

ecosense
TRAILER ASSIST

Installation guide for Scania

ETA-SC-S-2
ETA-SC-M-2
ETA-SC-SD-1
ETA-SC-SD-2
ETA-SC-MD-1
ETA-SC-MD-2
ETA-SC-MD-3

ECOSENSE TRAILER ASSIST

Ecosense Trailer Assist is the self-adjustable roof air deflector for your truck. It will automatically detect the height of the load carrier and adjust the deflector to the optimal position, ensuring minimal fuel consumption and CO₂ emissions. The system is fully automatic and requires no input from the driver. Ecosense Trailer Assist can help save up to 8 % in fuel costs by ensuring that even with frequent load carrier changes, the roof air deflector is always in an optimal configuration.

INTRODUCTION AND SAFETY

This is an installation guide for Ecosense Trailer Assist for Scania. The roof air deflector on the truck must be original Scania equipment and mounted in the correct position on the roof rails. See support.ecosense.info for more information about compatible models.



Warning: This kit with its accompanying instructions is produced for authorized workshops that have personnel with qualified professional training. The installation instructions are produced for professional use and are not intended for use by non-professionals. Standard safety equipment for use in truck workshops must be worn when installing the Ecosense Trailer Assist system. If the installation instructions are not followed, or if the work is carried out by non-professionals, Rumblestrip will not assume any liability for damage incurred.

COMPONENTS

Included in the package

Check that nothing is damaged and that everything is included. Contact your distributor if anything is missing or is damaged.

- Actuator (one for ETA-SC-S and ETA-SC-M, two for ETA-SC-SD and ETA-SC-MD)
- Actuator bracket with actuator holder (one for ETA-SC-S and ETA-SC-M, two for ETA-SC-SD and ETA-SC-MD)
- Sensor (Class 1 laser)
- Sensor bracket
- Upper bracket extension (only for ETA-SC-MD-2 and ETA-SC-MD-3)
- Electronics unit, with cables
- Cable ties and cable tie mounts
- 24 V power cord with connector
- Rubber sealing ring
- Screws, nuts, washers and spacers
- Warning stickers

