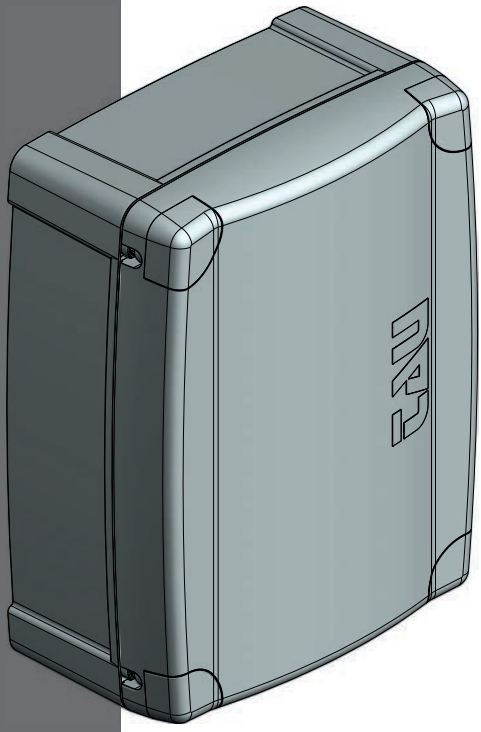
>MOVING LIFE

MANUALE D'USO E INSTALLAZIONE
USE AND INSTALLATION MANUAL
BENUTZUNGS- UND INSTALLATIONSANLEITUNG
MANUEL D'EMPLOI ET INSTALLATION
MANUAL DE USO E INSTALACIÓN

