## CSD 150 <br> AUTOMATIC SLIDING



## USER'S MANUAL

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## TERMS OF THE WARRANTY

## TABLE OF CONTENTS

GENERAL INFORMATION AND TERMS OF THE WARRANTY ..... 3
MECHANICAL PARTS4
ELECTRICAL CONNECTIONS ..... 5-14

- Socket Connections
- Connections
- Standard Factory Connections
- Operating Functions
INSTALLATION SETTINGS ..... 15-16
OPERATING FUNCTIONS ..... 17-. 20
MECHANICAL INSTALLATION ..... 21-22
FAULTS ..... 23
SAFETY WARNING ..... 24
TECHNICAL SPECIFICATIONS ..... 25

Prior to starting assembly or installation, please read all assembly and installation instructions and watch carefully the assembly video delivered together with our product. Any faults during the assembly may cause damage $t ı$ the people or goods. This product has been produced in accordance with well-known technical standards and safety regulations. Prior to assembly of the product, please be sure that all architectural components and structures (e.g. assembly surface of beams, frame guides of doors, etc.) in the door openings are suitable for supporting the automation and durable enough. Automatic doors for pedestrians shall be earthed in accordance with current regulations.

An earthing system should be provided in the building during the assembly of the processor. If there is no earthing system, then connections should be secured according to the national regulations. The assembly should be performed only by qualified staff. Please cut off the power prior to perform any work on the system.

Please pay special attention to warning symbols or notes which can be seen within the guide. These symbols and notes are the warnings intended for preventing damage to the operators and safety of other people. The manufacturer may not be held responsible for the workmanship or application, or abiding special regulations, or from any possible results.

## TERMS OF THE WARRANTY

1) The warranty period commences on the date of delivery, and continues for 2 years.
2) All parts of the product are under warranty of our company.
3) If the product breaks down within warranty period, the period elapsed during repair will be added to the warranty period. Repair time of the product can be 30 business days at maximum. This period will commence when the fault is informed to the service department, and if there is no service department then it will commence when informed to the seller, dealer, agency, importer, or exporter of the product.
4) If the product breaks down due to material and workmanship faults within warranty period, it will be repaired without any charge for any reason such as workmanship, replaced parts, or etc.
5) Any faults which arise as a result of using the product contrary to the assembly or user's guide are not covered by warranty.
6) The manufacturer may not be held responsible for damages or faults created by using the product together with devices of other manufacturers. Any damage or fault created by using the product together with devices of other manufacturers mean that the product is excluded from warranty. Please only original equipment and spare parts in order to prevent void of the warranty of the product.

## PARTS

The parts and the equipment constituting the product have been shown in the below.


## SOCKET CONNECTIONS

WARNING: Materials used during assembly should be in accordance with applicable standards, and connections should be performed by an authorized personnel,


## GENERAL CONNECTION DIAGRAM



## CONNECTIONS

| NO | ELECTRIC TERMINAL | DESCRIPTION |
| :---: | :---: | :---: |
| CN1 | MOTOR OUT | MOTOR OUTPUT |
| CN2 | ENCODER | MOTOR ENCODER OUT |
| CN3 | POWER | 25V AC SUPPLY |
| CN4 | FUSE <br> PHOTOCELL <br> TRANSMITTER <br> PHOTOCELL <br> RECEIVER | $\begin{aligned} & \text { FUSE - 10A } \\ & \text { COM : COMMON } \\ & \text { DATA: TRANSMITTER DATA } \\ & \text { COM : COMMON } \\ & \text { DATA: RECEIVER DATA } \end{aligned}$ |
| CN5 | RADAR 1 | INTERNAL RADAR PLUS +12V DC MINUS -12V DC COM : COMMON INP: INPUT |
| CN6 | RADAR 2 | EXTERNAL RADAR PLUS +12V DC MINUS -12V DC COM : COMMON INP: INPUT |
| CN7 | POSITION <br> (POSITION SWITCH) | 1: POSITION 1 <br> 2: POSITION 2 <br> COM : COMMON |
| CN8 | UART | PC CONNECTION |
| CN9 <br> CN10 | OPEN-CLOSE (OPEN-CLOSE) <br> 12V DC | COM : COMMON <br> CLOSE: CLOSE DATA <br> OPEN: OPEN DATA <br> 12V DC -MAXIMUM 100 mA OUTPUT |
| DP1 | SETUP (DIP SWITCH) | INSTALLATION SETTINGS |
| PT1 | OPEN SPEED | OPENING SPEED |
| PT2 | CLOSE SPEED | CLOSING SPEED |
| SW1 | RESET | INSTALLATION REMOVAL |