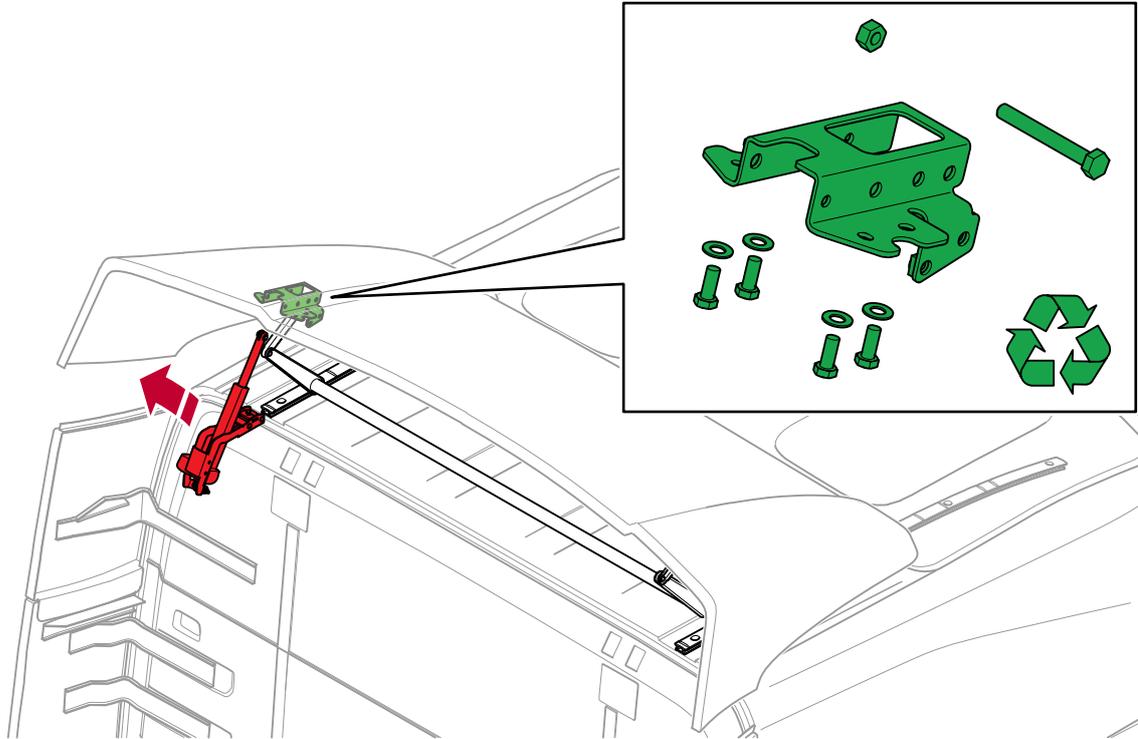
Required, not included in package

- Screws, nuts and washers, reuse from original Scania roof air deflector

Make sure that all packaging material is handled according to local laws and regulations.

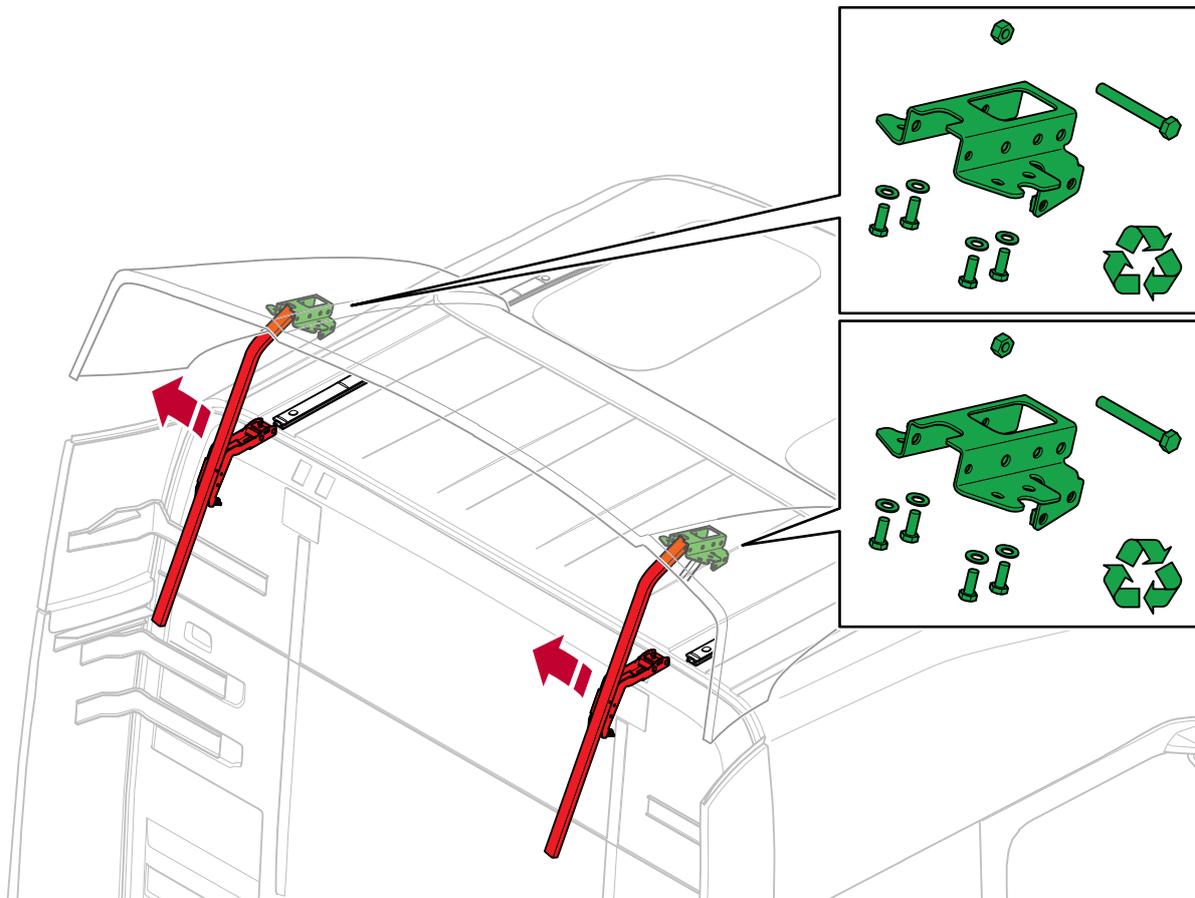
INSTALLATION

1a. Remove existing equipment (ETA-SC-S and ETA-SC-M)



