B&S

- Auto-aanpassing
- Revalidatietechniek
- Mobiliteits- en hulpmiddelen

Onbeperkt in beweging

David 2

Mounting manual

Revised: 29-03-2005

Contents:

1. Preparations.

Below you find the preparations that need to be made before installation of the David 2 can take place.

- Remove the negative pole from the battery.
- Connect the red 2,5 mm^2 wire to the positive pole of the battery (+30).
- Place the floating fuse holder at ±20 cm from the battery or in the original fuse box
- Feed the wire through the bulkhead. For this purpose it is best to use an original lead-through plug.
- Bundle the wires with binding strips and also protect the single wire. Ensure that the wire does not hang taut and that the wire runs up towards the rubber cap. This in order prevent leakage.
  Then drops of water are not guided inside along the wire.
- Pull the red wire (+30) through to the rear, where the boot elevator is fitted.
- Make a mass connection with the black wire on the rear of the elevator **(do not use parkers).**
- Place the 15 A fuse in the holder.

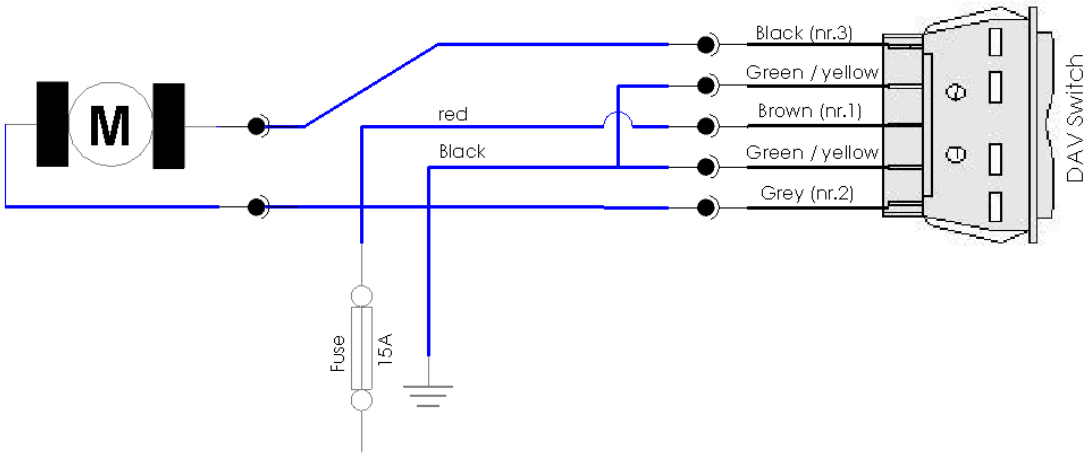
2. Installation of the David 2.

Below you will find a step-by-step scheme in chronological order that explains how the boot elevator should be installed.

1. Place the elevator on the right in the back of the car.
2. Check to see if there is sufficient space behind the elevator, as the elevator needs enough space when it is folded down in the corner of the boot.
3. If necessary, determine the height of the elevator. Make sure that in case the elevator is shortened, **no burrs** remain behind on the sawed edge. (see item 6, page 8)
4. In case the elevator arm is shortened, check the length of the hoisting cord. Ensure that 3 “adhesion” windings of the cord remain around the spindle in the lowest position at all times. This makes the risk that the cord is not properly wound up very small.
5. Check to see if there is enough space to unlock the elevator.
6. When you have found the right position, then determine where the fastening holes should be made.

Please note that there are no obstacles under the base construction, for instance supports, and that there are no wires there.
Also check that the bottom plate is flat.

