# **ERTAIN 4 SYSTEM**

# ACTUATOR FOR SLIDING DOORS

INSTALLATION MANUAL







# INTRODUCTION

ERREKA Automatic Doors thanks you for the trust placed in us and for having selected a product that we manufacture. We recommend detailed reading of this installation manual for proper assembly, the performance of your automatic door will depend on the quality of your work.

ERREKA Automatic Doors will not be held liable for any damages caused by an installation not in accordance with this Installation Manual.

Revisión No	Date	Modifications
		ERTAIN 4 operator (HW v.2.6)
05	18/05/20	(SW v 1.0.17)

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# 1. WARNING FOR INSTALLER

### Importance of this manual

- Before installing, please read this manual and follow all instructions. Otherwise, the installation may be faulty and may cause accidents and breakdowns.

- ERREKA Automatic Doors will not be held liable for any damages caused by an installation not in accordance with this Installation Manual.

# Intended Use

- This product has been designed to be installed as part of automatic opening and closing sliding pedestrian doors. It is designed for intensive use within the weight limits indicated on the characteristics. It is designed to be installed and used inside building.

- Any use for any purpose other than indicated is considered inadequate and therefore dangerous.

# Safety elements

- The unit meets all current safety standards. Follow the instructions of all the elements fitted in the installation.

- Erreka Automatic Doors shall not be held liable for the safe and smooth operation of the door when system components other than those produced and/or supplied by Erreka are used.

# 2. EC CONFORMITY STATEMENT

Manufacturer:	MATZ ERREKA, S. Coop.
	B º San Juan 93
	20570 Bergara (GUIPUZCOA) - SPAIN
Product:	Operator for automatic sliding door ERTAIN 4
States that:	The operator has been constructed to be incorporated into the machinery or to be assembled with
	other elements to create a machine under the following guidelines and standards:
	Machinery Directive 2006/42 CE
	EMC Directive 2004/108/CE
	Low Voltage Directive 2006/95/CE

• Power operated pedestrian door sets - safety in use, requirements and test methods: EN 16005

# 3. <u>TOOL KEY</u>





# 5. TECHNICAL FEATURES

CHARACTERISTICS	Operator 870
Clearway (2 sliding-leaves)	1000-3000mm
Clearway (1 sliding-leaf)	750-3000mm
Maximum weight per leaf (2 leaves)	100 + 100 Kg.
Maximum weight per leaf (1 leaf)	140 Kg.
Opening speed	0.2-0.7 m / s
Closing speed	0.1- 0.5 m/s
Maximum closing force	150 N
Temperature	-20ºC/ +50ºC
Door open timing	60 sec.
Power Supply *	230 V ~ (± 10 %) / 50 Hz
Consumption	100 W
Batteries	Ni Cd (24 v)

 $\Lambda^{*}$  Available upon request, the version of the operator for the supply of: 110 V ~ (± 10 %) / 60 Hz



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# 6.1 Measuring the structure beforehand

Measure the dimensions of the gap where the door will be installed:

- Clearance height (H)
- Total width (B)

- Define what the Clearway (LUP) is, the Clearance Height Width of the fixed leaves (FW), and the length of the support profile (B).

B=2xLUP+2xSC +100



# 6.2 Fitting the support profile

Variations on Support profile installation. <u>1.- Wall or UPN</u>



### 2.- Erreka lintel - self supporting beam 1



### 3.- Erreka lintel - self supporting beam 2



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### steps;

1.- Mark the installation height of the support profile. The profile must be set at 35mm from the base of the beam (wall / structure).

2.- Place side covers, fixing them to the support profile with  $\varnothing$  4.2x13 screws. Place the rubber (on the entire length) in the support profile.



3.- Make holes in the support profile on the marking lines.



4.- Fit the profile in the correct position and drill holes in the beam.

5.- Depending on the characteristics of the beam:

- Screw the holes for fixing the profile with M8 screws.

- Place anchors bolts to fix with spits.
- Fix the support with a special tapping screw.

6.- Secure the support profile. Make sure the profile is levelled.

# 6.3 Positioning the carriers on the rail

- With a size 4 Allen wrench loosen the half-way wheel (anti-derailing wheel) and move to the lowest position of the slot.
- Put the carriage above the carriageway of the support profile.

- Once the carriage is on track, move the anti-derail wheel up and secure it.

# 6.4 Place the fixed leaves

- Attach the fixed leaves, in accordance with the manual of the profile to be installed.

# 6.5 Fasten the leading edges to the sliding leaves

- Secure the leading edge brackets to the sliding leaves as in the drawing, the centre of the leading edge must be approx. 130 mm from the sides of the moving sheet.

- Fasten the M8x25 screws with a size 13 wrench (2 per leading edge).

- For all profiles, make the holes at the following measurements at the 2 ends.



- With a sliding leaf and electrolock, the centre of the leading edge

must be approx. at 175mm.

# 6.6 Hang the leaves on the carriages

- Secure the leading edges on the carriages with M6x16 Allen screws, the toothed washers and flat washers.

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Anti-derailing whee

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# 6.7 Depth adjustment of the sliding leaves

- Use a size 13 wrench to position the moving leaf parallel to the box profile, then measure the distance between the leaf and the beam or the wall. Put the 2 ends of the sheet at 5 mm.



