

# TRANSPORTER

## VELDO AUTOMATIC SLIDING DOOR AND STEP SYSTEMS

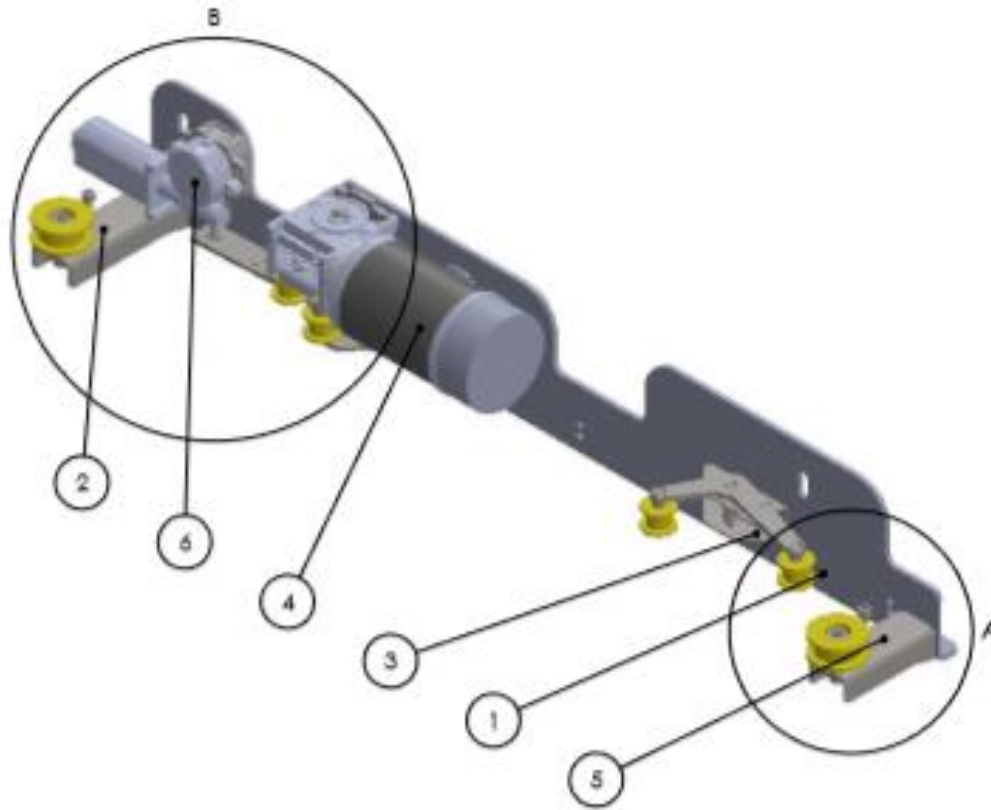


# VW TRANSPORTER

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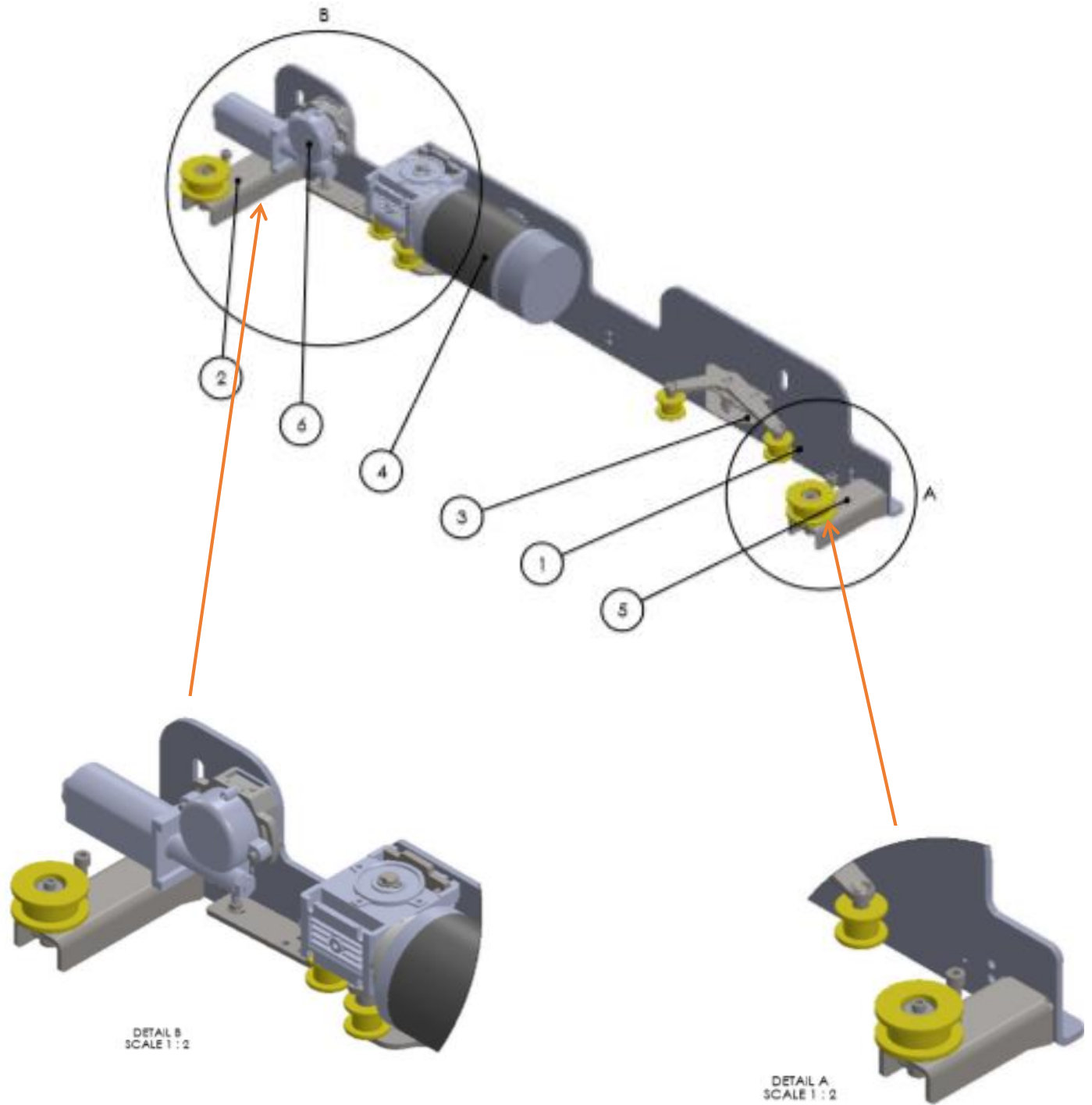
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## MAIN PARTS OF DOOR SYSTEM



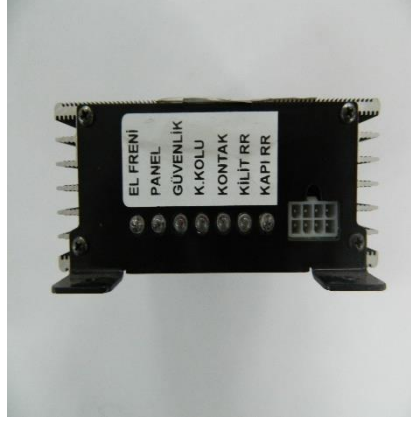
ITEM NO.	DESCRIPTION OF PIECE
1	CHASSIS OF DOOR SYSTEM
2	LONG FOOT GROUP
3	BELT TURNBUCKLE STATUS
4	MOTOR GROUP
5	SHORT FOOT GROUP (120)
6	GRASP GROUP

## MAIN PARTS OF DOOR SYSTEM



## MAIN PARTS OF DOOR SYSTEM

### Control Unit and RF Module



**Electrical Wiring :** It provide to movement and signal control of automatic door.

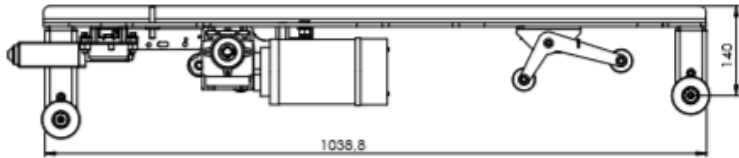


**In-door electrical wiring:** It provides to spent less power of automatic door for bring from the open position to the closed position.



