



CDVI

EN

ENGLISH

DWPS102S
DWPS102A
DWPS102U
DWPD102SXX
DWPD102AXX
DWPD102UXX



Single or double door, inward and outward, automation door

Range: Door automation

DIGIWAY PLUS

INSTALLATION, USE
AND MAINTENANCE MANUAL

Summary

page

General safety precautions 2

Machinery Directive 3

Instructions of use 3

Declaration of the Manufacturer 3

Identifying product and parts 4

Accessories 5

Overall dimensions and mounting guide 6

Technical specifications 7

Mechanic installation - Sliding arm version 8

Mechanic installation - Articulated arm version 9

Wiring diagram and connections 11

Wiring diagram of monitored safety photocells 12

LED messages 13

Battery 13

Getting started 13

- Step I : Set-up 14
- Step II : Configuration 15
- Step III : Door calibration 16
- Step IV : Adjusting 17
- Step V : Advanced adjusting 18

Disabled persons access settings 21

Remote controls management 21

Reset to factory default & system reset 22

Double door installing 23

Maintenance 27

Use instructions 27

GENERAL SAFETY PRECAUTIONS

This manual is intended for professional installers, adequately trained.
 Installation and connections must be carried out in accordance with Good Working Practice and in compliance with the current Regulations. Poor installation could be source of a health & safety hazard.
 Read this manual carefully before commencing the installation.
 First check all of the existing door and frame structure - verify its integrity, stability and strength.
 If necessary modify the structure in order to make it standard, being aware of all the possible problems which could occur during normal use.
 Verify that all the zones where there is a risk of crushing, dragging, shearing and other dangers, are protected by electronic safety, safety freeboards or barriers.
 These devices must be installed in compliance with the current laws and in a perfectly workmanlike way, also in relation to the place of use, the type of use and the operating logic of the product.
 The forces developed by the complete system must comply with the current standards and, where this is not possible, protect the zones with electronic safety devices.
 Apply hazardous area notices required by the applicable regulations.
 Before the actuator is connected, make sure that the plate details corresponds to those of the mains power and that there is a differential circuit-breaker and an adequate protection against overcurrents on the supply side of the system.
 Fit a Dual Pole disconnection switch with contact opening gap of at least of 3 mm.
 Interrupt the power supply before opening the cover of the actuator for any maintenance or repairing intervention.
 Handling of electronic parts must be carried out wearing grounded antistatic bracelets to avoid any static damage.
 Servicing the actuator is of fundamental importance if the system is to operate correctly and safely.
 Comply with the manufacturer's instructions described in this manual.
 Only use genuine spare parts if replacements or repairs are required.
 The motor manufacturer declines any responsibility in the event of component parts fitted that are not compatible with the safe and correct operation. The actuator must be installed only inside buildings
 The manufacturer declines all liability for damage caused by assembly on the outside, without adequate protection.
 This product cannot be installed in places with an explosive atmosphere or in the presence of inflammable fumes or gases.

Machinery Directive

Automatic pedestrian doors fall into the application field of the Machinery Directive (2006/42/CE).

This provides that the installer who motorizes a door becomes the manufacturer of a machinery and so he must:

1. Prepare the Technical Construction File (which must contain the documents indicated in Annex V of the Machinery Directive) and must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door.
2. Draft the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive
3. Affix the CE marking on the power operated door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

The installer must consign to the customer the following documents :

1. Instructions on how to operate and safely use the system.
2. Routine maintenance instructions.
3. Declaration of conformity.
4. Maintenance register.

Instructions for use

The operator DIGIWAY type DWPS102XX, DWPD102XX belongs to the Service Class 5 (600 cycles a day for 5 years min).

Applications : HEAVY DUTY, for pedestrian accesses to institutional complexes with very intense use.

Declaration of the Manufacturer

(according to Directive 2006/42/CE, Annex II part B)

The Manufacturer

ELPRO INNOTEK SPA - CDVI Group
Via Piave,23
31020 S.Pietro di Feletto (TV)
ITALY

Herewith declares that the automatic operator for swing doors

Brand : DIGIWAY
Types : DWPS102XX, DWDP102XX

- constitutes a "partly completed machinery" and it is intended to be incorporated into machinery or to be assembled with other machinery to constitute a machinery covered by Directive 2006/42/CE;

- complies with the following Directives :

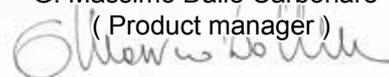
2006/95/CE (Low Voltage Directive)
2004/108/CE (Electromagnetic Compatibility Directive)
99/05/CE (R&TTE)

European Standard EN16005 : Power Operated doorsets - Safety in Use

- it is not allowed to put the machinery into service until the machinery into which it has to be incorporated or of which it has to be a component has been found and declared to be in compliance with the provisions of the Directive 2006/42/CE.

S.Pietro di Feletto, 02/09/2013

G. Massimo Dalle Carbonare
(Product manager)



Identifying the product and its parts

Digiway type DWPx102xx is a indoor operator for swing doors, with integrated electronic controller and radio receiver. The opening and closing motion is electromechanical with backup battery which assures the operation in cases of power failure.

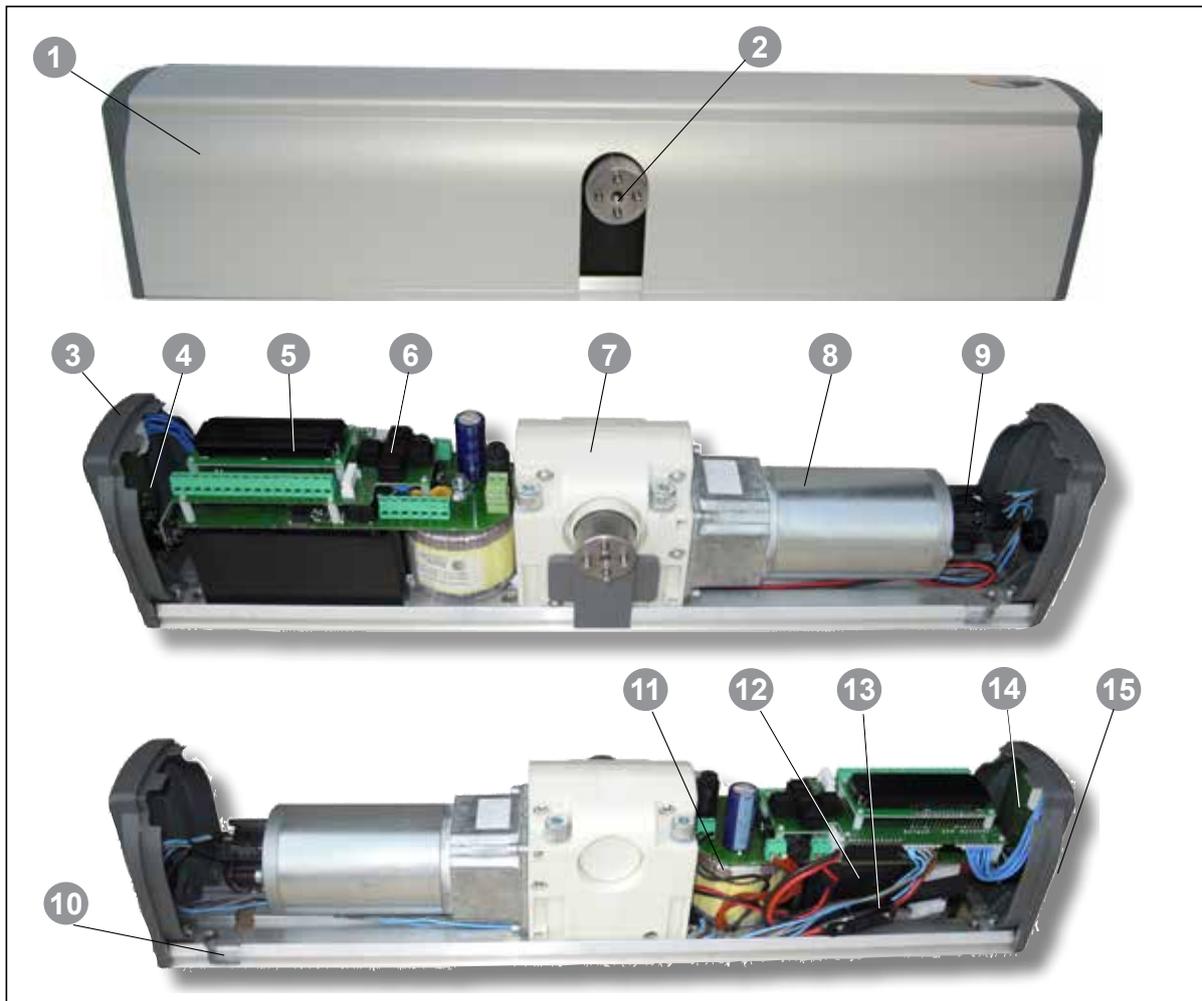
The following versions are available:

| P/N | Reference | Description |
|-------------|------------|---|
| F0543000093 | DWPS102SCD | Single door operator for inswing doors with sliding arm |
| F0543000094 | DWPS102ACD | Single door operator for outswing doors with articulated arm |
| F0543000095 | DWPS102UCD | Single door operator for inswing or outswing doors with universal arm |

The operator is suitable for swing doors with max width of 1,2 m or max weight of 120 Kg (Refer to diagram on page 7). At the max speed the door can open and close within 3 sec. (90°), depending on door weight and dimensions . See the technical specifications in the following pages of this manual.



Warning : the operator is suitable only for top-jamb fixing. Door leaf fixing is not allowed.



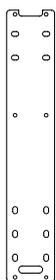
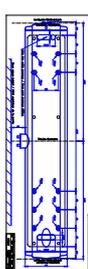
Legend

- 1 - Anodized aluminium cover
- 2 - Motor shaft
- 3 - Status led LP
- 4 - Receiver Card
- 5 - Display LCD
- 6 - 5-buttons keyboard
- 7 - Gear box
- 8 - Motoriductor
- 9 - Encoder
- 10 - Slot for cover opening
- 11 - Toroidal transformer
- 12 - Backup battery
- 13 - Battery cable with protection fuse
- 14 - Jumper for external selector exclusion
- 15 - Operating mode selector

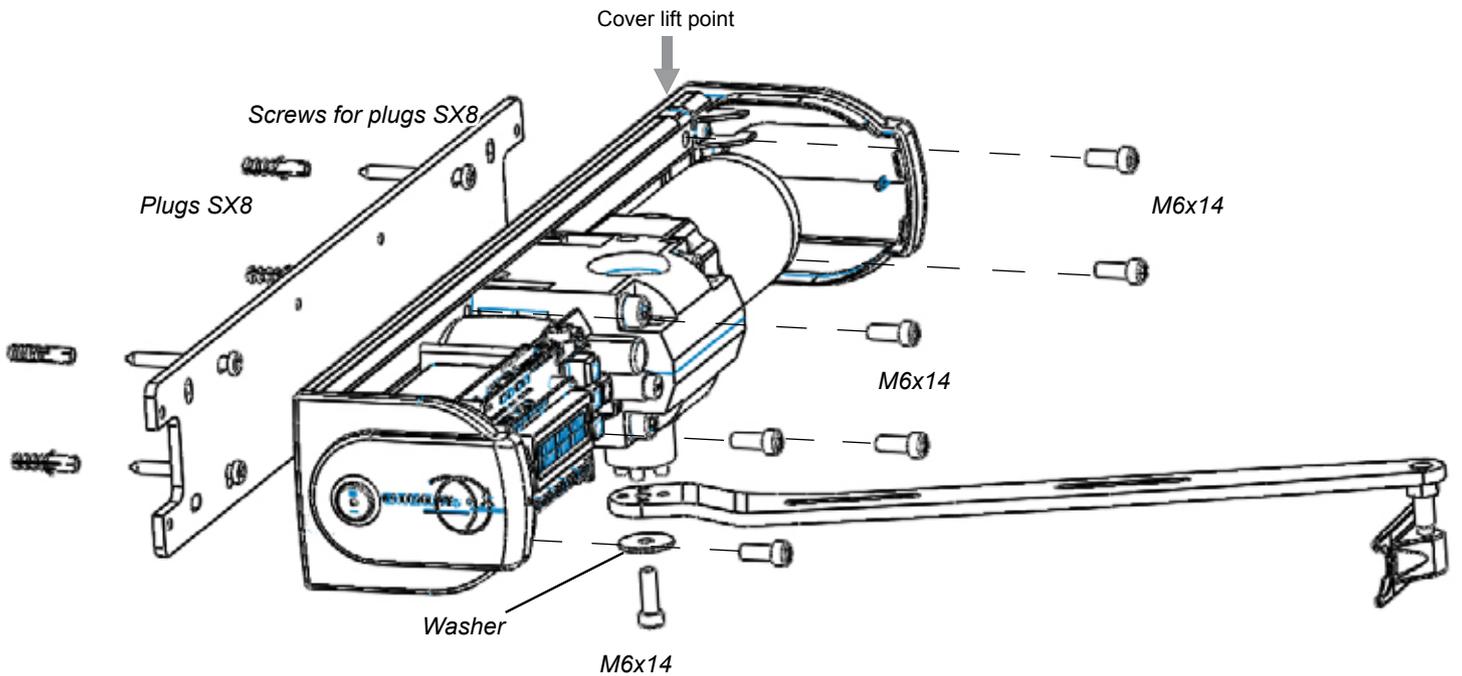
Accessories

| Description | P/N | F-code | |
|---------------------|--------|-------------|--|
| Kit articulated arm | DWKBA | F0543000030 |  |
| Kit sliding arm | DWKBS | F0543000031 |  |
| Kit universal arm | DWKBU | F0543000122 |  |
| Extension 55 mm | DWSE | F0543000033 |  |
| Extension 30 mm | DWSE30 | F0543000123 |  |
| Extension 80 mm | DWSE80 | F0543000136 |  |
| Double door cable | DWPCS | F0543000124 |  |
| Mounting tools kit | DWTK | F0543000156 |  |

