

## NEW SPRINTER

**VELDO AUTOMATIC SLIDING DOOR  
AND STEP SYSTEMS**

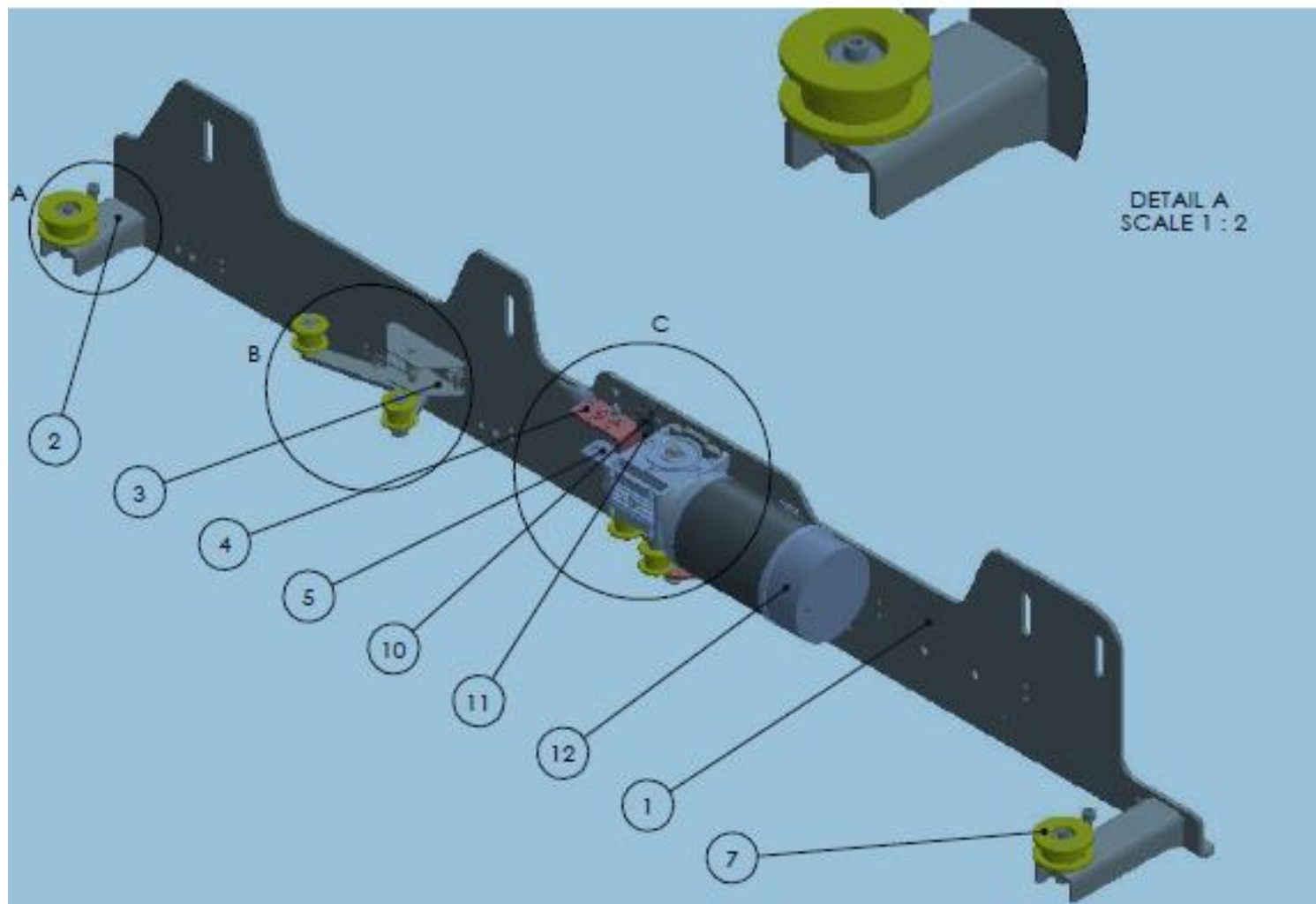


# NEW SPRINTER

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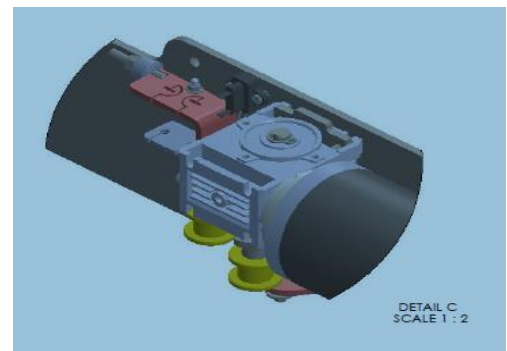
