

# CT-724

Centrale 24Vdc per un motore scorrevole, basculante o barriera 24 Vdc, con gestione encoder  
 24Vdc control unit for one sliding or overhead door motor or barrier, with encoder  
 Centrale 24Vcc pour moteur coulissant, basculant ou barrière 24 Vcc, avec gestion encodeur  
 24Vdc Steuergerät für einen Schiebe-oder Schwenktormotor oder 24 Vdc-Schranken mit Encoder-Regelung  
 Central 24Vcc para un motor corredizo, basculante o barrera 24 Vcc, con gestión codificador  
 Central 24Vdc para um motor deslizável, basculante ou barreira 24 Vdc, com gestão codificador  
 Centrala 24Vdc dla bram przesuwnych, wahadłowych lub szlabanów 24 Vdc, o sterowaniu  
 enkoderowym

## INDEX

<b>1</b>	<b>Safety warnings</b>	p. 15
<b>2</b>	<b>Product overview</b>	p. 16
2.1	Description of the control unit	p. 16
2.2	Description of the connections	p. 16
2.3	Models and characteristics	p. 16
2.4	List of cables needed	p. 17
<b>3</b>	<b>Preliminary checks</b>	p. 17
<b>4</b>	<b>Installing the product</b>	p. 18
4.1	Electrical connections	p. 18
4.2	Normal display mode	p. 19
4.3	Self-learning of the travel	p. 20
4.4	Customizing the installation - BASIC MENU	p. 21
<b>5</b>	<b>Testing and commissioning</b>	p. 22
5.1	Testing	p. 22
5.2	Commissioning	p. 22
<b>6</b>	<b>Insights - ADVANCED MENU</b>	p. 23
<b>7</b>	<b>Instructions and warnings for the end user</b>	p. 24
<b>8</b>	<b>EC Declaration of Conformity</b>	p. 87

## 1 - SAFETY WARNINGS

**CAUTION – to ensure personal safety it is important to follow these instructions and keep them for future reference.**

Read the instructions carefully before proceeding with installation.

**The design and manufacture of the devices making up the product and the information in this manual are compliant with current safety standards. However, incorrect installation or programming may cause serious injury to those working on or using the system. Compliance with the instructions provided here when installing the product is therefore extremely important.**

If in any doubt regarding installation, do not proceed and contact the Key Automation Technical Service for clarifications.

**Under European legislation, an automatic door or gate system must comply with the standards envisaged in the Directive 2006/42/EC (Machinery Directive) and in particular standards EN 12445; EN 12453; EN 12635 and EN 13241-1, which enable declaration of presumed conformity of the automation system.**

Therefore, final connection of the automation system to the electrical mains, system testing, commissioning and routine maintenance must be performed by skilled, qualified personnel, in observance of the instructions in the "Testing and commissioning the automation system" section.

The aforesaid personnel are also responsible for the tests required to verify the solutions adopted according to the risks present, and for ensuring observance of all legal provisions, standards and regulations, with particular reference to all requirements of the EN 12445 standard which establishes the test methods for testing door and gate automation systems.

**WARNING - Before starting installation, perform the following checks and assessments:**

ensure that every device used to set up the automation system is suited to the intended system overall. For this purpose, pay special attention to the data provided in the "Technical specifications" section. Do not proceed with installation if any one of these devices is not suitable for its intended purpose;

check that the devices in the kit are sufficient to guarantee system safety and functionality;

perform a risk assessment, including a list of the essential safety requirements as envisaged in Annex I of the Machinery Directive, specifying the solutions adopted. The risk assessment is one of the documents included in the automation system's technical file. This must be compiled by a professional installer.

**Considering the risk situations that may arise during installation phases and use of the product, the automation system must be installed in compliance with the following safety precautions:**

never make any modifications to part of the automation system other than those specified in this manual. Operations of this type can only lead to malfunctions. The manufacturer declines all liability

for damage caused by unauthorised modifications to products.

do not allow parts of the automation system to be immersed in water or other liquids. During installation ensure that no liquids are able to enter the various devices;  
should this occur, disconnect the power supply immediately and contact a Key Automation Service Centre. Use of the automation system in these conditions may cause hazards;

never place automation system components near to sources of heat or expose them to naked flames. This may damage system components and cause malfunctions, fire or hazards.

All operations requiring opening of the protective housings of various automation system components must be performed with the control unit disconnected from the power supply. If the disconnect device is not in a visible location, affix a notice stating: "MAINTENANCE IN PROGRESS";

all devices must be connected to an electric power line equipped with an earthing system.

The product cannot be considered to provide effective protection against intrusion. If effective protection is required, the automation system must be combined with other devices;

the product may not be used until the automation system "commissioning" procedure has been performed as specified in the "Automation system testing and commissioning" section.