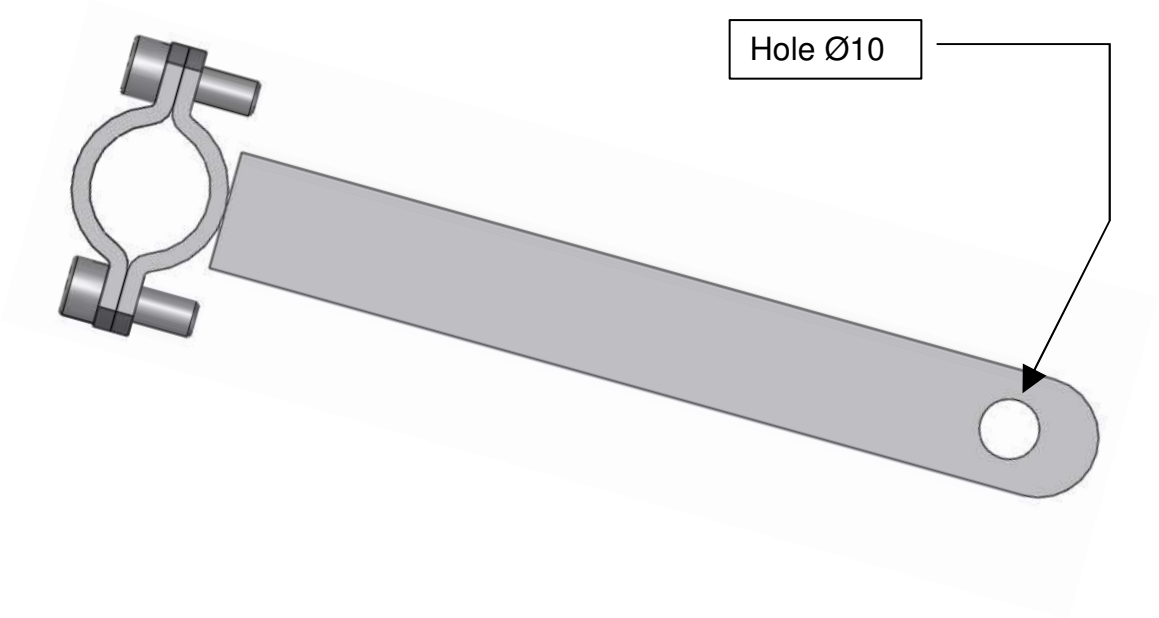
7. For strength reasons please install 40x8 strips under the bottom.
8. Mount the David with M8 bolts.
9. Check the stability of the construction.
10. Follow the electrical circuit diagram below for connection of the controls.



11. When connecting the diagram, make a good earth connection.
    Do not use **self-tapping screws (“parkers”)!**
12. Put the clip onto the wheelchair in such a way that the wheelchair can be folded up. The wheelchair must remain hanging horizontally. Saw the clip to size and drill a hole at the end of ±10 mm.

3. Mounting of the wheelchair bracket

Mount the bracket on the wheelchair in such a manner that the wheelchair can be folded. The wheelchair (folded) must remain hanging in a horizontal position.
Cut the strip of the bracket to size in such a way that the hook of the elevator can be placed in the Ø10 hole when the wheelchair is folded.
Drill a hole of approximately 10 mm. at the end of the strip.



If the wheelchair cannot be folded, this wheelchair bracket cannot be used and a different hoisting point must be made.

4. Replacing the hoisting cord.

When the hoisting cord shows visible signs of wear, it should be replaced. To replace the hoisting cord please take the following steps (see also Figure 3).

1. Remove the hoisting hook (1) from the hoisting cord (2).

2. Remove the running wheel holder (3) by removing the sheet metal screw (4).

3. Remove the motor (5) by removing the screws (6).

4. Slide the drum wheel (7) off the motor shaft and loosen the knot of the hoisting cord (2).

5. Remove the old hoisting cord and place the new hoisting cord in the elevator neck. (Hoisting cord Ø 3mm, length 2.7mtr. Art.no.451510002).

6. Fix the hoisting cord to the drum wheel (7) in the same manner in which it was fitted, check to see if the support bearing is properly positioned in the drum wheel and slide it back onto the motor shaft
(knot of the hoisting cord should be on the side of the motor)

7. Fit the motor (5) back onto the elevator using the screws (6).

8. Feed the cord through the running wheel holder (3) and fasten it to the hoisting neck with the sheet metal screw (4).

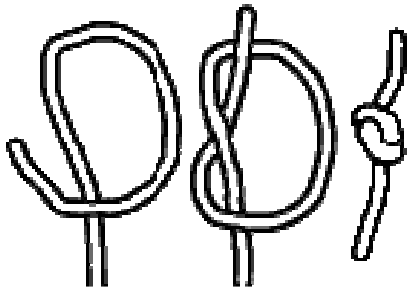
9. Fasten the hoisting hook to the hoisting cord and check to see whether everything is functioning properly. Ensure that the motor turns **<u>to the left</u>** (right-sided version), so that the hoisting cord is wound up on the rear side of the drum wheel.