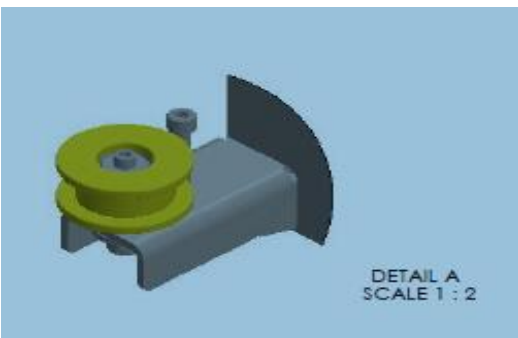
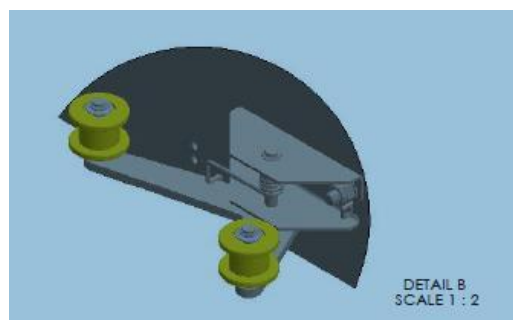
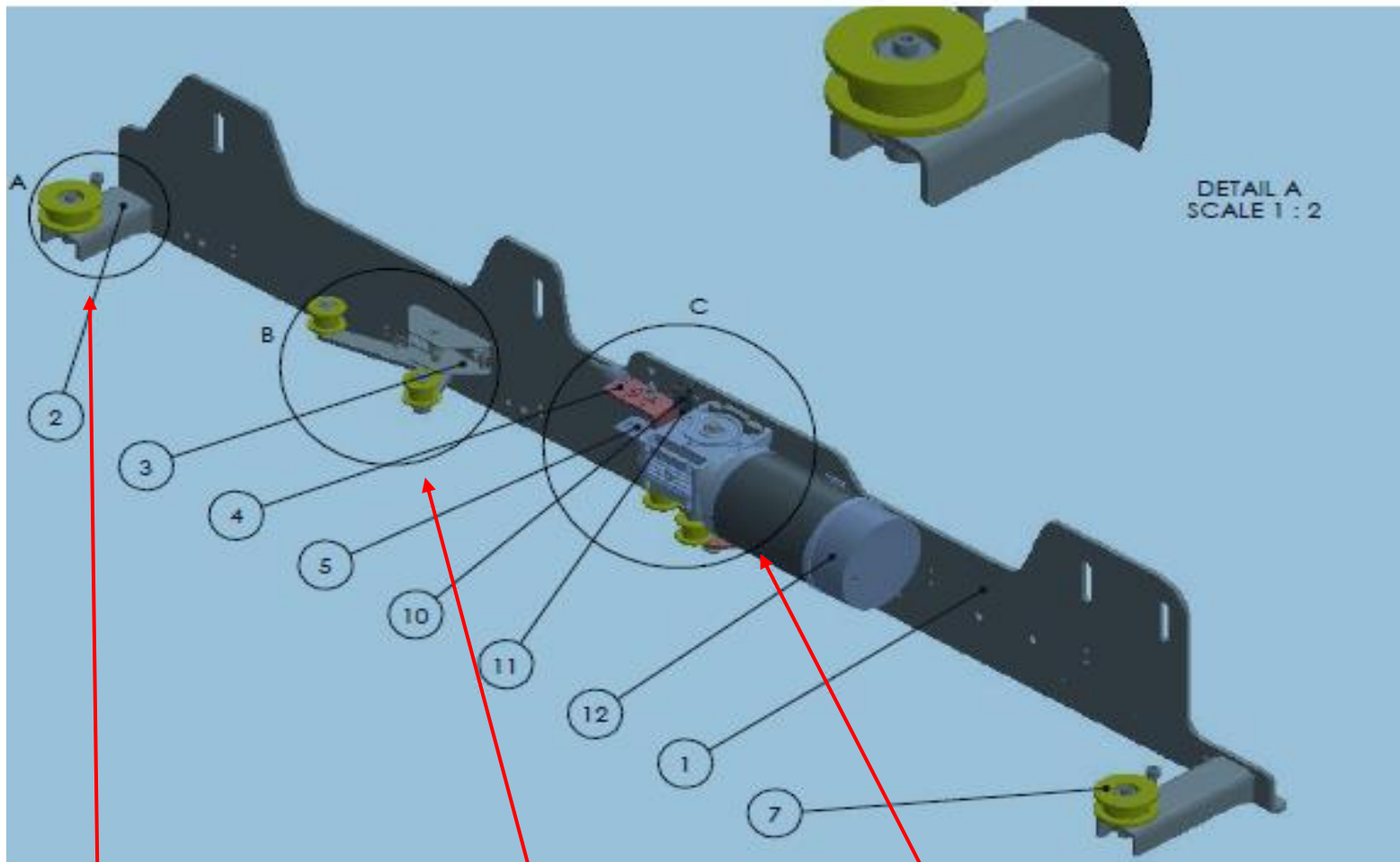
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## MAIN COMPONENTS OF DOOR SYSTEM