**Lock Open System:** It is the mechanism that automatically opens the door without changing the original lock mechanism of the vehicle door.

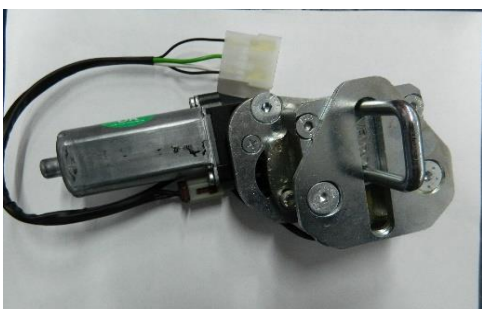
## MAIN PARTS OF DOOR SYSTEM



**Door Excitation Mechanism:** It is the part of the system containing the units and placed under the automatic door on the vehicle chassis.



**Motor Group**



**Lock Pull System:** It provides less contribution of force while turning the automatic door from open to closed position.



**Tension Rollers:** Tension rollers prevent the belt loosening that occurs when the direction of movement of automatic door changes suddenly.

**Defamation Rollers:** Determine the direction of movement and ensures that it completes its movement without friction.

## MAIN PARTS OF DOOR SYSTEM



**Encoder:** It allows automatic position information of the door to be transferred to the control unit and distance adjustment can be made.

## SECURITY SYSTEMS OF AUTOMATIC DOOR



**Safety Wick:** ensures that the door will open back automatically in case if it meet any obstruction or jamming while closing process.

**Overload control:** If the Safety Wick is disabled, it is the security system that comes in action.

**User controlled security system:** When the door is automatically closed, the door automatically opens when the user give a command from the front panel button or the door opening lever.



## MAIN PARTS OF DOOR SYSTEM

**Audible and light warning system:** If the automatic door opens when the vehicle is moving or standing, if the door is opened from the inside opening arm; the user is audibly alerted.

In the form of an audible warning in short tones during closing, there is an intermittent audible warning in long tones during opening. When the door is opened and closed, the control unit sounds an audible warning. The user is warned by the light in the front panel button when the door is open.

**Speed-controlled safety system:** When the vehicle is moving when the vehicle speed is above a certain limit (5 km / h) and the door is not open and the door is open; it automatically closes when a certain speed limit (5km / h) is exceeded. Also, if the sliding door is attempted to open manually from the inside when the vehicle is moving, the system prevents the door from opening.

**In case of accident or emergency:** In an emergency, the car door can be opened manually from the original door opening arms inside and outside.

## WORKING WAYS OF VELDO AUTOMATIC DOOR SYSTEM



**1** - With the on / off button mounted on the front chest,



**2** - with the door handle of the vehicle.



**3** - With the original control of the vehicle.



## MAIN PARTS OF DOOR SYSTEM



Driver and passenger seats are first removed and removed from the car in order to mount Veldo automatic sliding doors.



Take out the right front door step plastic.



The seats look like when they were taken out.

## MAIN PARTS OF DOOR SYSTEM



After removing the safety belt and suspension pin on the pole, the direct cover is removed.



Sliding door step plastic is removed.



The dismounted form of stair plastic is as follows.

## MAIN PARTS OF DOOR SYSTEM



The isolation of the sliding door is removed.



The original lock wire and lock open wire are connected as shown.



The original lock wire and lock open wire are connected as shown.



Unlocking mechanism is assembled as in the picture.

## MAIN PARTS OF DOOR SYSTEM



The lower foot lock wire is removed.



The bottom foot lock wire is removed as shown.



The safety wick is fitted according to the door form.



The safety wick cable passage hole is drilled from the marked spot in picture.