# 6.8 Fitting the Guide

- Move the sliding leaf to find an angle of 90° degrees, to do so use a spirit level.

- At this point, position the guide on the ground at the end of the fixed leaf, with the block inserted into the sliding leaf guide, mark the ground when the blade is level.

- Then secure the guide to the ground and slide the leaf over the guide.





# 6.9 Height Adjustment of the Leaves

- Adjust the leaf height using the central screw of the carriage. This regulation is very important, the leaves must be parallel when they meet.



- Place a limit switch where the moving blades meet, to do so insert 2 long nuts on the rail and fasten the limit switch stop with M6x10 Allen screws.

- The other limit is placed on one of the sides.





Regulation



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# 6.11 Preparation of wiring

- It is ADVISABLE to insert peripheral device wiring (photocells, radars, selector, etc.) before placing the motorization, as afterwards there is little room for your hands. Try to pass them through to the frame's positioning height to make it easier to connect to the frame. Use grommets to attach the cables, which are supplied and placed in the support profile (see the picture below).





- Fix the separating nuts with DIN 7984 M6x16 allen screw and splined washer using a wrench nº10.

6.12 Attaching the arms of the carrierss

- The arms must be installed as follows: the right arm in the up position (inside right carrier) and left in the down position (inside left carrier.)



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# 1 Sliding leaf

### - Right opening

Fix the arm to the right carriage above.

### - Left Opening

Fix the arm to the left carriage below.



# 6.13 Positioning and fastening the motorised profile

- Remove the 3 screws M6x16, flush with the elongated nut and leave them on the rail as illustrated.
- Open the doors before placing the motorization, so that arms are not in your way.
- Hold the motorization with both hands and push it until it fits snug with the support profile.
- Move the assembly inward so that it fits into the tabs. Once seated, the motorization can be released.
- Position the motorisation to the side depending on the type of installation.
- Push the M6x16 Allen screw until it touches the support profile and turn the screw, until you see the motorization profile press against the support profile.













### Place the motorization in the Support profile

- 2 sliding leaves or 1 sliding leaf: MOTORIZATION ON THE RIGHT HAND SIDE AND TENSOR PULLEY ON THE LEFT HAND SIDE,

# 6.14 Belt assembly and tensing

# □ Step 1

- Fit the belt in both pulleys
- Tense the belt with hands and cut it where both ends meet.



# Step 2

- Insert 4 teeth of the belt in the arm bracket.
- Insert other 4 teeth of the other belt end in the other side of the belt bracket.



# □ Step 3

- Put the bracket cap into the bracket with 2 screws and 2 nuts. Fasten them slightly
- Slide the arm into the nuts and fasten the screws.



# □ Step 4

- In case of two leaves door fasten the other bracket to the other arm in the other side of the belt.
  - Tense the belt from tensor pulley. Turn the tensor screw with nº 10 spanner and fasten two screws with nº 4 allen wrench.



# 6.15 Secure the brackets to the arms

- Release a little the countersunk M6x12 screws, which the brackets have been attached to, move one of the sliding leaves. When M6 nuts used to secure the bracket are located within the arm rail, fasten the M6 countersunk screws with a size 4 Allen wrench.

- Move the 2 loose-leaves until they meet, then secure the other bracket, to the other arm, perform the same operation and carry out a manual check of the movement of the leaves to the end of the course.



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# 6.16 Put the cover positioners

- Place the elongated nuts in the direction of the rail profile support, move the screws up until they stop against the profile. Turn the key clockwise and fit the positioner plate to the support.

- Place the two positioners brackets ( see drawing).

- Put the positioners in the Cover Profile. These should be at the same height of the bracket set in the support profile!

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# 6.17 Secure the cover profile

- Drill two 6.5 mm diameter holes at both ends of the cover profile.

- The distance from the centre of the hole to the end should be 12mm.

- Attach the hanging system cables (one at each end of the machine) to the support profile and to the cover profile, as shown in the figure.

- To place the cover profile bracket first, rest the end of the cover on the ball of the support profile. Supporting the profile, let it fall under its own weight which the lid pivots. Finally secure the profile to the side covers using two M6x15 screws (one at each end).

Note: For maintenance you can leave the lid attached by the support profile or suspended by the hanging cords.







# 6.18 Electrolock assembly and manual unlocking

If the door does not have any electrolock system, go directly to the next chapter, otherwise follow the instructions below. Depending on the type of installation, the electrolock will be placed in different positions:

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# 7. CONTROL BOARD CONNECTION

# 7.1 Control board terminals



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TERMINALS	SPECIFICATION
J1	Internal sensor input terminal
J2	External sensor input terminal
J3	Photocell 1 input terminal
J4	Photocell 2 input terminal
J5	bus CAN input terminal: Digital selector or rotary key selector
J6	Open impulse, close impulse input terminal (External key)
J7	Programmable input terminal
J8	Safety sensor 1 input terminal
J9	Safety sensor 1 input terminal
J10	Programmable output terminal
J11	Electrolock terminal
J12	Battery terminal
J13	Encoder terminal
J14	Motor supply + temperature sensor terminal
J15	Power supply input terminal
J16	External Reset input terminal
J17	Operator adress Dipswitch

FUSES	SPECIFICATION
F1	Fuse : SMD10 A "Littelfuse 0453019.MR" (battery protection)
F2	Fuse: SMD 10 A "Littelfuse 0453019.MR" (Power supply transformer protection)



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# Mains connection

For proper commissioning, it's advisable to pass mains wires from the right hand side of the machine. The recommended cable is a three wires one with a mininum wire section of 2,5.