The system power supply line must include a circuit breaker device with a contact gap allowing complete disconnection in the conditions specified by class III overvoltage;

use unions with IP55 or higher protection when connecting hoses, pipes or raceways;

the electrical system upstream of the automation system must comply with the relevant regulations and be constructed to good workmanship standards;

users are advised to install an emergency stop button close to the automation system (connected to the control PCB STOP input) to allow the gate or door to be stopped immediately in case of danger;

this device product is not intended for use by persons (including children) with impaired physical, sensory or mental capacities, or with lack of experience or skill, unless a person responsible for their safety provides surveillance or instruction in use of the device;

children must be supervised to ensure that they do not play with the equipment.

**WARNING - The automation system component packaging material must be disposed of in full observance of current local waste disposal legislation.**

**WARNING - The data and information in this manual are subject to modification at any time, with no obligation on the part of Key Automation S.r.l. to provide notice.**



- Power supply protected against short circuits within the unit, on motor and connected accessories.
- Power adjustment with chopping of the current.
- Detection of obstacles by monitoring the encoder from the motor.
- Automatic learning of the working time.
- Disabling of safety inputs via dip switches: no need to bridge the

terminals related to the safety not installed, by simply disabling the function with the dip switch.

- Ability to operate with an optional battery without power supply.
- Low voltage output used for a status indicator light or a 24V flashing light.
- Energy savings-function.

#### TECHNICAL SPECIFICATIONS:

Power supply (L-N)	230Vac (+10% - 15%) 50/60 Hz
Nominal power	210W
Auxiliary power supply	Stabilized 24 Vdc (max 200 mA)
Flashing light output	24Vdc 25W
Courtesy light output	24Vdc 25W
Gate open indicator output	24Vdc 4W
Antenna input	50Ω cable type RG58
Operating temperature	-20°C + 55°C
Main system fuses	10AT
Accessory fuses	2,5AT
Power supply line fuses	2AT
Use in particularly acid, saline or explosive atmospheres	NO

## 2.4 - List of cables needed

Typical installation cables required for connection of various devices are shown in cables list table.

The cables used must be suitable for the installation; for example, we recommend a H03VV-F type cable for indoor installation and H07RN-F for outdoor.

#### ELECTRIC CABLE TECHNICAL SPECIFICATIONS:

Connection	cable	maximum allowable limit
Power supply line	1 x cable 3 x 1,5 mm <sup>2</sup>	20 m *
Flashing light with antenna	1 x cable 2 x 0,5 mm <sup>2</sup> 1 x cable type RG58	20 m 20 m (advised < 5 m)
Transmitter photocells	1 x cable 2 x 0,5 mm <sup>2</sup>	20 m
Receiver photocells	1 x cable 4 x 0,5 mm <sup>2</sup>	20 m
Sensitive edge	1 x cable 2 x 0,5 mm <sup>2</sup>	20 m
Key-switch	1 x cable 4 x 0,5 mm <sup>2</sup>	20 m

\* If the power cable is longer than 30 m, a cable with a larger cross-section is required (3x2.5 mm<sup>2</sup>) and safety earthing is necessary in the vicinity of the automation.

## 3 - PRELIMINARY CHECKS

Before installing the product, perform the following checks and inspections:

check that the gate or door is suitable for automation;

the weight and size of the gate or door must be within the operating limits specified for the automation system in which the product is installed;

check that the gate or door has firm, effective mechanical safety stops;

make sure that the product fixing zone is not subject to flooding;

high acidity or salinity or nearby heat sources might cause the product to malfunction;

in case of extreme weather conditions (e.g. snow, ice, wide temperature variations or high temperatures), friction may increase, causing a corresponding rise in the force needed to operate the system;

the starting torque may therefore exceed that required in normal conditions;

check that when operated by hand the gate or door moves smoothly without any areas of greater friction or derailment risk;

check that the gate or door is well balanced and will therefore remain stationary when released in any position;

check that the electricity supply line to which the product is to be connected is suitably earthed and protected by an overload and differential safety breaker device;

the system power supply line must include a circuit breaker device with a contact gap allowing complete disconnection in the conditions specified by class III overvoltage;

ensure that all the material used for installation complies with the relevant regulatory standards.

# 4 - PRODUCT INSTALLATION

## 4.1 - Electrical connections

**WARNING** - Before making connections, verify that the installation is not powered

### MOTOR CONNECTOR

Terminal Block for power connections, for 24Vdc motor and encoder

M-	Motor power (red or brown)
M+	Motor power (green or white)
GND	Encoder (white)
ENC	Encoder signal output (green or blue)
+5V	Encoder power; (brown or red)

