

SERVICE MANUAL

# PUMA YeS



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## This manual

This manual contains the basic instructions for repairs and general maintenance of the electric wheelchair. Mechanics that do repairs on this wheelchair must be well trained and familiar with the repair methods and the maintenance of the electric wheelchair.

Always make sure that the work is carried out safely, particularly with respect to procedures requiring the wheelchair to be lifted up.

We advise that you contact our service department before doing repair work on a wheelchair that has been involved in an accident.

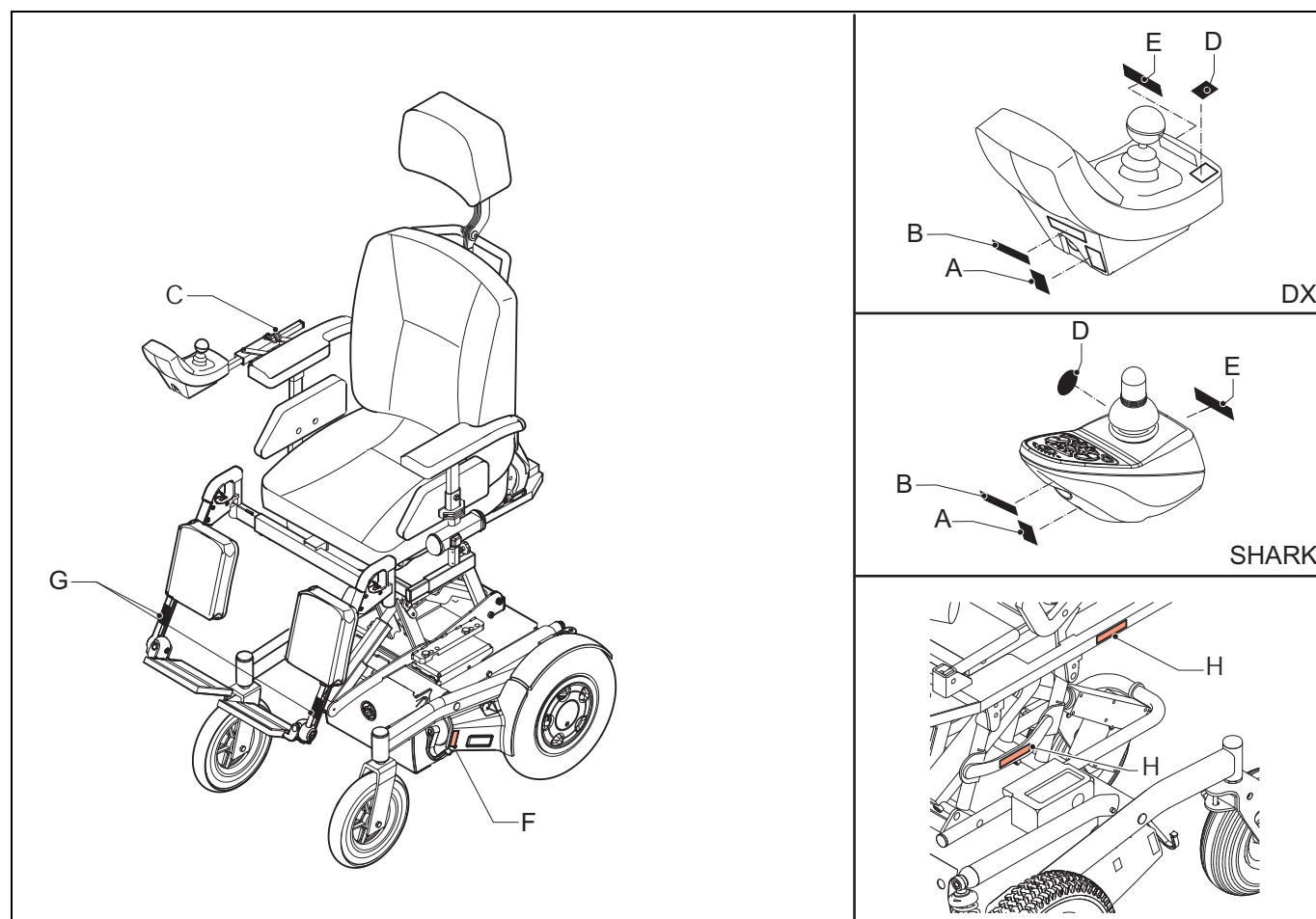
The following information is important when ordering parts:

- Model
- Year of manufacture
- Colour
- Identification number
- Part number
- Name of the part concerned

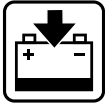
This information is provided on the identification plate. See 'Identification of the product'.

## Indications and pictograms

The standard version of the electric wheelchair has the following indications (decals, labels, stickers):



- A. Battery charging connection.
- B. Program.
- C. Danger of crushing!
- D. Speed sticker.
- E. Reference to the user manual.
- F. Neutral left and right.
- G. Tilt warning
- H. Danger of getting fingers jammed.



**Y.e.S - (FW)**  
PROGRAMMED

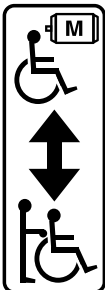
**Y.e.S - (RW)**  
PROGRAMMED



MAX.  
**10**  
KM/U

MAX.  
**6**  
KM/U

RAADPLEEG VÓÓR GEBRUIK  
DE HANDLEIDING OF  
CONTACT UW DEALER



#### A **Battery charging connection**

To charge the batteries, see 'Charging'.

#### B **Program**

This program depends on the version of the wheelchair (front-wheel drive or rear-wheel drive). The sticker indicates the program.

#### C **Danger of crushing!**

Use caution when swinging the controller aside to avoid getting anything crushed.

#### D **Speed sticker**

The maximum speed is programmed. This depends on the version of the wheelchair (front-wheel drive or rear-wheel drive).

#### E **Reference to the user manual**

The wheelchair should only be used after the user manual has been studied carefully.

Never use the wheelchair before having read and understood the contents of the manual.

#### F **Neutral**

1. Lever in the lowest position:

The drive of the relevant motor is disconnected: the wheelchair can be pushed.

If your wheelchair is equipped with two freewheel handles, both must be operated.

2. Lever in the highest position:

The drive of the relevant motor has been switched on: The wheelchair can be electrically driven.

#### G **Tilt warning**

To prevent the wheelchair from tilting forward, never stand on the foot rest.

#### H **Danger of getting fingers jammed**

Keep hands and fingers away from moving parts when adjusting the height and/or tilting angle of the wheelchair.

The following pictograms are used in this manual:



### CAUTION/WARNING

Procedures that - if not executed properly - can result in damage to the product, the environment, or human injury.

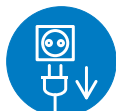


### ATTENTION!

Suggestions and advice that help tasks or procedures involved to be carried out more easily.



Consult the specified information source(s) first.



Pull the charge cord out of the battery charging connection of the electric wheelchair before carrying out any maintenance on the wheelchair.

### Available documentation

The following technical documentation is available / required to service this wheelchair:

- User manual
- Service manual.
- Conversion manual.

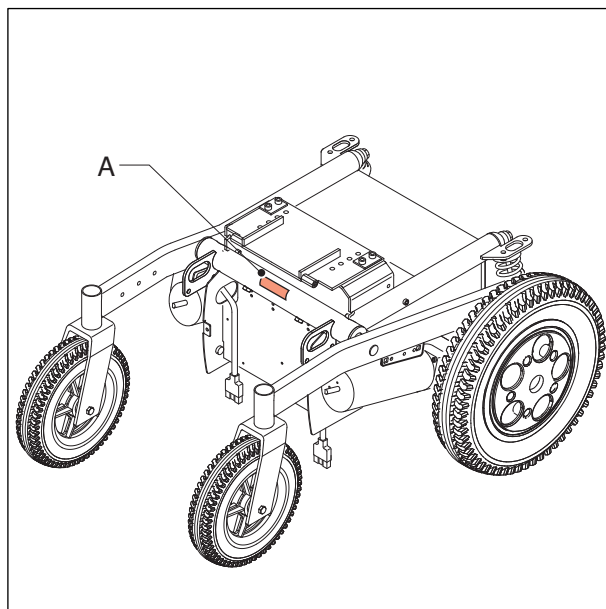
### Service and technical support

For information concerning specific settings, maintenance or repair work, or conversion procedures, or in case of doubt, please contact the manufacturer's service department.

Ensure you have at hand:

- Model
- Year of manufacture
- Identification number

This information is provided on the identification plate. See 'Identification of the product'.



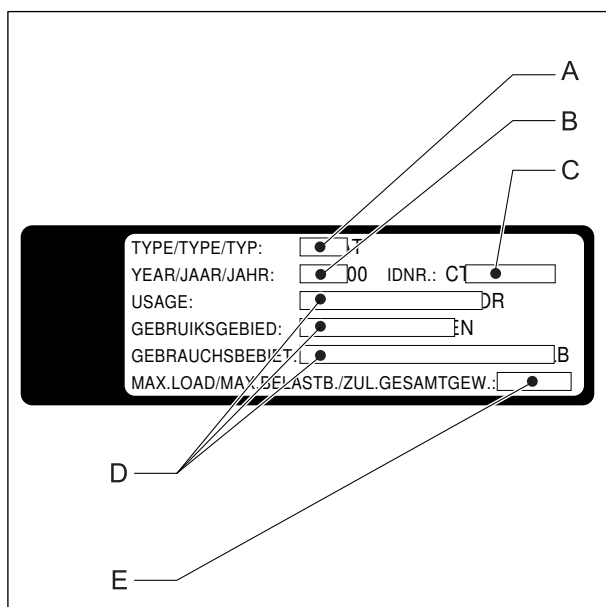
### Identification plate

On this plate, information about the product is provided, see: 'Identification of the product'.

### Identification of the product

- A. Model
- B. Year of manufacture
- C. Identification number
- D. User area indoors or outdoors
- E. Maximum load in kg

To locate the identification plate, see 'Identification plate'.



## Warranty

Definitions of terms used in this warranty:

- Consumable part: Part that is subjected to natural wear and tear or natural contamination during normal operation within the lifetime of the product (section 9 of Handicare's general terms and conditions of sale);
- Client: Those who purchase the product directly from Handicare;
- Corrective action: Repair, replace or refund of the product;
- Dealer: Those who re-sell the product to the User;
- Defect: Any circumstance due to which the product is not sound or fit to use, caused by a lack of quality of the material used to manufacture the product as well as the quality of the manufacturing process;
- Option: An accessory delivered by Handicare to extend the standard product model;
- Product: Product that is delivered according to brochure or contract (e.g. wheelchair, scooter, battery-charger etc.);
- Part: Part of product that can be exchanged or replaced. This can be an option, accessory, service part or consumable part;
- Returns: Product or part that needs to be returned;
- RMA-process: Process to return goods, contact Handicare's Customer Service;
- Service part: Part that is durable and may be subjected to natural wear and tear or natural contamination during normal operation within the lifetime of the product.;
- User: Those who use the product;
- Warranty: The rights and obligations set forth in this document;
- Warranty period: The period of time during which the warranty is valid;
- Warranty provider: Handicare B.V., Vossenbeemd 104, 5705 CL Helmond, The Netherlands.

Notwithstanding the rights and obligations of Handicare, Client and User set forth in Handicare's general terms and conditions of sale, the rights of the Client and/or User towards Handicare in case of defects are limited to the provisions set forth in this warranty. For the duration of the warranty period Handicare guarantees that the product is without defects.

In case of any defects the User is required –within two weeks after discovery of the defect- to contact the dealer. He has to complete a return form and return the product or part via the RMA-process. Handicare will, at its sole discretion, take the corrective action it seems fit under the given circumstances within a reasonable period of time (depends on nature of claim) from receipt of the completed return form. The warranty period will not be extended after a corrective action.

## Warranty period table

### Power wheelchairs / scooters

Description	Warranty period	Examples include, but are not limited to the parts mentioned below
Frame	2 years	Weldment/frame
Drive system	1 year	Transaxle, motor, motor brake
Electronics	1 year	Controller, controlling mechanism, wiring harness, electronic components
Service Parts	New: 1 year after invoice Repaired: 90 days after invoice	Brakes
Consumable parts	40 days after invoice	Wheels, push handles etc.
Options/Accessories	2 years	Mirror, mudguards etc. Not being service part or consumable part.

Handicare will only accept shipment costs and corrective costs related to warranty on equipment during the warranty period.



This warranty will void in case of:

- The product and/or its parts being modified or items having been added by others than Handicare;
- Changes in cosmetic appearance by use;
- Failure to observe the instructions for use and maintenance, use other than normal use, wear and tear, negligence, collateral damage by neglect of earlier symptoms, overloading, third-party accidents, non-original parts used and defects not caused by the product;
- Circumstances beyond our control (flood, fire, etc.).

This warranty does not cover:

- Tyres and inner tubes
- Batteries (covered by the battery manufacturer's warranty).

Clients and/or Users have legal (statutory) rights under applicable national laws relating to the sale of consumer products. This warranty does not affect statutory rights you may have nor those rights that cannot be excluded or limited, nor rights against the entity from whom the product was purchased. Clients may assert any rights they have at their sole discretion..

### Wheelchairs and the environment



*If your wheelchair has become superfluous or needs to be replaced, it can usually be taken back by your dealer. If this is not possible, please contact your local authorities for the possibilities of recycling or an environmentally-friendly way of disposing of the used materials.*

*Various plastics and metals have been used for the production of the wheelchair. The wheelchair also contains electronic components that must go to electronic waste. Used batteries belong to chemical waste.*

## 1 General safety regulations and instructions

**Handicare®** accepts no liability whatsoever for damage or injury caused by the failure to (strictly) adhere to the safety guidelines and instructions or due to carelessness during the use and cleaning of the wheelchair and possible accessories. Depending on the specific operating circumstances or the accessories used, additional safety instructions may be required. Please contact your dealer immediately if you observe any potential danger during the use of the product.



*The user of the wheelchair (see under 'use according to purpose') is fully responsible at all times for the fulfillment of the locally applicable safety regulations and guidelines.*

### 1.1 **Indications and instructions on the wheelchair**

The indications, symbols and instructions applied on this wheelchair are part of its safety facilities. They must never be covered or removed and must remain present and clearly legible throughout the entire lifespan of the wheelchair. Immediately replace or repair illegible or damaged labels, symbols and instructions. Contact your dealer with regard to this.

### 1.2 **Technical specifications**

The technical specifications must not be altered.

### 1.3 **Modifications**

Modifications to (parts of) this product are not permitted.

### 1.4 **Safety**

To avoid accidents and undesirable situations, it is of great importance to pay attention to the following safety instructions.



- *Pay extra attention to driving on slopes:*
  - *Never drive a front wheel driven wheelchair on a slope with an angle of more than 10° (ascending percentage of 17,5%) and a rear wheel driven chair no more than 6° (ascending percentage of 10,5%)*
  - *On slopes always drive slowly and with great awareness.*
  - *The wheelchair is less stable on a slope and has less sideways stability.*
- *Never take a turn at full speed. Decrease speed when taking a turn.*



- *Be sure that no items of clothing hang loose. These could become caught between the wheels.*



- *Adjust your driving according to the circumstances:*
  - *Drive carefully on roads that are slippery as a result of rain, ice, or snow!*
  - *Prevent the wheelchair from coming into contact with sea water. sea water is corrosive and damages the wheelchair.*
  - *Prevent the wheelchair from coming into contact with sand. Sand can affect the moving parts of the wheelchair, resulting in unnecessarily rapid wear.*
- *Never operate the wheelchair while you are under the influence of drugs, alcohol or any medication that could affect your driving ability.*
- *You must have sufficient visual faculty to be able to drive safely in the wheelchair.*
- *It is imperative to turn on the lights in situations with reduced visibility.*



- *The magnetic key with which the wheel chair is switched on and off may affect the magnetic strips of credit cards and bank cards, etc.*  
*Do not store the magnetic key with credit cards and similar cards.*
- *To prevent unintentional movement, make sure that the joystick does not inadvertently touch other surfaces.*



- *The standard version of your wheelchair was tested according to the strictest EMC requirements. Mobile telephones do not affect the wheelchair's driving behaviour. When using a mobile telephone in the vicinity of a wheelchair with special adaptations, you are advised to first switch off the wheelchair.*
- *Your wheelchair may affect electromagnetic fields such as alarm systems.*

## 2 Tools

### 2.1 Tools

The tools below are needed for various mechanical settings and maintenance:

Quantity	Description	Size (mm)	Application
1	Screwdriver		Installing or removing a variety of plastic cover caps. Installing or removing the carbon brushes.
1	Crosshead screwdriver	PH2	Adjusting the position of the seat cushion. Adjusting the height of the side panel. Installing or removing the 'DX'/'Shark' controller.
1	Open-ended spanner	10	Installing or removing the side-frame locking bolt.
1	Open-ended spanner	13	Adjusting the seat angle. Adjusting the seat depth. Adjusting the height of the chair. Adjusting the angle of the calf pad.
2	Open-ended spanner	13	Installing or removing the wheel from or into the swivel-wheel fork. Installing or removing the drive unit.
1	Open-ended spanner	17	Installing or removing the shock breaker.
1	Ring spanner	10	Adjusting the depth of the head rest.
1	Ring spanner	13	Adjusting the depth of the leg rests.
1	Box spanner	17	Installing or removing the fork on or from the ball head. Installing or removing the driven wheel.
1	Allen key	3	Adjusting the height of controller.
1	Allen key	4	Adjusting the width of the leg rests. Adjusting the length of the leg rests. Adjusting the seat width. Adjusting the height of the arm rests. Adjusting the depth of the controller. Adjusting the height of the calf pad. Installing or removing the protective cover of the power module. Installing or removing the power module. Installing or removing the side covers.
1	Allen key	5	Adjusting the angle of the back rest. Adjusting the length of the single leg rest. Removing the wheel halves of the swivel wheel.
1	Allen key	6	Adjusting the angle of the foot plate. Removing the rim half of the driven wheel.

Remarks: Size: the EU key width (of the relevant tool).



*Use only high-quality tools for the adjustment(s) described.  
Make sure that the hexagon of the spanner is attached securely to the hexagon of the fastening article. This prevents the 'rotation' of hexagons of fastening articles and spanners that may affect proper adjustment.*

The following tools are needed for various electronic settings:

Quantity	Description	Function
1	HHP programming unit	Adaptation of the drive programs and technical settings
1	DX Wizard (OEM)	<ul style="list-style-type: none"> <li>Adaptation of the drive programs and technical settings.</li> <li>Reading out the fault history.</li> </ul>

### 3 Maintenance, replacement and repair

#### 3.1 Maintenance table

Below, we have indicated what needs to be checked, how often this should be done, and by whom.

Time	Description	To be carried out by	
		User	Dealer
Daily	<ul style="list-style-type: none"> <li>Charging the batteries, after each use.</li> </ul>	X	-
Weekly	<ul style="list-style-type: none"> <li>Checking the tyre pressures.</li> </ul>	X	-
Monthly	<ul style="list-style-type: none"> <li>Cleaning the wheelchair.</li> </ul>	X	-
	<ul style="list-style-type: none"> <li>Cleaning the upholstery (if necessary).</li> </ul>	X	-
Annually	<ul style="list-style-type: none"> <li>Inspection of the electrical system.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Checking the batteries.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Inspection of the drive.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Inspection of the mechanical parts.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Inspection of the bearings.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Inspection of the suspension.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Checking the tyres.</li> </ul>	-	X
	<ul style="list-style-type: none"> <li>Checking all fastenings and bolts: tighten if necessary.</li> </ul>	-	X

#### 3.2 Batteries



For maintenance, see the following documentation:

- Regulations concerning the batteries.
- User manual of the battery charger.

The wheelchair has 'dry' gel batteries. These dry batteries (dry-fit) are entirely sealed and maintenance free. The connection diagram for the batteries is provided on a sticker inside the battery tray.



- Make sure that the batteries are always well charged.
- Do not use the wheelchair if the batteries are almost flat. This may damage the batteries and you run the risk of an unintended standstill.
- The use of 'wet' batteries is not permitted. If the batteries need to be replaced, use only dry batteries.

##### 3.2.1 Replacing the batteries

If the capacity of the batteries is reduced to the extent that the wheelchair can only make very short trips or even none at all, the batteries have reached the end of their lifespan. Replace them as soon as possible.



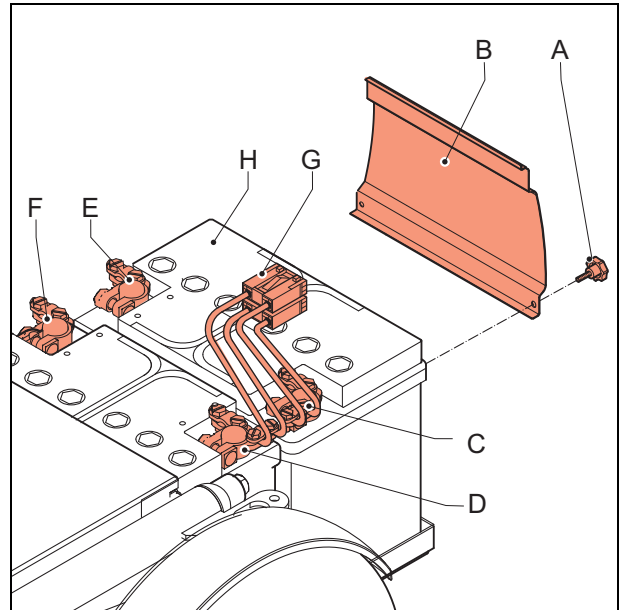
- Contact your dealer, who will advise you what type of batteries is most suitable for the wheelchair.
- Avoid damage to the batteries when replacing them: this may cause the batteries to start leaking.

Depending on the model of the wheelchair, it may be necessary to first remove or move the leg rests. You will now have access to the battery tray.

Replace the batteries as follows:

- Switch the wheelchair off.
- Loosen the star knobs (A).
- Remove the front cover (B) from the battery tray.
- Loosen the bolt from the negative (-) terminal (F) and remove the battery clamp from the battery terminal.
- Loosen the bolt from the positive (+) terminal (E) and remove the battery clamp from the battery terminal.
- Loosen the bolts from the battery clamps (D and C) from the power cable (G) and remove the cable.
- Remove the batteries (H) from the battery tray.

Place the new batteries in the reverse order.



*As soon as the new batteries are placed and the battery tray is closed, the batteries have to be charged.*

### 3.2.2 Cleaning the batteries

Dry batteries are maintenance free. Still, you have to pay attention to the following matters:

- Keeping the batteries clean and dry: dirt and water may cause a leak, causing the capacity of the batteries to decrease.
- Cleaning the terminals: after cleaning, grease them with acid-free Vaseline.



*Never completely deplete the batteries! This can seriously damage the batteries and considerably decrease their life span.*

### 3.3 Driven wheels

To ensure proper operation of the wheelchair, it is very important that the tyres are kept at the correct pressure.

Soft tyres yield less than optimum driving for the wheelchair. It also takes more energy to move the wheelchair forward, putting a heavier load on the batteries. Moreover, when driving on soft tyres, tyre wear is unnecessarily great.

See 'technical specifications' for the correct tire pressure.



*When pumping the tires up, note that the pressure may never exceed the maximum specified value provided in the 'technical specifications' table, or as indicated on the side of the tire. When in doubt, contact your dealer/supplier.*

See the 'maintenance table' for the inspection of the tyres.

#### 3.3.1 Tire repair on driven wheels

When repairing or replacing an inner tube on a driven wheel, the neutral should not be switched off, so that the wheel does not turn.

Repair a flat tyre as follows:

- Support the wheelchair so that the wheel is off the ground.
- Pull out the valve to completely deflate the tyre.
- Unscrew the central wheel bolt with box spanner 17 and remove the wheel.
- Loosen the Allen bolts using an Allen key with a width of 6 mm. Remove the front of the rim half.
- Remove the inner tube and the tyre from the rim.
- Remove the inner tube from the tyre, for repair or replacement.
- Repair the inner tube or replace it.



Refit the tyre (with repaired or new inner tube) as follows:

- Place the inner tube in the tyre.
- Pump the inner tube up a little.
- Slide both tube and tyre onto the rim.  
The valve should fall into the notch in the rim.
- Slide the rim half onto the wheel.
- Hand-tighten the Allen bolts.
- Ensure that the inner tube is properly positioned on the rim.



*Make sure that the inner tube is not jammed between the two rim halves.*

- Tighten the Allen bolts using an Allen key.
- Pump the inner tube up, see 'technical data'.
- Place the wheel on the axle.
- Provide the wheel bolt with Locktite 248 and use a torque wrench to tighten the bolt to 50Nm.
- Remove the support from under the wheelchair.  
The wheelchair is ready for use.

•

### **3.3.2 Replacing the tyre on the driven wheel**

When replacing the tyre of a driven wheel, do not switch off the neutral, so that the wheel does not turn.

Replace as follows:

- Support the wheelchair so that the wheel is off the ground.
- Pull out the valve to completely deflate the tyre.
- Unscrew the central wheel bolt with box spanner 17 and remove the wheel.
- Loosen the Allen bolts using an Allen key with a width of 6 mm.  
Remove the front of the rim half.
- Remove the inner tube and the tyre from the rim.
- Remove the inner tube from the tyre, for repair or replacement.

Fit the new tyre as follows:

- Place the inner tube in the tyre.
- Pump the inner tube up a little.
- Slide both tube and tyre onto the rim.  
The valve should fall into the notch in the rim.
- Slide the rim half onto the wheel.
- Hand-tighten the Allen bolts.
- Ensure that the inner tube is properly positioned on the rim.



*Make sure that the inner tube is not jammed between the two rim halves.*

- Tighten the Allen bolts using an Allen key.
- \* Pump the inner tube up; see 'technical data'.
- Place the wheel on the axle.
- Provide the wheel bolt with Locktite 248 and use a torque wrench to tighten the bolt to 50Nm.
- Remove the support from under the wheelchair.  
The wheelchair is ready for use.



### 3.3.3 Replacing the driven wheel

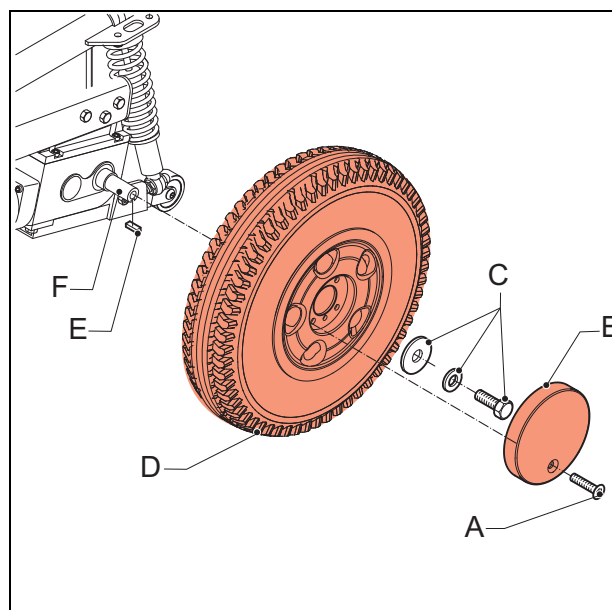
When replacing the driven wheel, make sure not to switch off the neutral, so that the wheel does not turn.

Replace as follows:

- Support the wheelchair so that the wheel is off the ground.
- Remove the cap (B) by unscrewing the (3 mm Allen) screw (A).
- Using a box spanner with width of 17 mm, unscrew bolt (C) with the washers.
- Remove the complete wheel (D) from the output shaft of the drive unit.



*When the drive wheel is removed, a key (E) may come loose or remain in the rim. This key must be slid into the key way of the output shaft of the drive unit. If no key is fitted, this will cause drive problems.*



Fit the (new) wheel as follows:

- Apply a layer of grease on the output shaft (F) of the drive unit.
- Place the entire wheel on the output shaft of the drive unit.



*Make sure the notch in the rim falls over the key.*

- Apply a few drops of thread-locking adhesive (Loctite 248) on bolt (C).
  - Screw the bolt with the washers into the threaded hole of the output shaft of the drive unit and use a torque wrench to tighten the bolt to 50Nm.
  - Fasten the cap (B) by tightening the (3 mm Allen) screw (A).
  - Remove the support from under the wheelchair.
- The wheelchair is ready for use.

### 3.4 Swivel wheels

To ensure proper operation of the wheelchair, it is very important that the tyres are kept at the correct pressure.

Soft tyres yield less than optimum driving for the wheelchair. It also takes more energy to move the wheelchair forward, putting a heavier load on the batteries. Moreover, when driving on soft tyres, tyre wear is unnecessarily great.

See 'technical specifications' for the correct tire pressure.



*When pumping the tires up, note that the pressure may never exceed the maximum specified value provided in the 'technical specifications' table, or as indicated on the side of the tire. When in doubt, contact your dealer/supplier.*

See the 'maintenance table' for the inspection of the tyres.

### 3.4.1 Tyre repair for swivel wheels

Repair a flat tyre as follows:

- Support the wheelchair so that the wheel is off the ground.
- Pull out the valve to completely deflate the tyre.
- Loosen the wheel bolt using an open-ended spanner with a width of 13 mm and stop the bolt with the same open-ended spanner.  
Slide the wheel out of the fork. Watch the washers that come free: collect them so they will not be lost.
- Loosen the wheel bolts using an Allen key with a width of 5 mm. Separate the rim halves.  
This will release both tyres, allowing the valve to be slid out of the rim half.
- Remove the inner tube from the tyre.
- Repair the inner tube or replace it.

Refit the tyre (with repaired or new inner tube) as follows:

- Place the (repaired or new) inner tube in the tyre.
- Stick the valve through the opening in the rim half.
- Slide the other rim half over the hub of the wheel.
- Screw both rim halves together with the Allen bolts.



*The inner tube must not be jammed between the two rim halves.*

- Tighten the wheel bolts.
- Pump the tyre up.
- Replace the wheel in the fork, in the reverse order of disassembly.

### 3.4.2 Replacing the tyre on the swivel wheel

Replace the tyre as follows:

- Support the wheelchair so that the wheel is off the ground.
- Pull out the valve to completely deflate the tyre.
- Loosen the wheel bolt using an open-ended spanner with a width of 13 mm and stop the bolt with the same open-ended spanner.  
Slide the wheel out of the fork. Watch the washers that come free: collect them so they will not be lost.
- Loosen the wheel bolts using an Allen key with a width of 5 mm. Separate the rim halves.  
Separate the rim halves.  
This will release both tyres, allowing the valve to be slid out of the rim half.
- Remove the inner tube from the tyre.

Fit a new tyre as follows:

- Place the inner tube in the tyre.
- Stick the valve through the opening in the rim half.
- Slide the other rim half over the hub of the wheel.
- Screw both rim halves together with the Allen bolts.



*The inner tube must not be jammed between the two rim halves.*

- Tighten the wheel bolts.
- Pump the tyre up.
- Replace the wheel in the fork, in the reverse order of disassembly.

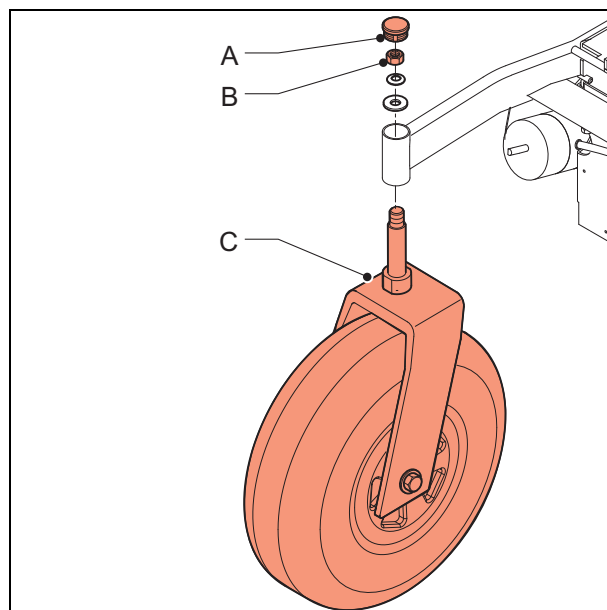
### 3.4.3 Replacing the swivel wheel

Replace the swivel wheel as follows:

- Support the wheelchair so that the swivel wheel is off the ground.
- Remove the plastic cover cap (A) using a screwdriver.
- Loosen nut (B) using a box spanner with a width of 17 mm.
- Remove the complete swivel wheel (C) from the ball head.

Watch the washers under the nut and make sure that they are not lost.

Fit the (new) swivel wheel in the reverse order.



### 3.4.4 Replacing the swivel wheel

Replace the swivel wheel as follows:

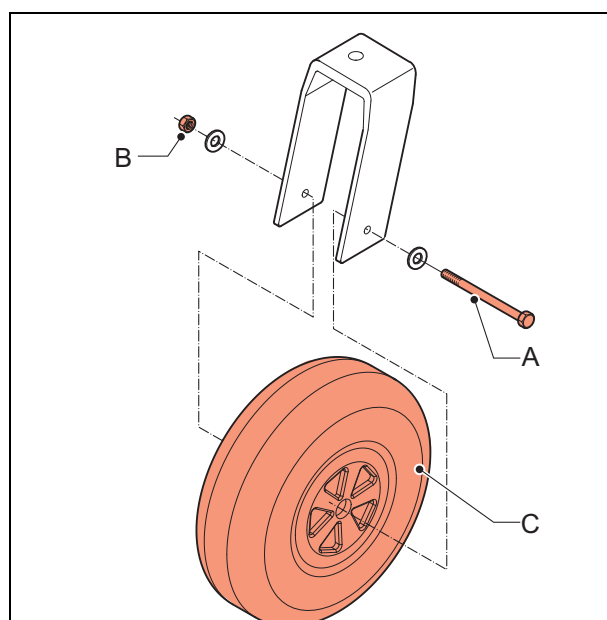
- Support the wheelchair so that the wheel is off the ground.
- Loosen the shaft (A) and the locking nut (B) using two open-ended spanners with a width of 13 mm.
- Hold the wheel (C) tight and remove the shaft with the washers.
- Take the wheel out of the fork.

Fit the new wheel in the reverse order.



*The locking nut must be tightened correctly: the screw thread of the shaft must be clearly visible through the locking ring. If the wheel is not placed properly, this can lead to very dangerous situations for the user.*

After fitting the wheel, remove the support from under the wheelchair: the wheelchair is ready for use.



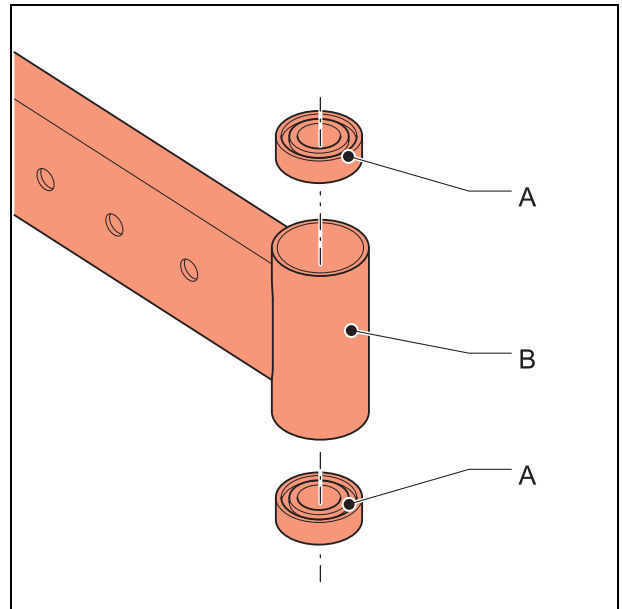
### 3.4.5 Replacing the ball-head bearings

Replace the ball-head bearings as follows:

- Support the wheelchair so that the swivel wheel is off the ground.
- Remove the complete swivel wheel; see 'replacing swivel wheel'.
- Remove the bearings (A) from the bush (B).
- Check the bearings for signs of wear or damage.

Fit the (new) bearings in the reverse order.

After mounting the swivel wheel, remove the support from under the wheelchair: the wheelchair is ready for use.



### 3.4.6 Replacing the fork of the swivel wheel

Replace the fork of the swivel wheel as follows:

- Support the wheelchair so that the swivel wheel is off the ground.
- Remove the wheel from the fork; see 'replacing the swivel wheel'.
- Remove the fork from the ball head; see 'replacing the swivel wheel'.

Fit the (new) fork in the reverse order.

- After fitting the complete swivel wheel, remove the support. The wheelchair is ready for use.

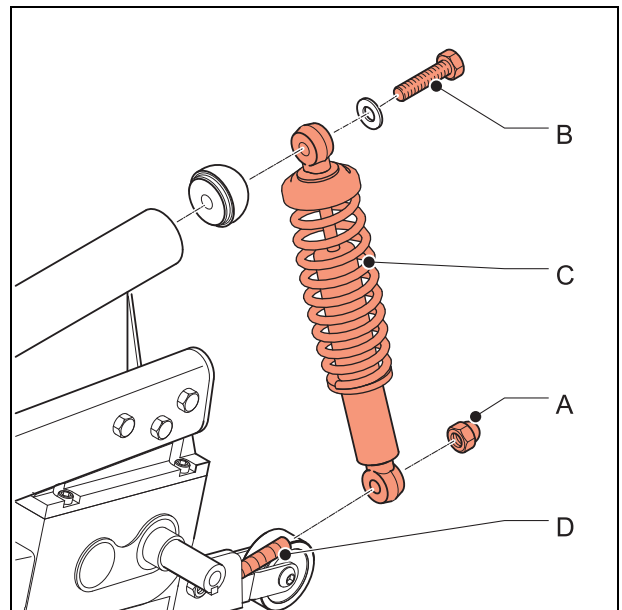
### 3.5 Replacing the shock breaker

Replace the shock breaker as follows:

- Support the wheelchair under the battery tray so that both drive wheels remain on the ground.
- Loosen the cap nut (A) using an open-ended spanner with a width of 17 mm.
- Unscrew the bolt (B) and remove the bolt and the washer.
- The shock breaker will come loose.
- Carefully pull the shock breaker (C) from the threaded end (D).

Replace the shock breaker as follows:

- Slide the shock breaker onto the threaded end (D).
- Place cap nut (A) and hand-tighten.
- Push the bolt (B) with washer through the eye of the shock breaker (C) and hand-tighten the bolt.
- Securely tighten the bolt and the cap nut.
- Remove the support.
- The wheelchair is ready for use.