Mounting kit

| | | | | | | |
|-------------|---|---|---|---|--|---|
| Article |  |  |  |  |  |  |
| Description | Screw for wallplugs SX 8 | Wallplugs SX 8 | Self tapping screws | Screw M6x14 | Mounting plate | Mounting template |
| Q.ty | 6 | 6 | 4 | 7 | 1 | 1 |

Mounting diagram

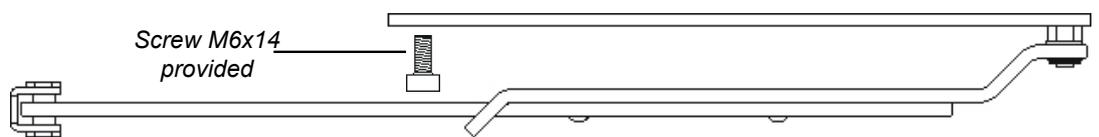


Accessories

Sliding arm

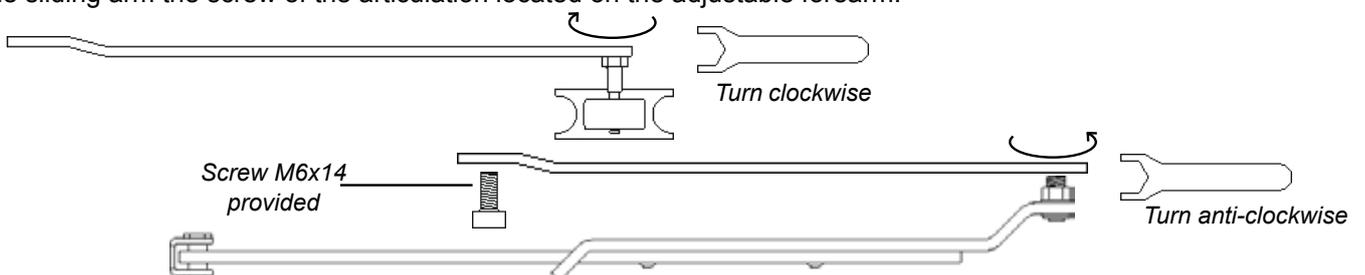


Articulated arm



Universal arm

The Universal arm kit allows to realize both the arms. The kit is composed by a complete sliding arm, with the guide and by an adjustable forearm with the door bracket. To transform the sliding arm into the articulated arm unscrew the sliding block making use of a monkey spanner dim 13 (not provided) and screw on the hole M10X1 of the sliding arm the screw of the articulation located on the adjustable forearm.

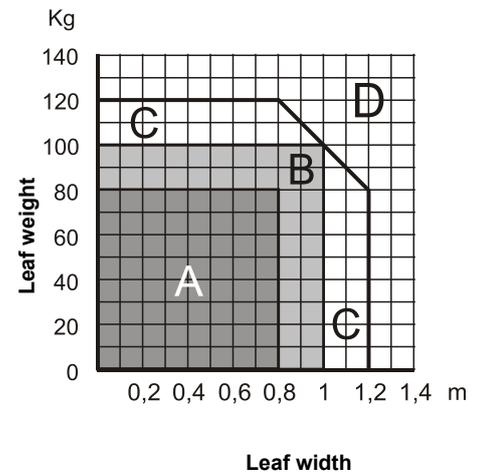
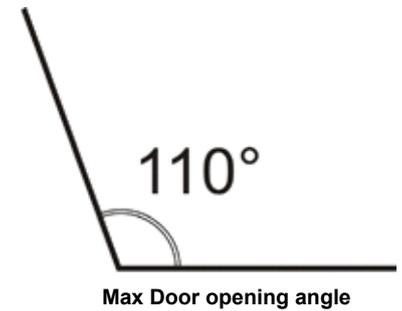


DIGIWAY PLUS

Technical specifications

• General specifications

| | |
|--|----------------------------|
| Power supply: | 230 Vac - 50 Hz |
| Motor torque: | 15 Nm |
| Max power: | 50 W |
| Operating class: | 5 (heavy duty) |
| Battery: | 12 Vdc 1,3 Ah |
| Overall dimensions : | 511 x 90 x 110 mm |
| Weight: | 5 Kg |
| Operating temperature: | -10°C ÷ +55°C |
| IP Grade: | IP40 |
| Opening / closing time: | 3 ÷ 15 sec. |
| Pause time: | 3 ÷ 90 sec. |
| Power for auxiliary devices: | 13,5 Vdc / 500 mA [max] |
| Power for electrolock: | 12 Vdc / 1A [max] |
| Electrolock output relay: | (C-NO-NC) 10A / 12V |
| Open door output relay: | (C-NO) - 24 VA |
| Electrolock hold time: | Adjustable [0,1 ÷ 5 min] |
| Power failure autonomy: | 270 cycles / 16 hours |
| Transmitters security protocol: | Keeloq® Hopping Code |
| RX memory: | 50 transmitters |
| Integrated receiver main specifications: | 433,92 MHz ASK / -107 dBm |
| Fire voltage input: | 24 ÷ 48 Vac/dc |



• Use conditions

- Zone A : Very intense use : 600 cycles / day
- Zone B : Intense use : 200-300 cycles / day
- Zone C : Use at reduced speed
- Zone D : Not allowed

• Electronic card specifications

Operating modes: Automatic (I) - Door free (0) - Door always open (II)

| | | | |
|---------|--|----------|--|
| Inputs: | Re-open photocells (NC) | Outputs: | Door open contact (C-NO) |
| | Stop photocells (NC) | | External devices power 13,5 Vdc / 500 mA |
| | Door Always open (NO) | | Electrolock output contacts (C-NO-NC) |
| | Door free (NO) | | Electrolock power 12 Vdc / 1 A |
| | External Radar (NO) | | Test for safety devices (FTC- FTC-S) |
| | Internal Radar (NO) | | |
| | Day / Night selection (NO) | | |
| | Open / Close command (NO) | | |
| | Fire alarm voltage (+V, -V) [optoisolated] | | |

• Main features

- Operating modes: Fully automatic, Always open, Door free;
- Operating with single door, double door, with or without leaf overlapping;
- Guided procedure for door travel limits characterization;
- Motor torque in opening and closing adjustable;
- Remote controls memorization and management;
- Slow motion approaching the limits;
- Push & Go / Pull & Go function;
- Pause Time, Max Speed, Torque, Velocity adjustable;
- Opening Jolt fully adjustable;
- Status bicolor LED;
- Electrolock hold time and torque adjustable;
- Opening Jolt parameters adjustable;
- Spring mode (door always free, automatic closing);
- Stop photocells range adjustable;
- “Fire mode”;
- Night / day mode;
- Door open output relay.

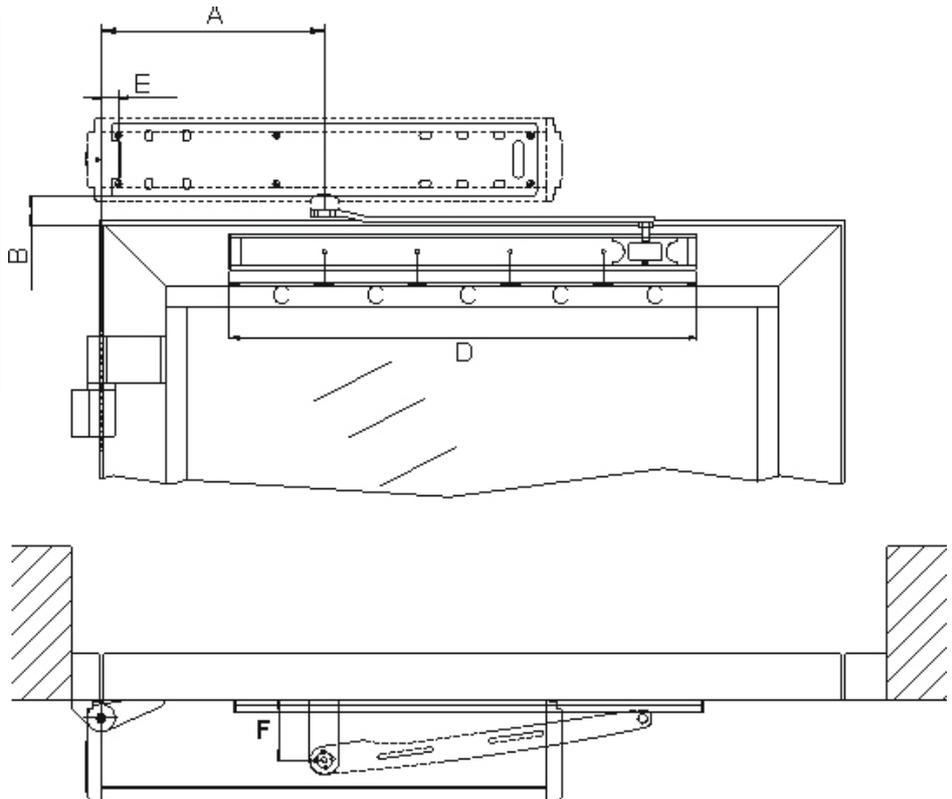
Installation

First of all, check the stability of the door which has to be motorized, verifying that regularity of the motion in both directions (open and close) is without any friction from the complete close to the complete open status. If this is not the case, make necessary improvements to the structure. Remove any manually operated lock (eg. requiring a physical lowering of the handle to open the door).

Digiway plus does not need a door-stop fitted to complete the open cycle. Make sure any closing device is completely removed including hydraulic devices, turn to free or minimum is not sufficient.

Sliding arm version

| Parameter | Value (mm) | Description |
|-----------|------------|--------------------------------------|
| A | 240 | Door hinge – motor axis distance |
| B | 35 | Backplate – guide distance |
| C | 100 | Motor axis - guide edge |
| D | 500 | Guide width |
| E | 18,5 | Distance hinges - backplate hole |
| F | 70,5 | Motor axis - vertical plane distance |



This type of installation is addressed to inswing doors.