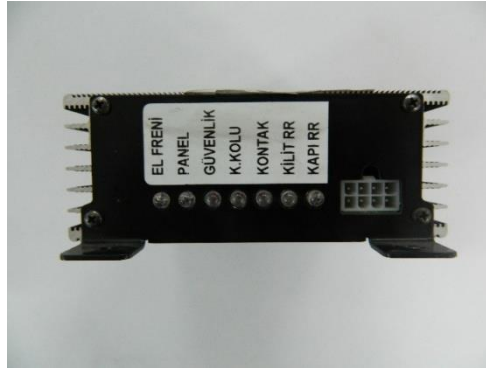


ITEM NO	DESCRIPTION OF PIECE
1	DOOR SYSTEM CHASSIS
2	SHORT STAYS GROUP
3	BELT STRETCHING
4	RELEASE FORK SEAM
5	L_PIECE
6	SIX EDGE HEAD FLANGE BOLT M6 X 10
7	LONG STAYS GROUP
8	SCREWHEAD SCREW YSB M4x15
9	PUL M4
10	SWITCH
11	RETURN SPRINGS
12	MOTOR GROUP

## MAIN COMPONENTS OF DOOR SYSTEM



## MAIN COMPONENTS OF DOOR SYSTEM



**Control Unit**



**Electrical Wiring:** It provides the movement and signal control of automatic door.



**RF set:** they enable to transmit the door security and door handle signals wirelessly to the control unit.



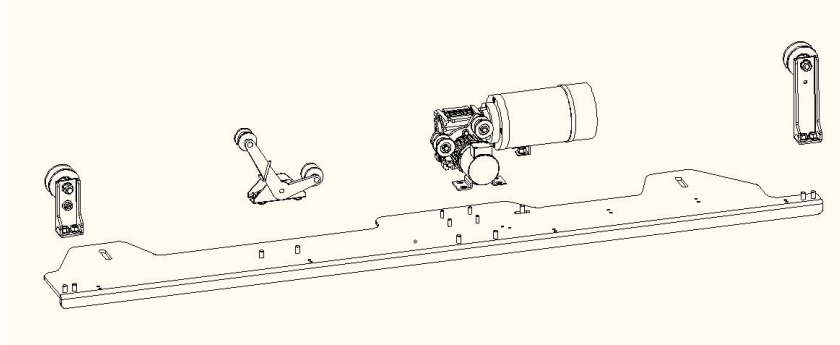
**RF receiver:** must be next to the control unit.



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

**RF transmitter:** the unlocking mechanism must be in the installation.

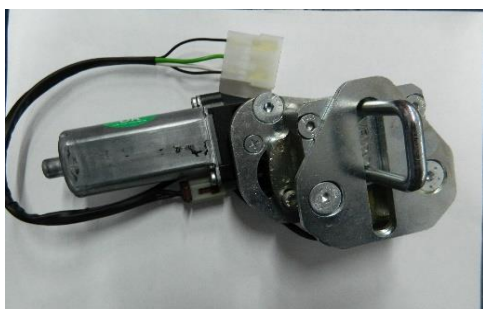
## MAIN COMPONENTS OF DOOR SYSTEM



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



**Motor Group**



**Lock Puller System:** The automatic door ensures that less force is exerted to bring it from the open position to the closed position.



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



## SECURITY SYSTEMS OF VELDO AUTOMATIC DOOR



**Security Wick:** The automatic door allows the door to open automatically in case of any obstruction or jamming.

**Overcurrent control:** the safety system that is activated when the safety wick is disabled.

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

## SECURITY SYSTEMS OF VELDO AUTOMATIC DOOR

**Audible and light warning system:** If the automatic door opens from the door handle from inside when the vehicle is moving or standing; the user is audibly warned.

Warning is made by short tones during closing, and by long intermittent tones during opening.

When the door is opened and closed, the control unit gives an audible warning.

The user is warned by the light on the front panel button when the door is open.

**Speed-controlled safety system:** When the vehicle is moving and the speed is above a certain limit (5 km/h) door cannot be open and if 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 case of emergency, the vehicle door can be opened manually from the inside and outside from the original door handles.

## WORKING WAYS OF VELDO AUTOMATIC DOOR SYSTEM



**1** - With the open/close button mounted on the front panel of the vehicle.

**DOOR  
OPEN - CLOSE**



**2** - With the original remote control key of the vehicle.



**3**- With the original door handle of the vehicle.



## ASSEMBLING OF AUTOMATIC DOOR



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



The front interior mats and ventilation are removed as shown.



