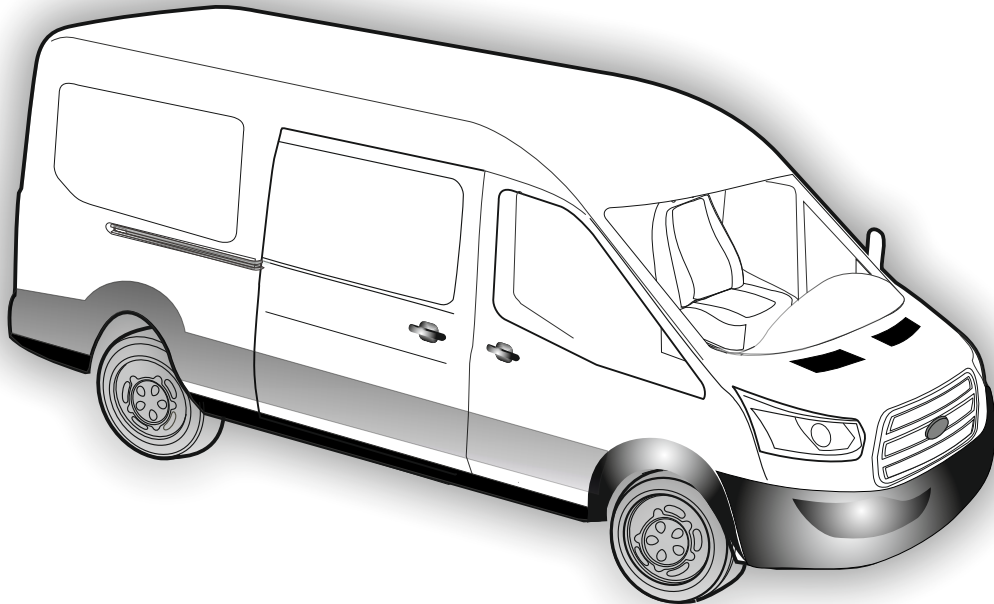


Your Cool Partner

**Auto  
Cool** IND. LTD.

## Ford transit

v363 2019



ASD - Automatic Sliding Door

L3H2/H3 , L4H3 vehicles.

Right door

OriginalDoor latch mechanism

integrated with BraunAbility DPL & UVL systems

PN 015-2019-3VDL

[PRINT THE INSTRUCTIONS IN COLOR](#)

06.2022

## Introduction:

- The purpose of this Installation manual is to simplify the installation of the system.
- The information presented here is guidance only and is not intended to change, eliminate or override any safety or installation requirements required in your country or the final destination to which the vehicle is intended.
- If you have any questions or need any clarifications, please contact your local distributor.
- Our manufacturer's warranty does not cover malfunctions or damage caused by incorrect installation or modifications made without the written consent of our engineering department.
- The manufacturer shall not be liable in any form or manner for any injury, accident, loss or damage caused directly or indirectly as a result of using the installation instructions listed here.

## Before any installations:

- Detach the battery negative wire.
- Check O.E. door for properly opening / closing and alignment.
- Ensure that the right kit has been selected and match to the vehicle type.
- Check all part of the kit are present.
- Make sure the work area is protected against damage.
- Tight all bolts with calibrated torque wrench.
- Take extreme care with removing O.E. parts.
- After cutting / drilling, make sure to clean the metal shavings and apply anti-rust.
- Before applying Sikaflex, make sure to clean with alcohol and apply Sikaflex primer.

## ASD technical data:

- System voltage - 12VDC
- Nominal current - 5A
- Operating temperature: -30°C to +80°C
- Driven by rustproof chain
- Hidden chain
- Upper locker
- Remote control / OEM remote
- Manual and electrically operation
- Electronically controlled microprocessor
- Net weight: 7-9 kg

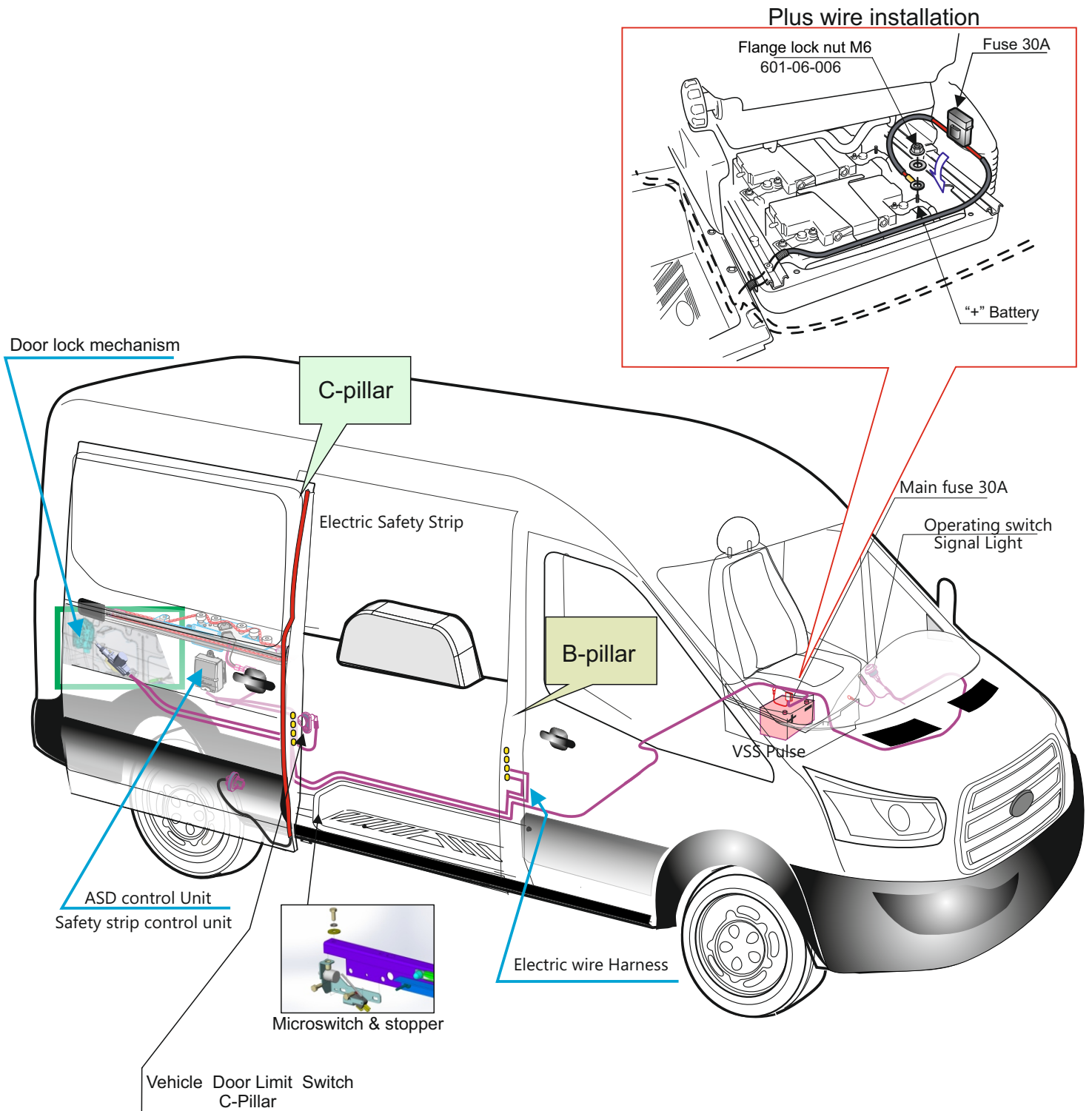
**For any technical support please contact the AutoCool.**

Fax: 972-3-9343208

Tel: 972-3-9342080

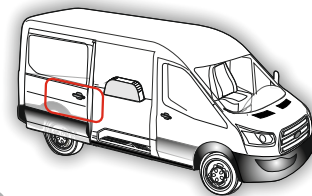
E-Mail: [info@autocool.co.il](mailto:info@autocool.co.il)

[www.autocool.co.il](http://www.autocool.co.il)

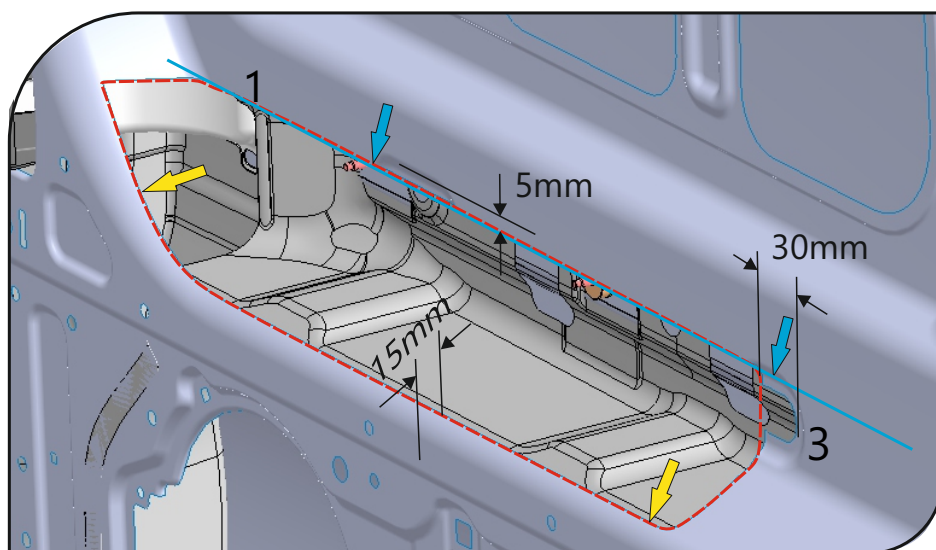
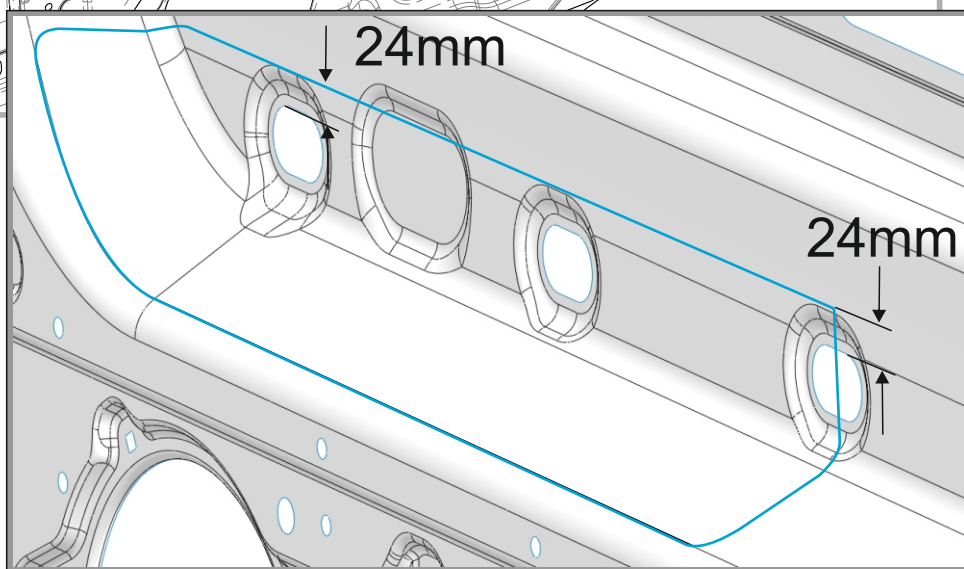
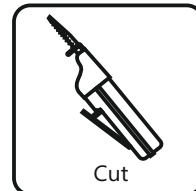
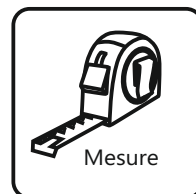
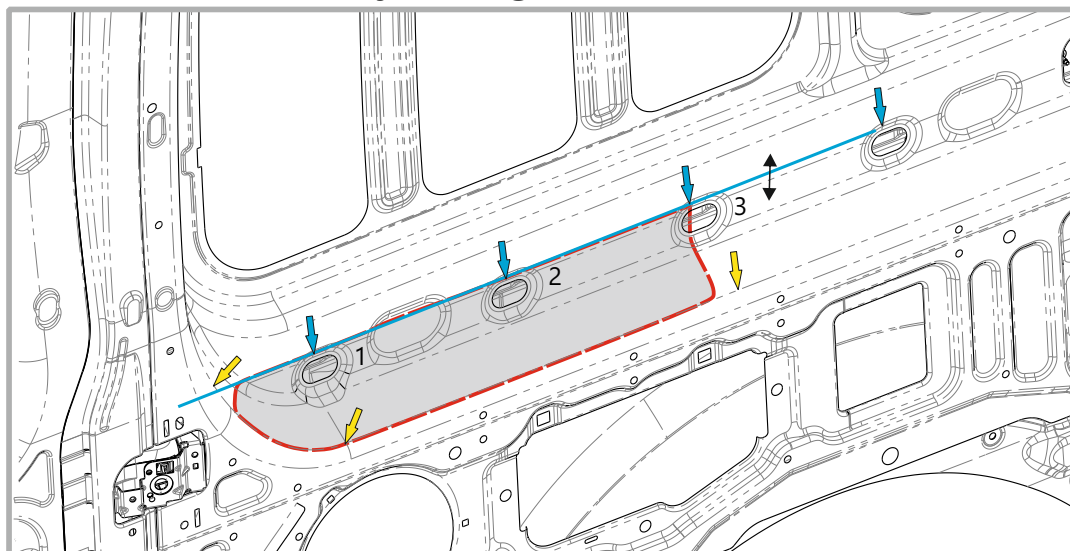


**The system operates from the original Braun Ability operation button.**

**Before any installation, test the function and alignment of the original door.**



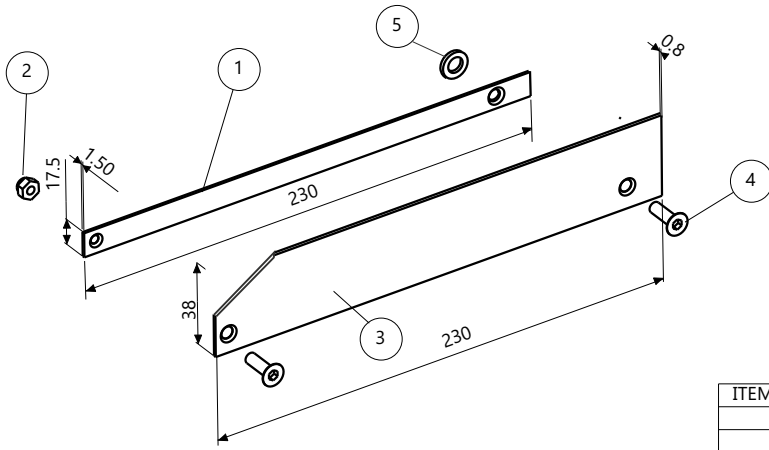
**Inner overview - body cutting:**



- Mark and cut according as shown on the pictures.

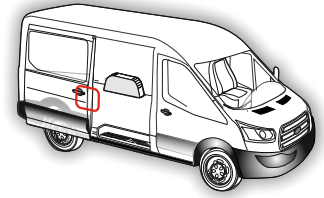
**After drilling/cutting, clean unit surface carefully,  
and paint all holes and cutting lines with  
top quality anti-rust.**

# Chain slide strip installtion

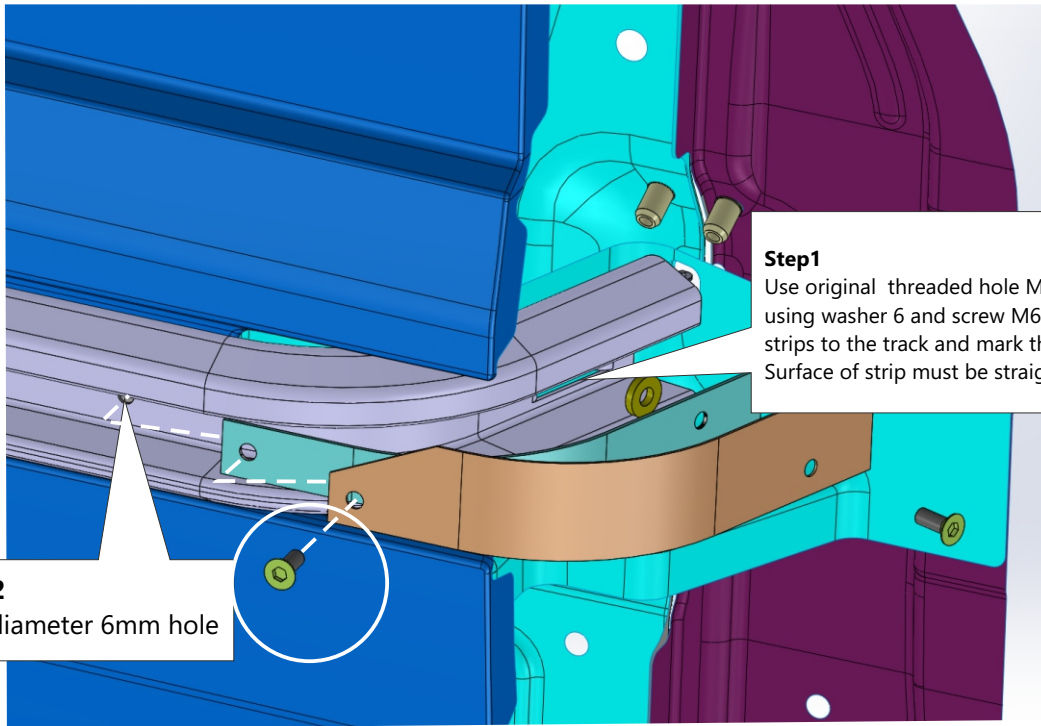


Chain Slide Strip Kit

PN:160-36-330



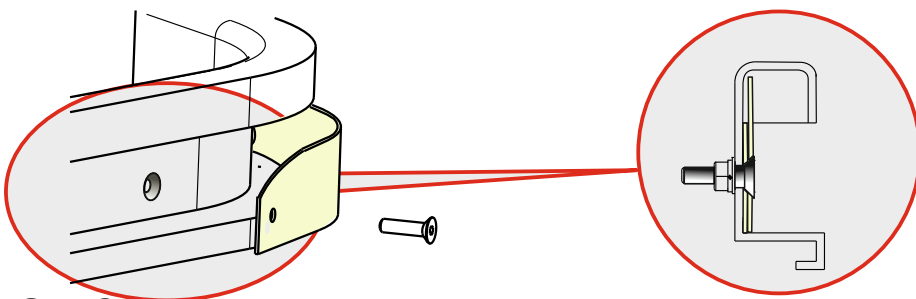
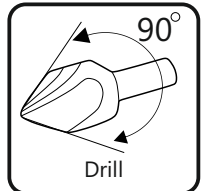
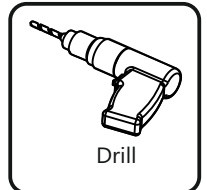
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	134-36-301	Chain Slide Strip (Transit)	1
2	601-06-006	Hex flange Nut M6	1
3	134-36-302	Chain Slide Strip front (Transit)	1
4	613-06-020	Socket flat head screw M6X20	2
5	600-32-061	Washer 6	1



**Step1**

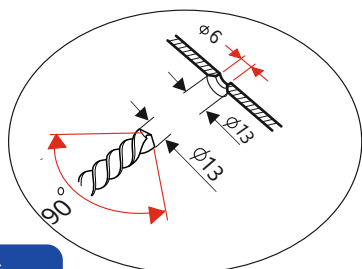
Use original threaded hole M6, fasten slip strips using washer 6 and screw M6 . Press firmly both slip strips to the track and mark the position for hole . Surface of strip must be straight without waves.