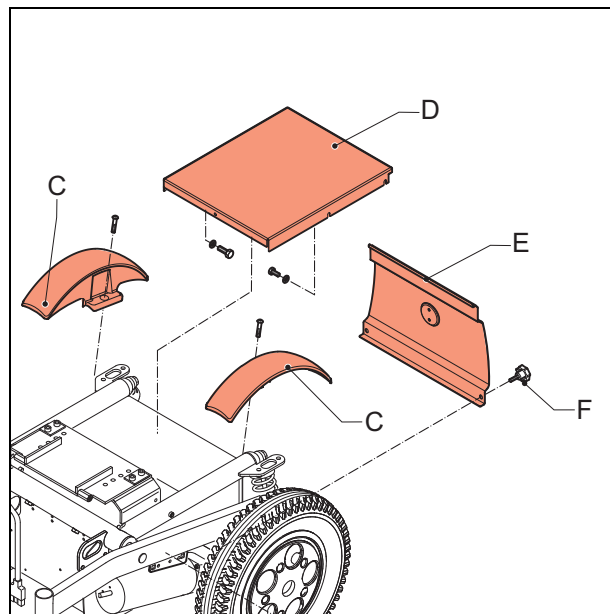
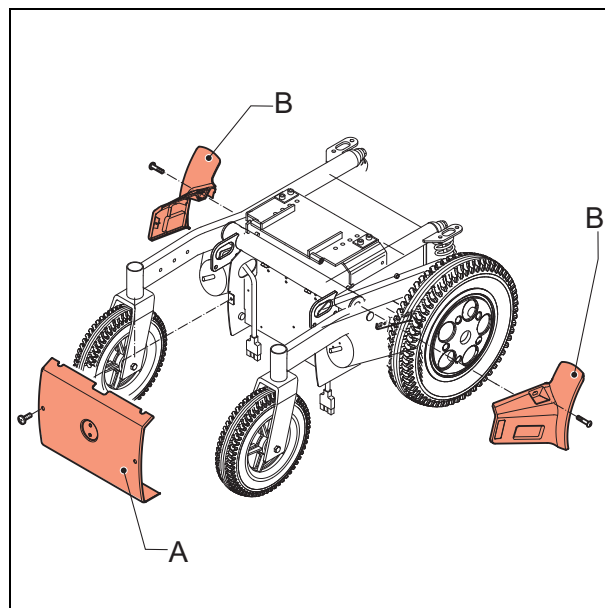
### 3.6 Replacing the covers

#### 3.6.1 Removing/fitting the covers

Remove/fit the covers as follows:

- Remove the front cover (A), the side covers (B) and the mud guards (C) by unscrewing all screws from the front cover, the side covers and the mud guards with an Allen key with a width of 4 mm on both sides of the wheelchair.
- Remove the upper cover (D) from the battery tray by unscrewing the screws of the upper cover with an open-ended spanner with a width of 10 mm.
- Remove the front cover (E) from the battery tray by unscrewing both star screws (F).

Fit the covers in the reverse order.



### 3.7 Replacing drive and components

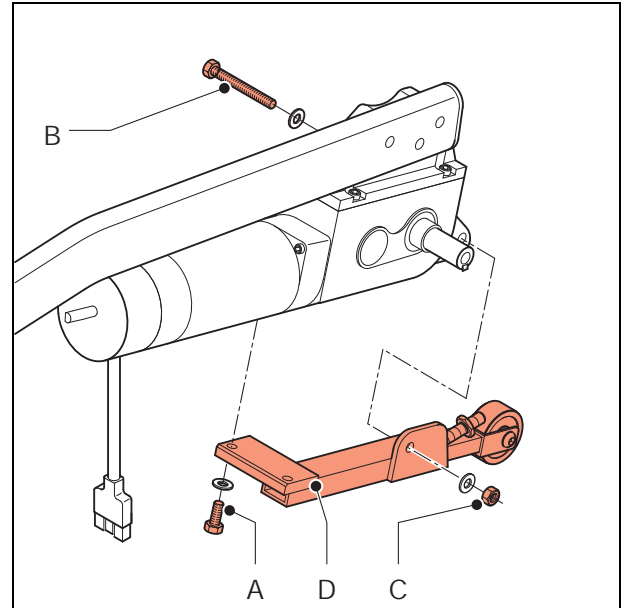
#### 3.7.1 Replacing tube under the drive unit

Replace the tube under the drive unit as follows:

- Support the wheelchair under the battery tray so that both drive wheels remain on the ground.
- Remove the shock breaker; see 'replacing shock breaker'.
- Loosen the bolts (A) with washers.
- Loosen the bolt (B) and remove the bolt and the nut (C) with the washers. The tube (D) will come loose.

Mount the (new) tube in the reverse order.

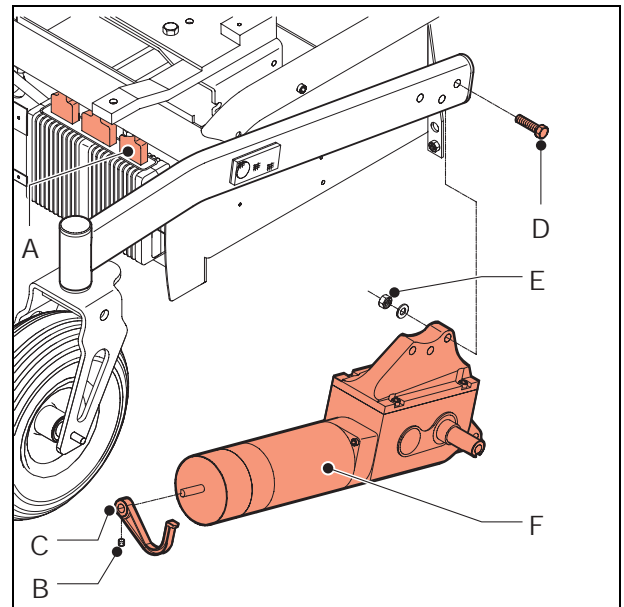
- After mounting the tube, remove the support. The wheelchair is ready for use.
- 



#### 3.7.2 Replacing the drive unit

Replace the drive unit as follows:

- Support the wheelchair under the battery tray so that both drive wheels remain on the ground.
- Remove the protective cover at the front and the relevant side cover, see 'replacing covers'.
- Remove the driven wheel; see 'replacing driven wheel'.
- Remove the shock breaker; see 'replacing shock breaker'.
- Remove the tube from under the drive unit; see 'removing tube under drive unit'.
- Pull the motor cable connector (A) of the relevant drive unit out of the power module.
- Lead the motor cable out through the notch in the battery tray.
- Loosen the Allen bolt (B).
- Remove the neutral handle (C).
- Loosen the nuts (E) from the three bolts (D) using two open-ended spanners with a width of 13 mm.
- Firmly hold the drive unit (F) (support if necessary) and carefully remove the three bolts with the washers, with which the drive unit is mounted to the side frame.
- Remove the drive unit.



Mount the (new) drive unit in the reverse order.

- After installing the drive unit, remove the support. The wheelchair is ready for use.



*The drive unit of the 6 km/h wheelchair is different to that of the 10 km/h wheelchair. However, the replacement is the same.*



*In connection with agreements concerning warranties with the supplier of the drive unit, it is NOT permitted to disassemble the drive unit: each separately delivered part of the drive unit will be immediately returned and the warranty stipulations will become null and void.*

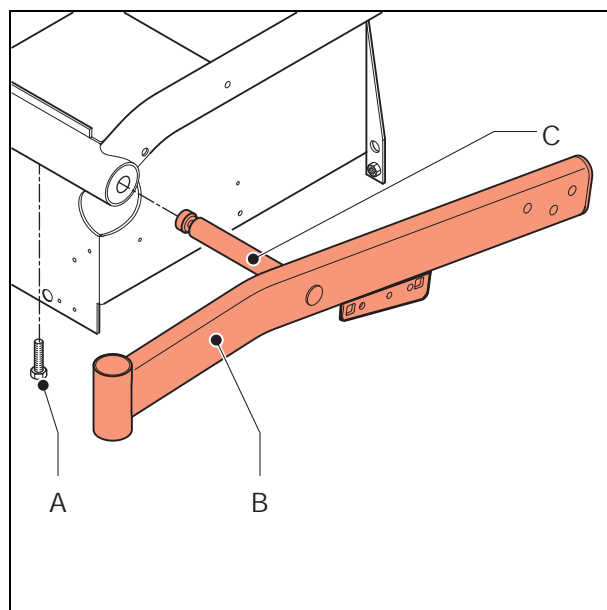
### 3.7.3 Replacing the side frame

Replace the side frame as follows:

- Support the wheelchair under the battery tray so that both drive wheels remain on the ground.
- Remove the drive unit; see 'replacing drive unit'.
- Remove the swivel wheel; see 'replacing the swivel wheel'.
- Loosen bolt (A) a few turns, using an open-ended spanner with a width of 10 mm.
- Remove the side frame (B) by taking it to one side.

Fit a (new) side frame as follows:

- Apply a layer of grease to the hinge pin (C).
- Put the hinge pin into the bush of the base frame.
- Hand-tighten bolt (A).



*Tilt the side frame a little and pull it out sideways to make sure the bolt is properly locked into the groove of the side frame. If the bolt is secure, the side frame should hinge freely, but cannot be pulled out of the bush.*

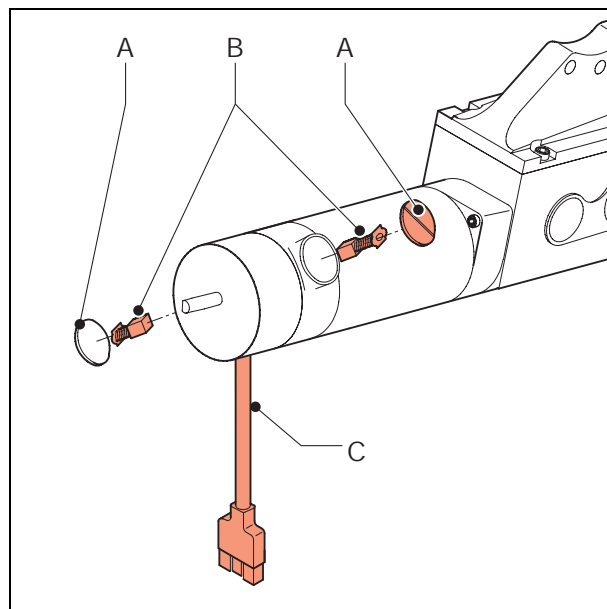
- Tighten bolt (A) using an open-ended spanner with a width of 10 mm.

Continue the assembly by fitting the drive unit; see 'replacing drive unit'.

### 3.7.4 Replacing carbon brushes

Replace the carbon brushes of the drive units as follows:

- Support the wheelchair under the battery tray so that the drive wheels are clear of the ground.
- Remove the protective cover from the power module; see 'replacing the covers'.
- Pull the motor cable connector (C) of the relevant drive unit from the power module.
- Lead the motor cable out through the notch in the battery tray.
- Loosen the bolt of the relevant shock breaker; see 'replacing the shock breaker'.
- Loosen the locking bolt of the hinge pin of the side frame a few turns; see 'replacing side frame'.
- Pull the side frame forward a little: it does not need to be completely removed. This will create a space between the side frame and the battery tray.
- Using a screwdriver, unscrew the plastic screw cap (A) from the carbon brush holder.
- Carefully hold on to the connection (B) of the carbon brush, and pull the carbon brush out of the housing.
- Inspect the carbon brush and replace if necessary.
- Through the open carbon brush holder, inspect the collector on the anchor of the motor.



*If the collector is seriously worn, replace the entire drive unit.  
Do NOT make repairs on the drive unit, because this will render the warranty null and void.*

- Place the carbon brush in the holder. this can be done in one way only!



- Place the carbon brush connection in the carbon brush holder so that a flat assembly is created.
- Screw the plastic screw cap onto the carbon brush holder.
- Replace the side frame in the proper position; see 'replacing side frame'.
- Fit the other parts in the correct way, see the relevant paragraphs.

### 3.8 Electronic components

#### 3.8.1 Working on the electrical system

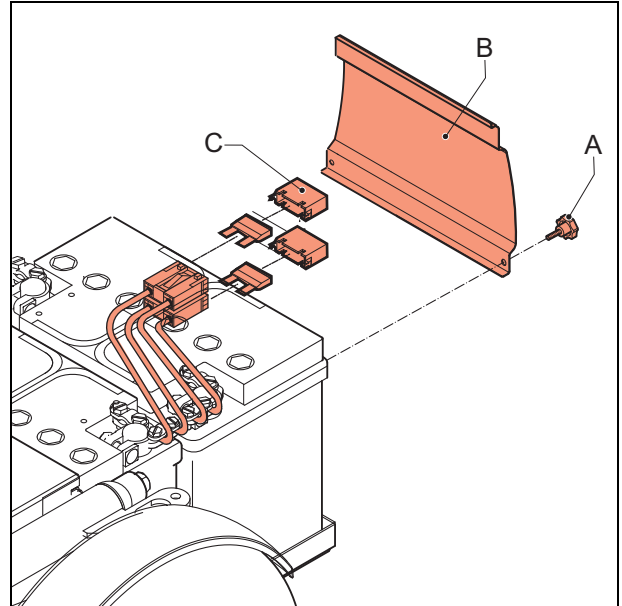


*Remove both fuses from the battery compartment before carrying out any work on the electronic system.*

Remove the fuses as follows:

- Unscrew both crosshead screws (A).
- Remove the front cover from the battery tray (B).
- Remove both fuses (C).

After the work has been done, replace the fuses in the reverse order.



#### 3.8.2 Replacing the 'DX' controller



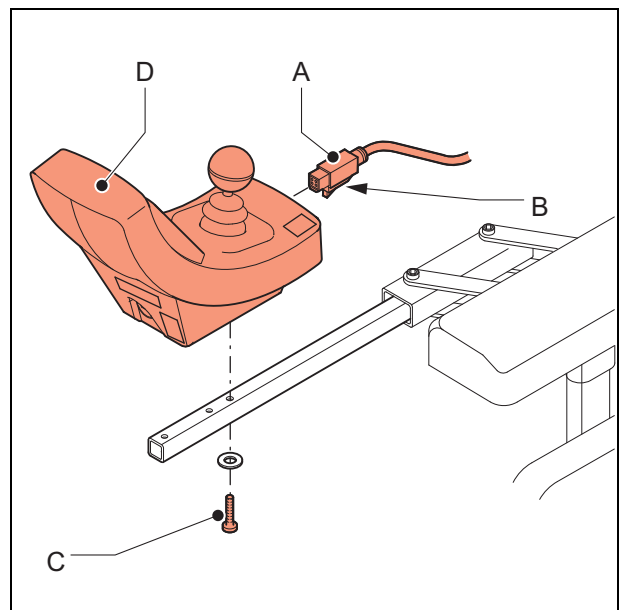
*Remove the fuses, see § 3.8.1.*

Replace the 'DX' controller as follows:

- Push the lock (B) in and simultaneously pull the plug (A) out of the controller.
- Unscrew both screws (C) and the washers, using a Phillips screwdriver PH-2.
- Remove the 'DX' controller (D).

Install a (new) controller in the reverse order.

Replace both fuses: the wheelchair is ready for use.





### 3.8.3 Replacing the 'Shark' controller



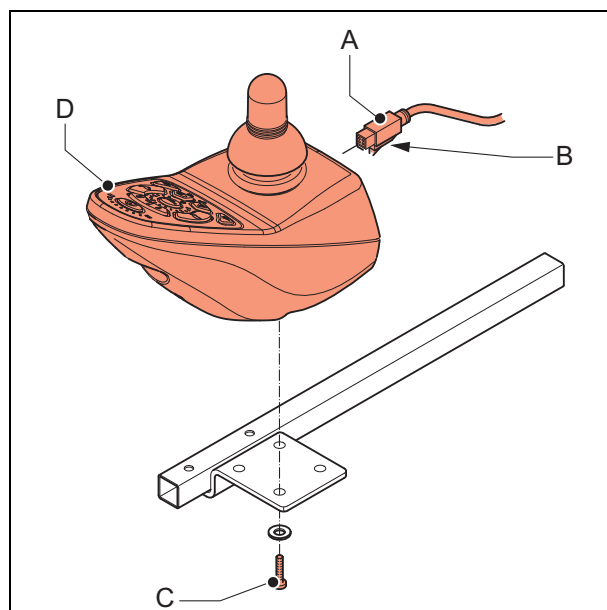
Remove the fuses, see § 3.8.1.

Replace the 'Shark' controller as follows:

- Push the lock (B) in and simultaneously pull the plug (A) out of the controller.
- Unscrew the screws (C) and the washers, using a Phillips screwdriver PH-2.
- Remove the 'Shark' controller (D).

Install a (new) controller in the reverse order.

Replace both fuses: the wheelchair is ready for use.



### 3.8.4 Replacing the power module

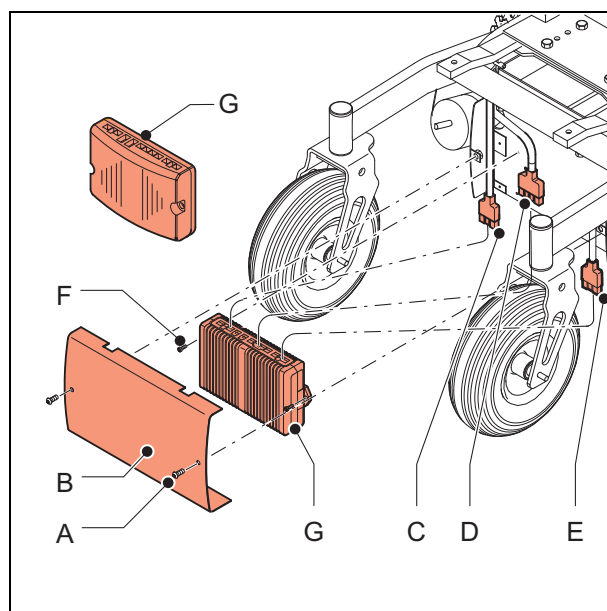


Remove the fuses, see § 3.8.1.

Replace the power module as follows:

- Unscrew both Allen screws (A) using an Allen key with a width of 4 mm.
- Remove the protective cover (B) from the power module.
- Pull the connectors (C to E) out of the power module.
- Unscrew both Allen screws (F) using an Allen key with a width of 4 mm.
- Remove the power module (G).

Install a (new) power module in the reverse order. Replace both fuses: the wheelchair is ready for use.



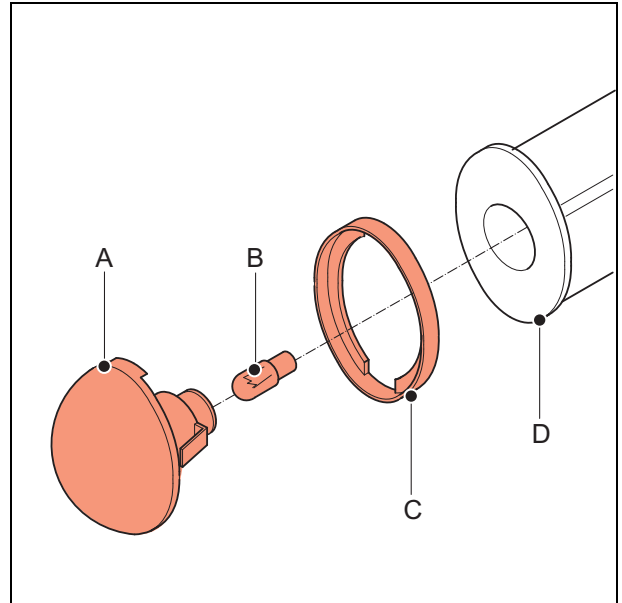
### 3.9 Compact lighting

#### 3.9.1 Replacing the front light

Replace the front light as follows:

- Pull the reflector (A) off the holder (D).
- Hold the rubber seal (C) tight so that it cannot get lost.
- Unscrew the LED bulb (B) from the fitting.

Replace the new LED bulb in the reverse order.

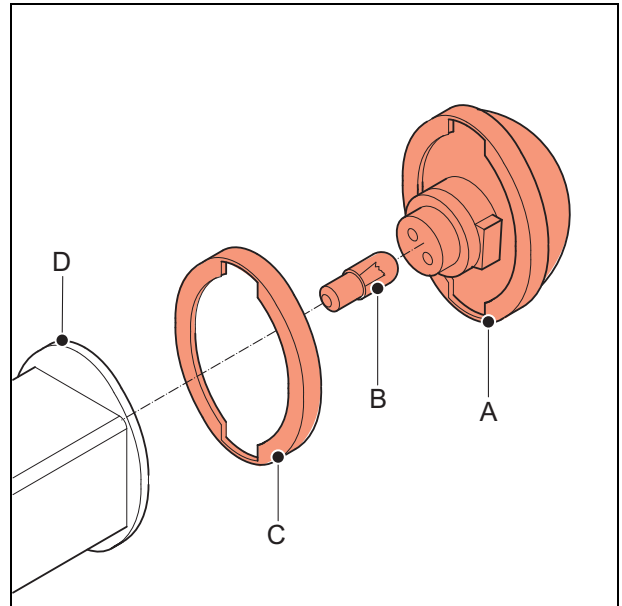


#### 3.9.2 Replacing the rear light

Replace the rear light as follows:

- Pull the reflector (A) off the holder (D).
- Hold the rubber seal (C) tight so that it cannot get lost.
- Unscrew the LED bulb (B) from the fitting.

Replace the new LED bulb in the reverse order.

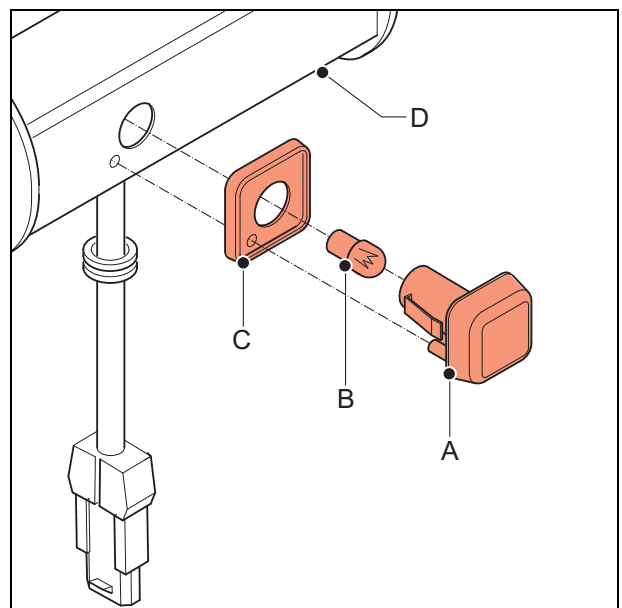


#### 3.9.3 Replacing the flashing light

Replace the flashing light as follows:

- Pull the reflector (A) off the holder (D).
- Hold the rubber seal (C) tight so that it cannot get lost.
- Unscrew the LED bulb (B) from the fitting.

Replace the new LED bulb in the reverse order.



### 3.10 *Cleaning*

#### **Removing dry dirt**

Upholstery, metal parts and frame parts can usually be cleaned easily with a dry soft cloth.

#### **Removing mud and/or other wet dirt**

Parts that are soiled with wet dirt are best cleaned by first wiping the dirty parts with a wet sponge and then wiping them dry with a dry soft cloth.

#### **Upholstery**

Clean with a damp cloth and household soap. After removing the dirt, rub the cleaned parts dry with a soft dry cloth.



- *Never use abrasive or aggressive cleaning products. They may scratch the wheelchair.*
- *Also do not use organic solvents such as thinner, dry-cleaning naphtha, or white spirit.*
- *Be careful with water near the electronic system.*
- *Do not dry clean, iron or spin.*

## 4 Troubleshooting

### 4.1 'DX' faultfinding table

Check the malfunction/signal with the aid of the following list.

Signal	Possible cause	Remedy
ON/OFF light does not go on: the wheelchair does not move.	The controller plug is not properly inserted in the 'power module'.	Insert the plug properly in the 'power module' (DX BUS). The DX power module is behind the cover that is on the outside under the chair against the battery tray.
	Both fuses are defective	Replace the defective fuses.
	The batteries are not properly connected.	Check the connections.
	A connection of the batteries is loose.	Secure the connection.
ON/OFF light: flashes once	DX module faulty.	Replace one or more modules. The "on/off" LED indicates the condition of the entire system. The modules all have a separate status LED: in this way, you can see which one is faulty.
ON/OFF light: flashes twice.	DX accessory faulty.	The module displays a fault as a result of a programming fault or short circuit and/or overload of the accessories.
		The (optional) electrical high/low adjustment is not in the lowest position. The LED flashes twice to indicate that the speed limitation has been switched on: the wheelchair will drive considerably more slowly.
ON/OFF light: flashes three times	The left-hand motor (m1) connection is faulty or loose	Check the connection and secure it
	The left-hand motor (m1) is defective	Replace this motor.
	Short circuit in the left-hand motor (m1) connections.	Correct the connections.
	Defective power module output.	Check the motor for a defect: an output of the power module will only become defective through a defect in the motor itself. Only replace the power module if the fault occurs immediately upon switching the unit on. If the fault occurs when you are starting to drive, the entire left-hand motor circuit is causing the fault. In this case, replace the entire drive unit concerned.
ON/OFF light: flashes four times	The right-hand motor (m2) connection is faulty or loose.	Check the connection and secure it
	The right-hand motor (m2) is defective	Replace this motor.
	Short circuit in the right-hand motor (m2) connections.	Correct the connections.
	Defective power module output.	Check the motor for a defect: an output of the power module will only become defective through a defect in the motor itself. Only replace the power module if the fault occurs immediately upon switching the unit on. If the fault occurs when you are starting to drive, the entire left-hand motor circuit is causing the fault. In this case, replace the entire drive unit concerned.

Signal	Possible cause	Remedy
ON/OFF light: flashes 5 times	The left-hand parking brake (m1) connection is faulty or loose.	Correct the connection.
	The left-hand parking brake (m1) is defective.	Replace the drive motor.
ON/OFF light: flashes 6 times	The right parking brake (m2) connection is faulty or loose.	Correct the connection.
	The right-hand parking brake (m2) is defective.	Replace the drive motor.
ON/OFF light: flashes 7 times	The battery voltage is low, or the batteries are flat or bad	Charge the batteries or replace them. Note: If the voltage is low (< 12 V) the electronics will not work properly. A number of random LEDs of the 'DX' controller flash and the wheelchair will not function.
ON/OFF light: flashes 8 times	The battery voltage is high, above 32 V.	This usually occurs during (trickle) charging. Frequent occurrence will result in a defective power module. Set the charger correctly.
ON/OFF light: flashes 9 times	'BUS low' fault: cable breakage (in one of the DX bus cables) or short circuit in the DX bus system (entrances to the modules)	Check the cables and the modules and replace if necessary.
ON/OFF light: flashes 10 times	Bus high fault: usually a communication fault caused by one of the DX bus cables or DX modules (entrances to the modules)	Check the cables and the modules and replace if necessary.
ON/OFF light: flashes 11 times	'STALL' overload fault: A motor is continually demands too much power.	Check the drive units. Note: This fault is often caused by taking obstacles that are too high, or driving against walls, and door frames, etc. This fault may also be caused by a difficult turn from a standing position. Check the weight distribution of the chair.
ON/OFF light: flashes 12 times	System does not 'fit'. System modules are not compatible.	<i>Program the entire drive system for the relevant wheelchair with the aid of the DX-Wizard program on the PC.</i> Always confirm the programming by switching the wheelchair on and off.

**Note:**

If all the plugs are connected properly and you have used the troubleshooting list but not found the cause, contact the Service Department of **Handicare**.



*Before changing DX bus cables, fuses and/or modules, remove both fuses from the battery compartment (see § 3.8.1), so that the system is dead.*

### 4.2 'Shark' faultfinding table

Check the malfunction/signal with the aid of the following list.

Signal	Possible cause	Remedy
ON/OFF light flashes once.	User error	This is probably a 'STALL' timeout. Place the joystick in neutral and try again
ON/OFF light flashes twice	Battery fault	Check the batteries and the cabling Charge the batteries or replace them.
ON/OFF light flashes three times	The left-hand motor (m1) connection is faulty	Check the motor connections and cabling.
	The left-hand motor (m1) is defective	Replace this motor
ON/OFF light flashes four times	The connection of the right-hand motor (m2) is faulty.	Check the motor connections and cabling.
	The right-hand motor (m2) is defective	Replace this motor
ON/OFF light: flashes 5 times	The left-hand parking brake (m1) connection is faulty or loose.	Correct the connection
	The left-hand parking brake (m1) is defective.	Replace the parking brake
ON/OFF light: flashes 6 times	The right parking brake (m2) connection is faulty or loose.	Correct the connection
	The right-hand parking brake (m2) is defective.	Replace the parking brake
ON/OFF light flashes 7 times	There is a fault in the controller	Check the connections of the Shark bus cables, fuses and/or modules and correct as necessary. If a fault signal is still present after this, replace the controller.
ON/OFF light flashes 8 times	There is a fault in the power module	Check all connections and correct as necessary If a fault signal is still present after this, replace the power module.
ON/OFF light flashes 9 times	There is a communication fault in the Shark system.	Check the connection and correct it if necessary. If a fault signal is still present after this, replace the controller.
ON/OFF light flashes 10 times	Unknown fault	Check all connections and correct as necessary Consult a service engineer.
ON/OFF light flashes 11 times	System does not 'fit'. System modules are not compatible.	Check that the type of the controller corresponds with the power module. Replace one of the two if necessary.

#### Note:

If all the plugs are connected properly and you have used the troubleshooting list but not found the cause, contact the Service Department of **Handicare**.



*Before changing Shark bus cables, fuses and/or modules, remove both fuses from the battery compartment (see § 3.8.1), so that the system is dead.*

## 5 Technical specifications

### 5.1 Product specification sheet of the Yes-Series

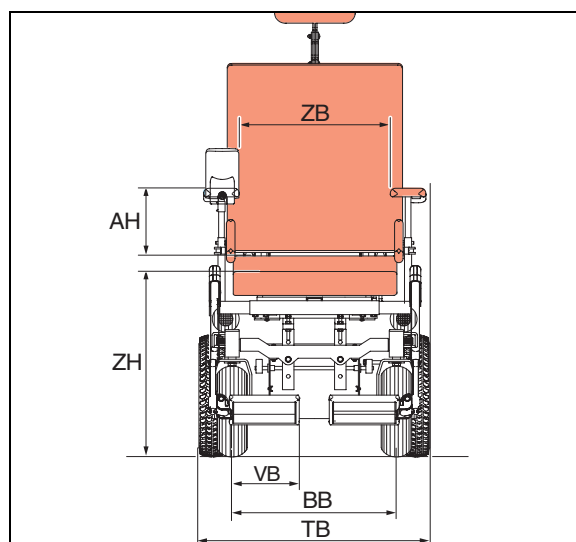
Manufacturer:		Handicare®	
<b>SPECIFICATIONS</b>		<b>PUMA</b>	
Segment		indoor/outdoor	
<b>DIMENSIONS</b>			
Axle configuration		FWD	RWD
Maximum user's weight	kg	160	160
Batteries	Ah	40 / 56 / 73	40 / 56 / 73
Total weight excluding batteries	kg	82	82
Total weight including batteries	kg	112 (40 Ah)	112 (40 Ah)
Total length	mm	1050	1100
Total width	mm	650	650
Seat angle	°	2 - 7	2 - 7
Seating depth	mm	440 - 520	440 - 520
Seat width	mm	380 - 525	380 - 525
Seat height excluding cushion	mm	420 - 500	420 - 500
Seat height including cushion	mm	490 - 570	490 - 570
Back angle	°	89 - 118	89 - 118
Back height	mm	520 - 570	520 - 570
Lower leg length	mm	330 - 560	330 - 560
Armrest height	mm	220 - 290	220 - 290
From front of armrest to back rest	mm	370 - 450	370 - 450
Diameter of swivel wheels (internal)	mm	250 x 50	250 x 50
Diameter of swivel wheels (external)	mm	260 x 85	260 x 85
Diameters of drive wheels	mm	350 x 80	350 x 80
Tyre pressure of swivel wheels	bar	2.5 bar	3.5 bar
Tyre pressures of drive wheels	bar	3.5 bar	3.5 bar
<b>PERFORMANCE</b>			
Maximum speed	km/h	6 / 10	6 / 10
Range of action (ISO 7176-4)	km	50 (73 Ah)	50 (73 Ah)
Dynamic stability	°	6 (10,5%)	10 (18%)
Maximum slope	°	12 (21%)	12 (21%)
Obstacle height	mm	80	80
Obstacle height with curb climber	mm	-	100
Ground clearance	mm	80	80
Ground clearance in connection with electrical high/low, ZH 480	mm	-	-
Ground clearance in connection with electrical high/low, ZH 495	mm	-	-
Ground clearance in connection with electrical high/low, ZH 510	mm	-	-
Turning radius (ISO 7176-5)	mm	600	960
<b>ELECTRICAL OPTIONS</b>			
Electric back adjustment	°	88 - 120	88 - 120
Electric tilt adjustment	°	4 - 40	4 - 40
Electric tilt adjustment ZH 540	°	-	-
Electric tilt adjustment ZH 525	°	-	-
Electric tilt adjustment ZH 510	°	-	-
Electric tilt adjustment ZH 495	°	-	-
Electric tilt adjustment ZH 480	°	-	-
Electrical high/low	mm	0 - 305	0 - 305
Electric leg rest adjustments	°	6 - 70	6 - 70

<b>CERTIFICATES</b>			
CE		√	√
EN 12182 (1997)		√	√
EN 12184 (1999)		√	√
Classes		<b>B</b>	<b>B</b>
ISO 7176-19		√	√
<b>COLOUR OF FRAME/COVERING</b>			
Blue/grey		√	√
Blue/yellow		√	√
Ice-blue		-	-
Grey			
Black			
Orange			
<b>OPTIONS</b>			
Sedeo seat options		√	√
Standard, comfort or electric leg rests		√	√
Central leg rest		√	√
Swing-away joystick bracket		√	√
Special controls		√	√
Compact lighting and direction indicators		√	√
Indoor swivel wheels and tyres		√	√
Outdoor swivel wheels and tyres		√	√
Spring-loaded swivel wheels		√	√
TSD - Telescopic Safety Device		√ (10 km/h)	
Detachable curb climber		√	√
Mud guard extension for rear-wheel drive		√	√
Worksheets		√	√
Hip belt		√	√
Stick holder		√	√
Mirror		√	√
Special modifications on request		√	√

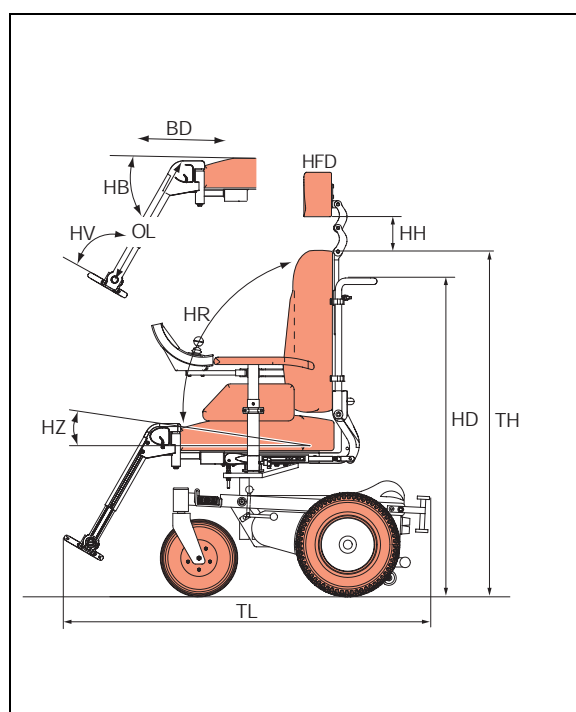


## 5.2 Measurements legends

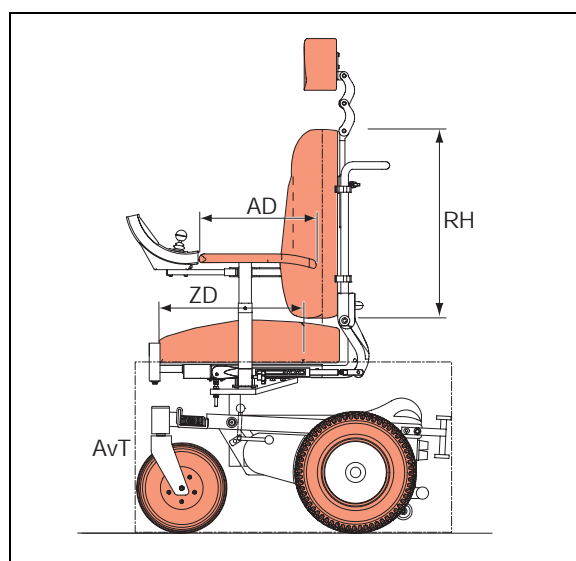
<b>AH</b>	Armrest height	Distance from top/side of seat to top of armrest.
<b>LW</b>	Leg rest width	Distance between the leg rest tubes.
<b>TW</b>	Total width	Distance between the widest points of the wheelchair.
<b>FW</b>	Foot-plate width	Width of the foot plate, excluding the cover caps and the mounting parts.
<b>SW</b>	Seat width	Shortest distance within the seating unit. This may be: between the side panels or between the armrests.
<b>SH</b>	Seat height	Distance between the centre of the front of the seat to the ground. Measured at a seating angle of 3.5° Increasing the seating angle will result in an increased seating height by approx. 0.5 cm for every degree.



<b>LD</b>	Depth of leg rest	Positions of the leg rests in forward and backward directions.
<b>AL</b>	Leg rest angle	Angle of the leg rest in relation to the seat.
<b>HPB</b>	Height of push bar	Distance between the top of the push bar and the ground.
<b>HRD</b>	Depth of head rest	Positions of the head rest in forward and backward directions.
<b>HH</b>	Height of head rest	Distance between the bottom of the head rest and the top of the back rest.
<b>BA</b>	Back angle	Angle of the back rest in relation to the seat.
<b>AF</b>	Foot-plate angle	Angle of the foot plate in relation to the leg rest tube.
<b>SA</b>	Seat angle	Angle of the seat in relation to the ground. The seating height increases by 0.5 cm with every degree.
<b>LL</b>	Lower leg length	Distance from top of seat to the foot plate.
<b>TH</b>	Total height	Distance between the highest point of the wheelchair and the ground.
<b>TL</b>	Total length	Distance between the front of the foot plate and the very back of the wheelchair.



<b>AD</b>	Armrest depth	Positions of the armrests in forward and backward directions.
<b>T dim.</b>	Dimensions for transport	Frame dimensions after removing all easily removable parts and, if possible, folding the back rest down.
<b>BH</b>	Back height	Distance from top of seat to top of back rest.
<b>SD</b>	Seat depth	Distance from centre bottom of back rest to centre front of seat.