## ASSEMBLING OF AUTOMATIC DOOR



After the cable duct covers are removed, the front part of the vehicle is brought to a lowered position.



B pillar covering is removed after the inner handle on the pillar and the hanging pin are dismantled.



## ASSEMBLING OF AUTOMATIC DOOR



The coating on the inner step and the inner step are removed.

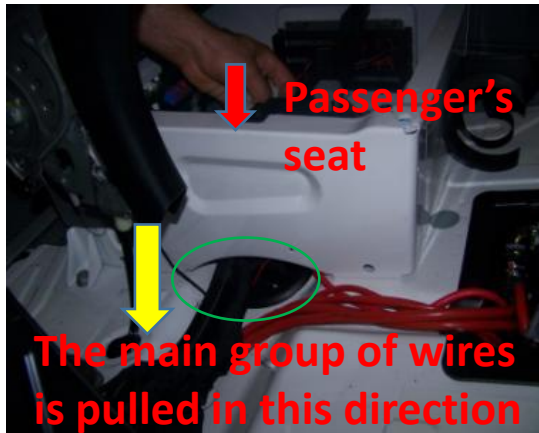


Remove the cover of the down part sliding door.



Rear plating, C pillar coating and wick are removed.

## ASSEMBLING OF AUTOMATIC DOOR



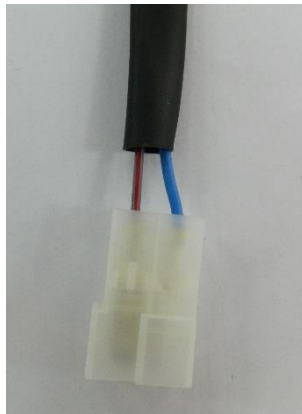
The main system of the Veldo automatic door is pulled from the passenger seat pool into the driver's seat pool.



## MAIN SYSTEM WIRING CABLE ENDS



1



2



3



4

1. Power supply cables – connect the black cable to the ( - ) end of the battery; end of the red cable to the ( + ) end of the battery.

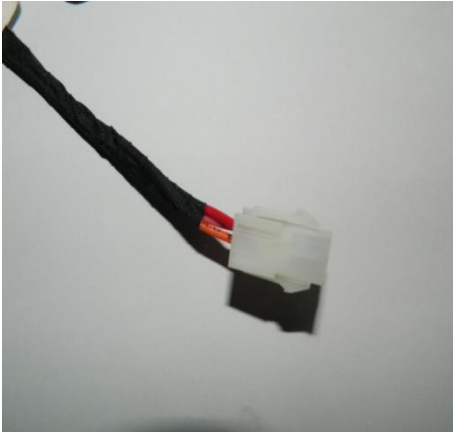
2. Clutch end (red and brown)

Note: the clutch end from the lower chassis will be used.

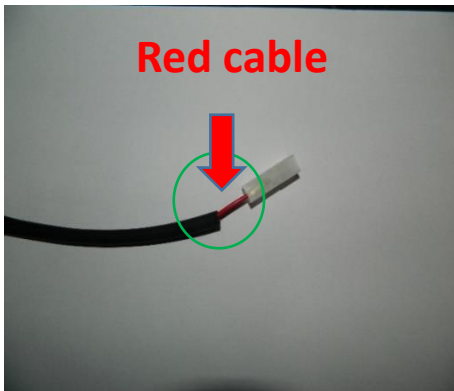
3. Door termination cables attached to the vehicle's B pillar ( grey, red and brown cables)

4. The middle door's remote control signal end ( Purple cable )

## ASSEMBLING OF AUTOMATIC DOOR



Step signal socket.



Ignition ON cable.



## ASSEMBLING OF AUTOMATIC DOOR



As shown in the picture, the automatic sliding door system receive the energy by connecting to the original battery ( + , - ) of the car, which is located under the driver's mat.



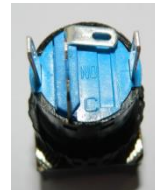
Template- 2

With the help of the front panel template, the push button is cut and the door on / off button is installed.



Ana sistem tesisatındaki kapı açma/kapama buton kablosu orta konsol arkasından panel yuvasına getirilir fişleri butona takılır. Daha sonrasında panel yerine montajlanır.

