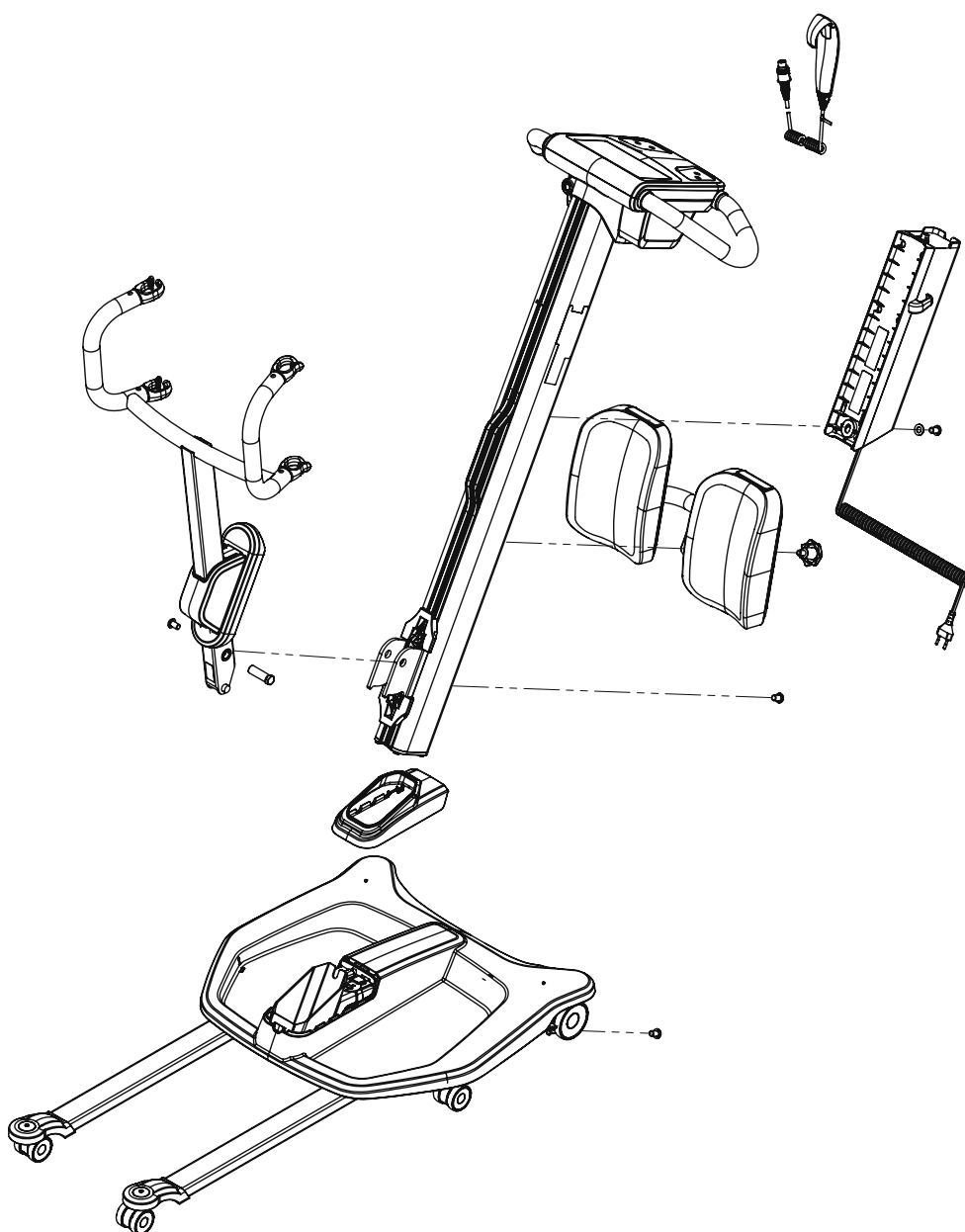


Molift QuickRaiser 205

EN - Technical manual

molift[®]
a part of Etac

TM13001 Rev B 2018-01-03




English Manual

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Important

This Technical Manual contains important safety instructions and information regarding the repair and service of the lifter and accessories.



Warning!
This symbol indicates important information related to safety. Follow these instructions carefully.




Read User Manual before use!
It is important to fully understand the content of the user manual before attempting to use the equipment.


Visit www.etac.com to download documentation to ensure you have the latest version.

Conditions of Performing Service/Repair


Lift and transfer of a person will always pose a certain risk and only certified personnel are allowed to repair and service the equipment and accessories covered by this technical manual.




Only certified personnel are allowed to open hoist or accessories to perform service or repair. Risk of injury from rotating parts and electric shock.



Activate emergency stop before opening control panel cover. Disconnect battery before any repair or service.



When disassembling and assembling the lifter, take care that no cables are squeezed or damaged, this might cause malfunction.