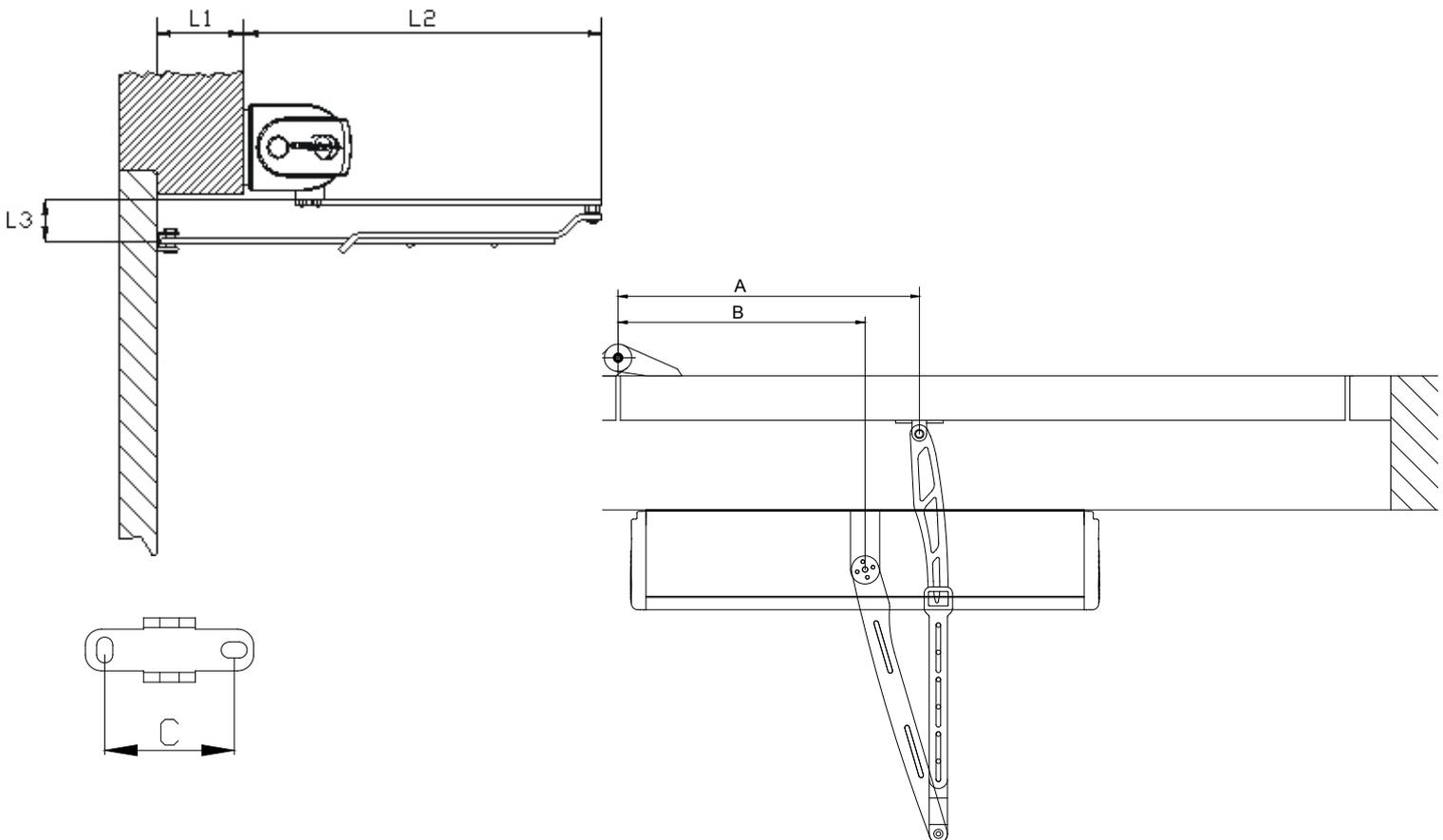
- 1) Identify the dimensions of the motor, locate the fixing position, the holes for the cables and the 6 fixing holes making use of the mounting template provided;
- 2) Check the feasibility of the guide fixing, respecting the distance to the motor;
- 3) Make 6 holes diameter \varnothing 8 mm and insert the 6 special plugs provided ;
- 4) Fix the plate to the wall using the special screws provided;
- 5) Fix the motor to the mounting plate with the screws M6x14 provided;
- 6) Plug-in the sliding arm on the motor shaft and screw the fixing screw M6;
- 7) Slide-in the sliding block into the guide;
- 8) Offer the guide to the door and mark the 4 fixing holes;
- 9) Remove the sliding block and fix the guide to the door by using the 4 special screws provided;
- 10) Slide-in completely the white strip on the guide;
- 11) Slide-in the sliding block into the guide and insert the two lateral plugs;
- 12) Check full free movement whilst in free mode.
- 13) Make all the electrical connections;
- 14) Apply power;
- 15) Follow the procedure : «Getting started»;
- 16) Connect the Ground wire to the cover terminal and fix the cover.

DIGIWAY PLUS

Articulated arm version

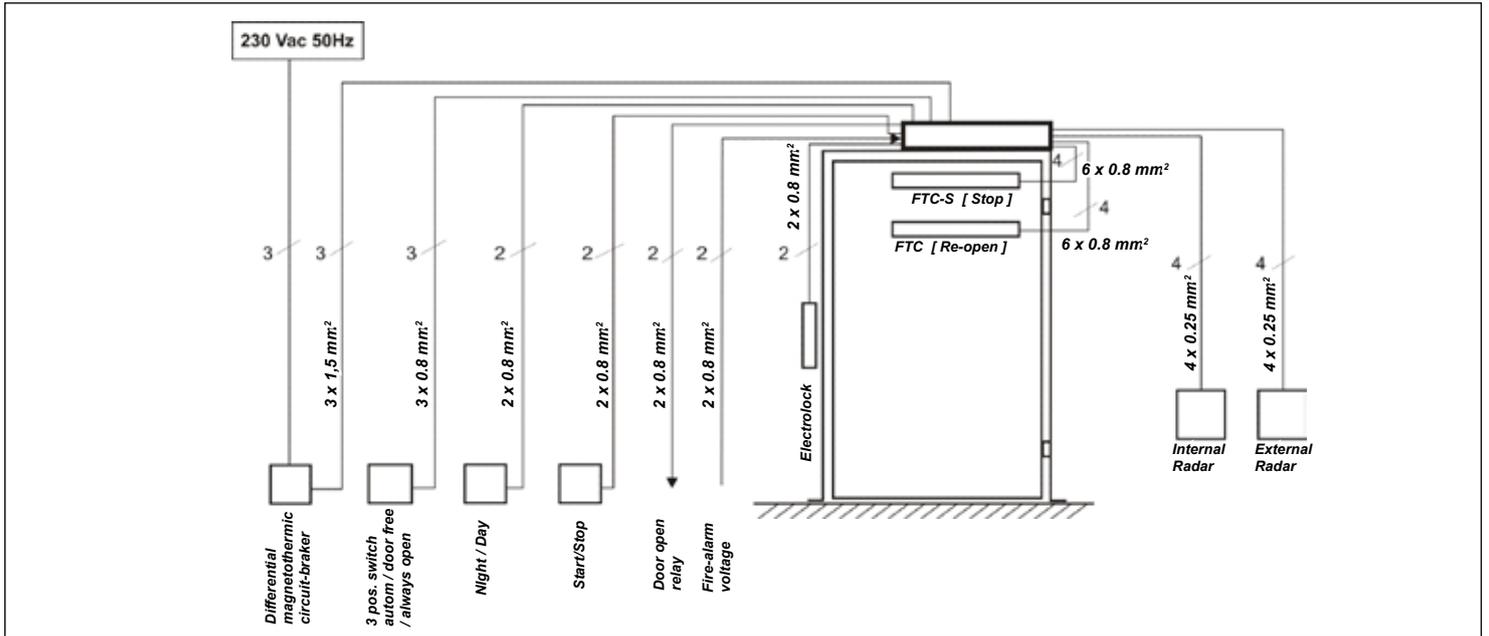
This part is addressed to outward door installations

- 1) Identify the dimensions of the motor, locate the fixing position, the holes for the cables and the 6 fixing holes making use of the mounting template provided;
- 2) Make sure that the bracket of the articulated arm falls in the right position;
- 3) Make 6 holes diameter Ø 8 mm and insert the 6 special plugs provided ;
- 4) Fix the plate to the wall using the special screws provided;
- 5) Fix the motor to the mounting plate with the screws M6x14 provided;
- 6) Fix the bracket to the door referring to the distance A of the table below;
- 7) Plug in the articulated arm on the motor shaft and screw the fixing screw M6;
- 8) If the distance between the motor and the door is higher than that allowed, use the extension (optional);
- 9) Fix the arm to the motor by using the screw M6x14 or M6x70 provided;
- 10) Check full free movement whilst in free mode;
- 11) Make all the electrical connections;
- 12) Apply power;
- 13) Follow the procedure : «Getting started»;
- 14) Connect the Ground wire to the cover terminal and fix the cover.

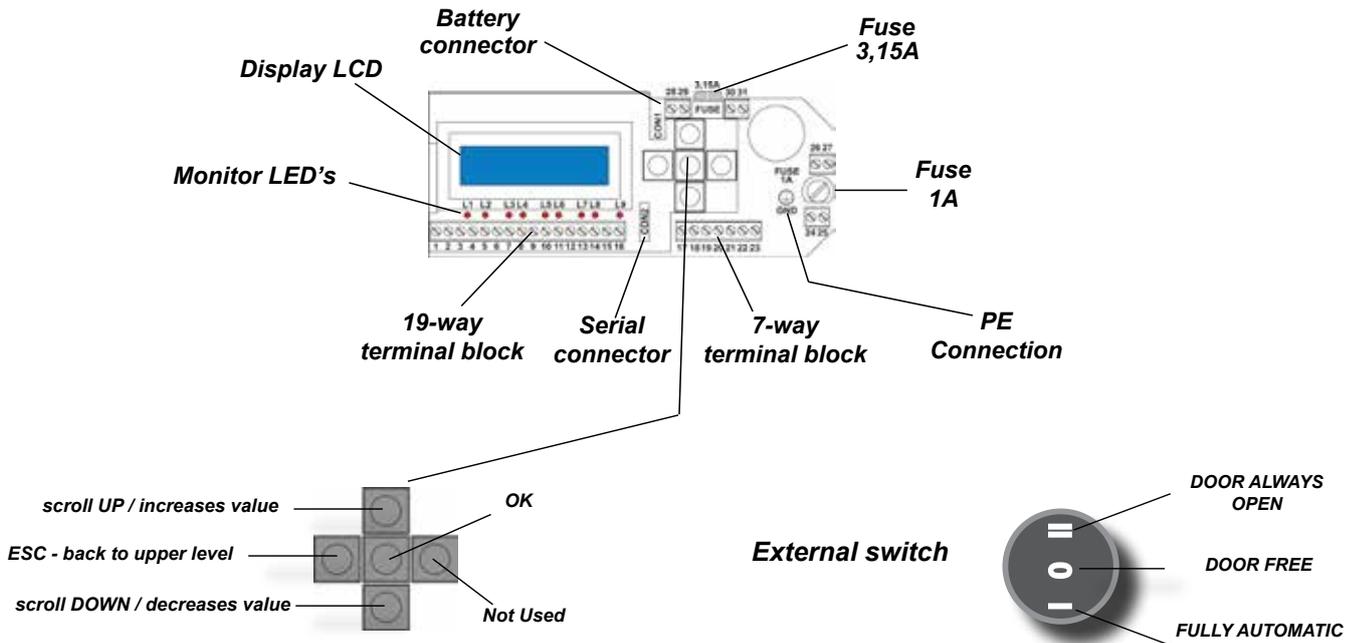


| Parameter | Speed | Power | Description |
|-----------|----------|-------|------------------------------------|
| | (mm) | (mm) | |
| A | 410 | 430 | Door hinge – door bracket distance |
| B | 270 | 360 | Door hinge – motor axis distance |
| A - B | 140 | 70 | Motor axis – door bracket distance |
| C | 40 | | Bracket holes distance |
| L1 | 55 - 195 | | Door jamb width |
| L2 | 371 | | Distance wall - articulation |
| L3 | 43 | | Distance motor shaft-door bracket |