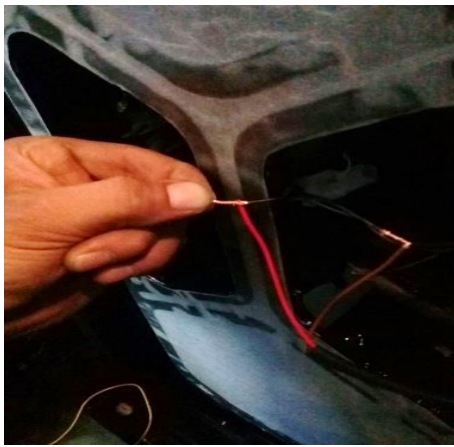
The safety wick cable is connected with the inside of the door.



## ASSEMBLING OF AUTOMATIC DOOR



The non-signal cable is disconnected and the red cable is connected to the switch side.



The connection shape is as shown in the picture.

Also check the connection diagram when making a connection.  
First, make the connection inside the door.



The locking mechanism is drawn as shown at picture.

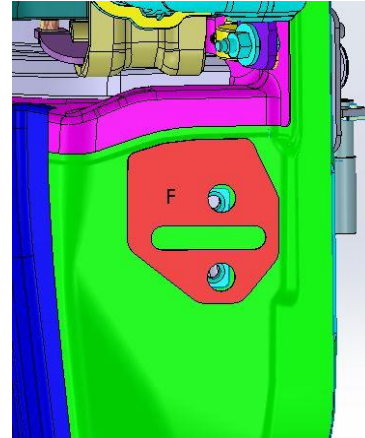


It is drilled in the corners to make cutting with a pneumatic saw.

## ASSEMBLING OF AUTOMATIC DOOR



With the corresponding plate, it is marked as in picture.



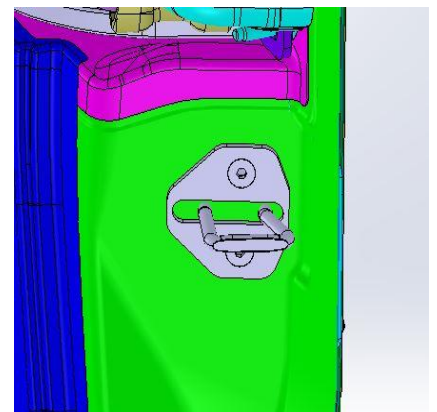
The corners are drilled with 10 mm drill.



Cutting is done as in picture.



The mounting of the locking mechanism is the same as in the picture (from outside).



## ASSEMBLING OF AUTOMATIC DOOR

The door opening/ closing button cable in the main system installation is placed in the panel slot from the back of the center console and the plugs are attached to the button.

- = white,
- + = red,
- COM = white-blue
- ON = black



Panel Button



The panel button is mounted as shown.



## ASSEMBLING OF AUTOMATIC DOOR



For speed information, the vehicle's original speed indicator panel is removed.



Socket on the back of the display panel,9. the input is automatically connected to the speed information cable ( pink ) of the door.



Automatic sliding door ignition cable ( red cable ) connects to the rear of the vehicle's original headlamp button for take ignition off / on information of the vehicle.

## ASSEMBLING OF AUTOMATIC DOOR



The original door foot of the vehicle is marked with the piece in the image.



The piece in the picture is connected to the original door foot of the vehicle.



Belt reels are connected as shown.