**Step2**  
Drill diameter 6mm hole



**Step 3**

Make a chamfer on the track so that a screw head will be flat with the surface.

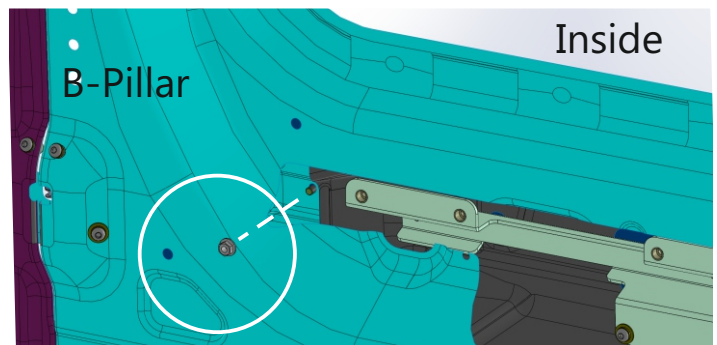


Section A-A

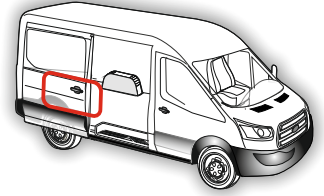
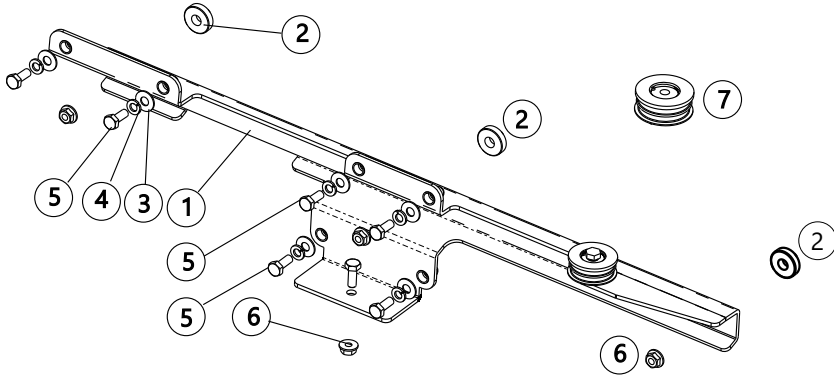
**Step 4**

Attach the left side of strip using screw M6X20 Flange nut M6 .

\*Make sure the screw is entirely inside

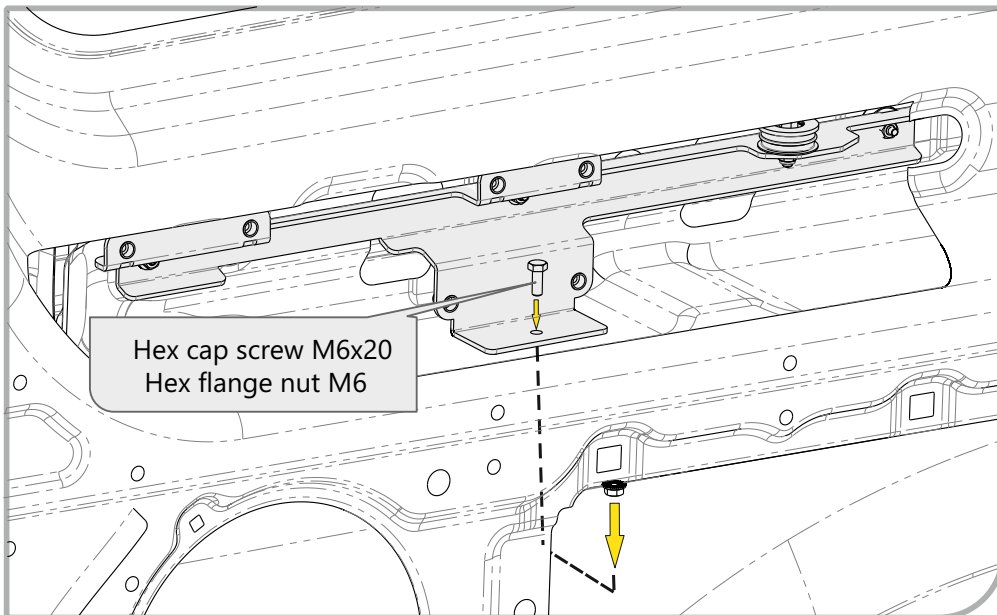
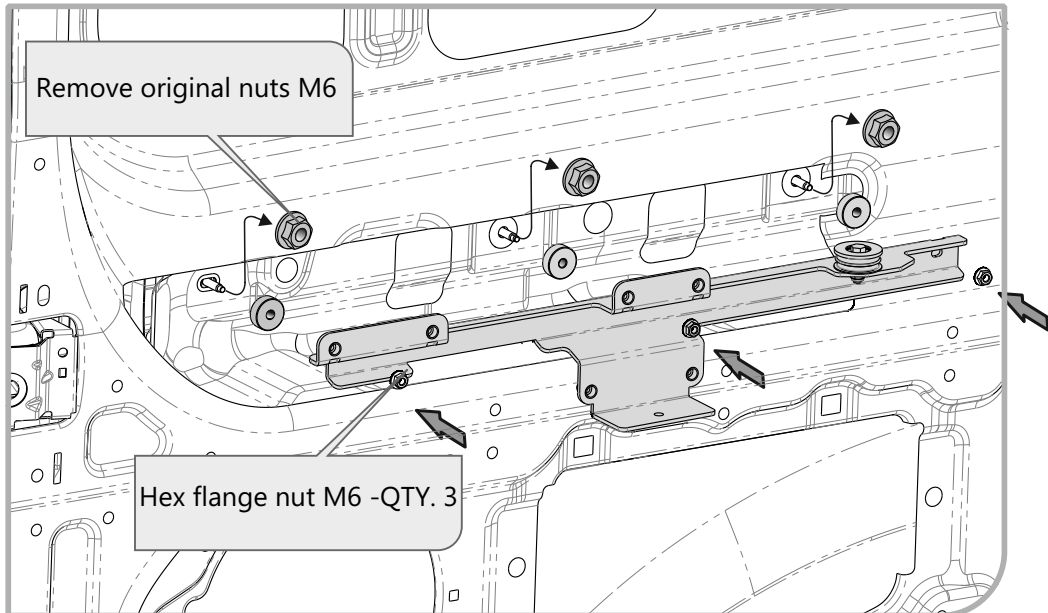


# Gear motor installation

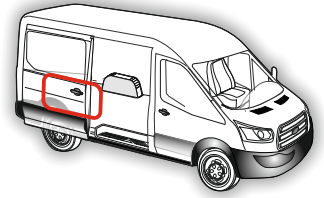


V363 Gear Motor Support Kit  
PN:160-36-310

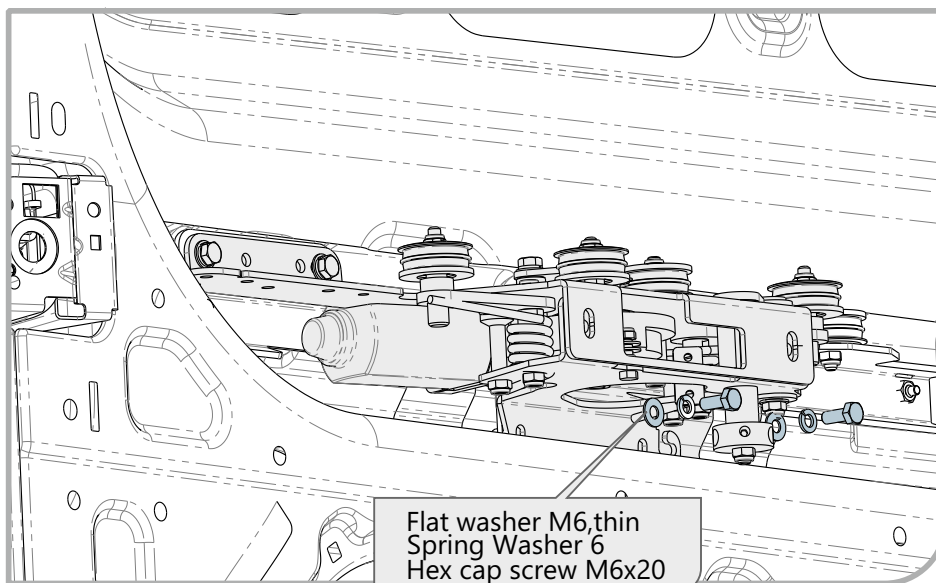
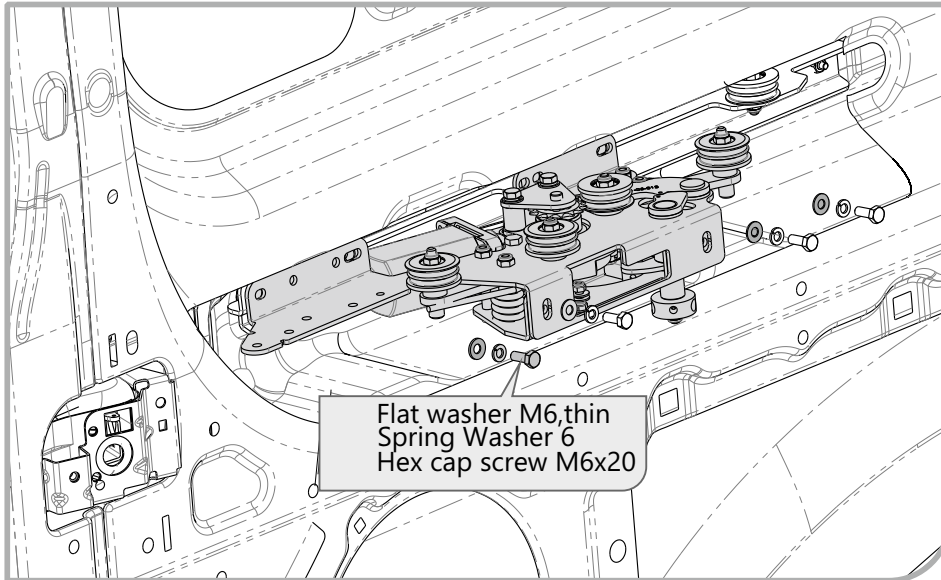
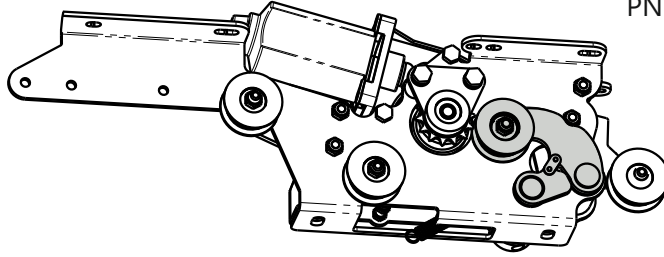
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	111-36-310	V363 Gear Motor Support Right side	1
2	501-17-006	22x8.5x6 Spacer	3
3	600-12-080	Flat washer M6,thin DIN735	6
4	600-04-052	Spring Washer 6	6
5	632-06-016	Hex cap screw M6x15	7
6	601-06-006	Hex flange nut M6 DIN 6923	4
7	107-11-004-1	Idler Wheel	1



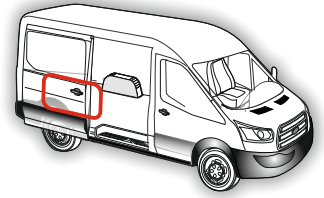
# Gear motor installation



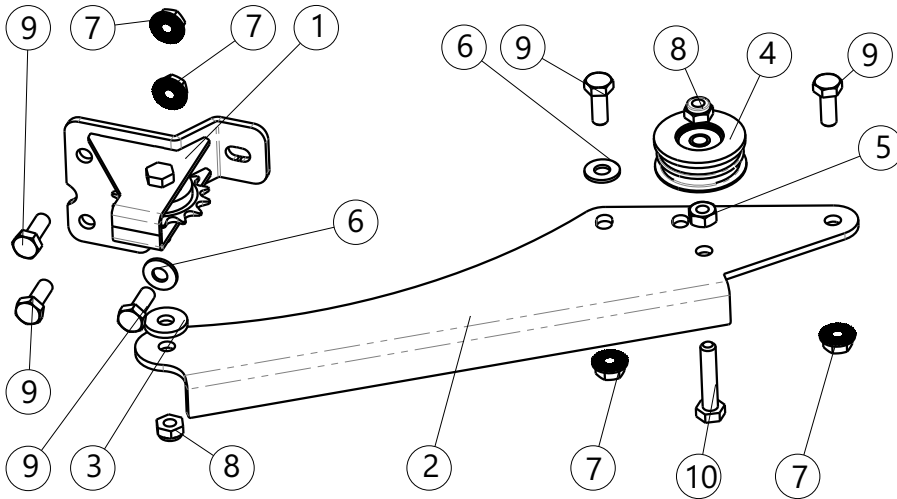
Gear motor ASSY  
PN:111-00-013



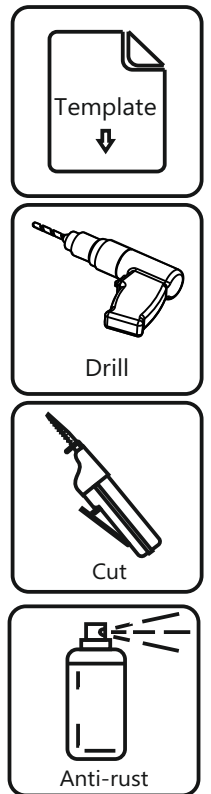
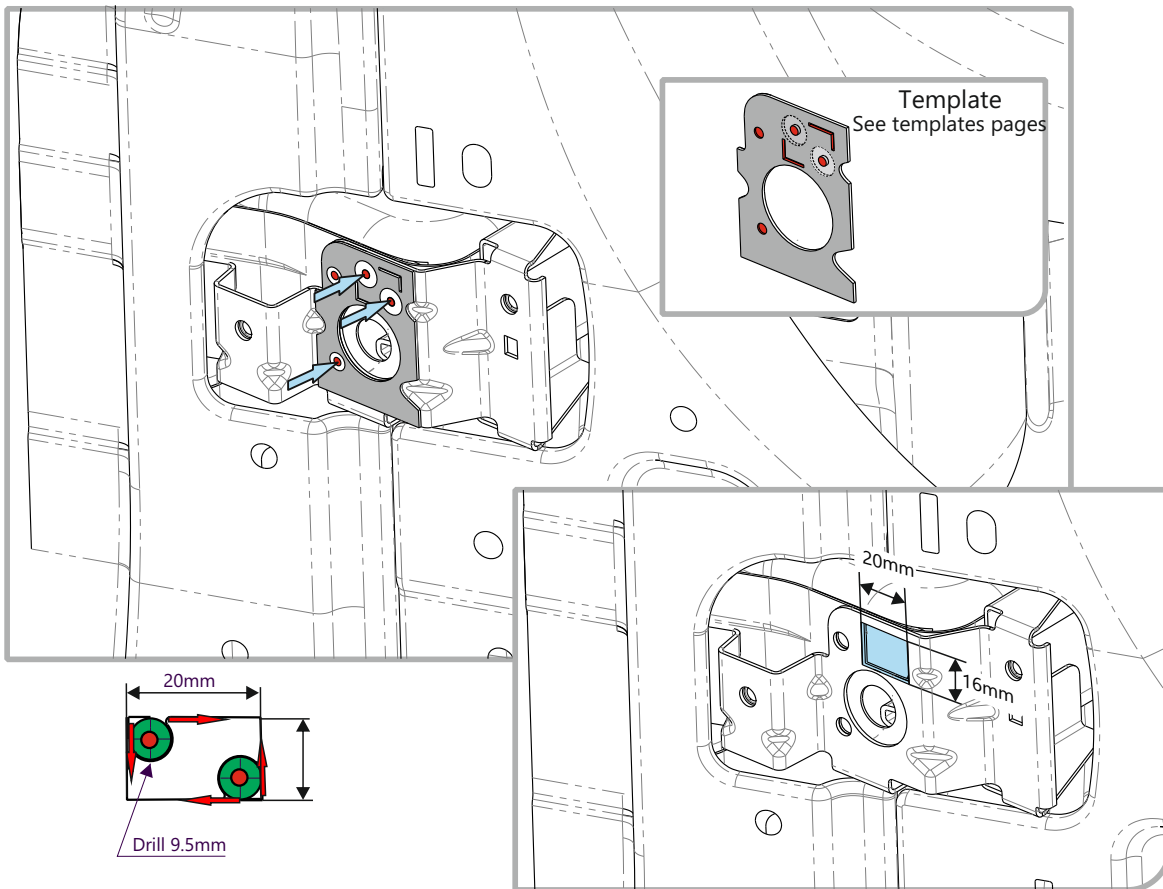
# Front idler installation