D770M



Ver. Firmware 8.xx

D-MNL0D770M 11-02-2021 - Rev.03

MADE IN ITALY

SCHEMA CABLAGGIO D770M / D770M WIRING DIAGRAM / SCHALTPLAN DER D770M

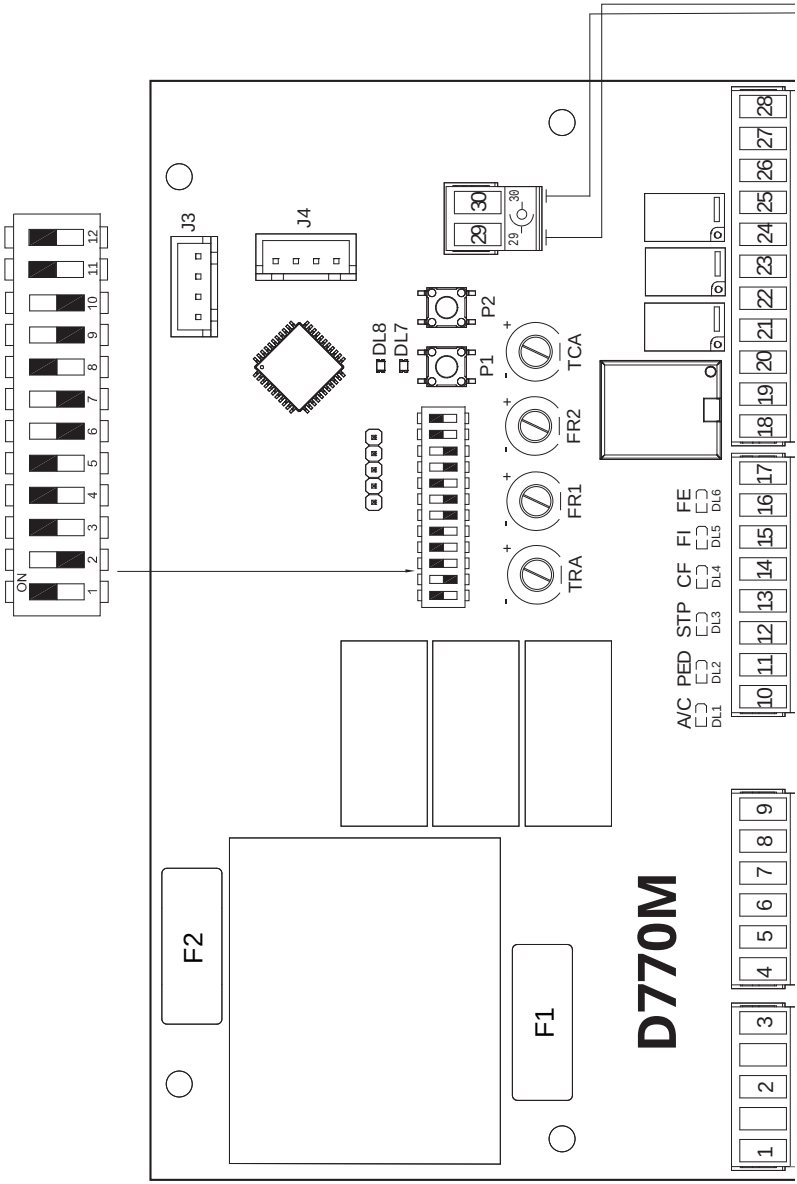
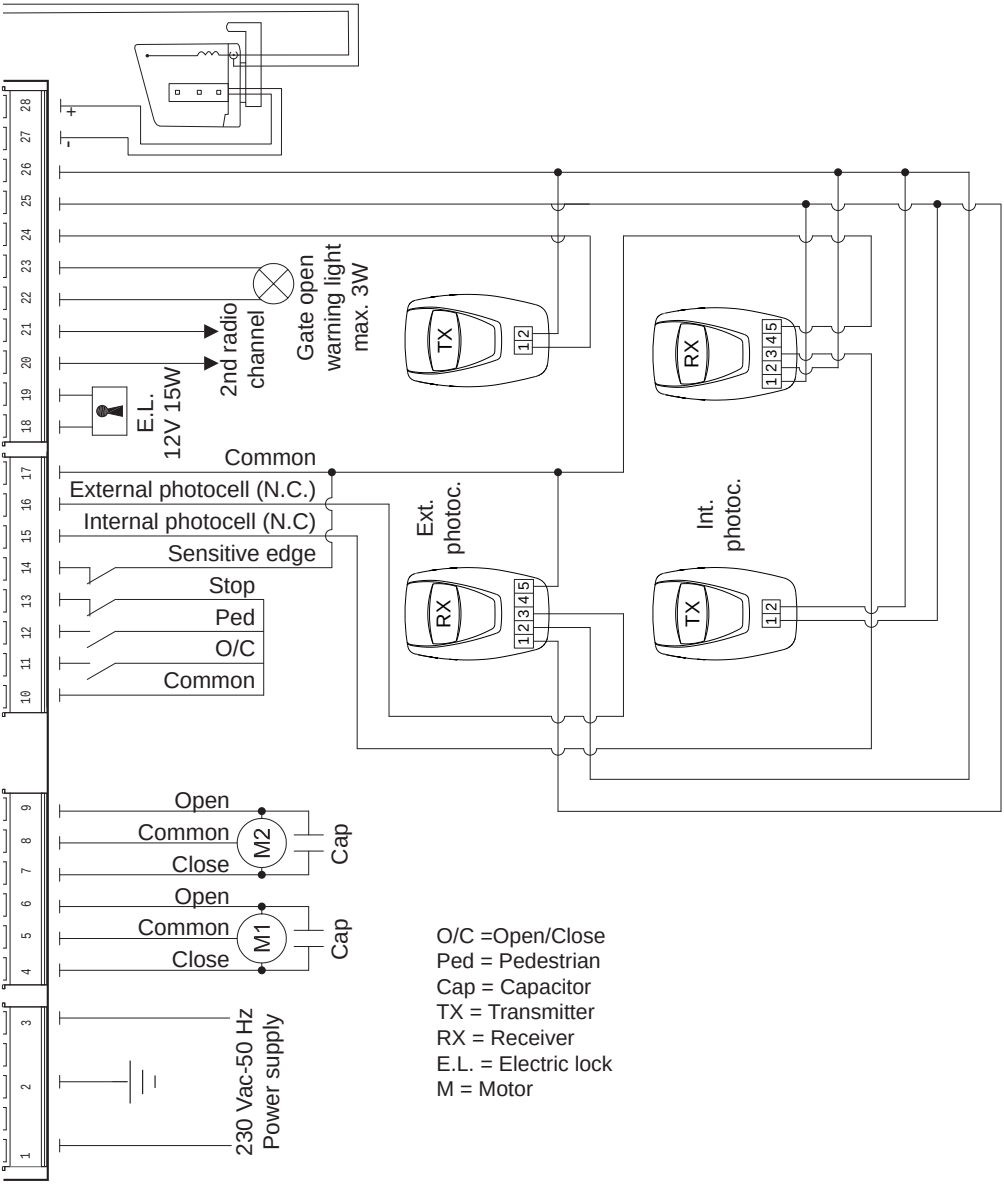