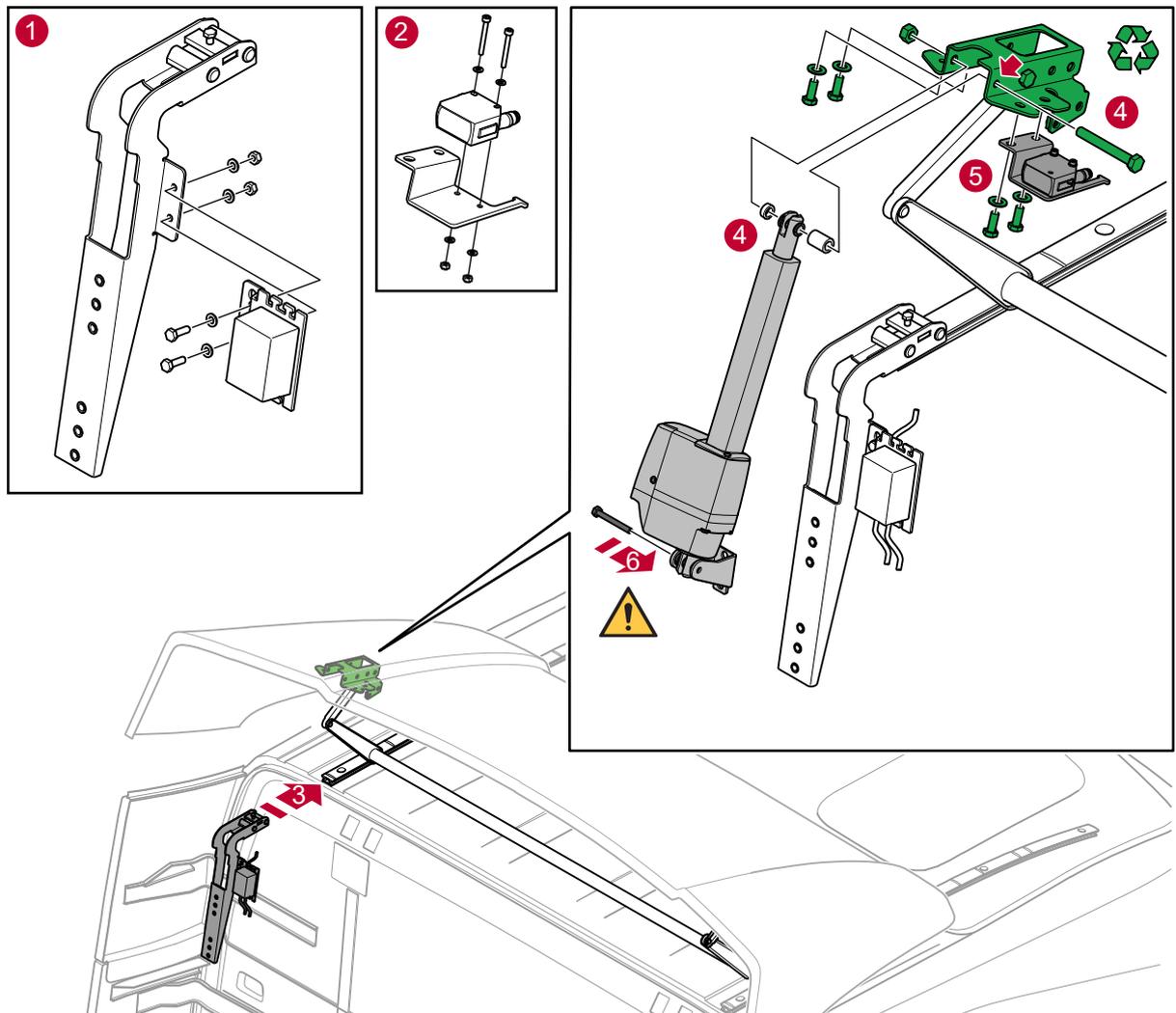
1. Remove the existing equipment. Note that the upper bracket, screws and washers will be reused, so keep them safe. Secure the roof air deflector in its up position while working.