Complete wiring diagram

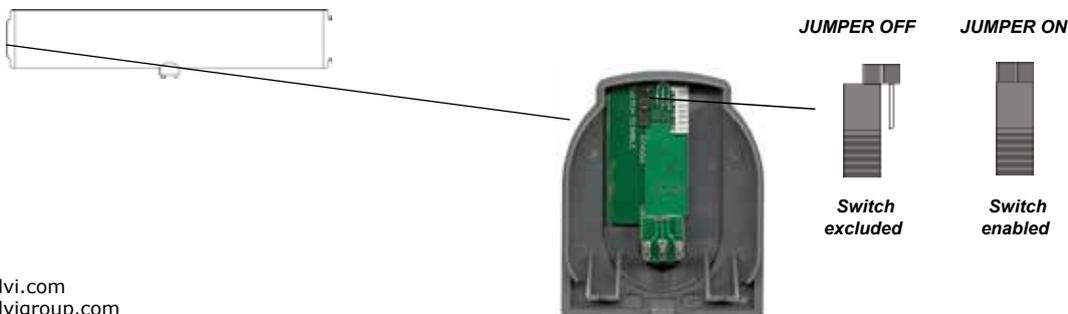


Electronic card layout and programming buttons



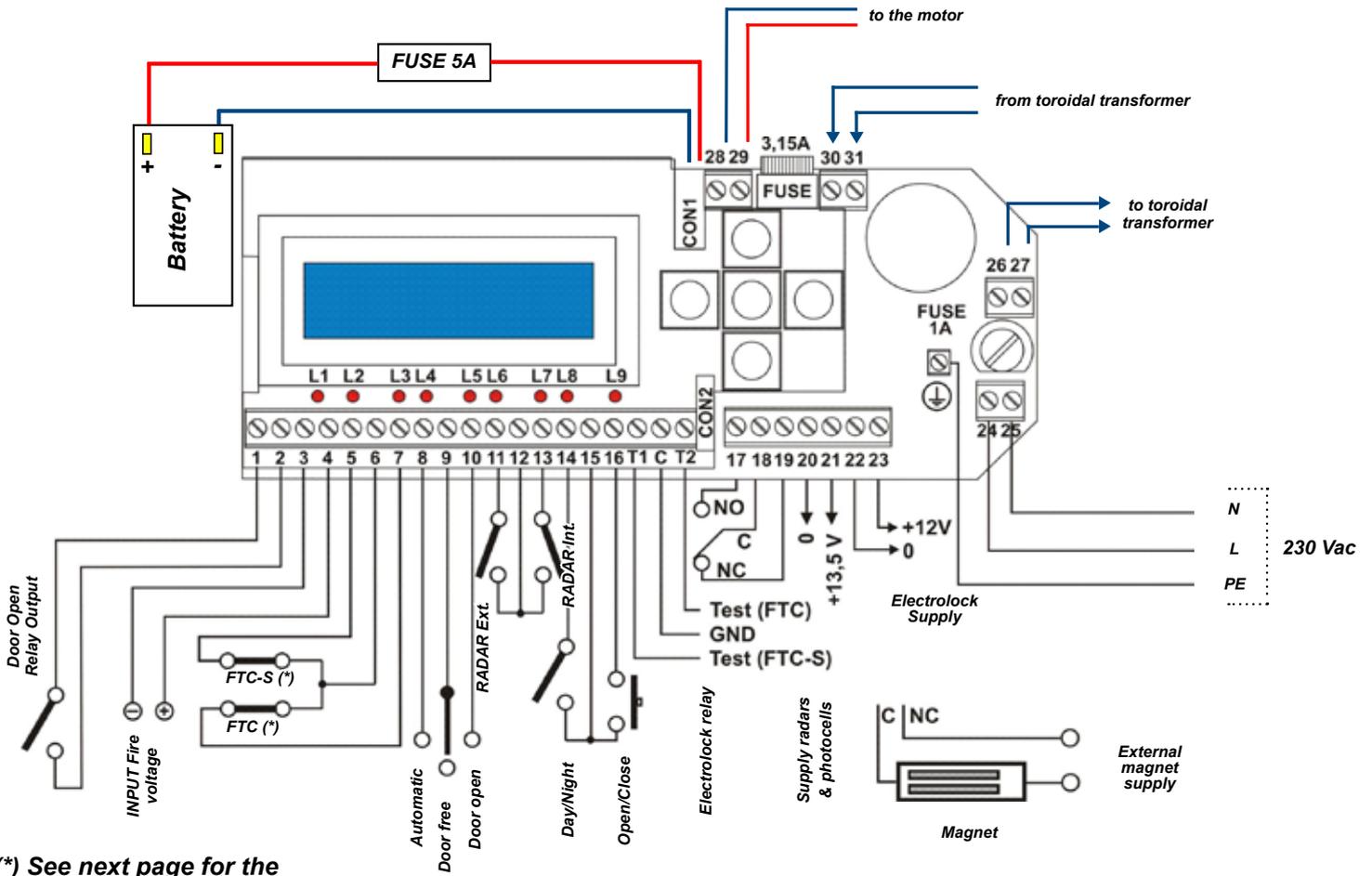
Jumper for external switch exclusion

It's possible to exclude the external switch using the jumper located on the internal card of the left cap



DIGIWAY PLUS

Electrical connections



(*) See next page for the connection

Connections detail

| 19-way terminal block | |
|-----------------------|--|
| 1 | Output C Open door relay |
| 2 | Output NO Open door relay |
| 3 | Input V- Fire alarm voltage |
| 4 | Input V+ Fire alarm voltage |
| 5 | Safety Input NC Stop Photocells [FTC-S] |
| 6 | Safety Input C Photocells |
| 7 | Safety Input NC Re-open Photocells [FTC] |
| 8 | Input NO switch pos. I |
| 9 | Input C switch pos. 0 |
| 10 | Input NO switch pos. II |
| 11 | Input NA Radar external |
| 12 | Input C Radar |
| 13 | Input NO Radar internal |
| 14 | Input NO Day/Night switch |
| 15 | Input common |
| 16 | Input NO push-button open/close/stop |
| T1 | Output (+12) Test FTC-S |
| C | Common test photocells (GND) |
| T2 | Output (+12) Test FTC |
| Door open relay | |
| Door Status | Closed Opening/Open/Closing |
| Relay | OFF ON |

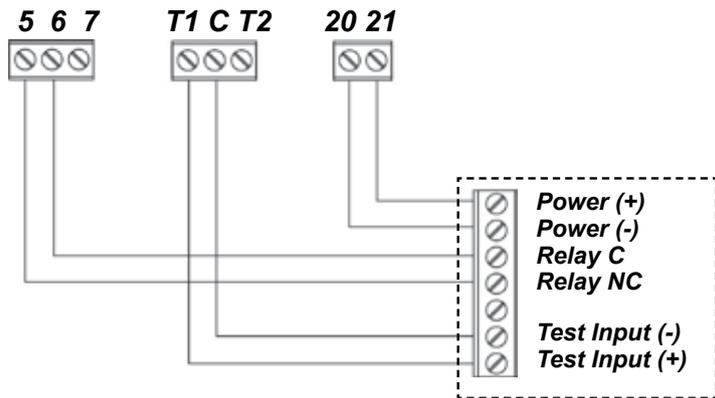
| 7-way terminal block | |
|----------------------|---|
| 17 | Output NO relay electrolock |
| 18 | Output C relay electrolock |
| 19 | Output NC relay electrolock |
| 20 | Output 0V external devices power |
| 21 | Output 13,5 Vdc external devices power |
| 22 | Output 0V electrolock power |
| 23 | Output 12 Vdc electrolock power |
| 2-way terminal block | |
| 24 | Input Line 230 Vac |
| 25 | Input Neutral 230 Vac |
| 2-way terminal block | |
| 26 | Output 230 Vac to internal toroidal transformer |
| 27 | Output 230 Vac to internal toroidal transformer |
| 2-way terminal block | |
| 28 | Input Motor BLACK cable |
| 29 | Input Motor RED cable |
| 2-way terminal block | |
| 30 | Input from internal toroidal transformer |
| 31 | Input from internal toroidal transformer |

Monitored photocells wiring

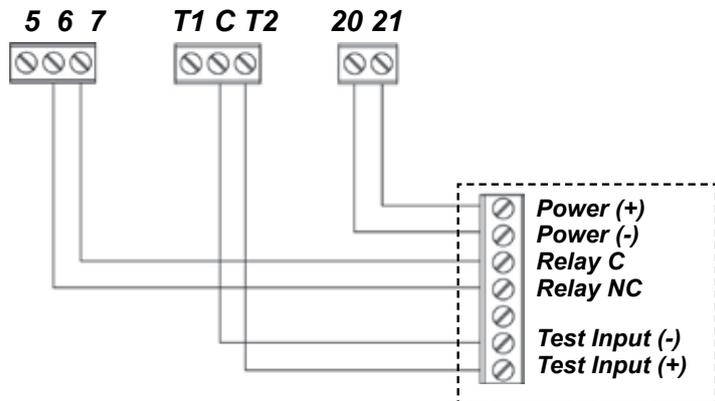
The Standard EN16005 indicates that the parts of the system which have a direct effect on the safety must comply with EN12978 and be designed to comply with EN ISO 13849-1 Performance Level “c”. Safety related parts of the control system used for escape route functionality shall comply with EN ISO 13849-1 Performance Level “d”.

If devices type ESPE (photocells) are used, they must be monitored by the drive system.

Digiway Plus is equipped with output test signals (Test1, C, Test2) that check the photocells status before any motion. The system switches off for few mS the photocell through the test signal and checks the changement of the signals on the terminals 5-6 or 6-7. If the signals change regularly the door motion is enabled otherwise the motion is stopped or enabled in Low energy (see menu Advanced options)



STOP Photocells (FTC-S)



REOPEN photocells (FTC)

LOW ENERGY mode

The Standard EN 16005 (Annex F) indicates the parameters for the Low Energy mode : the minimum open / close time from 10° to 90° is indicated in the following table:

| Width of doorset leaf (m) | Mass (Kg) | | | | |
|-----------------------------|---------------|-----|-----|-----|-----|
| | 50 | 60 | 70 | 80 | 90 |
| | Time (sec.) | | | | |
| 0,75 | 3,0 | 3,2 | 3,2 | 3,3 | 3,5 |
| 0,85 | 3,1 | 3,1 | 3,2 | 3,4 | 3,6 |
| 1.00 | 3,2 | 3,4 | 3,7 | 4,0 | 4,2 |
| 1.2 | 3,8 | 4,2 | 4,5 | 4,8 | 5,1 |

for other widths and/or masses the times can be calculated using the formula:

$$t = \frac{D\sqrt{m}}{2,26\sqrt{J}}$$

where t = time in sec., D = diameter doorset leaf in meters, m = mass in kg.

See on the menu ADVANCED SETTINGS how to set the doorset leaf dimensions and the operating mode in case of photocells malfunction.

DIGIWAY PLUS

Electronic card LED's

| | LED ON | LED OFF |
|----|--------------------------------------|------------------------------------|
| L1 | Fire voltage OK | Fire voltage ABSENT |
| L2 | NC contact stop photocells closed | NC contact stop photocells open |
| L3 | NC contact re-open photocells closed | NC contact re-open photocells open |
| L4 | Automatic mode | - |
| L5 | Door always open | - |
| L6 | External radar active | - |
| L7 | Internal radar active | - |
| L8 | Night mode | Day mode |
| L9 | Open/close command active | - |

Meaning of LP LED messages

| Function | LED GREEN | | LED ORANGE | | LED RED | | |
|---------------------------------|-----------|----------|------------|----------|---------|-----------|---------------|
| | ON | blinking | ON | blinking | ON | blinking | fast blinking |
| Everything OK | ○ | | | | | | |
| Battery operated | | ○ | | | | | |
| Fire alarm | | | | ○ (fast) | | | |
| Night Mode | | | ○ | | | | |
| Night Mode & battery operated | | | | ○ | | | |
| Door free | - | - | - | - | - | - | - |
| Current calculation in progress | | | | | | ○ | |
| Selflearning | | | | | | red/green | |
| Battery test | | | | | | | ○ |
| Battery unloaded | | | | | ○ | | |
| Safety photocells malfunction | | | | | | | ○ |

Battery

| | | |
|----------------|---------------------------------------|---|
| Main features: | Voltage | : 12V |
| | Rated charge | : 1,3Ah |
| | Autonomy in battery operating mode(*) | : 270 cycles / 16 hours |
| | Average charge and discharge cycles | : 800 |
| | Average battery life | : 2-3 years [in rated operating temperature] |
| | Cycles with battery at end-of-life | : 100 |

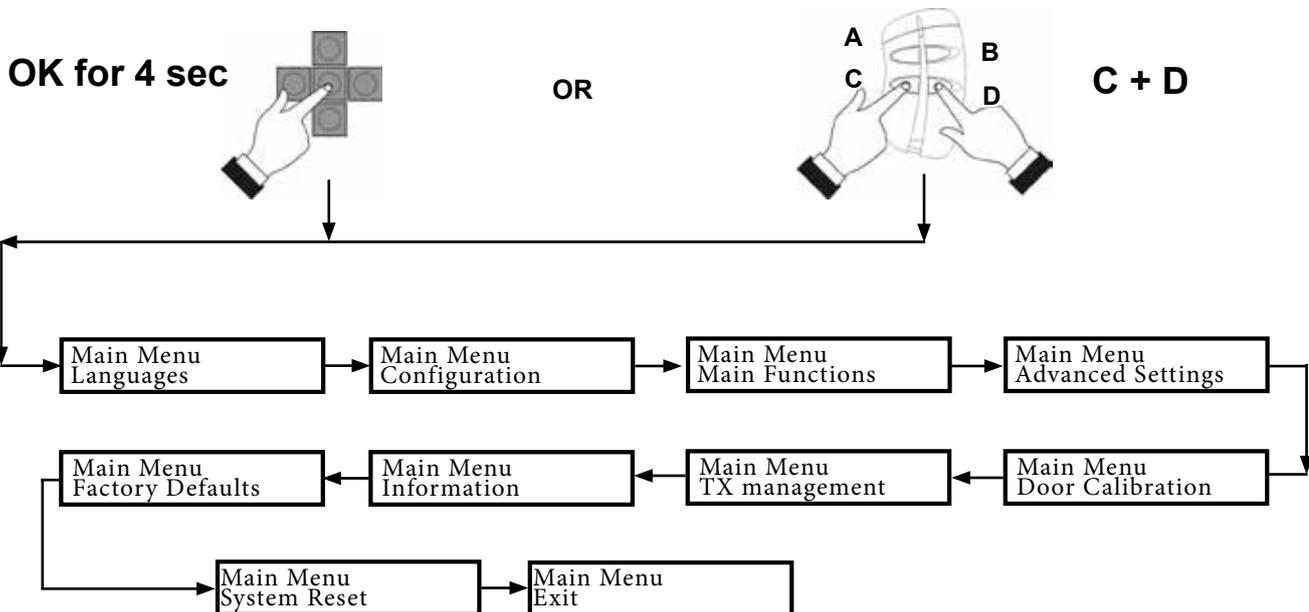
(*): In case of main power failure (230 Vac) the operator works in battery mode. The autonomy declared depends even by the number of external devices connected (radars, photocells, etc).