V363 Front Idler Kit . 2019  
PN:160-015-2001



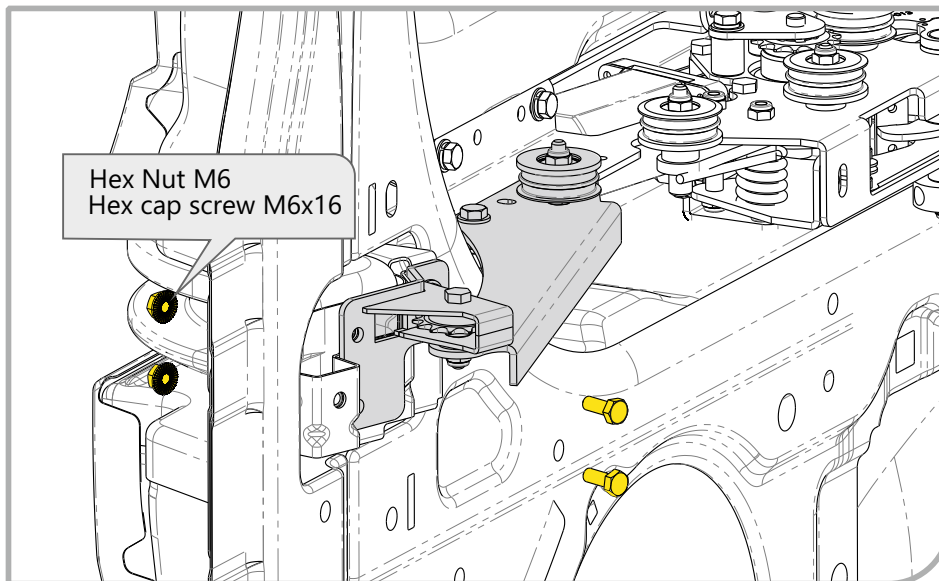
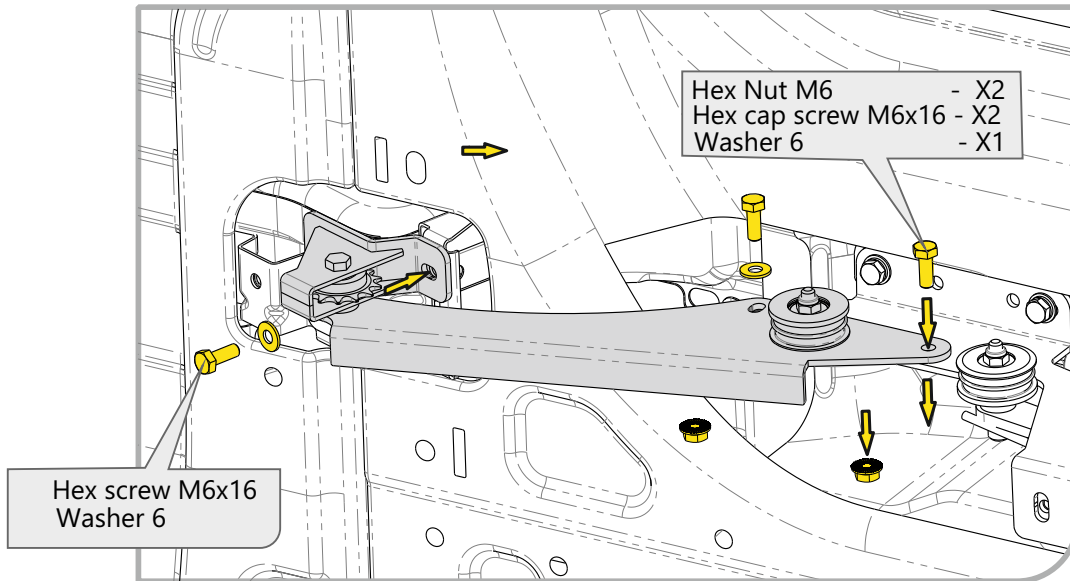
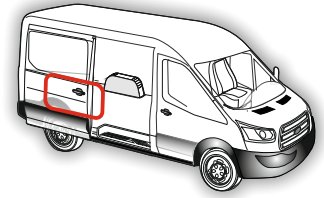
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	111-015-2001	V363 Front Idler ASSY	1
2	095-015-2001	V363 LHD Front idler Support	1
3	600-32-061	Flat washer 6	1
4	107-11-004-1	Idler Wheel	1
5	601-02-006	Hex Nut M6 DIN 934	1
6	601-12-080	Stainless Steel Flat Washer 6X16	2
7	602-06-006	Hex Flange Nut M6	4
8	602-02-006	M6 nylock nut	2
9	633-06-016	Hex cap screw M6x16	5
10	632-06-030	Hex bolt M6X30	1



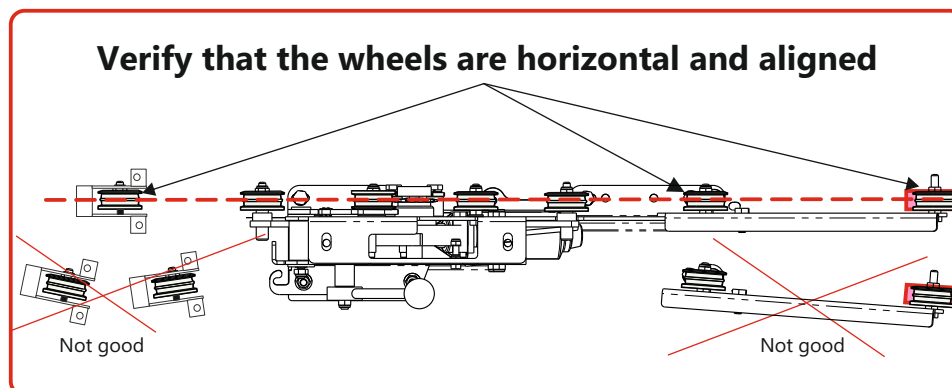
1. Attach the template as shown in the figure .Fix the template using paper glue stick
2. Drill 3.5 mm diameter four holes.
3. Enlarge two holes up to 9.5mm for cutting
4. Follow the scheme and cut as shown .



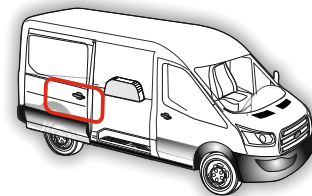
# Front idler installation



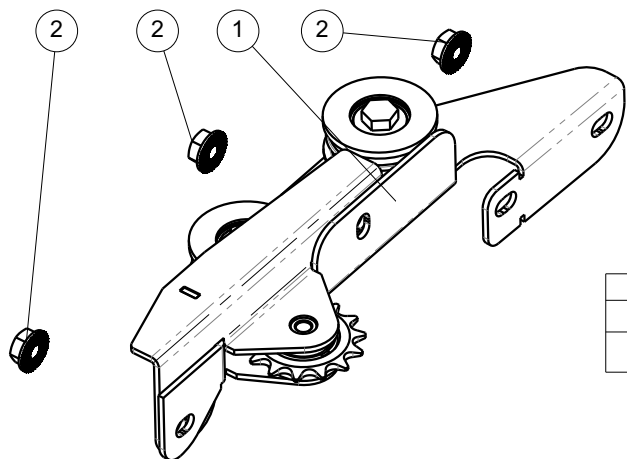
Drill 6.5 mm diameter six holes.



# Rear idler installation

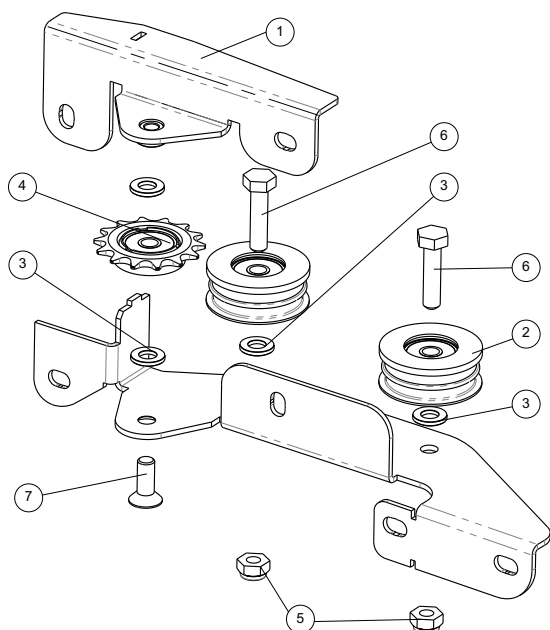


V363 Rear idler Kit 2019  
PN:160-015-2002

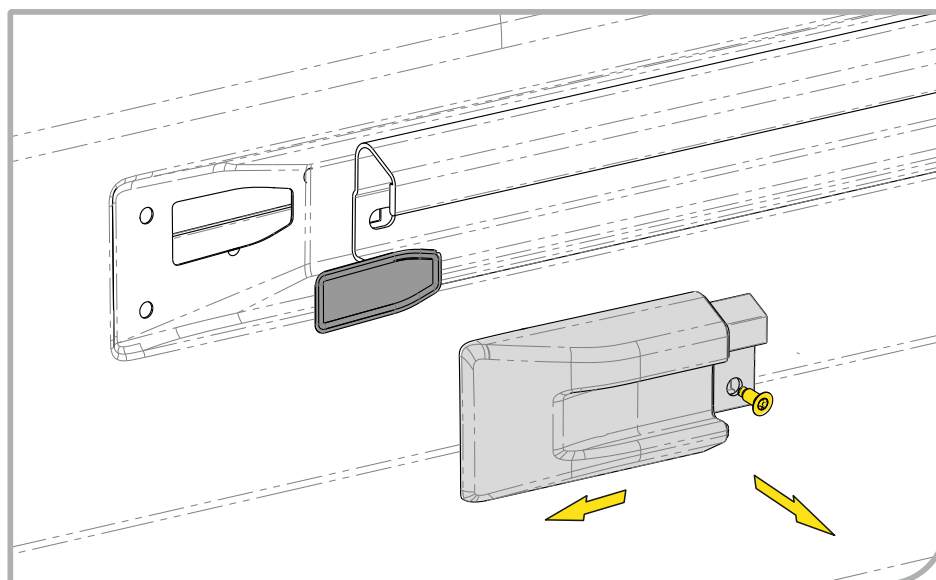


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	111-015-2002	V363 Rear idler ASSY 2020	1
2	601-06-006	Hex Flange Nut M6	3

PN:111-015-2002  
V363 Rear idler ASSY. 2019



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	111-015-2002-2	Rear idler upper support ASSY V363	1
2	107-11-004-1	Idler Wheel	2
3	600-00-002	Washer 6x12x1.6 DIN1440	3
4	107-36-300	Sprocket ASSY	1
5	602-02-006	M6 nylock nut	2
6	632-06-025	Hex cap screw M6x25 DIN933 8.8	2
7	613-06-021	Socket flat head screw M6X16	1
8	095-015-2002-1	V363 Rear idler Housing base	1

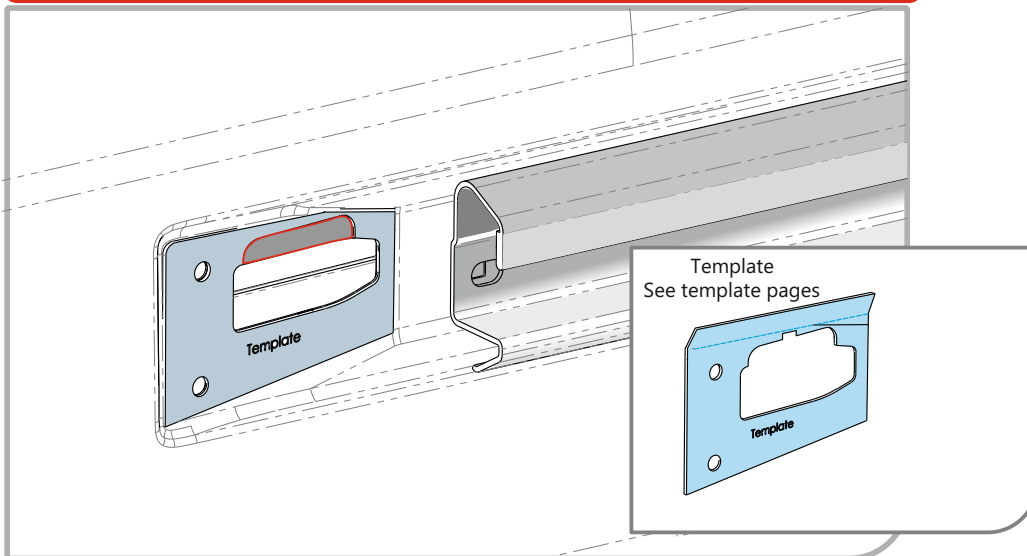
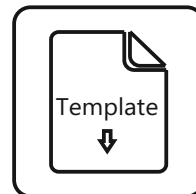
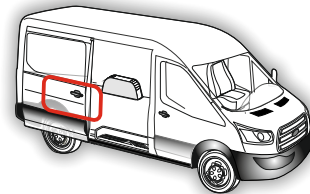


Unscrew the screw and remove the original rail cover and protective gasket.

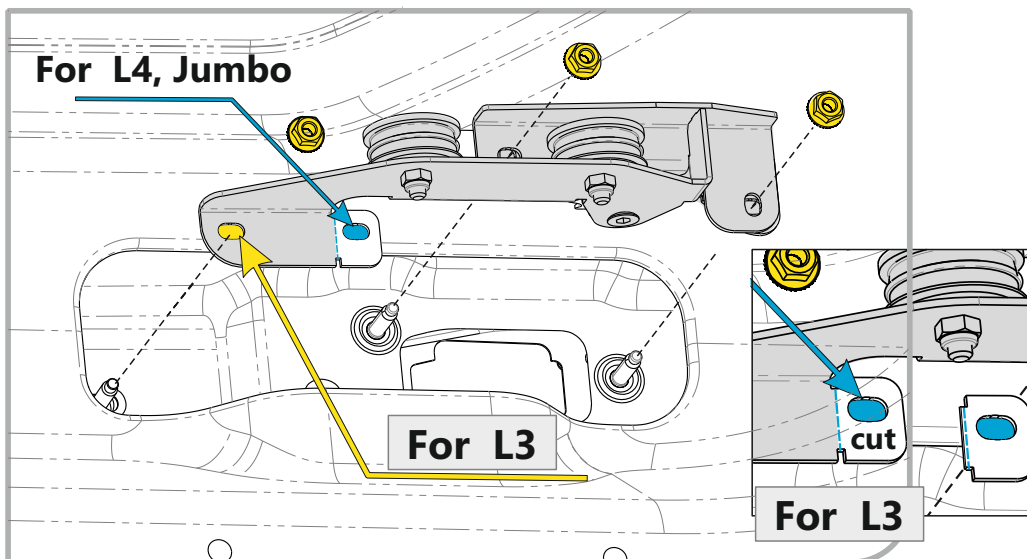
# Rear idler installation

## Warning!

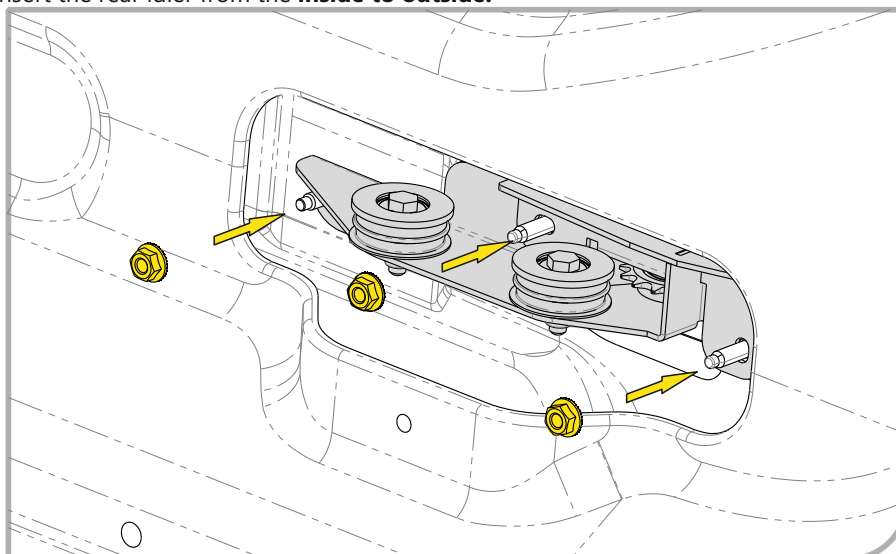
This page contains critical assembly parts which used only for specific vehicles. Make sure to follow the instructions that relevant **only** for your specific vehicle!



1. Attach the template as shown in the figure using the holes of the vehicle. Fix the template with paper glue

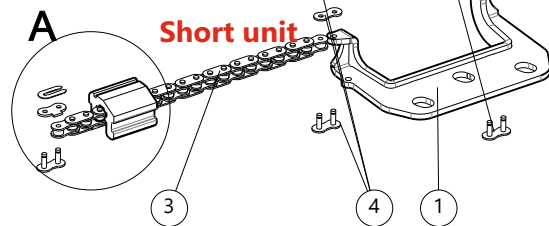
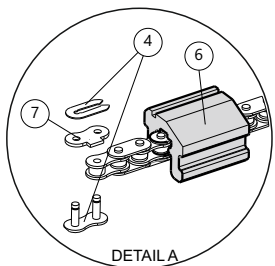
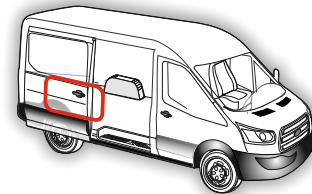


- Insert the rear idler from the **inside to outside**.

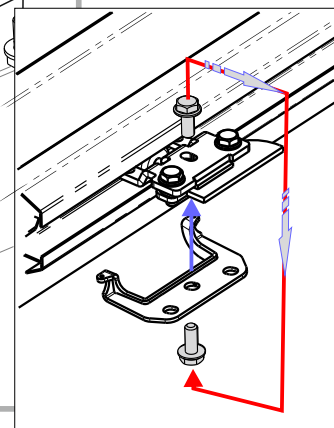
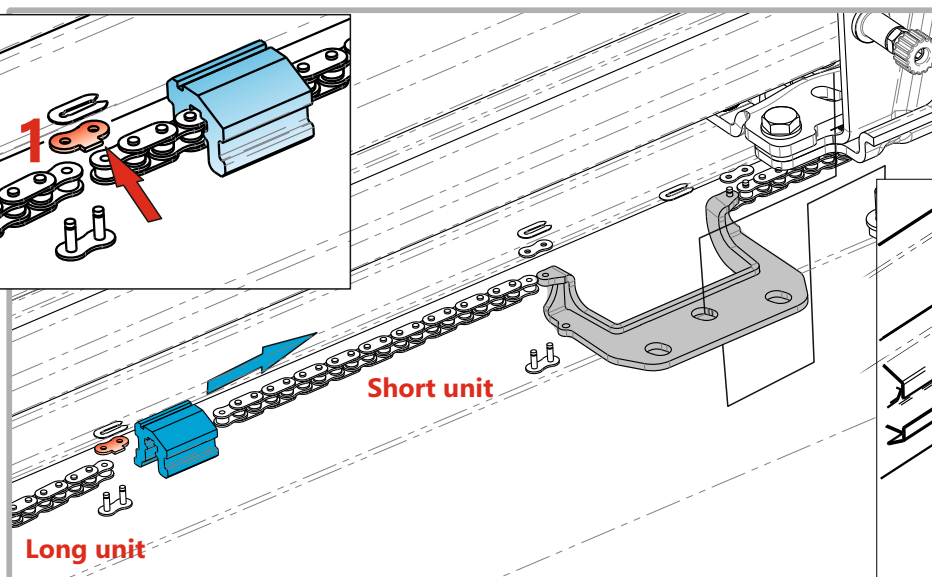
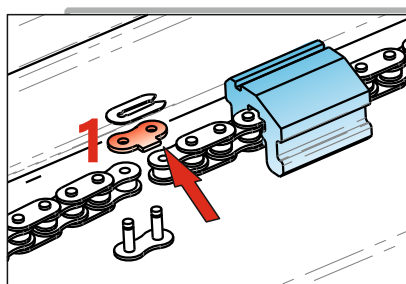