1b. Remove existing equipment (ETA-SC-SD and ETA-SC-MD)



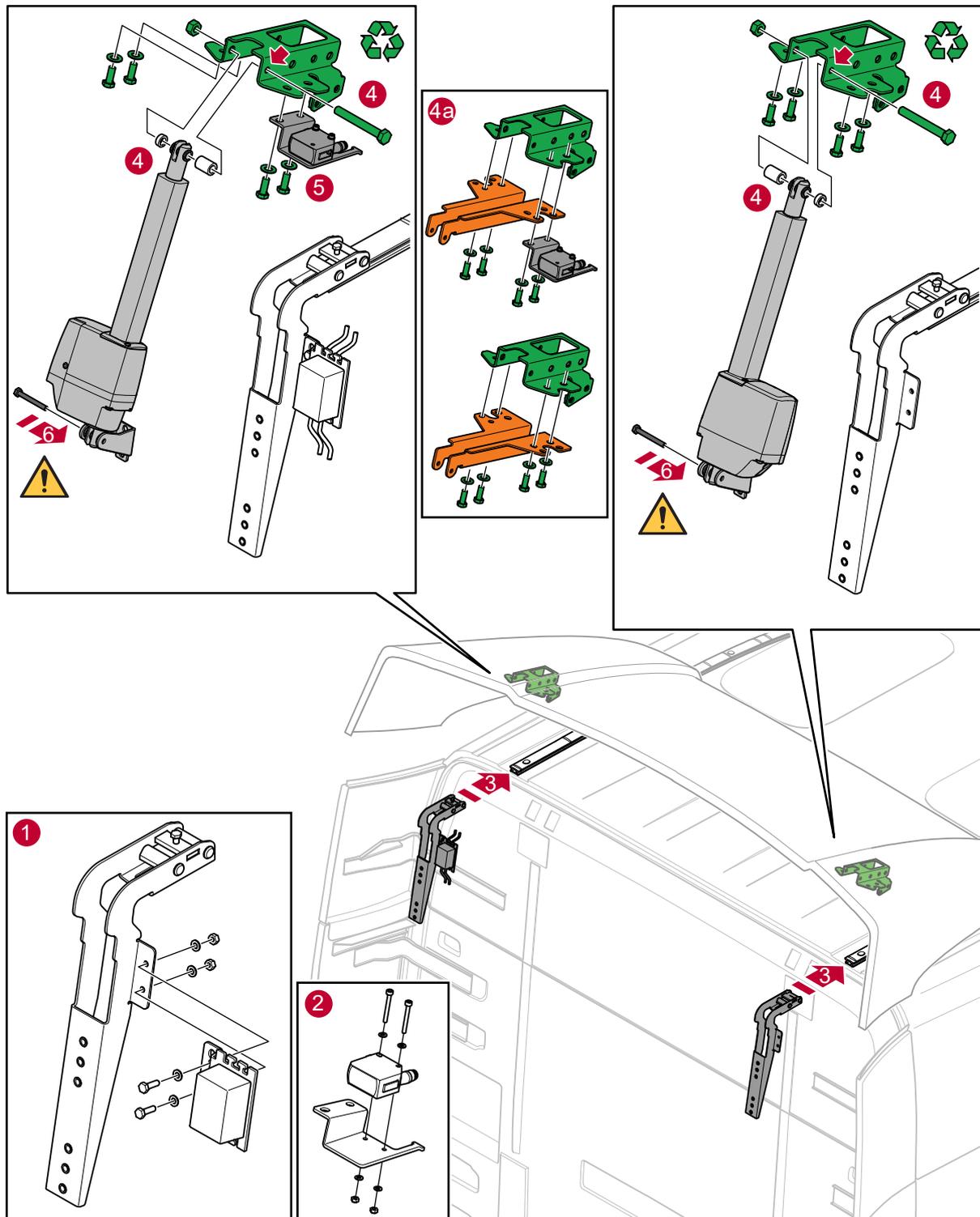
1. Remove the existing stays and the brackets mounted to the roof rails. Note that the upper brackets, screws and washers will be reused, so keep them safe. Secure the roof air deflector in its up position while working.