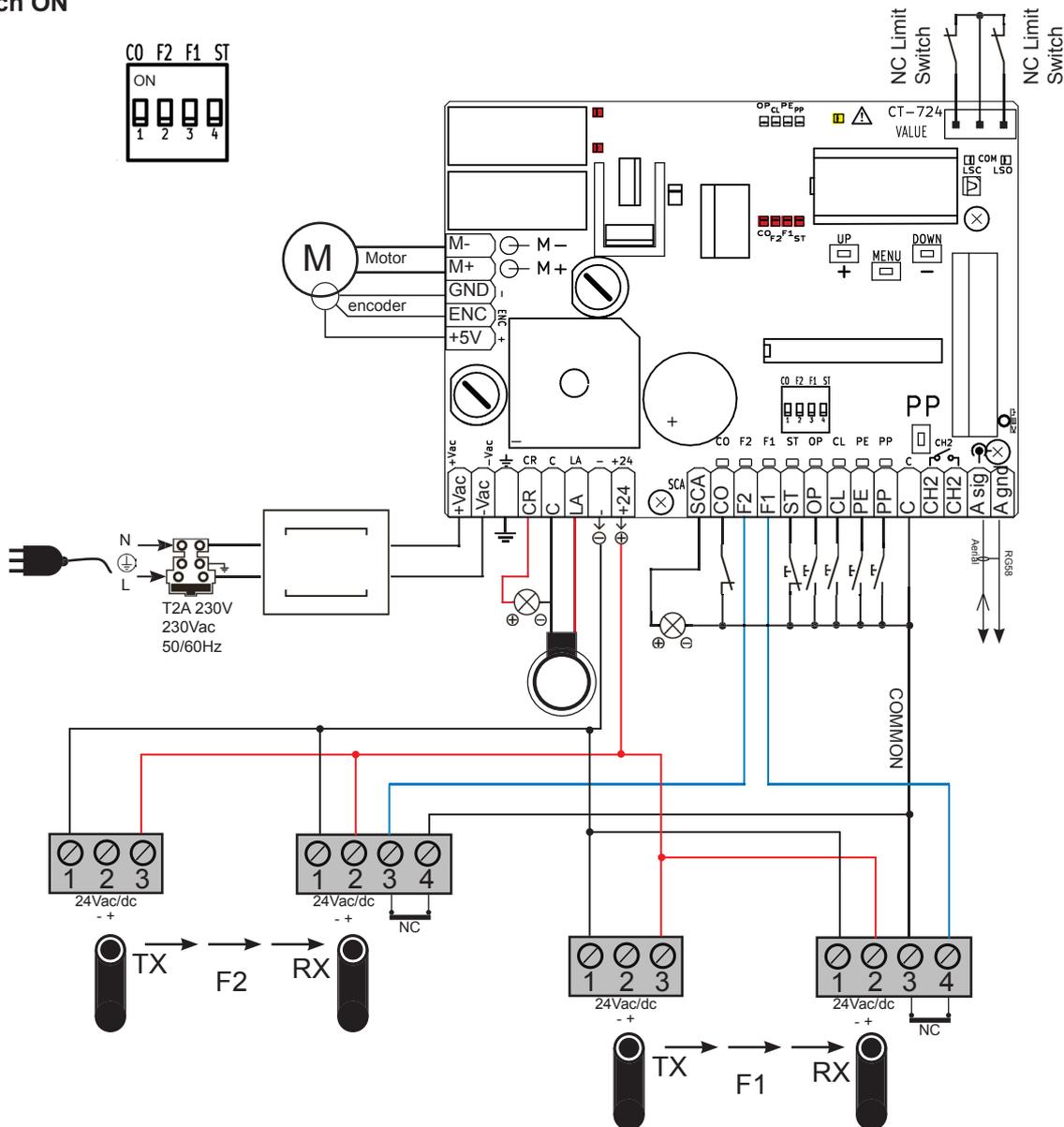
### SW5 SWITCH

Set at "ON" disables CO, F2, F1, ST inputs.  
Eliminates the need to jump the inputs on terminal block.

### POWER CONNECTOR

+Vac	Transformer Power 24+26 Vac (12 A peak)
-Vac	Transformer Power 24+26 Vac (12 A peak)
⊕	Grounding
CR	Courtesy light, +24 V to be connected to "C", 25 W max
C	Common for outputs "CR" and "LA"
LA	Flashing, +24 V to be connected to "C", 25 W max
-	Common for outputs "+24" and "SCA"
+24	Stabilized output, 24 V, 300 mA max, tolerant to short-circuit

**WARNING** - connected safeties are excluded with dip switch ON



## CONNECTION FOR SAFETY AND CONTROLS

SCA	Status indicator light, 24 V, 50 mA max, between SCA and -
CO	Safety edge, ON/OFF contact between CO and C (attention, with dip switch 1 ON it disables EDGE safety input)
F1	Photocells (closing), NC contact between F1 and C (attention, with dip switch 3 ON it disables PHOTOCCELL 1 safety input)  Photocells will work at any time during closing of the automation, causing an immediate stop and reversing the direction of movement
F2	Photocells (opening), NC contact between F2 and C (attention, with dip switch 2 ON it disables PHOTOCCELL 2 safety input)  Photocells will work at any time during opening of the automation, causing an immediate stop, the automation will continue only contact is reactivated.
ST	NC contact safety STOP between ST and C (attention, with dip switch 4 ON it disables STOP safety input)  This input is considered a safety; the contact can be deactivated at any time immediately stopping the automation, disabling any function including Automatic Closing.
OP	Contact OPENING NO input between OP and C. Contact for MAN PRESENT function. The gate OPENS as long as the contact is pressed.
CL	Contact CLOSING NO input between CL and C. Contact for MAN PRESENT function. The gate CLOSES as long as the contact is pressed.
PE	PEDESTRIAN input NO contact between PE and C. Partial opening input set with programming.
PP	STEP/STEP input NO contact between PP and C. Open/Stop/Close/Stop input set with programming.
C	Common for CO, F1, F2, ST, OP, CL, PE, PP inputs
CH2	Channel 2 receiver contact NO at rest
CH2	Channel 2 receiver contact NO at rest
A sig	Antenna - signal -
A gnd	Antenna - shield -