The power supply unit is formed by a transformer, Ni Cd batteries and switchboard unit which has an ON /OFF switch, a network filter and a 2 A protection fuse. To remove the fuse you have to take out the plastic cover.



Pass the cable over the cable gland and then clip it into the support profile and take it to the power supply unit.

Connect power wires in the following order: Line (L) wire in the upper terminal, neutral (N) wire in the lower terminal and ground wire (PE) in the middle terminal.

In order to eliminate electrical derivation and static tension, once the power cable is connected, it is advisable it's recommended to connect ground wire to the chassis or support profile.



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# Batteries (emergency opening)

#### **Description**

Ni Cd batteries, with 24V supply and 800 mAh power.

#### Main function

The main function of the batteries is to open the door and keep it in this position (open door) when the power fails. It will stay open until the power returns in all working modes ( automatic, winter, exit, open door) except for "closed door" and "manual mode". The digital selector display will show an "Error 17".

In the "closed door" mode, the door will remain in closed position even if power fails. In the manual mode, the battery will not activate as the motor will not have power, so it will stay in manual mode.

#### Standby mode

When the power supply fails the batteries will give power to the control board and peripherals for one hour. After that, the control board will pass to a "standby mode", where external devices are not supplied and the control board goes into "sleep" mode.

To wake up from "sleep" mode, it needs a signal from the open impulse (KB) or close impulse (KC). With both inputs the batteries can be activated to open or close the door.

#### Open Impulse ( KB) / Close impulse ( KC)

As has been explained in "standby" mode, the doors can be operated without the power supply by batteries with both inputs, "open impulse" KB and "close impulse" KC.

Warning!: It is not recommended to connect any charge to KX (com) input. It is not possible to supply any device in this input.



# Photocell connection

Photocells ensure that the leaves do not trap anyone when closing by stopping the door and opening it inmediately, if any obstacle is detected in the leaves closing lines. The door will remain in "open door" if the photocell detects any person or obstacle.

- Connections:



### - Photocell setup

The photocells that are installed have a test input to monitor and ensure there are working properly. Therefore, by default, the input should be set up "with test" mode. Before every closing cycle the control board will check the photocell to ensure it is working correctly.

Nevertheless, the operator is able work with photocells that do not have a test setting input. In that case photocells should be set by digital selector "without test".



To access the "Technical menu": Press the following 3 buttons during a 1 second duration: Door open, door close and winter.



Once inside menu, choose the following set up for photocells:



Technical menu Setup Basic functions Advan. functions Sensors Movement param.	OK	Sensors Activ. Sensors Photocells Safety sensors >Test activation	OK	Test activation NC NO
--	----	---	----	-----------------------

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Control board					Sens	or set u	р			
		Dip	Switch	<u>X</u>			-	Dip Swit	ch Y	
Red (12-24 V), Grey (Test-P), 7 +24v		1	2	3	4		1	2	3	4
Black (GND) 8 GND	Off		Х	Х	Х	Off	X	Х	х	X
Blue (Emiter) 9 SIS 1	ON	Х				ON				
Brown (Test-N) 10 TEST				Dip Sv	vitch 2	2				-
		1	2		3	4	5	6		
	Off	X	X		x	Х				
	ON				İ		X	Х		

# - RAD 12 ( Hotron SSR-3)

Control board				Sen	sor se	t up					
		Dip Switch X									
Red (12-24 V), Grey (Test-P), 7 +24v Yellow (Colector)		1	2	3	4	5	6	7			
Black (GND) 8 GND	Off		Х	Х	Х	Х	Х	Х			
Blue (Emiter) 9 SIS 1	ON	Х									
Brown (Test-N) 10 TEST		Dip Switch Y									
		1	2		3	4	5	6			
	Off		X		x	Х		Х			
	ON										
	L	1									

### - RAD 23 ( Hotron 3H-IR14C)

Control board				Sens	or set	ир			
				Dip	Switc	<u>1</u>			
Red (12-24 V), Grey (Test-P), 7 +24v Yellow (Colector)		1	2	3	4	5	6	7	8
Block (GND) 8 GND	Off			Х					Х
Blue (Emisor) 9 SIS 1 Brown (Test-N) 10 TFST	ON	х	x		Х	Х	Х	x	

# - RAD 13 ( Hotron 3H-IR14)

	Control board						Sens	or set	ир			
							Dip	Switc	h			
Red (12-24	V), White (com)	7 +24	v		1	2	3	4	5	6	7	1
	Black (GND)	8 GNI		Off			Х					)
	Green (Emisor)	9 SIS	1	ON	Х	Х		х	х	Х	X	
		10 TES	т									



# Activation sensors

Activation sensors issue the signal to open the door when it's closed or closing. Usually thay are installed in the centrer of the operator, one outside above lintel, and the other inside on the cover of the operator.