# Drive chain installation

## Driven Chain Kit PN:160-015-2003



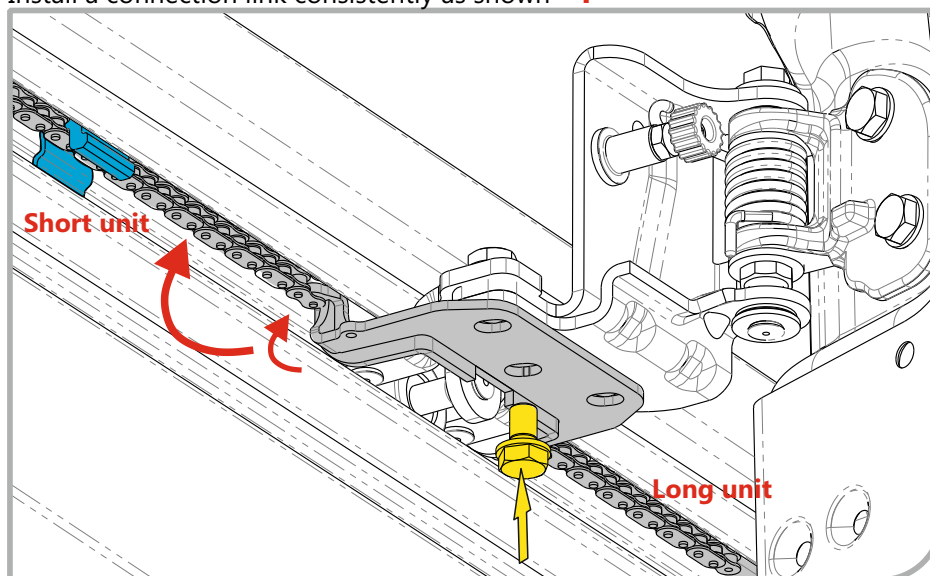
ITEM NO.	PART NUMBER	DESCRIPTION	Exploded/QTY.
1	111-36-320	V363 Chain holder ASSY R.H.	1
2	178-015-2001-2	Roller Chain 147 Links	1
3	178-015-2001-1	Roller Chain 47 Links	1
4	900-01-072	Chain connecting link B05	3
5	150-00-000	Spare part	1
6	134-015-2015	Rail slider - Ford	1
7	095-015-001	Upper chain tooth	1



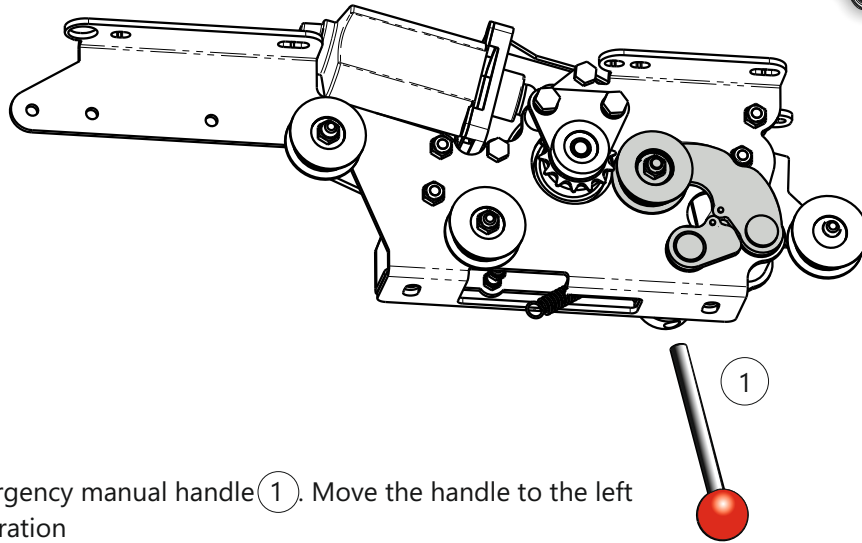
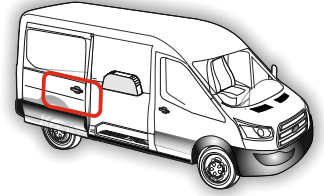
Pay attention - the chain is delivered into **two parts**.

- The starting point for the chain connection is to the right side of the chain holder, then repeat it to the left side of the chain holder.

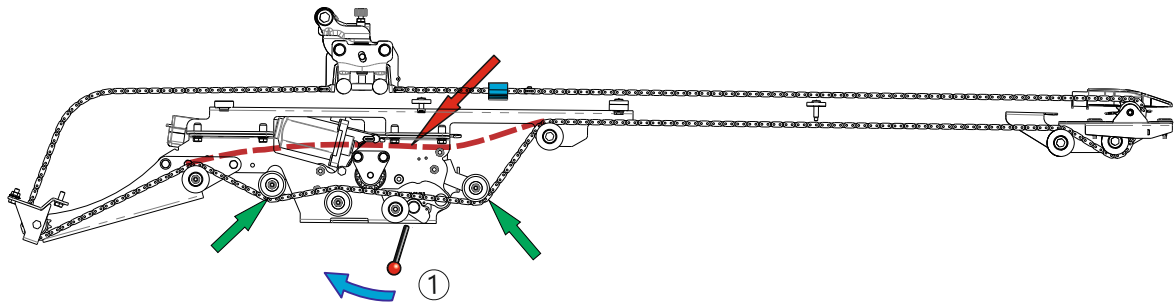
Install a connection link consistently as shown - **1**



- Put the chain slider with the chain into its place.
- Follow the scheme and insert the rail slider, place it at the **right side of the tooth link**.
- Make sure there are no interruptions for chain movement and the rail slider is moving smoothly.

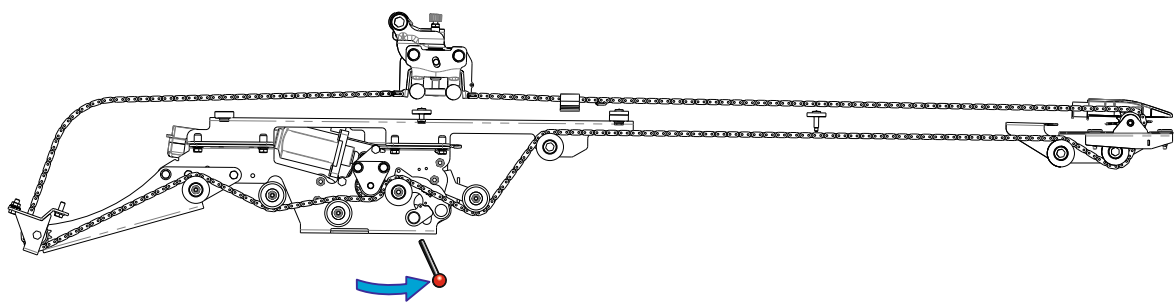


Insert the emergency manual handle (1). Move the handle to the left for manual operation



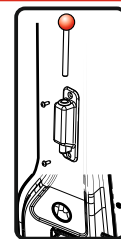
Chain installation diagram: manual mode

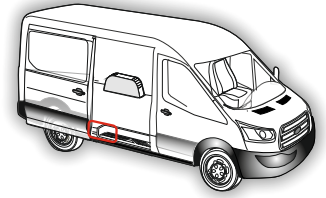
----- Chain installation



Chain installation diagram: automatic mode

**Place the internal emergency handle  
(P.N 151-15-000)  
in an accessible and visible place.**



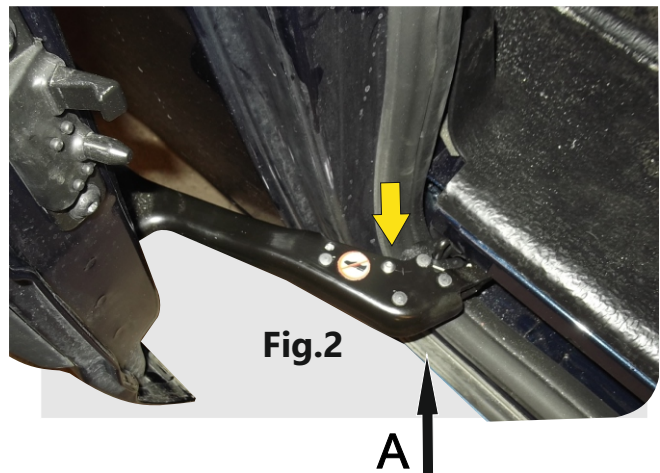


**Fig.1**

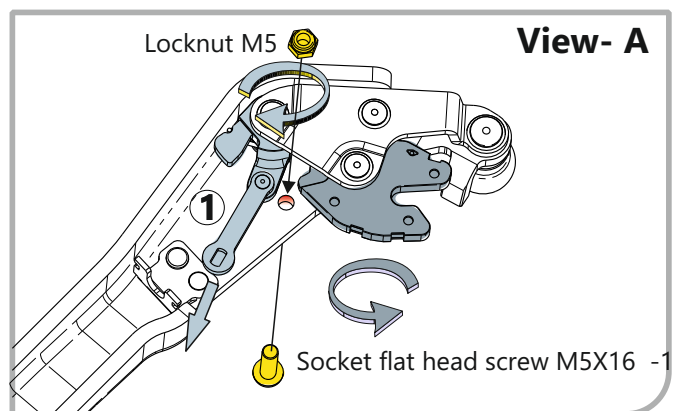
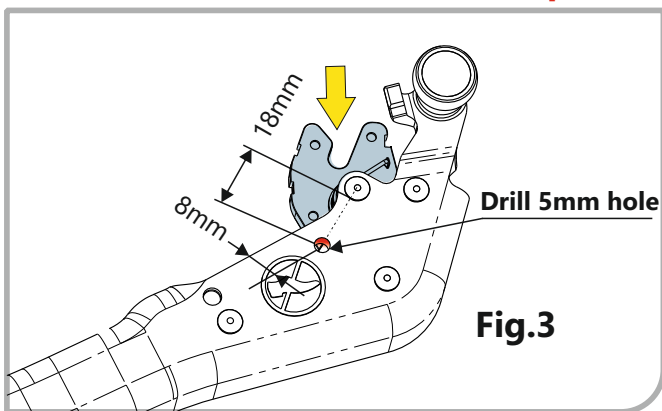
Ensure the stoppers in this position, rotate 180 degrees if needed



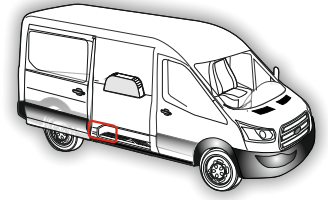
Need to cancel the bottom mechanical stopper



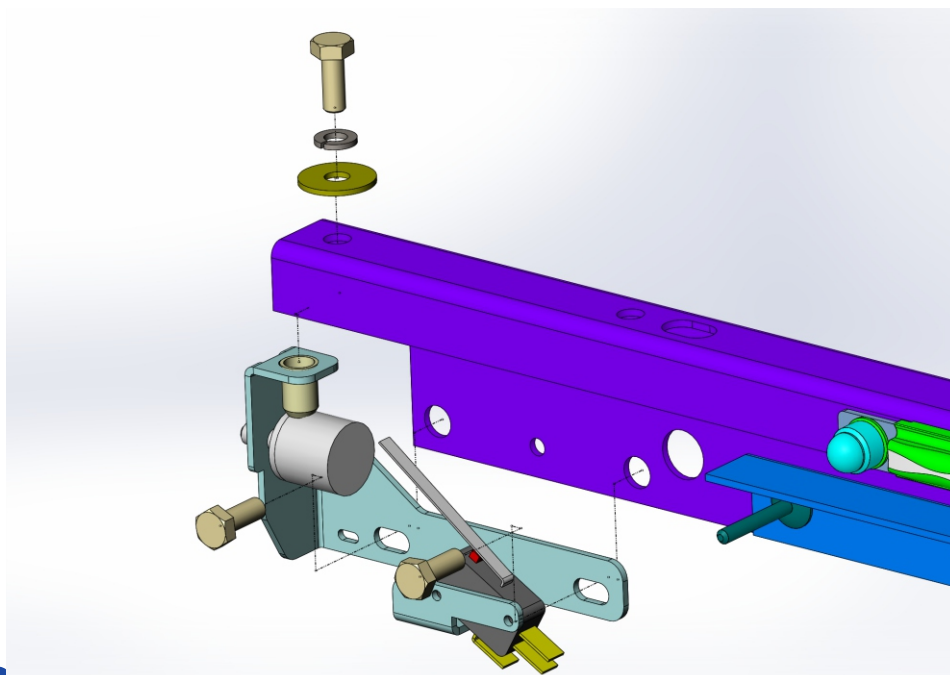
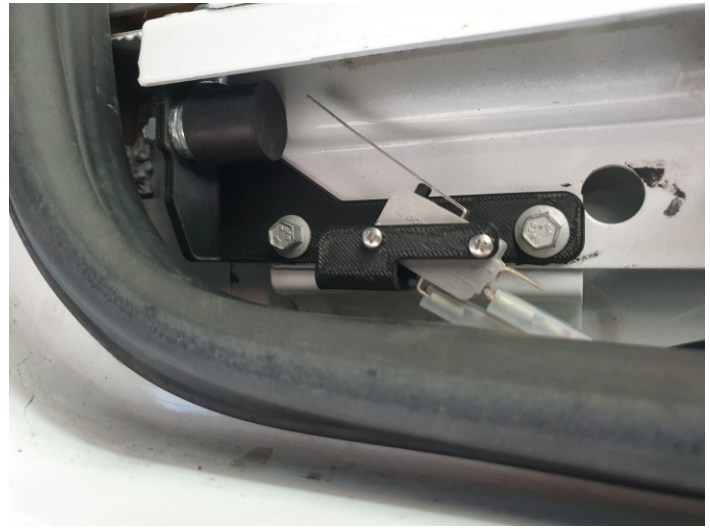
**Do not separate the cart from the door**



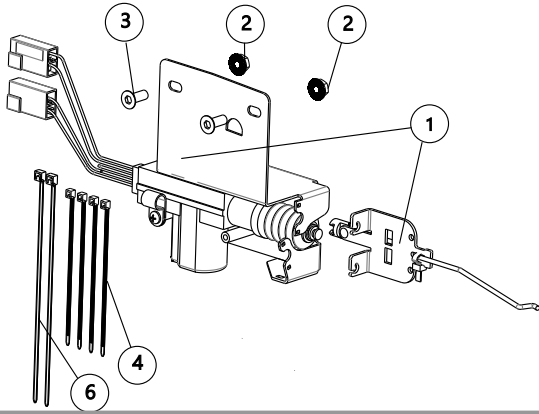
- Mark center of hole as indicated in the Fig.3
- Push the plastic arm ① as showed in order to allow drilling the hole as marked.
- Drill 5mm hole carefully.
- Move clockwise the arm locker to open lock position.
- Insert the M5x16 screw and tighten the M5 nut.(See Page15. PN:160-015-2005)



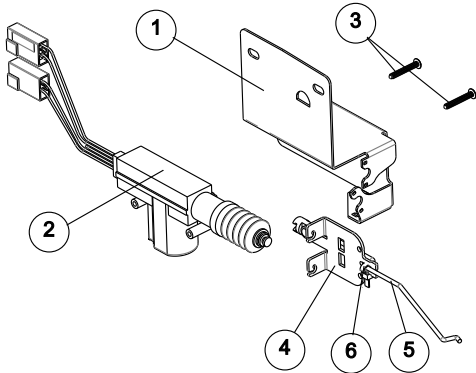
Replace the original stopper to the micro switch stopper



## ASDV363 Ford Transit \_Original Door latches mechanism & operation with handles,2020 PN:160-015-2010

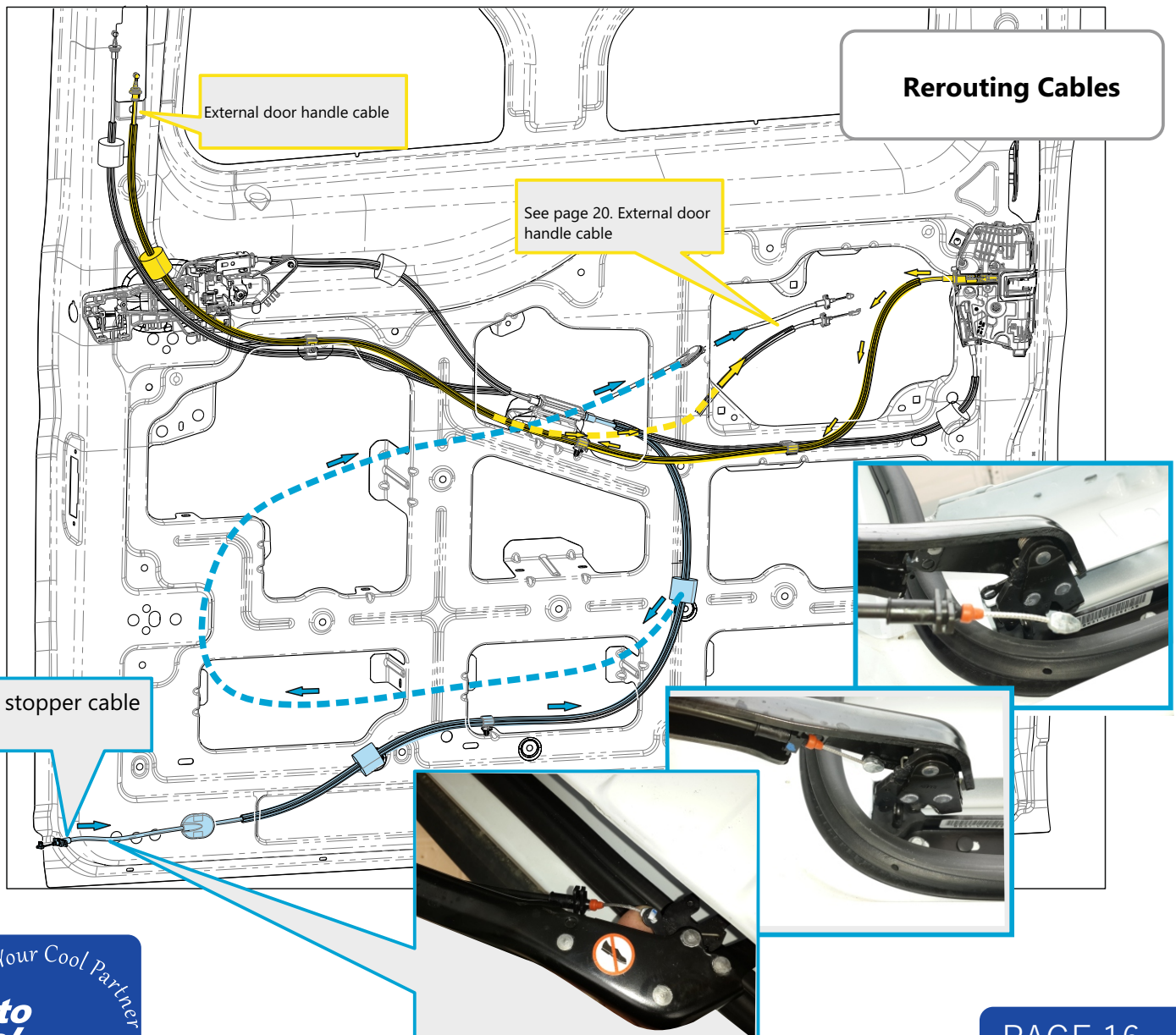


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	111-015-2010	V363 Ford Actuator ASSY Door Latch,	1
2	602-06-006	Hex Flange Nut M6	2
3	613-06-016	Socket flat head screw M6X16	2
4	125-10-016	Cable strap 100mm	4
5	125-10-005	Plastic clamp UC-2 3/8"	1
6	125-10-014	Cable strap 150mm	2
7	646-08-020	Phillips screw 8x5/8"	1