SCHÉMA CÂBLAGE D770M / ESQUEMA DEL CABLEADO D770M / ESQUEMA ELÉCTRICO D770M



O/C =Open/Close
Ped = Pedestrian
Cap = Capacitor
TX = Transmitter
RX = Receiver
E.L. = Electric lock
M = Motor

WARNINGS

This manual has been especially written for use by qualifi ed fitters. No information given in this manual can be considered as being of interest to end users. This manual is enclosed with control unit D770M and may therefore not be used for different products!

Important information:
Disconnect the panel from the power supply before opening it.
The D770M control unit has been designed to control an electromechanical gear motor for automating gates and doors of all kinds.
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 the mechanical components work correctly. Also check that the gear motor assembly has been installed according to the instructions. Then make sure that the power consumption of the gear motor is not greater than 3A (otherwise the control panel may not work properly).
THE EQUIPMENT MUST BE INSTALLED "EXPERTLY" BY QUALIFIED PERSONNEL AS REQUIRED BY LAW.
Note: it is compulsory to earth the system and to observe the safety regulations that are in force in each country.
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 CARD FOR TWO SINGLE-PHASE MOTORS 230V AC

The D770M panel features an electronic photocell control system which switches the external photocell transmitter on and off thereby causing the control unit microprocessor to check whether the relay switches correctly. If this does not happen, the control unit is automatically blocked.

- MICROPROCESSOR-CONTROLLED LOGIC
- SELF-DIAGNOSIS LED's
- LINE INPUT FUSE
- BUILT-IN TORQUE LIMITING DEVICE
- ELECTRONIC CONTROL OF SAFETY DEVICES
- PEDESTRIAN ENTRY FUNCTION
- BUILT-IN LED FLASHING LIGHT CIRCUIT
- 433.92 MHz 2 CHANNEL BUILT-IN RADIO RECEIVER (CH)
- "SLOW-DOWN" FUNCTION IN OPENING AND IN CLOSING PHASE
- DIAGNOSTICS OF MALFUNCTIONS SIGNALLED BY LED

- COMPATIBILITY WITH OUR APPS: TAUOPEN AND TAUAPP

ATTENTION:
- **do not use single cables (with one single wire), ex. telephone cables, in order to avoid break-downs of the line and false contacts;**
- **do not re-use old pre-existing cables.**
- **In case of long sections of cables (> 20 m) for N.O./N.C. controls (e.g. OPEN / CLOSE, STOP, PEDESTRIAN, etc.), in order to avoid gate malfunctions, it will be necessary to uncouple the various controls using RELAYS or using our 750T-RELE device.**

2. TESTING

When all connections have been made:
- All the green LED's must be on (each corresponds to a Normally Closed input).
- They only turn off when the safeties they are associated with are active.
- All the red LED's must be off (each corresponds to a Normally Open input) they only turn on when the commands they are associated with are active.
- Led DL8 must flash green every 4 sec. (indicates the logic state of the control unit, see sect. "Diagnostics Led")