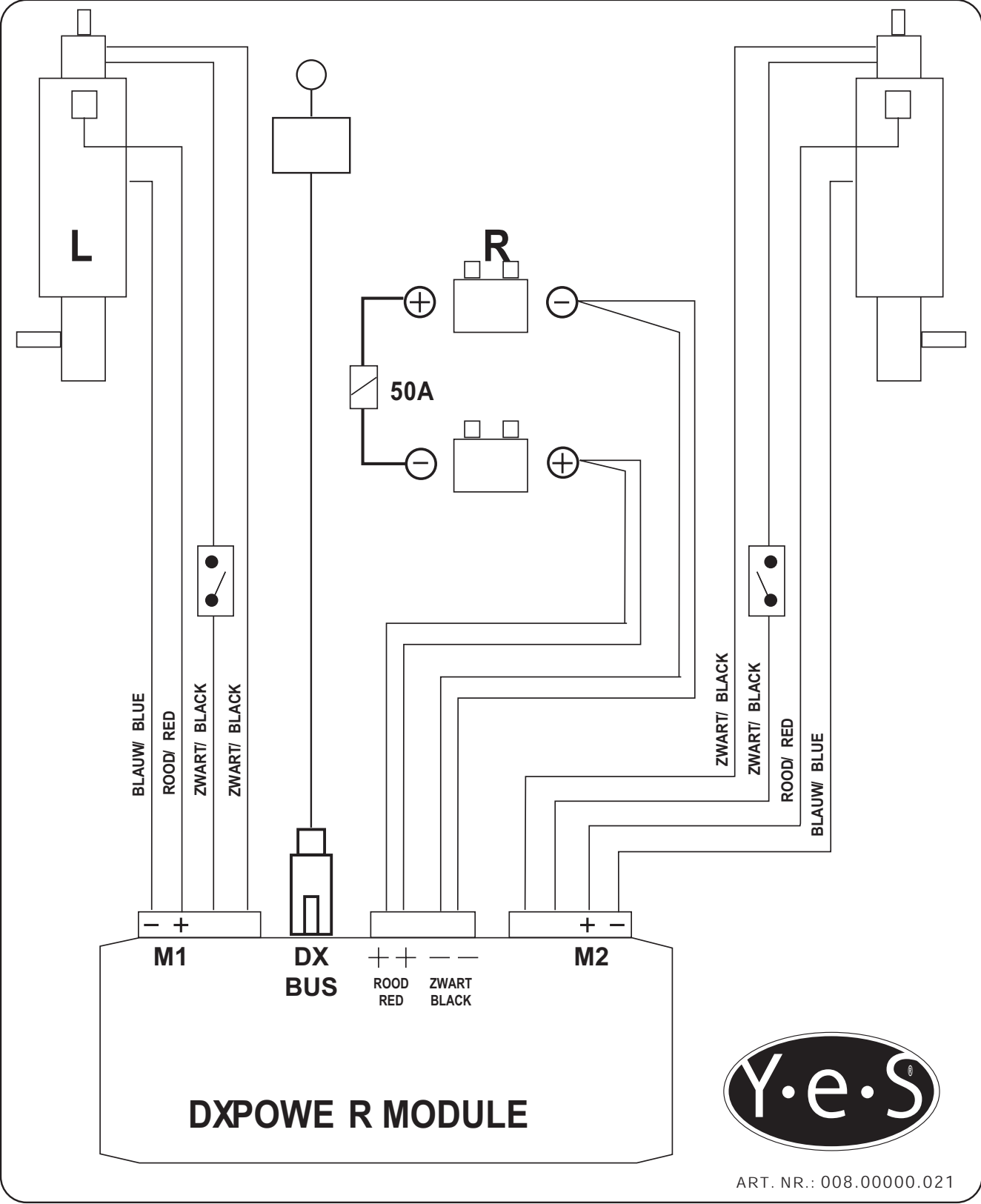
### 5.3 Glossary

- A **setting** is only carried out once.  
A setting may comprise a number of actions, usually involving tools.
- An **adjustment** may be carried out more than once.  
An adjustment does not take much effort and is easily carried out.  
An adjustment may be made by the user, the attendant or a therapist.  
An adjustment that is permanently adjustable by the user is indicated by **PAU**.  
An adjustment that is permanently adjustable by the attendant or the therapist is indicated by **PAT**.
- A number of parts for Yes-Series wheelchairs are **available** with different dimensions.  
After delivery, these parts cannot be adjusted by the user or the dealer.
- A setting or adjustment may be carried out **in steps or variably**.  
If the adjustment is variable, the range is indicated by the word "to".  
The words "or" or a "-" (dash) mean that only the values indicated are adjustable or available.
- The dimensions in the tables are in centimetres and have a **tolerance of 1 cm**.  
The degrees in the tables have a tolerance of 2°.
- To transport the wheelchair, various parts, such as leg rests, armrests and head rest can be removed; the back rest of the Sedeo seating system can be folded down. The minimum measurements for the wheelchair in this situation are indicated as "**dimensions for transport**". The corresponding weight is the "**heaviest part to be transported**".
- The **stability** of the wheelchair depends largely on the extent to which the seating system can be set or adjusted. The stated values indicate the stability with the standard delivered setting of the relevant wheelchair.
- The **ground clearance** of the wheelchair indicates the height of the free space between the front and rear wheels of the wheelchair. This is important when taking obstacles, such as a threshold or a kerb.  
The **maximum obstacle** is the maximum height of the threshold or kerb that can be taken by the wheelchair.
- The turning circle is the space needed by the wheelchair to make a turn. This circle is expressed as a diameter.  
The minimum turning space is the space needed by the wheelchair to make a 180° turn, whereby reversing is allowed (like a car when turning in a street). When reversing one or more times, less space is needed to make a turn compared to making a full turn in one direction.

### 5.4 Electrical diagrams

The electrical connection diagram of the electronic installation is located on the inside of the cover of the battery drawer.

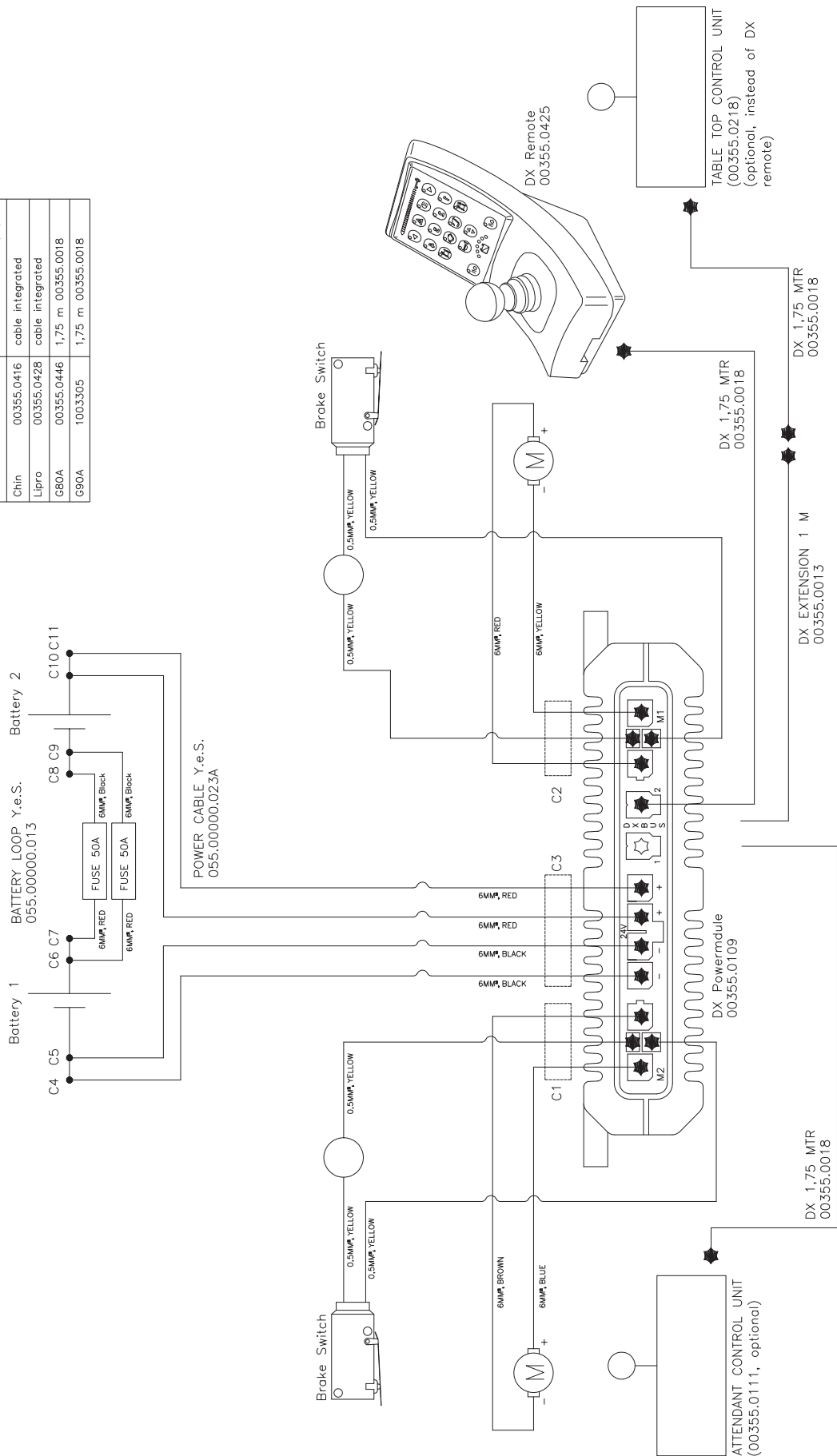
5.4.1 Electrical connection diagrams for 'DX' and 'Shark'



5.4.2 Electrical wiring diagram for 'DX' Standard

YeS-Series  
DX  
Standard  
9000118-2A

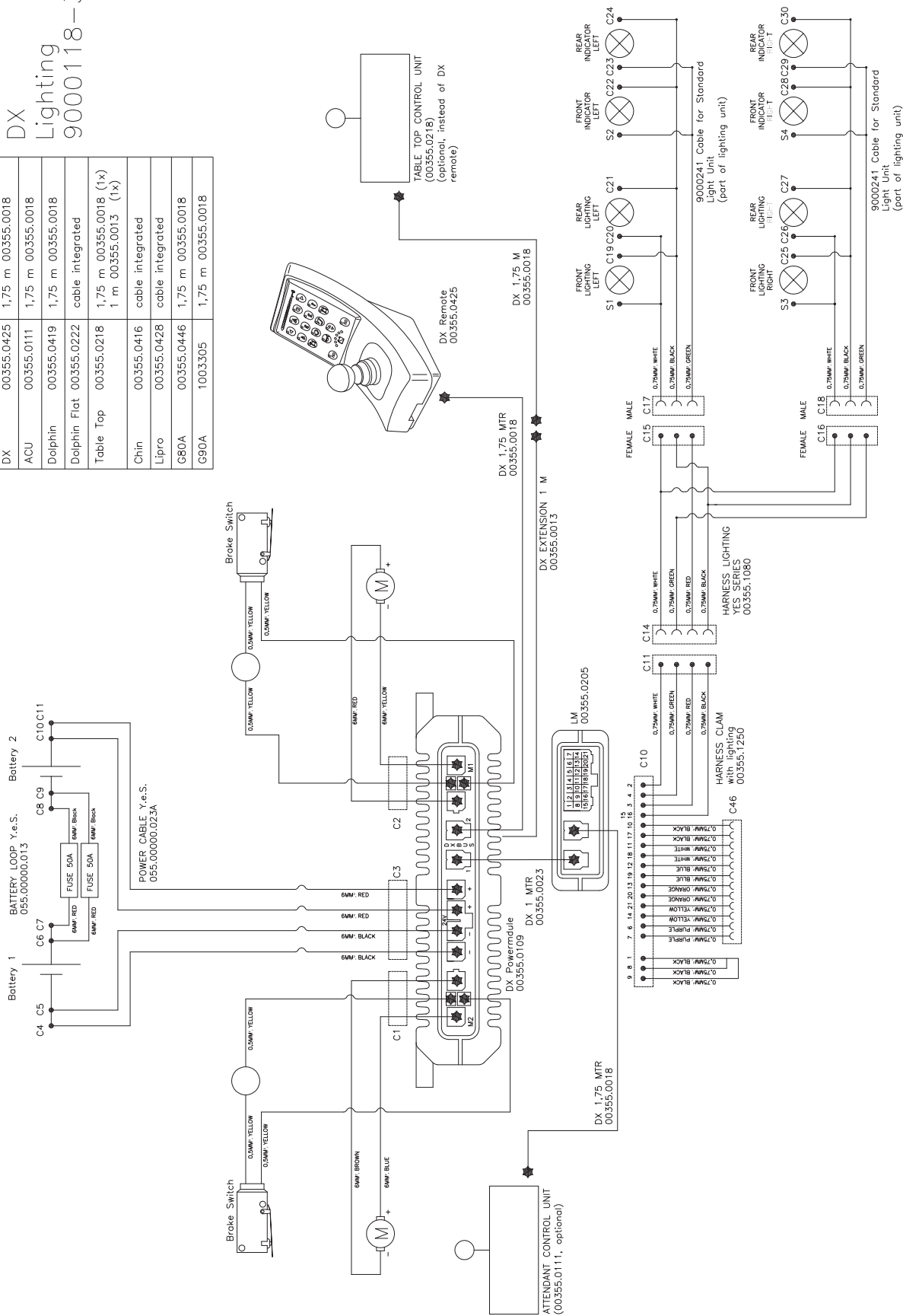
Remote Type	Bus Cable
DX 00355.0425	1,75 m 00355.0018
ACU 00355.0111	1,75 m 00355.0018
Dolphin 00355.0419	1,75 m 00355.0018
Dolphin Flat 00355.0222	cable integrated
Table Top 00355.0218	1,75 m 00355.0018 (1x) 1 m 00355.0013 (1x)
Chin 00355.0416	cable integrated
Lipro 00355.0428	cable integrated
G80A 00355.0446	1,75 m 00355.0018
G90A 1003305	1,75 m 00355.0018



5.4.3 Electrical wiring diagram for 'DX' Lighting

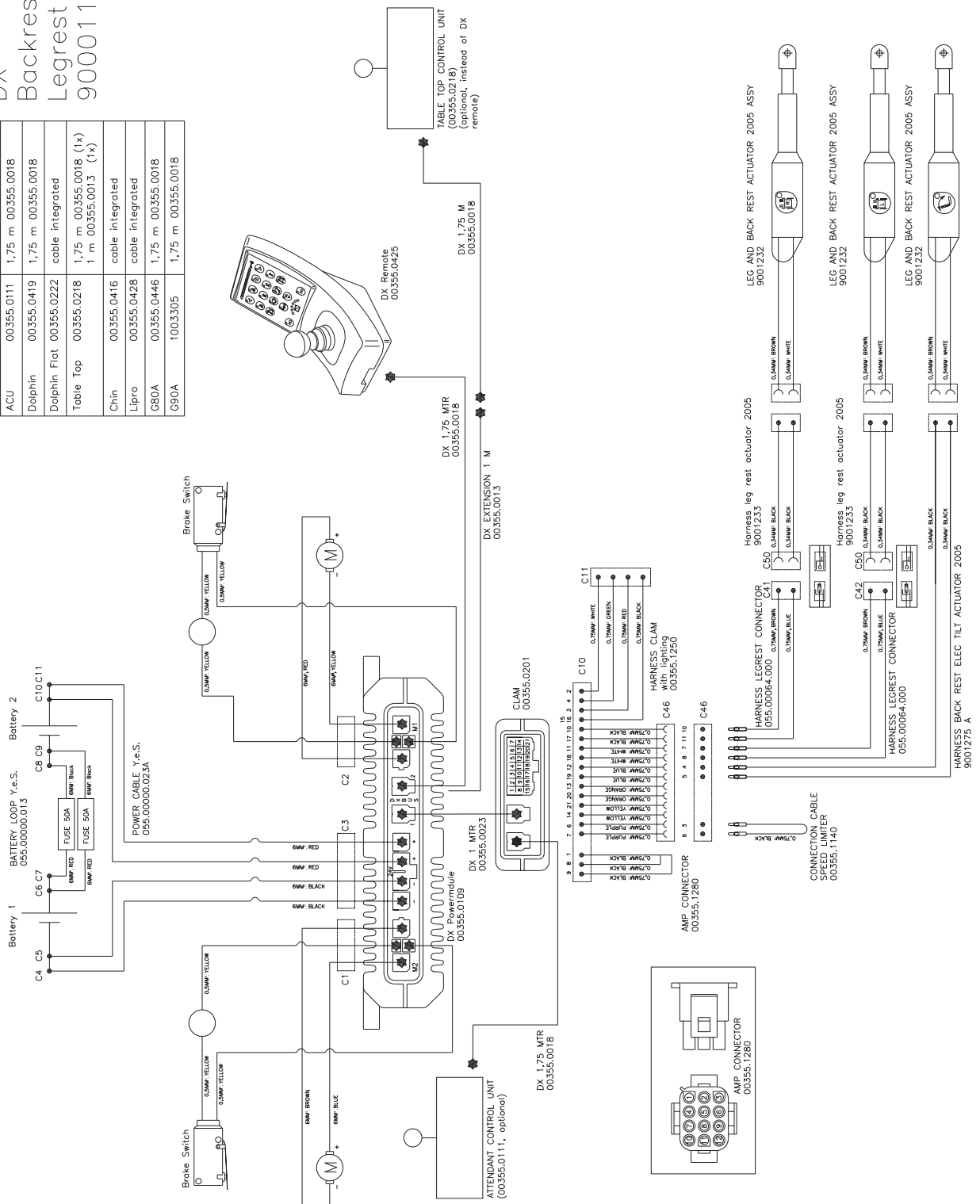
YeS-Series  
DX  
Lighting  
9000118-3B

Remote Type	Bus Cable
DX 00355.0425	1,75 m 00355.0018
ACU 00355.0111	1,75 m 00355.0018
Dolphin 00355.0419	1,75 m 00355.0018
Dolphin Flat 00355.0222	cable integrated
Table Top 00355.0218	1,75 m 00355.0018 (1x) 1 m 00355.0013 (1x)
Chin 00355.0416	cable integrated
Lipro 00355.0428	cable integrated
G80A 00355.0446	1,75 m 00355.0018
G90A 1003305	1,75 m 00355.0018



#### 5.4.4 Electrical wiring diagram for 'DX' Back rest/Leg rest

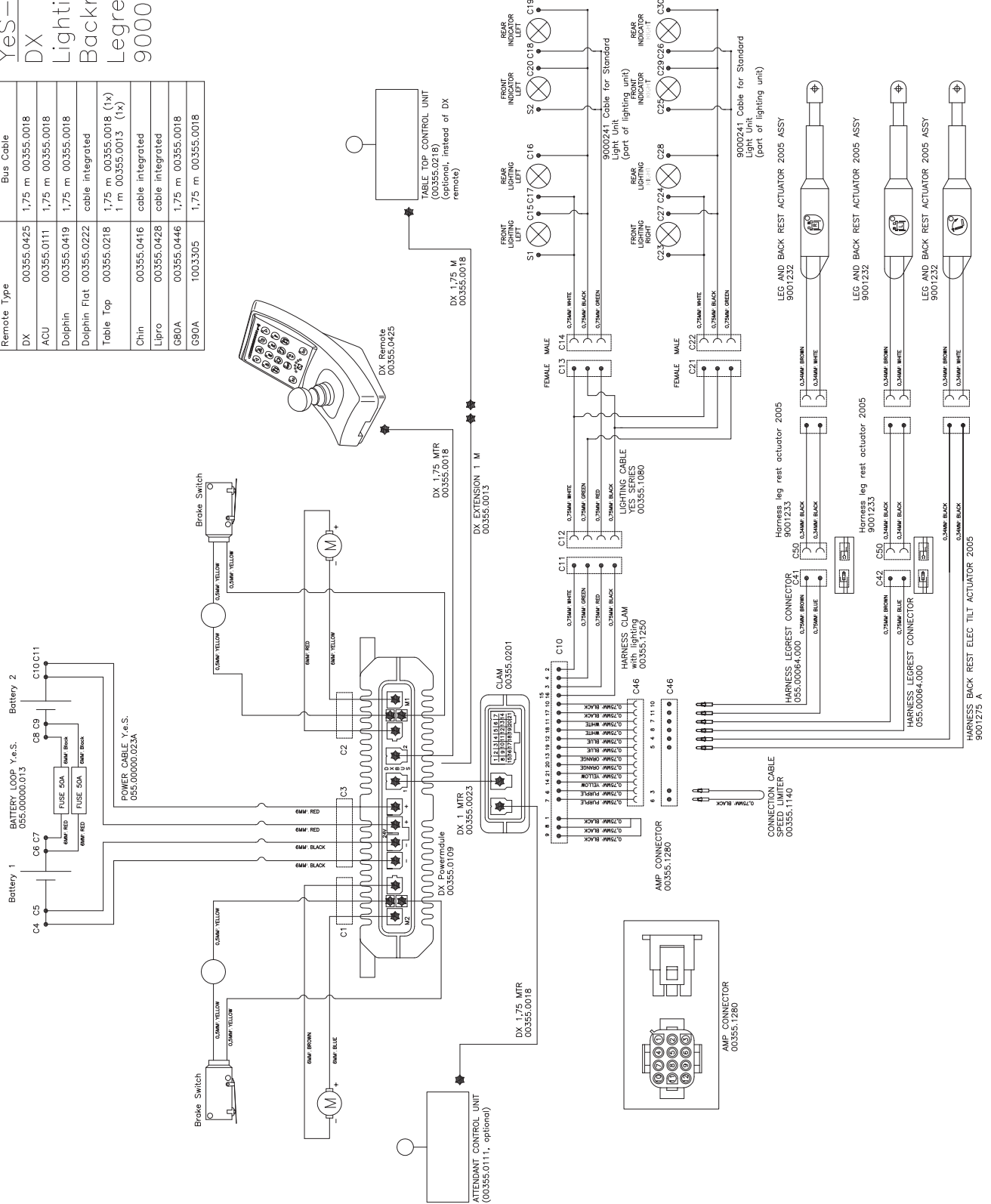
Remote Type	Bus Cable
DX	1,75 m 00355.0018
ACU	1,75 m 00355.0018
Dolphin	1,75 m 00355.0018
Dolphin Flat	00355.0222
Table Top	00355.0218
Chin	00355.0416
Lipso	00355.0428
G80A	00355.0446
G90A	1003305



#### 5.4.5 Electrical wiring diagram for 'DX' Lighting/Back rest/Leg rest

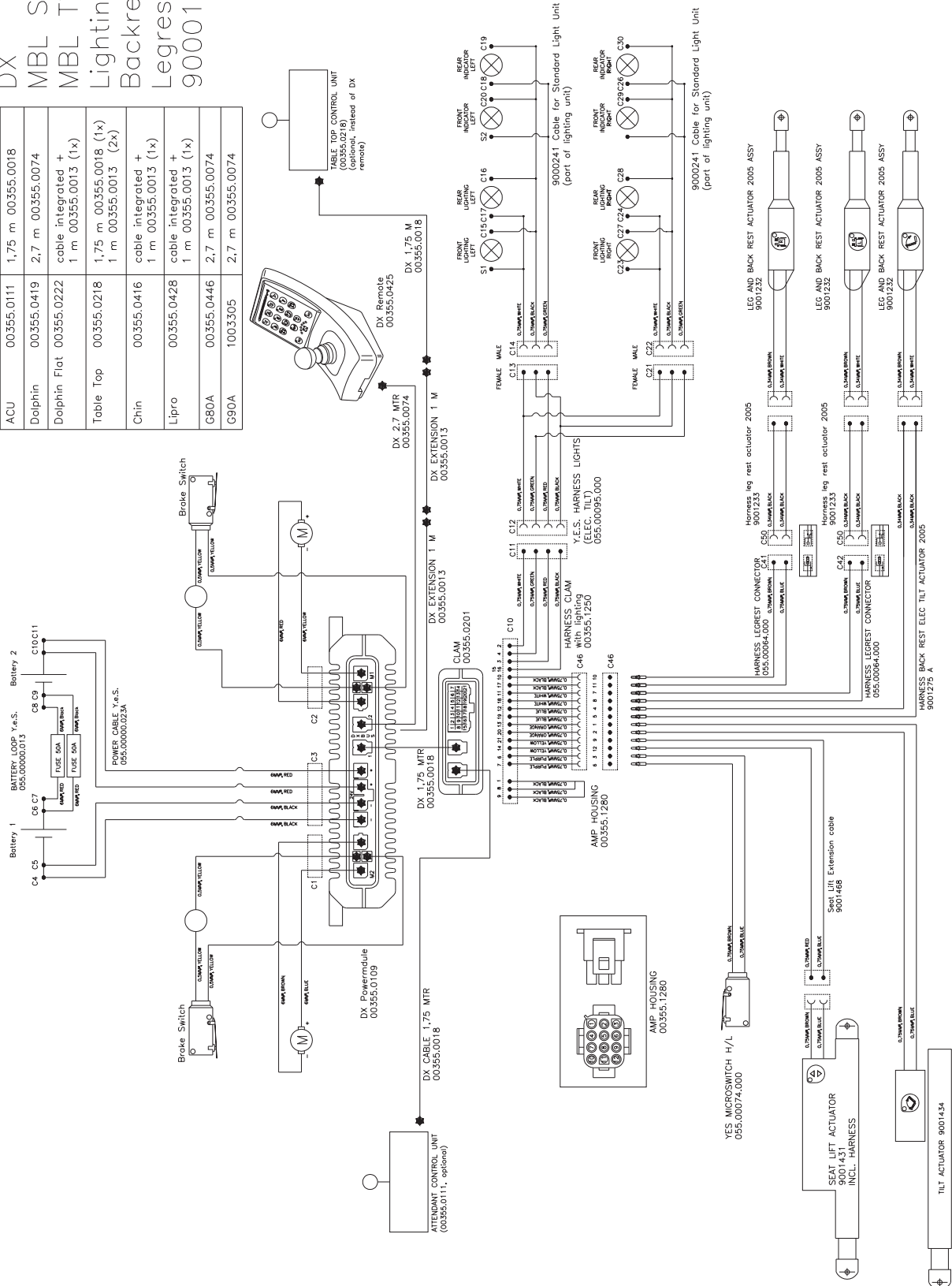
YeS-Series  
DX  
Lighting  
Backrest  
Legrest  
9000118-5C

Remote Type	Bus Cable
DX	1,75 m 00355.0018
ACU	1,75 m 00355.0018
Dolphin	1,75 m 00355.0018
Dolphin Flat	cable integrated
Table Top	1,75 m 00355.0018 (1x) 1 m 00355.0013 (1x)
Chin	cable integrated
Lbro	cable integrated
G80A	1,75 m 00355.0018
G90A	1,75 m 00355.0018



#### 5.4.6 Electrical wiring diagram for 'DX' MBL Seat lift/MBL Tilt/Lighting/Back rest/Leg rest

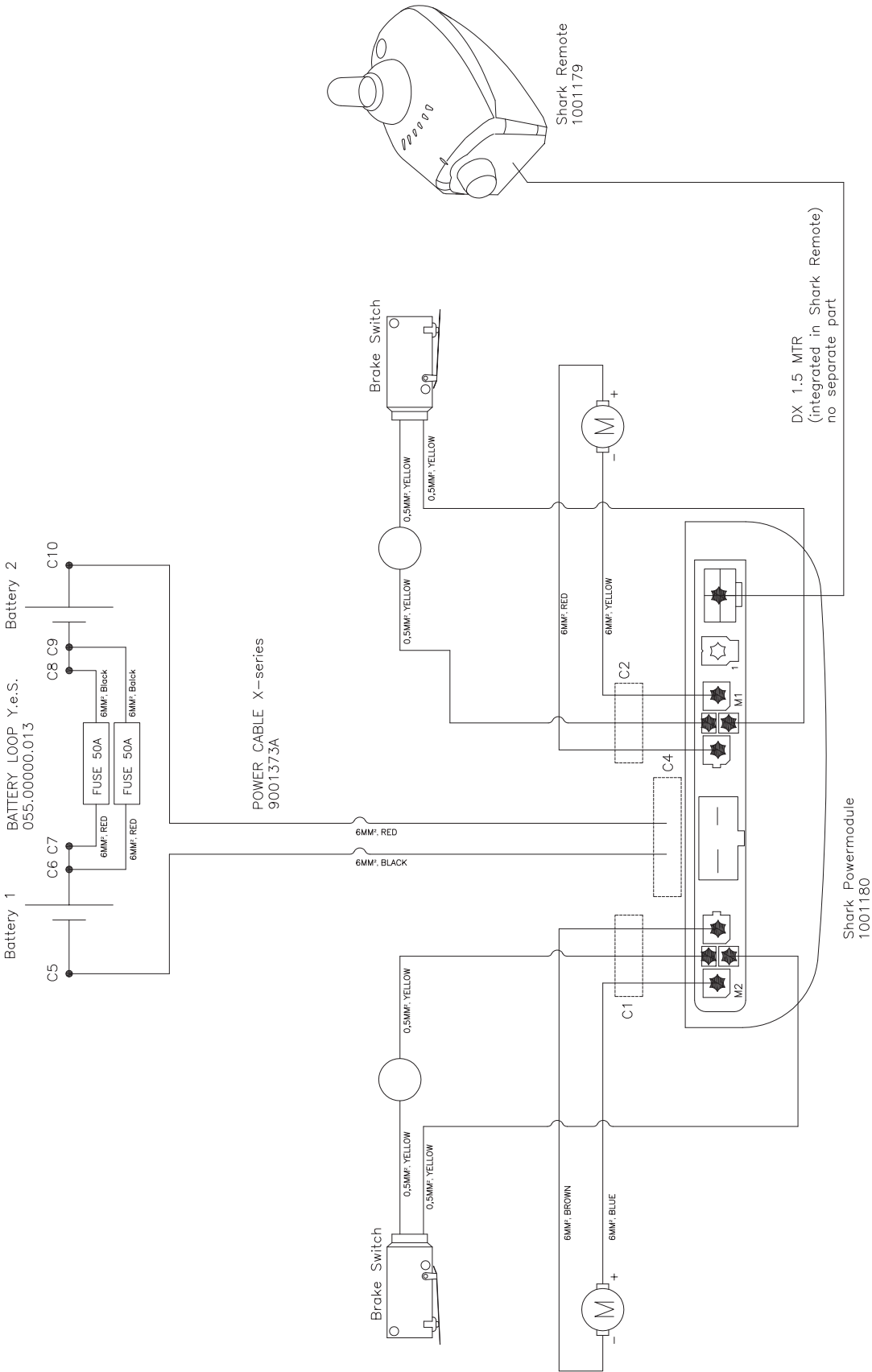
Remote Type	Bus Cable
DX 00355.0425	2,7 m 00355.0074
ACU 00355.0111	1,75 m 00355.0018
Dolphin 00355.0419	2,7 m 00355.0074
Dolphin Flat 00355.0222	cable integrated + 1 m 00355.0013 (1x)
Table Top 00355.0218	1,75 m 00355.0018 (1x) 1 m 00355.0013 (2x)
Chin 00355.0416	cable integrated + 1 m 00355.0013 (1x)
Lipro 00355.0428	cable integrated + 1 m 00355.0013 (1x)
G80A 00355.0446	2,7 m 00355.0074
G90A 1003305	2,7 m 00355.0074





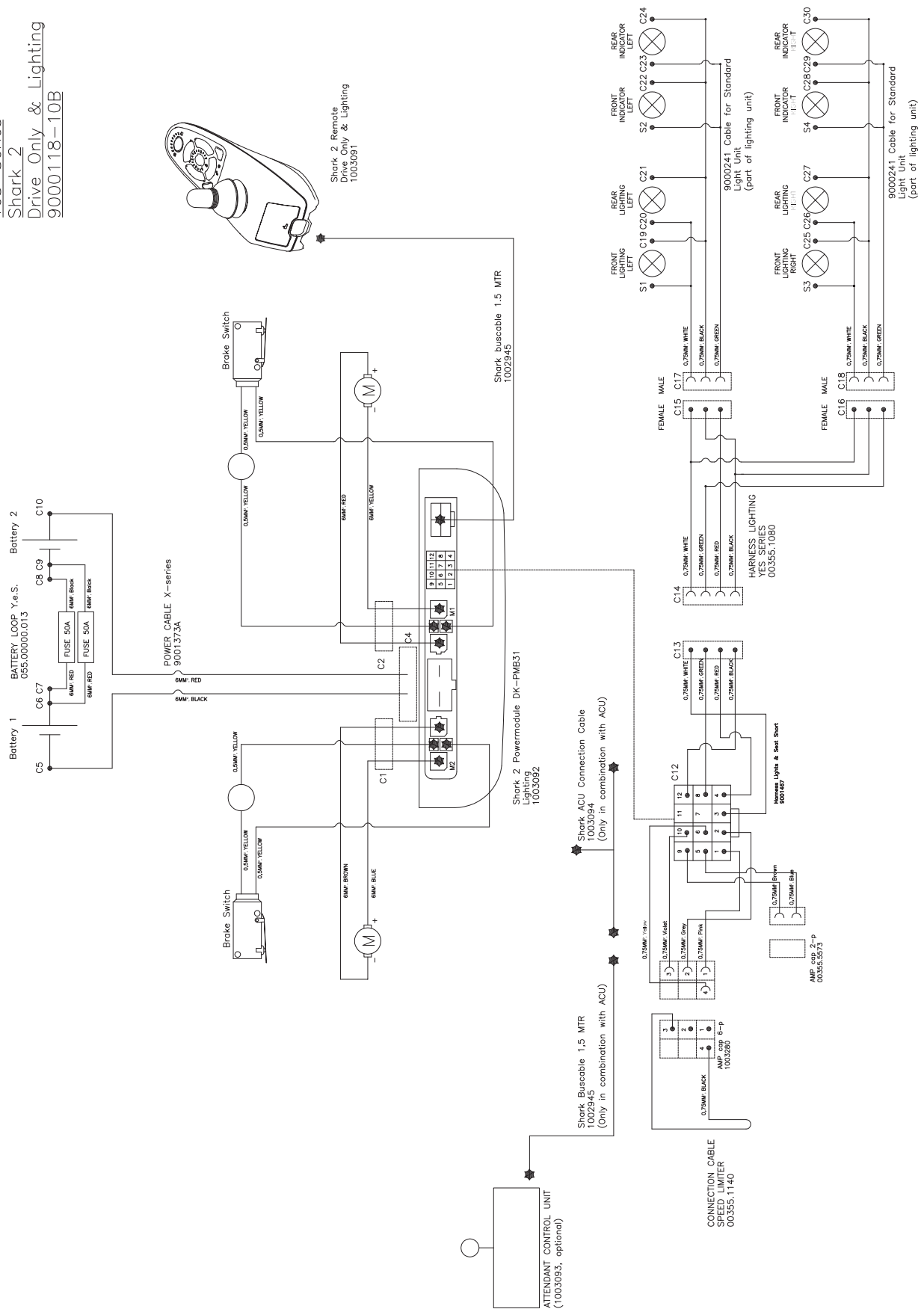
5.4.7 Electrical wiring diagram for ‘Shark’ Drive only

YeS-Series  
Shark Drive Only  
9000118-1



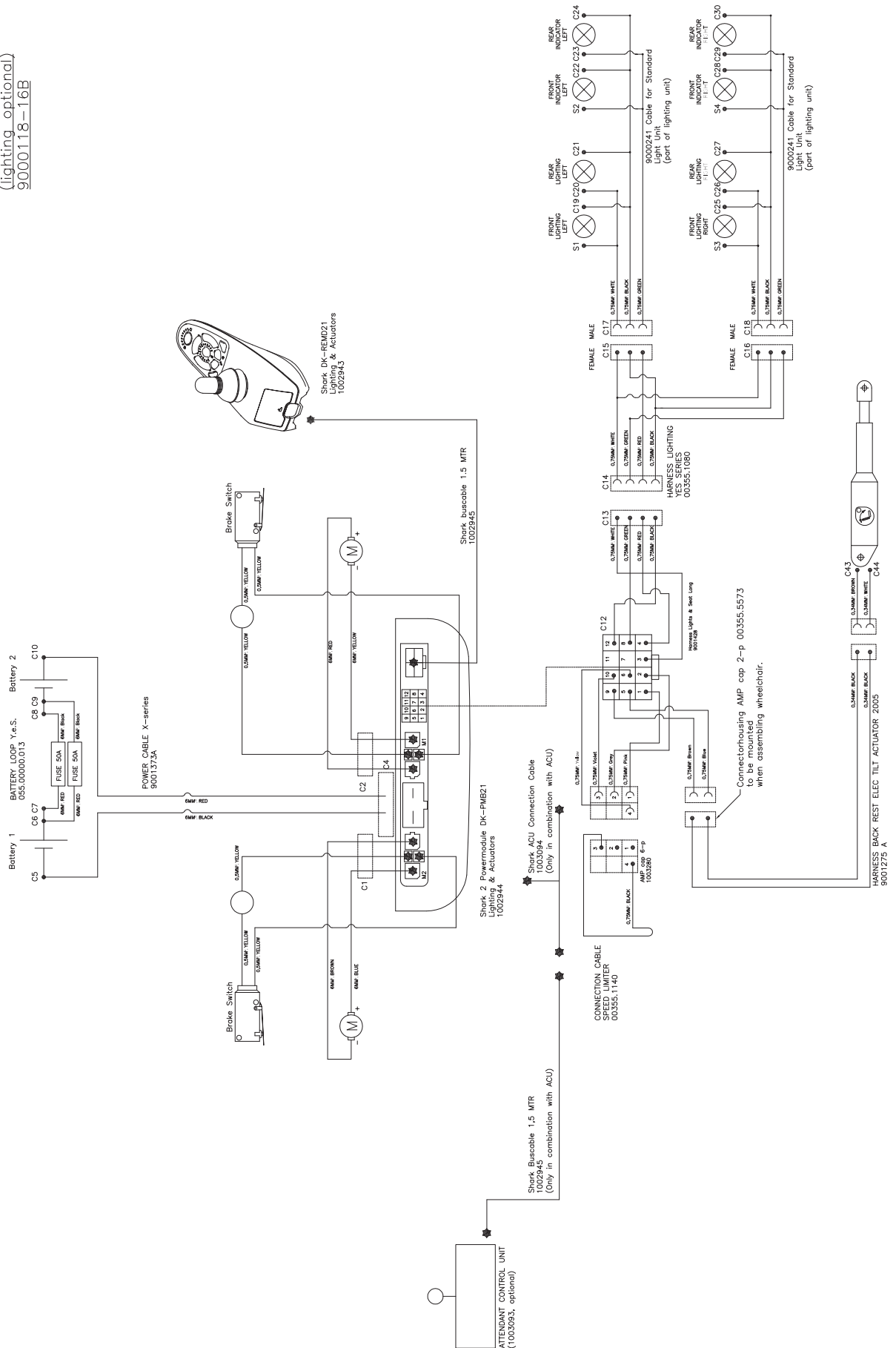
#### 5.4.8 Electrical wiring diagram for 'Shark' Drive only/Lighting