This knot is used to fasten the hook (1) to the cord (2).

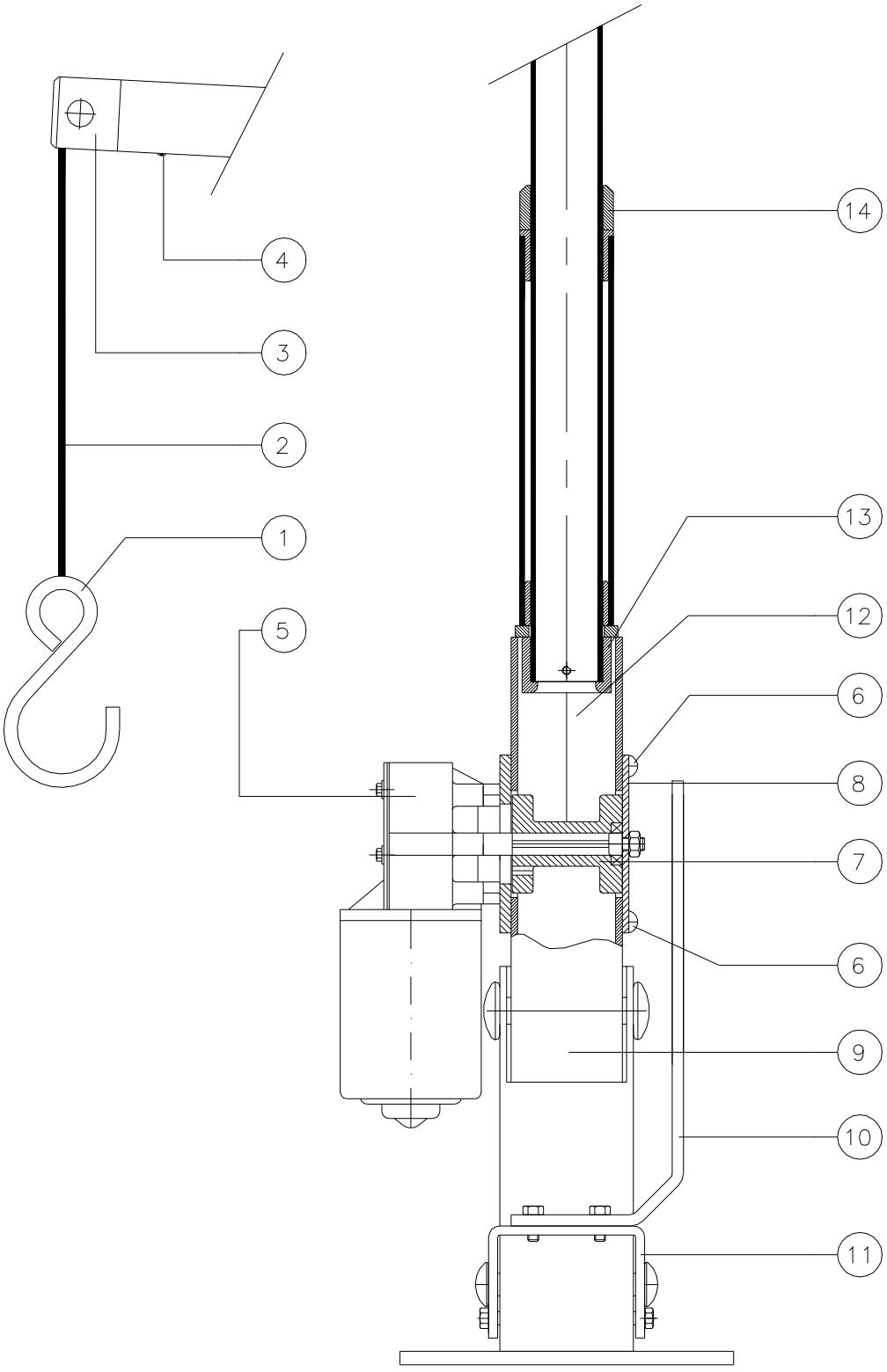
Figure 1

This knot is used to fasten the cord (2) to the reel (7).