## OPERATING FUNCTIONS

## Photocell Receiver / Photocell Transmitter

Safety photocell is a system which detects an obstacle found between doors through infrared signals for safety and control.

In order to ensure an optimum operating efficiency, the Receiver and the transmitter should be level. The highest distance between the photocell transmitter (white) and photocell receiver (red) should be 5 meters at maximum. Sensors should be vertical, and on the same line. When transmitter and receiver sensors of the photocell detect each other, the Photocell Led light on the microprocessor unit illuminates, and when not then the Photocell Led light turns off. In cases when Photocell Led turns off, please make sure sensors detect each other by checking the position of sensors.


REMARK:
FOR ACTIVATING THE PHOTOCELL SET DIP SWITCH 1 TO "ON".
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## OPERATING FUNCTIONS

## RADAR 1 (Internal Radar)

This is the radar for detecting any movement around the interior of the door mechanism. When the internal radar detects the object and becomes active, the "Internal Radar" Led on microprocessor unit illuminates, the door becomes active, and moves to the opening direction.


## OPERATING FUNCTIONS

RADAR 2 (External Radar)
This is the radar for detecting movement around the exterior of the door mechanism When the exterior radar detects the object and becomes active, the "Internal Radar" Led on microprocessor unit illuminates, the door becomes active, and moves to the opening direction.


## OPERATING FUNCTIONS

## CURTAIN PHOTOCELL MICROWAVE RADAR

For safety purposes, this system triggers the door by detecting any obstacle found between the doors and any movement which may be seen during passage on the door mechanism.


## OPERATING FUNCTIONS

## Open / Close

Door opening or door closing movements can be performed by Open/Close Inputs with normally open button (no contact). When "Open" input is triggered, the door moves to the opening direction; when the waiting time elapsed, the door closes to the closing direction. When "Close1 input is triggered, if the door is open, then the door closes without any waiting time.
normally open button


INSTALLATION SETTINGS
DIP SWITCH SETTINGS


ON : Safety photocell open

## 2-CLOSING TIME

OFF: It waits 3 sec after door opens, and then closes
ON : It waits 5 sec after door opens, and then closes

## 3-CRUSHING

OFF: It performs continuous crushing test during crushing
ON : It performs crushing test once during crushing

## 4-MOTOR

OFF: Motor lock closed
ON: Motor lock opened


INSTALLATION : After making socket connections of CSD-150 card, when it is first energized, LD9 led flashes. If the led flashes, this means that the card isn't installed. In order to start installation, please hold down RESET button for 3sec. LD9 will illuminate continuously during installation. When the installation is successfully completed, the led goes off.

RESETTING: When there is no energy, the system will reset if RESET button is kept pressed, and the system energized. When reset is successfully completed, the LD9 led flashes.

OPENING SPEED: The opening speed of the door can be set.
CLOSING SPEED: The closing speed of the door can be set.
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AUTOMATIC SLIDING

## OPERATING FUNCTIONS

## External Equipment

SNRF Numbering Machine \& RF Card Reader. SDA Touch Screen Switch. External equipment such as SELS El Sensor can be connected to the system with Open - Close input.


SDA
Touch Screen Switch


SNRF
Numbering Machine \& RF Card Reader


SELS
Manual Sensor

SNRF Numbering Machine \& RF Card Reader

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## OPERATING FUNCTIONS

## POSITION SWITCH

With the position switch, different functions of the door can be chosen such as Installation, positioning, Always open, Always close.

## Position Switch functions:

I(Automatic Mode): This is the position where Installation and Automatic on-off is done.
$\mathbf{O}$ (Always Close) : This is the position with the door is always closed.
II(Always Open) : This is the position with the door is always opened
Note: Installation and positioning cannot be performed at 0 and II positions.