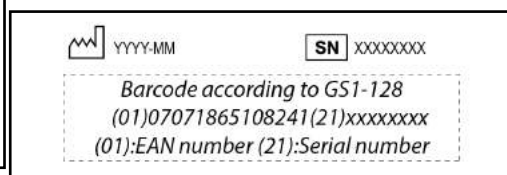
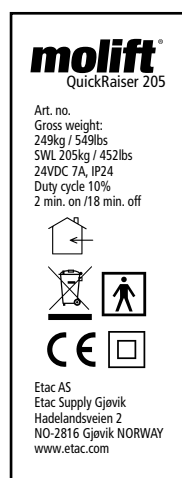


Any Service or Repair should be documented in the service log, and verified by using the Checklist after service and repair.

General

Product Identification

The Product labels barcode contain product ID, serial number and production date.



Service indicator (up until 31.12.2017)

Service light	Mode
No light	No service needed
Yellow	Order service
Yellow flashing	Periodic inspection required
Red	Perform service

Periodic inspection

Periodic inspection of the hoist should be undertaken at least once a year to ensure that the device operate properly and safely.

Service Scope



Service is needed when service indicator displays red after calculated 10 000 lifts with max load (SWL).

Authorized service personnel can use the Molift Service Tool to take readings of the lift's data and number of lifts.

Service involves replacing the coin cell battery (see page 27) lubrication of cogwheels and leg opening motor screw (see page 42) and inspection/replace-ment of worn parts. This must be carried out by authorised personnel.

Battery and Service indicator

The lifter has two indicators.

	Wrench symbol / Service indicator
	Battery symbol / Battery indicator

The electrical system has a power-save function which will turn off the electrical system five minutes after last operation. All indicators will turn off. The system is activated when pushing one of the operating buttons

Battery indicator

When the multi level battery indicator is yellow the lifter will have sufficient power available for one full lifting cycle with max load. When battery is flashing yellow it is only possible to lower the lifting arm.

Service indicator

The lifters electronics record the weight lifted and number of lifts. After a certain period of operation a signal is given to indicate that service is required.

Service indicator (from 01.01.2018)

Service light	Mode
No light	No service needed
Green flashing	Order service
Yellow	Periodic inspection required
Red	Perform service

Measurements

Safe Working Load (SWL):

205 kg (451 lbs)

Weight of unit:

Total weight of unit: 44,5 kg/98 lbs
 Chassis: 17 kg/37,5 lbs
 Lifting column: 19 kg/41,9 lbs
 Leg support: 3,5 kg/7,7 lbs
 4-point lifting arm: 5 kg/11 lbs

Battery:

SLA 24V 2.9 Ah
 LiFePO4 25.6V 2.4 Ah

Battery charger:

Input: 100-240 VAC, 50-60 Hz, max 0.35 A
 Output: 29.4 VDC, 0,5 A

Battery charge time:

5 hours

Rated performance:

100 hoists at: 75 kg and 500mm

Lifting speed:

35mm/second (1,4 inches/second)
 with 75kg (165 lbs) load

Protection class:

IP24 (Complete lifter).

The object, probe sphere of 12.5mm Ø shall not fully penetrate.

Water splashing against the enclosure from any direction shall have no harmful effect.

Operating forces button:

Buttons on control panel: < 5 N
 Buttons on handset: < 5 N

Material:

Aluminum, Plastic, steel

Motor:

Lifting motor: 24 V DC
 Leg spreading motor: 24 V DC

Turning diameter:

1144 mm (57 inches)