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

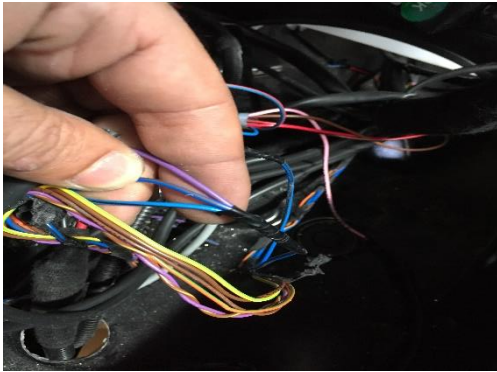


Panel Button

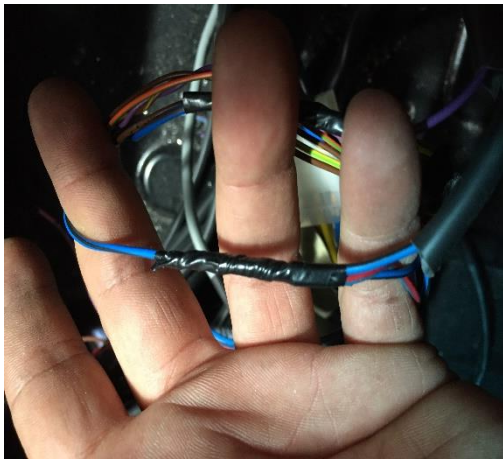




## ASSEMBLING OF AUTOMATIC DOOR



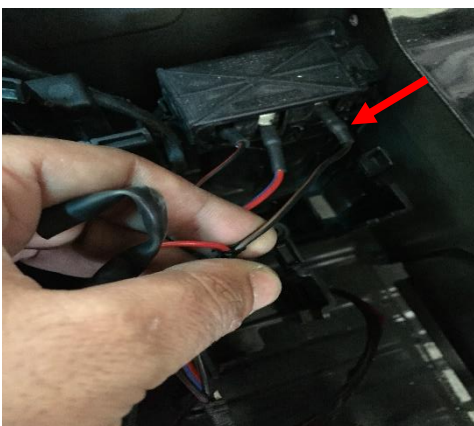
The **purple** cable of the main system of the facility, located under the passenger seat, is connected to the original cables of the vehicle the cable which respond for the central lock OPEN signal.



The **blue-black** cable in the main system facility, located under the passenger seat, is connected to the original cables of the vehicle the cable which respond for the central lock CLOSE signal.



The control unit is placed under the driver's seat, as shown at the picture.



As shown in the picture, the **brown-black** cable under the driver's seat of the vehicle is the ignition ON cable, the **red** cable on the main system installation is connected here.

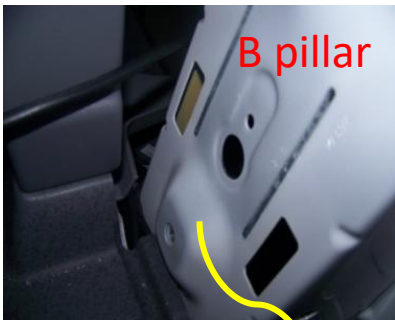
## ASSEMBLING OF AUTOMATIC DOOR



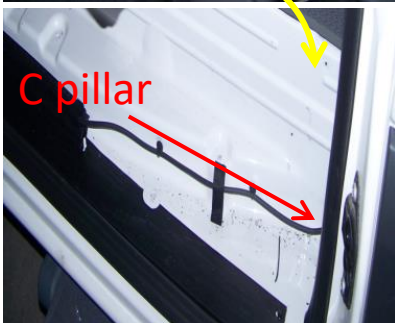
A hole is drilled under the passenger seat with the help of template -2, the cable passage rubber is installed.



After the Veldo automatic sliding door chassis is installed under the vehicle, the engine kit cable of the main system is extended from the bottom into the hole and inserted .



The cable of the lock puller mechanism in the main wiring system is taken from the edge of the B pole coating.



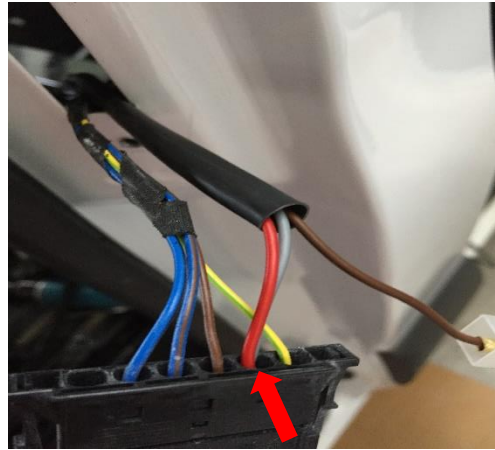
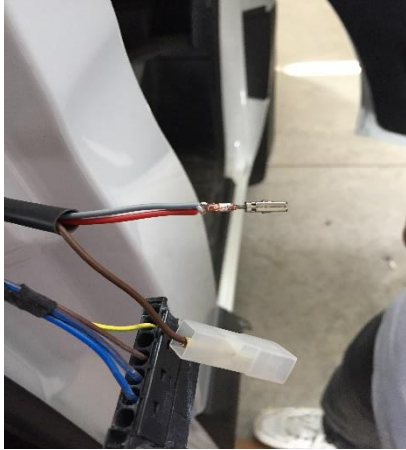
And is brought up to the C pillar by passing it under the dust rubber of the sliding door.