YeS-Series  
Shark 2  
Drive Only & Lighting  
9000118-10B



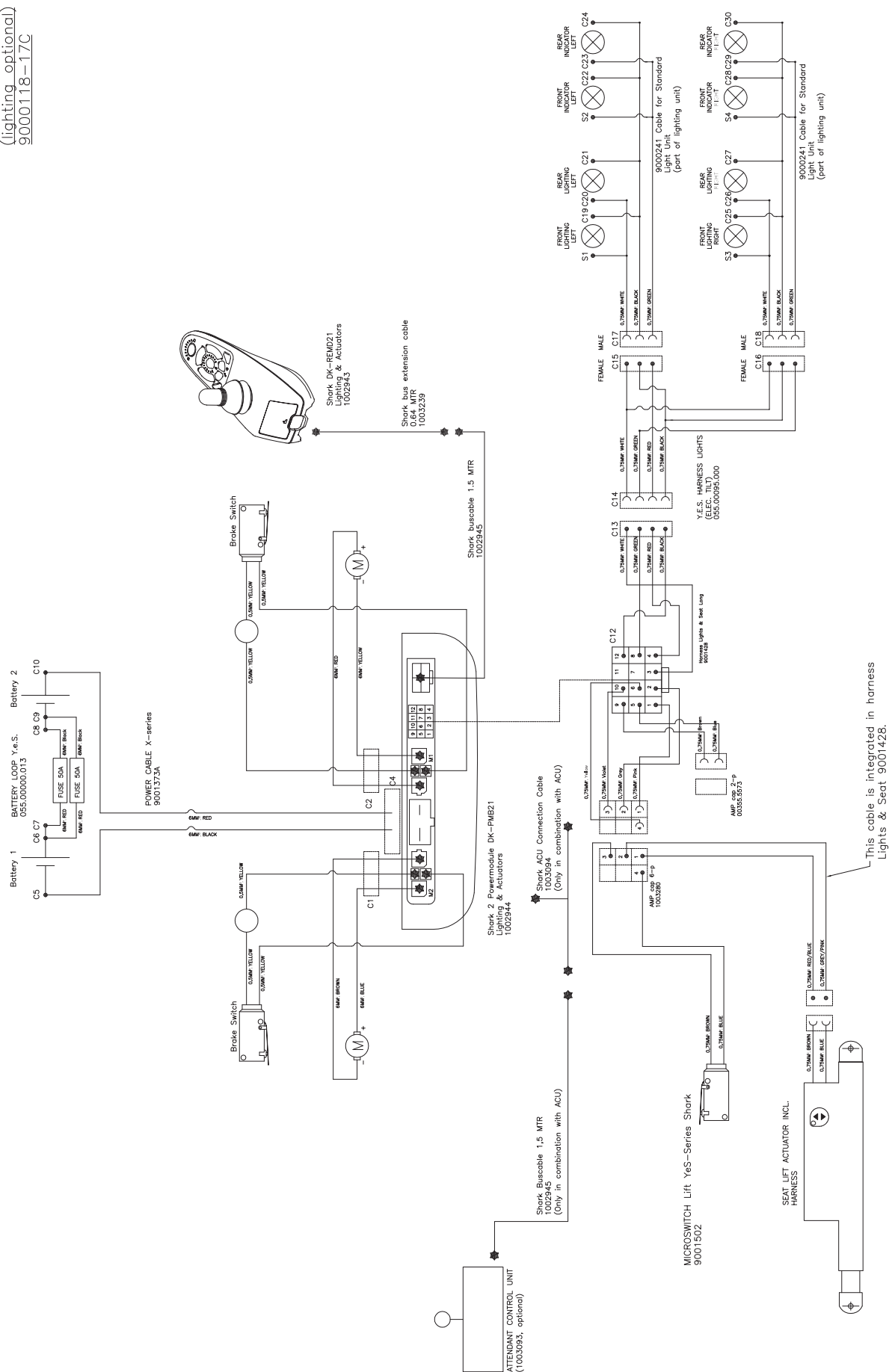
### 5.4.9 Electrical wiring diagram for 'Shark' Back rest

YeS-Series  
Shark\_2  
Backrest  
(lighting optional)  
9000118-16B



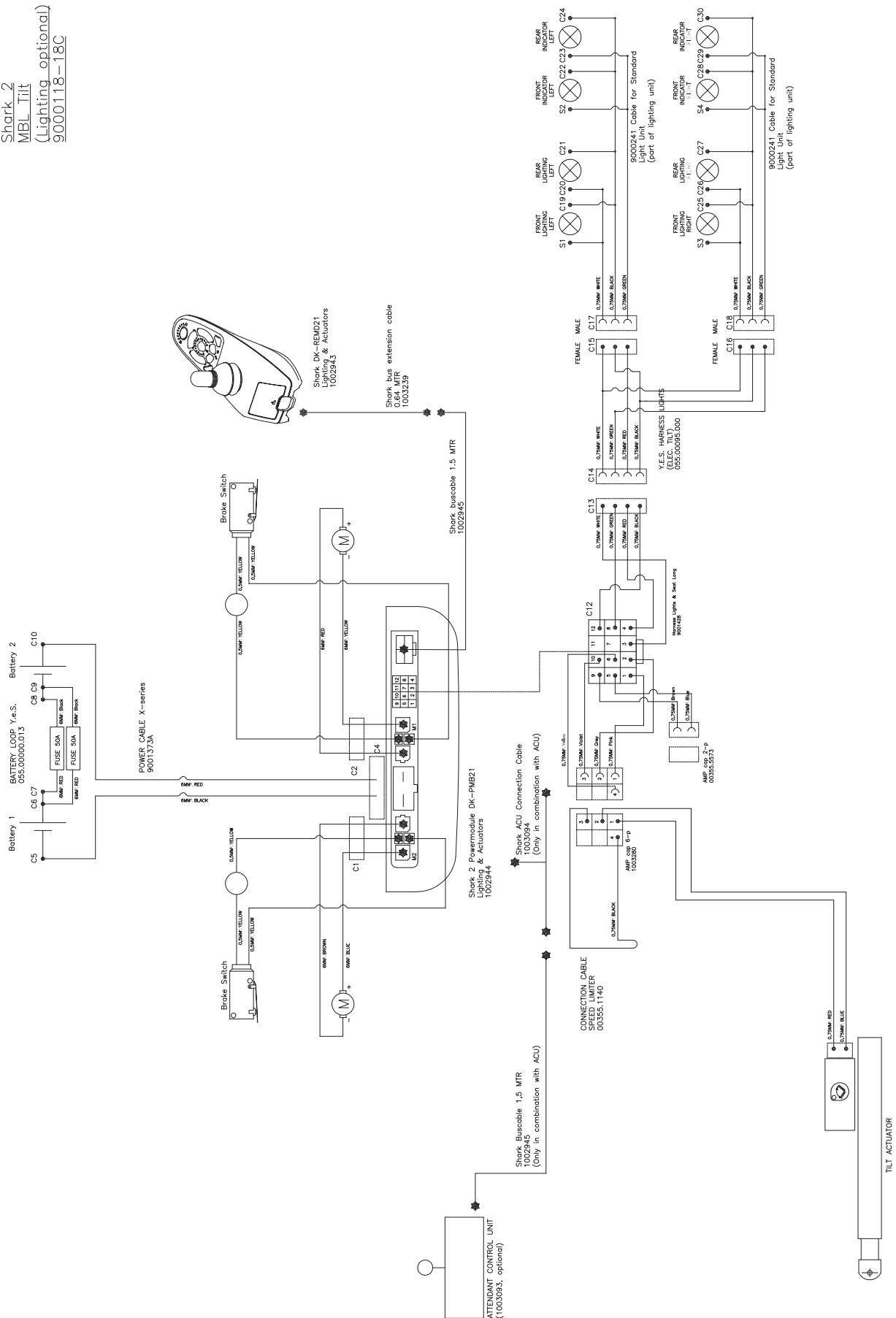
#### 5.4.10 Electrical wiring diagram for 'Shark' MBL Seat lift

Yes-Series  
Shark 2  
MBL Seat Lift  
(lighting optional)  
9000118-17C



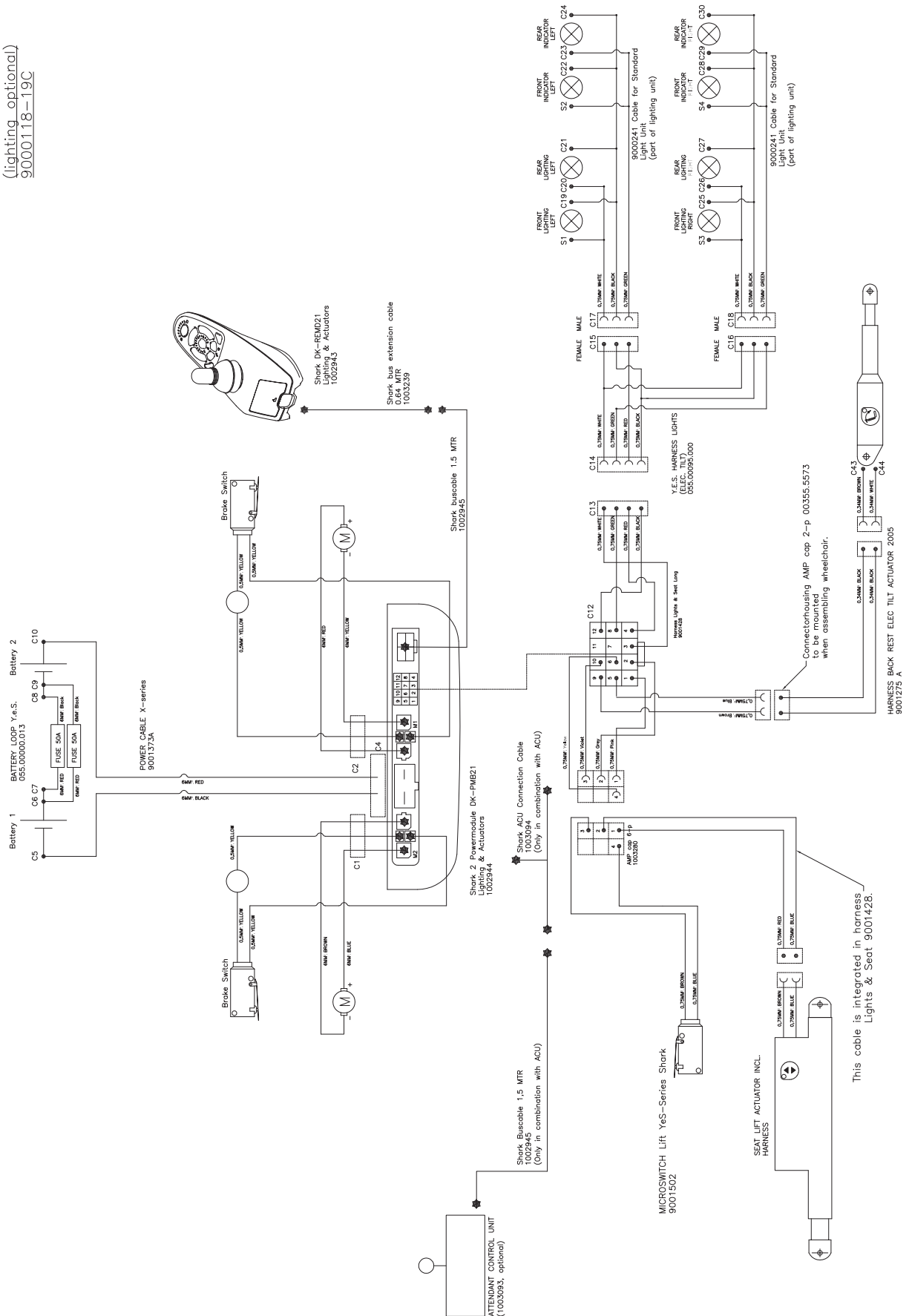
#### 5.4.11 Electrical wiring diagram for 'Shark' MBL Tilt

Yes-Series  
Shark 2  
MBL Tilt  
(Lighting optional)  
9000118-18C



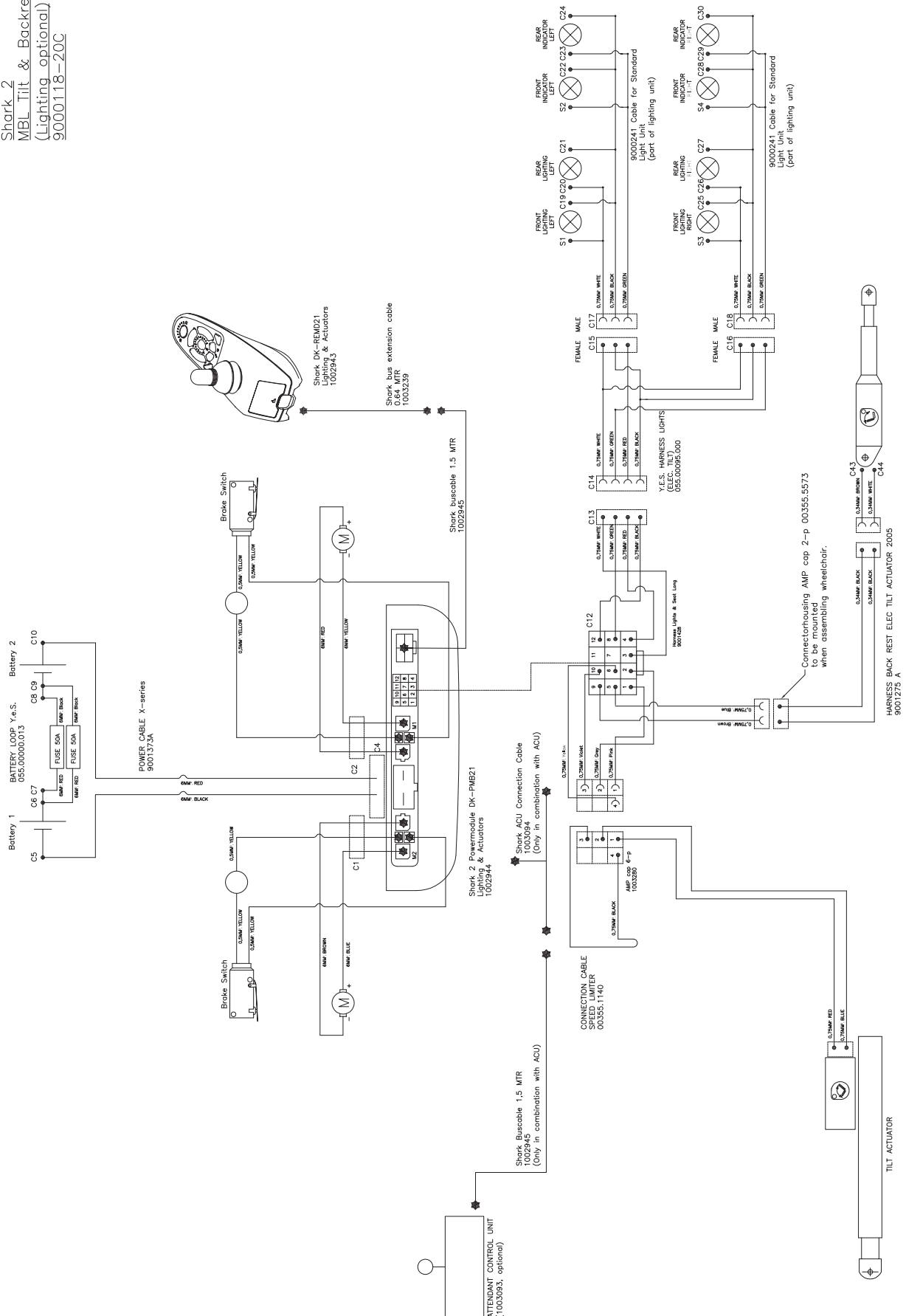
#### 5.4.12 Electrical wiring diagram for 'Shark' MBL Seat lift and Back rest

YeS-Series  
Shark 2  
MBL Seat Lift & Backrest  
(lighting optional)  
9000118-19C



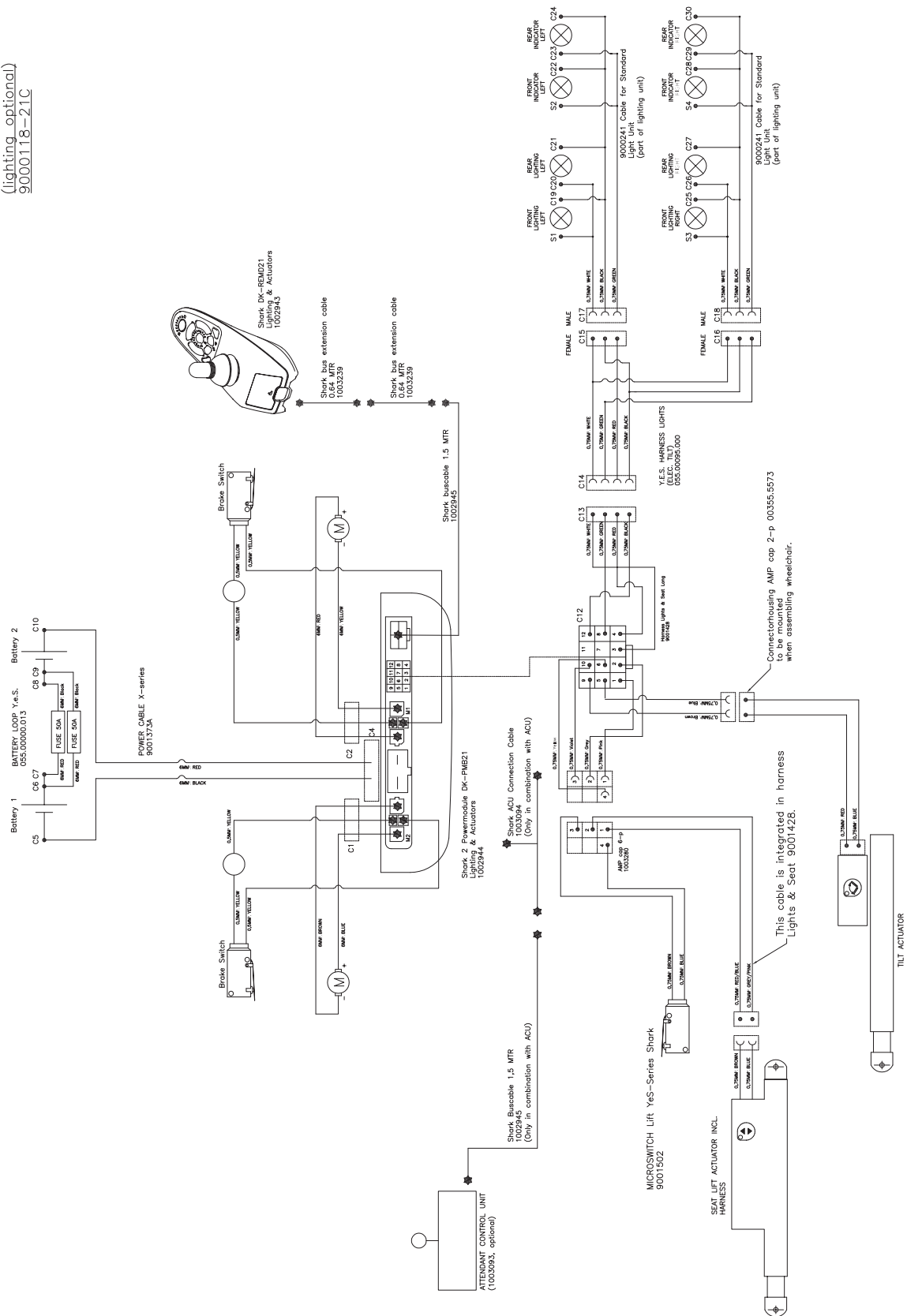
### 5.4.13 Electrical wiring diagram for 'Shark' MBL Tilt and Backrest

YeS-Series  
Shark 2  
MBL Tilt & Backrest  
(Lighting optional)  
9000118-20C



#### 5.4.14 Electrical wiring diagram for 'Shark' MBL Seat lift and Tilt

YeS-Series  
Shark 2  
MBL Seat Lift & MBL Tilt  
(lighting optional)  
9000118-21C





### 5.5 ***Authorised service and technical support***

If you have any problems or questions concerning this product, please contact your dealer.  
Ask us for information about your nearest dealer.

Manufacturer:	<b>Handicare</b>
---------------	------------------

Supplier Stamp	
-------------------	--

## 6 Use of the parts lists

This document is meant as a reference book to be used to order parts for the wheelchair that is shown on the front cover.

### How to order:

When ordering parts, please specify:

- Serial number (see the identification plate).
- Group (to which the relevant part belongs).
- Article number.
- Number of parts required.
- Description (in the relevant language).
- Dimensions (if applicable).

### Remarks:

- If a part does not have a position number, the part concerned cannot be purchased separately. The part concerned is part of the assembly shown. This assembly must be ordered as one piece; it must be replaced in its entirety.
- Boxed position numbers refer to the relevant drawing.

### Ordering address:

Please mail or fax your orders to your supplier.

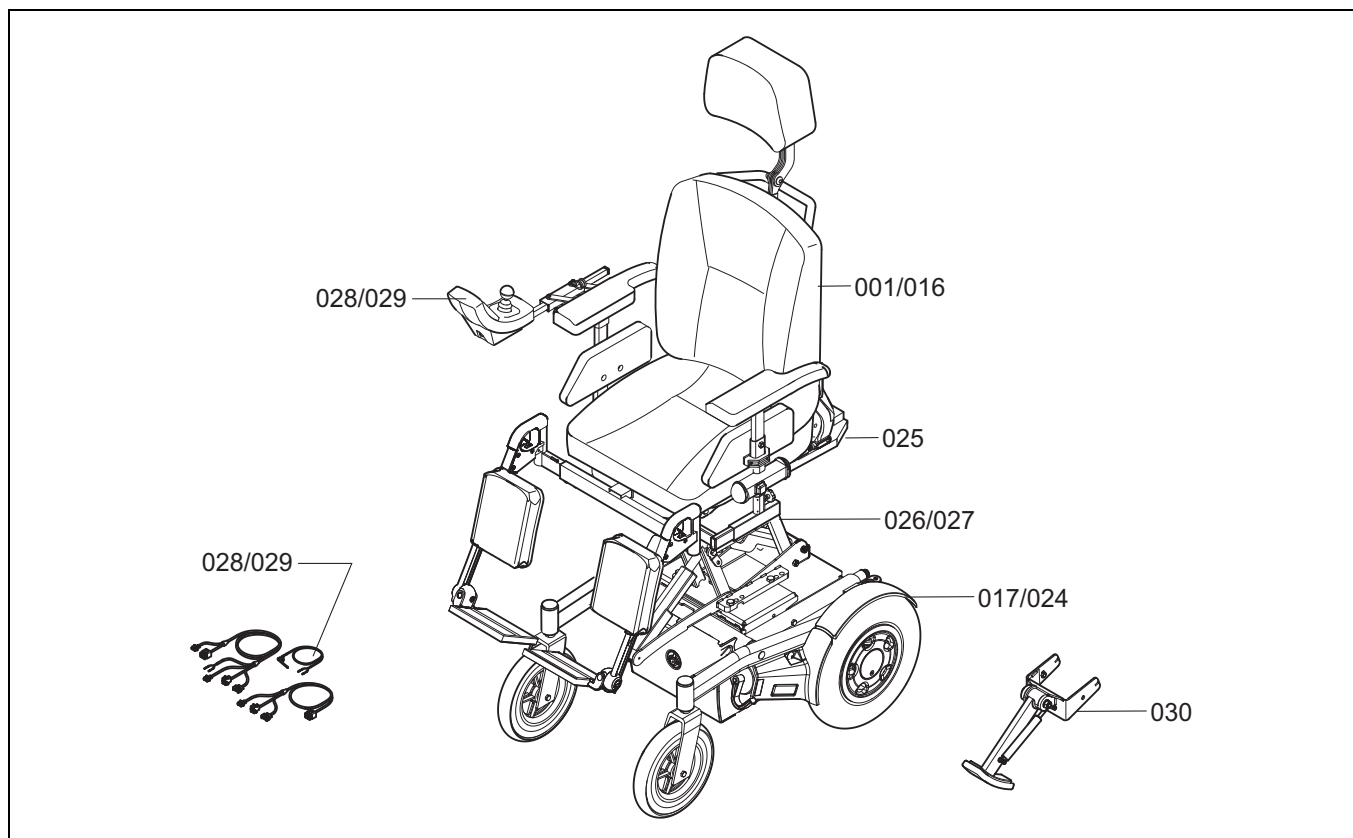
### Service technicians:

Repairs may only be carried out by trained and authorised service technicians.

During the execution of their work, they are at all times fully responsible for the fulfillment of locally applicable safety guidelines and standards.

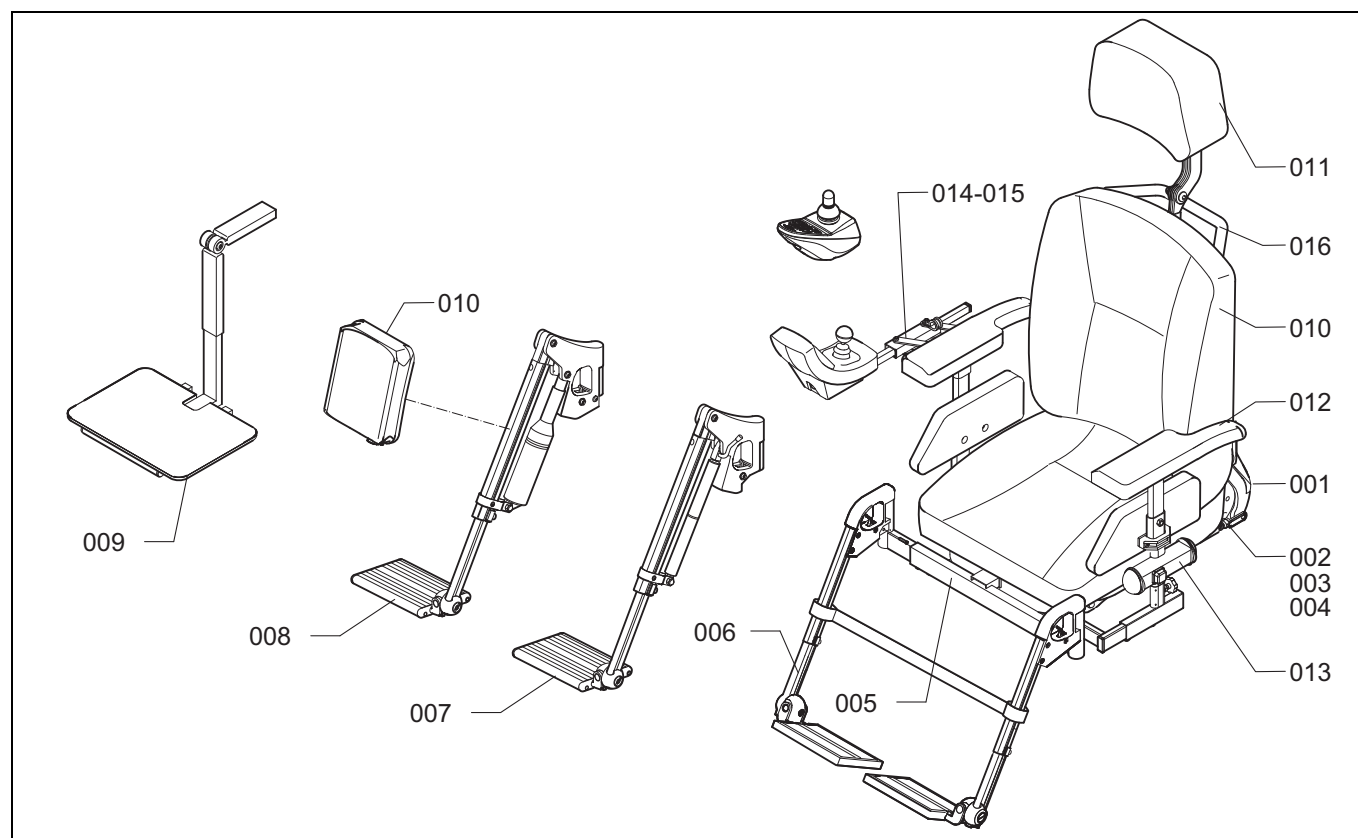
Temporary employees and persons in training may only carry out repair and replacement work under the supervision of an authorised service technician

## Overview



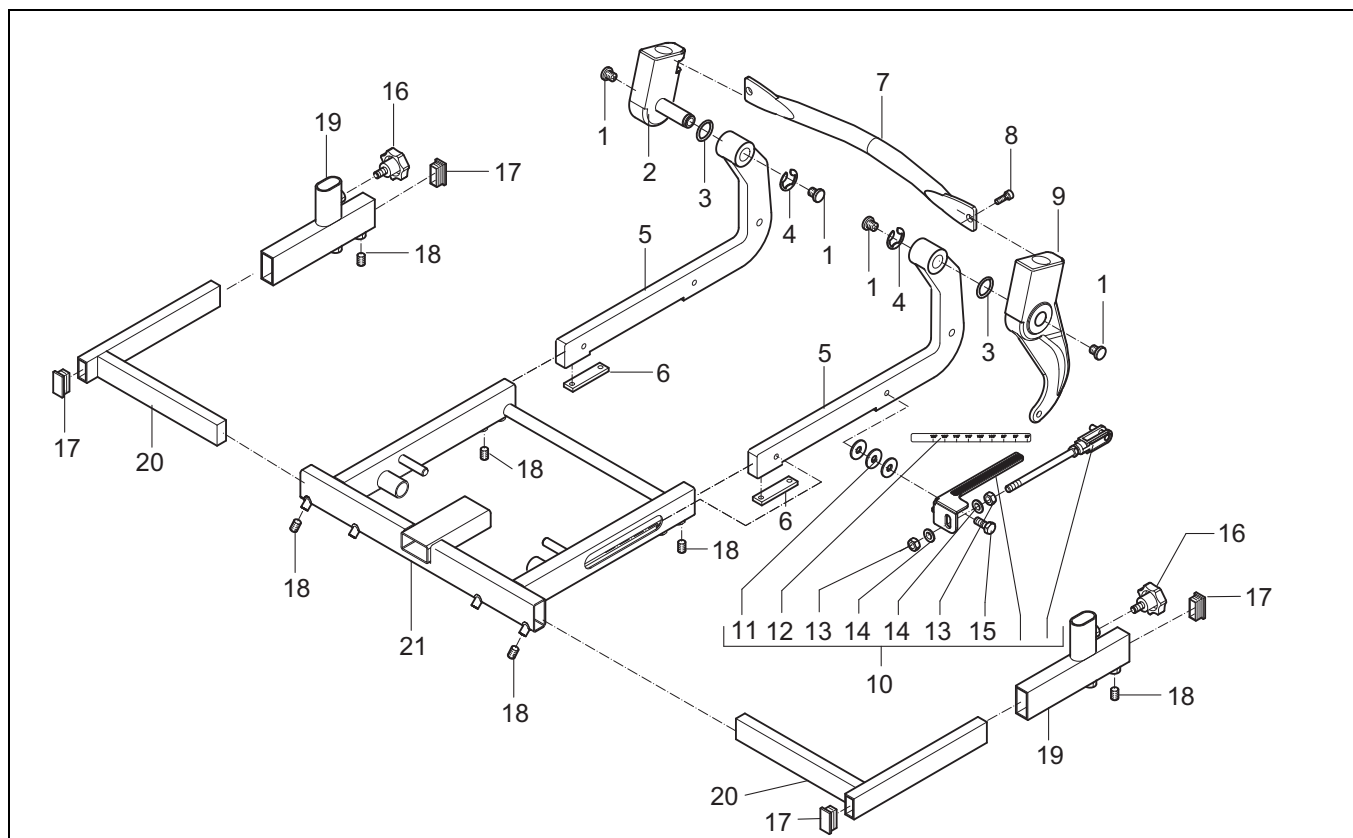
Drawing	Description	Page
001-016	Sedeo	50 – 70
017-024	Carrier	71 – 80
025-030	Options, wiring and modules	81 – 98

## 6.1 SEDEO



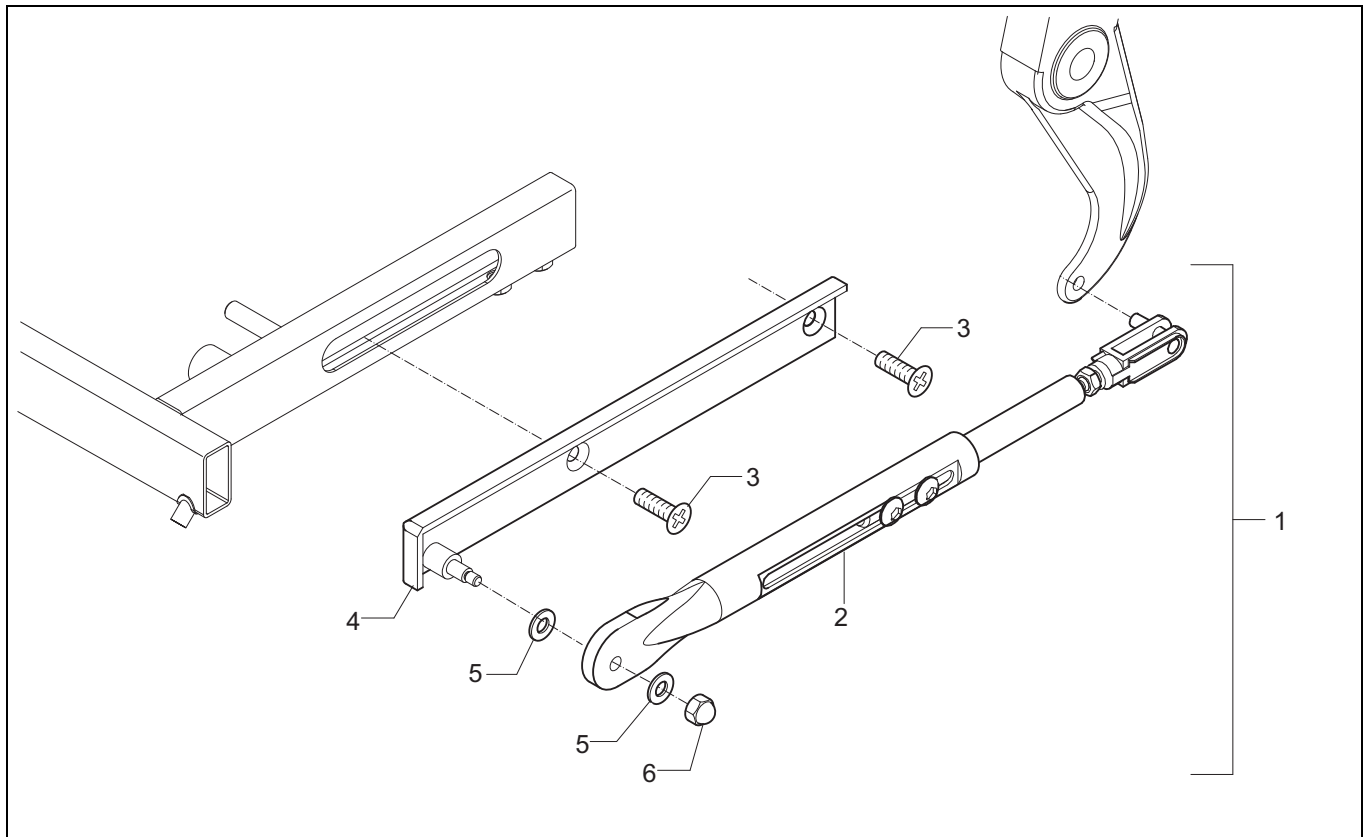
Drawing	Description	Page
001	Sedeo seating frame	51
002	Mechanical backrest old	52
003	Electrical backrest	53
004	Gas spring backrest adjustment	54
005	Mounting bracket for leg rest	55
006	Standard leg rest	56
007	Comfort Mechanical leg rest	57
008	Comfort Electrical leg rest	58
009	Central leg rest	60
010	Upholstery	61
011	Head rest	64
012	Arm rests	65
013	Lighting	66 – 67
014	Fixed joystick bracket	68
015	Swing-away joystick bracket	69
016	Mechanical tilt	70

