



# Owner's Manual

KEEP THIS OWNER'S MANUAL IN VEHICLE

# DoorLIFT<sup>®</sup>



## Need help?

For assistance with this product please visit  
[www.actuall.eu](http://www.actuall.eu) or contact your dealer.

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## 1. Unit information

DoorLIFT serial no. \_\_\_\_\_

Dealer \_\_\_\_\_

Installation date \_\_\_\_\_

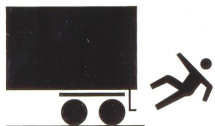
Door type \_\_\_\_\_

Door size \_\_\_\_\_

Door serial number \_\_\_\_\_

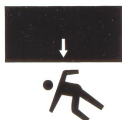
## 2. Safety guidelines

### Warning



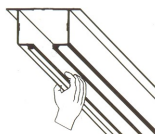
Slipping, tripping or falling on or of the floor of the lorry's goods compartment can cause injury.

### Attention: Risk of injuries!



Nothing should be in the range of the shutter door when it is moving.

### Attention: Risk of injuries!



Never put your fingers into the track of the door or into the profile of the DoorLIFT.

### Safety guidelines

For problem-free operation of the DoorLIFT, the lorry's shutter door must always be kept in good condition.

#### Before using the DoorLIFT:

1. Check if all the shutter doors components are firmly in place. Loose parts must be fixed or replaced if necessary.
2. Check the lorry's shutter door is working properly.

#### When using the DoorLIFT:

1. No obstacles are allowed in the range of the shutter door when it is moving!
2. If the door can be locked or bolted, do not forget to unlock or unbolt it.
3. Check the movement of the DoorLIFT both on opening and closing. If the DoorLIFT runs unevenly, investigate the cause and repair it if possible.
4. Replace damaged parts as quickly as possible.
5. Recurring stoppages or problems must be sorted out as quickly as possible by people with the appropriate training. Do not attempt to resolve problems yourself if you do not have the proper training. Electronic equipment requires specialised knowledge.
6. Take care that the rails in the doors range of movement are not blocked.

#### After using the DoorLIFT:

1. The door should be closed properly before driving away.
2. Never drive with an open door; this will damage the DoorLIFT.

#### Maintenance:

1. Damaged, loose or missing parts should be repaired or replaced by skilled personnel. You should have checked the DoorLIFT at least twice a year.
2. When repairing the DoorLIFT you should always disconnect the system from the power supply.

#### Attention: Electronic equipment requires specialised knowledge!

3. Do not lubricate the DoorLIFT.
4. Clean using a damp cloth. Do not use any volatile substances as static electricity may ignite them and causes an explosion.
5. Use genuine DoorLIFT replacement parts.

3. Service Book

| Type of service | Date | By |
|-----------------|------|----|
|                 |      |    |
| Notes           |      |    |
|                 |      |    |
|                 |      |    |

| Type of service | Date | By |
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## 4. Control devices

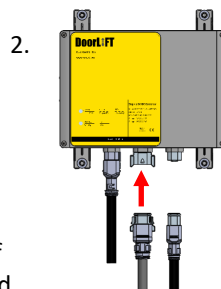
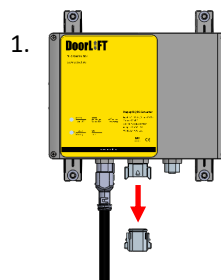
Your DoorLIFT system may be supplied with two wireless key FOB transmitters. Any other external device like switches are provided by the fitter or customer.

| Item | Description        | Function                              |
|------|--------------------|---------------------------------------|
| 1    | Remote control     | Up/down automatic                     |
| 2    | Push button single | Up/down automatic                     |
| 3    | Push button up     | Up automatic                          |
| 4    | Push button down   | Down automatic                        |
| 5    | Block function     | Automatic close door, block all input |

### Optional functions:

Connect auxiliary devices to the DoorLIFT control box through the 8-lead harness using the wire chart below.

| Wire         | Item                            |
|--------------|---------------------------------|
| 1            | Up/down input                   |
| 2            | Up input                        |
| 3            | Down input                      |
| 4            | Signal block (ignition lockout) |
| 5            | + 12V output (max 250 mA)       |
| 6            | Door ajar output (ground)       |
| 7            | Cargo light output (ground)     |
| Yellow/green | Ground (max 250 mA)             |



The 8-pin female connector on the box comes equipped with a plug to protect the connector from water and dirt if the harness is not used. This plug is removed and discarded if the harness is utilized.