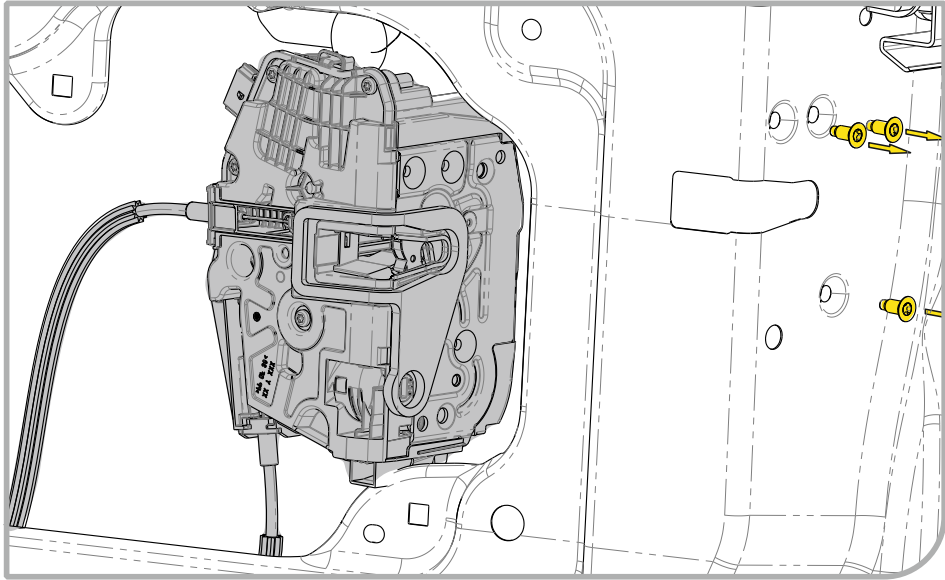
## V363 Ford Actuator ASSY Door Latch, 2019 PN:111-015-2010

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	095-015-2010	Actuator bracket V363: 2020	1
2	110-01-006-10	Lock actuator ASSY	1
3		Screw	2
4	128-36-360-1	Cables adapter	1
5	095-015-2009	FORD V363 Lock Actuator arm R.H.	1
6	125-10-014	Cable strap 100mm	1

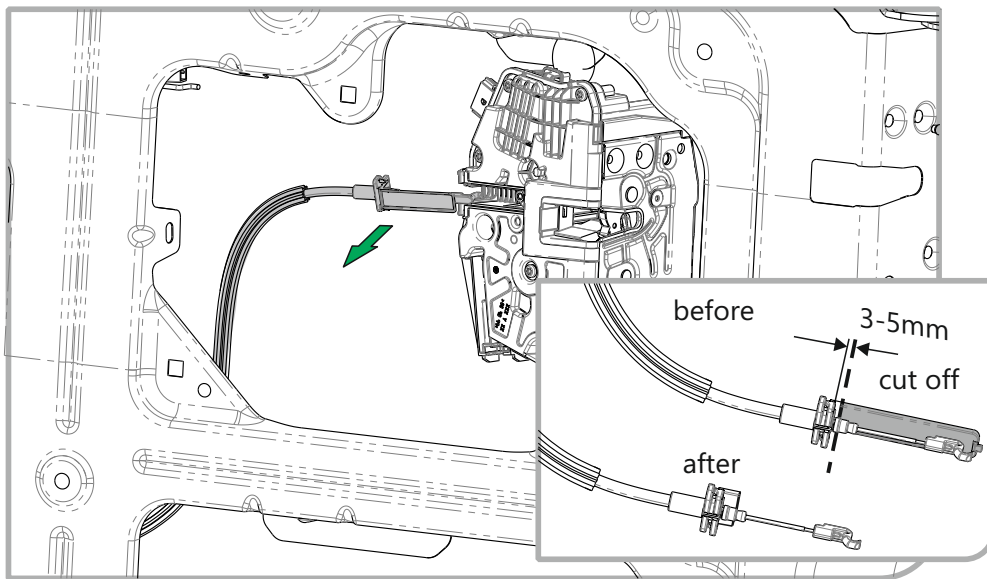


### Rerouting Cables

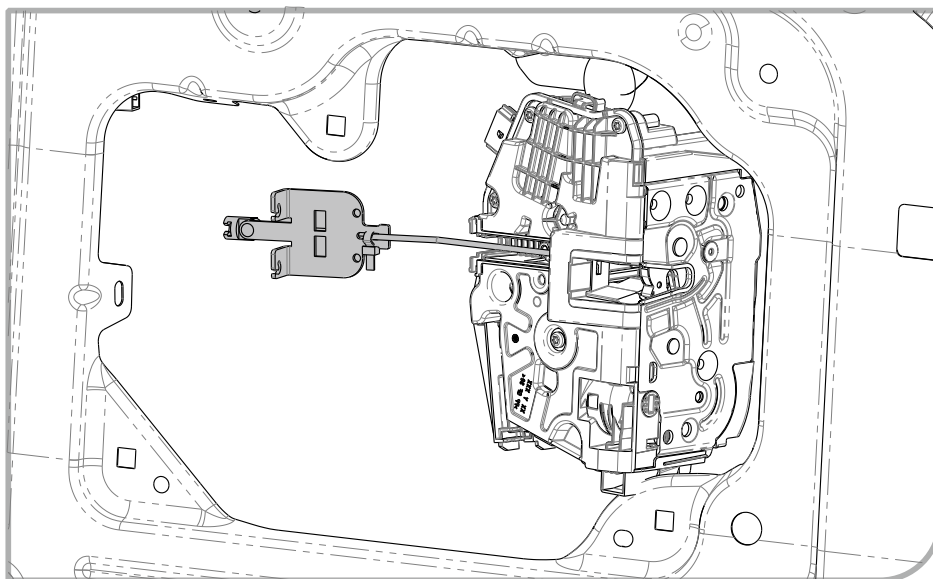




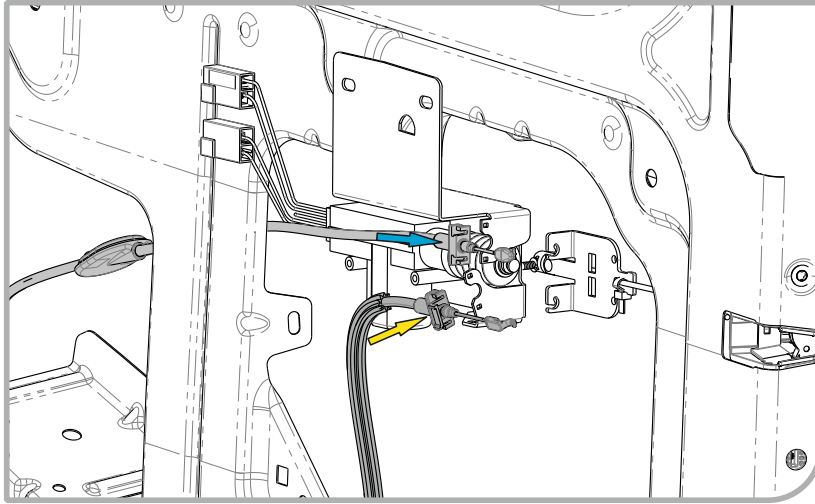
Unscrew the three screws and remove the locking mechanism.



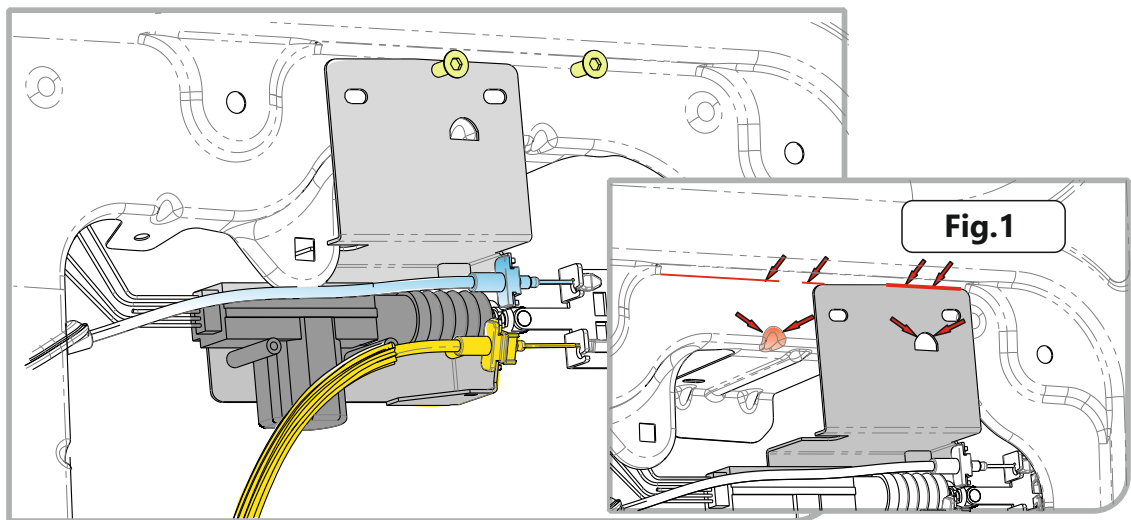
Disconnect carefully internal handle cable and cut cable cover as shown.



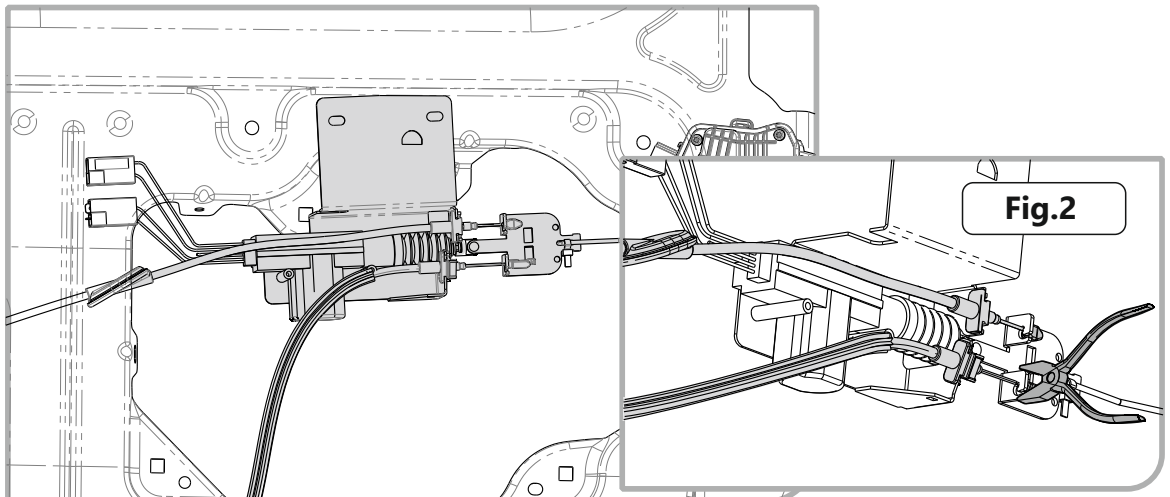
Insert actuator arm with cable adapter instead of the internal handle cable.  
Return the locking mechanism to place.



Insert internal handle cable and fix ( → )  
Insert bottom stopper cable and fix ( → )



- Align the actuator in the correct direction as shown in the **Fig.1** and secure the actuator using supplied screws M6X16 and Nut M6.



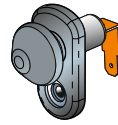
- Make sure you have adjusted the stroke of the actuator and vehicle door latch. Then operating with door handles to ensure that the mechanism is working well. If not then adjust.

- Clamp the cable as shown in the **Fig.2** .Make sure that it moves freely inside the cable adapter.

**Electrical accessories kit**  
P.N: 160-015-2006



Fast Glue  
PN:144-30-007



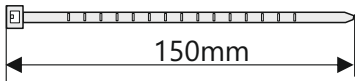
Door Limit Switch  
PN:124-00-039



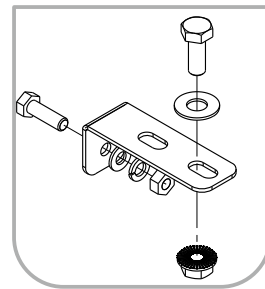
3M Bump on black rubber  
PN:112-04-100



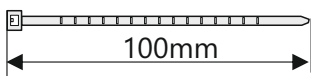
Phillips Wafer head self tapping screw  
PN:647-08-050



Cable strap  
PN:125-10-014



Controller Bracket  
PN:160-15-740



Cable strap  
PN:125-10-016



Socket flat head screw M5X16  
PN:614-05-016



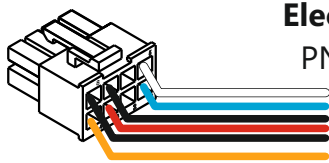
Lock nut M5  
PN:603-04-005



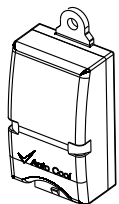
Flange nut M6  
PN:601-06-006

**Electric sliding door safety kit**  
P.N: 160-015-0001

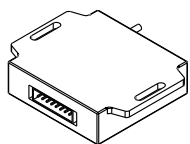
**Harness for electrical safety strip**  
PN: 116-015-0001



Electrical harness  
PN: 116-12-008

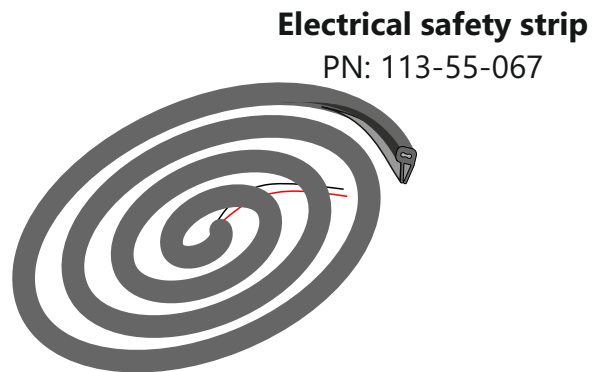


Transmitter  
P.N:124-12-008-2



Receiver  
PN: 124-03-006

**Electrical safety strip kit**  
PN: 113-015-0001



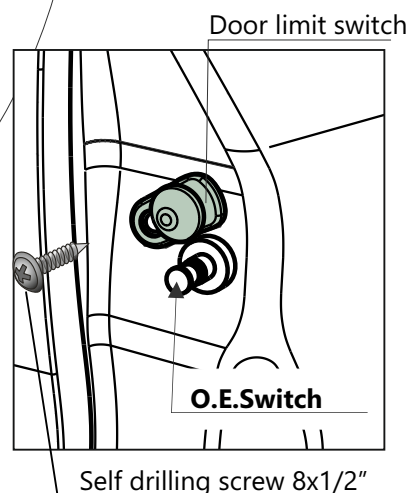
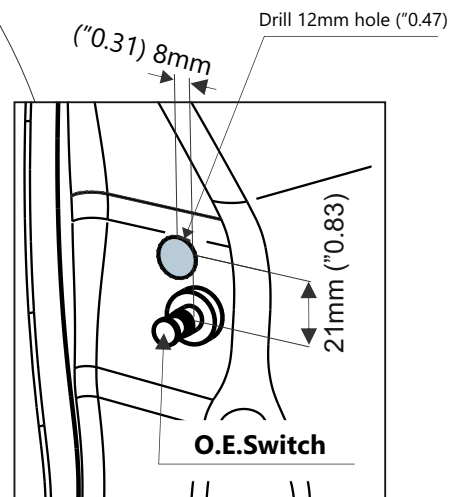
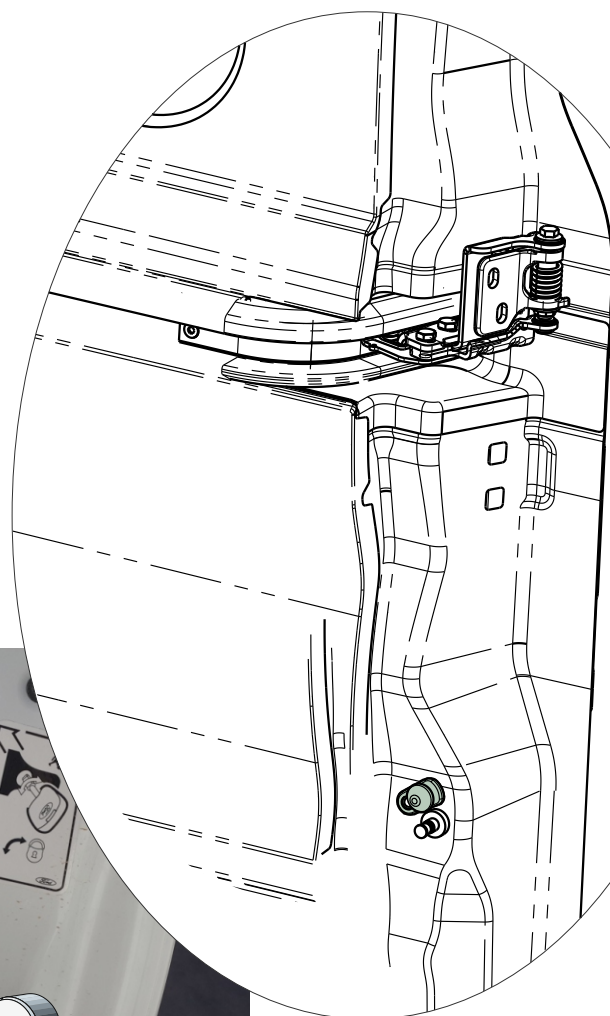
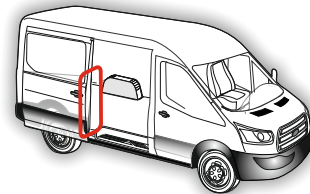
Electrical safety strip  
PN: 113-55-067



Plastic cap for safety strip 5x8mm  
PN:112-05-008

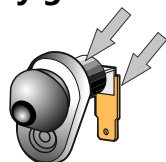
# Door limit switch

Do not connect to the original limit switch,  
Install limit switch which comes in the kit



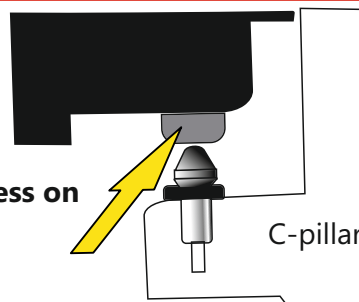
1. Drill 12mm according to dimensions.
2. Connect the door limit switch (P.N: 124-00-039) to the electric wire harness and screw it in place with self drilling screw (P.N: 647-08-003).
3. Glue the cap (P.N: 112-04-100) in the sliding door - place it align to the door limit switch.