## 4.2 - Normal mode display

In "NORMAL MODE", when the installation is powered normally, the 3-digit LCD display shows the following status messages:

INDICATIONS	MEANING
--	Gate closed or restart after shutdown
OP	Opening gate
SO	Opening gate stopped
CL	Closing gate
SC	Closing gate stopped
HA	Gate stopped by external event
oP	Gate stopped without auto-reclosing
- tC	Open gate waiting for auto-reclosing, with dash indicates countdown
tP	Pedestrian gate waiting for auto-reclosing
3tC	Open gate waiting for auto-reclosing, the last 10 seconds are shown in the first character on the left

In addition, the dot between the above figures show the status of the limit switches as described below:

INDICATIONS	MEANING
.--	Limit switch CLOSED (one dot before the first digit)
t.	Limit switch OPEN (one dot between the two digits)
SO	No limit switch on (no dots)

## Malfunctions

This section lists some malfunctions that may arise.

In addition to signals on the display, the flashing light signals the error by a sequence of two short flashes pause two short flashes

<b>ENCODER ALARM</b>	The control unit does not read signals from the encoder
E88	<ol style="list-style-type: none"> <li>1. The encoder is not connected properly.</li> <li>2. The encoder is damaged.</li> <li>3. The motor is locked, and the sensitivity is too low.</li> <li>4. The motor is disconnected or the connections are damaged.</li> </ol>
<b>MOTOR OVERLOAD ALARM</b>	The absorption of the motor is higher than setting
E08	<ol style="list-style-type: none"> <li>1. The motor is locked and the control unit tries to unlock it with full power.</li> <li>2. There is strong friction or an obstacle is blocking the gate.</li> </ol>
<b>MOTOR SHORT CIRCUIT ALARM</b>	The motor hardware security is active
E58	<ol style="list-style-type: none"> <li>1. The motor or the power cables are short circuited.</li> <li>2. The motor is locked, and the current consumption is higher than the maximum threshold.</li> </ol>
<b>LIMIT SWITCH ALARM</b>	The limit switches do not work properly
E85	<ol style="list-style-type: none"> <li>1. The limit switches are damaged.</li> <li>2. The limit switches are disconnected.</li> </ol>
<b>PULSE OVERLOAD ALARM</b>	The motor current has increased very rapidly
E60	<ol style="list-style-type: none"> <li>1. The gate has hit an obstacle.</li> <li>2. There is friction on the guide or rack.</li> </ol>
<b>SAFETY EDGE ALARM</b>	The panel has detected a signal from the safety edge
E88	<ol style="list-style-type: none"> <li>1. The safety edge is pressed.</li> <li>2. The safety edge is not connected properly.</li> </ol>

After removing the alarm condition, to erase any error message, simply press "DOWN -" or press the PP button (STEP/STEP). The display restores the normal signals and the yellow LED turns off.

If the error is MOTOR SHORT CIRCUIT, the PP input has no effect. If you disconnect the power when errors are displayed, they are stored by the microprocessor and highlighted again at the next restart; to delete them permanently press two times MENU and then press one time DOWN.

### 4.3 - Self-learning of the travel

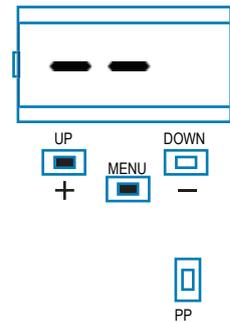
The first time that the control unit is powered, a self-learning procedure must be performed which allows the detection of the basic parameters such as length and weight of the gate or door and automatically adjusts certain basic parameters

Pressing + or - you can read the parameters on display (speed, power consumption, ...) that may be useful to verify that there are no obstructions or malfunctions of the installation during the travel. Here below the sequence in which they appear.