2a. Installation (ETA-SC-S and ETA-SC-M)



1. Attach the electronics unit on the actuator bracket.
2. Mount sensor on sensor bracket. Make sure that they are aligned with each other.
3. Slide the actuator bracket onto the rail on the cab roof, until it catches the rear groove in the rail. Fasten the bracket to the rail by tightening the screw on top of it. Use a tightening torque of **8 Nm**.
4. Attach the stay to the upper bracket, in the same hole as earlier (make sure to use the same hole as on the right side). Attach the upper part of the actuator to the upper bracket in the most rearward hole (see illustration). Use included extra spacers to fill any empty space on the mounting screw if necessary.
 - If the stay and crank/actuator used different holes in the original equipment, attach the new actuator with the original screw.
 - If the stay and crank/actuator used the same hole in the original equipment, use the included extra screw to attach the new actuator.
5. Attach the sensor bracket to the upper bracket and the upper bracket to the roof air deflector where it was placed before, using the reused screws.
6. Insert the lower part of the actuator in the actuator holder and insert the screw without tightening it with the nut.

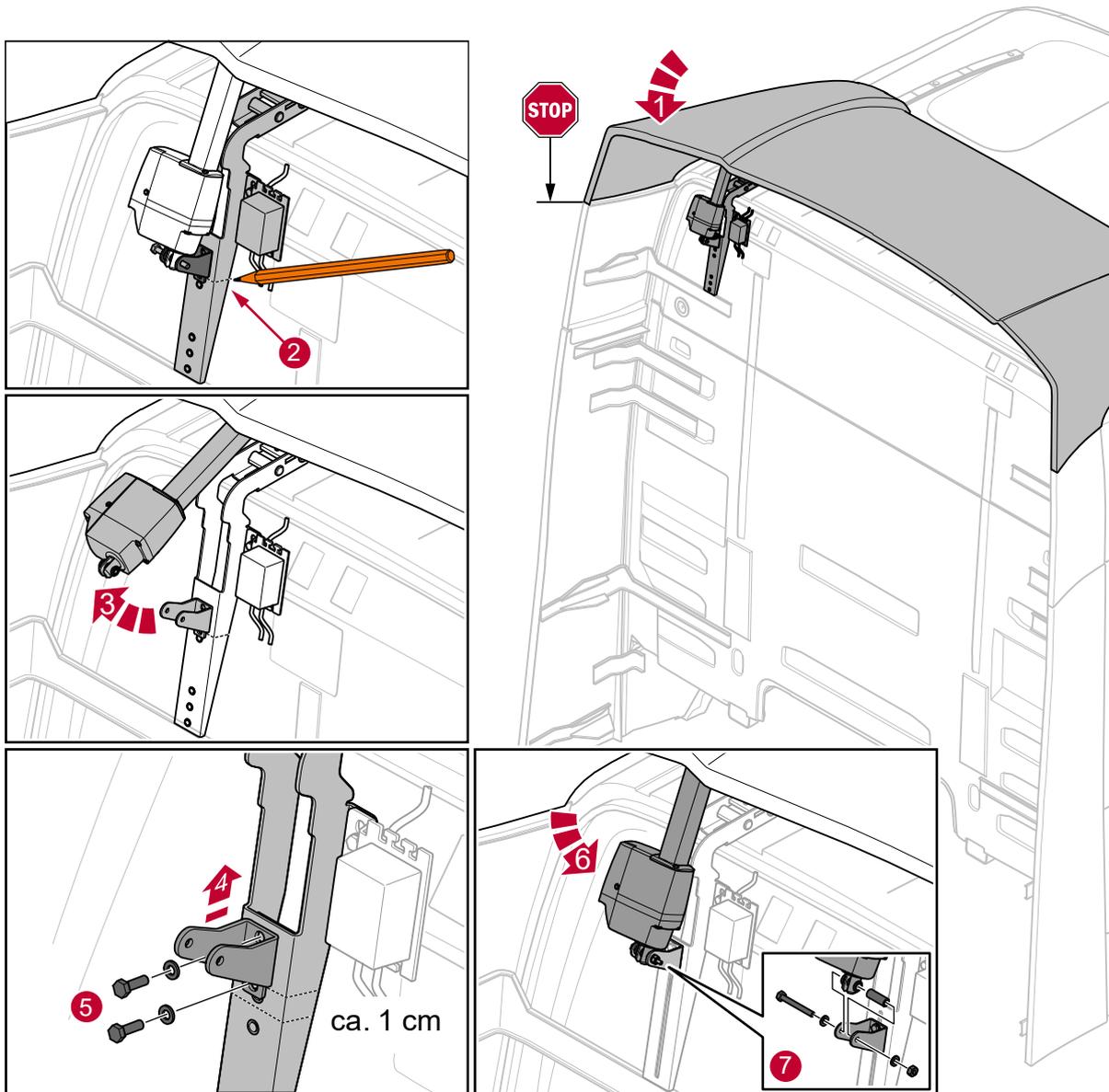
2b. Installation (ETA-SC-SD and ETA-SC-MD)