- Connect internal sensor wires to the control board directly

- Connect the external sensor wires directly from the center of the operator or passing them to the edge of the operator from the left hand side.

- View the following diagram to make the connections:

### - Connections:



2.- External sensor



# - RAD 17 (Hotron HR 100CT) / RAD 12 ( HOTRON SSR-3)

Control board	Sensor set up
Green (com) 1 +24v 2 GND 3 KI Red (12-24 V) 7 +24v Block (GND) 8 GND 9 SIS 1 10 TEST	Dip switch Y Activation Output NO

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# - RAD 23 (Hotron 3H-IR14C)

Control board	Sensor set up
Green (com) 1 +24v	
2 GND	
White (NO) 3 KI	
Red (12-24 V) 7 +24v	
Black (GND) 8 GND	
9 SIS 1	
10 TEST	

#### - RAD 13 ( Hotron 3H-IR14)

Control board	Sensor set up
Red (12-24V), White (com) 1 +24v Black (GND) 2 GND Yellow (NO) 3 KI	

### - RAD 9 ( Hotron HR- 50)

Control board	Sensor set up
Grey (12-24V), Yellow (signal) 1 +24v Grey (12-24 V) 2 GND Yellow (signal) 3 KI	Dip switch Activation Output NO

### - RAD 8 (BEA Seagle two)

	Dip switch
Brown (12-24V), White (com) 1 +24v Green (12-24 V) 2 GND Yellow (signal) 3 KI	Activation Output NO



# Safety sensor

This devices are installed in front of the fixed leaves and avoid trapment in the opening movement. When detect any person or obstacle, slow down the opening speed until the maximum opening position.

Warning: If there is any obstacle in the opening area the door will open at slow speed.



### - Connections



### - Safety sensor set up

The safety sensors that could be installed shoud have test input in order to monitorize them and to ensure they work properly. Therefore, by default, input will be set up " with test".

If the input has to be modified, navigate to the technical menu.

To access the "Technical menu": Press following 3 buttons during 1 second : Door open, door close and winter.



Once inside menu, choose the following set up for safety sensors:



# - FOT 9 (Hotron HR 94D1)

Control board	Safet sensor set up				
Red (12-24 V), Grey (Test-P), 25 +24v Yellow (Collector) Black (GND) 26 GND Blue (Emiter) 27 SIO 1 Brown (Test-N) 28 TEST	<u>Dip switch</u> Safety sensor output NA 6	Dip switch Test input OFF			

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# Electrolock

There are two types of electrolocks:

- "Failsecure", locks the door by default.
- "Failsafe", releases the door by default.

Therefore, depending on the use or commisioning features, we advise using one or the other:

- If the door is in emergency escape routes: "Failsafe" electrolock.
- If the doors are not in emergency routes and must normally be closed for secutity reasons: " Failsecure" electrolock

#### **Connections**

#### Failsecure electrolock



#### Failsafe electrolock





#### 4 **Digital selector**

### Warning! The digital selector is essential for commissioning.

The digital selector is the communication device between the user and the control board, which can be used to carry out the following actions:

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- 1.- select the door's working modes.
- 2.- Set up different function parameters
- 3.- Activation and deactivation configuration options
- 4.- Troubleshooting and error mode diagnosis

The digital selector has 6 buttons to select and adjust options and a display to show we can see and adjust the diferent optiond of the operator. The display is usually in energy saving mode with low light until any button is pushed, at which point the display will fully light up and any parameters and configuration are displayed.

When the door is working, the display will show the working mode that is activate at that time.



The	settings	and	configuration	with	the	digital	selector	are	explained	in	the	chapter	9.
						24			-				

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# 4 Rotary key selector

Like the digital selector, the rotary key selector is an interface for communication with the control board, but has more limited functions. This device cannot be used to configure the mechanism. These are the functions that it can be used for:

1.- Selecting the different working modes (there are 6 modes)

2.- Error diagnosis ( does not differentiate between error modes). To determine the specific error connect the digital selector. When the led blinks for one second it indicates that it is working properly; when it blinks faster there is an error.

The rotary key selector has a 6 position switch with the following working modes: automatic, door open, door close, winter, exit and manual mode. It has also a reset button ( the button can be used to " set up" the system if held for 5 seconds and to do a "reset" if held 1 second).



# Open impulse / close impulse ( external key)

These two inputs enable opening and closing the door, apart from the usual working modes from the selector. These Inputs are impulsive and have priority over working modes and other inputs. KB input enables opening the door and KC input closing the door.

There are different devices that we can connect to these inputs. The most commonly used is the external key. The external key has two positions. One to connect to KB to open the door and the other to connect to KC to close the door. In the same way, we can connect other devices such as card readers, transponders, access controls...

Each input works as follows :

### Open impulse ( KB)

Each KB impulse generates an opening clycle. If it star from closing position, opens the door and after one second in open position it closes. Beside that, the operator pass to the working mode that define the selector (digital or key one). Even if we are activating KC it does the opening cycle.

In case of network power failure, every activation of KB opens the door with battery.