After installing the main wiring system, cable duct covers, ventilation and mats are installed.



## ASSEMBLING OF AUTOMATIC DOOR



- ➡ The **red and grey** cables on the B-pillar of the vehicle are connected and attached to the original switch terminal and installed to the empty place in the original switch socket.
- ➡ The **brown** cable extending to the vehicle's B pillar is connected to the **brown cable (GND)** located in the original switch socket.



The **red and brown** cables located in the car's in-door installation are connected to the original switch socket located in the door.

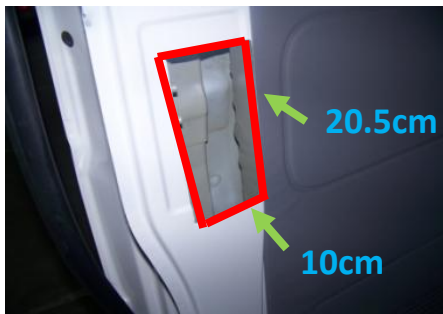
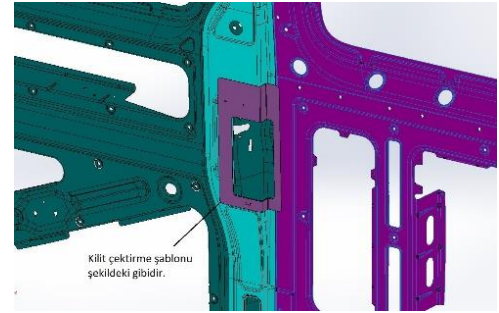
- ➡ The red cable is connected by striking the terminal where the red and gray cables (which we connected in the B pillar switch) correspond.
- ➡ **Brown** cable is connected to the corresponding **brown** cable (which we connected in the B pillar switch).



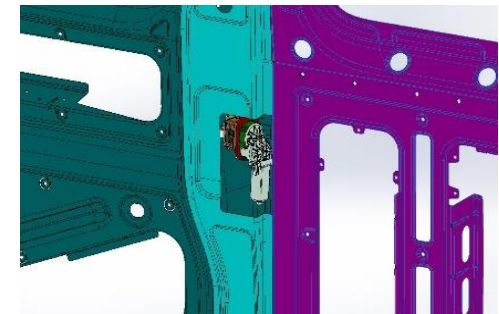
## ASSEMBLING OF AUTOMATIC DOOR



The C pillar is cut with template-4 and the original lock is removed. The cut area is painted with zinc spray.



Red stripes are painted with zinc spray. Its final version is as shown in the picture on the right.



After removing of the lock equivalent of the sliding door, it is cut with the help of template-5.

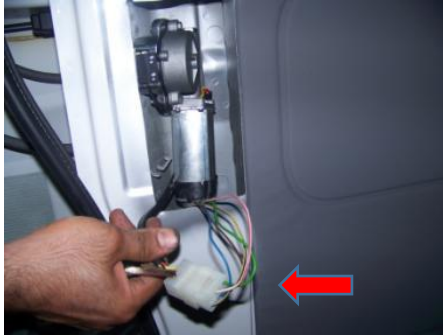


The cut area is painted with zinc spray.



The lock puller mechanism is inserted into place.

## ASSEMBLING OF AUTOMATIC DOOR



The sliding door is joined by the cable, extended from under the dust tire.



The sliding door upper lock is dismantled, the wire is removed from its place and the lock is reinstalled.



The area opposite the upper lock of the sliding door is removed, the upper bracket part opposite the upper lock is cut from the 0 end as shown in the picture. It fits back in its place.

The top part is grinded

## ASSEMBLING OF AUTOMATIC DOOR



The bottom plastic of the inner step is removed, and the backrest on the side of the cable is cut in order not to interfere with the movement of the belt. After the 60mm belt pass holes are cut, the plastic is attached back.



The original sliding door termination bracket is removed.



After the bottom foot hook is completely cut off from the marked place, as shown in the picture, the foot is attached back to the bracket.

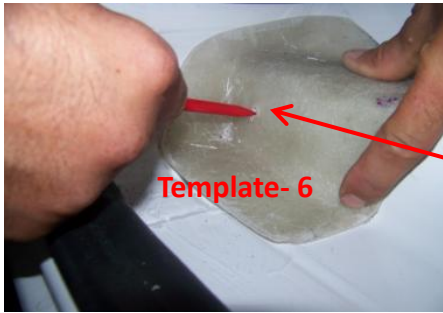




## ASSEMBLING OF AUTOMATIC DOOR



Cut it as it is in the right and reinsert it after cutting the left 60mm strap hole.



The left foot strap hole is cut with 60 puncher with the aid of template 6.