MEASURE	MEANING
Status display (OP, CL, SO, etc..)	Status and description of the display (OP, CL, SO, etc..)
Maneuvers performed	counter displays alternating the thousands (without dots) and the units (with dots).
Motor current [A]	Current absorbed by the motor
Position read by the encoder	Encoder position
Motor speed [m/min]	Motor speed
Voltage across the motor [V]	Read voltage across the motor
Motor voltage capacity control	from 0 to 255 (values from 000 = 0% to 255 = 100%)
Power absorbed by the motor [W]	Power absorbed by the motor

### SELF-LEARNING OF THE TRAVEL AND MAIN PARAMETERS

1. Unlock the gate, door or barrier, bring it to a central position and lock it again
2. Press buttons + and MENU SIMULTANEOUSLY for more than 5 seconds and get ready to press (if necessary) the DOWN button (see figure)
3. If the first maneuver is NOT an opening, press DOWN to stop the self-learning. Then press PP in order to restart the acquisition: the gate starts to move towards the correct direction
4. Wait until two complete maneuvers are carried out (2 openings and 2 closings) and the gate ends the travel in the closed position
5. Perform a few opening, closing and sudden stop operations, verifying that the installation is solid and there are no installation defects.



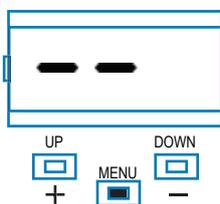
All the main parameters are initially set up by the control unit. To customize the installation proceed with the next paragraph.

### 4.4 - Customizing the installation - BASIC MENU

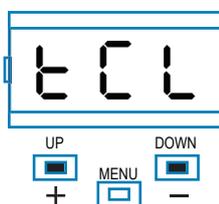
If necessary, you can select a BASIC MENU that allows you to change the basic parameters of the unit. To select the BASIC MENU follow the steps below.

**CAUTION:** To view the status defined as "NORMAL OPERATION", which is the starting point for accessing the BASIC MENU, press "MENU" two times

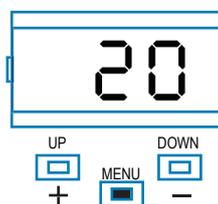
Example of changing a BASIC MENU parameter



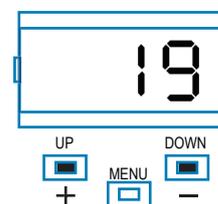
Hold down the MENU button for 1 second to enter the basic menu



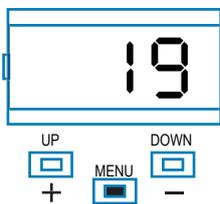
Once in the BASIC MENU, press + and - buttons to scroll through the functions



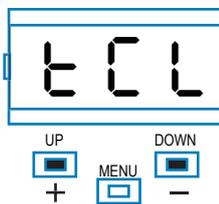
To change a value, hold down the MENU button for 1 second until the value stops flashing



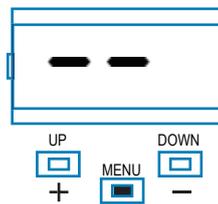
Press the + and - buttons to modify the value which is flashing



Hold down the MENU button for 1 second until it stops flashing to save the changed value or press MENU quickly to exit without saving



Once in the BASIC MENU, press + and - buttons to scroll through the functions and modify other parameters.



Press the MENU button quickly to exit the menu

PARAMETERS	DESCRIPTION	DEFAULT	MIN	MAX	UNIT
1	tCL Automatic reclosing time (0 = disabled)	0	0	900	s
2	ttr Reclosing time after transit (0 = disabled)	0	0	30	s
3	SEI Motor sensitivity, sensitivity to obstacles. ( 1 = lowest sensitivity, maximum force on the obstacle 10 = maximum sensitivity, minimum force on the obstacle)	1	1	10	
4	SPE Nominal motor speed	4 (6*)	1	10	
5	SSL Decelerating motor speed	3 (2*)	1	8 (3*)	
6	Sbs PP Configuration 0. Normal (OP-ST-CL-ST OP-ST-CL-ST ...) 1. Alternated STOP (OP-ST-CL OP-ST-CL ...) 2. Alternated (OP-CL OP-CL ...) 3. Condominium or timer 4. Condominium with immediate reclosing	0	0	4	
7	bct Behavior of the automation after a black out 0. No action, remains as it was 1. Closing 2. Completing the last maneuver	0	0	2	
8	Sby Energy savings: enables accessories to turn off with the gate closed (max consumption 40 mA) 0. Function disabled 1. Function enabled	0	0	1	

## 5 - TESTING AND COMMISSIONING THE AUTOMATION

The testing of the automation must be performed by qualified technicians who must perform the tests required by relevant legislation related to risks, ensuring compliance with the provisions of the

regulations, in particular the EN12445 standard, which specifies the testing methods for the automation of doors and gates.

### 5.1 - Testing

All system components must be tested following the procedures described in their respective operator's manuals;

ensure that the recommendations in Chapter 1 - Safety Warnings - have been complied with;

check that the gate or door is able to move freely once the automation system has been released and is well balanced, meaning that it

will remain stationery when released in any position; check that all connected devices (photocells, sensitive edges, emergency buttons, etc.) are operating correctly by performing gate or door opening, closing and stop tests using the connected control devices (transmitters, buttons or switches);

perform the impact measurements as required by the EN12445 standard, adjusting the control unit's speed, motor force and deceleration functions if the measurements do not give the required results, until the correct setting is obtained.