## ASSEMBLING OF AUTOMATIC DOOR

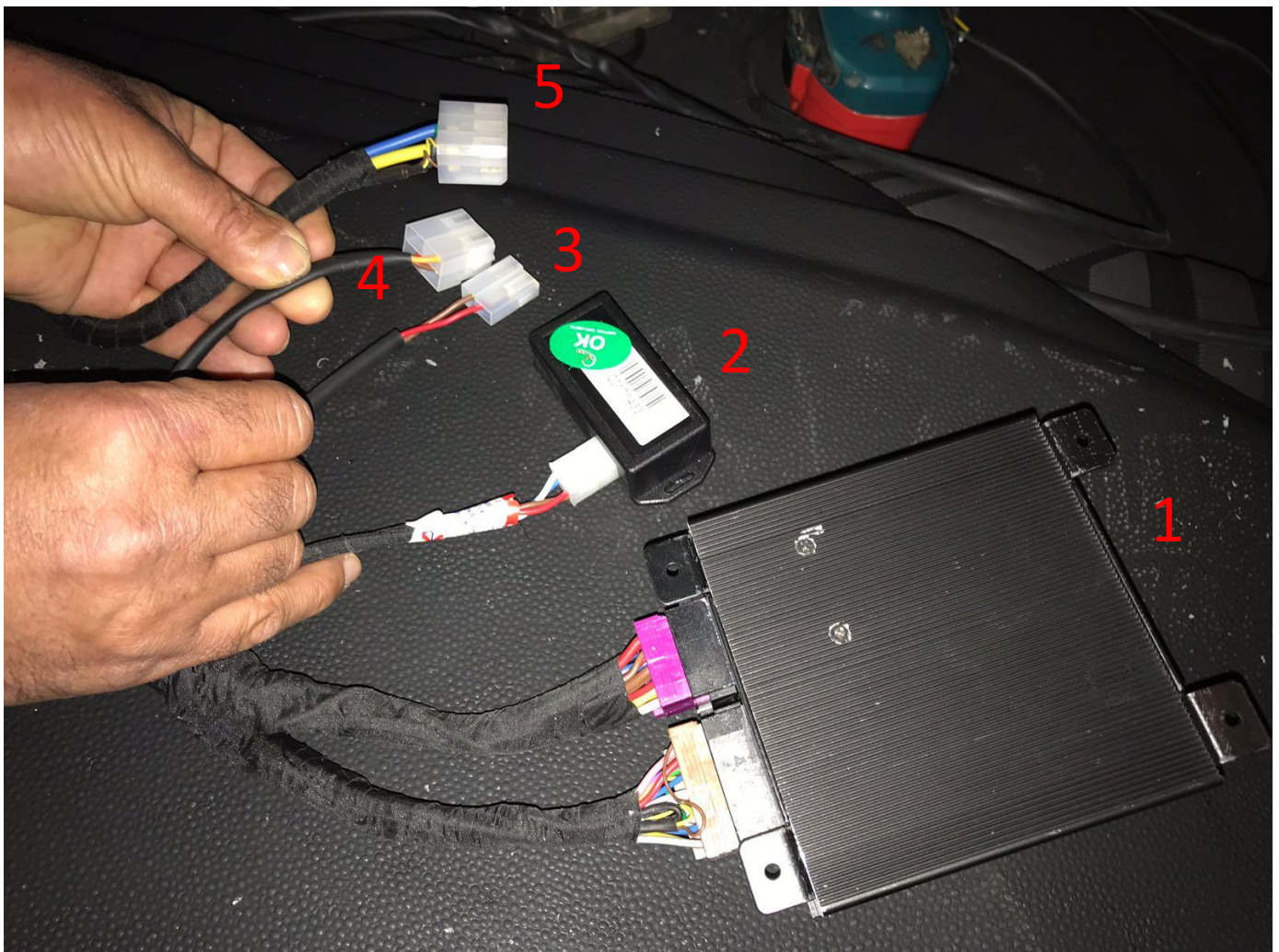


Belt is connected as in Figure.