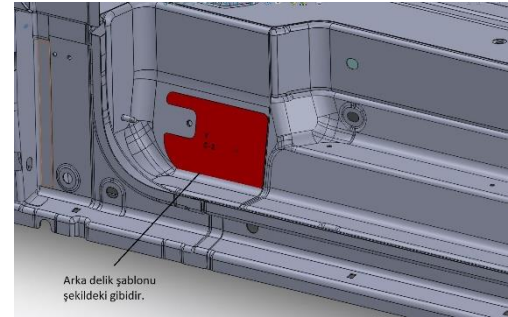
The cut area is painted with zinc spray.



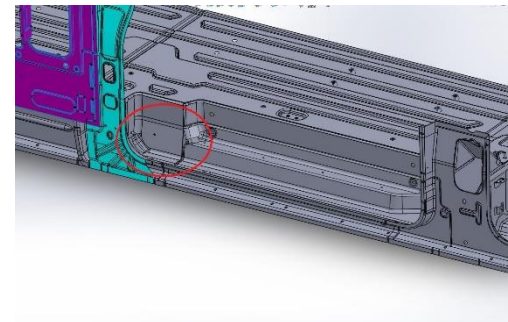
The right foot strap hole is cut with a 60-punch with the aid of template-7.



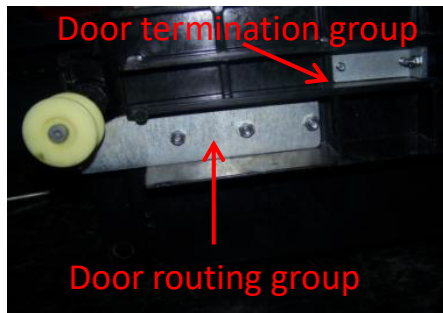
The cut area is painted with zinc spray.



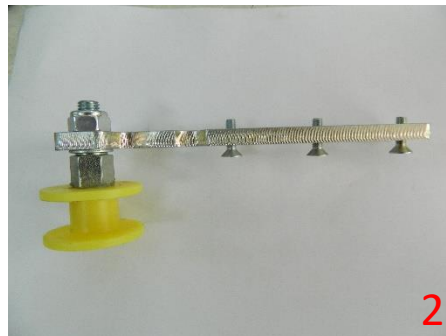
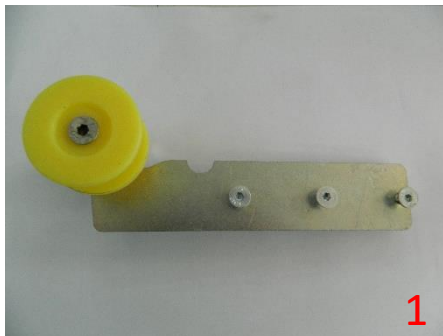
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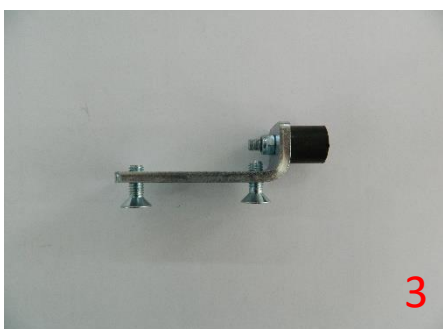
## ASSEMBLING OF AUTOMATIC DOOR



As shown in the left picture, the door termination group and the door routing group are installed under the inner step, and then the inner step is installed in place.

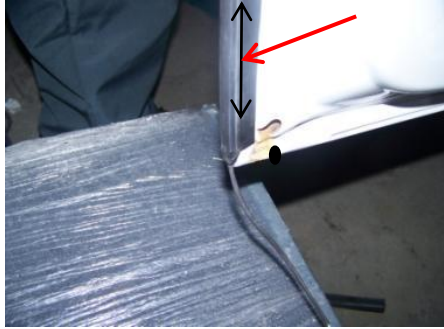


Door Routing Group



Door Termination Group

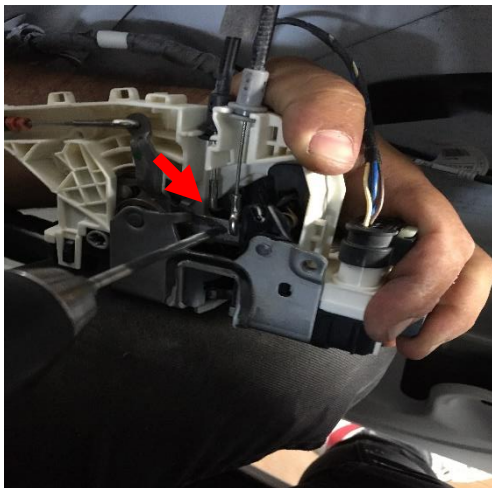
## ASSEMBLING OF AUTOMATIC DOOR



The security wick is attached to the front of the sliding door, the cable is connected by the hole below.



Sockets are installed in the wiring inside of the Veldo door.