1. Attach the electronics unit on one of the actuator brackets.
2. Mount sensor on sensor bracket. Make sure that they are aligned with each other.
3. Slide the actuator brackets onto the rails on the cab roof, until they catch the rear groove in the rail. Place the bracket with the electronics unit on the left side. Fasten the brackets to the rails by tightening the screw on top of each one. Use a tightening torque of **8 Nm**.

4. Attach the upper part of the actuators to the upper brackets. Note that the right and left actuators are placed in opposite directions, see illustration. Use the included extra spacers to fill any empty space on the mounting screw if necessary.
 - a. If there are extensions to the upper brackets, attach these to the brackets first, using the existing screws that hold the upper brackets. Note that different holes are used for the left and right side, see illustration.
5. Attach the sensor bracket to the left upper bracket and attach the upper brackets to the roof air deflector where they were placed before, using the reused screws.
6. Insert the lower parts of the actuators in the actuator holders and insert the screws without tightening them with the nuts.

3. Set the actuator height



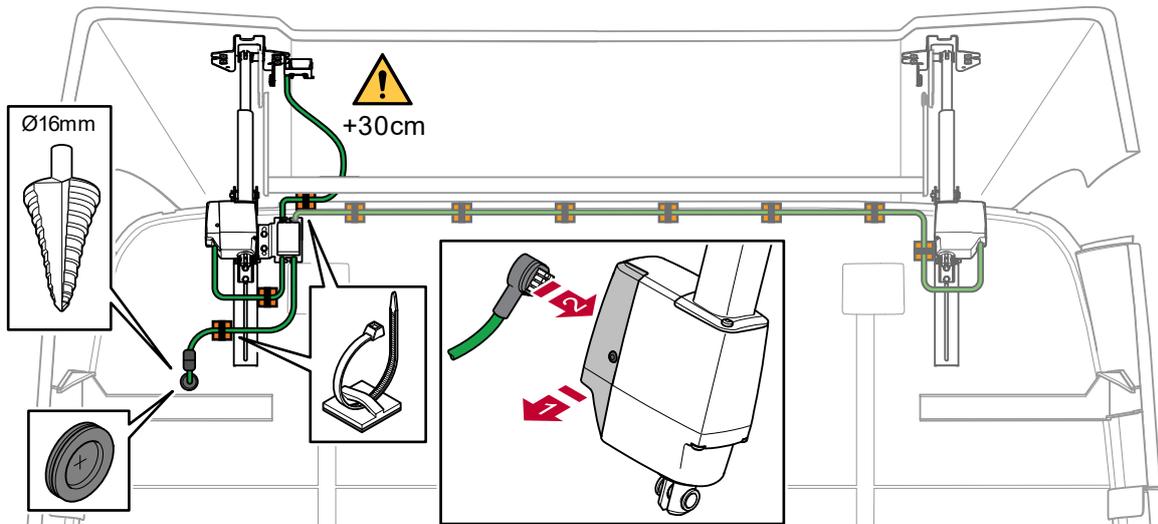
1. Lower the roof air deflector to its bottom position, so that it rests on the roof or the side air deflectors.
2. Mark the current position of the actuator holder when held against the bracket. For a dual-actuator system, do this and the following steps on both sides.
3. Remove the lower screw of the actuator and fold it out.
4. Raise the holder **ca 1 cm** compared to the mark in step 2.
5. Fasten the holder in this position with the screws using a suitable combination of holes. Use a tightening torque of **20 Nm**. For a dual-actuator system, make sure that the actuator holders are mounted in the same position on both sides.



Warning: Failure to use the prescribed tightening torque can lead to damage to the system components, or to unwanted movement of the actuator holder.

6. Fold the actuator back down and raise the roof air deflector so that the actuator fits into the holder.
7. Fasten the actuator to the holder with the screw and nut.