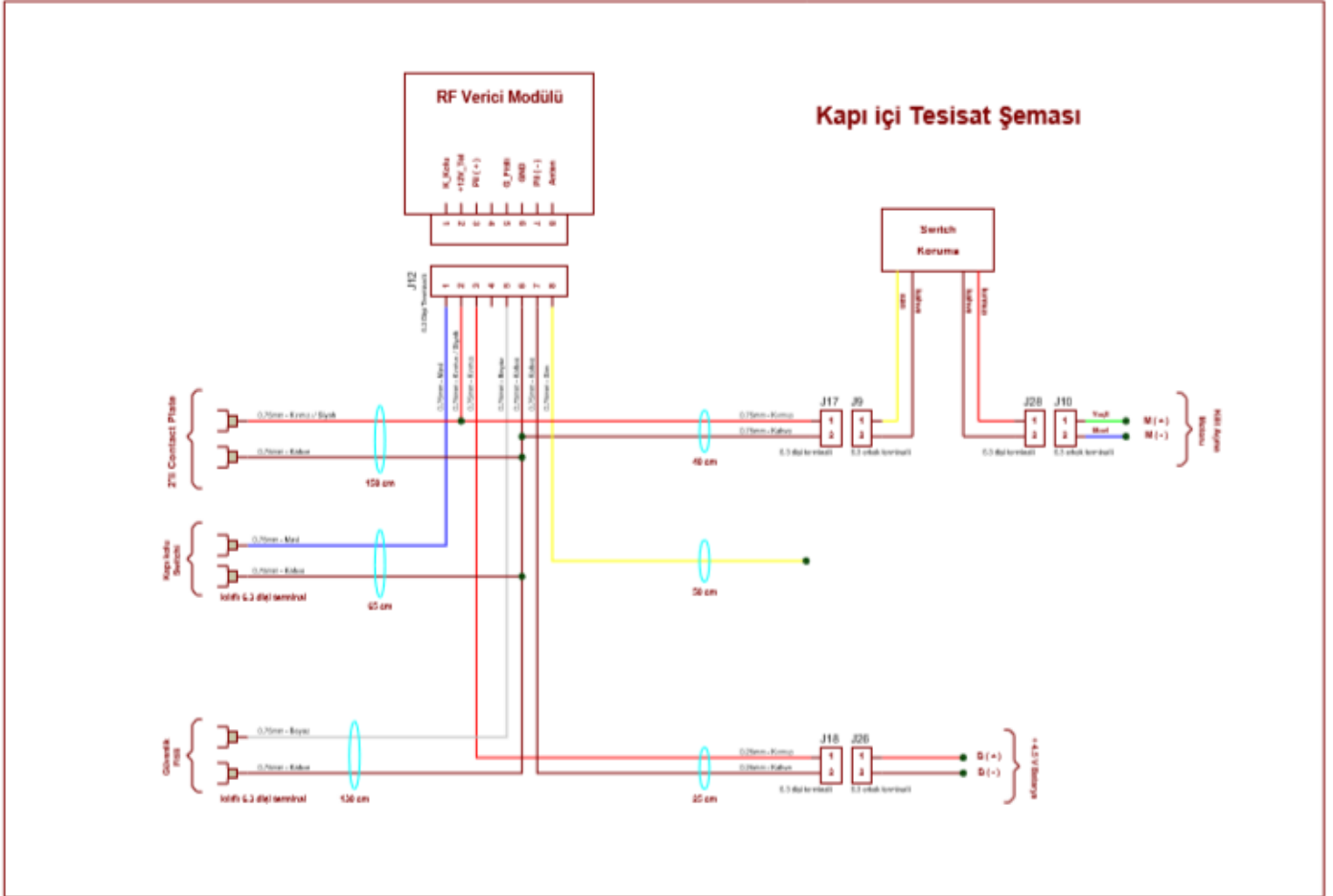


## ASSEMBLING OF AUTOMATIC DOOR



- 1 – Door control unit
- 2 – RF receiver
- 3 - Grasp socket
- 4 - Step motor socket
- 5 – Main system motor socket

## IN-DOOR SYSTEM DIAGRAM





## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

**Initial working status:** Control unit is connect to facilities and when the insurance is installed and the first energy is supplied;

- The central locks of the control are switched to the locked position by pressing the button, then press the central locks open button to switch the control on, so that the command to open the middle door of the controller is activated.
- The door is manually opened. When the panel button is held pressed and the short buzzer starts to be heard, the open command from the control panel is given and the panel button is released. In this case, the door first goes to the closing direction, then to the opening direction and finally the door closes completely, The buzzer 2 identifies the encoder by giving a short beep.
- In this position, the buzzer is constantly bouncing and waiting for commands. Door closes after command. All the lights on the control unit are turned off and the buzzer is muted.

### General Working:

#### When the door is opened

- The lock catcher gives out the door.
- Unlocking engine unlocks the door by tapping the unlocking wire.
- The door starts to open the door of the motor, during which the buzzer is tilted in long tones and the door is opened.
- Opening is as much as the taught opening, the door system measures this distance with the encoder



## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

### General Working:

#### When the door is closed

- The door starts to close the engine door, while the buzzer bites in short tones the door is closing.
- When the door is completely closed (if the door reed relay is not defective, it understands this operation with reed relay, if the reed relay is faulty, it understands this operation with over current) the buzzer finishes the hoisting operation,
- The lock pull mechanism pulls the door in.