#### Close impulse (KC)

This input enables closing the door but the function is not same as the "door close" working mode. It is a more secure closing, as "night mode", because it disables the digital selector. Only the person holding the key can open the door or enable the use of the selector. The "night mode" it is displayed as a "close mode" with a Key icon.

Each pulse of KC runs the door to its closed position from any working mode. The only way to exit "nigt mode" is to activate KB input.

In case of power failure, each KC impulse will run the door to its closed position using the battery.

#### - Connection:

1	
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Open impluse (KB)



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#### Close impulse ( KC)



Warning!: It is not recommended to connect any charge to KX (com) input. It is not possible to supply any device in this input.

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# Programable inputs PI1 and PI 2

#### PI 1: Emergency / Fire alarm

The PI 1 input is , by default, programed as an emergency or fire alarm input. Every pulse of this input runs the door to open position. This signal is programed by default as a continuous signal and NO (normally open). If required it can be programed as pulse signal an NC (normally closed).

# PI 2: Panic breakout

The PI 2 input is, by default, programed as a panic breakout input for panic breakout frames. The magnetic contact of the profile has to be connected to this input. When the magnetic contact is opened the door will go to the open position and remain open until the signal of the magnetic contact changes.

# Programable outputs PO1 and PO 2

#### PO 1: Error signal

The PO 1 output, give a signal or switch on the output relay every time any error is come off. It's possible to connect this input to any device to control the door remotely.

#### PO 2: Door open or opening signal

The PO 2 output, give a signal or switch on the relay when the door is opened or opening. It's a suitable output to connect a buzzer or any sound signal to know the door is opening.

# External Reset input

External Reset input (53 and 54 terminals) can be used to perform reset function in case of there is not any selector installed.

It is possible to instal a push button or any other switch to the input in order to develop the reset maneuver.



# 8. <u>SET UP</u>

Once the operator is installed, the power supply running and all sensors, function digital selector and devices connected ( as indicated in chapter 7.3), follow the next steps to run the set up:

1.- Switch on the power supply unit switch.

2.- Ensure the door starts a closing manoeuver in slow motion. At the same time, the digital selector will swtich on and after some seconds with "Erreka" icon in the display, it will change to show the "reset" icon. Reset manoeuver is an complete open and close cycle in slow motion.

3.- Once the "reset" is finished, the selector display will show to "**Error 01**". This means "set up" is not done, and the "set up" must be run. The operator cannot start working until "set up" is complete.

	ERROR 01	
4 To run "set up" we have to pu enter into "technical menu".	ush, <b>II</b> , <b>III</b> and <b>**</b> b	uttons together during one second to
<ul> <li>5 Once inside "technical menu" times</li> <li>6 The operator will start a oper speed to calculate door weight. parameters, door weight and op</li> <li>7 After "set up",operator run to possible to adjust any parameter</li> </ul>	" push OK button OK twice to run "set un ok twice to run "set un ok twice to run "set un ok twice to run "set un twice to run "set un ing and closing cycle at slow motion and the of The display will show " set up" icon. In the "set ening point. "automatic" mode. The display will show " autor r or configure any option of the door.	up". Then push C ( cancelle or back) three other opening and closing cycle at normal : up" the operator can initiate all omatic" icon. Once "set up" finished it´s
Technical menu Setup Basic functions Advan. funtions Sensors Movement param.	Setup Setup	Setup СК
	(28)	



# 8.1 Working modes

These are the different types of operation or states the door can work in. There 6 different working modes that can be selected by using the digital or the rotary key selector:

<u>1.- Door open</u>



The door opens and remains open in the maximum opening position.

### 2.- Door closed



The door closes and stays closed. The door remains in closed position even if the sensors are activated and until the mode changes. If electrolock is installed the door is closed and locked so that no one can enter.

3.- Automatic ( two way)



This is the most common working mode. This mode allows traffic in both directions, so that all the detection devices are enabled. The door will remain closed until one of the devices is activate. If any device activates the door will open and after a hold-open time (adjustable) it will close again until further detection.

#### 4.- Exit (one way automatic)



This allows traffic to exit to the exterior. In this direction, it works as "two-way automatic" and for people exiting and as a "Door Closed " mode for people entering.

#### 5.- Winter mode (partial automatic)



This works the same as "automatic" mode but with a reduced or partial opening distance. This opening distance can be adjusted by digital selector. By default it is 70% of the maximum opening distance.

Winter mode functioning is different with the digital selector or key selector. With the digital selector when we push "winter mode" it will work in partial opening in these working modes : "automatic, "exit" and "door open". With key selector "winter mode" only works in automatic.

6.- Manual mode



In manual mode, the door stops and the motor is released. Thus, the door can be esaily moved manually and left in the required position. It's very usefull if the door has instaled a manual lock. In this case, the door and lock will be closed manually.

When you change to other working mode, the door goes to the closed position in slow motion and then the mode changes to the selected one.

# 9. ADJUSMENT OF PARAMETERS FROM SELECTOR

To enter the paramater adjustments, we have to start from the "Door open" mode. Otherwise the processor will not safe or record the adjustments. There are 2 menu levels :

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If in any time the communication between operaot and digital selector is missed, it is necessary to run a slector reset to recover the communication. After few seconds, the communication will be recovered.