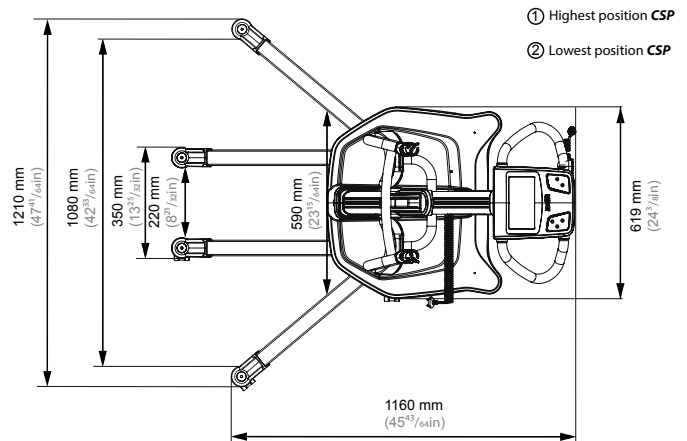
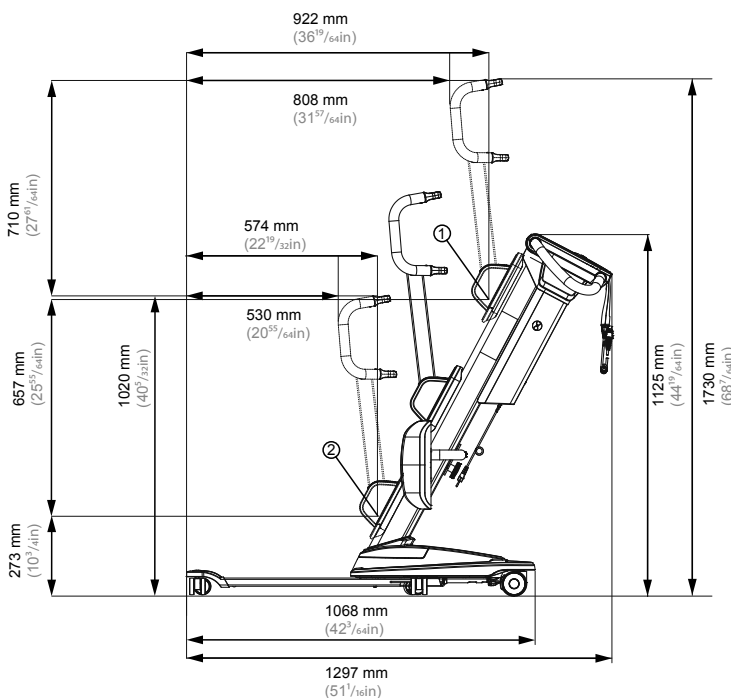
Expected Lifetime:

The lifter and accessories has an expected lifetime of 30 000 cycles or 10 years.

Applied parts:

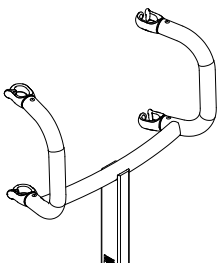
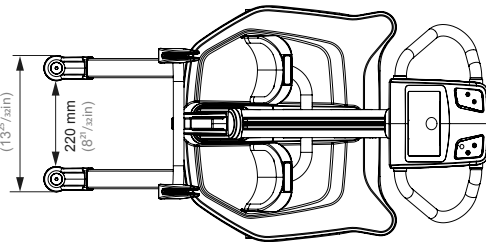
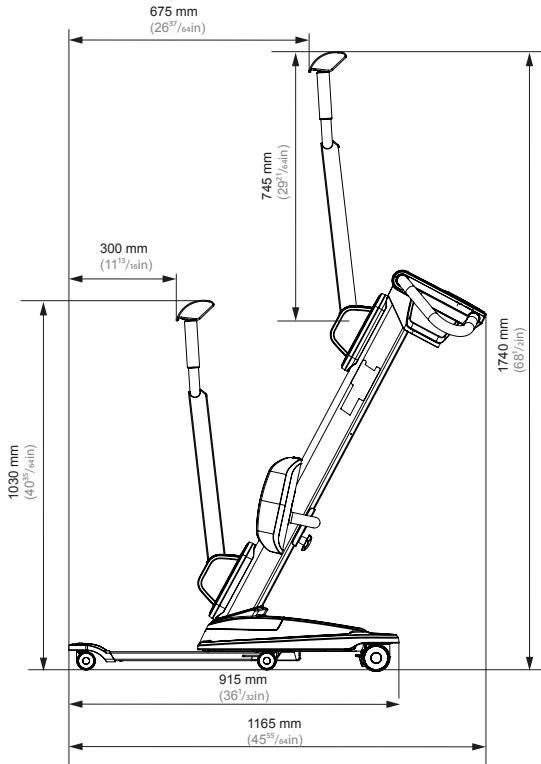
Sling
 Foot rest
 Rocker arm handles

Measurements, QuickRaiser 205:

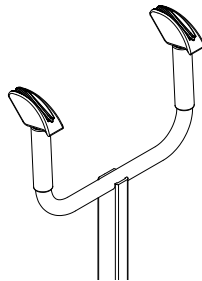


① Highest position CSP
 ② Lowest position CSP

Measurements, QuickRaiser 205 with fixed legs:

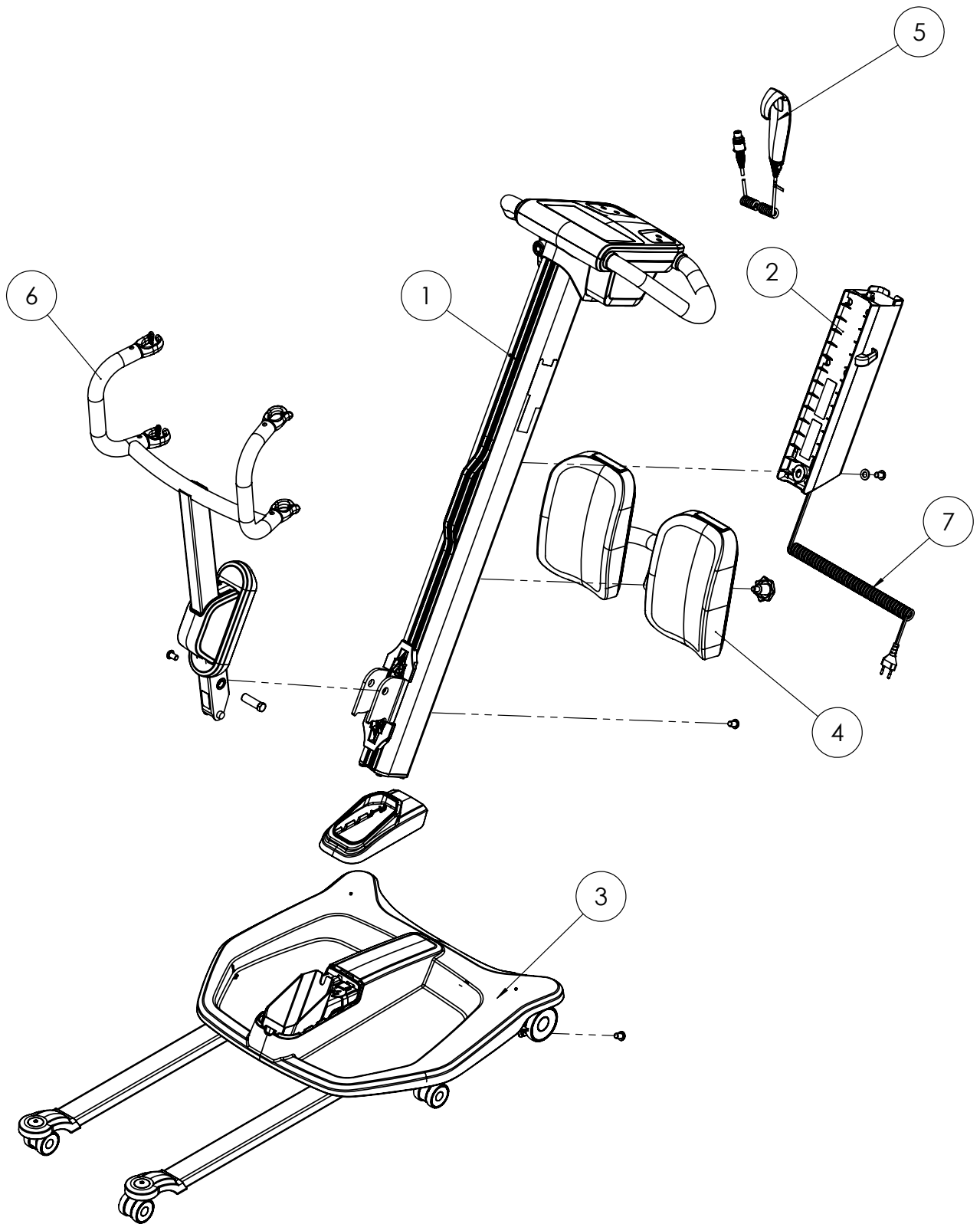


QuickRaiser Active lifting arm
Art. no.: 2910060



QuickRaiser Stand Up lifting arm
Art. no.: 2910061

QuickRaiser 205 Variant Matrix



Molift QuickRaiser 205 components

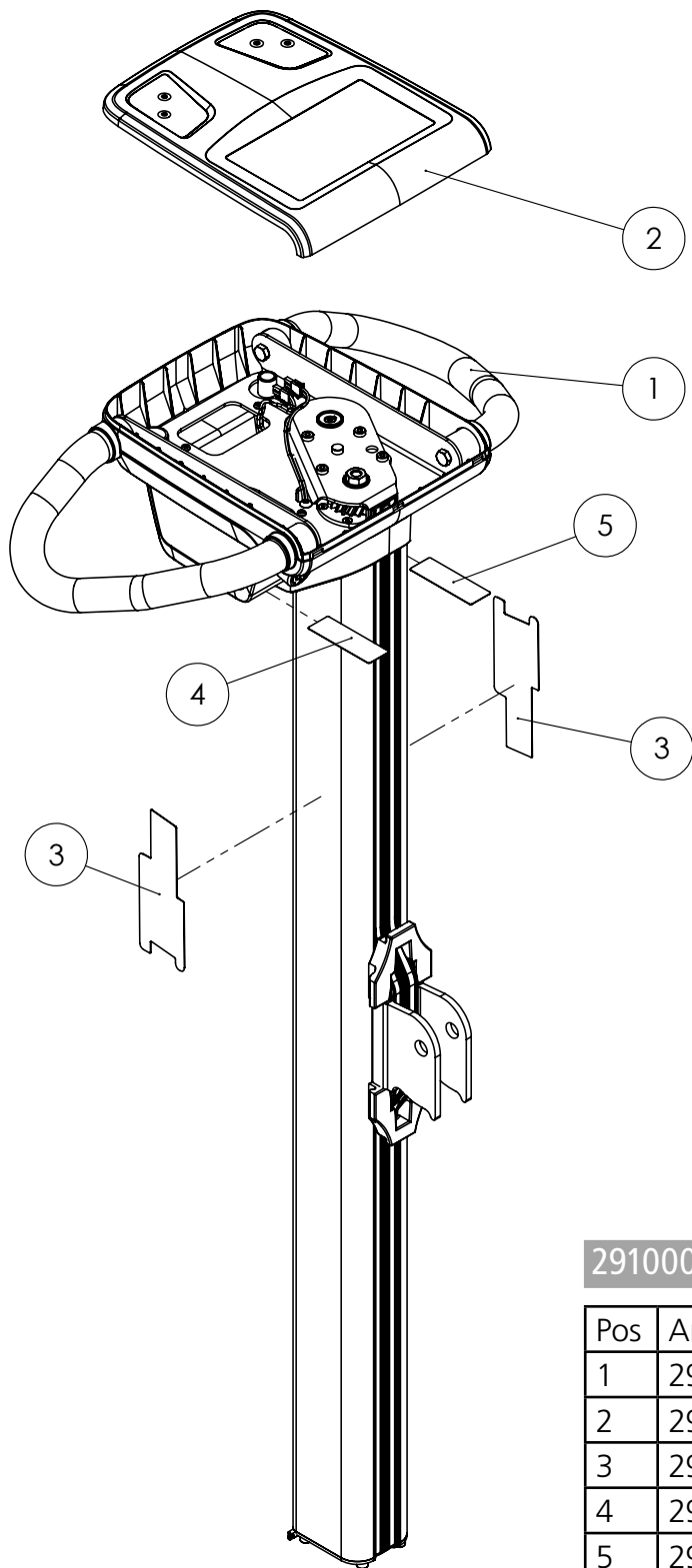
Pos	Article no.	Description
1	2910005	Column
2	2910040	Charger and PowerPac 24V SLA
3	2910045	Chassis (Ø50/75mm)
3	2910046	Chassis (Ø75/100mm)
4	2910055	Leg Support
5	2910010	Hand Control
6	2910060	Active lifting arm
6	2910061	Standup lifting arm
7*	2920092	Spiral Cable USA plug
7*	2920093	Spiral Cable EU plug
7*	2920094	Spiral Cable GB plug
7*	2920095	Spiral Cable AU plug

*country/region variation

Molift QuickRaiser 205 variants

Article no.	Description
29000	Molift QuickRaiser 205 Active (Ø50/75mm)
29001	Molift QuickRaiser 205 Standup (Ø50/75mm)
29100	Molift QuickRaiser 205 Active (Ø75/100mm)
29101	Molift QuickRaiser 205 Standup (Ø75/100mm)