**Door operation settings:** The part where the control settings of the control unit are made. These settings are made when the ignition is switched off. These settings are;

#### **1- Door distance adjustment :**

- The door opens manually to the desired distance, the buzzer is uninterrupted and continuously bounces.
- Press and hold the panel button, is entered into the learning mode (the situation where the buzzer is intermittently interrupted) without leaving the panel knob.
- The door learns the encoder direction by first going to the closing direction and then to the opening direction.
- After this process, the door goes back to the closing direction and closes the door completely.
- The locking catch pulls the door, the buzzer shuts the long probe twice, so the door distance is taught.

## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

**Door operation settings:** It is the part where the operation settings of the control unit are made. These settings are made when the ignition is switched off. These settings are;

### 2- Doorhandle selection:

- Press and hold the panel button to enter the learning mode.
- The panel button is depressed without leaving as long as the buzzer is interrupted.
- After a while the buzzer is shut up
- Once the long end has been activated, the outer door handle becomes activated
- If the shorter probe bites twice, the outer door arm becomes passive.

### Security:

#### 1- When the door is opened:

- If there is an obstacle in the opening direction, the door stops with overcurrent.
- During the opening process, it is expected that the door will be closed again with the panel button or the control.

#### 2- In case of emergency:

- If the vehicle speed is below 20km and the central locks are closed then the vehicle speed falls below 5km, if the ignition is open, the door lock is opened if the outer door is pulled the door can be opened manually with the internal emergency arm on the valve. In this case, the buzzer is constantly bouncing.

## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

**3- When the door is closed:** If one of the following events occurs, the door stops and reopens.

- If a jamming door in the closing direction detects excessive current,
- If there is a impact in the safety wick while the door is closed
- If the door is pulled out while the door is closed
- If the panel button is pressed while the door is closed
- If the control is pressed while the door is closed

### On-off commands:

#### 1- Close commands:

- If the vehicle is moving and the vehicle speed is 5 km or more and the door is attempted to be opened from the inside, it closes immediately without allowing manual opening.
- If the door is opened automatically, if the vehicle is started and the handbrake is lowered, the door goes to the close and even if the open commands are given in this position, the door is not opened, it is notified in short tones by voice warning.
  - The door is open and the car speed is 5 km and automatically switches off regardless of how it is opened or in which position it is.
- When the door is open and the vehicle speed is less than 5 km, the parking brake is activated when the handbrake is applied or the ignition is off. The door automatically closes when the control is active.

#### 2- Open commands

When the door is closed and the vehicle speed is below 5 km, the handbrake is applied or the ignition is switched off automatically when the panel switch and the control are active.

## ATTENDANCE OF DOOR SYSTEM

- Veldo Automatic Automatic door and step systems must be maintained once a year.
- System General Checks are done.
- The system belt changes.
- The unlocking pattern changes.

**NOTE: Uncared products will be evaluated outside the scope of the Guarantee.**

## TERMS OF GUARANTEE OF DOOR SYSTEM

The terms of the warranty are part of the purchase agreement between the Veldo authorized dealer and the customer. The customer accepts the warranty terms by signature. Veldo guarantee certificate is given to the customer during delivery of the vehicle. The customer is required to present this document in order to be able to process the warranty. All of the automatic door / step including the parts are guaranteed for 2 years. The start of the guarantee is the delivery date of the Product Assembly or Customer.