3. TECHNICAL CHARACTERISTICS

Power input to board	230V AC - 50Hz
Max motors nominal power	600 W ca.
Primary input line rapid fuse (F1 - 5x20)	F 3,15 A
Input voltage of motor circuits	230V AC
Input voltage of auxiliary circuits	24V AC
24Vac line rapid fuse (F2 - 5x20)	F 500 mA
Logic circuit input voltage	5V DC
Working temperature	-20°C ÷ + 55 °C
Box protected to	IP43

*** The control unit enclosure was created with IP65 protection rating but is declared IP43 as it is expected to be drilled to be fixed to the wall and to allow cable entry. Not knowing if the holes will be provided with suitable cable glands or if they will be hermetically sealed, a degree of protection equal to IP43 is prudently declared**

4. TERMINAL BOARD CONNECTIONS

Key: N.C. = Normally Closed - N.O. = Normally Open

Terminals	Function	Description
1 - 2 - 3	*POWER SUPPLY*	POWER input 230 Vac, 50Hz (115 Vac 60 Hz); 1= PHASE, 2= EARTH, 3= NEUTRAL.
4 - 5 - 6	*MOTOR M1*	MOTOR M1 power output (opens the leaf fitted with the electric lock), 230 Vac, max. 300 W. 4=CLOSE, 5=COMMON, 6=OPEN. **Notice: connect the capacitor between terminals 4 and 6;**
7 - 8 - 9	*MOTOR M2*	MOTOR M2 power output, 230 Vac, max. 300 W. 7=CLOSE, 8=COMMON., 9=OPEN. **Notice: connect the capacitor between terminals 7 and 9;**
10 - 11	*OPEN/CLOSE*	OPEN/CLOSE button input (contact normally open); for operating information see dip-switches 2 and 4 functions. (COMMON=10);
⚠	**WARNING: with dip 10 to ON the input switches OPEN: automation open as long as the button is held down. On his release, the automation stops.**	
10 - 12	*PEDESTRIAN*	PEDESTRIAN button contact input (contact normally open) – commands total opening and closing of motor 1 – governed by dip-switches 2 and 4. (COMMON=10);

WARNING: with dip 10 to ON the input switches CLOSE: automation close as long as the button is held down. On his release, the automation stops.

10 - 13	*STOP*	STOP button input (normally closed contact); this stops the automatic system. At the next command, the opposite operation to the previous one is performed (COMMON=10). Bridge the connectors if not used;
14 - 17	*SENSITIVE EDGE*	SENSITIVE EDGE input (potential free contact N.C., dip 12 OFF) or 8,2 KΩ RESISTIVE SENSITIVE EDGE (dip 12 ON); During the opening phase, it temporarily stops the gate and makes it close again for about 20 cm, thus allowing to free the potential obstacle. During the closing phase, it stops the gate and makes it totally reopen. In this case, if programmed, the automatic closing will be inhibited. Jumper terminals if not used. (17 = COMMON - 14 = SENSITIVE EDGE)
15 - 17	*INTERNAL PHOTOCELLS*	PHOTOCELL OR SAFETY DEVICE input INSIDE the automation (Normally Closed contact); COMMON=17. When these devices trigger during the opening phase, they temporarily stop the automation until the obstacle has been removed; during the closing phase they stop the automation and then totally open it again. Bridge the connectors if not used.
16 - 17	*EXTERNAL PHOTOCELLS*	PHOTOCELL OR SAFETY DEVICE input OUTSIDE the automation (Normally Closed contact); COMMON=17. Then these devices trigger during the closing phase, they stop the automation and then totally open it again. Bridge the connectors if not used. **Notice: Because the control of the safety system (FOTOTEST) is performed on the photocell's transmitter, this must always be powered by terminals 24 – 26, therefore if this connection is broken the control unit will not accept any opening command. To eliminate the safety system control, position dip-switch 6 to OFF.**
18 - 19	*ELECTRIC LOCK*	ELECTRIC LOCK power output 12 Vac max. 15 W;
20 - 21	*2nd RADIO CH*	2nd RADIO CHANNEL - RELAY K2 output (contact normally open); In case the operating mode can be selected through TauApp; **Warning: to connect other devices to the 2nd Radio Channel (area lighting, pumps, etc.), use an additional auxiliary relay.**
22 - 23	*GATE OPEN WARNING LIGHT*	GATE OPEN WARNING LIGHT - RELAY K3 output; 24 V ac, max 3W; the light lights with the same frequency as that of the flashing light for the entire opening and closing manoeuvre and remains on if the gate is open and off when the gate has closed; In case the operating mode can be selected through TauApp;
24 - 26	*PHOTOCELL TX*	24 Vac external transmitting photocell power supply output for safety device control (connect the external TX photocell only) max. of 2 photocell transmitters;
25 - 26	*AUX - PHOTOCELL RX*	24Vac output, 10W for the power supply of photocells, external receivers, etc.
27 - 28	*FLASHING LIGHT*	LEDS FLASHING LIGHT output 12V dc, 200mA max. (NEGATIVE=27 - POSITIVE=28) The signal is already modulated for direct use. Flashing frequency is double during closing;
29 - 30	*AERIAL*	AERIAL input (EARTH=29, SIGNAL=30); The antenna is normally integrated in the VLED flashing light