The original sliding door lock is removed, drilled as shown in the picture. The original unlocking wire is attached to the drilled place, the Veldo unlocking wire is attached to the original hole.



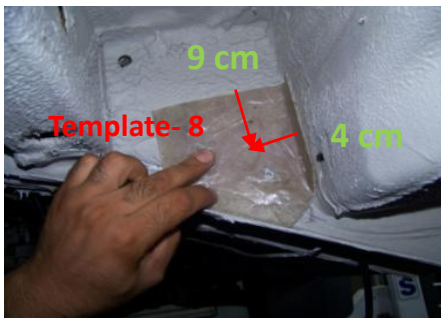
After the unlocking mechanism is installed, the plugs are inserted.



## ASSEMBLING OF AUTOMATIC DOOR



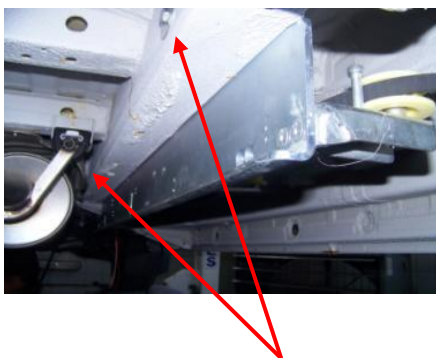
The wire removed from the bottom foot is attached to the switch as shown in the picture. Switch function allows the external door handle to work.



Once the vehicle has been lifted, the chassis is pierced with a 60-inch punch with the aid of the frame template 8 for belt passage of the main system engine group.



The cut area is painted with zinc spray.



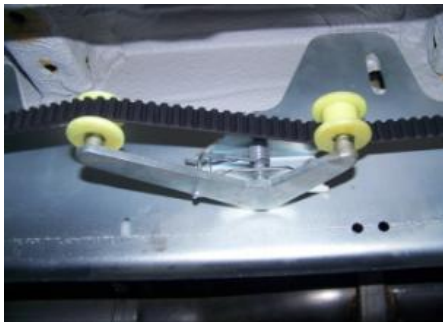
The automatic door case is installed in place. The main system engine group is connected to the main wiring system through the wiring transition.

The Veldo automatic door chassis is fixed through the vehicle's own original holes.

## ASSEMBLING OF AUTOMATIC DOOR



After the system belt is passed through the right-left foot rollers, The reducer flange roller, the belt tension rollers, it is pulled under the inner step.



**Note:** there **should not be** belt tensioning when adjusting the belt.



The belt bounding is connected to the system belt.



Belt jointing is fixed to the bottom foot.

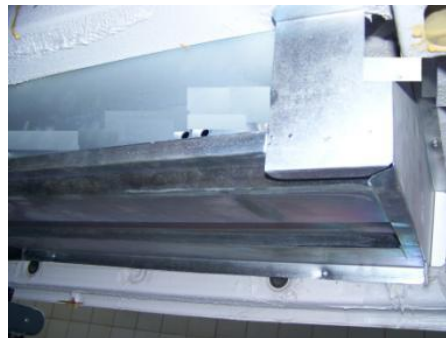
## ASSEMBLING OF AUTOMATIC DOOR



Sliding door covering, C pillar covering and wicks are installed on its place.



Veludo automatic door chassis enclosure covers are installed.





## ASSEMBLING OF AUTOMATIC DOOR



Veldo automatic door sticker is attached and assembly is completed.

## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

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

- By pressing the remote control 'close' button of the central locks, the locks are switched to 'locked' position, then by pressing the remote control 'open' button central locks are switched to the 'unlocked' position, so in this way the 'open' button of middle door at remote control button 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 opening

- The lock puller 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.
- The opening process is equal to the taught opening distance, the door system measures this distance with the encoder.

## WORKING AND CONTROL OF AUTOMATIC DOOR SYSTEM

### General Working:

#### When the door is closing

- When the engine of the door starts to close the door, the buzzer bites in short tones, warning that 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 sound stops.
- 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, now it entered into the learning mode (the situation where the buzzer is intermittently interrupted) without releasing the panel button.
- 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 set.

## 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- Door handle selection:

- Press and hold the panel button to enter the learning mode.
- The panel button is constantly pressed without leaving, as long as the buzzer is giving the signals.
- After a while the buzzer is stop and a long sound will appear.
- Once the long sound has been activated, the outside door handle becomes activated .
- If the shorter bites will be heard twice, the outer door handle 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 closes:** if one of the following events occurs, the door will stop and start the reopening process.

- If the door detects overcurrent as a result of a jam in the closing direction,
- If there is a hit to the safety Wick when the door closes
- If the door handle is pulled while the door is closing
- If the panel button is pressed when the door is closing
- If the remote is pressed when the door closes

### Open-close 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.

## MAINTENANCE 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 WARRANTY 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>