## 4.1 How does the remote control work

When a command is given, the LED's will indicate the signal was received.

- LED 2 on the control box will momentarily flash orange, as an input signal is received either from a FOB or a switch.
- LED 1 will start to flash green as 32 VDC is sent to the motor



LED indicator

## 4.2 Programming remote control



**Note:** if the FOB battery has to be replaced for any reason, the battery is a 12 Volt A-23 dry cell type



1. When the power is turned on by connecting the battery cable to the control box, within 5 seconds, press buttons 1 and 2 at the same time. The system will erase the memory and then enter the code learning mode. The UN-LOCK OUTPUT will trigger to remind you that the system is in code learning mode.

2. Within 5 seconds of entering the learning mode, press any button on the transmitter. You will need to press the button on all the transmitter you want to program to the system, because the memory has been erased. The UN-LOCK OUTPUT will trigger to tell you the transmitter has been recognized and is compatible with the system. A maximum of 12 transmitters can be coded per system.

3. During code learning, if there is no action after 5 seconds, the system will exit learning mode. The UNLOCK OUTPUT will be the reminder.

4. If old FOBs have to be erased from the receiver's memory for any reason, program the new FOBs with the above procedure and don't include the old FOBs in this procedure. This procedure will erase the old FOB data from the receiver's memory.

## 5. Inspection and maintenance shutter door

Maintain the shutter door every 3 months:

1. Lubrication shutter door
2. Balancer maintenance and adjustment
3. Check if all the shutter doors components are firmly in place.

**1. Lubricate the roller bearings and shafts, hinge pins and cable drum bearings as per the illustration below.**



**DO NOT USE GREASE OF ANY KIND**

Grease sits on the surfaces and attracts dust, dirt and salt.

## 2. Check to make sure the shutter door is properly balanced.

**ALWAYS lubricate your shutter door, prior to checking the balance of the door.**

The DoorLIFT will operate the shutter door provided a force of no more than 35Kg to open or close the door. Ensure that the force required to lift the door is equal to the force required to close the door.

- If the door requires more force to open than it does to close, increase the tension on the balancer.
- If the door requires more force to close than it does to open, decrease the tension on the balancer.

### **Additional info:**

Time and the elements affect the tension on the spring that lifts the door. Over time, the spring wire will corrode and loose effective wire diameter. The springs themselves also get tired and loose their tensile strength. An average balancer on a door will last approximately 15,000 to 25,000 cycles.

### **Adjusting and maintaining the proper door balance:**

**CAUTION—work on doors and related parts can be dangerous. It is strongly recommended that repair service work be preformed by persons who have successfully completed appropriate training.**

1. For adjusting the spring, please consult your shutter manual for brand specific instructions.

## 6. Inspection and maintenance DoorLIFT

Pre-conditions:

- Maintenance should be performed by qualified (trained) staff.
- Maintenance of the DoorLIFT should always be done in conjunction with maintenance of the shutter door.
- Maintenance schedule is based on 40 cycles per day, 5 days a week. At higher frequency, you may need to do the inspection more often.
- Maintenance schedule is based on a well maintained, well balanced and manual operable shutter door.
- When repairing the DoorLIFT you should always disconnect the system from the power supply.
- DO NOT GREASE OR LUBRICATE THE DoorLIFT. Clean using a damp cloth.
- Use only genuine DoorLIFT replacement parts.

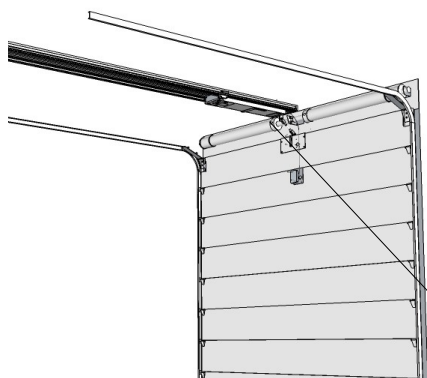
| Maintenance activities                                                                                    | Six months | Yearly |
|-----------------------------------------------------------------------------------------------------------|------------|--------|
| Check the operation by opening and closing the system with the door attached                              | X          | X      |
| Check the balancing of the door with the DoorLIFT disconnected                                            | X          | X      |
| Ensure that all parts are properly tightened. Damaged, loose or lost parts should be repaired or replaced | X          | X      |
| Inspect the aluminum track                                                                                | X          | X      |
| Lubricate and test the emergency unlocking system                                                         | X          | X      |
| Perform door maintenance as instructed in Step 5                                                          | X          | X      |
| Check all electrical connections for tightness and corrosion                                              |            | X      |
| Disconnect the motor-unit and take it out of the track for inspection                                     |            | X      |
| Do a visual inspection of the motor-unit gears and guide wheels                                           |            | X      |
| Check the cable of the emergency unlocking mechanism and replace if damaged.                              |            | X      |
| Replace the four guiding blocks (part number: DL-8001254).                                                |            | X      |
| Replace the battery of the remote control FOB if needed                                                   |            | X      |
| Place service sticker                                                                                     |            | X      |