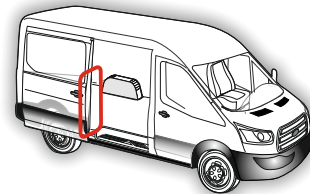
**Apply grease on surface of switch.**



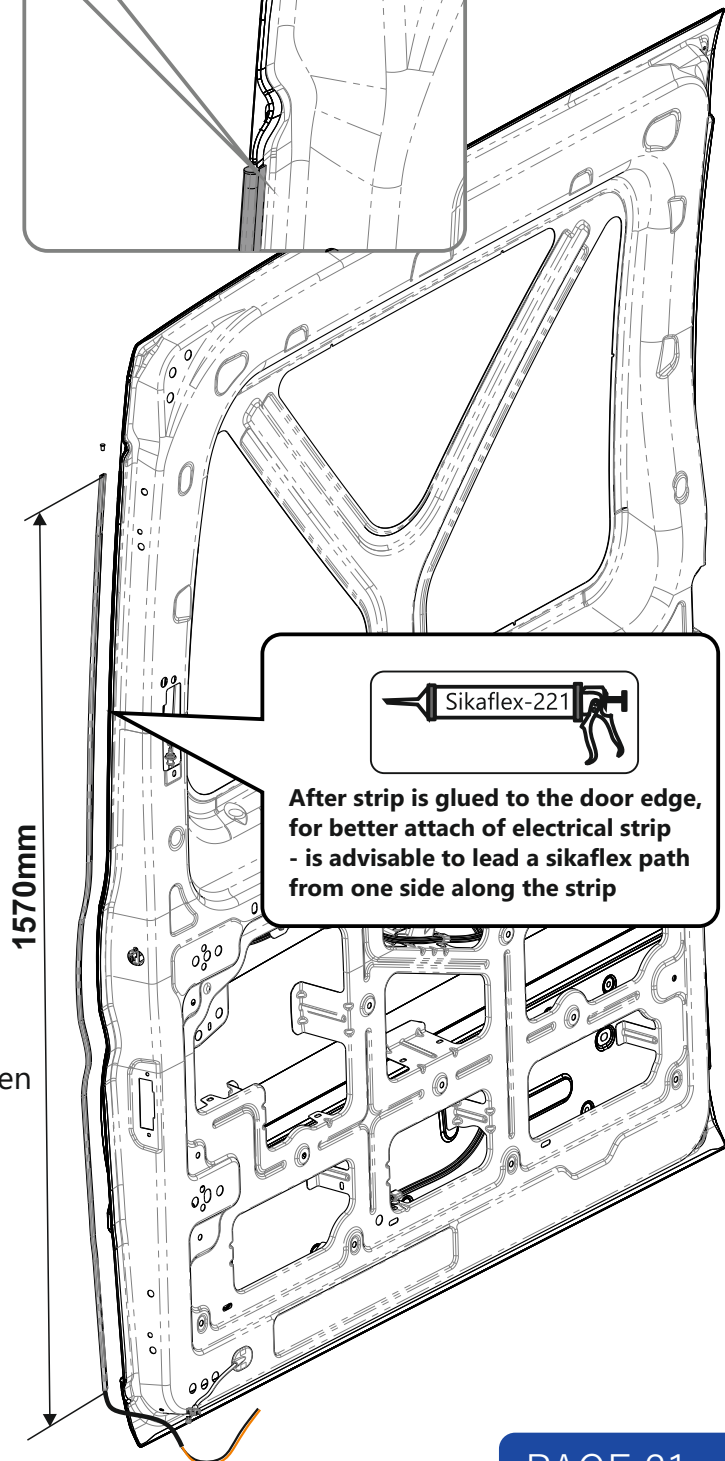
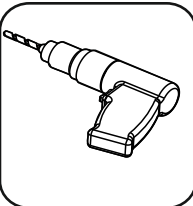
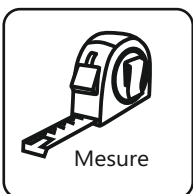
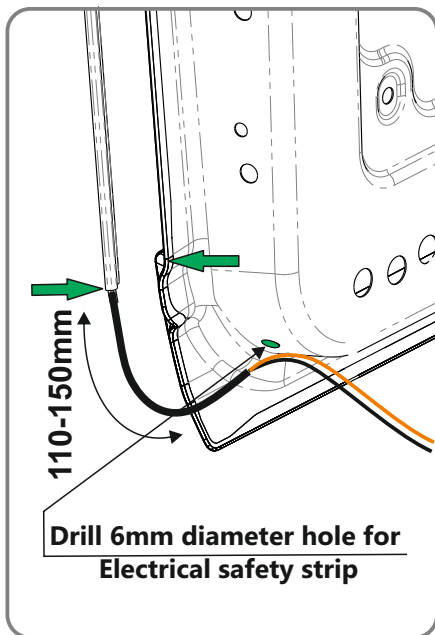
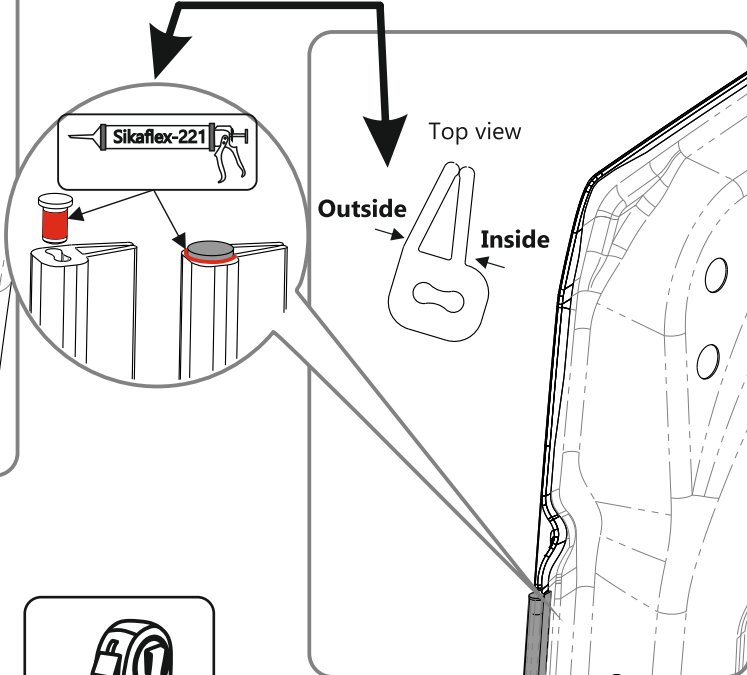
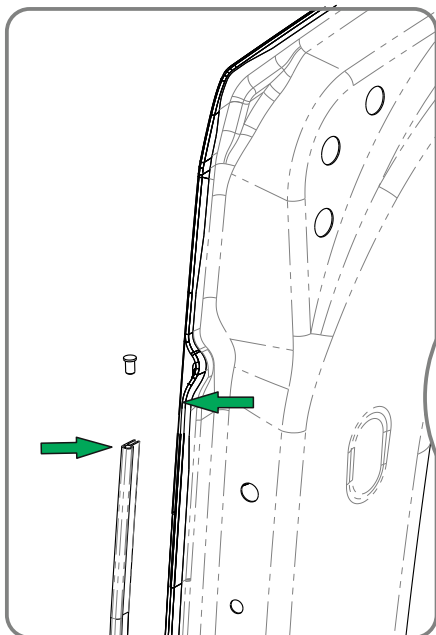
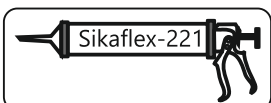
Door limit switch  
PN:124-00-039

**Make sure there is good press on  
the pillar micro switch.**



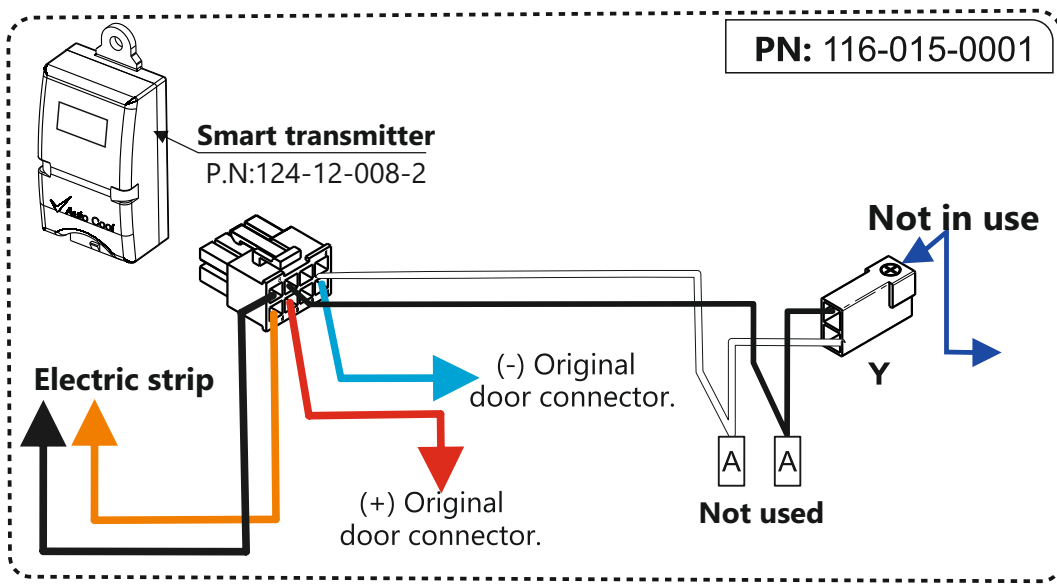
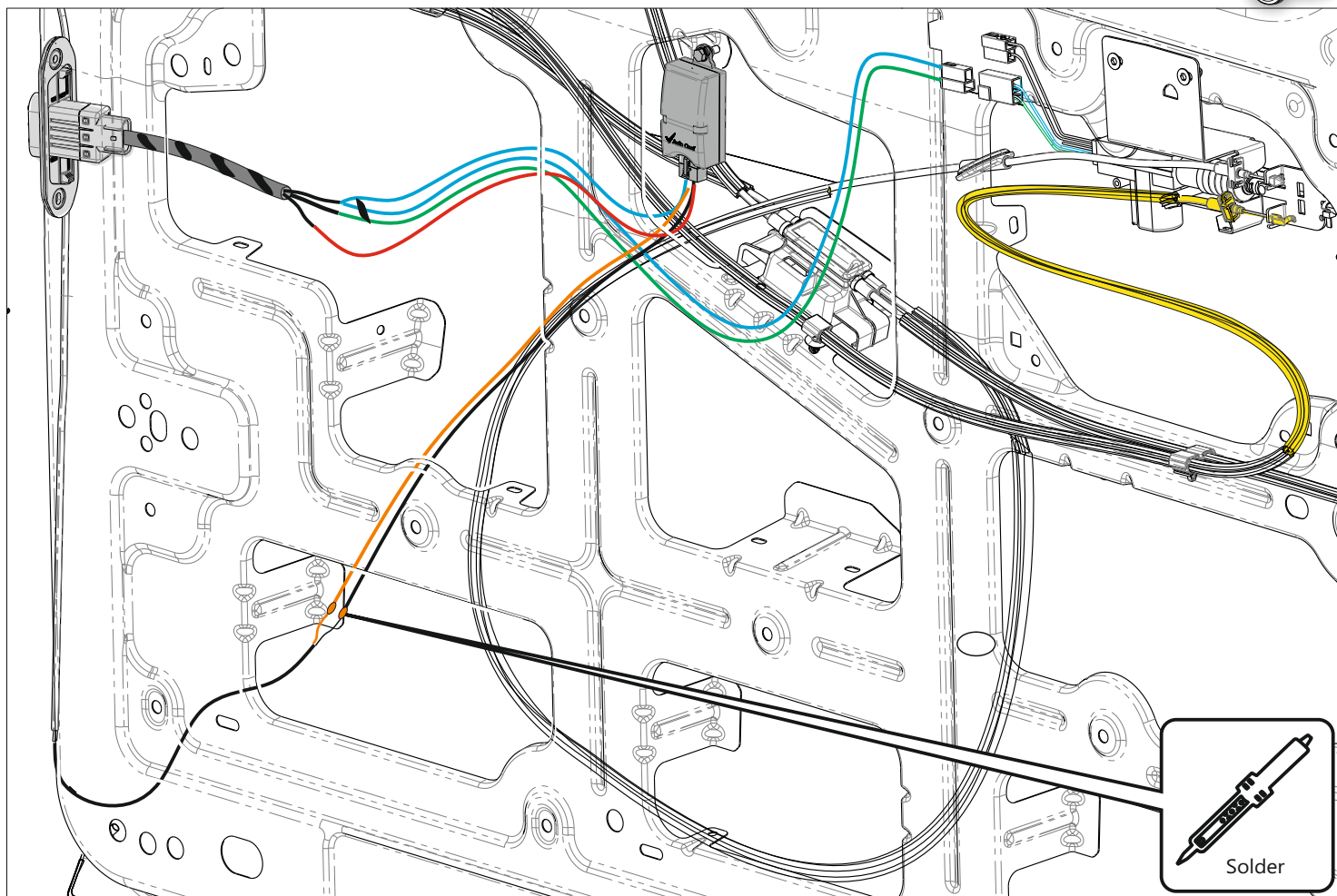
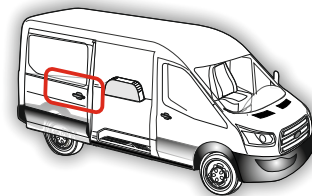


**Critical!**

**After strip is glued to the door edge, for better attach of electrical strip - is advisable to lead a sikaflex path from one side along the strip**

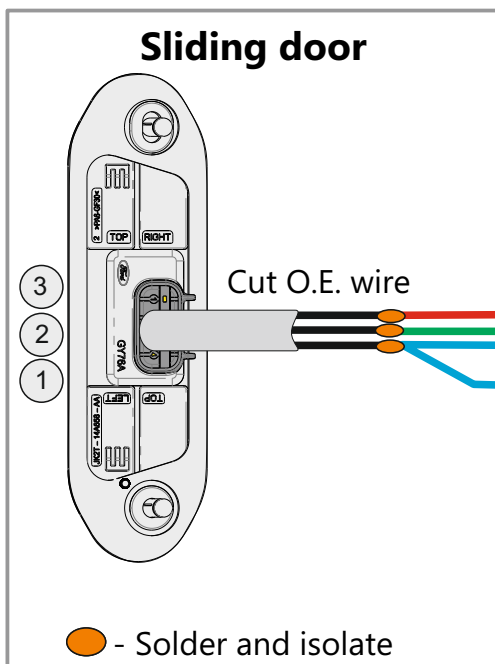
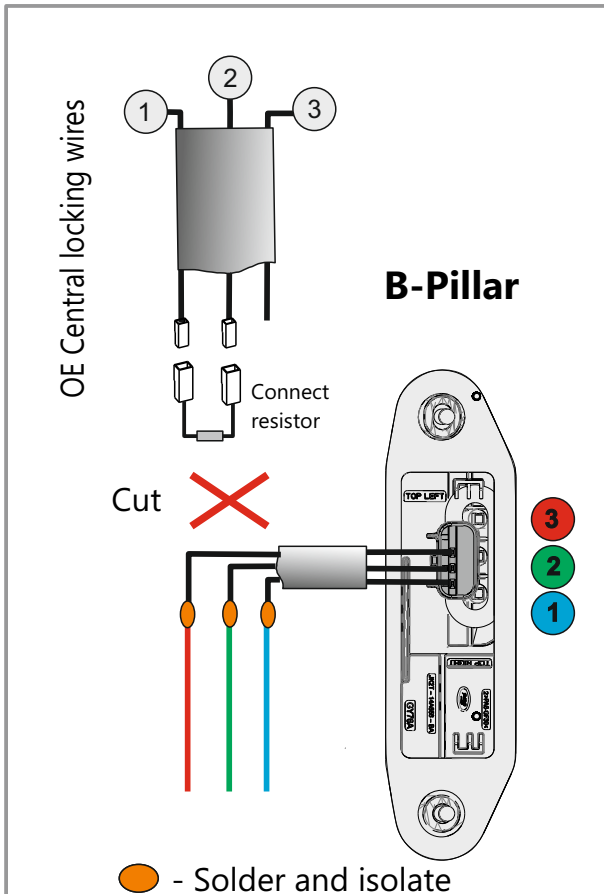
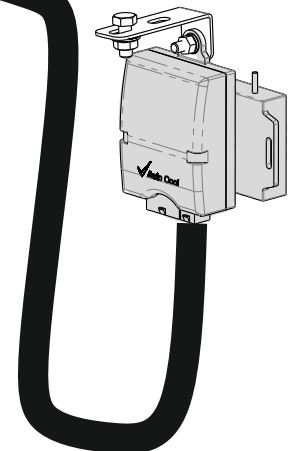
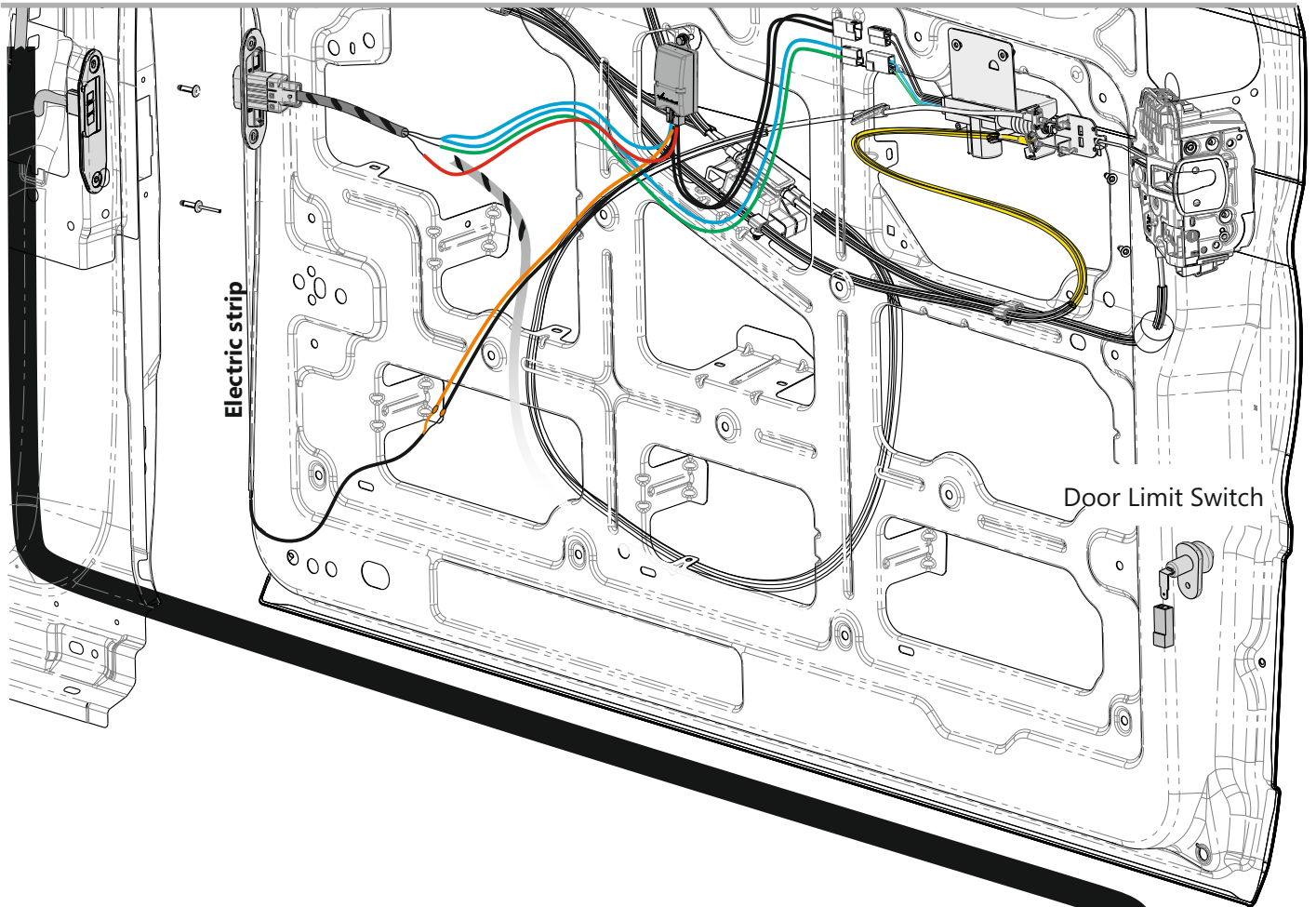
- Make sure not to bend the rubber profile. **Bending will make a short circuit.**
- Clean the door edge and the rubber with alcohol then glue it from the bottom to the top.