### 5.2 - Commissioning

Once all (and not just some) of the system devices have passed the testing procedure, the system can be commissioned;

the system's technical dossier must be produced and kept for 10 years. It must contain the electrical wiring diagram, a drawing or photograph of the system, the analysis of the risks and the solutions adopted to deal with them, the manufacturer's declaration of conformity for all connected devices, the operator's manual for every device and the system maintenance plan;

fix a dataplate with the details of the automation, the name of the person who commissioned it, the serial number and year of construction and the CE marking on the gate or door;

also fit a sign specifying the procedure for releasing the system by hand;

draw up the declaration of conformity, the instructions and precautions for use for the end user and the system maintenance plan and consign them to the end user;

ensure that the user has fully understood how to operate the system in automatic, manual and emergency modes;

the end user must also be informed in writing about any risks and hazards still present;

**WARNING** - after detecting an obstacle, the gate or door stops during its opening travel and automatic closure is disabled; to restart operation, the user must press the control button or use the transmitter.

## 6 - INSIGHTS - ADVANCED MENU

The ADVANCED MENU allows you to further customize the installation by changing some parameters not accessible from the basic menu

To access the ADVANCED menu, hold down the MENU button for 5 seconds. To change the parameters of the ADVANCED MENU pro-

ceed as indicated for the BASIC MENU

In the last column are indicated the parameters used only for a specific type of automation: SL sliding motor, BA barrier, BL overhead, SE sectional.

PARAMETERS	DESCRIPTION	DEFAULT	MIN	MAX	UNIT	TYPE
1	<b>LSI</b> Deceleration lenght Determines how far in advance reduced speed is imposed to the switch's stop.	50	0	200	Cm (step 10)	
2	<b>tRA</b> Ramp acceleration and deceleration time. The lower the value, the shorter and sharper is the ramp.	30	10	30		
3	<b>For</b> Impact force on obstacle: allows faster reaction time on the obstacle (e.g. impact in the absence of rubber edge), lower value = faster reaction time	90	0	100		
4	<b>bSt</b> Further acceleration at start. Useful to speed up the opening of the barrier.	1	0	1		BA
5	<b>trc</b> Obstacle/edge reverse time (0 = disabled)	3	0	20	s	SL
6	<b>LPO</b> Pedestrian opening lenght Determines the partial opening of the installation from the CLOSED position.	50	0	990	Cm (step 10)	SL
7	<b>tPC</b> Pedestrian opening automatic auto-reclosing time	20	0	600	s (step 10)	SL
8	<b>Ph2</b> Photocell F2 configuration 0. Enabled for both opening and closing OP/CL 1. Enabled only for opening OP	0	0	1		
9	<b>SPh</b> Enables opening with F1 obscured	1	0	1		
10	<b>dEA</b> Man Present configuration (only for open/close inputs) 0. 0. Disabled 1. 1. Man Present	0	0	1		
11	<b>CLE</b> Clearance. Allows to stop before the fully open position: it is useful to avoid mechanical stress during opening.	0	0	100		BA
12	<b>tPr</b> Pre-flashing time	0	0	10	s	
13	<b>tCY</b> Courtesy light timer	0	0	900	s (step 10)	
14	<b>FCY</b> Courtesy light configuration 1. On if courtesy light timer TCY is not expired 2. On if the gate is not closed + TCY time	1	1	2		
15	<b>SCY</b> Courtesy litht level at the end of the manouvre (0 = light is off, other values light will stay on all the time at the desired level)	0	0	100		
16	<b>OGI</b> Open gate light configuration 0. ON/OFF 1. Modulated by the position of the gate 2. Magnetic electric lock function ( interface with a 24V external relay). To activate this function it is necessary to activate also pre-flashing for 1 sec. (tPr = 1)	0	0	2		
17	<b>SEr</b> Cycles before Maintenance (0 = disabled). When level set is reached the next cycles will be done with a fast flashing to advise the user	0	0	100	1000 cycles	
18	<b>SEF</b> Enables the constant flashing of the request for maintenance (function performed only when the gate is closed) Under battery back-up flashing will not be performed	0	0	1		
19	<b>nEP</b> Number of encoder impulses per motor revolution	4	1	16		SL
20	<b>dEF</b> Sets default values and type of control 0. Sliding 1. Barrier 2. Sliding 400 Kg (nEP=1*) - LSI blocked at 50	0	0	1		

To set the default values: 1) Enter the advanced programming 2) Select the "dEF" parameter 3) Activate the edit mode (displays "0" flashing) 4) Accept the change (press "MENU" button for 2 seconds). At this point you should see a countdown d80,d79.....d02,d01

\* nEP value depends on motor encoder typology.

\* Values for 400 Kg sliding motors.