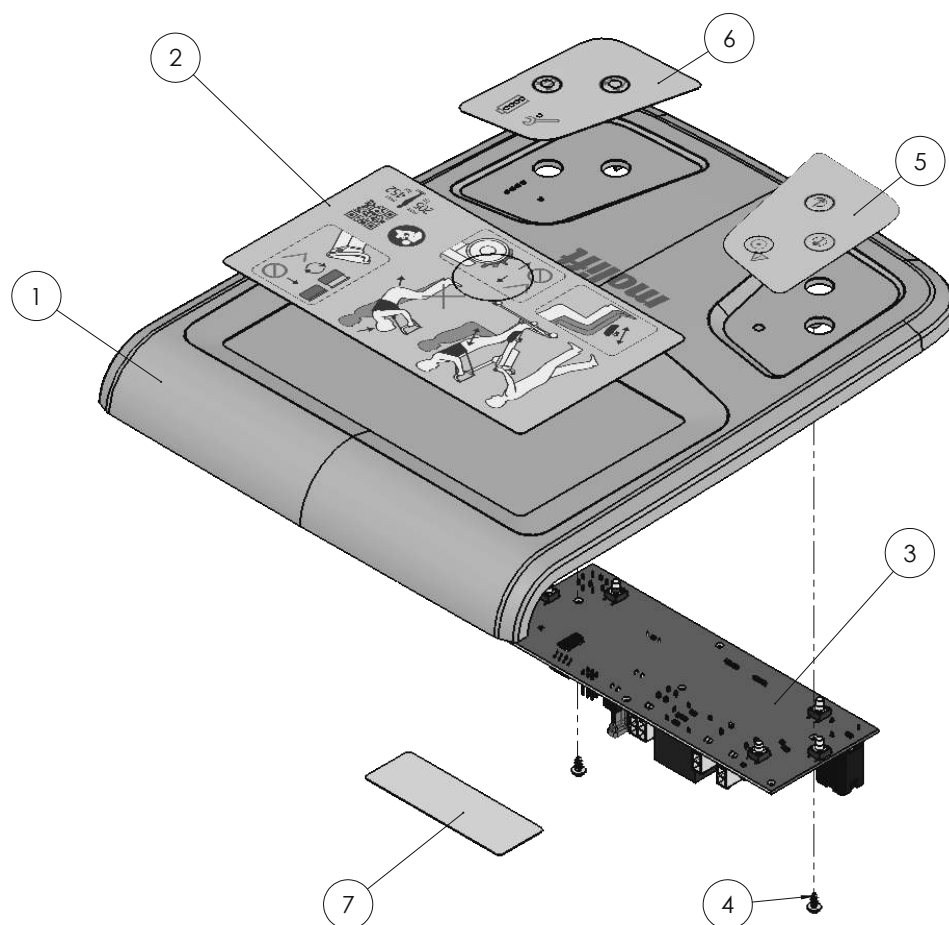
Column / Article no. 2910000



2910000 Column

Pos	Article no.	Description
1	2910015	Column Assy
2	2910020	Top Cover Assy
3	2920139	Model label
4	2920140	Product label
5	2920141	GSI 128 Label

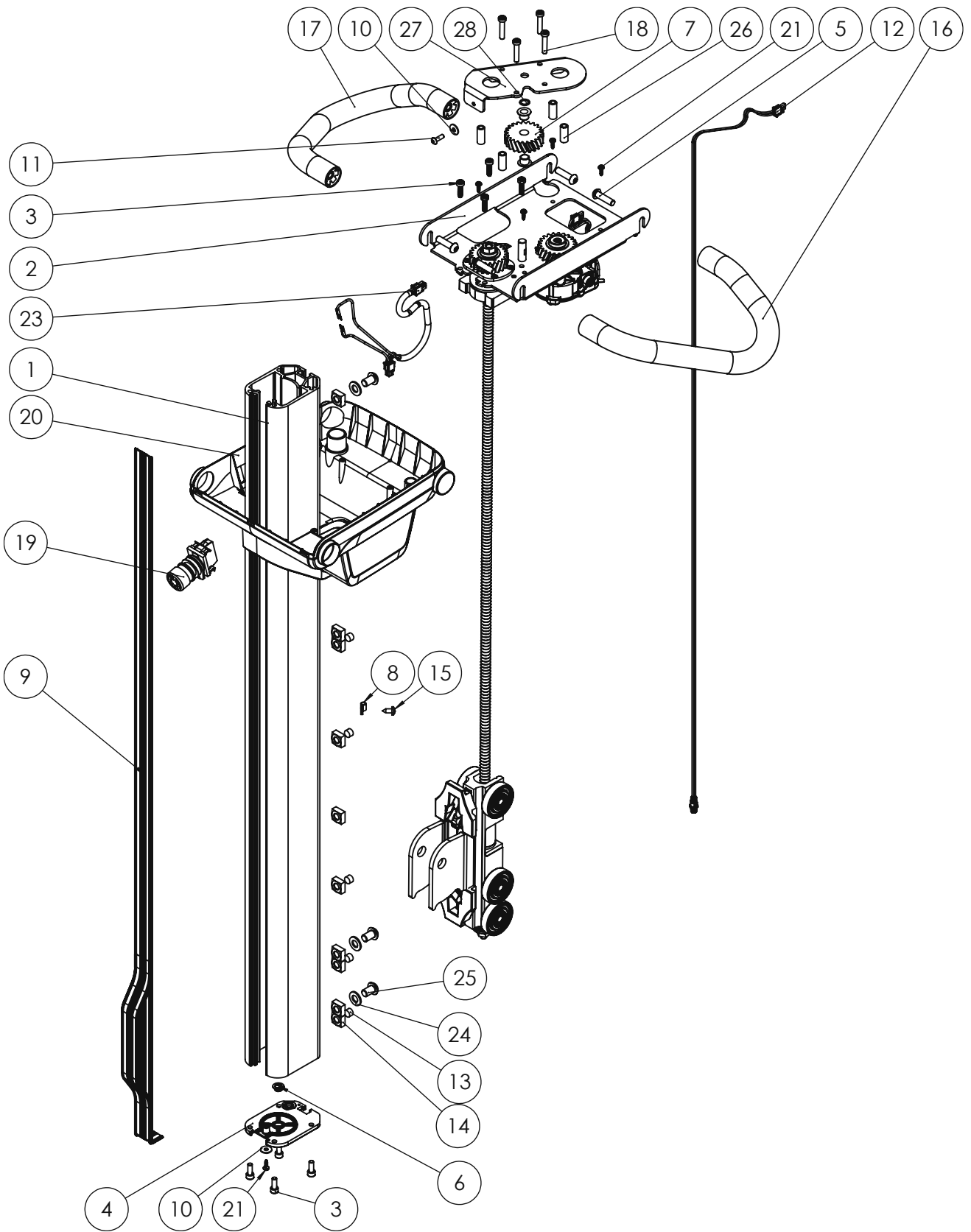
Control panel / Article no. 2910020



2910020 Control panel

Pos	Article no.	Description
1	2920096	Top Cover_insert
2	2920097	Short Guide StandUp
3	2920112	PCB
4	2920077	Screw, PT WN 1451
5	2920084	Membran keypad left (foil only)
6	2920085	Membran keypad right (foil only)
7	2920141	GS1-128 Label