Figure 2



Figuur 3



5. Conversion to a lefthanded version

The "David 2" boot elevator can be converted to a left-sided version in a simple manner. In order to convert the elevator do the following. (Also see figure 1.)

1. Remove the motor (5) and the counter fastening plate (8) by removing the screws (6).

2. Slide the drum wheel (7) off the motor shaft and turn it 180 degrees. Put it through the hole in the tilting unit (9) to the other side of the elevator.

3. Switch the motor (5) and the counter fastening plate (8) around and slide the drum wheel back on the motor shaft (knot hoisting cord on the side of the motor), check to see if the support bearing is properly placed in the drum wheel (7) and fit it all back on the elevator with the screws (6).

4. Let the motor run and check to see that it is functioning properly.
   Make sure that the motor turns **right** during hoisting which results in the hoisting cord being wound up on the rear side of the drum wheel.

5. Remove the operating lever (10) and fit it counter to the original position of the locking lever (11).

6. Shortening the elevator neck

There is a simple way to shorten the elevator neck of the “David 2”.
For shortening the elevator neck, do the following: (also see figure 3.)

1. Remove the hook (1) and running wheel holder (3) by removing the sheet metal screw (4).
2. Remove the lowest adjusting ring (13).
3. Slide the elevator neck out of the elevator and shorten it to the desired length. **Make sure that the shortened end is free of burrs in order to prevent wear and tear of the hoisting cord!**
4. Move the upper adjusting ring (14) to a distance of 203 mms from the underside of the elevator neck.
5. Place the hoisting cord (2) in the elevator neck and feed it through the running wheel holder (3), re-attach it to the neck by means of the sheet metal screw (4) and fasten the hook to the cord by means of a knot (1),
6. Place the elevator neck in the elevator and fit the lowest adjusting ring (13), check to see whether the elevator neck can turn properly.
7. Check to see that the elevator is functioning properly.
   Please note ! that during hoisting the motor **turns to the right in the left-sided version** or **to the left in the right-sided version,** which winds up the hoisting cord on the rear side of the running wheel.

7. Removing the David

Disassemble the elevator.
Interrupt the electricity supply to the elevator.
(If necessary remove all wiring to the elevator)
The fixing holes in the bodywork can be sealed by clamping one ring on the inside and one on the bottom side of the body using a bolt and nut.

Protect the fastening on the bottom side against corrosion!

8. Mounting manual kit David hoist

- Fit the liftarm (5) into the base of the hoist (6)
- Mount the retaining ring (4) and tighten the screws in the ring.
- Lead the end of the cord through the base towards the opening in the casing were the motor will be fit. In case of a foldable hoist, the motor will be fit on the opposite side of the release lever. (This is standard when the lift is fitted on the right side of the car. When fitted on the left side, see mounting manual David hoist page 8)
- Fit motor (3) with 3 x M6 hex bolts (2) on the motor plate (1). Flat sides are top / bottom.
- First lead the end of the cord through the small hole in the drum wheel (7) and than through the hole in the driving drum (8)
- Push the driving drum (8) into the drum wheel (7)
- Make a knot in the cord according to the drawing in mounting manual page 6
- Now push the complete drum wheel on the motor-shaft. Be sure that the spline will be guided in the keyway
- Fit the M6 cylinder head hex bolt with lock-nut (9) in the central hole of the counter plate (10)
- Fit the motor/motorplate at the correct side of the base/casing (6) together with the counter plate on the opposite side and tighten them together with the 4x M6x60 screws (11). Check to see if the support bearing is properly positioned in the drum wheel.
- Be sure that the cord will not get stucked
- Be sure the cord will always winds to the backside of the drum wheel when the hoist is lifting.
- Be sure that all the bolt connections are secured