## 7 - INSTRUCTIONS AND WARNINGS FOR THE END USER

Key Automation S.r.l. produces systems for the automation of gates, garage doors, automatic doors, roller blinds and car-park and road barriers. However, Key Automation is not the manufacturer of your complete automation system, which is the outcome of the analysis, assessment, choice of materials and installation work of your chosen installer. Every automation system is unique, and only your installer has the experience and skill required to produce a safe, reliable, durable system tailored to your needs, and above all that complies with the relevant regulatory standards. Although your automation system complies with the regulation safety level, this does not rule out the presence of "residual risk", meaning the possibility that hazards may occur, usually due to reckless or even incorrect use. We would therefore like to give you some advice for the correct use of the system:

- before using the automation system for the first time, have the installer explain the potential causes of residual risks to you;
- keep the manual for future reference, and pass it on to any new owner of the automation system;
- reckless use and misuse of the automation system may make it dangerous: do not operate the automation system with people, animal or objects within its range of action;
- a properly designed automation system has a high level of safety, since its sensor systems prevent it from moving with people or obstacles present so that its operation is always predictable and safe. However, as a precaution children should not be allowed to play close to the automation system, and to prevent involuntary activation, remote controls must not be left within their reach;
- as soon as any system malfunction is noticed, disconnect the electricity supply and perform the manual release procedure. Never attempt repairs on your own; call in your installation engineer. In the meantime the door or gate can be operated without automation once the geared motor has been released using the release key supplied with the system. In the event of safety devices out of service arrange for repairs to the automation immediately;
- in the event of malfunctions or power failures: while waiting for the engineer to come (or for the power to be restored if your system is not equipped with buffer batteries), the door or gate can be used just like any non-automated installation. To do this, the manual release procedure must be carried out;
- manual release and operation: first bear in mind that the release procedure can only be carried out with the door or gate stationary.

- Maintenance: Like any machine, your automation system needs regular periodic maintenance to ensure its long life and total safety. Arrange a periodic maintenance schedule with your installation engineer. Key Automation recommends that maintenance checks should be carried out every six months for normal domestic use, but this interval may vary depending on the level of use. Any inspection, maintenance or repair work must only be carried out by qualified staff.

- Never modify the automation system or its programming and setup parameters: this is the responsibility of your installation engineer.

- Testing, routine maintenance and any repairs must be recorded by the person who performs them and the documents must be conserved by the system's owner.

The only procedures you are capable of, and which you are recommended to perform, are cleaning of the photocell glass and removal of any leaves or stones that may obstruct the automation system. To prevent anyone from activating the gate or door, release the automation system before starting. Clean only with a cloth dipped in a little water.

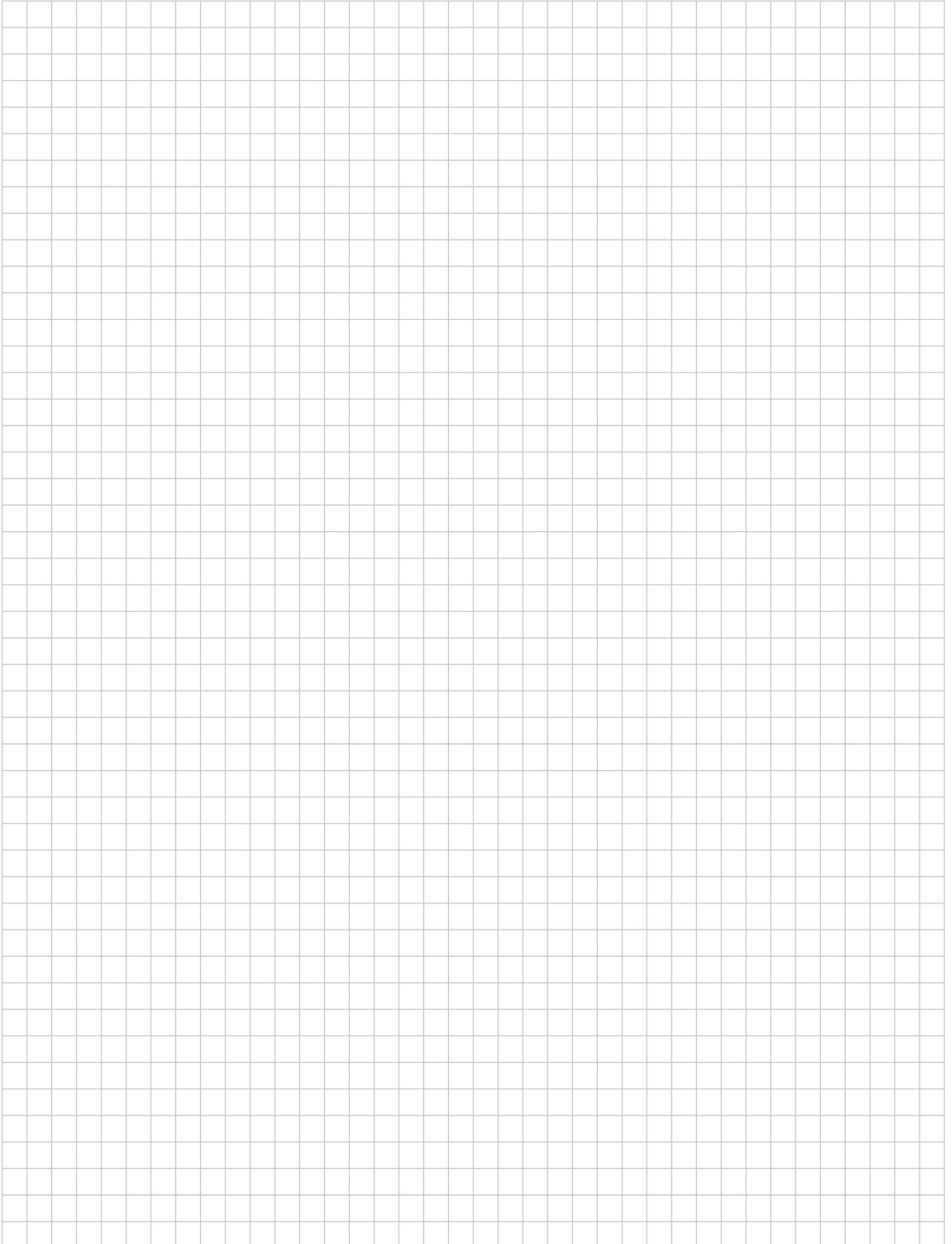
At the end of its useful life, the automation system must be dismantled by qualified personnel, and the materials must be recycled or disposed of in compliance with the legislation locally in force.