Replace the motor-unit after 5 years or 160.000 cycles

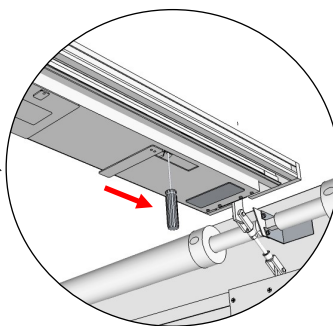
Expected time for maintenance service of DoorLIFTs excluding door maintenance and inspectino:

Six months : 30 minutes.  
 Annual : 60 minutes.

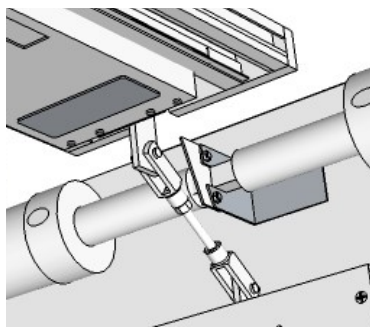
## 7. Removal motor unit



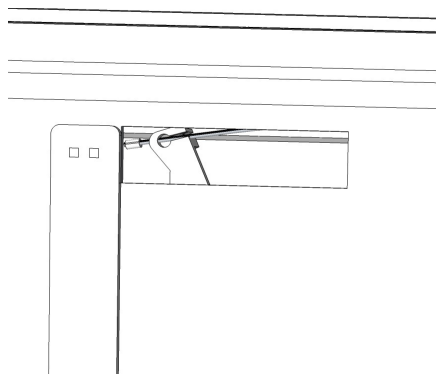
1. Use a screw driver and insert this in the lever, located in the motor unit. Move the lever towards the shutter door. You are now able to open and close the door by hand.



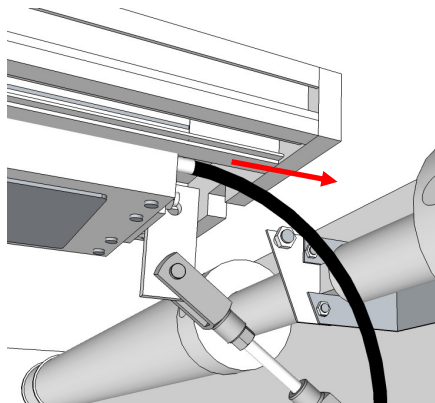
2. Remove the clevis pin on the turn buckle. This will disconnect the motor-unit from the door.



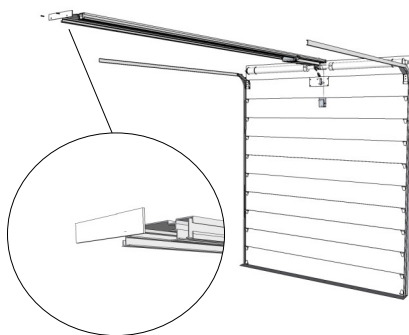
3. Remove the cable from the lever



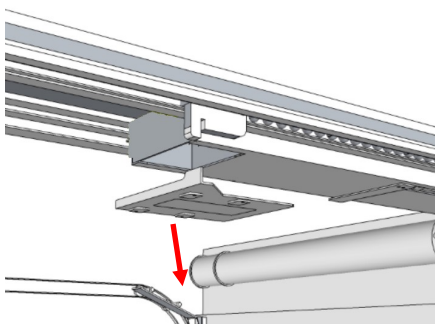
4. Remove the cable from the cable tube in the motor-unit.