RESET

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SELECTOR RESET



Within 30 sec. The comunication will be recovered.





This is the list of parameters that can be set from the User menu:

1.1 Parameters		
	1.1.1 Door open time	(0 a 20 sec)
	1.1.2 Opening speed	(+/- 10 % technical menu values)
	1.1.3 Closing speed	(+/- 10 % technical menu values)
	1.1.4 partial opening	( winter opening position from 0 to max opening mm)
1.2 Lenguages		
	1.2.1 Spanish	
	1.2.2 English	
	1.2.3 French	
	1.2.4 Dutch	
	1.2.5 Portuguese	
	1.2.6 Basque	
1.3 Information		
	1.3.1 General	
		Commision. date
		Operator
		Serial Number
		Last maint. date
	1.3.2 Machine	
		Number of cycles
		Functionig Time
		cycles from last maint.
		Last error

### 2.- TECHNICAL MENU





It's a programation level allowed for Tecnical service. It's necessary to have technical knowledge to adjust the proper parameters.

In the display we cill see the following menu:



This is the list of parameters that can be set from the Technical menu:

2.1.1 Setup	To set the door for first initial settings	It does a reset (open and close slowly) and the 1 cycle of open and close at normal speed
2.1.2 Default param.	To erase the settings to return factory settings.	It does a reset ( open and close slowly)
2.2.1 Type of door		
	2.2.1.1 Normal	
	2.2.1.2 Emergency	
		2.2.1.2.3 Elastic
2.2.2 Motor type		
	2.2.2.1 Ertain	
	2.2.2.2 Global	
2.2.3 Motor turn sense		
	2.2.3.1 Clockwise	
	2.2.3.2 Anticlockwise ( not available)	
2.2.4 Electrolock		
	2.2.4.1 type	2.2.4.1.1 FailSafe
		2.2.4.1.2 FailSecure
		2.2.4.1.3 Bistable
		2.2.4.1.4 OFF
	2.2.4.2 Test (microswitch)	
		2.2.4.2.1 ON
		2.2.4.2.1 OFF
2.3.3 Trapment		
	2,3,3,1 Sensitiveness	Value from 1 to 5 ( 3 by default)
		1 is more sensitive and 5 less sensitive
	2.1.1 Setup 2.1.2 Default param. 2.2.1 Type of door 2.2.2 Motor type 2.2.3 Motor turn sense 2.2.4 Electrolock 2.3.3 Trapment	2.1.1 Setup       To set the door for first initial settings         2.1.2 Default param.       To erase the settings to return factory settings.         2.2.1 Type of door       2.2.1.1 Normal         2.2.1 Type of door       2.2.1.2 Emergency         2.2.2 Motor type       2.2.2.1 Ertain         2.2.2.3 Motor turn sense       2.2.3.1 Clockwise         2.2.4 Electrolock       2.2.4.1 type         2.2.4 Electrolock       2.2.4.1 type         2.2.3.3 Trapment       2.3.3 Trapment



		2.3.3.2.1 Normal
		2.3.3.2.2 Safe
2.3.4 Inputs / Outputs		
	2.3.4.1 Input 1	
		2.3.4.1.13 Emergency
		pulse NC 2.3.4.1.14 Emergency
		pulse NO
		continuos NC
		2.3.4.1.16 Emergency continuos NO
		2.3.4.1.17 Panic breakou
		2.3.4.1.18 Panic breakou
	2342 Input 2	NO
		0.0 / 0.40 Emerson co
		2.3.4.2.13 Emergency pulse NC
		2.3.4.2.14 Emergency pulse NO
		2.3.4.2.15 Emergency
		2.3.4.2.16 Emergency
		continuos NO
		NC
		2.3.4.2.18 Panic breakou NO
2.4.1 Activ. Sensors		
	2.4.1.1 Internal	
		2.4.1.1.1 NC
		2.4.1.1.1.2 NO
	2.4.1.2 External	
		2.4.1.2.1.1 NC
		2.4.1.2.1.2 NO
2.4.2 Photocells		
	2.4.2.1 Internal	
		2.4.2.1.1 NC without test
		2.4.2.1.2 NC with test
		2.4.2.1.3 NO without test
		2.4.2.1.4 NO with test
	2.4.2.2 External	
		2.4.2.2.1 NC without test
		2.4.2.2.2 NC with test
		2.4.2.2.3 NO without test
		2.4.2.2.4 NO with test
2.4.3 Safety sensors		
-	2.4.3.1 Safety sensor 1	
	-	2.4.3.1.1 NC without test
		2.4.3.1.2 NC with test
	1	
		2.4.3.1.3 NO without test
		2.4.3.1.3 NO without test
	2.3.4 Inputs / Outputs         2.3.5 Inputs / Outputs         2.4.1 Activ. Sensors         2.4.2 Photocells         2.4.2 Photocells         3.3.3 Safety sensors         3.3.4 Inputs / Outputs	2.3.4 Inputs / Outputs         2.3.4.1 Input 1         2.3.4.2 Input 2         2.4.1 Activ. Sensors         2.4.1 Activ. Sensors         2.4.1.2 External         2.4.2 Photocells         2.4.2 Photocells         2.4.2 External         2.4.3 Safety sensors         2.4.3 Safety sensors         2.4.3.1 Safety sensor 1