The internal software executes periodically a test on the battery charge. (Led LP blinks RED QUICKLY). If, at the end of the test, the battery results unloaded, LP doesn't stop blinking RED. If this happens, replace the battery with an equivalent one.

GETTING STARTED

Digiway Plus is equipped with a 2x16 characters LCD Display and by a 5-keys keyboard. The operating configuration can be set navigating through several menus. The menu has a tree structure with a main menu and different sub-menus.

ACCESS to the MAIN MENU



Guided configuration

The operator is supplied with a 4-button transmitter included. On completion of the mechanical fixing and the electric connections, proceed with the memorization of the transmitter into the internal memory inside Digway. This transmitter can then set-up of all parameters, without accessing the 5 buttons onboard.

The transmitter keys corresponds to the onboard push-button according to the next diagram:



The set-up of the operator can be divided into 5 steps:

- **STEP I** : **INITIAL SETUP** (preliminary actions)
- **STEP II** : **CONFIGURATION** (set-up of the basic operating mode)
- **STEP III** : **DOOR CALIBRATION** (automatic detection of the door characteristics)
- **STEP IV** : **ADJUSTMENTS** (further adjustments and personalization)
- **STEP V** : **SPECIAL PARAMETERS** (set-up of the advanced parameters)

STEP I: INITIAL SETUP

- 1 Press the OK button of the keyboard for **4 sec** until the display enters the main menu ;
- 2 Select the language by scolling the possibile choices with the UP and DOWN buttons
- 3 Press OK to confirm: the display shows the message OK and then displays all messages in the new language;
- 4 Exit from the menu with the button ESC.
- 5 Scroll through the main menu, select **TX MANAGEMENT** submenu and press OK
- 6 Select the option **ADD TX** and press **OK**
- 7 Press the transmitter key OK (top-left button): the display will show the S/N, confirming the memorization
- 8 Exit from the menu by pressing the ESC button.
- 9 Exit from the main menu selecting EXIT MENU.

From this time on the remote control is enabled to access the main menu. Enter simply by pressing simultaneously keys **ESC + DOWN**.

NOTE : ONLY THE FIRST TRANSMITTER MEMORIZED CAN ACCESS THE MAIN MENU! All the next added transmitters can only open the door!

The key OK of the transmitter can do multiple functions: OK if you are in the menu, START / STOP in normal operating.

STEP II: CONFIGURATION

Step II allows you to set all the basic parameters of the operator, according to the type of door to automate. The submenu CONFIGURATION consists of 18 parameters.

Each parameter can have 2 or more values.

For each parameter there is a preset factory value. If the function FACTORY DEFAULT of the main menu is used, all the parameters are reset to those values.

See the description of each parameter in the following table:

| Parameter | Description | Option | Default |
|-----------------|--|-------------------------------------|------------|
| Num. Doors | Sets the number of Doors | ONE DOOR / TWO DOORS | ONE DOOR |
| Electrolock | Enables electrolock and specify the type | NO LOCK / STRIKE / MAGNET | NO LOCK |
| Opening Jolt | Enables the opening Jolt : SHORT PULSE OF CLOSING BEFORE OPENING. Usefull to unlock the electrolock in windy situations | ENABLE / DISABLE | DISABLE |
| Push & Open | Opens automatically the door with a short push. | ENABLE / DISABLE | ENABLE |
| Push & Close | Closes the door with a short push even in pause status. | ENABLE / DISABLE | ENABLE |
| Wind Stop | Keeps the door closed in presence of wind which pushes the door. See ADVANCED SETTINGS to set the level of the closing force used. | ENABLE / DISABLE | DISABLE |
| Autoreclosing | Enables the automatic reclosing of the door | ENABLE / DISABLE | ENABLE |
| Radar 'I' Mode | INTERNAL radar operating mode. If it's selected the option CLOSING the radar is excluded during the closing. This avoids the door to reopen for the arm detection | NEVER / CLOSING / ALWAYS | NEVER |
| Radar 'E' Mode | EXTERNAL radar operating mode. If it's selected the option CLOSING the radar is excluded during the closing. This avoids the door to reopen for the arm detection | NEVER / CLOSING / ALWAYS | NEVER |
| Day / Night | Set the Night / Day mode. In Night mode the External radar is disabled. | DAY & NIGHT / NIGHT | NIGHT |
| Disabled Mode | Disabled access mode (See paragraph Disabled access settings) | ENABLE / DISABLE | DISABLE |
| Open Command | Functions of the main command which can open, close and stop (this will be the function assigned to the open button (terminals 15-16) and to the radio transmitter | OPEN - OPEN/CLOSE - OPEN-CLOSE/STOP | OPEN/CLOSE |
| Mode Spring | Spring function: if the door is closed, it remains free and can be pushed manually; once opened, the door will reclose after the pause time set. NOTE : In Spring mode the pause time is 1 sec. if the door is partly opened and equal to the set value if the door is opened completely . | ENABLE / DISABLE | DISABLE |
| 2 Doors Overlap | Overlap of the leaves (in case of double doors). In this case starts first the MASTER leaf in opening and first the SLAVE leaf in closing. If the parameter is DISABLED the leaves open and close simultaneously | ENABLE / DISABLE | DISABLE |
| Door Type | Leaf MASTER or leaf SLAVE (in case of double doors) | MASTER / SLAVE | MASTER |
| Arm Type | Articulated or sliding arm. This parameter set the VELOCITY of the door according to the arm type selected. (See Adjustments) 50% ARTICULATED ARM, 70% SLIDING ARM | SLIDING / ARTICULATED | SLIDING |
| Fire Signal | Fire signal management. When this option is enabled the door operates regularly only if the fire power V-/V+ is present. If the fire power falls down (for a fire alarm in progress) the door reacts according to the choice set in the advanced sets options) | ENABLE / DISABLE | DISABLE |



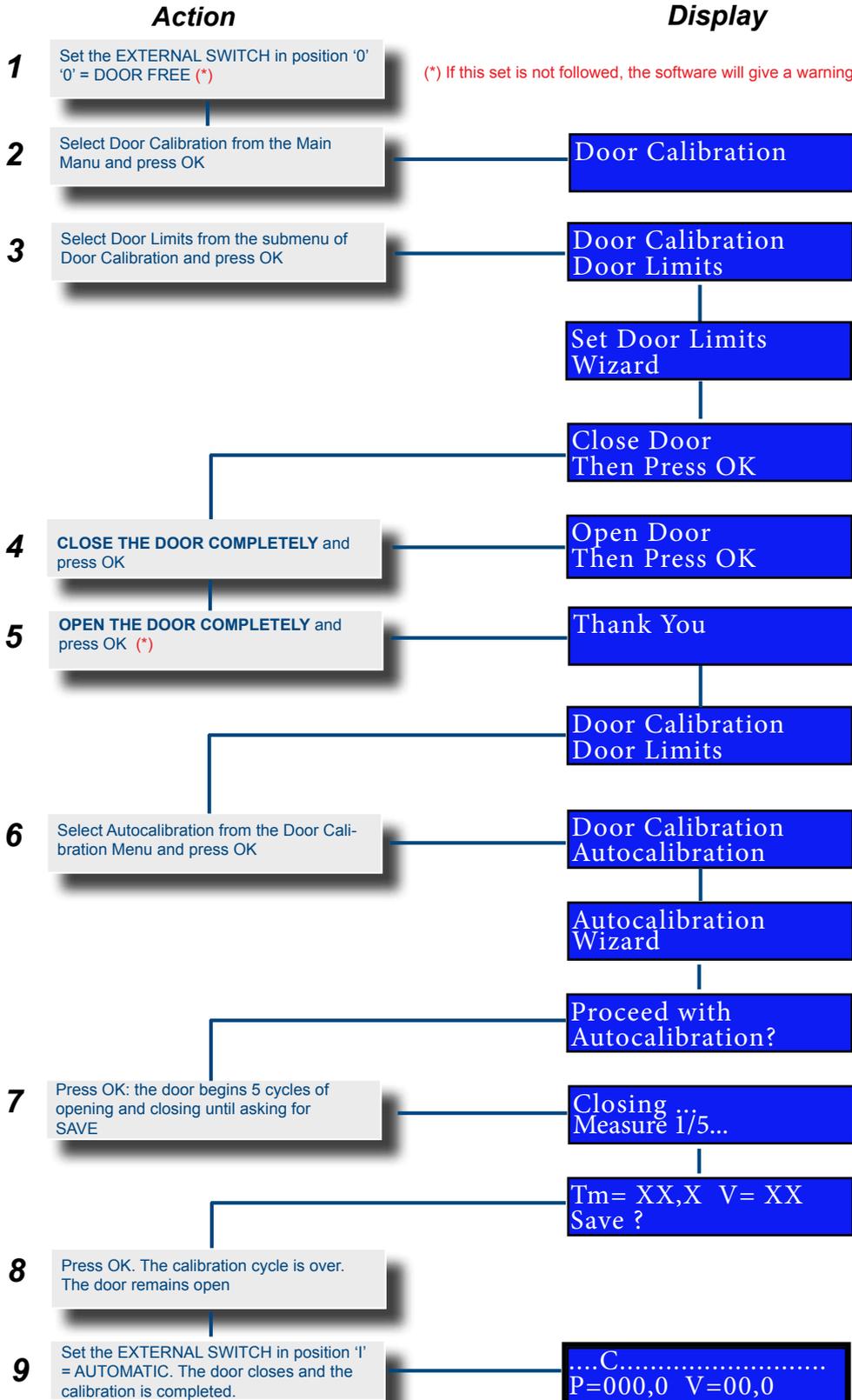
ATTENTION : Any change carried out needs a complete cycle (open, pause, close) or a system reset to be implemented.

DIGIWAY PLUS

STEP III: DOOR CALIBRATION [SINGLE LEAF]

DIGIWAY PLUS is equipped with an innovative software which fits the internal parameters to the door characteristics. The calibration sets the door travel limits and launches a special 5 cycles routine for the automatic detection of the door characteristics. For the calibration follow the next steps:

NOTE : Before proceeding with the calibration check the connection of the battery red/black cable to the main board and disconnect temporarily the magnetic lock (when used).



Warning : whilst the Digiway is going through its 5 learning cycles, as it opens very quickly, it is dangerous the passage across the door.

DIGIWAY PLUS

STEP IV : ADJUSTMENTS

CURRENT CALCULATION CYCLES

At the end of the door calibration, the door will operate normally.

However, to complete the calibration the system needs 2 more complete cycles to calculate the 2 currents (called "i" and "I") necessary for obstacle management. Until the 2 cycles are completed, the external LED LP will blink RED. During the 2 cycles, before the completion of this calculation, if the door knocks meets an obstacle, the obstacle sensitivity used will be the factory value, which may not fit perfectly with the door characteristics, therefore:

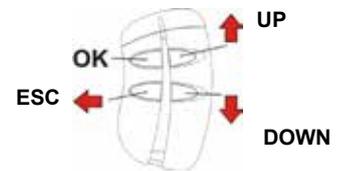
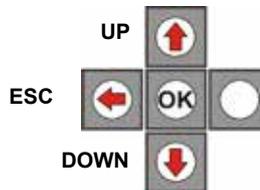
"It is highly recommended to ensure the door completes these 2 cycles without any interruption. When completed, the external LED will illuminate Green, and the door calibration is completed."

ADJUSTMENTS

The maximum speed, the torque and the pause time are automatically calculated by the system during the door calibration.

If you prefer to adjust the parameters manually to tailor the door travel, then it is necessary to access the submenu MAIN FUNCTIONS from the main menu. See following table for the explanation of the parameters.

Each parameter can be adjusted using the keyboard buttons or transmitter keys.

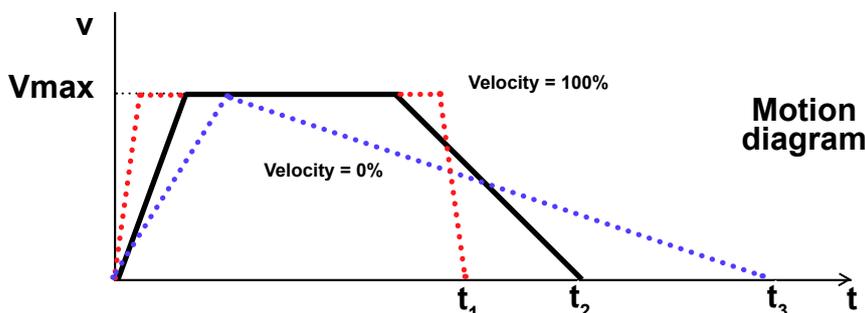


To increase the value press the key UP
To decrease the value press the key DOWN
Press OK to confirm.