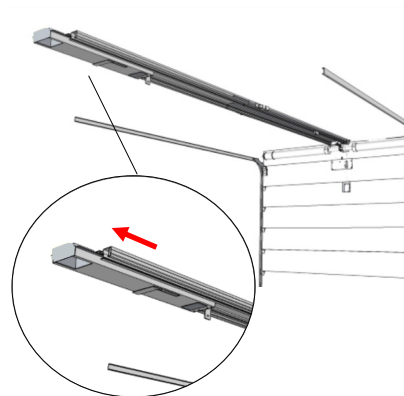
5. Remove the cover from the track.



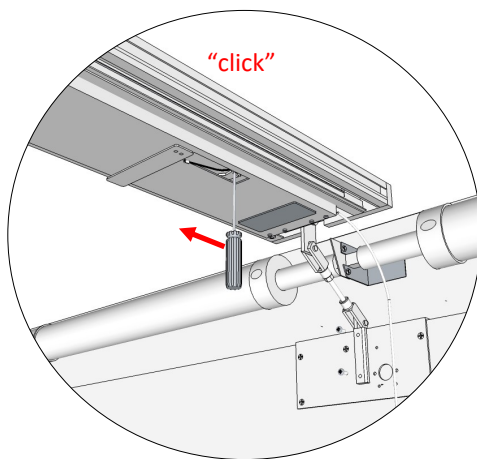
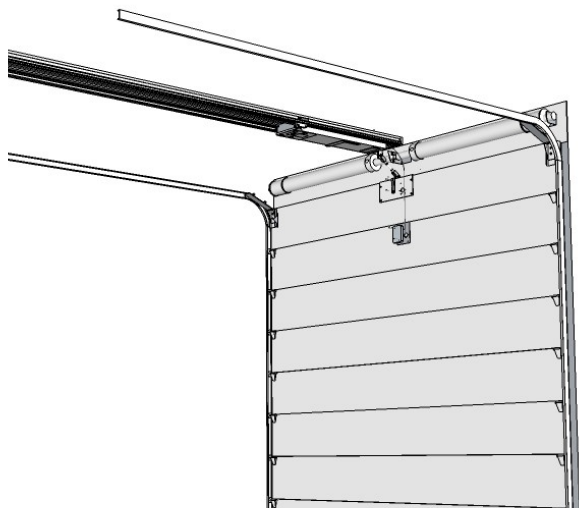
6. Cut the zip tie retaining the yellow cable to the slider cover. Unscrew the slider cover bolts and remove it. Unplug the yellow cable harness from the motor connector within the box.



7. Slide the motor-unit out of the track.



## 8. How to lock the gears



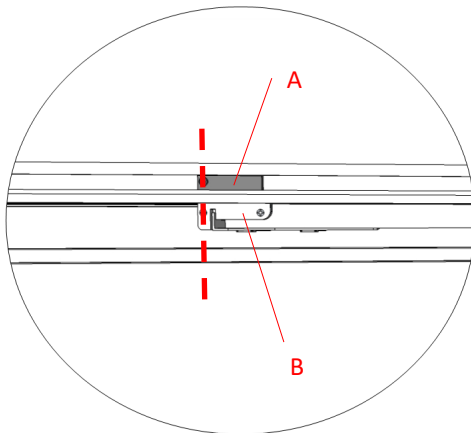
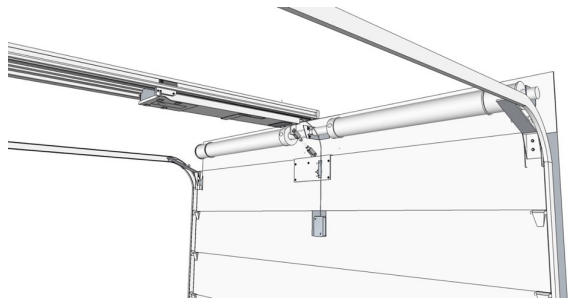
Using a screw driver, insert the tip in the lever located in the motor-unit. Move the lever towards the Battery icon until you hear a firm "click" meaning the gears are meshed with the linear track gears.

## 9. How to adjust the sensors

The sensor switch for the CLOSED position is set at the factory, but may need adjustment depending on the header size and turnbuckle length.

Note: to gain access to the Close switch, the track trim can be slid on the track to gain access.