If after some time your remote control seems to have become less effective, or stops operating completely, the battery may be flat (depending on the level of use, this may take from several months up to more than a year). You will realise this because the transmission confirmation light does not come on, or only lights up for a very short time.

Batteries contain pollutants: do not dispose of them with normal waste but follow the methods specified by the local regulations.

Thank you for choosing Key Automation S.r.l.; please visit our Internet site [www.keyautomation.it](http://www.keyautomation.it) for further information.

## NOTES



### DICHIARAZIONE "CE" DI CONFORMITÀ DECLARATION OF CONFORMITY "CE"

Il costruttore: **Key Automation S.r.l.**  
The manufacturer:

Indirizzo: Via Alessandro Volta, 30 Noventa di Piave (Ve)  
Address:

#### DICHIARA CHE IL SEGUENTE APPARATO DECLARES THAT THE FOLLOWING EQUIPMENT

**Descrizione:** Centrale di comando per un motore 24 Vdc, con frizione elettronica e predisposta per l'innesto della scheda radio, con rallentamento in apertura e chiusura.

**Description:** Control unit for 1 motor 24 Vc. With electronic clutch and connectors for plug-in radio card, gradual departure and slowdown.

Modello: GO24  
Model:

Codice: **900CT-724S**  
Code:

- Risulta conforme con quanto previsto dalle seguenti Direttive Comunitarie, comprese le ultime modifiche e con la legislazione nazionale di recepimento
- Is in conformity with the provisions of the following Community Directives, including the latest modifications and with the assimilating national legislation

**2006/42/CE** Direttiva macchine  
Machinery Directive

**2004/108/EC** Direttiva compatibilità elettromagnetica  
EMC Directive 2004/103/EC

**EN 61000-6-2** : 2005 Compatibilità elettromagnetica (EMC) Norma generica – Immunità per gli ambienti industriali  
**IEC 61000-6-2** : Electromagnetic compatibility (EMC) – Generic standards – Immunity for industrial environments

**EN 61000-6-3** : 2007 Compatibilità elettromagnetica (EMC) Norma generica – Emissione per gli ambienti residenziali, commerciali e industria leggera  
**IEC 61000-6-3** : Electromagnetic compatibility (EMC) Generic Standards - Emission Standard for Residential, Commercial and Light-Industrial Environments

**EN 61000-3-2** : 2006 Compatibilità elettromagnetica (EMC) Limiti per le emissioni di corrente Armonica ( apparecchiature con corrente di ingresso  $\leq 16$  A per fase  
**IEC 61000-3-2** : Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)

**EN 61000-3-3** : 1995+A1:2001+A2:2005 Compatibilità elettromagnetica (EMC) Limitazione delle fluttuazioni di tensione e flicker in sistemi di alimentazione in bassa tensione per apparecchiature con corrente nominale  $\leq 16$  A e non soggette ad allacciamento su condizione  
**IEC 61000-3-3** : Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection

Key Automation S.r.l. garantisce detta conformità esclusivamente nel caso in cui l'apparecchiatura venga utilizzata come unità di comando/gestione di motorizzazioni nelle configurazioni tipiche di installazione e con periferiche conformi alle Direttive Europee.

Key Automation S.r.l. guarantees such a conformity only if the control unit is used as a control/management unit for automation system in typical configuration of installation and with peripherals which conform to the European Directives

Noventa di Piave 01/06/2011

  
Amministratore Delegato  
Chief Executive Officer  
Nicola Michelin

**Key Automation S.r.l.**

Via A. Volta 30 - 30020 Noventa di Piave (VE)

T. +39 0421.307.456 - F. +39 0421.656.98

info@keyautomation.it - www.keyautomation.it

Instruction version  
580ISCT-724 rev11