## 001 Sedeo seating frame



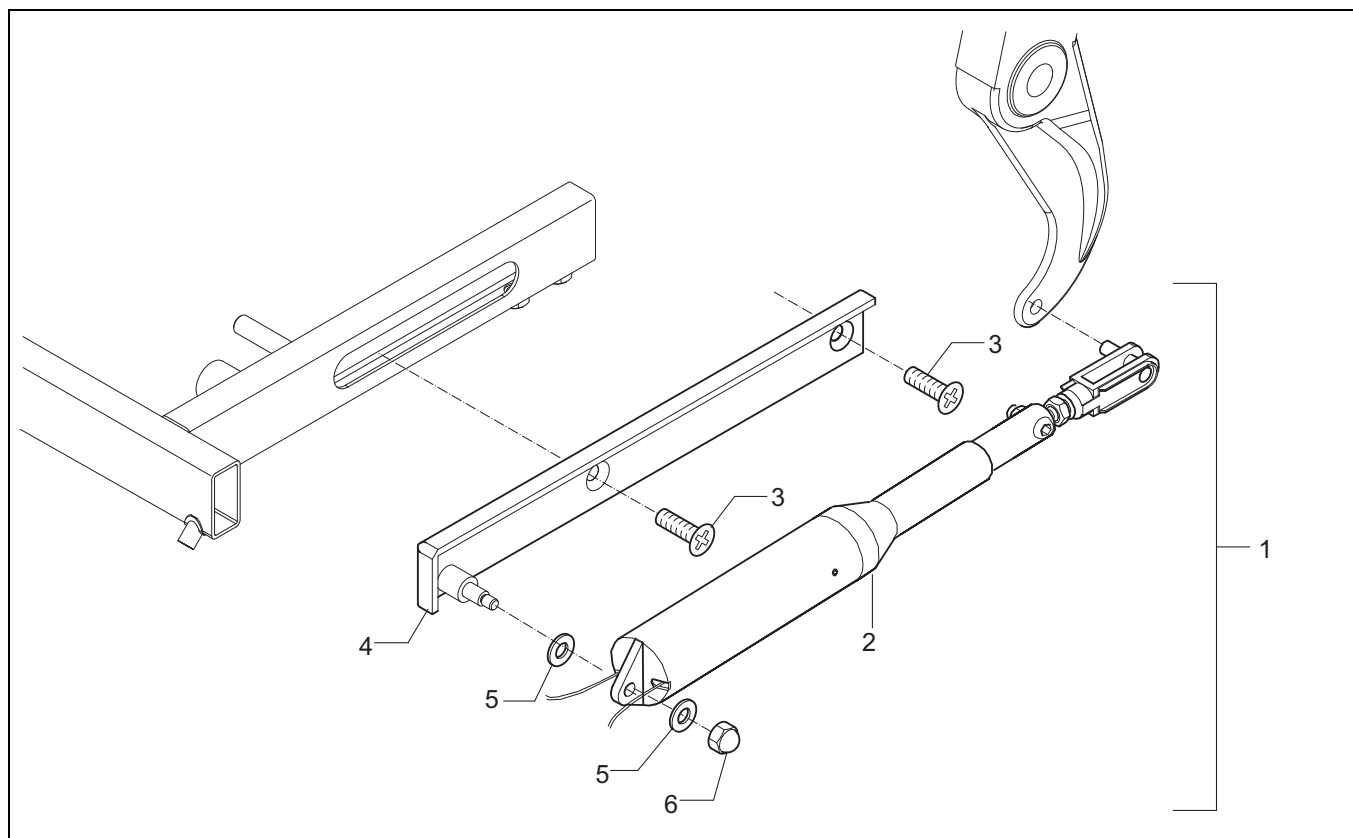
Pos	Article number	Units	Description	
1	00000.9009	4	Insert cap round 15 black	
2	02030.4123	1	Back part 2 Sedeo short back arm	
3	00001.0204	2	Washer	
4	00000.1401	2	Shaft lock washer 15MM D6799 RVS	
5	02030.4023	2	Back part 1 Sedeo	
6	9000673	2	Pressure plate Sedeo	
7	02030.3423	1	Back frame	
8	00000.3728	2	Button head M8X12 ISO7380	
9	02030.4223	1	Back part 2 Sedeo long back arm	
10	1008035	1	Backrest adjustment assy	
11	00000.2103	3	Washer flat 3XD M8	
12	1003247	1	Label back rest angle (sticker sheet)	
13	00000.1502	2	Hex Nut M8	
14	00000.2003	2	Washer flat M8	
15	00000.4135	1	Hex. Bolt M8x25	
16	00000.4502	2	Star knob outs M8X15 black	
17	00000.9203	4	Insert cap 35x15 black	
18	00000.3519	8	Adjusting screw cone M8X10 D914	
19	9000158	2	Arm support holder < 01-06-2008	
	9002122	2	Arm support holder > 01-06-2008	
20	118.00172.023	2	Insert holder	
	1002477	2	Insert holder widened	
21	118.00111.023	1	Seat frame Sedeo	

## 002 Mechanical backrest old



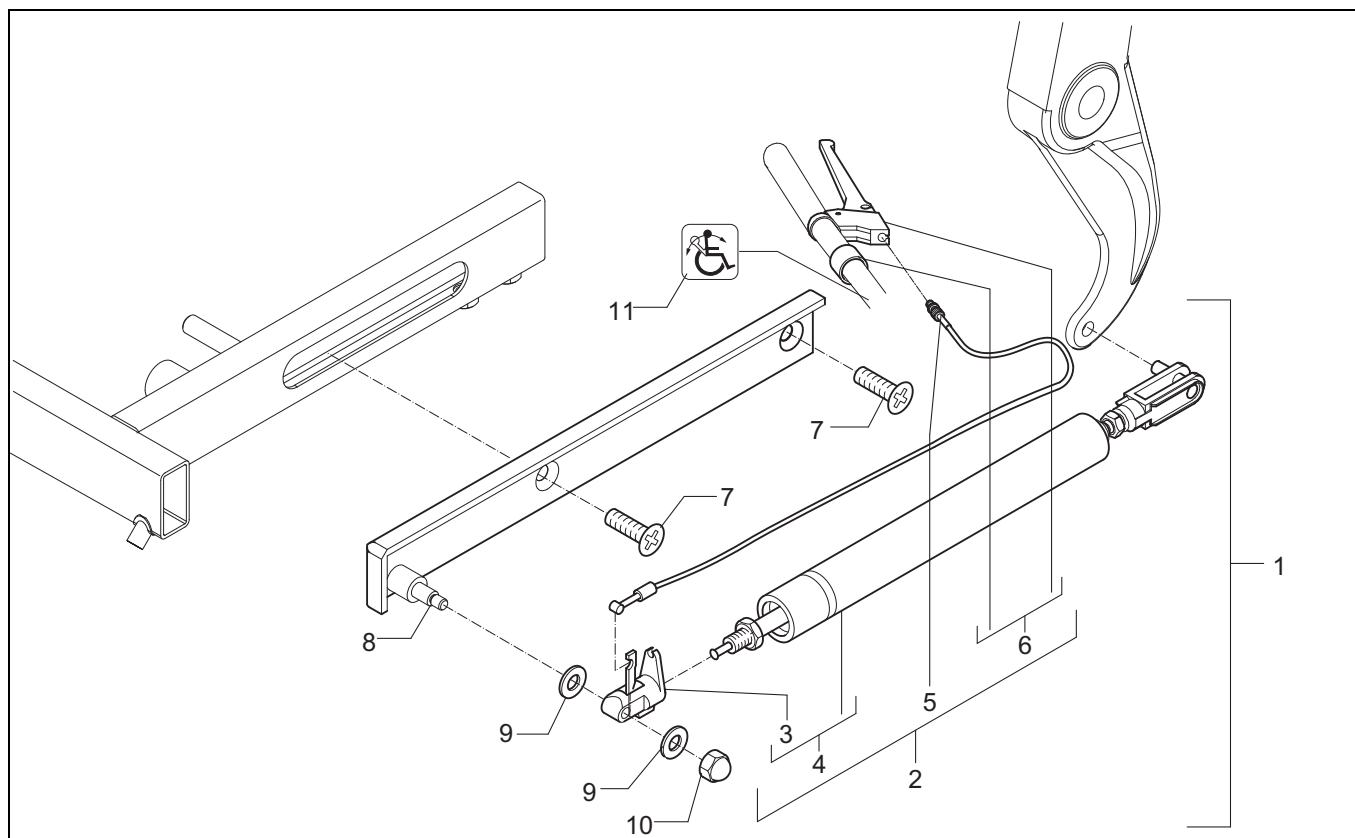
Pos	Article number	Units	Description	
-	-	-	No longer available as on drawing. See drawing 001 pos 10 for replacement parts.	

## 003 Electrical backrest



Pos	Article number	Units	Description	
1	1008078	1	Electrical backrest	
2	150.00141.000	1	Actuator for backrest	
3	00001.0914	2	Screw M8x16 D7991	
4	02030.3523	1	Bracket backrest adjustment	
5	00000.2250	2	Spring washer fluted M8 D137B VZ	
6	00000.1801	1	Cap locknut M6 D986/VZ	
-	9002617	1	Fork joint for electrical back rest actuator	

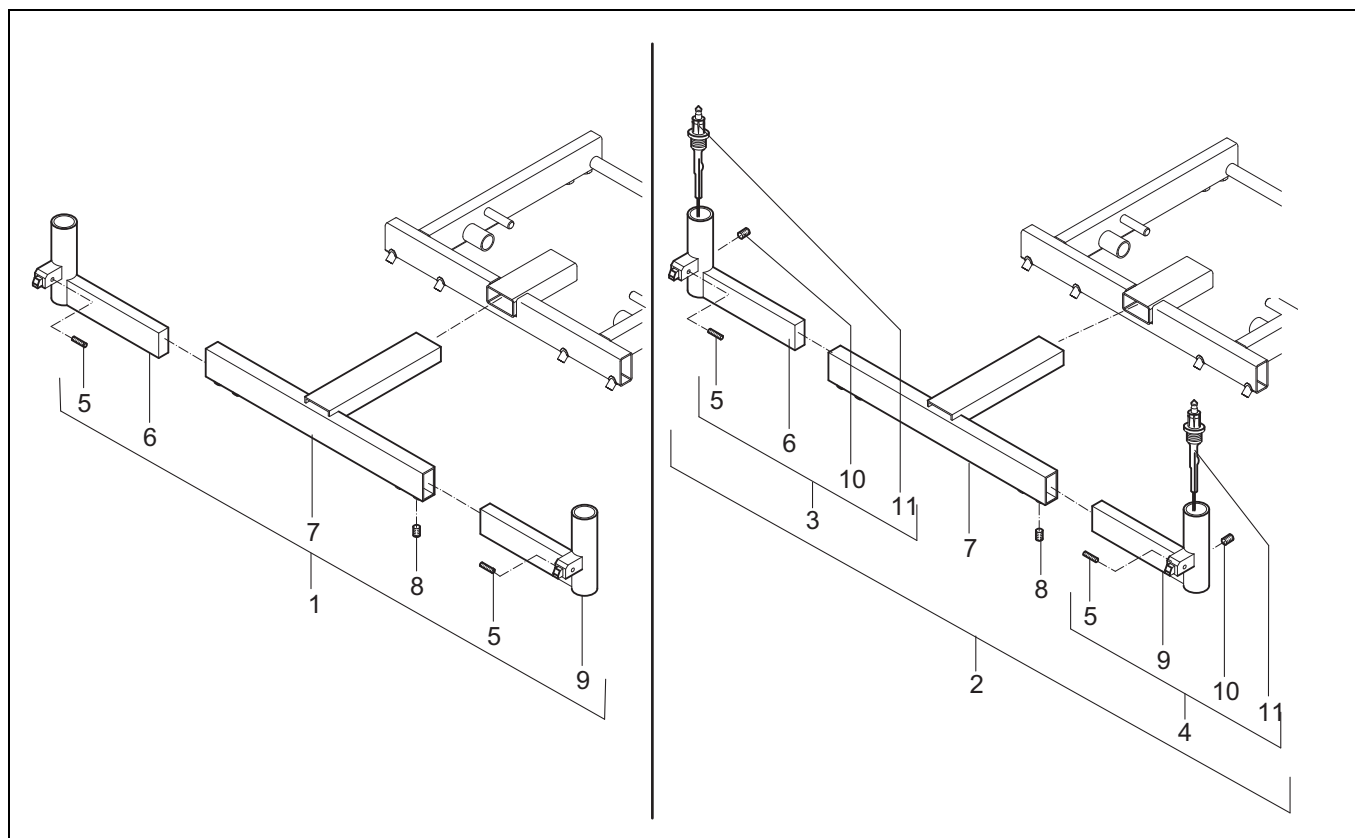
## 004 Gas spring backrest adjustment



Pos	Article number	Units	Description	
1	1003440	1	Gasspring backrest adjustment complete	
2	02152.9200	1	Gasspring backrest adj.	
3	02010.6910	1	Gasspring unlock mechanism	
4	1002813	1	Gasspring bloc-o-lift 200N	
5	1008057	1	Cable	
6	1007008	1	Handle	
7	00001.0914	2	Screw M8X16	
8	02030.3523	1	Bracket backrest adjustment	
9	00000.2250	2	Spring washer fluted M8	
10	00000.1801	1	Cap lock nut M6	
11	00001.1405	1	Label backrest adjustment	

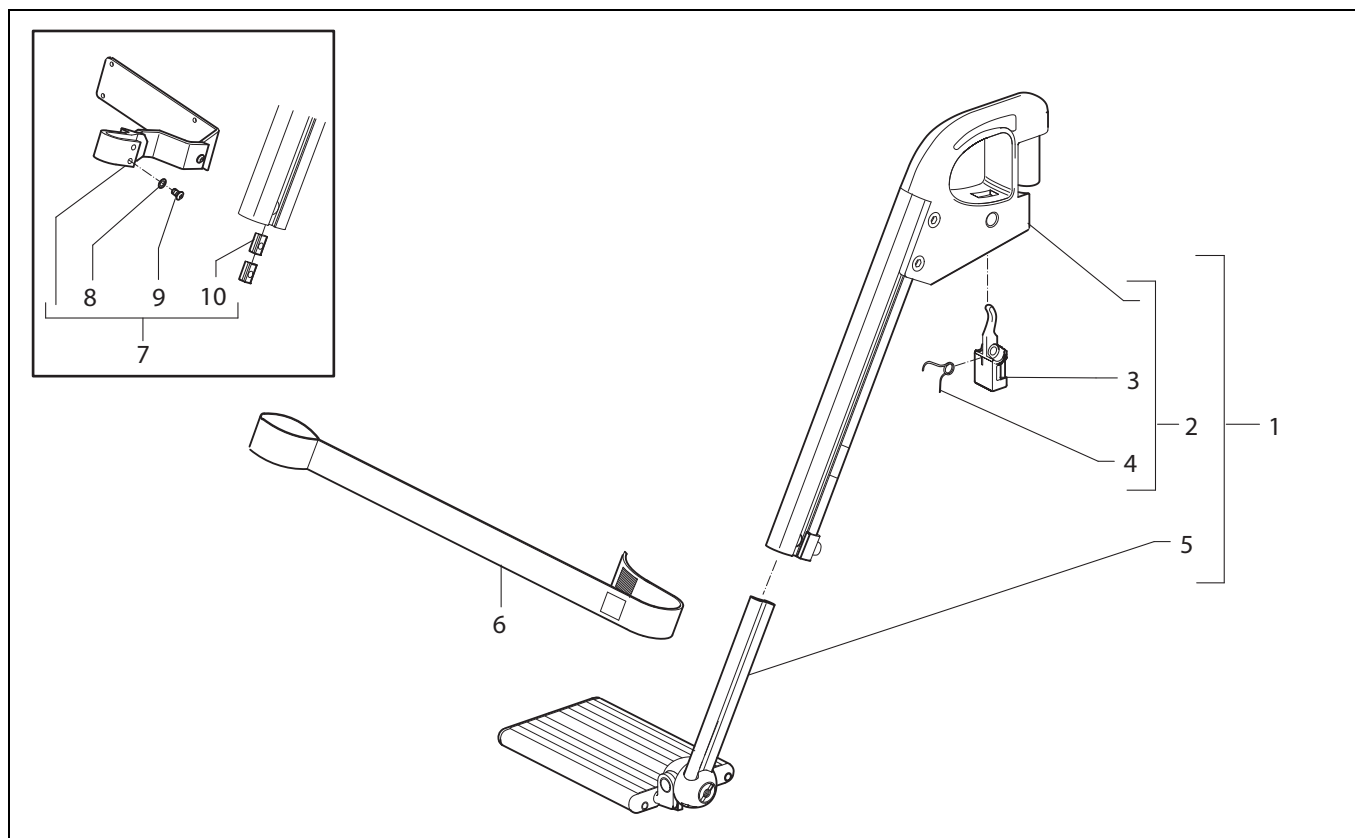


## 005 Mounting bracket for leg rest



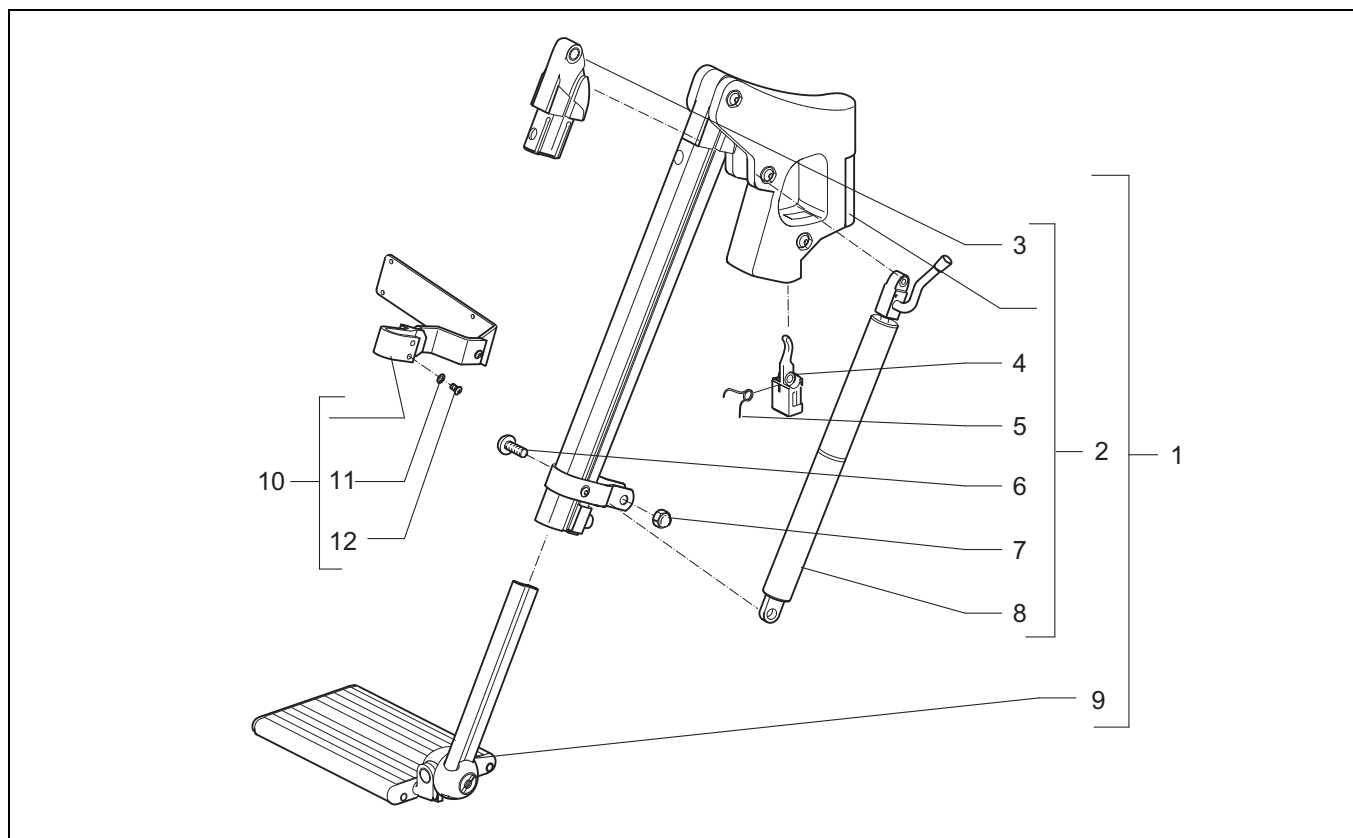
Pos	Article number	Units	Description	
1	01245.9623	1	Mounting bracket for standard and comfort leg rests	
2	05245.9723	1	Mounting bracket for electrical leg rests	
3	05990.0012	1	Insert tube right for electrical leg rest	
4	05990.0013	1	Insert holder left-hand	
5	00000.3590	2	Adjusting screw M6X16	
6	01502.1323	1	Insert tube right	
7	05245.0723	1	Middle part leg rest bracket	
	1002601	1	Leg rest mounting bracket extended (10 cm)	
8	00000.3501	4	Adjusting screw BZK M8X10 D913/VZ	
9	01502.1223	1	Insert tube left	
10	00000.3542	2	Adjusting screw + crater M6X8 D916	
11	055.00064.000	2	Leg rest harness	
-	1009562	1	Mounting bracket 10cm widened for standard and comfort legrests	
-	1008492	1	Mounting bracket for Torso+ standard and comfort leg rests on Sedeo	

## 006 Standard leg rest



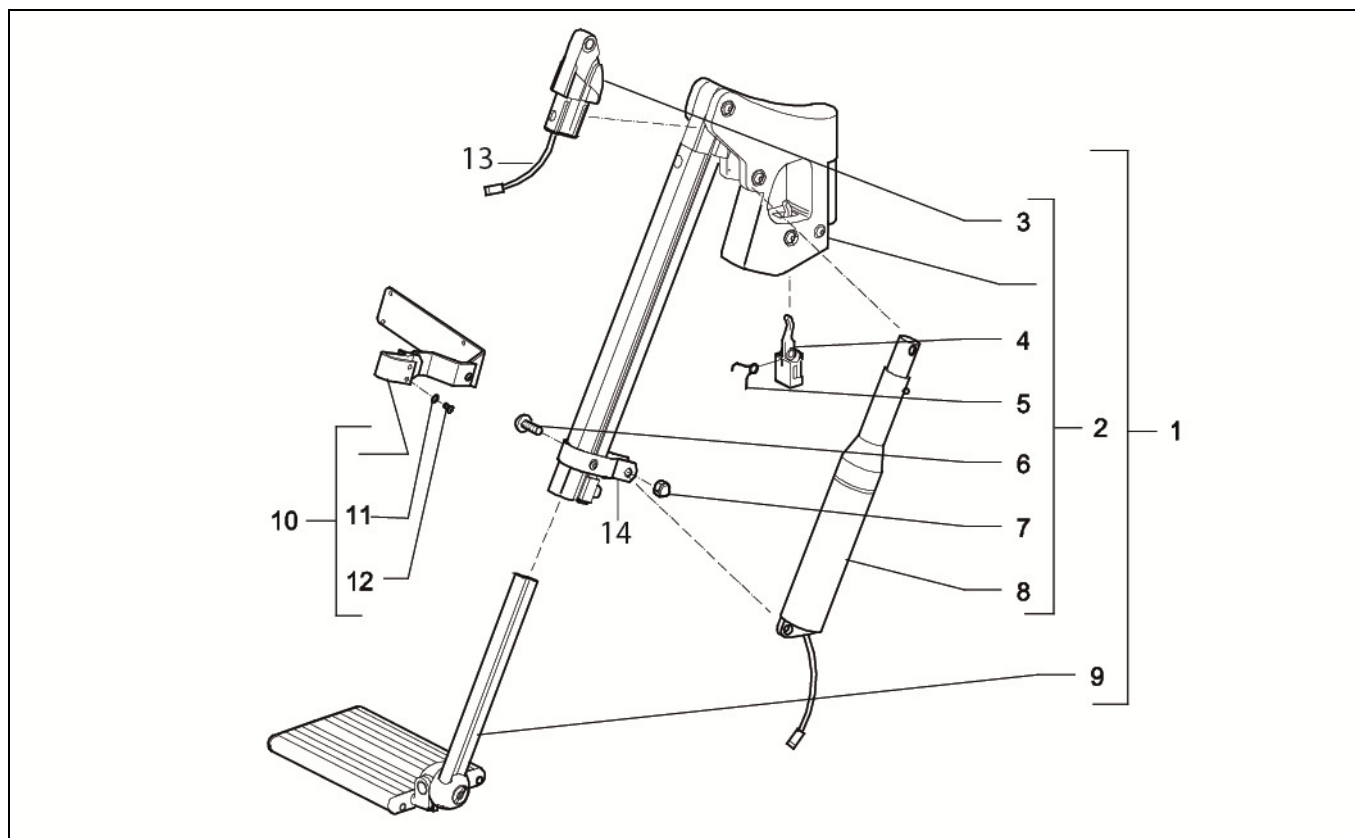
Pos	Article number	Units	Description	
1	-	1	Standard leg rest left See page 59.	
	-	1	Standard leg rest right See page 59.	
2	1002515	1	Standard leg rest upper part left	
	1002514	1	Standard leg rest upper part right	
3	01500.1112	2	Leg rest release lever	
4	01500.2212	2	Leg rest release spring	
5	-	1	Footplate left See page 59.	
	-	1	Footplate right See page 59.	
6	01263.9000	1	Calf strap	
7	1004189	2	Calf plate hinge standard	
	1004188	2	Calf plate hinge small	
8	00000.2601	4	Toothed spring washer M6	
9	00000.3725	4	Button head M6X10	
10	01500.2110	4	Leg rest clamping strip short	
-	01503.8000	1	Standard leg rest top complete right	
-	01503.8100	1	Standard leg rest top complete left	
-	1002599	2	Legrest inner extrusion 10 cm extended	

## 007 Comfort mechanical leg rest



Pos	Article number	Units	Description	
1	-	1	Comfort leg rest left See page 59.	
	-	1	Comfort leg rest right See page 59.	
2	1002517	1	Comfort leg rest upper part left	
	1002516	1	Comfort leg rest upper part right	
3	1008580	2	Hinge comfort leg rest	
4	01500.1112	2	Leg rest release lever	
5	01500.2212	2	Leg rest release spring	
6	00000.3706	2	Button head M8X25	
7	00000.1802	2	Cap lock nut M8	
8	1008076	1	Gasspring with gasspring control left	
	1008077	1	Gasspring with gasspring control right	
-	1009968	1	Gasspring 200N	
9	-	1	Footplate left See page 59.	
	-	1	Footplate right See page 59.	
10	1004189	2	Calf plate hinge standard	
	1004188	2	Calf plate hinge small	
11	00000.2601	4	Toothed spring washer M6	
12	00000.3725	4	Button head M6X10	
-	01503.8200	1	Comfort leg rest top complete right	
-	01503.8300	1	Comfort leg rest top complete left	
-	906.00000.111	1	Gasspring control left	
-	906.00000.121	1	Gasspring control right	
-	1002599	2	Legrest inner extrusion 10 cm extended	

## 008 Comfort electrical legrest



Pos	Article number	Units	Description	
1	-	1	Electrical comfort leg rest left See page 59	
	-	1	Electrical comfort leg rest right See page 59	
2	1003029	1	Electrical comfort leg rest upper part left	
	1003028	1	Electrical comfort leg rest upper part right	
3	1008580	2	Hinge comfort leg rest	
4	01500.1112	2	Leg rest release lever	
5	01500.2212	2	Leg rest release spring	
6	00000.3706	2	Button head M8X25	
7	00000.1802	2	Cap lock nut M8	
8	9001232	2	Leg rest actuator inc. kabel	
9	-	1	Footplate left See page 59.	
	-	1	Footplate right See page 59.	
10	1004189	2	Calf plate hinge standard	
	1004188	2	Calf plate hinge small	
11	00000.2601	2	Toothed spring washer M6	
12	00000.3725	2	Button head M6X10	
13	9001233	2	Harness for leg rest actuator	
14	01500.2923	2	Leg rest hinge gas spring/motor	
-	01503.8400	1	Electrical comfort leg rest top complete right	
-	01503.8500	1	Electrical comfort leg rest top complete left	
-	1002599	2	Legrest inner extrusion 10 cm extended	

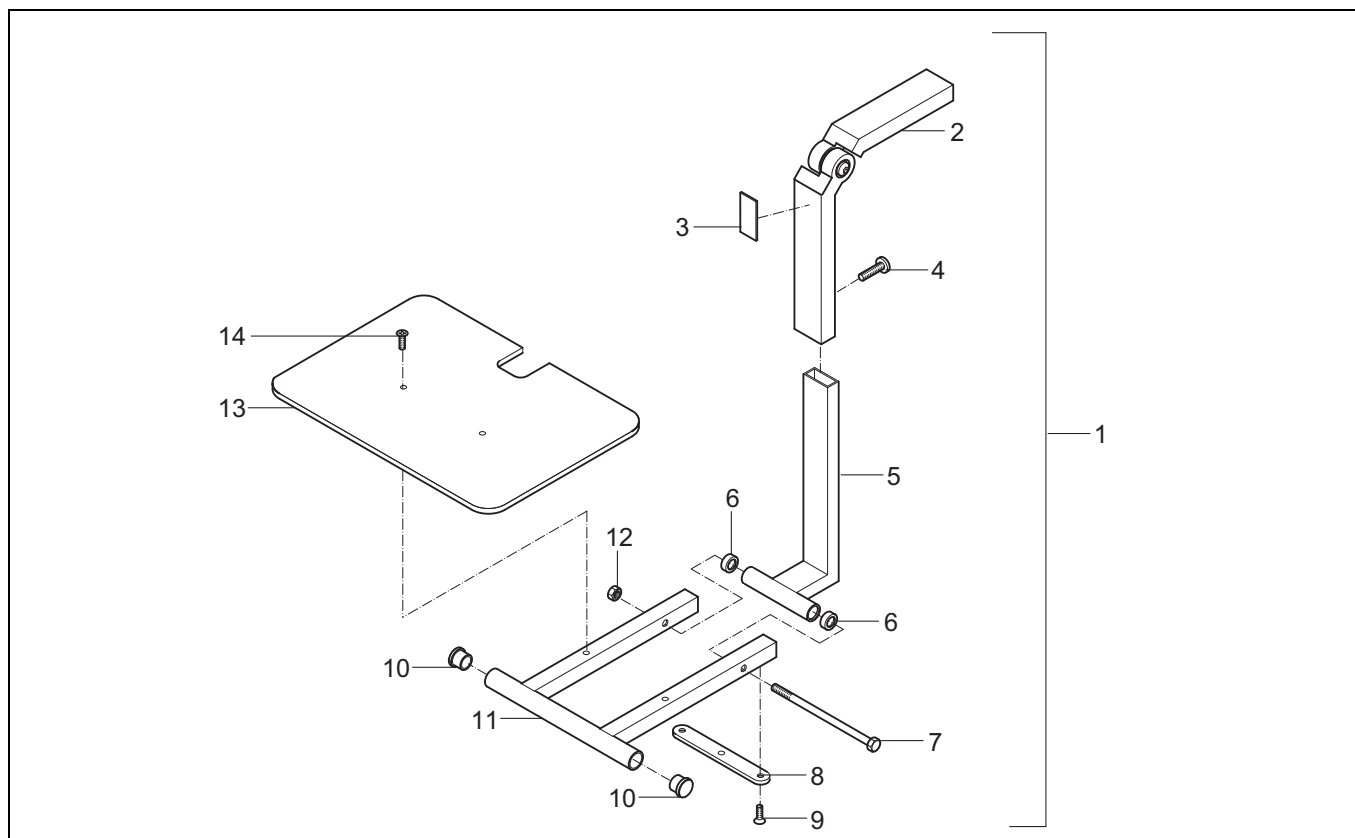
## SEDEO LEGRESTS AND FOOTPLATES

## SPARE PARTS

LEGRESTS									
TYPE	SIZE	RIGHT		LEFT		CALF PLATE AND LEGRESTBRACKET, SET		CALFSTRAP AND LEGRESTBRACKET, SET	
STANDARD	13	1003561		1003560		1003592		1003579	
	15	1003563		1003562		1003593		1003580	
	17	01500.9019		01500.9119		140.00071.000		140.00011.000	
	19	1003565		1003564		1003594		1003581	
	21	1003567		1003566		1003595		1003582	
	23	1003569		1003568		1003596		1003583	
	25	1003571		1003570		1003597		1003584	
COMFORT	13	140.00341.000		140.00311.000		1003607			
	15	140.00351.000		140.00321.000		1003608			
	17	01500.9219		01500.9319		140.00021.000			
	19	140.00361.000		140.00331.000		1003609			
	21	1003601		1003598		1003610			
	23	1003602		1003599		1003611			
	25	1003603		1003600		1003612			
ELECTRICAL	13	140.00461.000		140.00451.000		140.00471.000			
	15	1003618		1003613		1003623			
	17	01502.9013		01502.9113		140.00031.000			
	19	1003619		1003614		1003624			
	21	1003620		1003615		1003625			
	23	1003621		1003616		1003626			
	25	1003622		1003617		1003627			

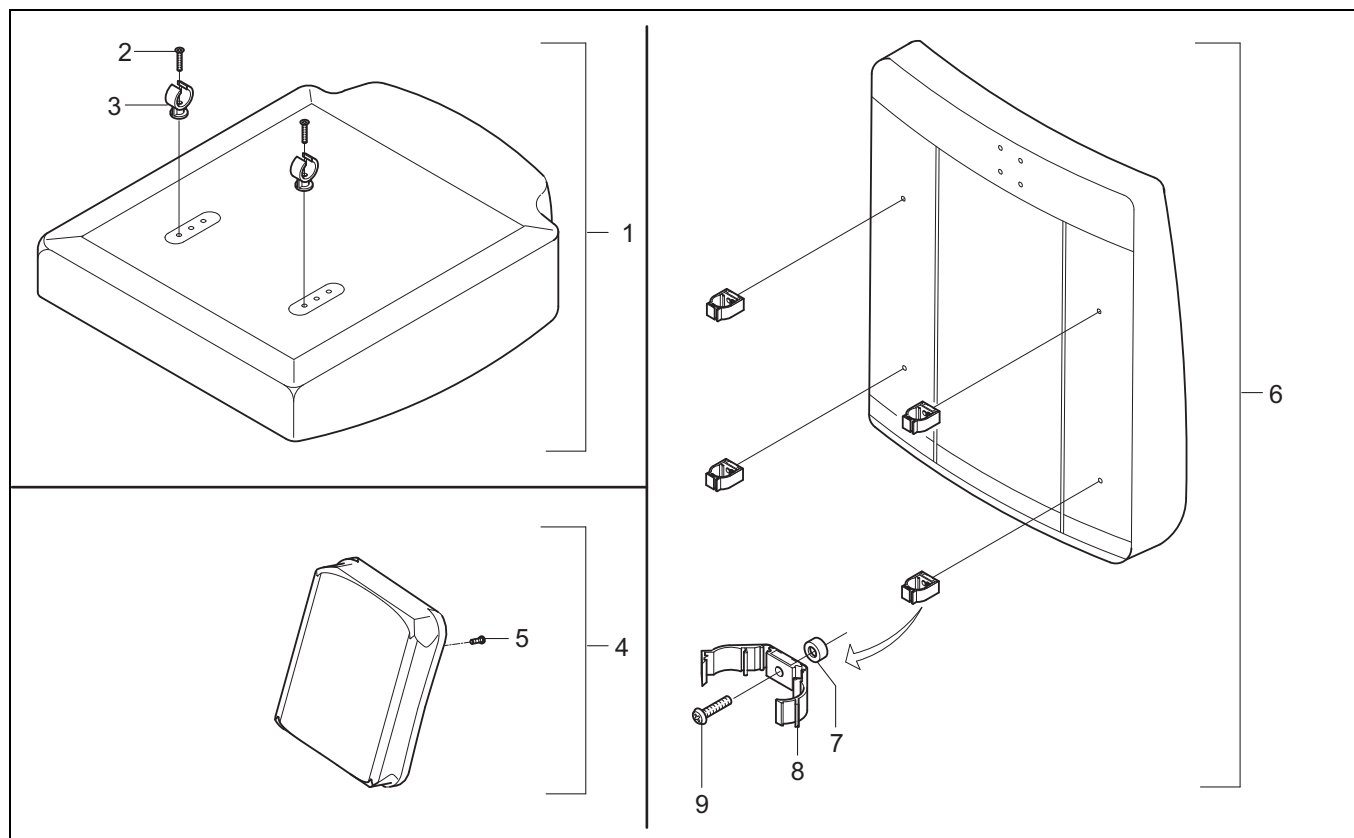
FOOTPLATES				
SIZE	RIGHT		LEFT	
13	140.00161.000		140.00191.000	
15	140.00171.000		140.00201.000	
17	140.00121.000		140.00131.000	
19	140.00181.000		140.00211.000	
21	1003220		1003219	
23	1003222		1003221	
25	1003224		1003223	

## 009 Central leg rest



Pos	Article number	Units	Description	
1	140.00061.000	1	Central leg rest	
	1011019	1	Central leg rest with calf plate bracket	
2	9001719	1	Upper part hinge	
	9002040	1	Upper part hinge with calfplate bracket	
3	00001.1324	1	Label tilting hazard	
4	00000.3706	1	Button head M8X25	
5	20050.1311	1	Lower tube	
6	00000.5002	2	Bearing bush nylon 8x11x13	
7	00000.4100	1	Hex bolt M8X150	
8	01050.2011	1	Strip	
9	00000.3614	2	Screw M6X20	
10	00000.9002	2	Insert cap round 22 black	
11	01050.1411	1	U-pipe	
12	00000.1702	1	Lock nut M8	
13	20050.2480	1	Footplate	
14	00000.3614	2	Screw M6X20	

## 010 Upholstery



Pos	Article number	Units	Description	
1	-	1	Sedeo seat See page 62.	
2	00000.3617	2	Screw M5X30	
3	00000.6501	2	Pipe clamp DIA 22 black	
4	220.00121.505	1	Calf plate standard	
	220.00141.505	1	Calf plate small	
5	00000.3206	4	Screw M5X16	
6	-	1	Sedeo backrest See page 63.	
7	00000.5721	4	Washer flat M6	
8	00000.6504	4	Pipe clamp back closed type	
9	00000.3207	4	Screw M5X20	

## SEDEO SEAT CUSHIONS

## SPARE PARTS

W X D	PROFILED	PROFILED WITH GREY MIDDLE BAR	MEMORY FOAM	SUPPORT
42x50	200.42131.505	1002950	200.40481.517	205.42791.517
46x50	200.42211.505	1002951	200.40561.517	205.42871.517
50x50	200.42291.505	1002952	200.40641.517	205.42951.517
42x54	1001977	1002953	1001997	1002006
42x58	1001978	1002954	1001998	1002007
46x54	1001979	1002955	1001999	1002008
46x58	1001980	1002956	1002000	1002009
50x54	1001981	1002957	1002001	1002010
50x58	1001982	1002958	1002002	1002011
54x50	1001983	1002959	1002003	1002012
54x54	1001984	1002960	1002004	1002013
54x58	1001985	1002961	1002005	1002014

W X D	BALANCE	FLUID	AIR
42x50	201.47741.517	1003360	1003363
46x50	201.47821.517	1003361	1003364
50x50	201.47901.517	1003362	1003365
42x54	1002024		
42x58	1002025		
46x54	1002026		
46x58	1002027		
50x54	1002028		
50x58	1002029		
54x50	1002030		
54x54	1002031		
54x58	1002032		

W X D	BOARD	BOARD WITH REAR PAN	PAN
42x50	1002042	1002054	202.41141.505
46x50	1002045	1002057	202.41221.505
50x50	1002048	1002060	202.41301.505
42x54	1002043	1002055	1002033
42x58	1002044	1002056	1002034
46x54	1002046	1002058	1002035
46x58	1002047	1002059	1002036
50x54	1002049	1002061	1002037
50x58	1002050	1002062	1002038
54x50	1002051	1002063	1002039
54x54	1002052	1002064	1002040
54x58	1002053	1002065	1002041

## ADAPTATIONS special conditions will apply on all adaptations

Profiled with grey middle bar seat cushion, other upholstery size and/or material	
Memory foam seat cushion, other upholstery size and/or material	
Support seat cushion, other upholstery size and/or material	
Balance seat cushion, other upholstery size and/or material	
Fluid seat cushion, other upholstery size and/or material	
Air seat cushion, other upholstery size and/or material	
Board, other upholstery size and/or material	
Board with rear pan, other upholstery size and/or material	
Pan, other upholstery size and/or material	