1. Disengage motor. Close the door fully by hand.



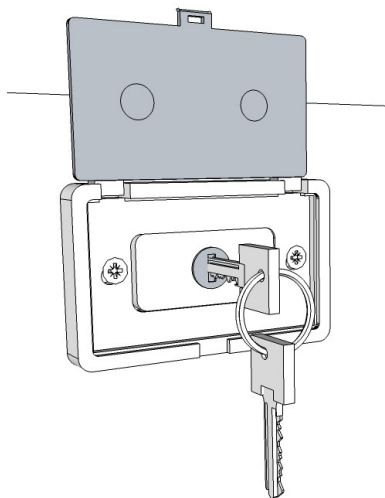
2. Set the sensor (A) sideways to match the cable slider (B). Both screw heads should be in line, see picture. The cable slider holds a magnet.

## 10. Emergency release

You may be occasionally required to release the DoorLIFT from the door, in order to operate the shutter door manually. DoorLIFT can be released from the drive system in the following way:

### Using the exterior EMERGENCY release

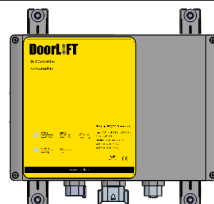
1. Insert the DoorLIFT key into the lock cylinder located in the center of the second shutter door panel, on the outside of the door.
2. Turn the key 90 degrees clockwise and pull the lock and connecting cable from the lock cylinder. Pull the lock assembly firmly and the DoorLIFT will be released from the drive system.
3. Reinsert the cable and lock cylinder back into the lock housing on the door. The shutter door can now be operated manually.



## 11. Basic troubleshooting

When your system isn't working properly or not at all, please check the following:

1. Check for visible damage or obstruction
2. Try if a different control device is working
3. Check the control box and see what the LED's are telling you (see table below)

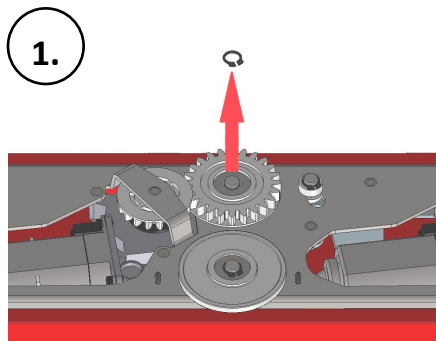


| LED   | Colour | Sequence | Issue/Function                             | Explanation |
|-------|--------|----------|--------------------------------------------|-------------|
| LED 1 | Red    | Flash    | Low voltage input (during operation)       | A           |
| LED 1 | Green  | Solid    | Power in                                   | B           |
| LED 1 | Green  | Flash    | In operation                               | C           |
| LED 2 | Orange | Flash    | Signal received                            | D           |
| LED 2 | Orange | Solid    | Warning, overload motor-unit / obstruction | E           |
| LED 2 | Red    | Solid    | Error, time out door travel                | F           |
| LED 1 | None   | NA       | No input power                             | G           |

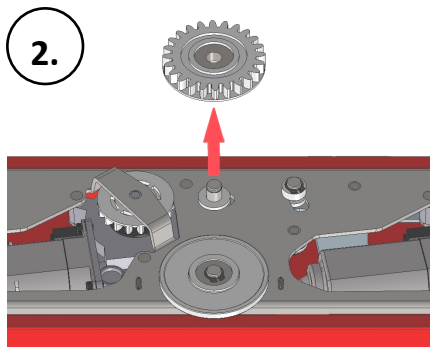
### LED Explanation

- The input on the systems is too low. Check the voltage and capacity of the battery. Also check the cables from the battery to the control box for any damage or wear.
- The control box has a power coming in
- The control box has received the signal and is sending power out to the motor-unit. If the motor-unit is still not running, please see if the power is getting to the motor-unit by taking of the cap (chapter 7, step 6) and measure the voltage in the connector on the spiral cable.  
Also check the motor-unit for any damage on wiring or gears.
- The control box has received a signal from the control device. If you are using a remote control and LED 1 is not starting to flash; try to reprogram the remote control to the control box first. If after that, or when you use push buttons, the LED 1 is still not flashing; the control box is not working.
- The control box has detected an abnormality in the form of an obstruction or overload on the motor-unit. In both case, the currents got too high and the control box shuts off.  
Check if there is nothing blocking the door from going up/down.  
Check if the door closed sensor is adjusted right and the motor-unit reaches it.  
Check if the motor-unit is running with normal speed and doesn't make a strange noise. These are signs that the motor-unit is damaged and draws too much amperage from the system.
- The system took too long to get to the next point in the cycle. This might either be a slow motor-unit (because the motors are not strong enough anymore) or the system is not reaching one of the sensors in time.
- The control box has no input power. Please check the fuse on the battery cable, the battery and the cable itself.