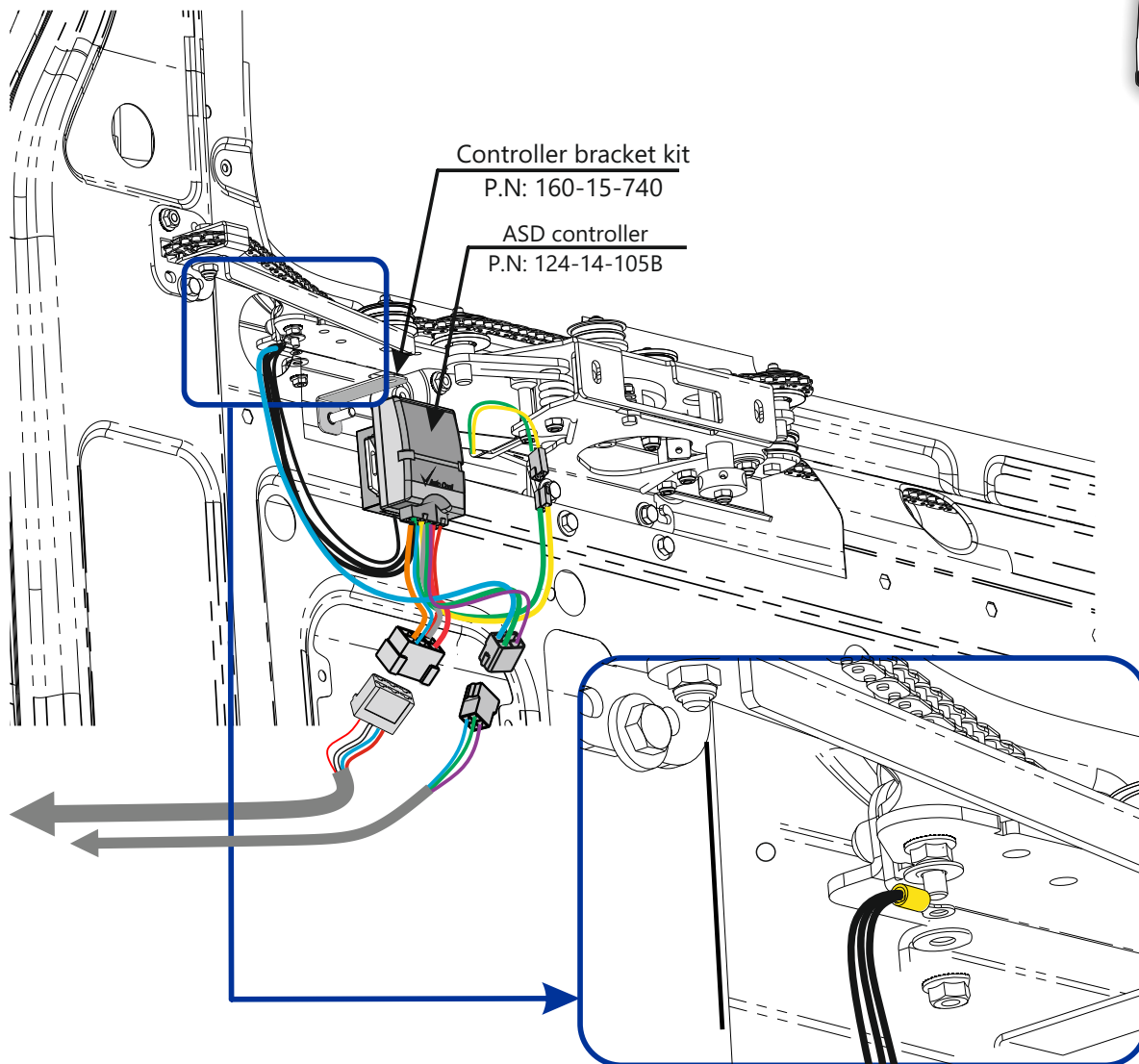
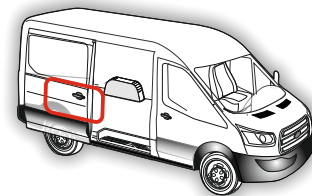


**Check the safety rubber's function**

**ASD controller and smart transmitter must be installed in vertical position (connectors down)**





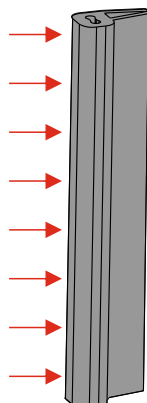


## **Peering Smart transmitter (if necessary)**

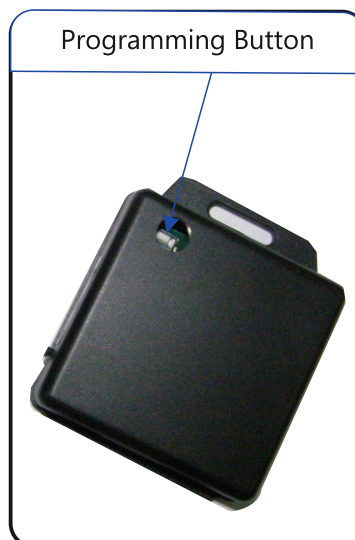
For smart transmitter \ door transmitter (P.N: 124-12-008-2):

- Connect all wires to the smart transmitter and B-pillar wiring.
- Close the door for 10 seconds (capacitors in the smart transmitter will charge, make sure that the main battery is temporarily connected).
- Press the receiver programming button until the red light turns on then release.
- Press the electrical safety rubber or handle and make sure the LED on the receiver blinks.
- After the receiver LED blinked - the smart transmitter is paired and ready to work.

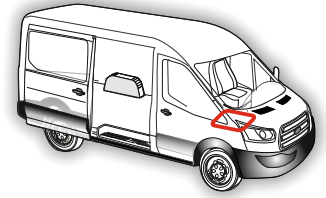
Electrical rubber



Programming Button

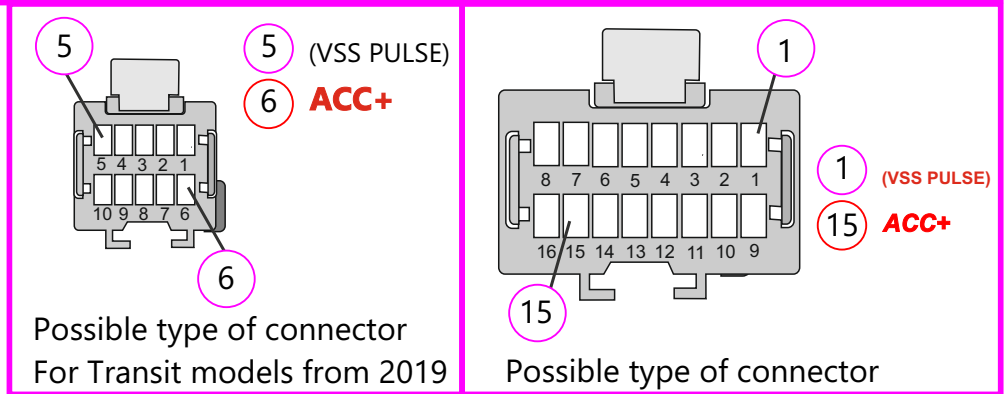
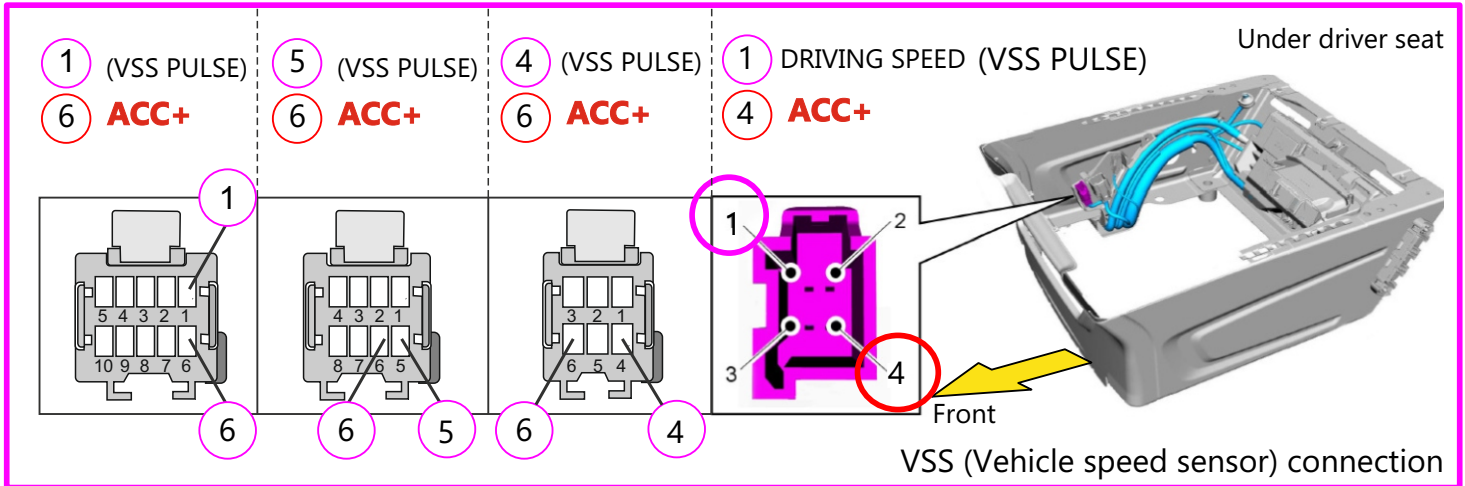




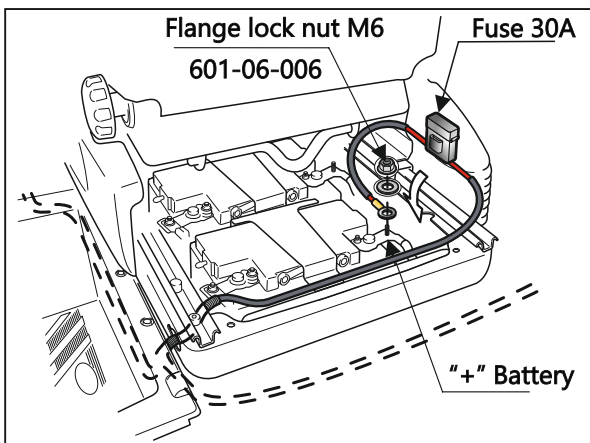


## VSS (Vehicle speed sensor) connection

### Options

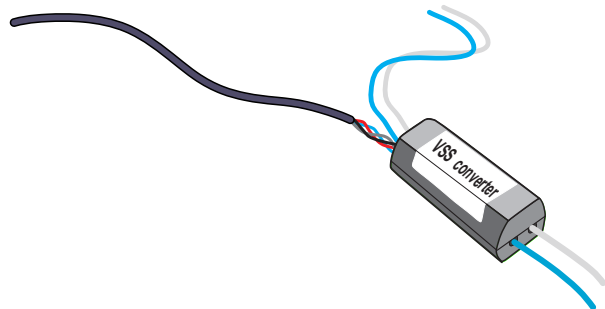


### Plus wire installation

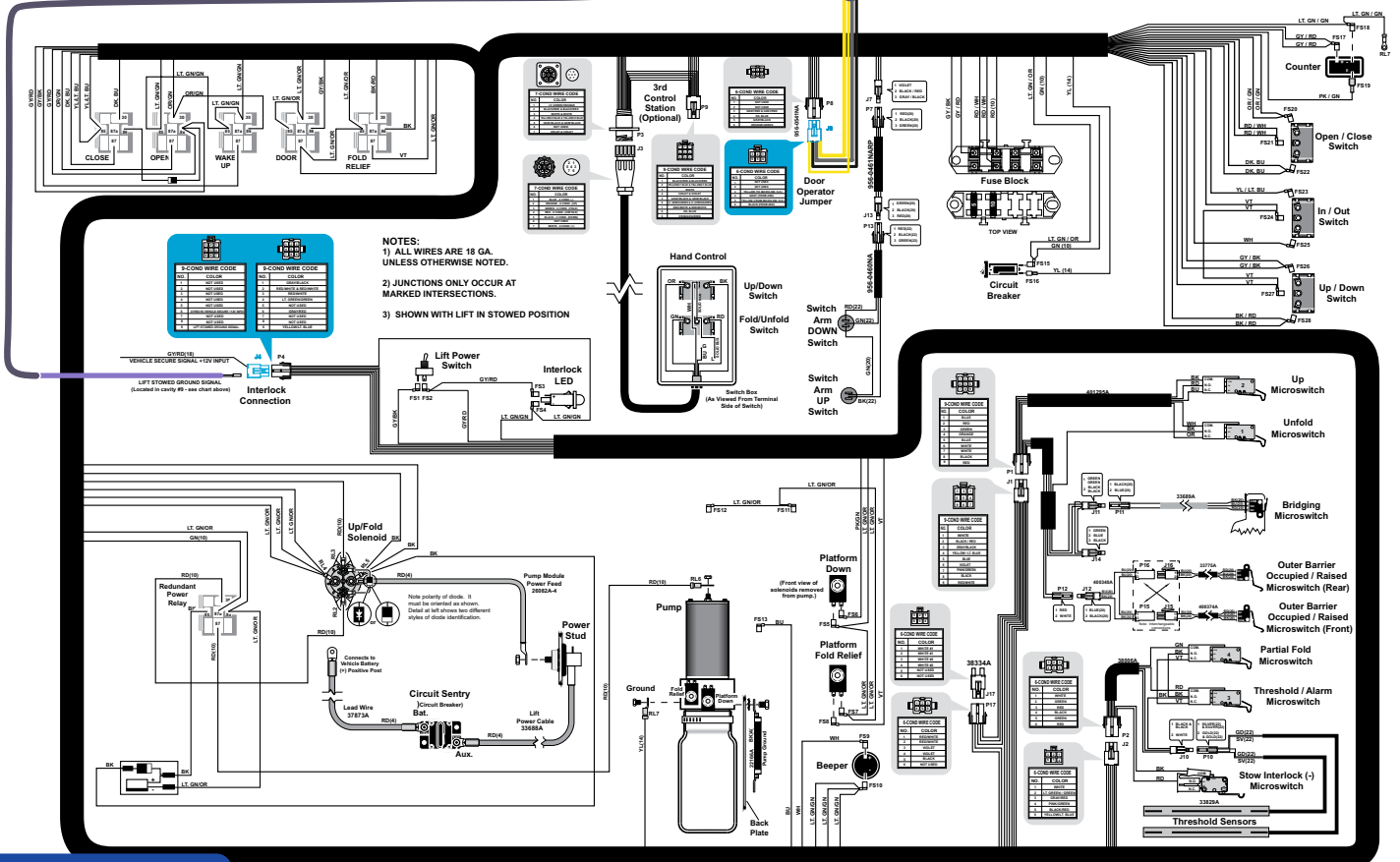
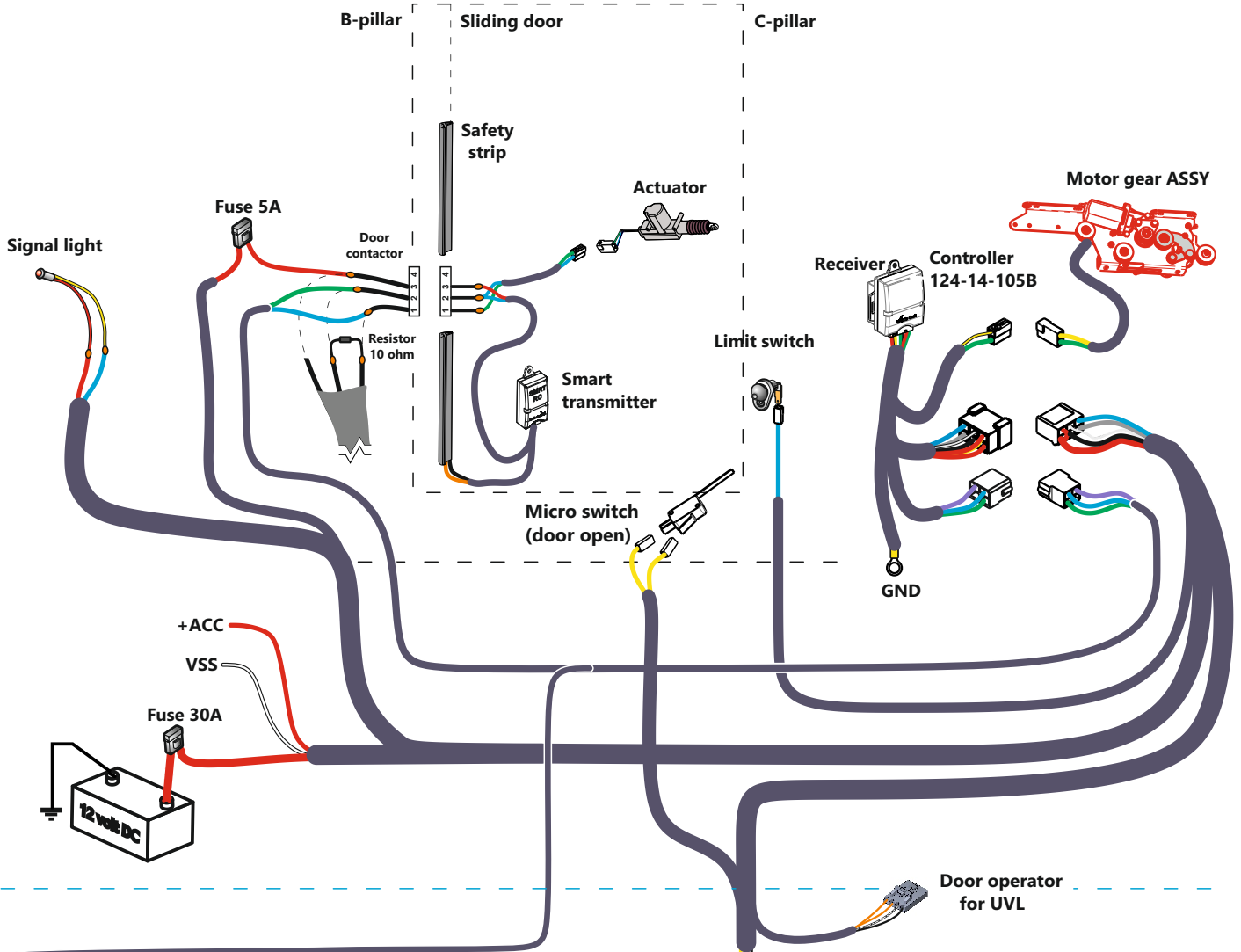