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			2.4.3.2.1 NC without test
			2.4.3.2.2 NC with test
			2.4.3.2.3 NO without test
			2.4.3.2.4 No with test
	2.4.4 Test activation		
		2.4.4.1 NC	( by default)
		2.4.4.2 NO	
2.5 Movement			
parameters	2.5.1 Closing param.		
	<b>3</b>	2.5.1.1 Max. Speed	(200 a 500 mm/seg)
		2.5.1.2 1º Aceleration	(300 a 500 mm2/seg)
		2.5.1.3 1ª dec. Position	(Position in mm)
		2.5.1.4.1ª dec. Sneed	(200 a 500 mm/seq)
		2.5.1.5.2º dec. Position	(Position in mm)
		2.5.1.5.2 dec. 1 03mon	(1 031101 11 1111) (50 to 200 mm/seg)
		2.5.1.7 Einal dec. Pos	(Position in mm)
		2.5.1.8 Annroach speed	(10 to 20 mm/seg)
	2.5.2 Opening param		(10 to 20 mm/seg)
		2521 Max Speed	(200  to  000  mm/soc)
		2.5.2.1 Max. Speed	(300 to 300 mm/seg)
			(Soo to 700 mm2/seg)
		2.5.2.3 1ª dec. Position	(Position in mm)
		2.5.2.4 1ª dec. Speed	(200 to 500 mm/seg)
		2.5.2.5 2º dec. Position	(Position in mm)
		2.5.2.6 2º dec. Speed	(50 to 200 mm/seg)
		2.5.2.7 Final dec. Pos.	(Position in mm)
		2,5,2,8 Approach speed	(10 to 20 mm/seg)
	2.5.3 Reverse movemement		
		2.5.3.1 Slow reverse Position	(Position in mm)
		2.5.3.2 Normal reverse. Position	(Position in mm)
		2.5.3.3 Fast reverse Position	(Position in mm)
2.6 Access code			
	2.6.1 Code change		
		2.6.1.1 Introduce new code	
	2.6.2 Reset code		
		2.6.2.1 Ask confirmation of code	
	2.6.3 Code activation	reset	
		2.6.3.1 OFF	
		2.6.3.2 ON	

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# Signs in the display of digital selector

Apart from the text there are some signs it can be seen in the digital selector:

1.- Error indication in the center of display

with the number orf error

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2.-" Winter mode" sign in the bottom part at the right hand side

3.- Locked selectro sign in the bottom part at the left hand side .



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# 10. TROUBLESHOOTING GUIDE

Operator is checking continually the proper performance and runing a continuous diagnosis of key components of the machine and monitorize all sensors connected to the control board. So that, if any failure is detected digital selector warns the error type.

This is the list of errors operator can detect automatically

# LIST OF ERRORS

Type of	Description	Possible cause	Possible solution
Error			
Error 4	Incomplete Set un	"Set up" maneuver it has not	Activate "set up" from
	incomplete Set up	been performed	digital or key selector
		1.Door might be bloqued by	
		an obstacle.	1.Check if door has any
Error 2	Obstruction	2. Door might hit an obstacle.	obstacle.
Enol 2	Obstruction	3. Encoder cable might be	2. Check motor turns free
		damaged.	3. Check encoder cable.
			1.Check electrolock latch
			can move free.
Error 3	Electrolock failure	Electrolock might be stuck	2. Check the microswitch.
			It has to make contact
			when the latch is above.
Error 4	Microprocessor memory failure	Damaged microprocessor	Remove control board
-		The transistor of motor	Door will open slowly and
Error 5	Motor driver temperature	control are overheated or	stop until driver
		damaged	temperature is cool.
			1. Unlock the leaves or let
	Motor overcurrent	1. Motor control transistor are	leaves released.
Error 6		overheated	2.Check if there is any
		2.Leaves are too heavy or	friction for displacement.
		leaves has too much friction	Adjust and lower door
			speed . Run a "set up".
			Door will open slowly and
Error 7	Motor temperature to high	Motor is overheated	stop until motor
			temperature is cool.
Error 8	Inside photocell continuously activated	Obstacle in the detection area	1. Remove obstacle
		of photocell	2. Readjust photocell set
			up
Error 9	Outside photocell continuously	Obstacle in the detection area	1. Remove obstacle
	activated	of photocell	2. Readjust photocell set up
Error 10	Inside sensor continuously	Obstacle in the detection area	1.Remove obstacle
	activated	of sensor	2.Readjust sensor set up
Error 11	Outside sensor continuously	Obstacle in the detection area	1.Remove obstacle
	activated	of sensor	2.Readjust sensor set up
Error 12	Safety sensor 1 continuously	Obstacle in the detection area	1.Remove obstacle
	activated	of safety sensor	2.Readjust sensor set up
Error 13	Safety sensor 2 continuously	Obstacle in the detection area	1.Remove obstacle
	activated	of safety sensor	2.readjust sensor set up