Position Switch Cable WHITE: 1-AUTOMATIC MODE RED : 0-ALWAYS CLOSE BLACK:II-ALWAYS OPEN

## OPERATING FUNCTIONS

## DOOR CONTROL WITH RF

In order to control the door with remote control, Indefinite SN-12 plus receiver is connected to the "Position Switch". There are available two methods.

A- Opening the door with remote control, and after a certain time, automatically closing the door: Com and No ends of receiver is connected to the Com and End No 1 of position switch.

B- Opening the door, and keeping the door open until a second command: Com and No ends of receiver is connected to the Com and End No 2 of position switch.


## MECHANICAL INSTALLATION

Our product is designed in a manner operating with different hardware and peripheral devices. Prior to start with mechanical installation procedure, please read all assembly instructions, and abide relevant instructions.

## Before starting the assembly work, please ensure that:

- it is within the required operating limits by checking the weights of leaves (considering the doors which exceed 100 kg , please assemble 2 wheeled carrier for each leaf.)
- the wall or structure where the product is mounted conformable with regulations,
- the wall which supports the product is flat, smooth, and vertical to the ground.

1. Microprocessor Control Unit
2. Safety Photocell (Receiver - Transmitter)
3. Motor with Encoder
4. Radar Movement Sensor
5. Position Switch
6. Power Button
7. Belt
8. Double Carrier Roller
9. Stopper
10. Side Covers
11. Idle Roller
12. Belt Coupling Piece
13. Frame
14. Frame Top Cover
15. Motor Drum


## LEDS (INDICATORS) :

PHOTOCELL: If the receiver and transmitter sensors of safety photocells detect each other, the photocell led will be activated.

RADAR1: If the internal radar detects any movement, the Radar1 led will be activated.
RADAR2: If the external radar detects any movement, the Radar2 led will be activated
POSITION1: When the position switch is taken to "Automatic mode", the Position1 led will be activated.

POSITION2: When the position switch is taken to "always open" position, the Position2 led will be activated.

OPEN: When it is triggered from the Open input, the Open led will be activated.
CLOSE: When it is triggered from the Close input, the Close led will be activated.
POWER: It is activated when the microprocessor unit is energized.

## FAULT CODES:

LD9 led next to the reset button shows the fault code. The fault code will be specified by how many time the led flashes. For example, if the Led flashes 5 times, the fault code is 5 .

## CODE 3: NO STOPPER

CODE 4: SHORT DISTANCE FAULT
CODE 5: POSITIONING FAULT
CODE 6: CRUSHING FAULT
CODE 7: INSTALLATION FAULT
CODE 8: SAFETY CURRENT- IF THERE IS ANY CRUSHING OR SOFTWARE-RELATED FAULT, THE SYSTEM WILL GO TO PROTECTION STATE

| PROBLEM | CAUSE | REMEDY |
| :---: | :---: | :---: |
| Power led doesn't turn on. | Socket on the microprocessor coming from the transformers may not be mounted. | Please check the transformer entrance on the microprocessor. |
| When socket connection is done, microprocessor power led doesn't turn on. | On-off switch may not put into the sequential electric terminal. | By checking the sequential electric terminal, please make sure that the power is delivered to the microprocessor while the On-Off switch is at "On" position. |
| Installation cannot be performed. | Failing to provide connections for microprocessor unit of the DC motor with encoder and failing to provide supply connections. | Please check the motor encoder and supply end connection which ensure communication between microprocessor unit and DC motor. |
| Leaves are opening slowly. | Causing slowing down by any obstacle or object on the leaf rail, lower opening and closing speeds. | Please check whether there is any obstacle on the rail which prevents opening of leaves quickly; increase the opening and closing speed to the required level. |
| If leaves are not opening when radars are active | Incorrect radar connections, or cutting cables. | Correct tie of radar connections, please make sure that radar1 and radar2 expression are found in the socket. |
| If position switch doesn't work | The junction cable of the position switch is not attached on position switch socket | Please check position switch socket is attached on the socket card for position switch junction cable. |
| Door operates irregularly. | Wrong connection any of the encoder and supply cable between the microprocessor and DC motor. | Please make sure that encoder and supply cables between DC motor and microprocessor are not attached to the wrong side that color codes match, and that a proper connection is ensured. |
| Microprocessor unit is operating, but the door doesn't move. | Keeping the door continuously opened or closed on the position switch | Please make sure that operating mode on the position switch is selected as "Input-output active". |
| Safety photocell doesn't work. | Safety photocells cannot detect each other as a result of vertical position of receiver and transmitter, and that they are not level. Also wrong connection between the receiver and transmitter. | Please mount the safety photocell to the vertical position at a position that can detect each other. Also, please make sure that receiver and transmitter connections are at the right socket. |
| Safety photocell is working, but it is not functioning if there is any obstacle. | Activating switch no 1 on dip switch. |  |