5. LOGIC ADJUSTMENTS

TRIMMER

TRA	Second motor delay adjustment: during closing cycle from approx. 0 to 30 sec. (on top of the time that the card calculates automatically during the SETUP procedure); during opening from approx. 0 to 6 sec (on top of the time that the card calculates automatically during the SETUP procedure).
FR1	Motor 1 torque adjustment (swing 1). The trimmer is set to provide sufficient thrust to work the gate without exceeding the limits established by current standards (EN 12453). Turning the trimmer clockwise (+) increases the motor torque, turning it anticlockwise (-) reduces it.
FR2	Motor 2 torque adjustment (swing 2). The trimmer is set to provide sufficient thrust to work the gate without exceeding the limits established by current standards (EN 12453). Turning the trimmer clockwise (+) increases the motor torque, turning it anticlockwise (-) reduces it.
TCA	Automatic closing time adjustment from 2 to 120 seconds.
Notice:	**turn the TRIMMER clockwise *to increase* adjustments; turn it anticlockwise *to decrease*.**

6. DIP SWITCH

1	*AUTOMATIC CLOSING*	**On**	After opening, the gate automatically closes when the delay set on the T.C.A. trimmer expires;
		Off	Automatic closing disabled;
2	*2 / 4 STROKE*	**On**	With automatic closing enabled, a sequence of open/close commands causes the gate to OPENCLOSE-OPEN-CLOSE etc (see also dip switch 4);
		Off	In the same conditions, the same command sequence causes the gate to OPEN-STOP-CLOSE-STOP-OPEN-STOP (step-by-step);
3	*CLOSES AGAIN AFTER THE PHOTOCELL*	**On**	After the photocell is activated (input 7 - 9), the automation closes automatically after 5 seconds.
		Off	function off.
4	*NO REVERSE*	**On**	The gate ignores the close command while it is opening (NO REVERSE);
		Off	The gate behaves according to the position of dip-switch n° 2;
5	*PRE-FLASHING*	**On**	The pre-flashing function enabled;
		Off	The pre-flashing function disabled;
6	*FOTOTEST*	**On**	The “photocell test” function is enabled;
		Off	The “photocell test” function is disabled. N.B.: to be used when the photocells are not used;
7	*OPENING RAM BLOW*	**On**	The “opening ram blow” function is on. This permits the release of the electric lock (to be used only in the presence of an electric lock);
		Off	The “opening ram blow” function is off;
8*	*MOTORS SELECTION*	**On**	Enables just one motor (M1).
		Off	Enables 2 motors.
9*	*DECELERATION*	**On**	The deceleration function is on (see “PROGRAMMING INSTRUCTIONS”);
		Off	The deceleration function is off;
10**	*MAN MODE*	**On**	Enables the MAN mode: the OPEN / CLOSE input switches OPEN, the PEDESTRIAN input switches CLOSE;
		Off	Normal function