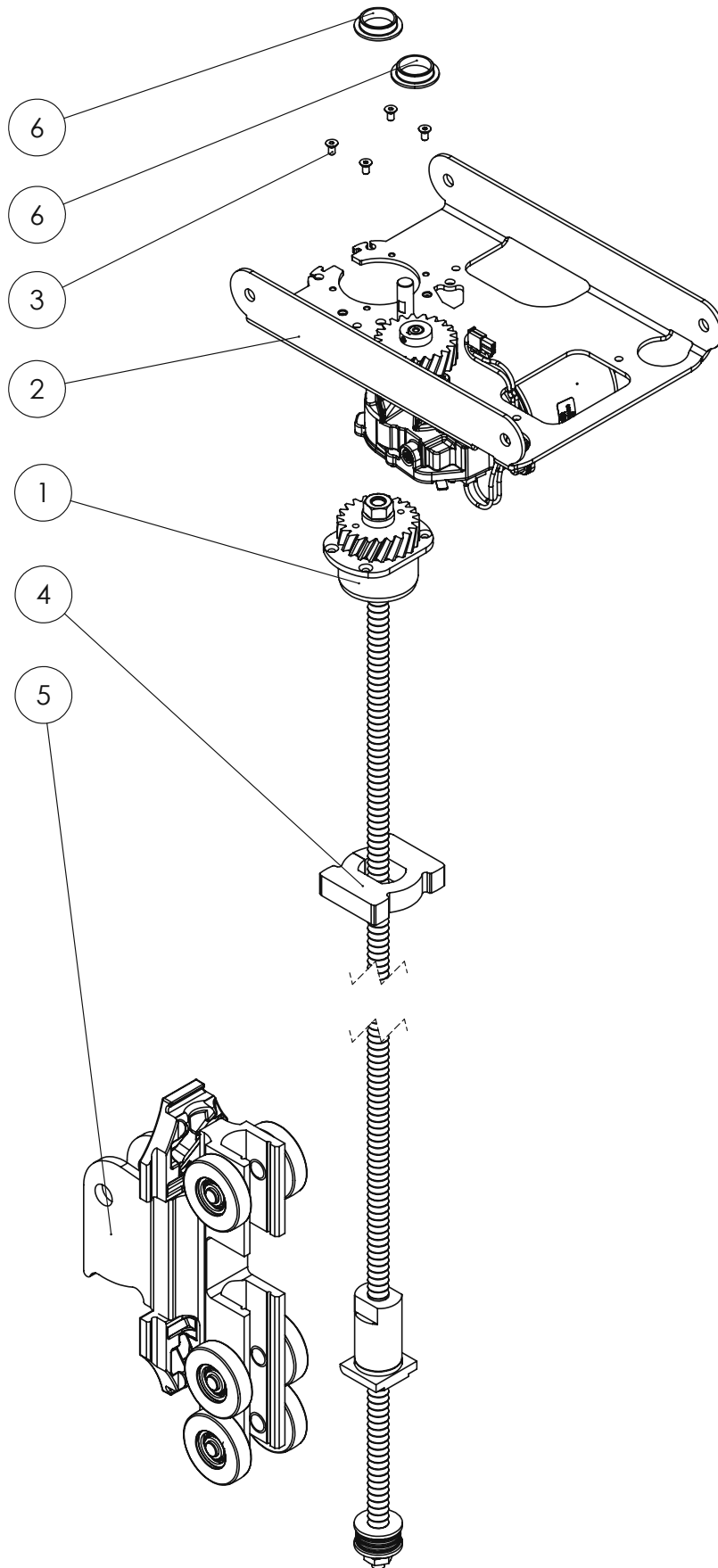
Column without control panel / Article no. 2910005



2910005 Column without control panel

Pos	Article no.	Description
1	2920061	Column Profile, L=1098
2	2910030	Ball Screw Assy
3	2920149	Self Drilling Screw
4	2920062	Bottom Plate
5	2920152	Screw, Button Head Socket Cap
6	2920122	Slide Bearing
7	2920114	Cogwheel 3
8	1101432	Wire clamp 4,8 MM 55-021-90
9	2920065	Rubber band, L=1156mm
10	2920066	Washer
11	2920123	Screw, Socket Button Head
12	2920067	Cable PCB - Column
13	2920184	DIN 914 / ISO 4027 M10x10
14	2920018	Square Nut
15	2920185	ISO 7049/DIN 7981 screw 4.8x13 PH2
16	2920068	Driving Handle Left Assy
17	2920069	Driving Handle Right Assy
18	0920015	Screw, Button Socket Cap Screw
19	2920006	Emergency Stop Switch
20	2920071	Control Panel Bottom Cover
21	2920035	Screw, Plastic
23	2920074	Harness PCB-Emergency Stop-Battery
24	0220122	Washer
25	2920075	Screw, Button Head Socket Cap
26	1109627	Sleeve
27	2920131	Cogwheel Bearing Plate
28	2920160	Washer Nylon