4. Attach the cables



1. Remove the screw and open the cover on each actuator.
2. Connect the cables from the electronics unit and close the covers.
3. Connect the cable from the electronics unit to the sensor. Ensure that it is long enough to reach when the roof air deflector is in the highest position (30 cm extra cable is required).
4. Drill a 16 mm hole in the cab wall for the power cable and insert the rubber ring (or use an existing hole).
5. Insert the long power cable into the cab wall hole and fasten it inside the cab where appropriate.
6. Fasten the cables with cable ties and cable tie mounts. It is recommended that the sensor cable is fastened on the roof as well as around the sensor cable connector. Note that the extra length of the sensor cable must be between the roof and connector cable ties.

5. Electric installation



Warning: Before starting the electrical installation, read the manuals for the truck to find vehicle-specific information and safety instructions!

1. Switch off the main current before starting work on the electrical system.
2. Connect the power cable to the body builder electrical centre in the vehicle. The power cable consists of two wires: white (GROUND) and brown (+24 VDC, 10A, 15 voltage).

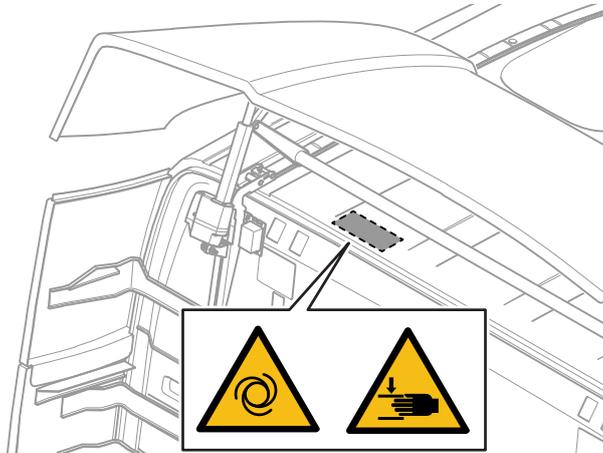


Warning: The connection must be made to 15 voltage, **not** to 30 voltage.

3. Connect the long power cable to the short power cable from the electronics unit.

6. Attach warning stickers

Two warning stickers are included, to warn for pinch point and automatic machinery that may start without warning.



1. Attach the warning stickers so that they are clearly visible on the roof of the truck cab.

7. Test the system

1. Make sure that the entire area around the roof air deflector is clear from people and objects.
2. Turn on the truck's ignition.
3. Wait 3 minutes while the system configures itself before first use.
4. Hold up a flat piece of cardboard, or similar, in front of the laser, at a distance of 50-100 cm from the sensor.
5. Within two minutes, the actuator should start extending, thereby raising the roof air deflector. Double-check that the attached sensor cable does not get stuck anywhere while the deflector is extending.
6. Make sure that the piece of cardboard is tall enough to enable the roof air deflector to extend all the way to its highest position. Alternatively, follow the laser dot with the cardboard upwards.
7. At the highest position, double-check that there is enough slack in the sensor cable attachment to avoid it being damaged or dislodged.
8. After the roof air deflector has reached its highest position, it may retract a few centimetres. It will then stay there until the piece of cardboard is removed, after which it should retract again to its lowest position (unless the laser dot hits something else just behind the cardboard piece).
9. Test complete! Remove the cardboard and the roof air deflector should retract to its lowest position after a short period of time.

Good to know

The equipment is powered when the truck's ignition is turned on. The buttons on the sensor are not in use.

To dismantle the Ecosense Trailer Assist equipment, start by making sure the truck's main current is off. Then follow all the installation steps in reverse. If the equipment is to be discarded, make sure to recycle the components according to local laws and regulations.

TROUBLESHOOTING



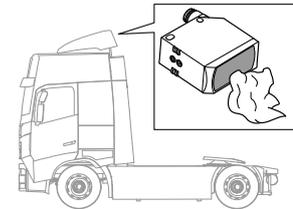
Warning: Do not approach the sensor when the equipment is on!

Note that it may take up to two minutes for the deflector to adjust after it has detected a load carrier.

If the air deflector does not adjust to the load carrier height, the following are the most probable potential causes:

There is dirt on the sensor

1. Turn off the truck's ignition.
2. Clean the sensor with a cloth and mild detergent.



The overload protection has been activated

1. Turn off the truck's ignition.
2. Check that the roof air deflector or its mechanics are not jammed.

If this does not help

- Check that all cables are connected and not damaged.
- Check the fuses.

READ MORE

This manual and more information can be found online: support.ecosense.info

The printed manual is to remain with the truck, even in the event of new ownership.