WARNING: with dip 10 ON the input OPEN / CLOSE (terminals 10-11) switches OPEN, the PEDESTRIAN input (terminals 10-12) switches CLOSE.
In MAN mode, it is not necessary to run the race setup, and the dip-switches 1, 2, 3, 4 and 9 are not used.

11	*ELECTRIC LOCK OPERATION*	**On**	*Operation of the electric lock* for the entire opening and closing time
		Off	*Impulsive operation of the electric lock:* at each opening, the electric lock works for a short moment.
12	*SENSITIVE EDGE SELECTION*	**On**	RESISTIVE SENSITIVE EDGE (terminal no. 15)
		Off	RESISTIVE EDGE - potential free contact N.C. (terminal no. 15) **Note: if not used, keep the DIP in the OFF position.**

*** It is necessary to run the SETUP stroke if you modify the DIP.**
**** It is necessary to run the SETUP stroke if you turn the DIP from ON to OFF**

IMPORTANT:
Each pair of terminals attached to an NC contact that is not in use must be short-circuited in order to ensure the proper operation of the board.
The door's earthing system must comply with current standards. The manufacturer will accept no liability for any damage deriving from failure to comply with this requirement.

7. PROGRAMMING INSTRUCTIONS (SETUP)

If a transmitter has been previously programmed, it can be used to perform the following procedure. Otherwise, connect a Key Switch or a NO Pushbutton to the AP/CH wire terminals on the controller.

DOUBLE SWING GATE - DIP 8 OFF (2 motors operation) - DIP 9 in ON (Soft-Stop function enabled):
1 Press and hold down for at least 5 seconds P1 and P2 buttons to activate the programming mode;
2 Leds DL7 + DL8 begin to flash quickly and the 2 wings open;

f the automation closes instead of opening, stop the gate travel by temporarily disconnecting the voltage. Invert the phases of the motor that closes (terminals 4-6 for M1, terminals 7-9 for M2) and resume the procedure from the beginning after having given voltage.

3 Once opening is complete, press AP/CH button or the remote control: both leaves will stop;
4 Press AP/CH button or the remote control: the leaf #2 will close at standard speed;
5 Press AP/CH button or the remote control when the leaf should start to decelerate;
6 When the leaf is completely closed press AP/CH button or the remote control (leaf #2 programming completed);
7 Press AP/CH button or the remote control: the leaf #1 will close at standard speed;
8 Press AP/CH button or the remote control when the leaf should start to decelerate;
9 When the leaf is completely closed press AP/CH button or the remote control (leaf #1 programming completed);
10 The green led DL7 will flash every 4 sec. (programming completed and saved).

SINGLE SWING GATE - DIP 8 ON (1 motor operation) - DIP 9 in ON (Soft-Stop function enabled):
1 Press and hold down for at least 5 seconds P1 and P2 buttons to activate the programming mode;
2 Leds DL7 + DL8 begin to flash quickly and the 2 wings open;

f the automation closes instead of opening, stop the gate travel by temporarily disconnecting the voltage. Invert the phases of the motor that closes (terminals 4-6 for M1, terminals 7-9 for M2) and resume the procedure from the beginning after having given voltage.

3 Once opening is complete, press AP/CH button or the remote control: the leaf will stop;
4 Press 4 times AP/CH button or the remote control: the leaf will close at standard speed;
5 Press AP/CH button or the remote control when the leaf should start to decelerate;
6 When the leaf is completely closed press AP/CH button or the remote control (leaf programming completed);
7 The green led DL7 will flash every 4 sec. (programming completed and saved).