## SEDEO BACKRESTS

## SPARE PARTS

W X D	PROFILED	PROFILED WITH GREY MIDDLE BAR	WITH LUMBAR SUPPORT	EXTRA SOFT
42x52	207.20031.505	1002974	215.20031.505	207.20211.520
46x52	207.20051.505	1002975	215.20051.505	207.20231.520
50x52	207.20071.505	1002976	215.20071.505	207.20251.520
42x56	1002143	1002977	1002161	1002179
42x60	1002144	1002978	1002162	1002180
46x56	1002145	1002979	1002163	1002181
46x60	1002146	1002980	1002164	1002182
50x56	1002147	1002981	1002165	1002183
50x60	1002148	1002982	1002166	1002184
54x52	1002149	1002983	1002167	1002185
54x56	1002150	1002984	1002168	1002186
54x60	1002151	1002985	1002169	1002187

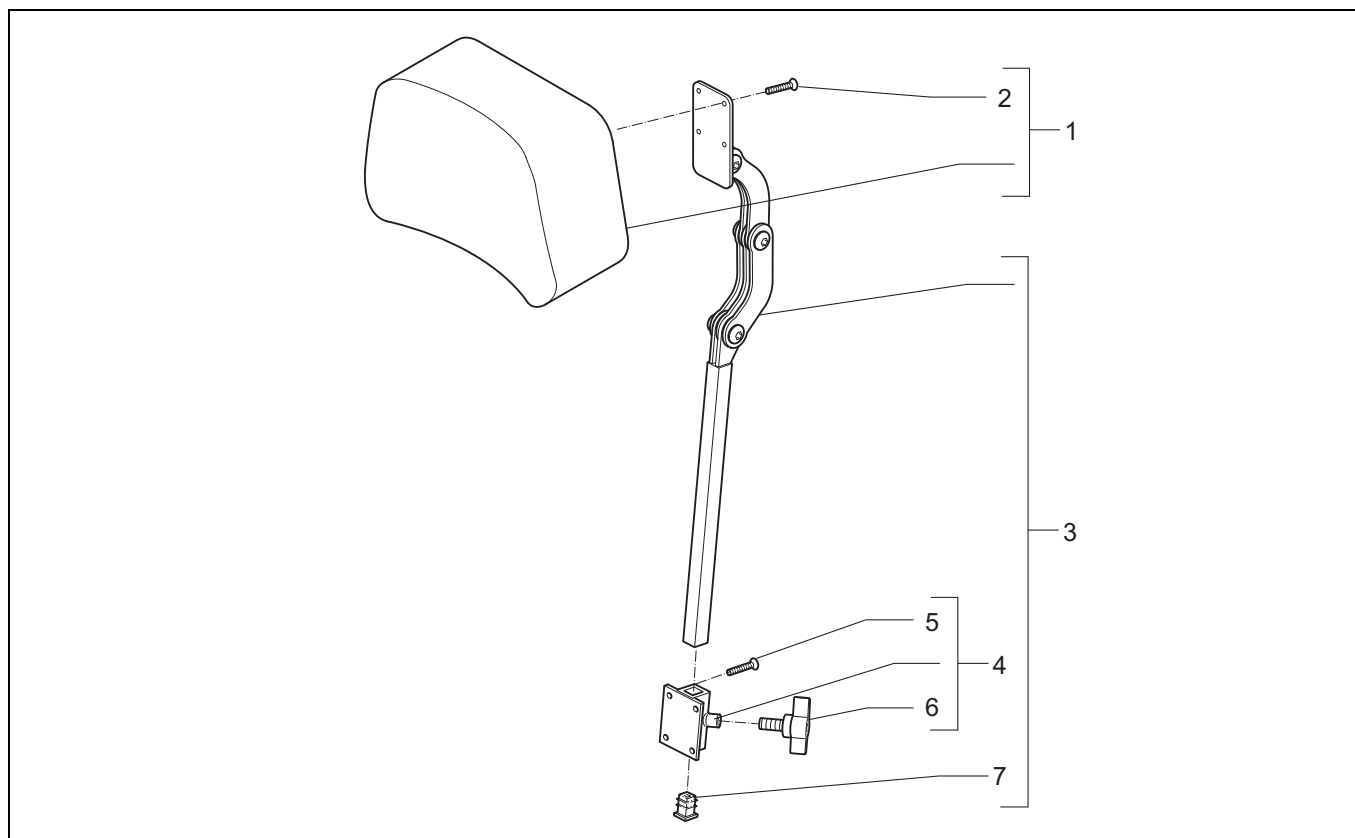
W X D	WEBBED	SUPPORT	WITH STRAPS	WITH STRAPS, ACTIVE
42x52	207.20751.520	209.20211.505	214.20751.520	214.23031.520
46x52	207.20771.520	209.20231.505	214.20771.520	214.23041.520
50x52	207.20791.520	209.20251.505	214.20791.520	214.23051.520
42x56	1002152	1002170	1002188	1002197
42x60	1002153	1002171	1002189	1002198
46x56	1002154	1002172	1002190	1002199
46x60	1002155	1002173	1002191	1002200
50x56	1002156	1002174	1002192	1002201
50x60	1002157	1002175	1002193	1002202
54x52	1002158	1002176	1002194	1002203
54x56	1002159	1002177	1002195	1002204
54x60	1002160	1002178	1002196	1002205

W X D	WITH STRAPS, ACTIVE FLEXIBLE	WITH STRAPS, PASSIVE
40x50	1008559	1010725
45x50	1008560	1010726
50x50	1008561	1010727

## ADAPTATIONS special conditions will apply on all adaptations

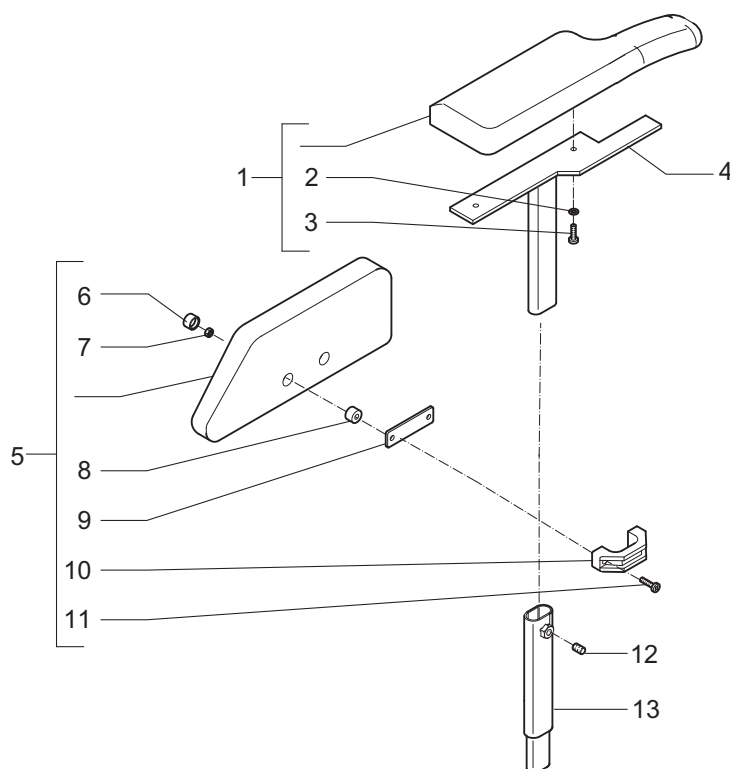
Profiled with grey middle bar backrest, other upholstery size and/or material	
Backrest with lumbar support, other upholstery size and/or material	
Extra soft backrest, other upholstery size and/or material	
Webbed backrest, other upholstery size and/or material	
Support backrest, other upholstery size and/or material	
Backrest with straps, other upholstery size and/or material	
Backrest with straps, active, other upholstery size and/or material	
Backrest with straps, active flexible, other upholstery size and/or material	
Backrest with straps, passive flexible, other upholstery size and/or material	

## 011 Headrest



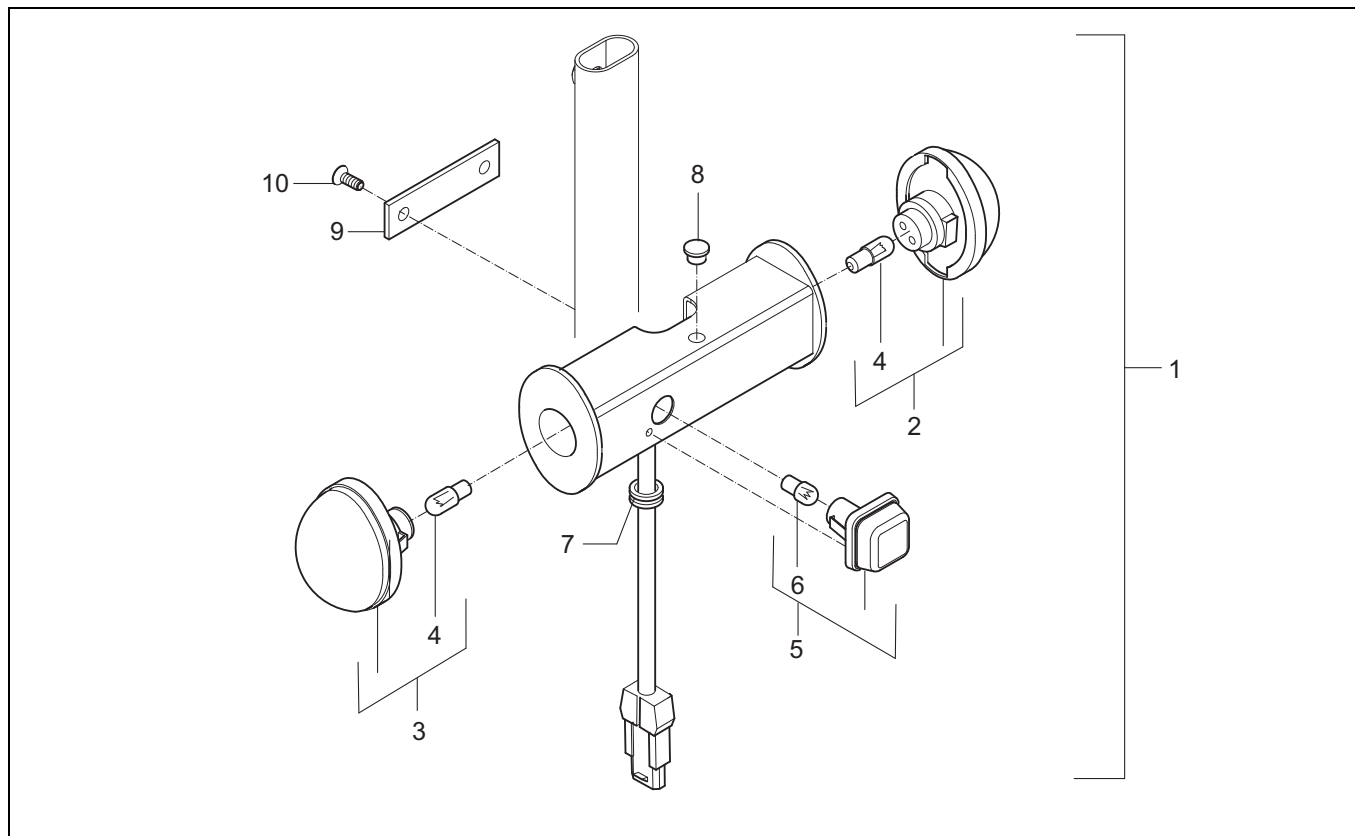
Pos	Article number	Units	Description	
1	222.00151.505	1	Headrest type 4, small mode, black Sellaskin	
	222.00131.505	1	Headrest Type 3, Flexible, black Sellaskin	
	222.00111.505	1	Headrest Type 2, Large, black Sellaskin	
2	00000.3206	8	Screw bck/kr M5X16 D7985	
3	02193.0023	1	Metal Section Headrest. Standard Adjustable	
	02194.0023	1	Metal Section Headrest. With Adjustable Width	
	906.00000.161	1	Metal Section Headrest. With angle lever	
4	01183.9023	1	Headrest adjustment holder	
5	00000.3206	8	Screw bck/kr M5X16 D7985	
6	00000.6801	1	Star knob outs M8X30 BLACK MH	
7	00000.9301	1	Insert cap 15mm square	

## 012 Arm rests



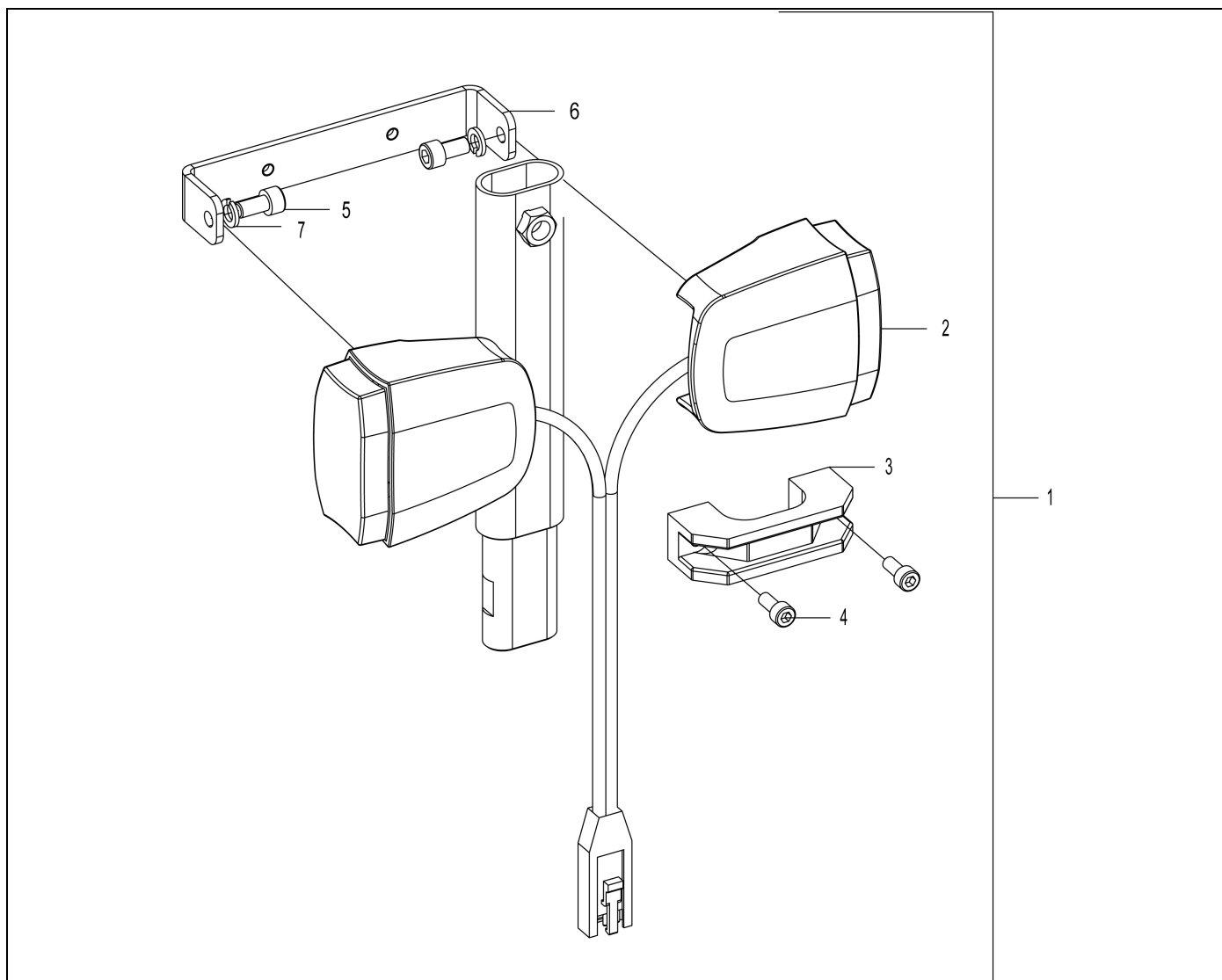
Pos	Article number	Units	Description	
1	05373.9490	1	Armrest PU left	
	05373.9390	1	Armrest PU right	
	221.00131.505	1	Armrest 30 cm, black Sellaskin	
	221.00111.505	1	Armrest 40 cm, black Sellaskin	
	221.00301.505	1	Armrest P-Shape L/H, black Sellaskin	
	221.00291.505	1	Armrest P-Shape R/H, black Sellaskin	
2	00000.2201	4	Spring washer M5 D127B/VZ	
3	00000.3207	4	Screw BCK/KR M5X20 D7985	
4	05040.0223	1	Armrest upper part left for armrest PU	
	05040.0123	1	Armrest upper part right for armrest PU	
	02040.0123	2	Armrest upper part short for armrest 30cm	
	02040.0323	2	Armrest upper part long for armrest 40cm	
5	05372.9390	2	Side Cushion PU	
	224.00241.505	2	Side cushion, upholstered, black Sellaskin	
	224.00281.505	1	Side Cushion Wedge Shaped L/H	
	224.00261.505	1	Side Cushion Wedge Shaped R/H	
6	00001.0551	4	Cap	
7	00000.1700	4	Lock nut M5 D985/8/VZ	
8	00000.5721	4	Spacer bush 5.2X15X10 PE Black	
9	05372.0223	2	Strip	
10	02040.0782	2	Bracket	
11	00000.3213	4	Screw M5x35	
12	00000.3501	2	Adjusting screw BZK M8X10 D913/VZ	
13	9002126	2	Arm rest mounting bracket	
-	02043.9111	1	Angle adjustable armrest, right	
-	02043.9211	1	Angle adjustable armrest, left	
-	02043.9011	1	Angle adjustable armrests, set	
-	233.00011.000	1	Angle adjustable armrest for 30cm armrest, right	
-	233.00111.000	1	Angle adjustable armrest for 30cm armrest, left	
-	221.00321.011	1	Angle adjustable armrests for 30cm armrest set	
-	05364.9123	1	Armrest, foldable, right	
-	05364.9223	1	Armrest, foldable, left	

## 013 Compact LED Lighting



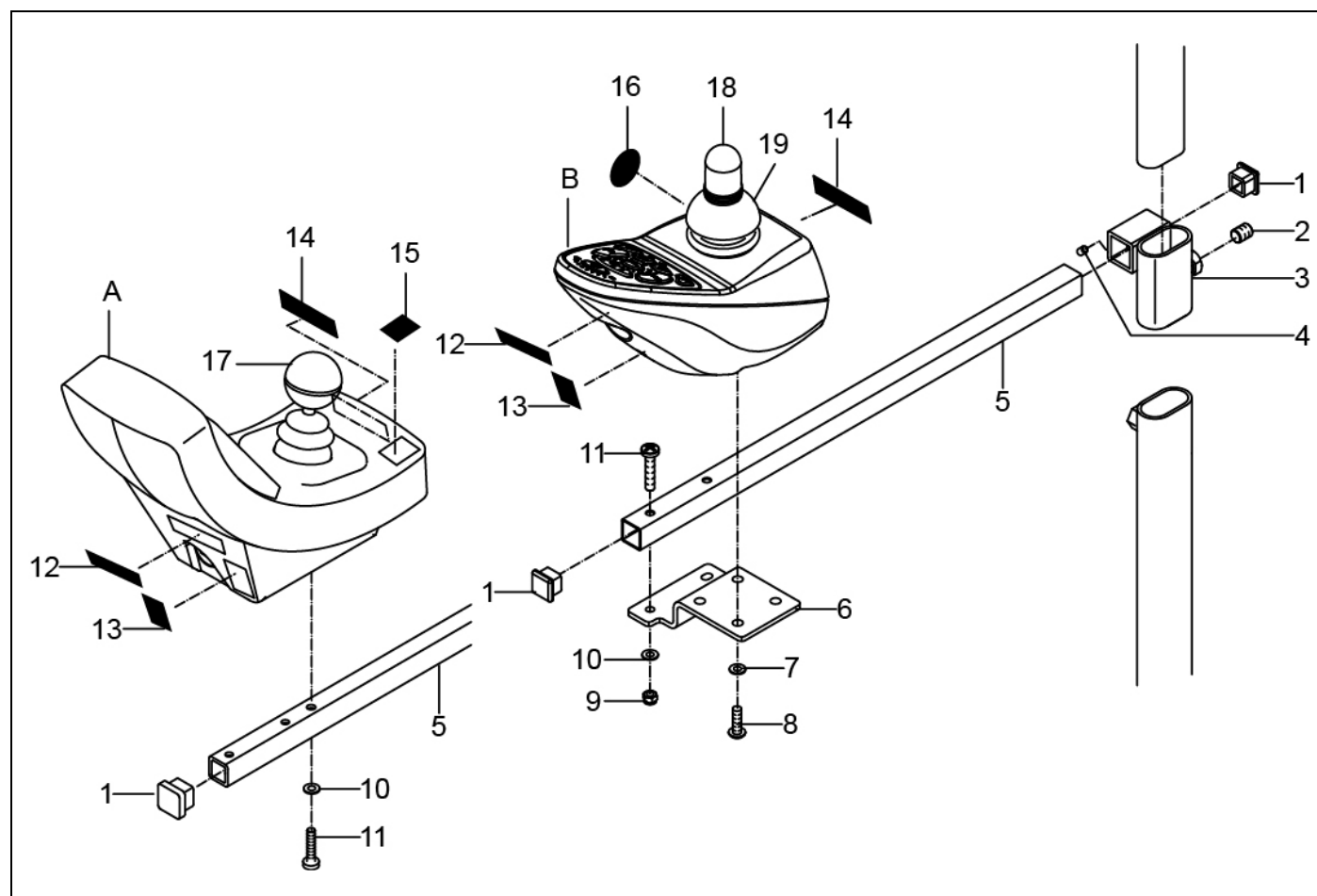
Pos	Article number	Units	Description	
1	1011638	2	LED light unit (LHS=RHS)	
2	1014193	2	Head light white LED	
3	1014194	2	Rear light red LED	
4	1014192	4	LED T10 24V	
5	264.00111.000	1	Indicator light (set of 2)	
6	1272	2	Bulb 24v 5w ba9s	
7	1001724	2	Grommet	
8	00000.9009	2	Insert cap round 15 Black	
9	1001436	2	Compact lighting, mounting plate	
10	00000.3618	4	Screw M6X8	
-	9006419	1	Resistor cable DX/Shark	

## 013a LED Lighting

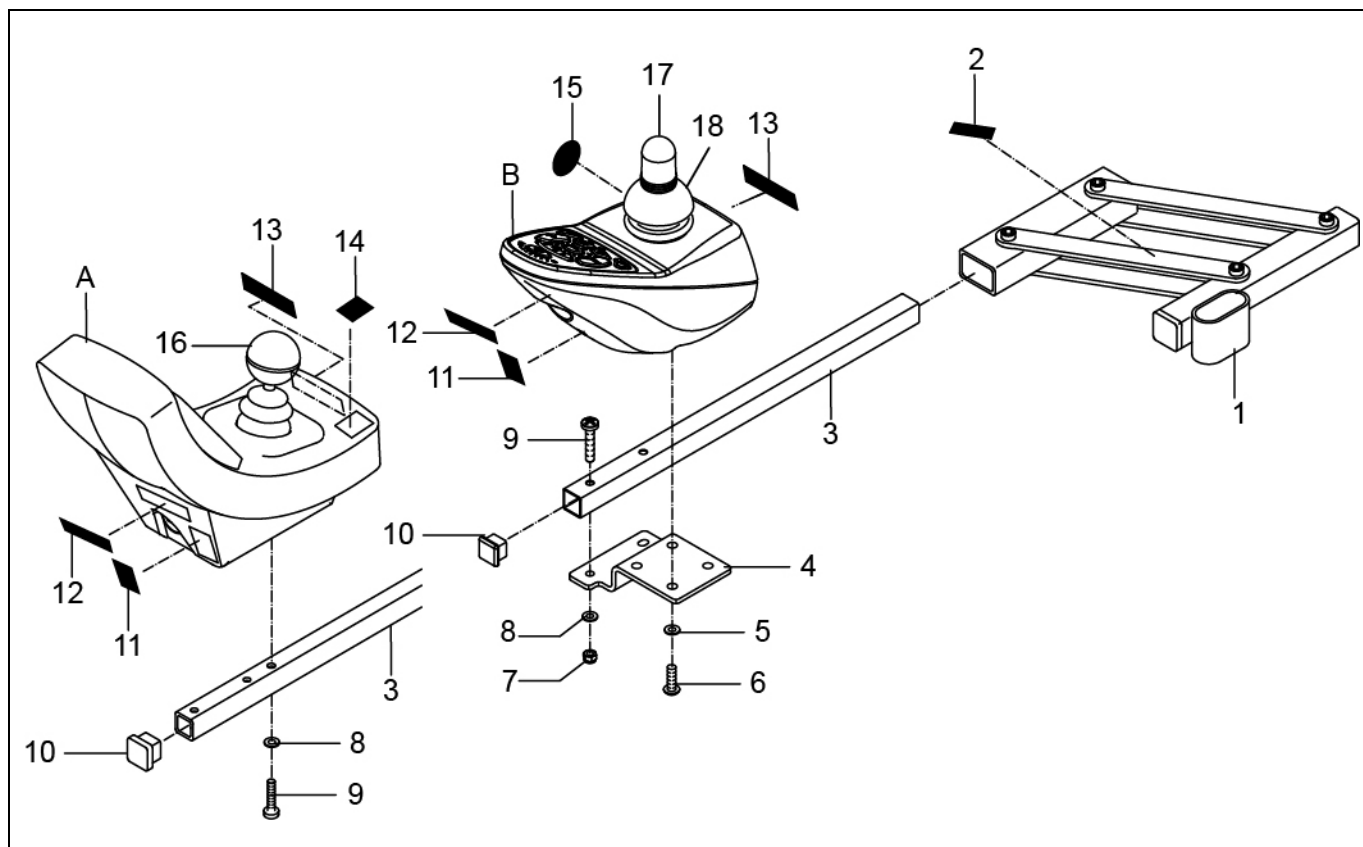


Pos	Article number	Units	Description	
1	9006979	1	LED lighting unit right including mounting bracket	
	9006978	1	LED lighting unit left including mounting bracket	
2	9006371	1	LED lighting unit right	
	9006370	1	LED lighting unit left	
3	02040.0782	2	Bracket black	
4	00000.4036	4	Socket head screw M5x12	
5	00000.4037	4	Socket head screw M6x12	
6	9006372	2	Bracket compact LED Light	
7	00000.2601	4	Dental M6 spring washer DIN 6798A/VZ	
-	9006981	1	LED lighting unit set (left + right)	

## 014 Fixed joystick bracket

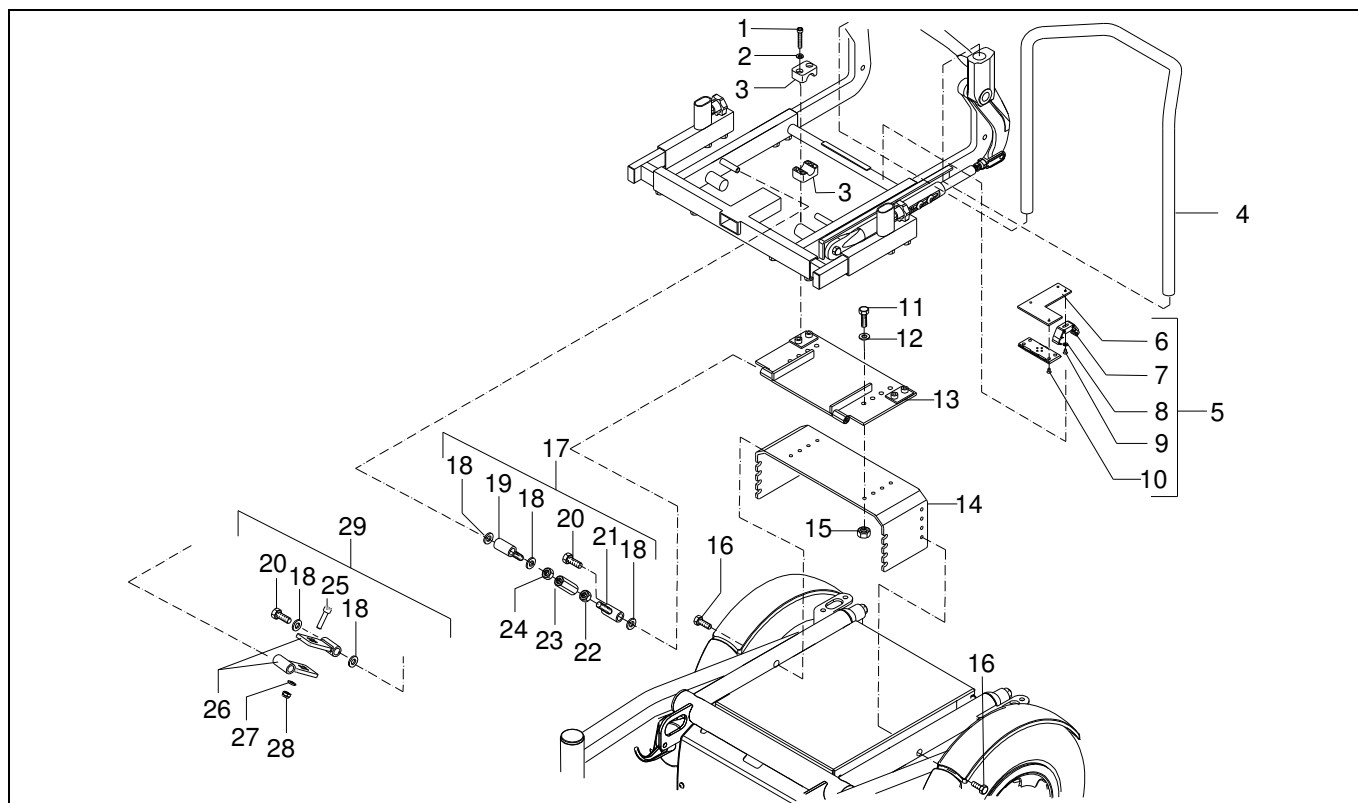


Pos	Article number	Units	Description	
1	00000.9301	2	Insert cap 15mm	
2	00000.3541	1	Adjusting screw + crater M8X10 D916	
3	06040.0923	1	Fixed bracket for remote	
4	00000.3541	1	Adjusting screw + crater M8X10 D916	
5	15040.0823	1	Tube for remote	
	1002331	1	Tube for remote G90 RHS	
	1002603	1	Tube for remote G90 LHS	
6	9000265	1	Shark mounting plate	
7	00000.2201	4	Spring washer M5 D127B/VZ	
8	00000.3206	4	Screw bck/kr M5X16 D7985	
9	00000.1705	2	Lock nut M4xP0.7	
10	00000.2006	2	Washer flat M4	
11	00000.3212	2	Screw M4X25	
12	008.00000.161	1	Sticker programmed RWD	
	008.00000.151	1	Sticker programmed FWD	
13	10089	1	Sticker	
14	008.00000.201	1	Sticker for use consult	
15	008.00000.131	1	Sticker 10 km/h	
	008.00000.511	1	Sticker 6 km/h	
16	008.00000.511	1	Sticker 6 km/h	
17	00355.0444	1	Joystick knob standard DX	
18	1007917	1	Joystick knob standard Shark	
19	1007918	1	Joystick cover Shark	
-	00355.0241	1	Bush spring, joystick knob	
A	-	-	See 028: Cabling and modules DX	
B	-	-	See 029: Cabling and modules Shark	



Pos	Article number	Units	Description	
1	1009533	1	Swing-away bracket for remote right	
	1009536	1	Swing-away bracket for remote left	
2	008.00000.191	1	Label	
3	15040.0823	1	Tube for remote	
	1002331	1	Tube for remote G90 RHS	
	1002603	1	Tube for remote G90 LHS	
4	9000265	1	Shark mounting plate	
5	00000.2201	4	Spring washer M5 D127B/VZ	
6	00000.3206	4	Screw bck/kr M5X16 D7985	
7	00000.1705	2	Lock nut M4xP0.7	
8	00000.2006	2	Washer flat M4	
9	00000.3212	2	Screw M4X25	
10	00000.9301	2	Insert cap 15mm	
11	10089	1	Sticker	
12	008.00000.161	1	Sticker programmed RWD	
	008.00000.151	1	Sticker programmed FWD	
13	008.00000.201	1	Sticker for use consult	
14	008.00000.131	1	Sticker 10 km/h	
	008.00000.511	1	Sticker 6 km/h	
15	008.00000.511	1	Sticker 6 km/h	
16	00355.0444	1	Joystick knob standard DX	
17	1007917	1	Joystick knob standard Shark	
18	1007918	1	Joystick cover Shark	
-	05041.9123	1	Swing-away bracket + tube for remote right	
-	165.00111.000	1	Swing-away bracket + tube for remote left	
A	-	-	See 028: Cabling and modules DX	
B	-	-	See 029: Cabling and modules Shark	

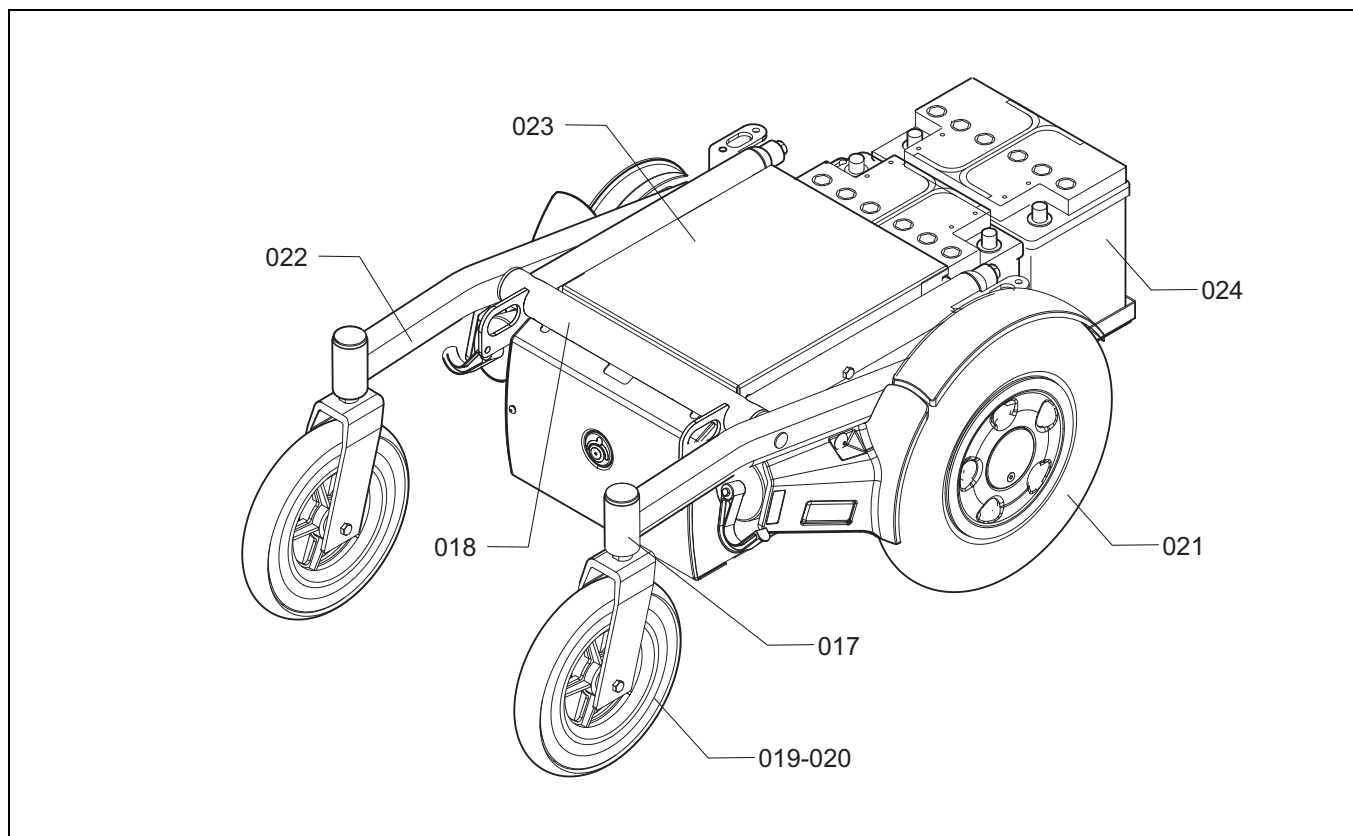
## 016 Mechanical tilt



Pos	Article number	Units	Description
1	00000.4016	8	Cil cap screw inn zk M6X25 VZ
2	00000.2202	4	Spring washer M6 D127B/VZ
3	02010.7482	4	Stauff block
4	9001374	1	Push frame small XP
5	1008075	1	Clam bracket assy
6	05900.0123	1	Bracket plate
7	00000.6504	2	Pipe clamp back closed
8	00000.2001	2	Washer
9	00000.3616	2	Screw M5X12
10	00000.3624	2	Crosshead screw
11	00000.4311	4	Hexagonal tap bolt M8X20 VZ
12	00000.2203	4	Spring washer SW8
13	118.00072.023	1	Interface chair support
14	9000082	1	Interface
15	00000.1702	4	Locknut M8 D985/8/vz
16	00000.4106	2	Hex. bolt M8X45 D931/8.8 vz
17	-	2	Mechanical seat tilt mechanism assy (not available) (see pos 29)
18	00000.2304	4	Flat washer M10 PA
19	-	2	Hinge pin (not available)
20	00000.4109	2	Hex. bolt M10x60 D931/8.8 vz
21	-	2	Hinge pin (not available)
22	001.00200.006	2	Hex Nut Low M8 D439B/VZ
23	001.00190.006	2	M8 couple nut mech. seat angle
24	00000.1602	2	Hex Nut Low M8 D439B/VZ
25	00000.4028	2	Cil cap screw M6x20
26	9002213	4	Seat angle adjuster
27	00000.2002	2	Flat washer M6
28	00000.1701	2	Lock nut M6
29	1008067	2	Mechanical tilt mechanism
-	1008065	1	Mechanical tilt (conversion kit)