## DISCLAIMER OF WARRANTY TERMS

- Maintenance and repair of the automatic door / step must be carried out on time, regularly, by the appropriate technical knowledge and competent services and in accordance with the periodic maintenance and repair procedures.
- Failure to follow the instructions in the user manual.
- Automatic door / step; is used under improper conditions or under overload except for the purpose,
- If an original or non-equivalent part is attached to the automatic door / step, or if a change has been made by the manufacturer which is not technically approved,
- If the need for repairs in the purchased item is not reported in time,
- In spite of the warning made by the service, if the vehicle owner or the user has not provided the opportunity to repair it
- Defects caused by use in extremely dusty, damp, extreme hot or cold environments
- Failures caused by natural disasters such as flood, fire, earthquake etc.
- The depreciation and abrasion of the parts which are the result of normal use and the nature of the material is not guaranteed. Examples of these pieces that have been subjected to abrasion include system belt, unlocking tines and rollers. However, parts are guaranteed if the material, workmanship and assembly error, that is, the fabrication error, are detected in these parts. If there are any changes or modifications to the product, the warranty does not apply in case of malfunctions.

## FAULT DIAGNOSIS AT DOOR SYSTEM

Fault	Cause	Control Points
The door never moves.	<ul style="list-style-type: none"> <li>The fuse might have been thrown out.</li> <li>The system belt may be broken.</li> <li>The unlocking motor may be faulty.</li> <li>Unlocking cable may be broken.</li> </ul>	<ul style="list-style-type: none"> <li>Fuse defects should be detected and corrected</li> <li>The system belt is checked, if it is broken, it is changed.</li> <li>If the unlocking turns idle and the sound of buzzing sounds, the wire is broken and replaced with the new one.</li> <li>If the door is operated from the control, the button is defective and the change is made.</li> </ul>
The door is opened, the engine is running but the door is not opened.	<ul style="list-style-type: none"> <li>Unlocking cable may be broken.</li> </ul>	<ul style="list-style-type: none"> <li>If the unlocking motor is idling and sounding buzzing, the wire is broken and replaced with the new one.</li> </ul>
After the door is opened, it is jerking off.	<ul style="list-style-type: none"> <li>The belt turnbuckle group may be defective.</li> </ul>	<ul style="list-style-type: none"> <li>The belt turnbuckling spring may be broken, a spring change is made.</li> </ul>
The door is moving intermittently when opening / closing.	<ul style="list-style-type: none"> <li>The reedrelay may be faulty.</li> <li>The encoder may be faulty.</li> </ul>	<ul style="list-style-type: none"> <li>A magnet is held in front of the reed relay, and if the lock pulling motor is not working, the reed roll is faulty.</li> <li>The magnet is held in front of the reed relay, the encoder is defective if the lock pull motor is running.</li> </ul>
After the sliding door is commanded, it is going to open continuously.	<ul style="list-style-type: none"> <li>The reedrelay may be faulty.</li> </ul>	<ul style="list-style-type: none"> <li>A magnet is held in front of the reed relay, and if the run does not run, the reed relay is faulty.</li> </ul>
When the door closes, the buzzing sound comes.	<ul style="list-style-type: none"> <li>lock puller may be faulty.</li> </ul>	<ul style="list-style-type: none"> <li>After the door closes, the lock catch is checked. Since there may be a problem in the gear, the lock pulling mechanism is changed.</li> </ul>
After the door closes, it stays outside, behind the door remains a gap.	<ul style="list-style-type: none"> <li>lock puller may be faulty.</li> </ul>	<ul style="list-style-type: none"> <li>If the magnet is held in front of the reed relay, there is no movement with the lock puller, or if the U is broken.</li> </ul>
Security wired does not work	<ul style="list-style-type: none"> <li>Door control unit may be faulty. If the checks we've done are not working on the final wicket, If the door is not stalled when you trigger the white wire (-) in the main system installation, the control unit is faulty.</li> <li>There may be a problem with the safety wired electrical installation.</li> </ul>	<ul style="list-style-type: none"> <li>Open the door. when the brown cable is connected with the white cable, if the door stops and goes back, the wick is defective. Change roving.</li> <li>If the door stops and does not go back, when I give the white cable (-) trigger to the under the door (OPKON cable) under the front right seat, if the door stops and goes back, there is a break in the OPKON cable under the door. Change the opkon cable.</li> <li>If the fuse still does not work, the control unit is faulty if the door does not stop and return when you trigger the white wire (-) in the main system installation.</li> </ul>

## INSTALLATION OF AUTOMATIC DOOR SYSTEM



Veldo automatic door label is affixed and assembly is completed.