**Its mandatory to connect and check the VSS!**

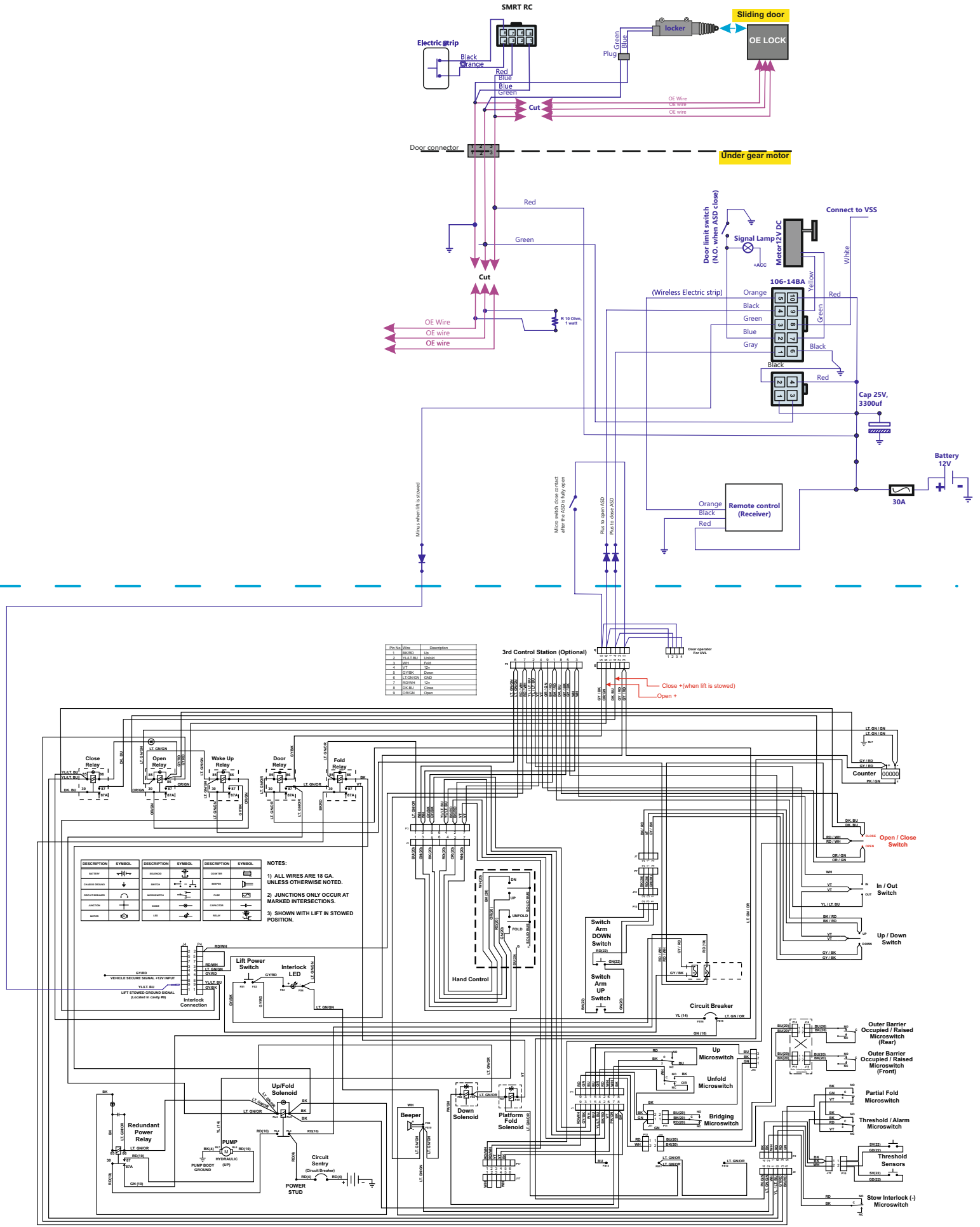
**If the vehicle does not have connection to the VSS source, then you can order a wireless VSS convertor PN 124-10-511. Please contact us to get the instructions for this part.**

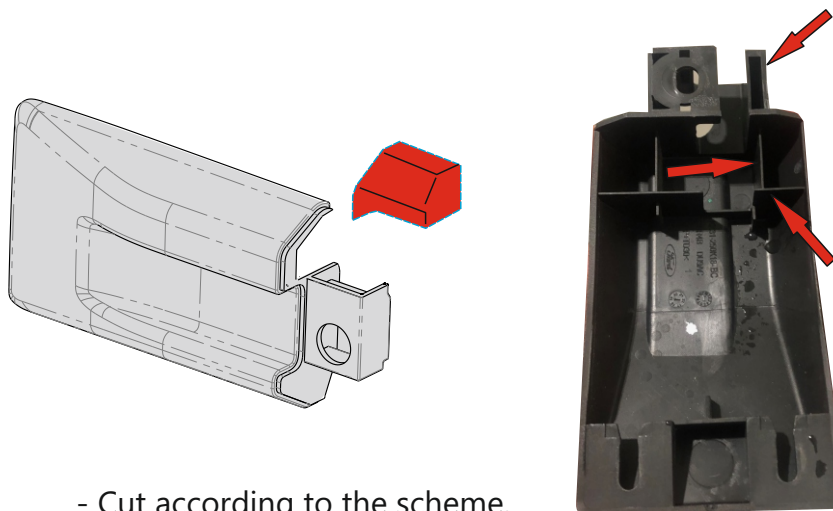
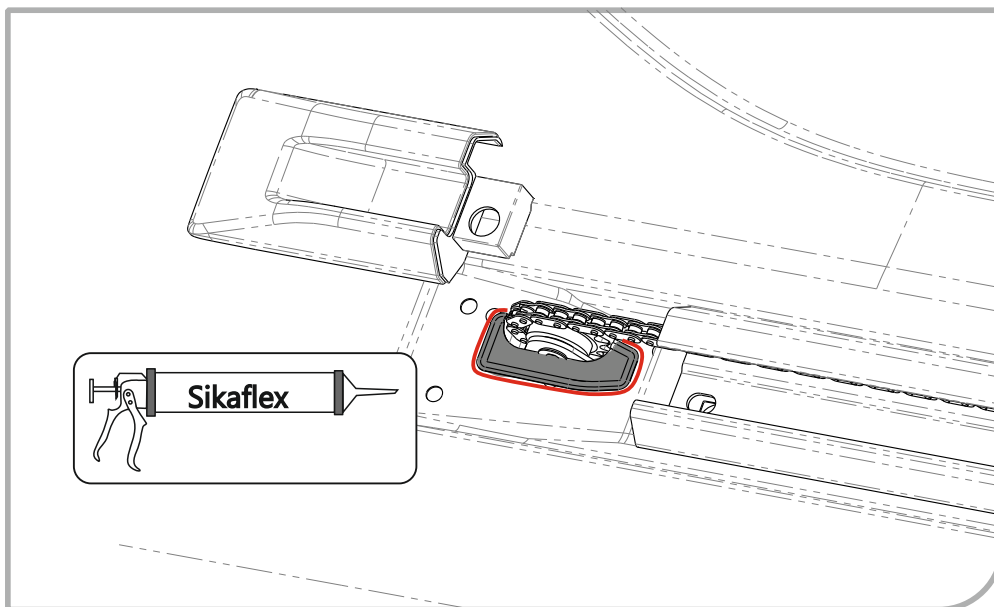
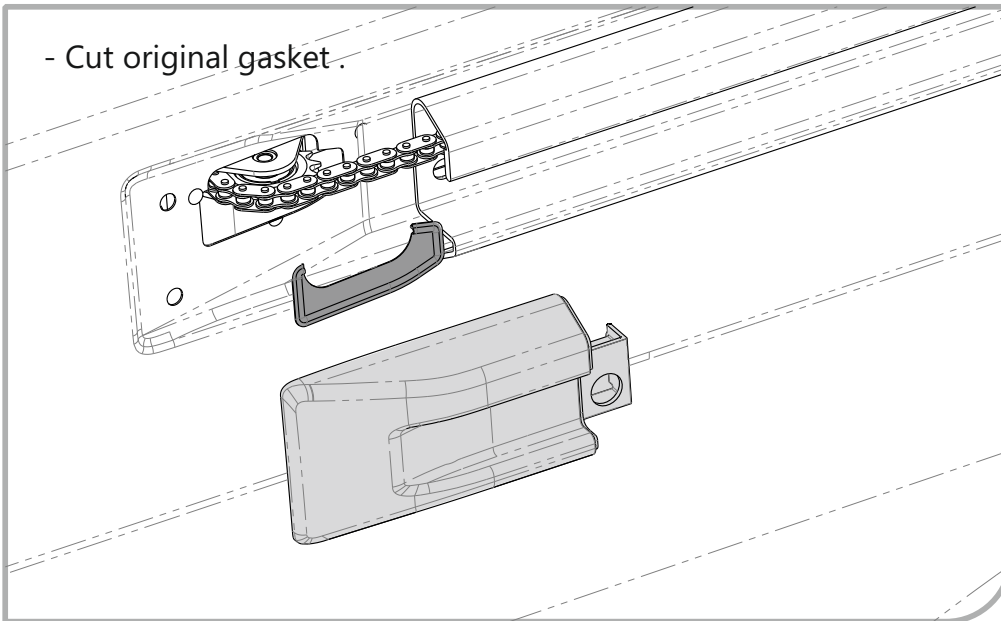
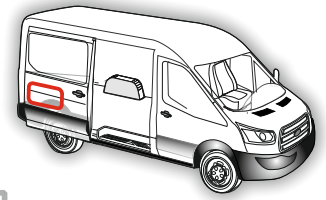


# Wiring diagram

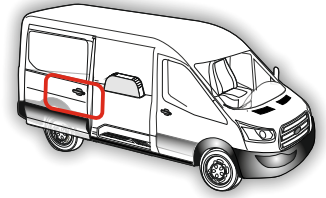


# Electric scheme

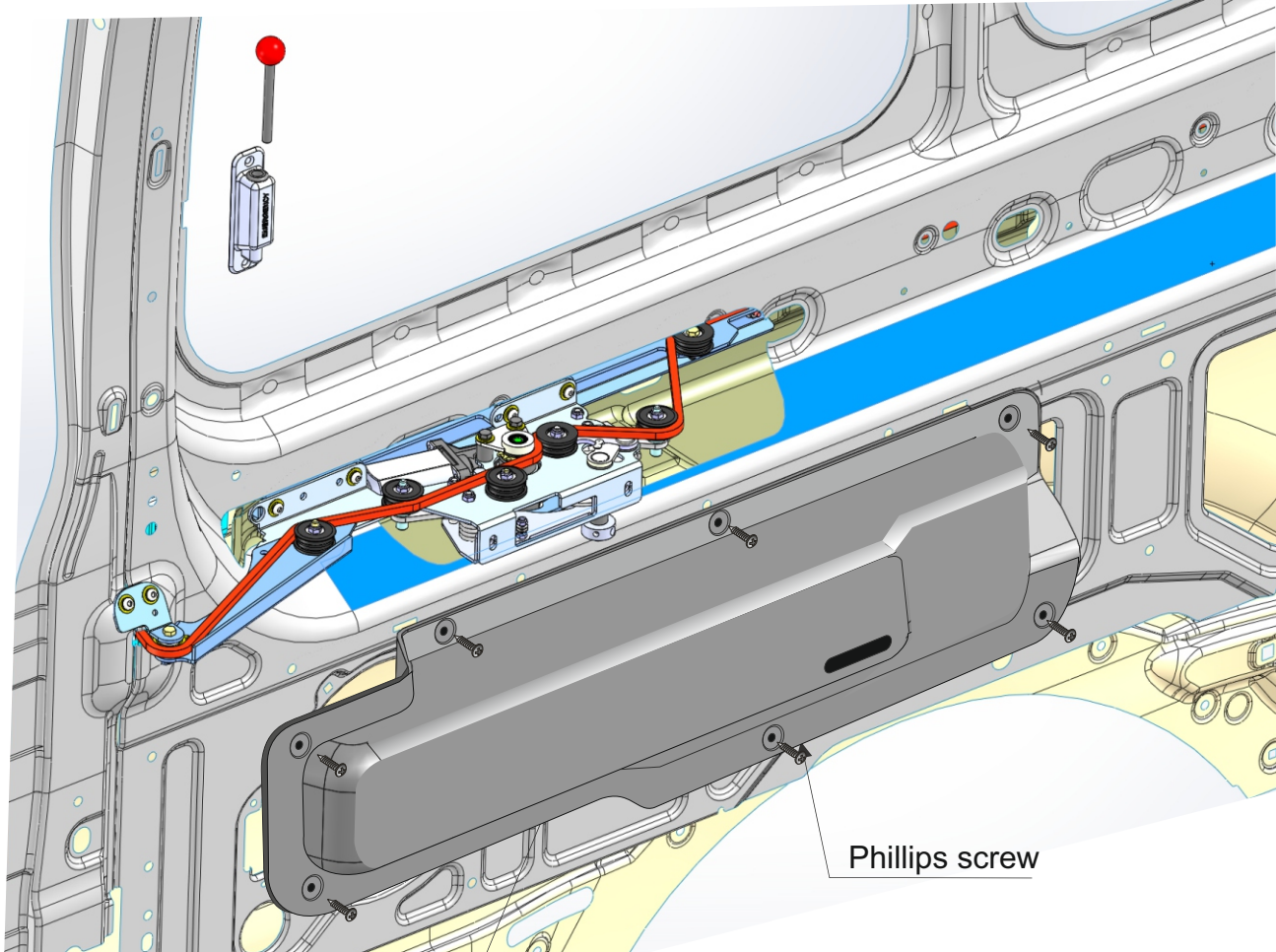




- Cut according to the scheme.



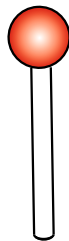
Cover Kit PN:160-36-360V-1



PN: 151-36-301V-1  
Cover

Internal Emergency Handle Kit

PN:160-15-000



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	151-15-000	Internal Emergency handle	1
2	128-05-012	Housing	1

## **Operation:**

- The door is operated by a switch or remote control provided by Braun Ability:
- To control opening range – Continuous pressure on the control switch will set the door in motion upon its release, the door will stop.
- Visual status indications – When the vehicle's main ignition switch is on and the door is open, the indication light is visible.
- Audio status indicators – the vehicle's buzzer functioning when the door is in closing motion.
- The sliding door can be operated only when the lift is stowed position.

## **Safety measures**

The system includes safety features to protect the passengers.

- Closing – When encountering an obstruction, the controller automatically reverses the door direction to open full way .
- Electric safety strip performs sensitive safety function, if during the closing door it pressed the sliding door will reverse immediately.
- Opening - When encountering an obstruction, the controller stops the door.
- While the vehicle is in motion: the ASD will not be operational at speeds exceeding 5 km\h. If the door is open, the system will close the door automatically and buzzer will operated.

## **Emergency facility**

The system has inside and outside (optional) emergency releasing handle. Pulling one of them will result in disconnecting the ASD mechanism device and the door will function normally immediately.

## \* **Basic checks for any situation:**

- Visual check for loosen / broken parts.
- Operate the system from different source:  
Remote / driver switch / original remote/ original door handler.
- System reset:
- Disconnect the main fuse for 2 min - while waiting, check manually the system.

**or**

- Disconnect the control unit for 2 min - while waiting, check manually the system.

## \***Specific situations:**

### 1. Door does not function:

- Check main fuse.
- Check connections of power terminals to the control unit, motor and operating switch.
- Check control units
- Check motor.

### 2. Door does not close properly:

(Do not move at all or when reaching the fully closed positions it reverses).

- Check the safety pneumatic pressure tube:

Disconnect the plugs of pressure switch and close the door automatically.

- Check inside the door the remote which connected to the pressure switch.

While pressing the pneumatic tube the LED indicator on the remote should light.

- Try to regulate the sensitivity of the pressure switch.
- Check limit switch on the B/C pillar for a good ground connectivity.
- Check control unit.
- Check voltage of the main battery, if under 12V start the engine.
- Check alignment of the door, tune it according to installation manual if required.

### 4. Door does not open:

- Check the electrical motor is engaged.
- If the ASD kit is a DL (Door Latch) ASD kit, check position of the locker unit (inside the door), which disable the OEM. locking system of the door.
- Check lock actuator (for DL model only).
- Check if OEM children lock on the door is active.

### 5. Door does not automatically reverse when encountering an obstruction during closing mode.

- Check safety pneumatic switch.
- Check pressure tube.
- Check control unit.
- Check remote device (inside sliding door).
- Check if door's limit switch (on B/C pillar) in place and good ground connectivity.

6. Noise from the door's chain during opening and/or closing modes.

- Move the mechanism to hand mode. Slide the door and try to find the source of the noise.
- Check installation and alignment of all wheels supports, front and rear idlers, and gear motor sprocket.
- Check chain tension and if needed, shorten it by removing one or two "links" of the chain (a very loose chain may also "jump" and cause damage to the sprocket's main motor).

7. Remote control unit does not function.

- Check with spare remote control.
- Check battery in the key unit transmitter.
- Check if the LED indicator on the remote lights.
- Check connections (plugs) of receiver and main controller.
- If this issue still occurs, replace remote control receiver and transmitter set, with a new full set. Make sure to calibrate the existed remote control inside the door (the remote of the pneumatic safety system).

8. VSS (Vehicle Speed Sensor) do not operate (the door operates although the vehicle is over 3 Km/h speed).

- Check connections to VSS (see installation manuals).
- Check control unit.

9. Buzzer does not operate during the closing mode.

- Check control unit.

10. Main driver button do not work:

- Check wires to the button.
- Replace and check button.
- Check control unit.

11. Original handle switch do not work:

- Check remote inside the door (see note 7 above).
- Check micro switch connections inside the door.
- When pulling the original door handle, check remote inside the door.

12. OEM remote / central locking button do not work:

\* For vehicles including OEM remote / central locking option.



- Check control unit.
- Check connection to the OEM central locking wires (see installation manual).



# Tools index

Combination wrench set metric		Straight flute HSS step drill diameter 4-30mm	
1/4" Drive socket set metric		Drill point countersinks	
Saw blades		Straight shank twist drill Diameter 4mm / 5mm / 6mm/ 6.5mm / 7mm / 9.5mm 12mm	
Air reciprocating saw		T-handle set	
13mm Pneumatic drill		Hand files	
Hand holding battery-powered drill		Plier set	
Soldering-iron		Wire stripper/crimper	
High speed threaded insert tool or Heavy duty hand tool for field and low volume production use or Small hand tool for prototype work and repairs.		Heavy duty snap blade knives	
Rubber hammer		Locking plier	
Flashlight or drop light		Screwdriver set	
		Tape 50mm	
		Anti-rust primer	
		Pencil or marker	

## Recommended Torque (steel x steel)

<b>Bolt</b>  <b>8.8</b>	Torque (Nm)	<b>Bolt</b>  <b>10.9</b>	Torque (Nm)	<b>A2 or A4 Stainless steel</b>	Torque (Nm)
M5	6.0			M5	5.1
M6	10.3			M6	8.7
M8	25.5	M8	37.6	M8	21.2
M10	50.0	M10	72.0	M10	42
M12	87.0	M12	126.0	M12	73

Installation check before delivery

<b>ASD checking</b>	<b>YES</b>	<b>NO</b>
1. Check manually the system, then make sure that all windows / doors are closed and check electrically the system. Be careful to not cause any damage.		
2. Fully close and open the door electrically using: drivers button, remote control, original handle if existed. Repeat 10 times.		
3. Pinch protection / pneumatic strip.		
4. VSS - drive above 3kmh while the door is open, and make sure the door automatically close.		
5. VSS -make sure operating buttons and remote controls are disabled while driving above 3kmh		
6. Check driver LED alerts.		