GATE 2 WINGS - DIP 8 OFF (2 motors operation) - DIP 9 in OFF (Soft-Stop function disabled):
1 Press and hold down for at least 5 seconds P1 and P2 buttons to activate the programming mode;
2 Leds DL7 + DL8 begin to flash quickly and the 2 wings open;

f the automation closes instead of opening, stop the gate travel by temporarily disconnecting the voltage. Invert the phases of the motor that closes (terminals 4-6 for M1, terminals 7-9 for M2) and resume the procedure from the beginning after having given voltage.

3 Once opening is complete, press AP/CH button or the remote control: both leaves will stop;
4 Press AP/CH button or the remote control: the leaf #2 will close at standard speed;
5 When the leaf is completely closed press AP/CH button or the remote control (leaf #2 programming completed);

6 Press AP/CH button or the remote control: the leaf #1 will close at standard speed;
7 When the leaf is completely closed press AP/CH button or the remote control (leaf #1 programming completed);
8 The green led DL7 will flash every 4 sec. (programming completed and saved).

SINGLE SWING GATE - DIP 8 ON (1 motor operation) - DIP 9 in OFF (Soft-Stop function disabled):
1 Press and hold down for at least 5 seconds P1 and P2 buttons to activate the programming mode;
2 Leds DL7 + DL8 begin to flash quickly and the 2 wings open;

f the automation closes instead of opening, stop the gate travel by temporarily disconnecting the voltage. Invert the phases of the motor that closes (terminals 4-6 for M1, terminals 7-9 for M2) and resume the procedure from the beginning after having given voltage.

3 Once opening is complete, press AP/CH button or the remote control: the leaf will stop;
4 Press 3 times AP/CH button or the remote control: the leaf will close at standard speed;
5 When the leaf is completely closed press AP/CH button or the remote control (leaf programming completed);
6 The green led DL7 will flash every 4 sec. (programming completed and saved).

Notice:
- **during the SETUP procedure the safety devices are disabled.**
- **set a working time slightly longer than necessary (a couple of seconds) to allow complete opening/closing of the leaves.**

8. 433.92 MHz BUILT-IN RADIO RECEIVER

The radio receiver can learn up to a maximum of 30 codes of rolling code (S2RP, S4RP, K-SLIM-RP, T-4RP) to be set freely on 2 channels.
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) and the third channel controls directly the pedestrian opening from the controller.

LEARNING SYSTEM FOR RADIO CONTROL DEVICES
P1 = 1st channel (OPEN/CLOSE) P2 = 2nd channel

1_ Press button CH1 briefly to associate a radio control device with the OPEN/CLOSE function;
2_ The (green) DL7 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) DL7 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 5 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 5 sec. After this time (green DL7 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 P2 key instead of P1 (in this case the red DL8 LED will turn on);

f the maximum number of radio controls is reached (30), the led DL7 (green) for CH1 and the led DL8 (red) for CH2 flash for about 3 seconds without storing however.

REMOTE PROGRAMMING BY MEANS OF T-4RP / K-SLIM-RP / S-2RP / 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 / 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 / S-4RP (V 4.X).

CANCELLING CODES FROM RADIO CONTROL DEVICES
1_ Keep button P1 pressed for 3 seconds in order to cancel all the associated radio control devices;
2_ (Green) DL7 LED flashes slowly to indicate that the cancellation mode has been activated;
3_ press button P1 again for 3 seconds;
4_ (Green) DL7 LED 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 P2 to cancel all the associated radio control devices;
6_ to exit the learning mode without memorising a code, press button P1 or P2 briefly.

MEMORY CAPACITY
The code memory capacity* of the D770M can be expanded from 30 to 126, 254 or 1022 codes (transmitters) by replacing the memory cards as follows (plug them onto J4 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.