Press ESC to exit without saving.

A bar will appear on the display, proportional to the value and the numeric value of the parameter .

| Main Functions | Description | Values | NOTES |
|-----------------------|---|-------------|---|
| Open Speed | Sets the maximum speed reached by the door during opening. | 0 - 100% | At the end of the door calibration the systems sets automatically the max open speed at a special value. By increasing this value, the total open time can reduce - be aware that in order to respect the end opening point, the door may slow down before reaching the max speed. |
| Close Speed | Sets the maximum speed reached by the door during closing. | 0 - 100% | At the end of the door calibration the systems sets automatically the max close speed at a special value. By increasing this value, the total close time can reduce - be aware that in order to respect the end closing point, the door may slow down before reaching the max speed. |
| Pause Time | Pause time - this is the time remains open before automatically closing again | 1 - 99 SEC. | The preset factory value is 10 sec. |
| Pause Time ext | Extended Pause time | 1 - 99 SEC. | When the Disabled mode is enabled, if the door is opened through a command at the inputs 15-16, it will re-close after the Ext Pause time. The Pause time for the remaining commands (radar, push&go, remote controls) the pause time remains the regular one. |
| Open Torque | Max torque of the door during opening. | 0 - 100% | The max opening torque is set automatically by the system at the end of the door calibration to the max value (100 %). In the case of very light or sensitive doors, it may be necessary to decrease this value. |
| Close Torque | Max torque of the door during closing | 0 - 100% | The max closing torque is set automatically by the system, at the end of the door calibration, to the max value (100 %). Decrease this value in case of very light or sensitive doors, or to respect the regulations for disabled access. |
| Velocity | Velocity of the door: rapidity of the door to reach the max speed set, and to maintain this value along all its travel. | 0 - 100% | The default value for this parameter is 70%. The more this value, the less is the total travel time, because the door maintains a high value of speed for a longer time. Values too high for this parameter can cause "door bounce", especially for heavy doors (see motion diagram). |



DIGIWAY PLUS

STEP IV: ADJUSTMENTS (continued...)

| Main Functions | Description | Value | NOTES |
|------------------------|--|-------------------|--|
| O.D. Type | Sets the obstacles detection criteria | B1 & B2 | B1 and B2 sono are basic criteria always active |
| | | B3 B4 B5 | B3 = intervenes after the speed decreases under 2/3 of the max speed, calculated during the calibration. B4 = intervenes if the current consumed exceeds 175% of the current consumed during the preset. B5 = intervenes if the door is manually pushed during the closing |
| | | B3+B4 B3+B4+B5 | |
| | | Bf | Bf = obstacle detected by the slave leaf in double door configuration |
| O.D. Reactivity | Sets the reaction time against an obstacle | 0,1 - 5 sec. | Use the UP or DOWN keys to adjust this time : the higher the value, the longer will be the contact of the door against the obstacle (less sensitive). Default value = 0,1 Sec. |

Once installed the operator, check that frictions or unbalancing don't cause the systematic obstacle detection. Select the obstacle detection criteria which best fits to the type of installation.

The closing cycle next to an obstacle detection is executed at low speed.

ATTENTION: Reactivity values higher than 0,1 Sec, allow to overcome to possible frictions but extend the reaction time and so can generate higher impact of the door on the obstacle.

STEP V: ADVANCED SETTINGS

DIGIWAY PLUS is equipped with many further parameters (all adjustable) to fit better to any type of installation. From the main menu select ADVANCED SET to enter this submenu, which allows more adjustments.

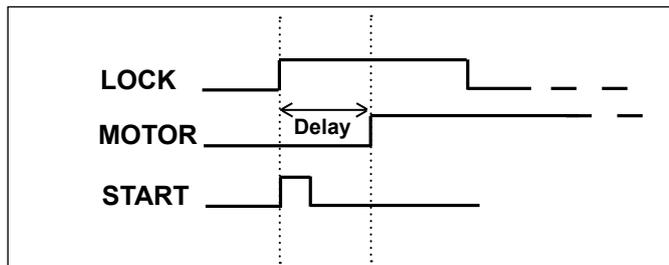
- Advanced Setting Electrolock Time** — **Electrolock Time** |||||.....0,5 SEC.

It is possible to pause the electrolock release time from 0,1 to 40 sec. depending on the lock/door type . Press the UP or DOWN buttons to increase or decrease the pause time and confirm with OK.
Default value = 0,5 Sec
- Advanced Setting Opening Jolt Time** — **Opening Jolt Time** |||||.....0,5 SEC.

The opening jolt, when enabled, is a short closing motion before the operator begins opening - this relieves pressure of "side-load" for some locking devices. It's possible to adjust this time from 0,1 to 40 sec. depending on the type of electrolock and door. Press the UP or DOWN buttons to increase or decrease the time and confirm with OK.
Default value = 0,5 Sec
- Advanced Setting Open Jolt Torque** — **Open Jolt Torque** |||||.....20%

It is possible to adjust the torque of the motor during the opening jolt pulse. This is adjusted depending on the mechanical resistance of the door. Press the UP or DOWN buttons to increase or decrease the value and confirm with OK.
Default value = 20%.
- Advanced Setting Open Delay** — **Open Delay Time** |||||.....0,5 SEC.

It is possible to add a short delay to the door motion to allow the electrolock bolt to exit completely from its keeper, ensuring the door is fully unlocked. This can be useful when using motorised locks. The open delay is set by pressing UP or DOWN buttons to increase or decrease from 0,1 to 40 sec and confirm with OK.
Default value = 0,5 Sec



- Advanced Setting Wind Stop Torque** — **Wind Stop Torque** |||||.....10%

It is possible to adjust the torque of the motor when the wind stop utility is enabled. This allows changing the value of the force applied by the door related to the wind pressure. Press the UP or DOWN buttons to increase or decrease the torque and confirm with OK.
Default value = 50%.

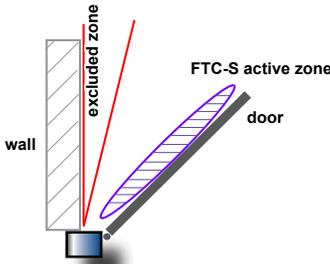
DIGIWAY PLUS

STEP V: ADVANCED SETTINGS (Continued...)

6) Advanced Setting Dynamic Pause — Enable / Disable

The dynamic pause is a function which automatically adjusts the pause time programmed, avoiding too many closing attempts of the door in high traffic situations. When enabled, this function increases by 1 sec. the pause time programmed each time it detects a passage through the door during the closing phase, and restarts the time when the passage is detected against when the door is open. Once the door completes its cycle up to the closed status, the pause time is reset to the programmed value. Press UP or DOWN buttons to enable or disable the function and confirm with OK
Default value = DISABLE.

7) Advanced Setting FTC-S Exclusion — FTC-S Exclusion
 |||||.....000



If the door is next to a wall and is using a curtain protection device, it may be necessary to prevent the device being activated by the wall to allow a complete opening of the leaf. Set the zone width as percentage of the full door motion using the UP or DOWN buttons to increase or decrease the value.

000 = Door OPEN
100 = Door CLOSED

Example: if you want to disable the curtain device when the leaf is open at the 80% of the complete travel, set the value to 20.

WARNING: the excluded zone may become a health & safety hazard because it not protected!

8) Advanced Setting Ex Power Open — Enable / Disable

When enabled, adds one more **OPENING** pulse after the regular **OPENING** cycle to compensate possible friction or door unbalance. Enable or disable this function with the UP or DOWN buttons and confirm with OK
Default value = DISABLE

9) Advanced Setting Ex Open Torque — Ex Open Torque
 |||||.....50 %

This function allows to set the **TORQUE** of the **OPENING** extra pulse. Change the value by pressing the UP or DOWN buttons and confirm with OK.
Default value = 50%

10) Advanced Setting Extra Open Time — Extra Open Time
 |||||.....0 SEC.

This function allows to set the duration **TIME** of the **OPENING** extra pulse. Change the value by pressing the UP or DOWN buttons and confirm with OK.
Default value = 0 SEC.

11) Advanced Setting Ex Power Close — Enable / Disable

When enabled, adds one more **CLOSING** pulse after the regular **CLOSING** cycle to compensate possible friction or door unbalance. Enable or disable this function with the UP or DOWN buttons and confirm with OK
Default value = DISABLE

12) Advanced Setting Ex Close Torque — Ex Close Torque
 |||||.....50 %

This function allows to set the **TORQUE** of the **CLOSING** extra pulse. Change the value by pressing the UP or DOWN buttons and confirm with OK.
Default value = 50%

13) Advanced Setting Extra Close Time — Extra Close Time
 |||||.....0 SEC.

This function allows to set the duration **TIME** of the **CLOSING** extra pulse. Change the value by pressing the UP or DOWN buttons and confirm with OK.
Default value = 0 SEC.

14) Advanced Setting Fire Release — Fire Release
 Open/Free/Closed

When the Fire Release function is enabled, it's possible to set the reaction of the door depending on the failure of the Fire power (V+, V-) :

- **DOOR FREE** = In case of Fire Power failure the door becomes FREE
- **DOOR OPEN** = In case of Fire Power failure the door opens and stays OPEN until the fire power is reset or the function of the **Menu Configuration** is disabled.
- **DOOR CLOSED LOCKED** = Door CLOSED and lock active
- **DOOR CLOSED UNLOCKED** = Door CLOSED and lock disactive

15) Advanced Setting Max Obst Cycles — Max Obst Cycles
 |||||.....000

When the door meets an obstacle during closing, it re-opens immediately. At the end of the pause time, it re-closes. If the obstacle is still present the cycle restarts. This parameter sets the max number of re-closing attempts before stop and wait for an external command. Range : from **1** to **256** . Value 0 of the parameter means no limit.
Default value = 100 attempts.

Disabled persons access settings

If the operator is used for disabled persons access, adjust the opening and closing speed of the leaf for Low Energy setting

| Door lenght | Door weight | | | | |
|-------------|-------------|-------|-------|-------|-------|
| | 50 Kg | 60 Kg | 70 Kg | 80 Kg | 90 Kg |
| 750 mm | 3,0 s | 3,1 s | 3,2 s | 3,3 s | 3,5 s |
| 850 mm | 3,1 s | 3,1 s | 3,2 s | 3,4 s | 3,6 s |
| 1000 mm | 3,2 s | 3,4 s | 3,7 s | 4,0 s | 4,2 s |
| 1200 mm | 3,8 s | 4,2 s | 4,5 s | 4,8 s | 5,1 s |

NOTE1 : According to the Regulation, when activated the DISABLED PERSONS ACCESS [See configuration Menu]:

- The min. Pause Time must be set at 5 Sec.
- The motor torque measured at the main closing edge must be lower then 67 N.
- The min slow time time in closing must be 1,5 sec.

Manage to set these values acting on the menu Main Functions.

NOTE2 : When the Disabled Persons Mode is enabled, if the door is open through a C-NO command on inputs 15-16, it will reclose after the Pause Time Extended. If the command comes from inputs (radar, push&go, remote control), the Pause time remains the regular one. The Pause Time extended is executed *always* if the open command comes from the button D of a remote control



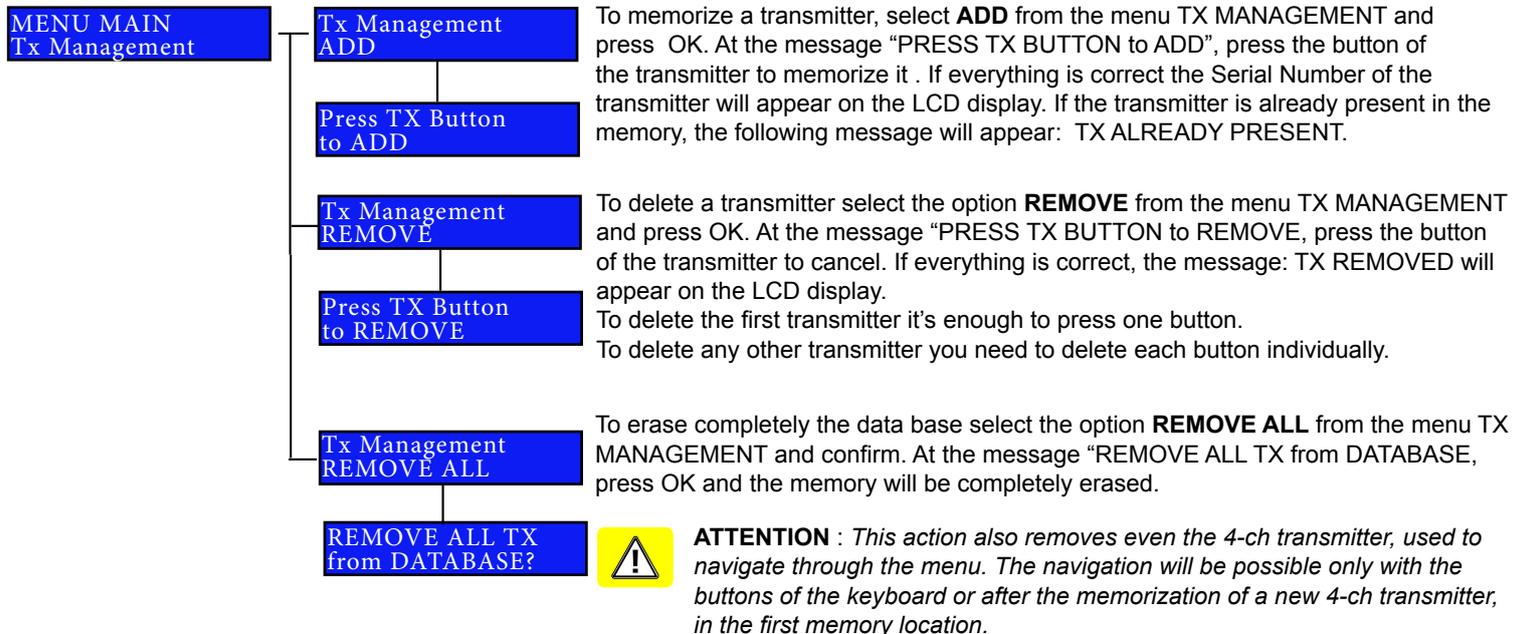
Warning : Disabled person access doors must be identified with proper indications.