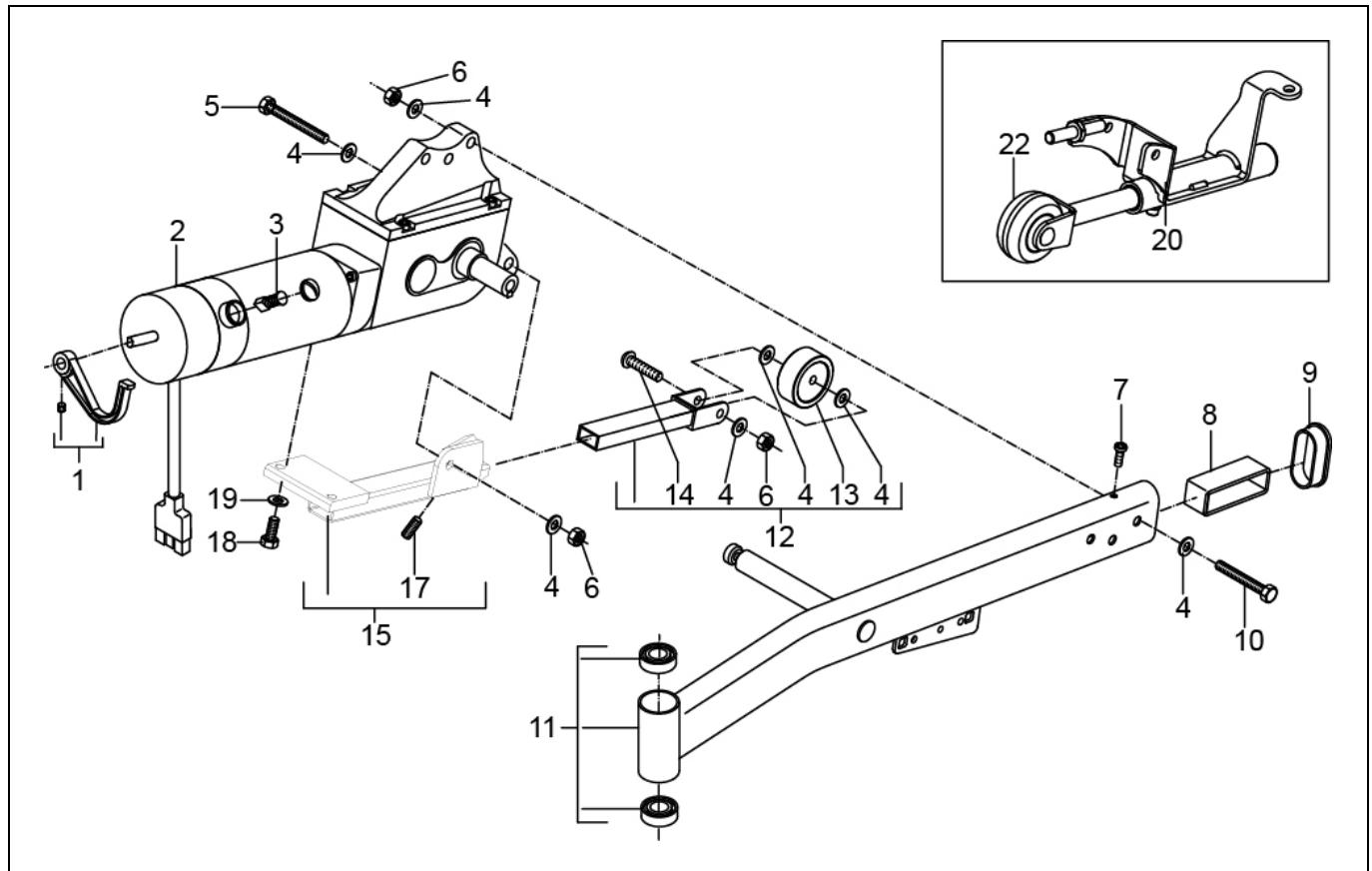


## 6.2 Carrier



Drawing	Description	Page
017	Suspension arm and motor	72
018	Battery tray and suspension	74
019	Swivel wheels	75
020	Swivel wheels suspended	76
021	Drive wheel	77
022	Transport fixation	78
023	Covers	79
024	Batteries	80

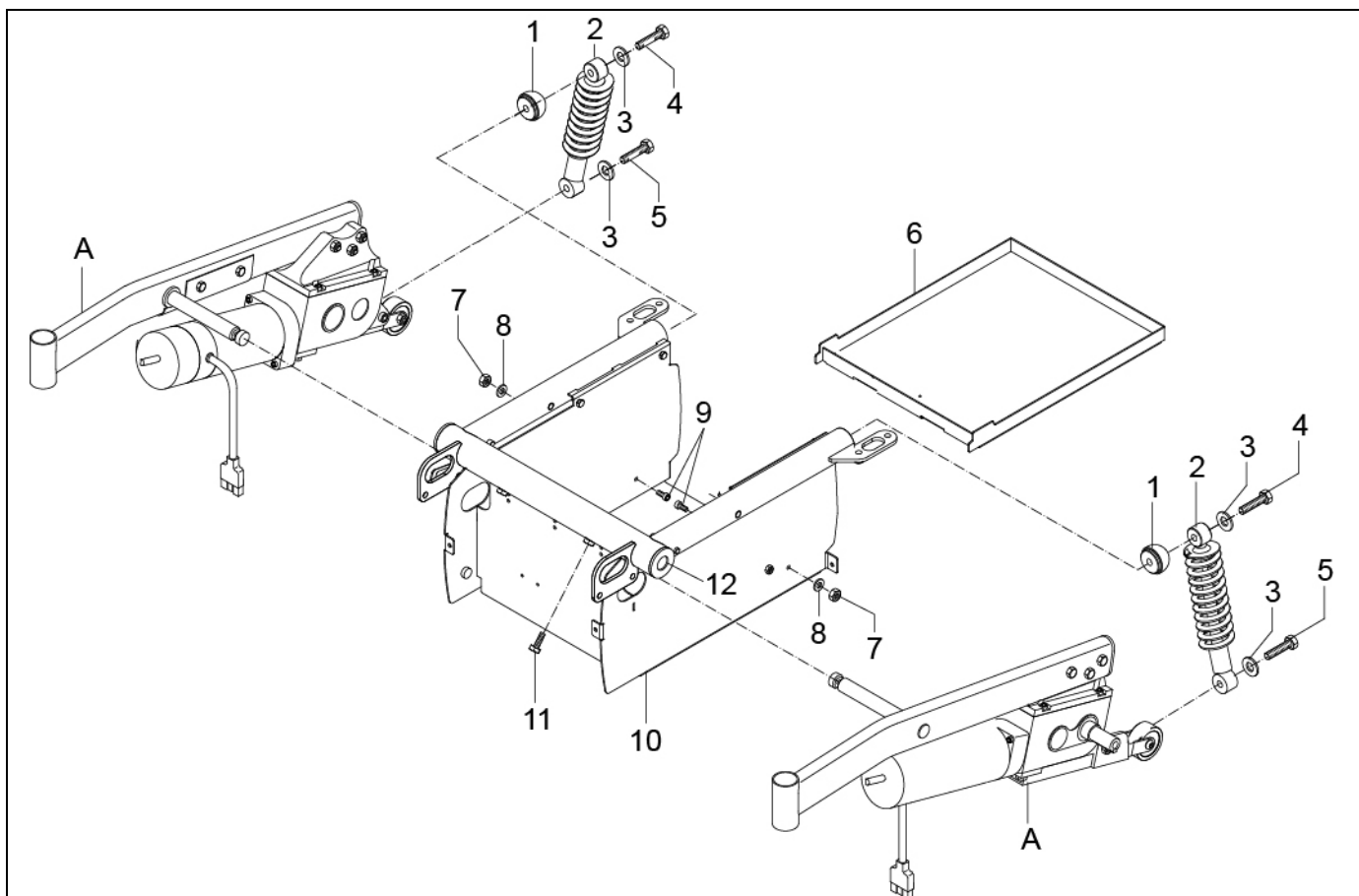
## 017 Suspension arm and motor



Pos	Article number	Units	Description
1	906.00000.061	2	Freewheel handle
2	101.00011.000	1	Motor 10Km/u RWD left/FWD right
	101.00001.000	1	Motor 10Km/u RWD right/FWD left
	101.00111.000	1	Motor 6Km/u RWD left/FWD right
	101.00101.000	1	Motor 6Km/u RWD right/FWD left
3	103.00021.000	2	Brushes (set)
4	00000.2003	16	Washer flat M8 D125A/vz
5	00000.4108	2	Hex. bolt M8x70 D931/8.8 vz
6	00000.1702	10	Locknut M8 D985/8/vz
7	00000.3703	2	Button head M6X16 vz
8	9000077	2	Suspension arm block
9	053.00001.000	2	Insert cap
10	001.03010.002	6	Hex. bolt M8x65 DIN931-8.8vz
11	1008821	1	Suspension arm RWD left/FWD right
	1008822	1	Suspension arm RWD right/FWD left
12	1008068	2	Anti-tip holder insert assy (RWD)
13	00000.5403	2	Wheel anti tip
14	00000.3712	2	Button head M8X40
15	1008128	1	Anti-tip holder left assy (RWD)
	1008129	1	Anti-tip holder right assy (RWD)
16	001.03010.001	2	Hex. bolt M10x40
17	00000.3541	2	Adjusting screw + crater M8X10 D916
18	4.10021	4	Hex. bolt M8x30 D931 vz
19	00000.2203	4	Spring washer SW8
20	9001655	1	Telescopic safety device left (FWD)
	9001656	1	Telescopic safety device right (FWD)
	1003469	1	Telescopic safety device set (FWD)
21	00000.2104	2	Washer flat M10 3D
22	258.00431.000	2	Telescopic safety device wheel
-	00000.5500	4	Castor bearing

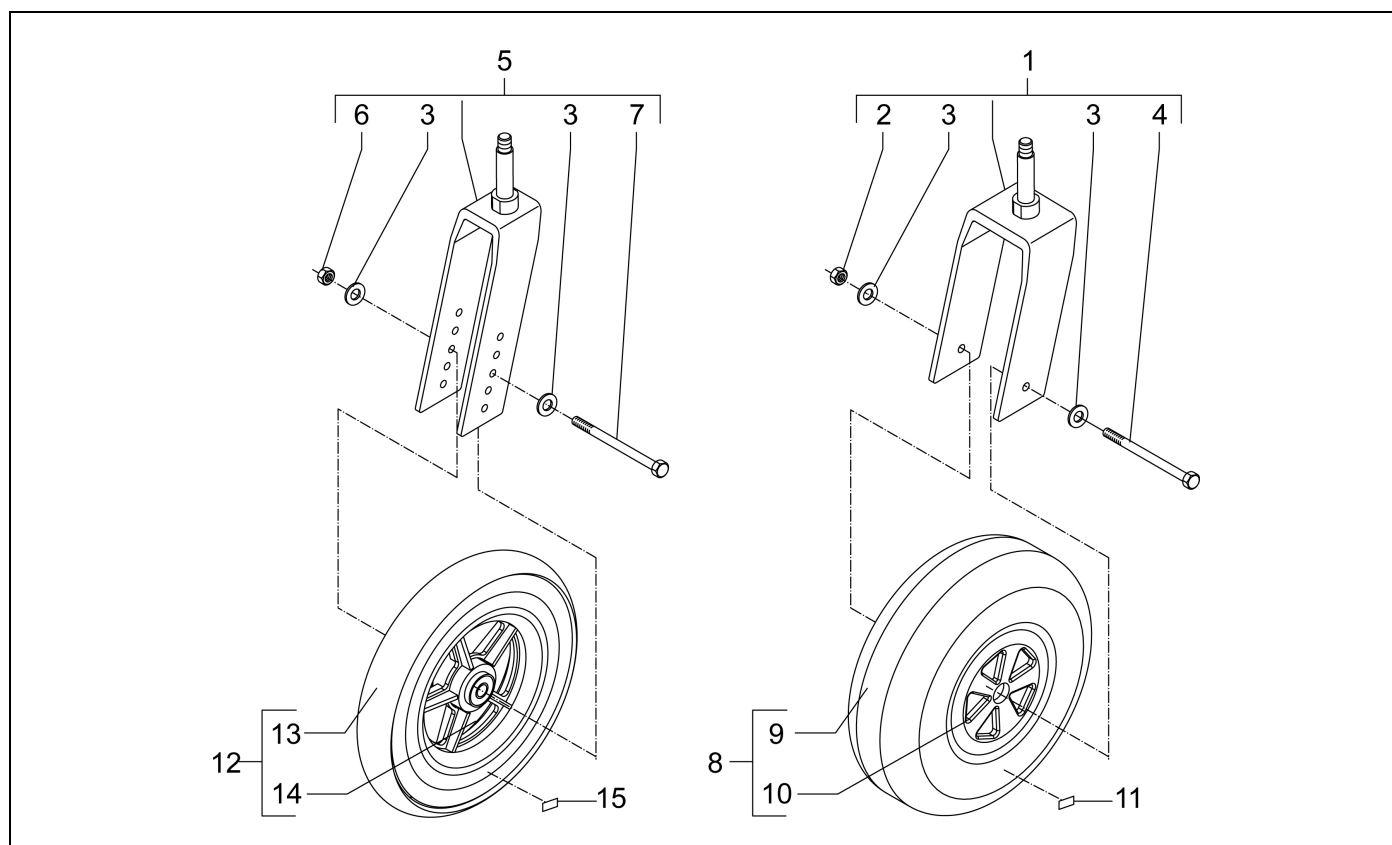
-	1003242	1	Motor brake RWD right/FWD left, till 20-08-2009 (3 bolts)
-	1003243	1	Motor brake RWD left/FWD right, till 20-08-2009 (3 bolts)
-	1011124	1	Motor brake RWD right/FWD left, from 20-08-2009 (2 bolts)
-	1011125	1	Motor brake RWD left/FWD right, from 20-08-2009 (2 bolts)
-	258.00001.023	1	Anti-tip set

## 018 Battery tray and suspension



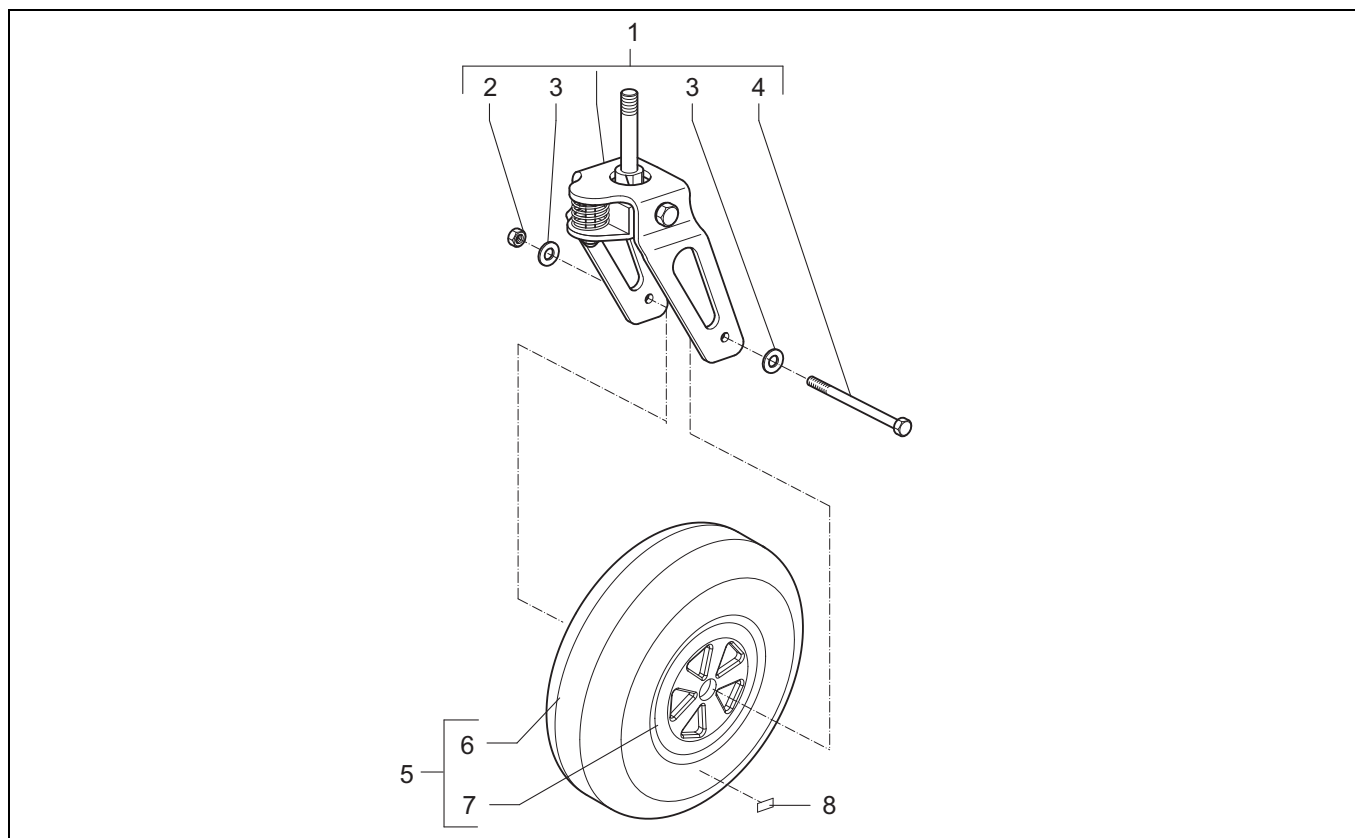
Pos	Article number	Units	Description	
1	123.00021.035	2	Plug	
2	9001641	2	Shock absorber 220 mm	
3	00000.2104	4	Washer flat 3XD M10	
4	00000.4110	2	Hex. bolt M10x70 D931/8.8 vz	
5	001.03010.001	2	Hex. bolt M10x40	
6	9000072	1	Battery container	
7	00000.1700	2	Locknut M5 D985/8/VZ	
8	00000.2001	2	Washer	
9	00000.4038	2	Cil cap screw. inn. zk M5X10 VZ	
10	9002714	1	Battery box	
11	001.03030.001	2	M8x25 bolt with dog point	
12	9002710	2	Motor suspension bearing	
A	-	-	See 017: Suspension arm and motor	

## 019 Swivel wheels



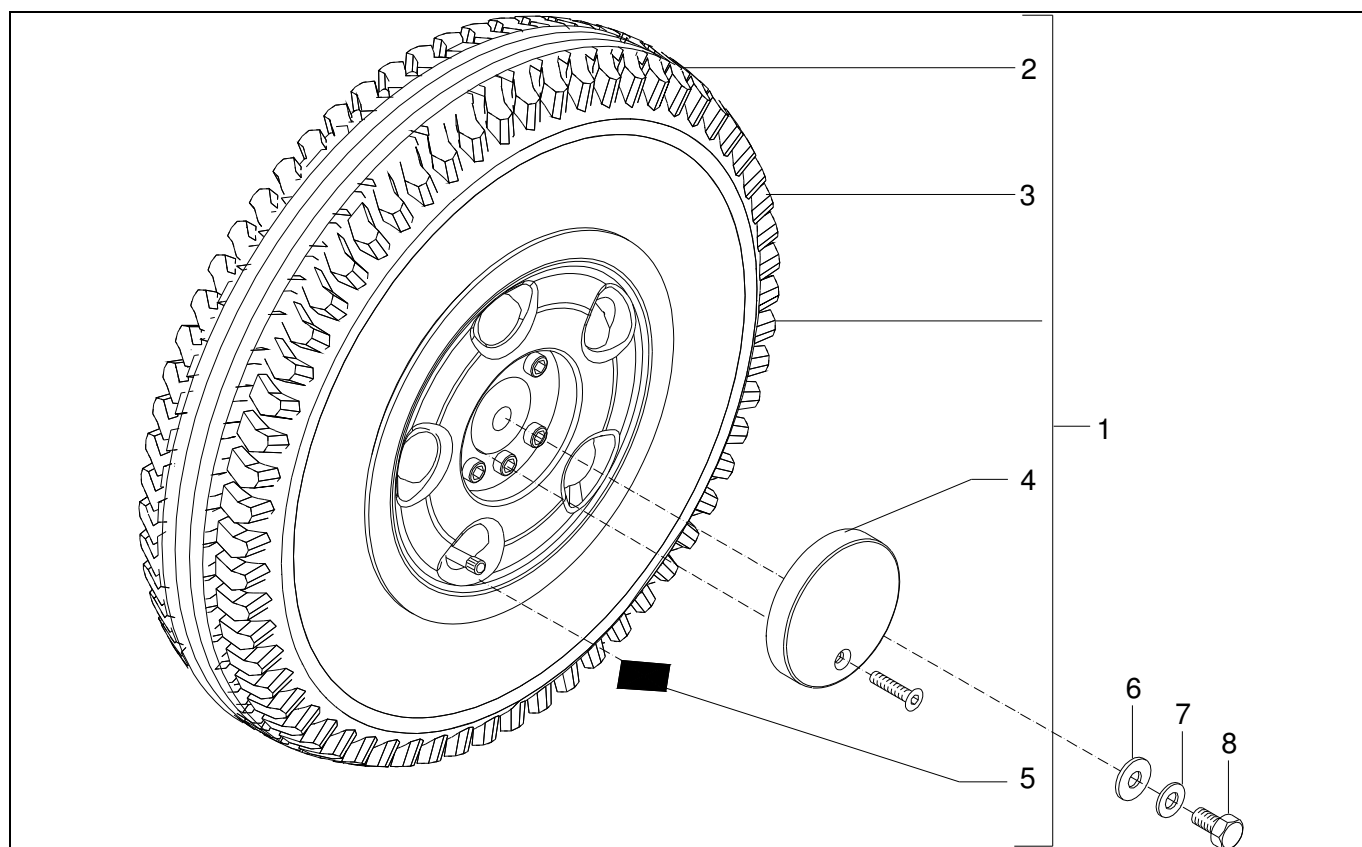
Pos	Article number	Units	Description	
1	1008070	2	Fork assy (outdoor)	
2	00001.0701	2	Locknut low M8	
3	00000.2003	2	Washer flat M8 D125A/vz	
4	00000.4118	2	Hex. Bolt M8X120 D931/8.8 VZ	
5	1008069	2	Fork assy (indoor)	
6	00000.1702	2	Locknut M8 D985/8/vz	
7	00000.4101	2	Hex. bolt M8x80 D931/8.8 vz (indoor)	
8	1015234	1	Swivel wheel left, air 300x4 (260 x 85)	
	1015236	1	Swivel wheel left, PU 300x4 (260 x 85)	
	1015235	1	Swivel wheel right, air 300x4 (260 x 85)	
	1015237	1	Swivel wheel right, PU 300x4 (260 x 85)	
9	1015105	2	Outer tyre 3.00x4 grey block profile	
10	1015115	2	Inner tube 3.00x4	
11	00001.1463	2	Sticker tire pressure 3.5 Bar	
12	26090.1282	2	Swivel wheel complete (indoor)	
13	26090.1400	2	Tire 2.00x6 (indoor)	
14	26090.1300	2	Inner tube 2.00x6 (indoor)	
15	00001.1461	2	Sticker tire pressure 2.5 Bar	
-	00000.5500	4	Ball bearing 6002 2NSL for swivel wheel	
-	1008279	2	Fork assy, heavy duty (indoor)	

## 020 Swivel wheels suspended



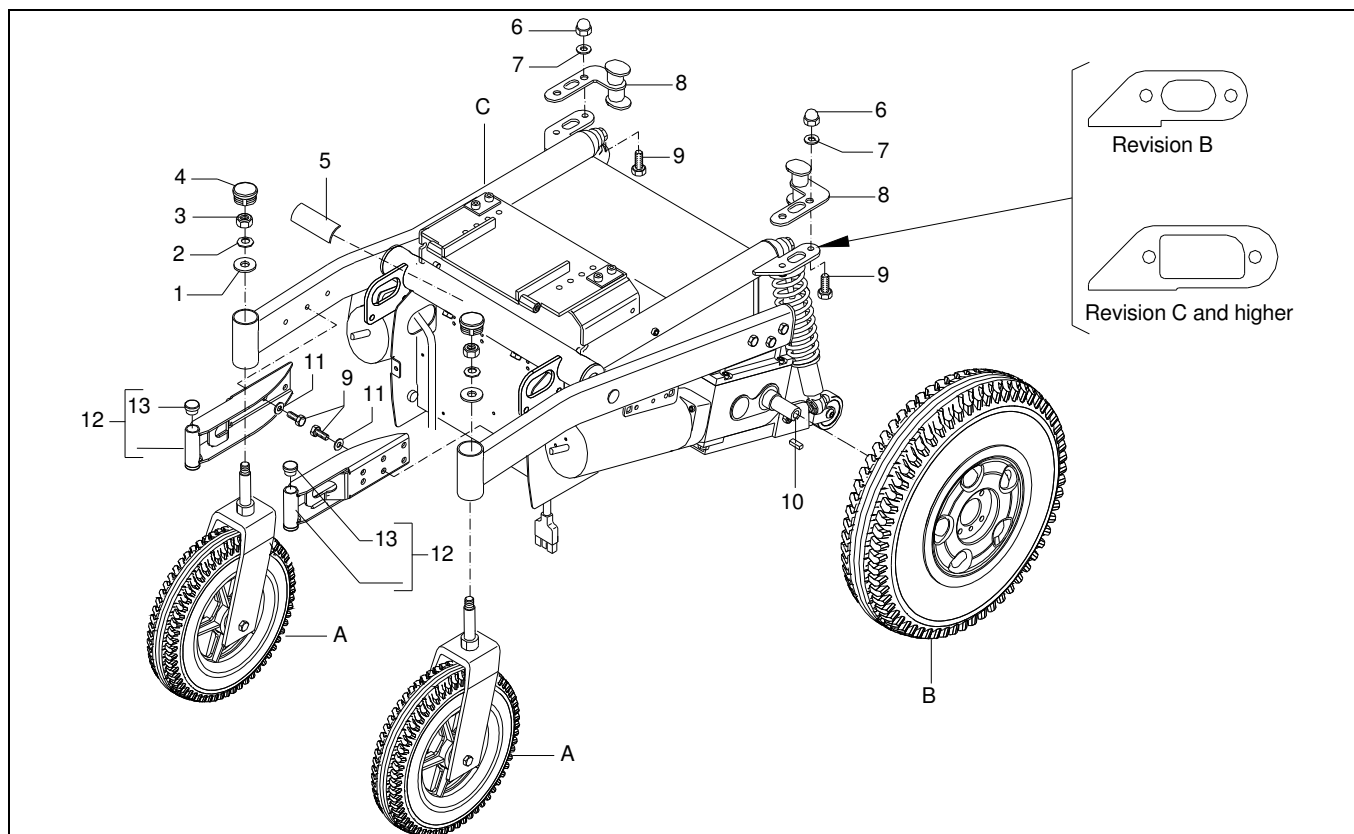
Pos	Article number	Units	Description	
1	1008071	1	Front fork spring loaded assy, outdoor	
2	00001.0701	2	Locknut flat M8	
3	00000.2003	2	Washer flat M8 D125A/vz	
4	00000.4118	2	Hex. Bolt M8X120 D931/8.8 VZ	
5	1015234	1	Swivel wheel left, air 300x4 (260 x 85)	
	1015236	1	Swivel wheel left, PU 300x4 (260 x 85)	
	1015235	1	Swivel wheel right, air 300x4 (260 x 85)	
	1015237	1	Swivel wheel right, PU 300x4 (260 x 85)	
6	1015105	2	Outer tyre 3.00x4 grey block profile	
7	1015115	2	Inner tube 3.00x4	
8	00001.1463	2	Sticker tire pressure 3.5 Bar	

## 021 Driven wheel



Pos	Article number	Units	Description	
1	1015250	2	Drive wheel, air 300x8, block profile L=R	
	1015251	2	Drive wheel, PU 300x8, block profile L=R	
2	1015108	2	Outer tyre 3.00x8 grey with highway profile	
	1015111	2	Outer tyre 3.00x8 grey block profile	
3	1015117	2	Inner tube 3.00x8	
4	9007193	2	Wheel cover	
5	00001.1463	2	Sticker	
6	00000.2104	2	Washer flat M10 3D	
7	00000.2204	2	Spring washer M10	
8	00000.4324	2	Hex. bolt M10x30	
-	1009979	2	Wheel hub	

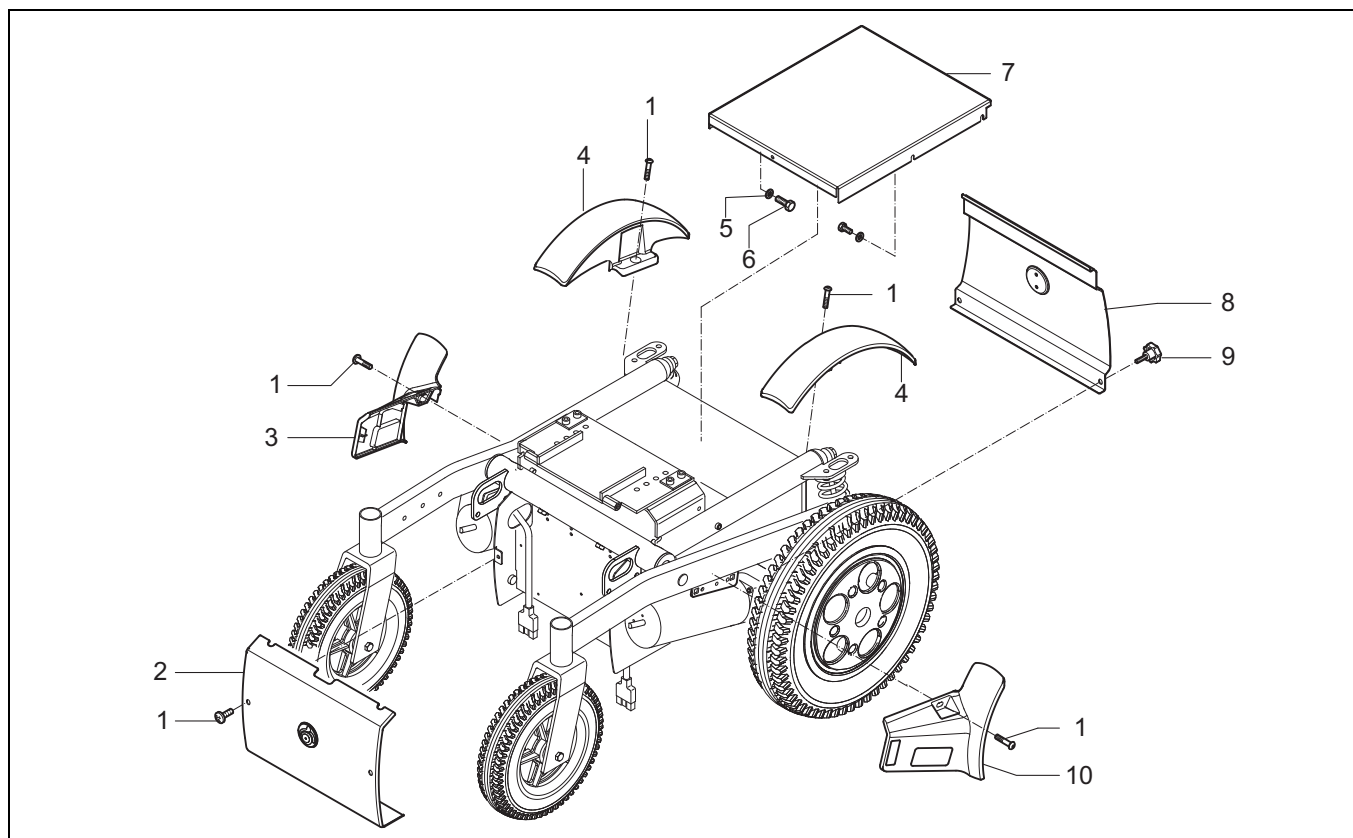
## 022 Transport fixation



Pos	Article number	Units	Description	
1	05010.3310	2	Washer	
2	00000.2803	2	Cup spring bl 23X12,2X1	
3	00000.1750	2	Locknut M12 D985/8/VZ	
4	00000.9008	2	Insert cap, round 35 black	
5	-	1	Identification plate	
6	00000.1802	4	Nut M8xP1.25	
7	00000.2003	4	Washer flat M8 D125A/vz	
8	9000094	2	Transport fixation RWD (revision B)	
	9002111	2	Transport fixation RWD (revision C)	
	1001410	1	Transport fixation set RWD (revision B)	
	1008163	1	Transport fixation set RWD (revision C)	
9	00000.4311	10	Hexagonal tap bolt M8X20 VZ	
10	176.00151.010	1	Key	
11	00000.2203	6	Spring washer SW8	
12	9000820	2	Transport fixation FWD	
	250.00001.035	1	Transport fixation set FWD	
13	00000.9000	4	Insert cap round 18 black	
A	-	-	See 019-020: Swivel wheels	
B	-	-	See 021: Driven wheel	
C	-	-	See 018: Battery tray and suspension	

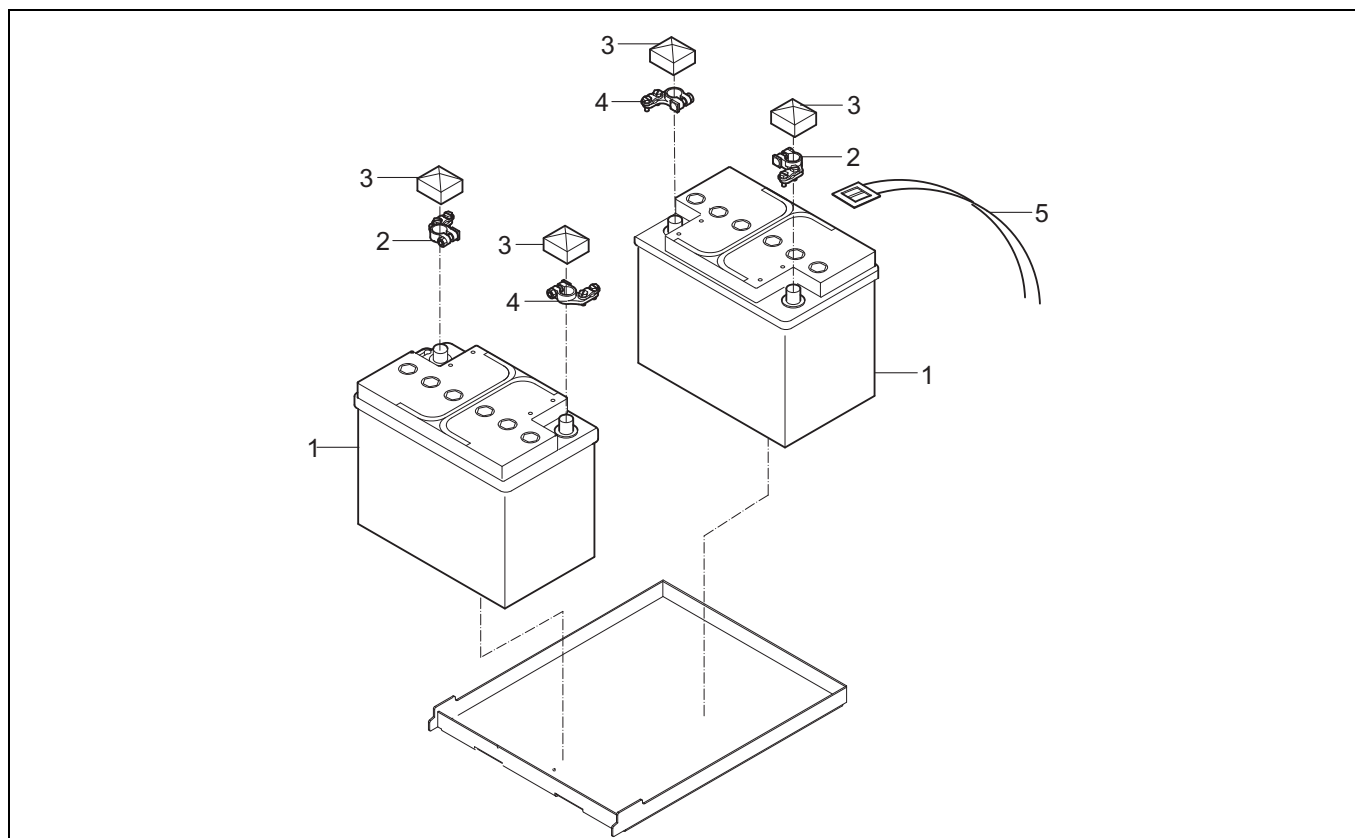


## 023 Bekapping



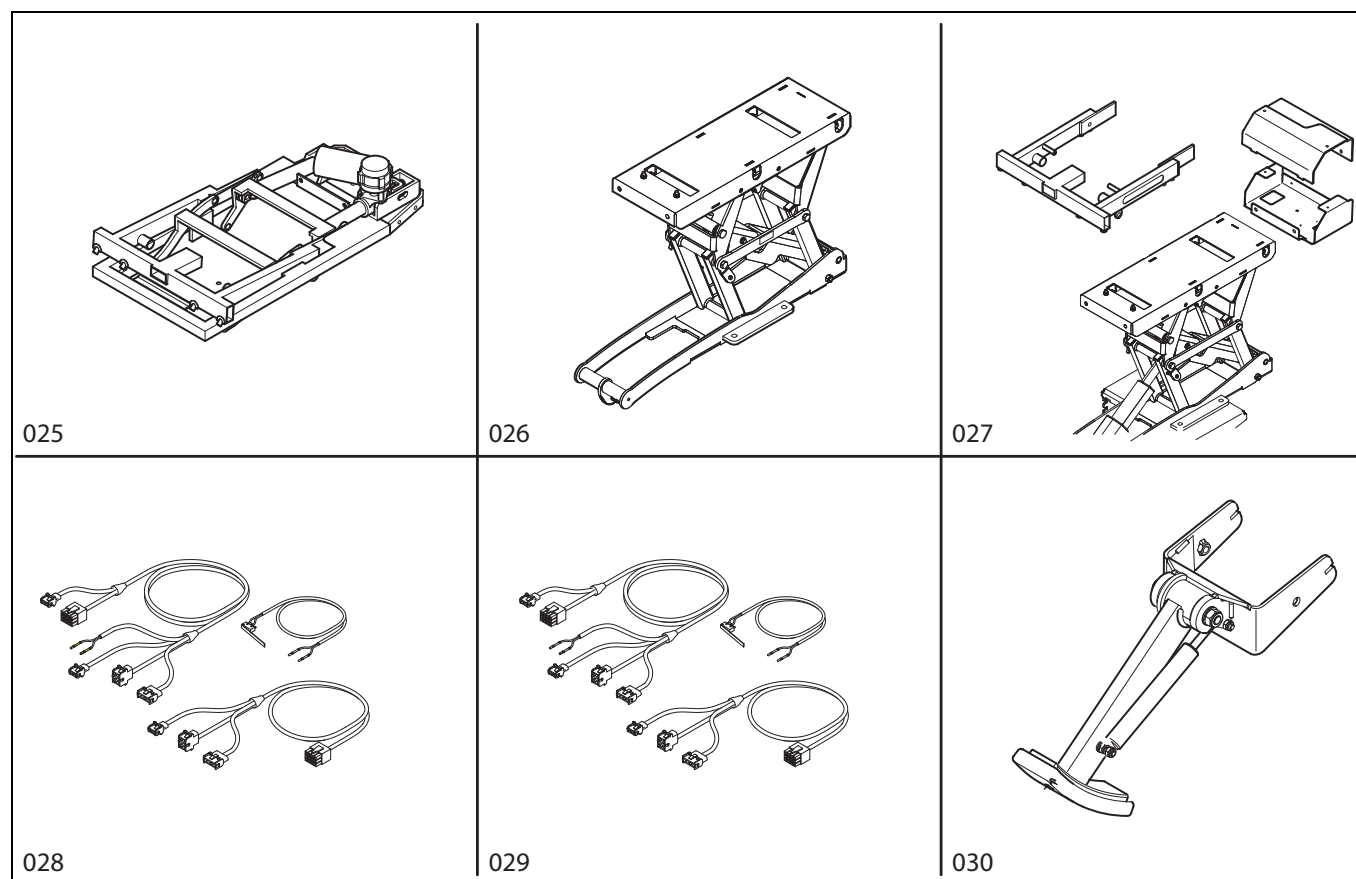
Pos	Article number	Units	Description	
1	00000.3703	6	Button head M6X16 vz	
2	1002527	1	Cover electronics assy yellow+logo	
	1002526	1	Cover electronics assy grey+logo	
3	1002317	1	Cover motor assy RWD right/FWD left yellow	
	1002319	1	Cover motor assy RWD right/FWD left grey	
4	9000070	2	Mud guard yellow	
	9000136	2	Mud guard grey	
5	00000.2102	4	Washer flat 3XD M6 D9021/VZ	
6	00000.4307		Hexagonal tap bolt M6X12 vz	
7	9000068	1	Battery tray top, yellow	
	9000131	1	Battery tray top, grey	
8	1002529	1	Battery tray front complete, yellow	
	1002528	1	Battery tray front complete, grey	
9	001.23000.002	2	Star knob M6x20	
10	1002318	1	Cover motor assy RWD left/FWD right yellow	
	1002320	1	Cover motor assy RWD left/FWD right grey	

