is 230V AC power supply with the multimeter.
b- Check, in the standard mode, that the NC contacts on the board are really normally closed (3 green LEDs on).
c- Set dip-switch 6 (phototest) OFF.
d- Increase the FR trimmer to the limit.
e- Check that the fuses are intact with the multimeter.

The radio control has very little range

a- Check that the ground and the aerial signal connections have not been inverted.
b- Do not make joints to increase the length of the aerial wire.
c- Do not install the aerial in a low position or behind walls or pillars.
d- Check the state of the radio control batteries.

The gate opens the wrong way

Invert the motor connections on the terminal block, terminals 28 - 29 and terminals 23 - 24 (if used).

13. GUARANTEE: GENERAL CONDITIONS

TAU guarantees this product for a period of 24 months from the date of purchase (as proved by the sales document, receipt or invoice).
This guarantee covers the repair or replacement at TAU's expense (ex-works TAU: packing and transport at the customer's expense) of parts that TAU recognises as being faulty as regards workmanship or materials.
For visits to the customer's facilities, also during the guarantee period, a "Call-out fee" will be charged for travelling expenses and labour costs.

The guarantee does not cover the following cases:

- If the fault was caused by an installation that was not performed according to the instructions provided by the company inside the product pack.
- If original TAU spare parts were not used to install the product.
- If the damage was caused by an Act of God, tampering, overvoltage, incorrect power supply, improper repairs, incorrect installation, or other reasons that do not depend on TAU.
- If a specialised maintenance man does not carry out routine maintenance operations according to the instructions provided by the company inside the product pack.
- Wear of components.

The repair or replacement of pieces under guarantee does not extend the guarantee period.
In case of industrial, professional or similar use, this warranty is valid for 12 months.

MANUFACTURER'S DECLARATION OF INCORPORATION
(in accordance with European Directive 2006/42/EC App. II.B)

Manufacturer: TAU S.r.l.
Address: Via E. Fermi, 43 - 36066 Sandrigo (Vi) - ITALY

Declares under its sole responsibility, that the product: *Electronic control unit*
designed for automatic movement of: *Road barriers*
for use in a: *General environment* complete with: *Radioreceiver and battery charger board*

Model: *K206MA* Type:*K206MA*
Serial number: *see silver label* Commercial name: *Control panel for automatic barriers*

ENGLISH

Has been produced for incorporation on an access point (*automatic barrier*) of for assembly with other devices used to move such an access point, to constitute a machine in accordance with the Machinery Directive 2006/42/EC.

Also declares that this product complies with the essential safety requirements of the following EEC directives:
- 2014/35/EU Low Voltage Directive - 2014/30/EU Electromagnetic Compatibility Directive

and, where required, with the Directive ***- 2014/53/EU Radio equipment and telecommunications terminal equipment***

Also declares that ***it is not permitted to start up the machine*** until the machine in which it is incorporated or of which it will be a component has been identified with the relative declaration of conformity with the provisions of Directive 2006/42/EC.

The following standards and technical specifications are applied: EN 61000-6-2; EN 61000-6-3; EN 60335-1;
ETSI EN 301 489-1 V1.9.2; ETSI EN 301 489-3 V1.6.1; EN 300 220-2 V2.4.1; EN 12453:2000; EN 12445:2000; EN 60335-2-103.

The manufacturer undertakes to provide, on sufficiently motivated request by national authorities, all information pertinent to the quasi-machinery.

Sandrigo, 24/01/2018

Legal Representative

Loris Virgilio Danieli

Name and address of person authorised to draw up all pertinent technical documentation:
Loris Virgilio Danieli - via E. Fermi, 43 - 36066 Sandrigo (Vi) Italy

Via Enrico Fermi, 43 - 36066 Sandrigo (VI) - Italy
Tel +39 0444 750190 - Fax +39 0444 750376
info@tauitalia.com - www.tauitalia.com

Foglietto illustrativo
CARTA - Raccolta differenziata. Segui le indicazioni del tuo comune. (N.B.: togliere i punti metallici)

Instruction leaflet
PAPER - Waste separation. Follow the instructions of your city hall. (Note: remove the staples)