Remote controls management

The unit is equipped with a superhetherodyne AM receiver with Keeloq® Hopping code security protocol.

Through the menu TX Management it is possible to manage the memory of the receiver which can store up to 50 transmitters.



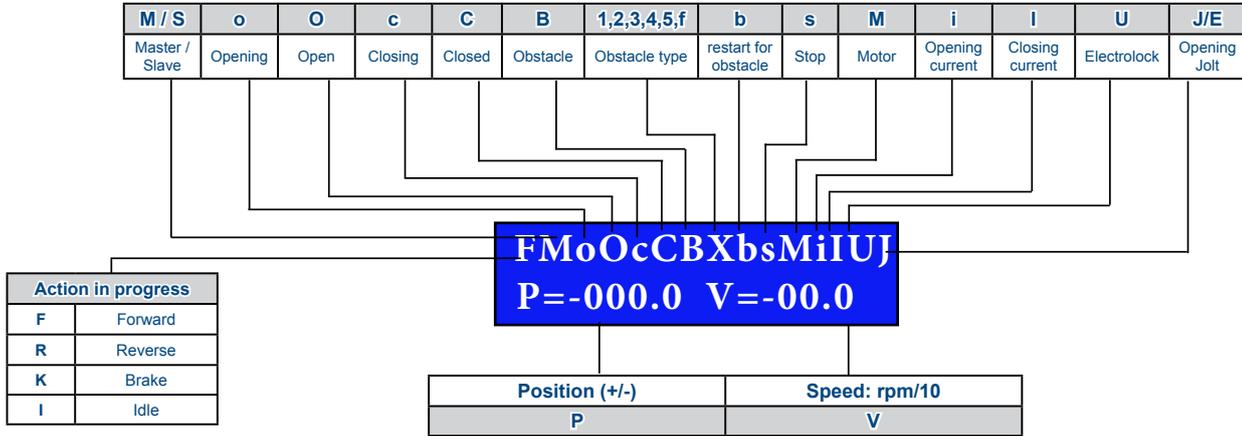
Information

Information Display

Display Expert / Normal

It's possible to change the information displayed on the LCD by setting the operating mode EXPERT or NORMAL
In EXPERT Mode all the main parameters of the motion will be displayed according to the following diagram:

LEGEND DISPLAY EXPERT MODE



Information SW Release

WadoPlus v2.0a
gg/mm/aaaa

Gives the SW release number and date.

Information Counter

N° cycles
00000

The counter logs each single trip of the door (OPENING and CLOSING) for maintenance intervention.

Factory Defaults

If the set-up of the parameters hasn't been successful, it's possible to recover the factory settings using the sub-menu Factory defaults from the Main menu. After the completion of this function, all the parameters will be reset to the factory value. See each function to know the corresponding value

Menu Main Factory Defaults

Reset to Factory Defaults?

Are you sure?

Answer OK to proceed or ESC to exit without any action

Having reset the system to the factory settings, the operator can drive the door but without using the the acceleration and deceleration values calculated during the Step III of Door Calibration. In order to revert to the previous operating mode it is necessary to repeat Step III again. The door limits (DOOR CLOSE and DOOR OPEN) remain the same. The transmitters memory is completely erased.

System Reset

It is possible to give a restart to the system, equivalent to a "power-off + power-on", using the option "System Reset" from the main menu. After the system reset the LCD displays the sw release, the parameters condition and the free memory space for transmitters. This function doesn't change the value of any parameter except for the currents (I and i) which will be re-calculated during the next 2 cycles.

MENU MAIN System Reset

Confirm System Reset?

Are you sure?

Double door configuration

The double door configuration applies to both the types DWPD102X and DWPS102X.

For the types DWPD, for which a central profile is provided, it is necessary to install a back plate which ensures perfect alignment between the profiles and 2 lateral back plates in place of the regular single door back plate. Follow the instructions below for the mechanical fixing of the structure (Part I : mechanical fixing).

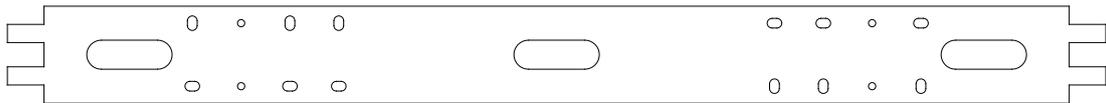
In case of usage of 2 single standard operators type DWPS102X to drive a double door, make the mechanical fixing by following the regular procedure for each single door.

- **PART I : Mechanical fixing**
- **PART II : Electrical connections**
- **PART III : Final Set-up**

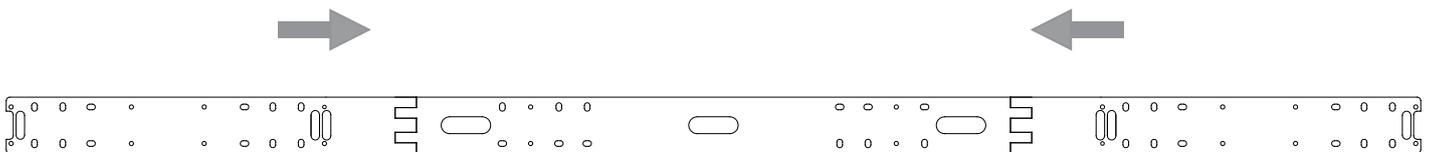
Part I : Mechanical fixing

1. Backplate fixing

- Locate the best position for the central back-plate, locating the centre of the plate with the centre of the double door;
- Mark the position of the holes for the plugs provided;
- Make the holes and insert the plugs provided;
- Pass the power supply cable through the central hole of the back-plate;
- Fix the central back-plate by using the screws and the plugs provided ensuring it is perfectly level.

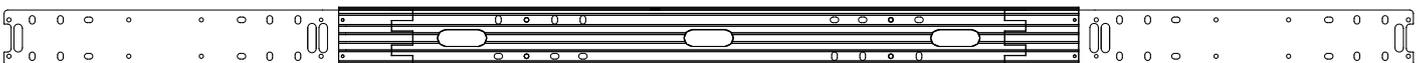


- Couple the side back-plates by each side and locate the position of the oval holes.
- Make the holes and insert the plugs
- Fix the side back-plates with the screws provided.



2. Central profile fixing

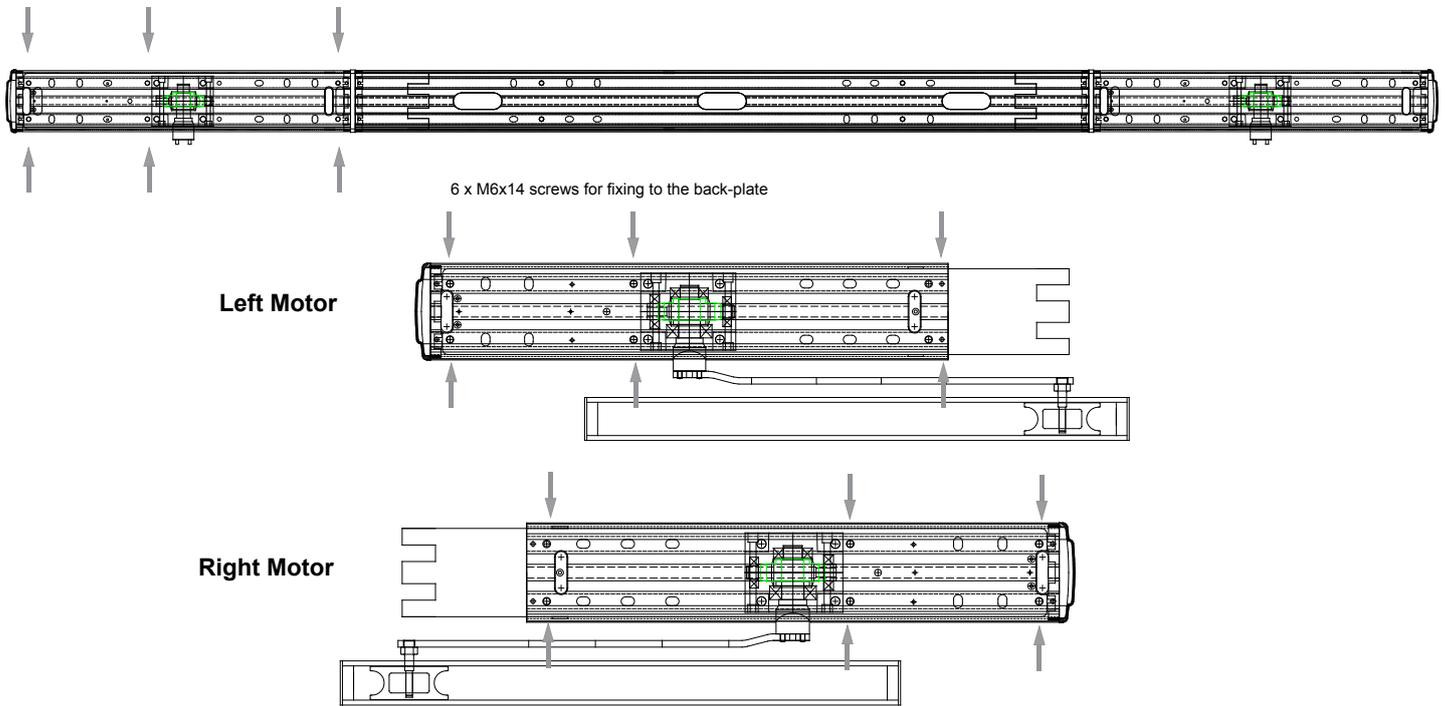
Fix the back central profile with the side caps with the 4 screws M6x14 provided on the central back-plate;



DIGIWAY PLUS

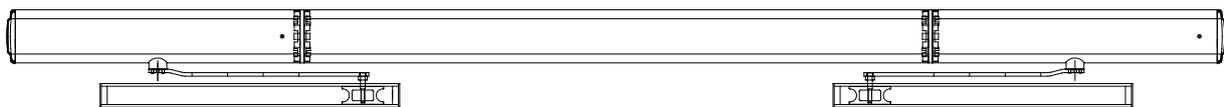
3. Motor fixing

Fix each motor with the 6 screws M6x14 provided.



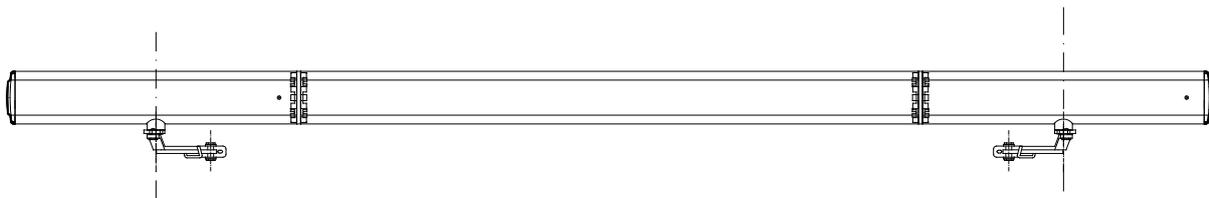
4. Door guides fixing (inward opening)

- Fix the 2 arms on the motor shafts with the screws M6x12 provided;
- Insert the guide on the sliding blocks;
- Set the external switch to position 0 and move the door to find the best position for the door guide;
- Fix the guides on the doors with the 4 screws provided ;



5. Articulated arm fixing (outward opening)

- Fix the 2 articulated arms to the motor shafts with the screws M6x12 provided;
- Offer the door plate to the door;
- Fix the plate with the 2 screws provided.