## SAFETY WARNINGS

- The manufacturer reserves the right to make any changes which deemed beneficial or necessary.
- Electrical safety of your product can only be ensured if only it is connected to an earthing system accurately. The manufacturer cannot be held responsible if these conditions are not complied with.
- Assembly of electronic parts should be performed only by authorized personnel. Any maintenance or service should be performed by an expert authorized by the manufacturer.
- The product you purchased can be used as a general entrance and exit. It cannot be used as an emergency exit.
- Do not put any foreign object into the rail region or door mechanisms.
- Please don't prevent opening or closing of moving door or any equipment by any object, equipment, or machinery.
- Do not force the door for opening or closing for any reason.
- Do not put inflammable or burning objects next to the door.
- Do not reset functions of faulty door without assistance of an expert authorized by the manufacturer company, or without reading assembly and installation instructions.
- Please do not perform works which should normally be performed by the expert authorized by the manufacturer.
- Please do not put moving tools or materials within radar detection distance of the door. It is recommended to use micro-radar with curtain photocell for a full safety.
- While the door is in automatic state, do not clean, and make sure that electronic parts don't have contact with water.
- During maintenance of door, please make sure that the system is closed.
- Please do not exert excessive power to the doors or accessories under any condition.
- Please keep DVDs for future reference which include assembly and user's manual, and assembly video of the product.
- Please cut off the power prior to perform any work on the system.
- Check if the earthing is done properly. All metal components of closing sections (building doors, garden gates, etc.) and all components of the system which have earthing end to the earthing line.


## TECHNICAL SPECIFICATIONS

## Technical Specifications

| Operating Voltage | $230 \mathrm{VAC} \pm 10 \% 50 \mathrm{~Hz}$ |
| :---: | :---: |
| Motor Voltage | 24 V DC |
| Opening Speed (Adjustable) | $0.9 \mathrm{~m} / \mathrm{s}$ |
| Closing Speed (Adjustable) | $0.7 \mathrm{~m} / \mathrm{s}$ |
| Max. Leaf Weight | 75 kg (1 leaf), $75+75 \mathrm{~kg}$ (2 leaves) |
| Kit Measurements \& Weight | $50 \times 30 \times 15 \mathrm{~cm} / 11 \mathrm{~kg}$ |
| Fault Notification | With a led indicator on the main board |
| Motor Lock | Available |
| Self Positioning | Available |
| Extra Photocell | Optional |
| Manual Sensor | Optional |
| Numbering Machine \& RF Card Reader | Optional |
| Always Closed-Open | Available |
| Automatic Operation | Available |
| Current Taken | 0.6A |
| Motor Power | 95W |
| Opening Time | $3 \& 5$ seconds (2 levels with a switch) |
| Protection Degree | IP 20 (Only for dry environments) |
| Operating Temperatures | from $-15^{\circ} \mathrm{C}$ to $60^{\circ} \mathrm{C}$ |
| Aluminum Frame Measurements | 3.5 / 4.5 / 6.5 meters |
| Adjustable Open Time | 2 levels with a switch |
| Adjustable Speed | Available |
| Photocell | Available |
| Height Photocell | Optional |
| Curtain Photocell Microwave Radar | Optional |
| Bluetooth Technology | Optional |
| Elbow Button | Optional |
| ID Car Pass | Optional |
| Only Entrance-Exit | Available |
| Half-Opening | Manually adjustable |

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