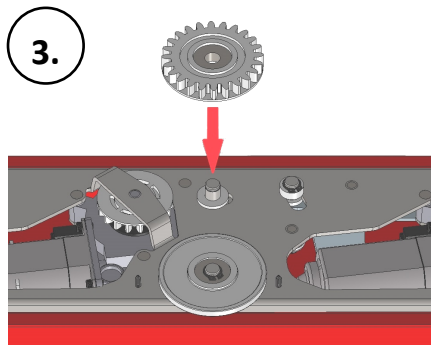
## 12. Changing DL-8002152 Tooth wheel (24)



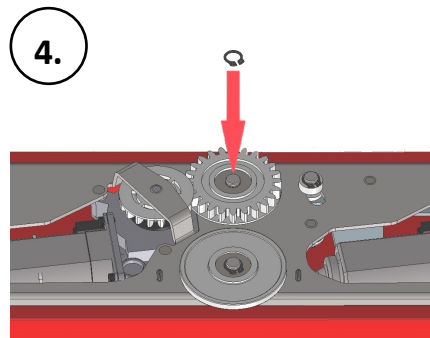
Take off the circlip



Take off the tooth wheel



Place the new tooth wheel



Return the circlip

**For all other repairs, please contact your dealer for support. Do not try to repair the DoorLIFT by yourself, this requires specific knowledge and training.**



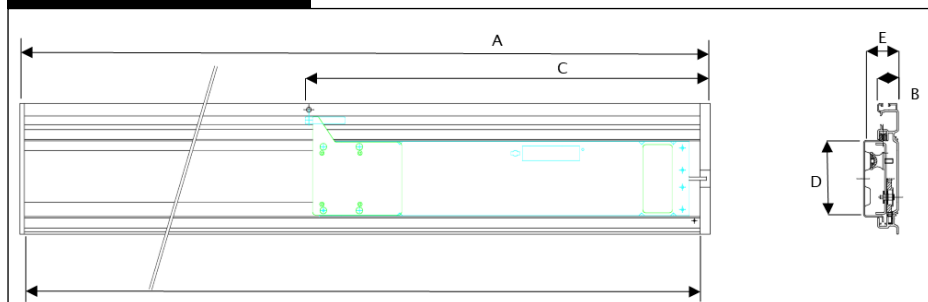
**13. Technical Specifications**

| Description               | Value                                   |
|---------------------------|-----------------------------------------|
| System                    | Two DC Bipolar Motors                   |
| Material                  | Aluminum, Steel and plastic (RoHS free) |
| Shutter height (max.)     | 2700 mm                                 |
| Strength (max.)           | 35 Kg                                   |
| Total weight              | 25 Kg                                   |
| Speed                     | 185mm/s                                 |
| End switches              | Magnetic Reed Switches                  |
| Voltage                   | 32V, $\pm 10\%$ *                       |
| Current                   | 5 Amps Nominal**                        |
| Duty cycle                | 20% (2 min. on/ 8 min. off)             |
| Life cycle                | 200.000 cycle                           |
| Maintenance               | At least once a year                    |
| Emergency unlocking       | Yes                                     |
| Bottom safety guard       | Yes                                     |
| Control options           | Switches/Remote Control                 |
| Sound level               | < 50 db                                 |
| Environmental temperature | - 20°C to 70°C                          |
| Permitted air humidity    | < 80%                                   |
| Recognition               | CE-FCC                                  |

\* 12 and 24V will be converted to 32V

\*\* Current peaks of 30A are possible

## Dimensions



| Dimension | Description         | Size (mm) |
|-----------|---------------------|-----------|
| A         | Total system length | 3506      |
| B         | Track height        | 37        |
| C         | Length motor unit   | 714,5     |
| D         | Width motor-unit    | 134       |
| E         | Total height system | 61,5*     |

\* Minimum distance between the roof and the door is 45mm

The DoorLIFT DL-6 system is fastened to the roof of the cargo area and is centered with respect to the centerline of the door.

The aluminium profile weighs approximately 21Kg and the motor unit 7Kg.



# DoorLIFT®

**Actual Innomotive International BV**  
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