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nternal power supply failure	1.To much consumption in 24v input for devices.	1.Check connected devices input is lower than 1,3A.
	2.Damaged internal power supply of the control board.	2.Remove control board
ension failure in motor bus	Damaged control board	Remove control board
ailure in power supply	Control board power supply	Remove control board's
election relay ( K2)	fuse broken	power supply fuse
Mains failure	Mains cut or power supply	Check mains or remove
	fuse broken	power supply unit fuse stabilize mains
Control board system tension	Low mains power supply	Check mains power supply
ailure	tension	tension.
	Poom tomporpture tee high	Door open in slow motion
loom temperature	above 70°C	ad remain stoped until
		working temperature is cool
rapment	Door has trapped a person or obstacle	Remove obstacle
		1.Remove battery. If you
	1.Battery has no power	haven't got a new batterv
Damaged battery	2.Battery is not well	run a "set up" and during
	connected	24h error dosen 't come out.
		2. Check battery connector
Battery unloaded	Battery has less power than necesary	Led battery time to charge.
	Emergency fire alarm input is	Disable emergency or fire
mergency (fire alarm)	activated	alarm signal
	Door has trapped a person or	Remove obstacle. Run a
continuous trapment	obstacle	"reset".
		Check photocell test. Put
	Photocell test is not set	test input ON in the
nternal photocell test failure	properly.	photocell and NC in the
		control board.
		Check photocell test. Put
wannal also a subtract for the	Photocell test is not set	test input ON in the
xternal photocell test failure	properly.	photocell and NC in the
		control board.
		Check safety sensor test.
Safaty sansor 1 tost failura	Safety sensor test is not set	Put test input ON in the
Salety Sensor T test tallure	properly.	safety sensor and NC in the
		control board.
		Check safety sensor test.
Safaty concor 2 toot failure	Safety sensor test is not set	Put test input ON in the
arery sensor 2 rest failure	properly.	safety sensor and NC in the
		control board.
anic breakout input	Panic breakout leave are released	Lock panic breaout leaves
Relay K1 (motor switch) failure	Damaged control board	Remove control board
Relay K2 ( power switch) failure	Damaged control board	Remove control board
	nternal power supply failure ension failure in motor bus ailure in power supply election relay ( K2) lains failure control board system tension ailure com temperature com temperature com temperature com temperature cattery unloaded cmergency ( fire alarm) continuous trapment continuous trapment nternal photocell test failure cafety sensor 1 test failure cafety sensor 2 test failure	Iternal power supply failure1.To much consumption in 24v input for devices. 2.Damaged internal power supply of the control board ailure in power supply election relay ( K2)1.To much consumption in 24v input for devices. 2.Damaged control board ailure in power supply fuse brokentains failureMains cut or power supply fuse brokencontrol board system tension ailureLow mains power supply fuse brokencontrol board system tension ailureLow mains power supply fuse brokencom temperatureRoom temperature too high, above 70°C.com temperatureDoor has trapped a person or obstacletamaged battery1.Battery has no power 2.Battery is not well connectedtattery unloadedBattery has less power than necesaryternal photocell test failurePhotocell test is not set properly.ternal photocell test failurePhotocell test is not set properly.safety sensor 1 test failureSafety sensor test is not set properly.cafety sensor 2 test failureSafety sensor test is not set properly.cancib reakout inputPanic breakout leave are released



# 11. ANNEXES

# **11.1 Maintenance**

Automatic door installations require regular maintenance; the frequency will be determined by environmental conditions and traffic density.

1.- Remove dust and dirt from the mechanism. Dirt on the running track should be removed with methylated spirits.

2.- No part requires lubrication. The timing belt should be kept dry and clean.

3.- Check that all nuts and bolts are secured.

4.-Adjustment, if necessary only, the speeds of the moving leaves, the opening time held and that the position of the moving leaves are in accordance with existing regulations and requirements of the authorities.

# 11.2 Warranty

AUTOMATIC DOORS ERREKA declares under their sole responsibility that the products supplied are subject to warranty for a period of 12 months from the date of acquisition. (Date of Work Delivery Protocol) This warranty applies to all manufacturing defects and will include the costs of transporting the material to the nearest approved technical service. It is the installer's responsibility to transfer the equipment to this technical service.

This warranty does not include:

• Damage caused by incorrect installation or use of equipment.

- Damage caused by handling by unauthorized personnel.
- Damage caused by external or atmospheric agents (lightning, floods, etc).

# **DECLARATION OF CONFORMITY**

ERREKA

*Manufacturer* : MATZ-ERREKA, S.Coop.

Address: Pol. Ind. San Juan 93 B° San Juan 20570 Bergara (Gipuzkoa) SPAIN

Type of equipment: Sliding door operator

*Model:* ERTAIN 4

**Declares:** 

Comply safety requirements of the following directives:

-	Low voltage directive	2006/95/CE
-	Electromagnetic compatibility directive	2004/108/CE
-	Machinery directive	2006/42/CE

Erreka Automatic Doors declares that ERTAIN 4 operator has been designed to fulfill following harmonized European standards:

EN ISO 13849-1:2008 (PL=c) EN 61000-6-2:2006 EN 61000-6-3:2004 EN 60335-1:2002 EN 60335-2-103:2005 EN 16005: 2013

Robert Corera Managing Director

Bergara, 15th of January of 2016



#### ERREKA AUTOMATIC DOORS

(MATZ-ERREKA, S.COOP.)

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