## 024 Batteries



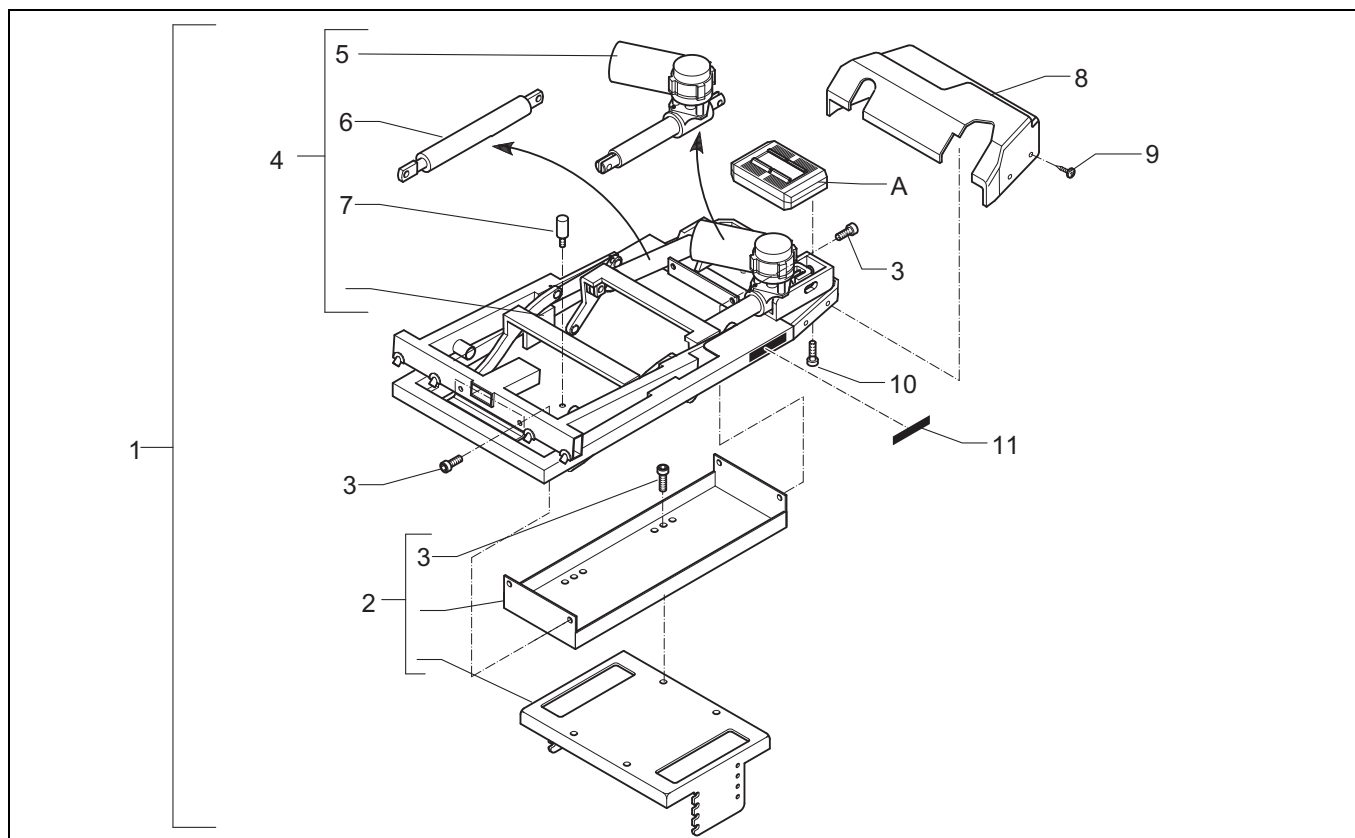
Pos	Article number	Units	Description	
1	9002758	2	Battery (34Ah C5) (40Ah C20)	
	9002759	2	Battery (50Ah C5) (60Ah C20)	
	9002760	2	Battery (63Ah C5) (74Ah C20)	
2	00001.0007	2	Battery clamp -	
3	-	4	Battery clamp cover	
4	00001.0006	2	Battery clamp +	
5	1344	2	Fastening belt battery	

### 6.3 Options, wiring and modules



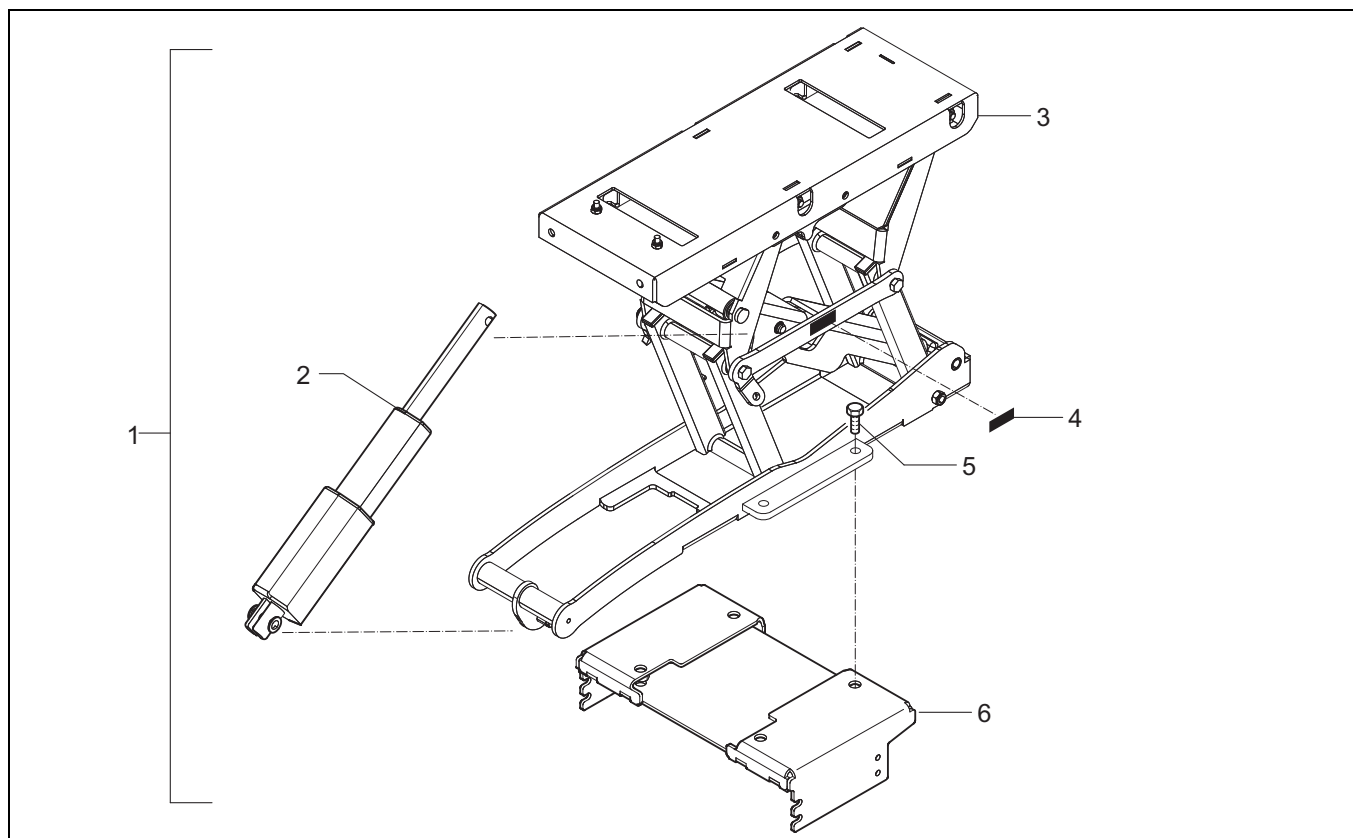
Drawing	Description	Page
025	Electrical tilt	82
026	Electrical lift	83
027	Electrical lift with mechanical tilt	84 – 85
028	Wiring and modules DX	86 – 93
029	Wiring and modules Shark	94 – 98
030	Kerb climber	99

## 025 Electrical tilt



Pos	Article number	Units	Description	
1	1004852	1	Electrical seat tilt for Shark (conversion kit)	
	1003385	1	Electrical seat tilt for DX (conversion kit)	
2	9000247	1	Interface, electrical tilt	
3	00000.4002	4	Cil cap screw M8X16	
4	9002061	1	Electrical seat tilt module	
5	9001948	1	Actuator, seat tilt	
6	013.00051.000	1	Gas spring 1900N	
7	001.35000.003	2	Vibration damper	
8	052.00591.082	1	Cover, Clam module	
9	00000.3306	4	Screw 4.2*16 incl. ring	
10	00000.4038	2	Cil cap screw. inn. zk M5X10 VZ	
11	008.00000.321	2	Sticker, trap danger	
-	1009322	4	Close-fitting screw 8mm for tilt unit	
-	1010853	1	Mounting set for tilt actuator	

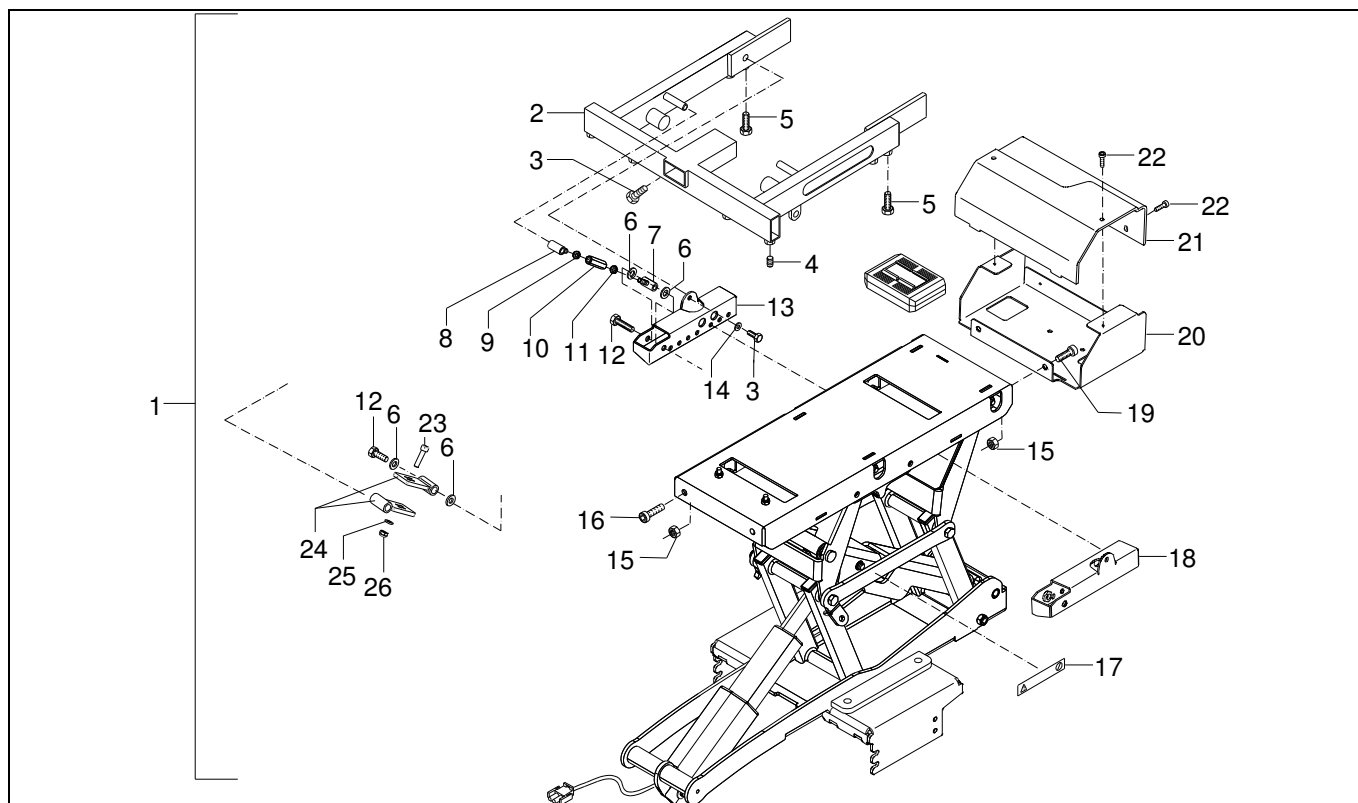
## 026 Electrical seat lift



Pos	Article number	Units	Description	
1	1004855	1	Electrical seat lift for Shark (conversion kit)	
	1002935	1	Electrical seat lift for DX (conversion kit)	
2	9001431	1	Actuator elektrische hoog/laag	
3	9001420	1	Lift module incl.actuator	
4	008.00000.321	2	Sticker, trap danger	
5	00000.4324	4	Hex. bolt M10x30	
6	9001416	1	Seat lift interface	

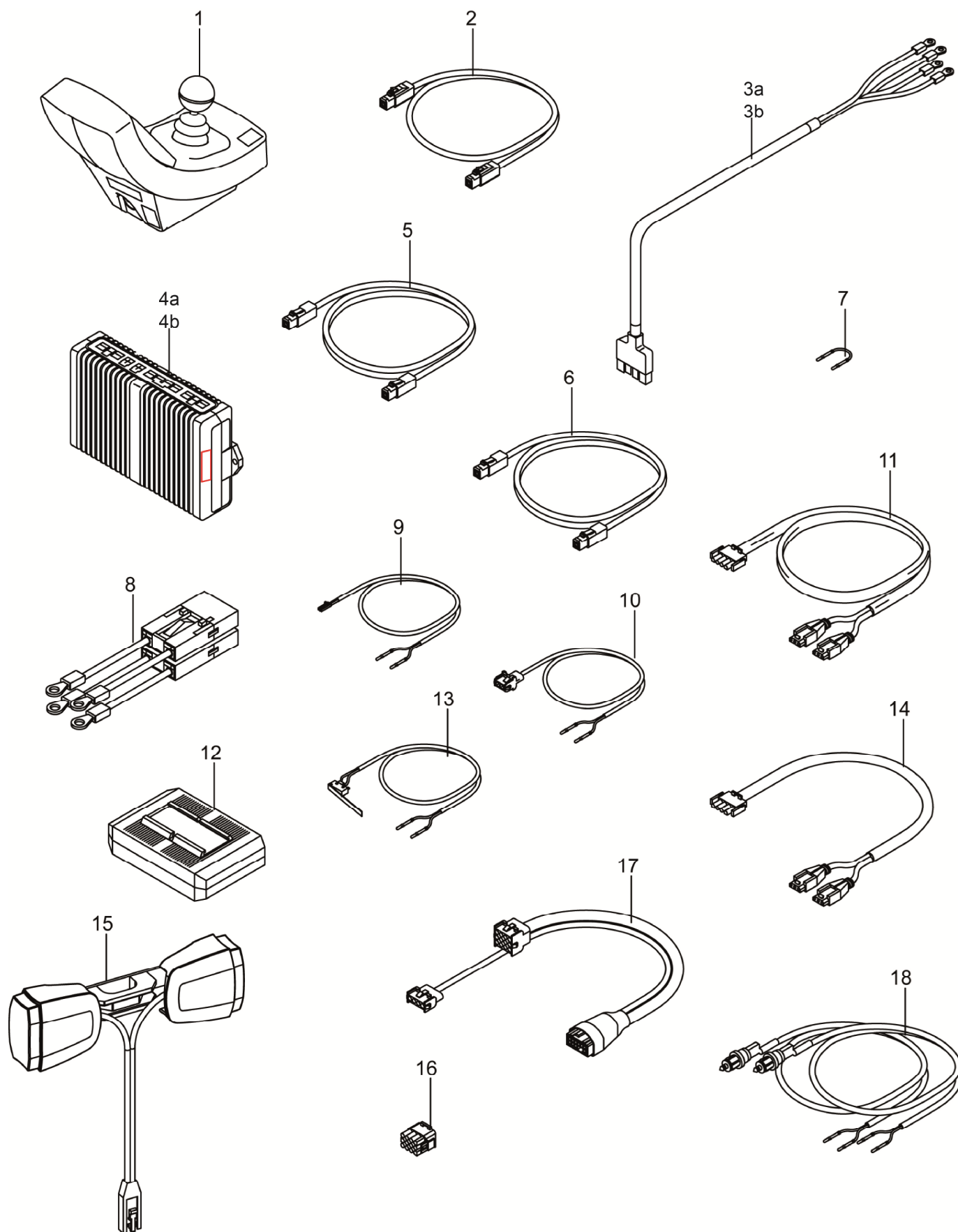
-	1004859	1	Electrical seat lift and electrical tilt for Shark (conversion kit)	
-	1004858	1	Electrical seat lift and electrical tilt for DX (conversion kit)	

## 027 Electrical seat lift with mechanical tilt



Pos	Article number	Units	Description
1	1004863	1	Electrical seat lift and mechanical tilt for Shark RWD (conversion kit)
	1009302	1	Electrical seat lift and mechanical tilt for Shark FWD (conversion kit)
	1004864	1	Electrical seat lift and mechanical tilt for DX RWD (conversion kit)
	1009303	1	Electrical seat lift and mechanical tilt for DX FWD (conversion kit)
2	152.00091.400	1	Sedeo, seat frame for mechanical tilt on electrical lift
3	00000.4322	4	Hexagonal tap bolt M8X15 VZ
4	00000.3501	4	Adjusting screw BZK M8X10 D913/VZ
5	00000.4322	4	Hexagonal tap bolt M8X12 VZ
6	00000.2304	4	Flat washer M10 PA
7	-	2	Hinge pin (not available)
8	-	2	Hinge pin (not available)
9	00000.1602	2	Hex Nut Low M8 D439B/VZ
10	001.00190.006	2	M8 couple nut mech. seat angle
11	001.00200.006	2	Hex Nut Low M8 D439B/VZ
12	1002426	2	Hexagonal bolt M10X45 VZ
13	9000796	1	Mounting bracket left for mechanical tilt
14	00000.2203	4	Spring washer SW8
15	00000.1702	4	Locknut M8 D985/8/vz
16	00000.4002	4	Cil cap screw M8X16
17	008.00000.321	2	Sticker, trap danger
18	9000215	1	Mounting bracket right for mechanical tilt
19	00000.4038	2	Cil cap screw. inn. zk M5X10 VZ
20	9001426	1	Mounting plate, electronics
21	9001427	1	Cover, Clam module
22	00000.3306	4	Screw 4.2*16 incl. ring
23	00000.4028	2	Cil cap screw M6x20
24	9002213	4	Seat angle adjuster
25	00000.2002	2	Flat washer M6
26	00000.1701	2	Lock nut M6
-	1004860	1	Mechanical tilt for electrical seat lift
A	-	-	see 028: Cabling and modules DX

## 028 Wiring and modules DX



## 028 Wiring and modules DX

Pos	Article number	Units	Description	
1	00355.0425	1	DX remote 16 key (Rem 48)	
	00355.0426	1	DX remote 16 key + (Rem 48a)	
	9007167	1	DX Remote 12 key for worktop (Rem41E)	
	1003305	1	DX Remote G90	
2	00355.0023	1	DX cable 1m	
3a	055.00000.023	1	DX Power cable	
3b	9006231	1	DX2 Power cable	
4a	9007375	1	DX → DX2 Power module conversion kit	
4b	9007159	1	DX2 Power module PMA90L	
5	00355.0018	1	DX cable 1,75m	
6	00355.0074	1	DX cable 2,7m	
7	00355.1140	1	Speed limiter bridge	
8	055.00000.013	1	Wire battery loop	
9	9001275	1	Harness back rest actuator	
10	9001468	1	Seat lift extension cable	
11	055.00095.000	1	Harness lighting long	
12	00355.0201	1	DX CLAM	
	00355.0205	1	DX-LM lightning module	
13	055.00074.000	1	Micro switch, electrical lift	
14	00355.1080	1	Harness lighting short	
15	9006981	1	LED lighting & indicators	
16	00355.1280	1	AMP connector 12P	
17	00355.1250	1	DX Clam cable	
18	055.00064.000	2	Harness leg rest actuator	



## 028 Wiring and modules DX

In this overview it's indicated which cabling and modules are being used on the wheelchair in a particular Construction. This is equal to a front- and back-wheel driven wheelchair.

### Standard:

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0018	1	DX cable 1,75m	

### Standard with lighting:

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0018	1	DX cable 1,75m	
00355.0023	1	DX cable 1m	
00355.0205	1	DX-LM lightning module	
00355.1250	1	DX Clam cable	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	

### Electrical backrest (lighting optional):

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0018	1	DX cable 1,75m	
00355.0023	1	DX cable 1m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
9001275	1	Harness back rest actuator	

**Electrical leg rests (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0018	1	DX cable 1,75m	
00355.0023	1	DX cable 1m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
055.00064.000	2	Harness leg rest actuator	

**Electrical tilt (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	

**Electrical seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	

**Electrical backrest & leg rests (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0018	1	DX cable 1,75m	
00355.0023	1	DX cable 1m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
9001275	1	Harness back rest actuator	
055.00064.000	2	Harness leg rest actuator	

**Electrical backrest & tilt (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
9001275	1	Harness back rest actuator	

**Electrical back & seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	
9001275	1	Harness back rest actuator	

**Electrical leg rests & tilt (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
055.00064.000	2	Harness leg rest actuator	

**Electrical leg rests & seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	
055.00064.000	2	Harness leg rest actuator	

**Electrical tilt & seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	

**Electrical backrest & leg rests & tilt (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1140	1	Speed limiter bridge	
00355.1280	1	AMP connector 12P	
055.00064.000	2	Harness leg rest actuator	
9001275	1	Harness back rest actuator	

**Electrical backrest & leg rests & seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	
9001275	1	Harness back rest actuator	
055.00064.000	2	Harness leg rest actuator	

**Electrical backrest & tilt & seat lift (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	
9001275	1	Harness back rest actuator	

**Electrical leg rests & tilt & seat lift (lighting optional):**

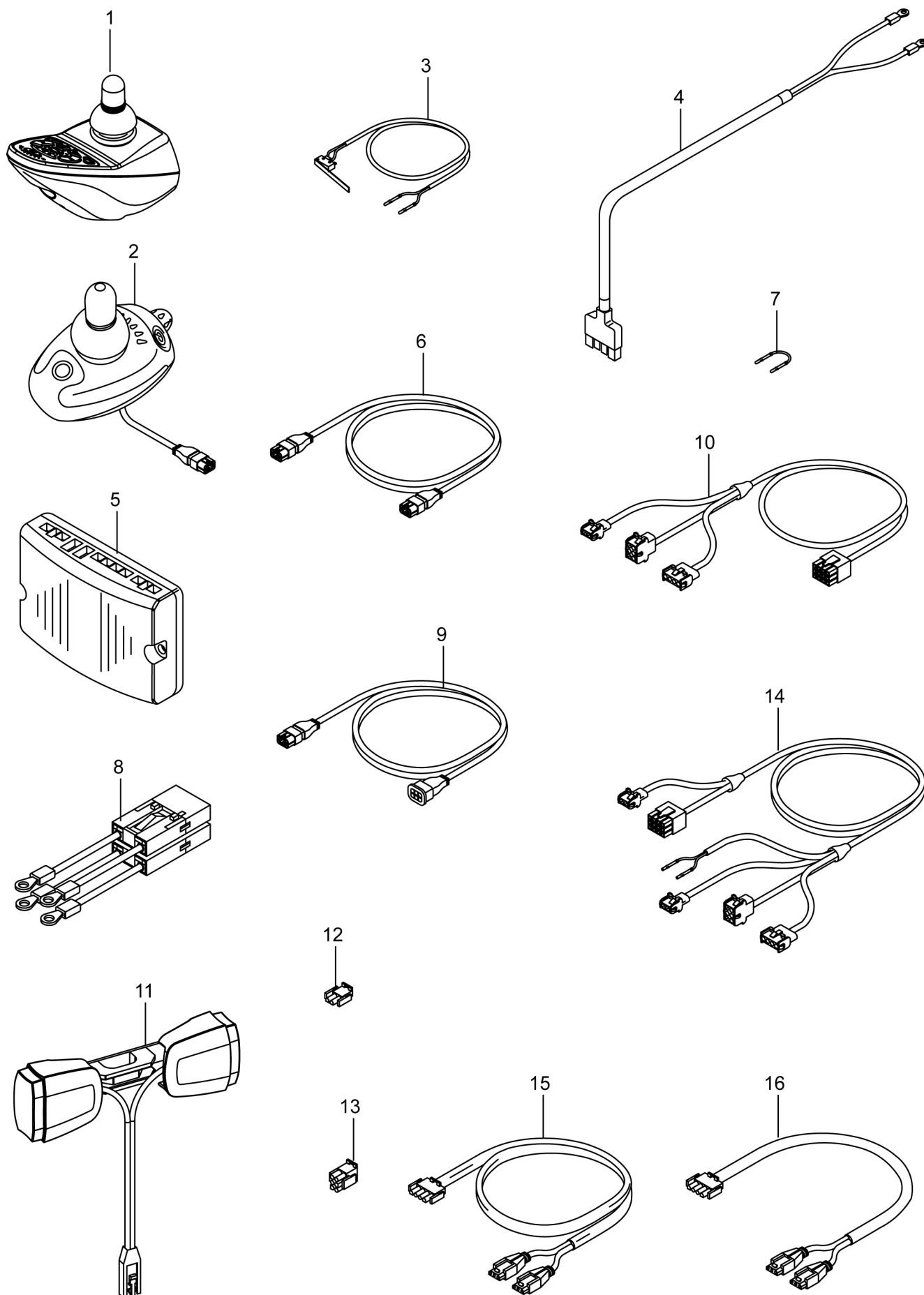
Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	
055.00064.000	2	Harness leg rest actuator	

**Electrical seat lift & tilt & backrest & leg rests (lighting optional):**

Article number	Units	Description	
00355.0425	1	DX Remote 16 key	
9007159	1	DX2 Power module PMA90L	
9006231	1	DX2 Power cable	
055.00000.013	1	Wire battery loop	
00355.0074	1	DX cable 2,7m	
00355.0018	1	DX cable 1,75m	
00355.0201	1	DX CLAM	
00355.1250	1	DX Clam cable	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
00355.1280	1	AMP connector 12P	
055.00064.000	2	Harness leg rest actuator	
9001275	1	Harness back rest actuator	
9001468	1	Seat lift extension cable	
055.00074.000	1	Micro switch, electrical lift	

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## 029 Wiring and modules Shark



## 029 Wiring and modules Shark

Pos	Article number	Units	Description	
1	1003091	1	Shark remote drive & lighting	
	1002943	1	Shark remote lighting & actuators	
2	1001179	1	Shark remote drive only	
3	9001502	1	Micro switch Lift	
4	9001373	1	Power cable Shark	
5	1010366	1	Shark power module drive only	
	1003092	1	Shark power module drive & lighting	
	1002944	1	Shark power module lighting & actuators	
6	1002945	1	Shark cable 1,5M	
7	00355.1140	1	Speed limiter bridge	
8	055.00000.013	1	Wire battery loop	
9	1003239	1	Shark extension cable 0,64M	
10	9001467	1	Harness lights & seat short	
11	9006981	1	LED lighting & indicators	
12	00355.5573	1	AMP plug 2P	
13	1003280	1	AMP plug 6P	
14	9001428	1	Harness lights & seat long	
15	055.00095.000	1	Harness lighting long	
16	00355.1080	1	Harness lighting standard	



## 029 Wiring and modules Shark

In this overview it's indicated which cabling and modules are being used on the wheelchair in a particular Construction. This is equal to a front- and back-wheel driven wheelchair.

### Drive only:

Article number	Units	Description	
1001179	1	Shark remote drive only	
1010366	1	Shark power module drive only	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	

### Drive and lighting:

Article number	Units	Description	
1003091	1	Shark remote drive & lighting	
1003092	1	Shark power module drive & lighting	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
9001467	1	Harness lights & seat short	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
00355.1140	1	Speed limiter bridge	

### Electrical backrest (lighting optional):

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
00355.1080	1	Harness lighting short	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
00355.1140	1	Speed limiter bridge	
9001275	1	Harness back rest actuator	

**Electrical seat lift (lighting optional):**

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
1003239	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
9001502	1	Micro switch Lift	

**Electrical tilt (lighting optional):**

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
1003239	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
00355.1140	1	Speed limiter bridge	

**Elektrical seat lift & backrest (lighting optional):**

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
1003239	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
9001502	1	Micro switch Lift	
9001275	1	Harness back rest actuator	

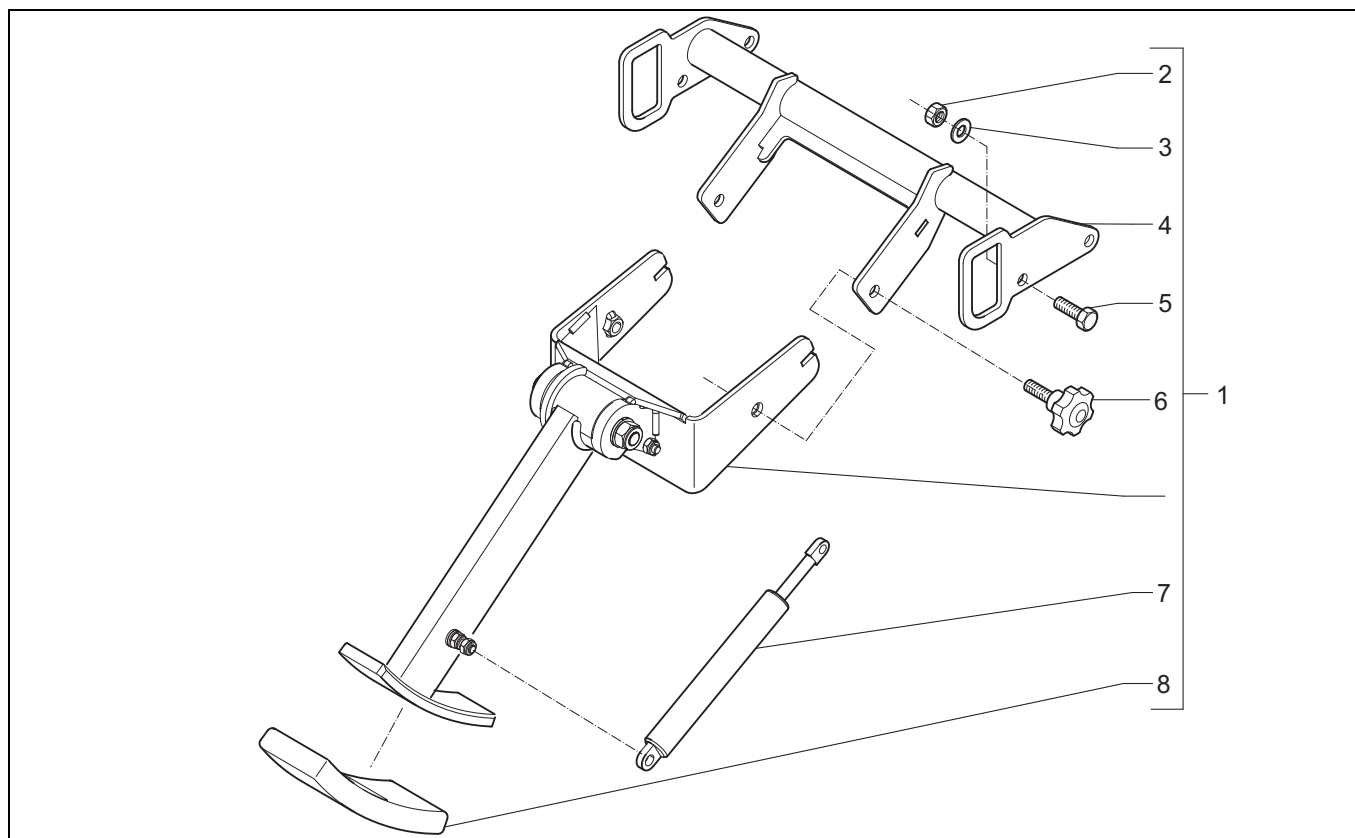
**Electrical tilt & backrest (lighting optional):**

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
1003239	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
00355.1140	1	Speed limiter bridge	
9001275	1	Harness back rest actuator	

**Electrical seat lift & tilt (lighting optional):**

Article number	Units	Description	
1002943	1	Shark remote lighting & actuators	
1002944	1	Shark power module lighting & actuators	
9001373	1	Power cable Shark	
055.00000.013	1	Wire battery loop	
1002945	1	Shark cable 1,5M	
1003239	1	Shark extension cable 0,64M	
9001428	1	Harness lights & seat long	
055.00095.000	1	Harness lighting long	
9006981	1	LED lighting & indicators	
1003280	1	AMP plug 6P	
00355.5573	1	AMP plug 2P	
9001502	1	Micro switch Lift	

## 030 Kerb climber



Pos	Article number	Units	Description	
1	1004565	1	Kerb climber	
2	00000.1702	4	Lock nut M8	
3	00000.2003	4	Washer flat M8	
4	9000671	1	Kerb climber mounting bracket	
5	00000.4311	4	Hex. Bolt M8x20	
6	00000.6801	2	Star knob M8x20	
7	03411.2100	1	Kerb climber gas spring	
8	03411.0190	1	Kerb climber shoe	

**01-01-2012**  
**Version 2012v1**

Page	Drawing	Changes
66	13	Deleted article numbers 1001123, 1008160 and 1008161
67	13a	Added 'LED lighting' drawing and exploded view
86	28	Replaced picture of LED lighting & indicators compact version by LED lighting and changed article number and description 1001123 LED lighting & indicators, compact version into 9006981 LED lighting unit set (left + right)
87-92		Replaced article number 1001123 by 9006981
94	29	Replaced picture of LED lighting & indicators compact version by LED lighting and changed article number and description 1001123 LED lighting & indicators, compact version into 9006981 LED lighting unit set (left + right)
95-97		Replaced article number 1001123 by 9006981

**01-01-2013**  
**Version 2013v1**

Page	Drawing	Position	Changes
57+58	7+8	10	Changed article number 906.00000.031 into 1004189
57+58	7+8	10	Changed article number 906.00000.031 into 1004189
66	13	2,3,4	Deleted article numbers 1014286, 1014287 and 1014191
84	27	7+8	Deleted article numbers 151.00061.023 and 151.00071.023
86	28	3	Changed position 3 in 3a and added position 3b DX2 Power cable
86	28	4	Changed position 4 in 4a DX2 Power module conversion kit and 4b DX2 Power module PMA90L
88-93			Replaced article numbers 00355.0109 and 055.00000.023 into 9007159 and 9006231

**01-01-2014**  
**Version 2014v1**

Page	Drawing	Position	Changes
-	-	-	-

**01-01-2015**  
**Version 2015v1**

Page	Drawing	Position	Changes
8			Updated warranty text
53	03	-	Added article number 9002617
55	05	-	Added article numbers 1009562 and 1008492
56	06	-	Added article number 1002599
57	07	-	Added article numbers 906.00000.111, 906.00000.121 and 1002599
58	08	13/14/-	Added article number 9001233, 01500.2923 and 1002599 Updated drawing
66	13	-	Added article number 9006419
68	14	17/18/19	Added position 17, 18 and 19 to drawing
69	15	16/17/18	Added article number 00355.0444, 1007917 and 1007918 Updated drawing
70	16	17	Changed description position 17
72	17	22/- 12/15/20/-	Added article number 258.00431.000 and 258.00001.023 Changed description article numbers 1008068, 1008128, 1008129, 9001655, 9001656, 1003469, 1003242, 1003243, 1011124 and 1011125
74	18	12	Added position number to drawing
75	19	8-10 -	Changed article numbers 1006636, 1006638, 1006635, 1006637, 1003204 and 1003205 into 1015234, 1015236, 1015235, 1015237, 1015105 and 1015115 Added article numbers 00000.5500 and 1008279
76	20	5-7	Changed article numbers 1006636, 1006638, 1006635, 1006637, 1003204 and 1003205 into 1015234, 1015236, 1015235, 1015237, 1015105 and 1015115.
77	21	1-4	Changed article numbers 9002012, 9002036, 9002013, 1003249 and 1004273 into 1015250, 1015251, 1015108, 1015117 and 9007193 Added article number 1015111 Deleted article numbers 9002011, 9002035 and 9002006
82	25	-	Added article number 1010853
86	28	1	Changed article number 00355.0218 into 9007167



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