6. Mechanical check

- Move the side switches in position 0 and check the fluency of the motion both in opening and in closing.

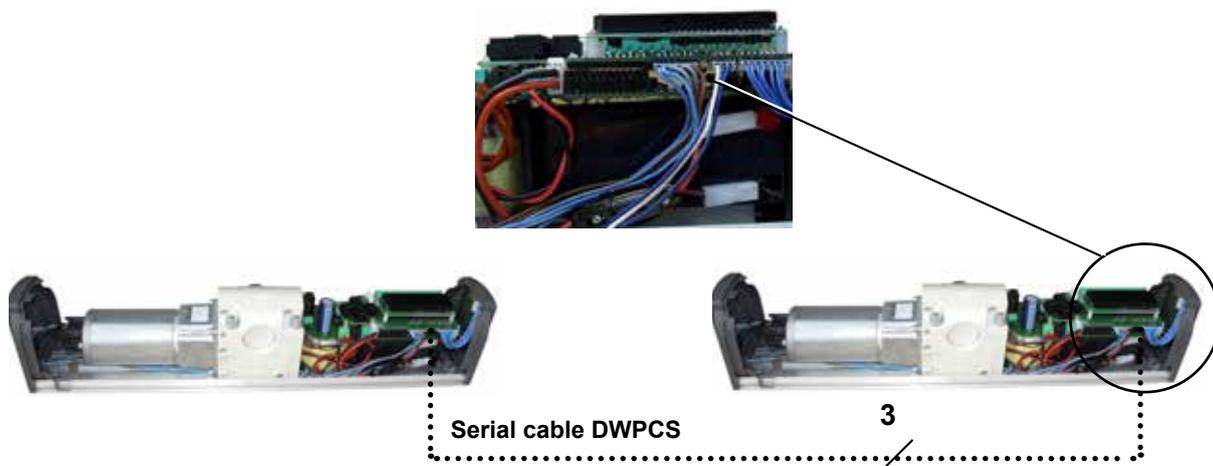
DIGIWAY PLUS

Part II: Electrical connections

The range of motors for the double door is described in the following table:

| Double door total width | Leaves width | p/n Articulated Arm | p/n Sliding Arm | p/n Universal Arm |
|-------------------------|--------------|---------------------|-----------------|-------------------|
| 1600 mm | 70 - 80 mm | DWPD10216ACD | DWPD10216SCD | DWPD10216UCD |
| 1700 mm | 81 - 85 mm | DWPD10217ACD | DWPD10217SCD | DWPD10217UCD |
| 1800 mm | 86 - 90 mm | DWPD10218ACD | DWPD10218SCD | DWPD10218UCD |
| 1900 mm | 91 - 95 mm | DWPD10219ACD | DWPD10219SCD | DWPD10219UCD |
| 2000 mm | 96 - 100 mm | DWPD10220ACD | DWPD10220SCD | DWPD10220UCD |

With the motors DWPD, with central profile, the product comes already equipped with synchronization cable.
 It is also possible to use 2 single door units (DWP102x) to automate a double leaf door with synchronization of each leaf.
 For that use the serial cable **DWPCS** (optional).
 The cable is terminated with 2 special 3-way connectors and must be inserted in the corresponding slot located under the logic card of the unit (see image below).



1) Connect the motors referring to the electrical diagram of the single door.

⚠ WARNING: in the double door mode, with leaves overlapping (rebated), it is very important to identify the type of unit

- **MASTER** unit drives *the leaf which opens first and closes last*
- **SLAVE** unit drives *the leaf which opens last and closes first*



2) Connect the RADARs, the Day/Night switch to the unit identified as MASTER
 3) The contacts NC of the safety devices (photocells) can be connected in 2 ways:

- Connect the photocells contacts to the terminals 5,6,7 of the corresponding unit electronic card
- Put in serial the contacts of all the photocells, connect them to the terminals 5,6,7 of the MASTER unit and make a bridge to the contacts 5,6,7 of the SLAVE unit.

4) Connect the electrolock to the MASTER unit

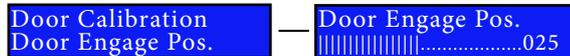
5) On the SLAVE unit memorize **only** the 4ch remote control needed to navigate in the SLAVE unit menu, on the Master unit memorize the navigation transmitter and any other transmitter used to open the door

⚠ ATTENTION : Do not memorize the same 4ch navigation transmitter on both the units!

Part III : Final set-up

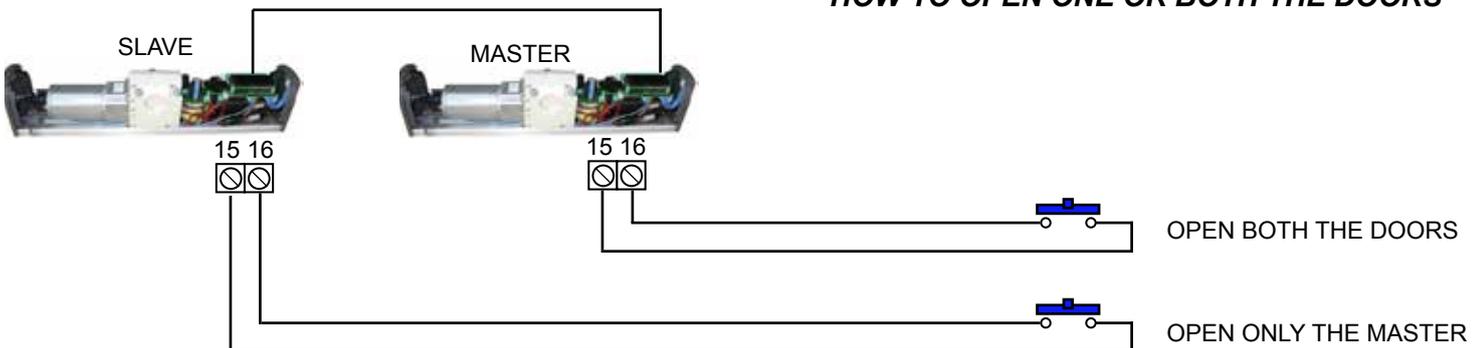
Follow the set-up procedure hereunder both 2 x single motors (DWPSxx) and for a double door unit (DWPDxx). This can be completed only if the mechanical and electrical installations have been executed.

- 1 Move to pos. "0" the external switches of both units.
- 2 Open completely the MASTER leaf and leave it open.
Close the SLAVE leaf.
Verify that the safety inputs (terminals 5-6-7) of the SLAVE unit are shorted or connected to the corresponding safety photocells (FTC and FTC-S) and that the LED's L3 and L4 are stable on.
- 3 Using the keyboard or using the 4ch transmitter memorized on the unit SLAVE, set temporarily the unit of the door SLAVE in ONE DOOR configuration [default value].
- 4 Follow the Door CALIBRATION procedure, corresponding to the STEP III, described at pag. 37 of this manual, up to the end, and leave the door CLOSED.
- 5 Close the MASTER leaf.
Verify that the safety inputs (terminals 5-6-7) of the MASTER unit are shorted or connected to the corresponding safety photocells (FTC and FTC-S) and that the leds L3 and L4 are stable on.
- 6 Using the keyboard or using the 4ch transmitter memorized on the unit MASTER, set temporarily the unit of the door MASTER in ONE DOOR configuration [default value]. **NOTE:** The MASTER makes the reference for the double door : the radars and the other devices must be connected only to this unit.
- 7 Follow the Door CALIBRATION procedure, corresponding to the STEP III, described at pag. 37 of this manual, up to the end, The door remains OPEN.
- 8 Set the ENGAGE POSITION: it is the point (in case of overlapping doors) where the 2 leaves are free to open and close without any interference .



- 9 Set the value at 25 (factory setting) for both the leaves. In case of need increase the value: greater values delay the closing of the Master leaf which starts and stops waiting for the Slave.
- 10 Enter in the CONFIGURATION menu of the **SLAVE** unit and set the following parameters:
NUM. DOORS = TWO DOORS
2 DOORS OVERLAP = ENABLE (only if there is door leaf overlap)
DOOR TYPE = SLAVE
- 11 Enter in the CONFIGURATION menu of the **MASTER** unit and set the following parameters:
NUM. DOORS = TWO DOORS
2 DOORS OVERLAP = ENABLE (only if there is door leaf overlap)
DOOR TYPE = MASTER
- 12 Move both the external switches to position "1" : the 2 doors close very slowly. The procedure is over.

HOW TO OPEN ONE OR BOTH THE DOORS



DIGIWAY PLUS

Maintenance

An automatic door, realized through the installation of the operator DIGIWAY PLUS, needs periodic checks (at least every 12 months) as listed in the following points:

- 1) Check the door balancing and the perfect functionality of the hinges;
- 2) sliding arm:
 - 2A) Check the fixing solidity of the sliding guide to the door and his horizontal alignment;
 - 2B) Check the fluency of the sliding block;
 - 2C) Check drive shaft bolt is tight;
 - 2D) Check the correct coupling arm-motor shaft (solidity of the driving pins);
 - 2E) Possible cleaning of the guide;
- 3) articulated arm:
 - 3A) Check the fixing of the bracket to the door;
 - 3B) Check the solidity of the articulated arm knee;
 - 3C) Check drive shaft bolt is tight;
 - 3D) Check the solidity of the adjustable forearm (2 screws M5 x 12);
- 4) Check the fixing of the motor to the backplate and the backplate to the wall;
- 5) Check the absence of frictions along the run of the door ;
- 6) Check of the functionality of the peripherals (radar, electrolock or magnet);
- 7) In the case of double door with overlapping, check of the perfect synchronization of the 2 leaves;
- 8) Possible replacement of the battery if the led LP gives the proper message.

Use Instructions

If the door is working properly the led LP is STABLE GREEN

HOW TO OPEN THE DOOR

According to the peripherals installed the door driven by this operator can be opened by the following devices:

- OPEN BUTTON
- OPEN REMOTE CONTROL
- RADAR (INTERNAL / EXTERNAL)
- MANUAL PUSH ON THE DOOR to OPEN or CLOSE

HOW TO SET THE DOOR IN AUTOMATIC MODE

Move the external switch in position II ---> the led LP will become GREEN

HOW TO SET THE DOOR ALWAYS OPEN

Move the external switch in position II ---> the led LP will become ORANGE

HOW TO SET THE DOOR FREE

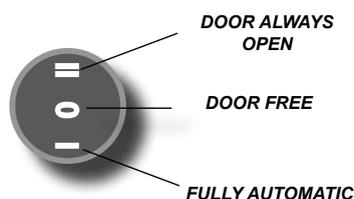
Move the external switch in position 0 --> the led LP will switch OFF

HOW TO SET THE DOOR IN NIGHT MODE (when connected)

Move the external switch to NIGHT ---> the led LP will become ORANGE BLINKING

BATTERY OPERATED

The led LP blinks GREEN



Creator of electronic access solutions



All the information contained within this document (photos, drawing, features, specifications and dimensions) could be perceptibly different and can be changed without prior notice.

CDVI Group
FRANCE (Headquarter/Siège social)
Phone: +33 (0)1 48 91 01 02
Fax: +33 (0)1 48 91 21 21

CDVI
FRANCE + EXPORT
Phone: +33 (0)1 48 91 01 02
Fax: +33 (0)1 48 91 21 21

CDVI AMERICAS
[CANADA - USA]
Phone: +1 (450) 682 7945
Fax: +1 (450) 682 9590

CDVI BENELUX
[BELGIUM - NETHERLAND - LUXEMBOURG]
Phone: +32 (0) 56 73 93 00
Fax: +32 (0) 56 73 93 05

CDVI
SUISSE
Phone: +41 (0)21 882 18 41
Fax: +41 (0)21 882 18 42

CDVI
CHINA
Phone: +86 (0)10 62414516
Fax: +86 (0)10 62414519

CDVI IBÉRICA
[SPAIN - PORTUGAL]
Phone: +34 (0)935 390 966
Fax: +34 (0)935 390 970

CDVI
ITALIA
Phone: +39 0321 90 573
Fax: +39 0321 90 80 18

CDVI
MAROC
Phone: +212 (0)5 22 48 09 40
Fax: +212 (0)5 22 48 34 69

CDVI SWEDEN
[SWEDEN - DENMARK - NORWAY - FINLAND]
Phone: +46 (0)31 760 19 30
Fax: +46 (0)31 748 09 30

CDVI UK
[UNITED KINGDOM - IRELAND]
Phone: +44 (0)1628 531300
Fax: +44 (0)1628 531003

DIGIT
FRANCE
Phone: +33 (0)1 41 71 06 85
Fax: +33 (0)1 41 71 06 86