To allow the previously stored codes (max. 30) to be moved to the control unit, it is required to install a memory card, making sure that the control unit is at that time off and that the memory card is brand new and therefore completely empty.
When the control unit is restarted, the codes will automatically move to the memory card.
Moving the codes from the control unit to the memory card does not work if on the memory card used, radio control codes have already been stored and the memory card has been subsequently erased.
To insert new radio controls, the operation described above shall be repeated.

WARNING: Control unit must be turned OFF to insert / remove a memory card.

HARD RESET (factory setting):
- With the power off, press and hold down the P1 button.
  Power the board (always keeping the P1 button pressed), the DL8 starts flashing red.
  Release the P1 button after 5 sec. the DL7-DL8 switch off and on again by flashing green/red

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

9. SET-UP FOR OPERATION WITH TAU APPS

In order to use the TauApp and TauOpen apps, it will be necessary to connect to input J3 of the control unit using the supplied cable, the respective T-WIFI and T-CONNECT devices. To activate the operation of the apps see the respective instructions.

10. DIAGNOSTICS LED

DL1 - Red	OPEN/CLOSE button red LED signal
DL2 - Red	PEDESTRIAN button red LED signal
DL3 - Green	STOP button green LED signal
DL4 - Green	SENSITIVE EDGE green LED signal
DL5 - Green	INTERNAL PHOTOCELL green LED signal
DL6 - Green	EXTERNAL PHOTOCELL green LED signal
DL7 + DL8	Led indicating the programming of REMOTE CONTROLS, ERRORS and the status of the control unit

LED: DL7 ● (green) + DL8 ● (red)
Leds DL7 and DL8 displays any mistakes with a series of pre-set flashes:
Key: ● led always on; ◉ led flashing; ○ led off;

◉ / ◉ Alternate flashing (green/red):	**Saving to be performed;**
◉ / ◉ Simultaneous fast flashing (green/red)	**Saving in progress;**
◉ / ◉ No. 8 flashes (green/red):	**Eeprom data error;**

LED: DL7 ● (green) + DL8 ○ (red led always off)

◉ 1 flash every 4 seconds (green):	**Normal operation;**

Apart from the logic mistakes, the DL7 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;**
◉ Flashing (green):	**CH1 channel waiting to be cancelled;**
○ Led off:	**Cancelling of channel CH1 in progress;**

LED: DL8 ● (red) + DL7 ○ (green led always off)

○ Led off:	**Normal operation;**
◉ 1 flash (red):	**Phototest error** *Disable phototest (dip-switch 6 OFF), check the operation of the photocells and their connection;*
◉ 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;*

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 (red):	**Channel CH2 waiting to be saved;**
◉ Fast flashing (red):	**CH2 channel memory full;**
◉ Flashing (Rosso):	**CH2 channel waiting to be cancelled;**
○ Led off:	**cancelling of channel CH2 in progress;**

11. MALFUNCTIONS: POSSIBLE CAUSES AND SOLUTION

The automation does not start

a- Check there is 230Vac power supply with the multimeter;
b- Check that the NC contacts of the card are actually normally closed (4 green LEDs on: DL3, DL4, DL5, DL6);
c- Set dip 6 (phototest) to OFF;
d- 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 4 and 6 for motor 1; terminals 7 and 9 for motor 2);

12. 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: *Swing Gates*
for use in a: *Residential / Communities* complete with: *Radioreceiver*

Model: *D770M* Type:*D770M*
Serial number: *see silver label* Commercial name: *Control panel for two single-phase motors 230V AC*

Has been produced for incorporation on an access point (*swing gate*) 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***

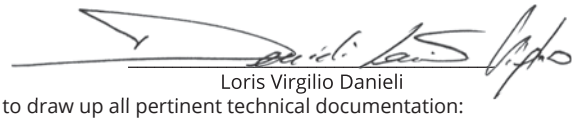
and, where required, with the Directive: ***- 2014/53/EU Radio equipment and telecommunications terminal equipment***

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, 18/02/2018 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