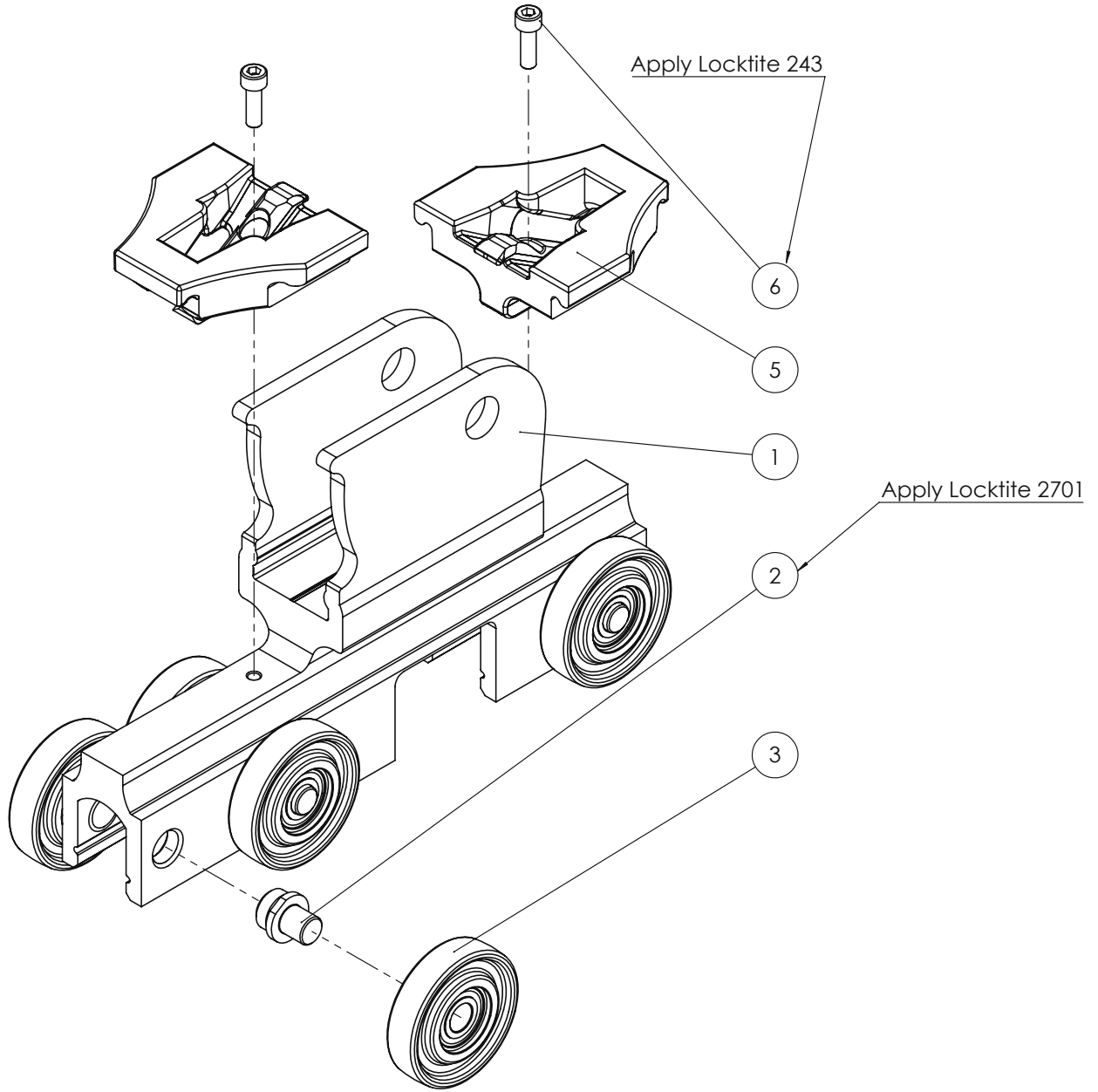
Driveline / Article no. 2910030



2910030 Driveline

Pos	Article no.	Description
1	2910031	Ball Screw Part Assy 1
2	2910025	Motor Plate Assy
3	1109087	Screw, Countersunk Head
4	2920073	End Stopper
5	2920116	Trolley Assy
6	2920051	Flanged Bearing

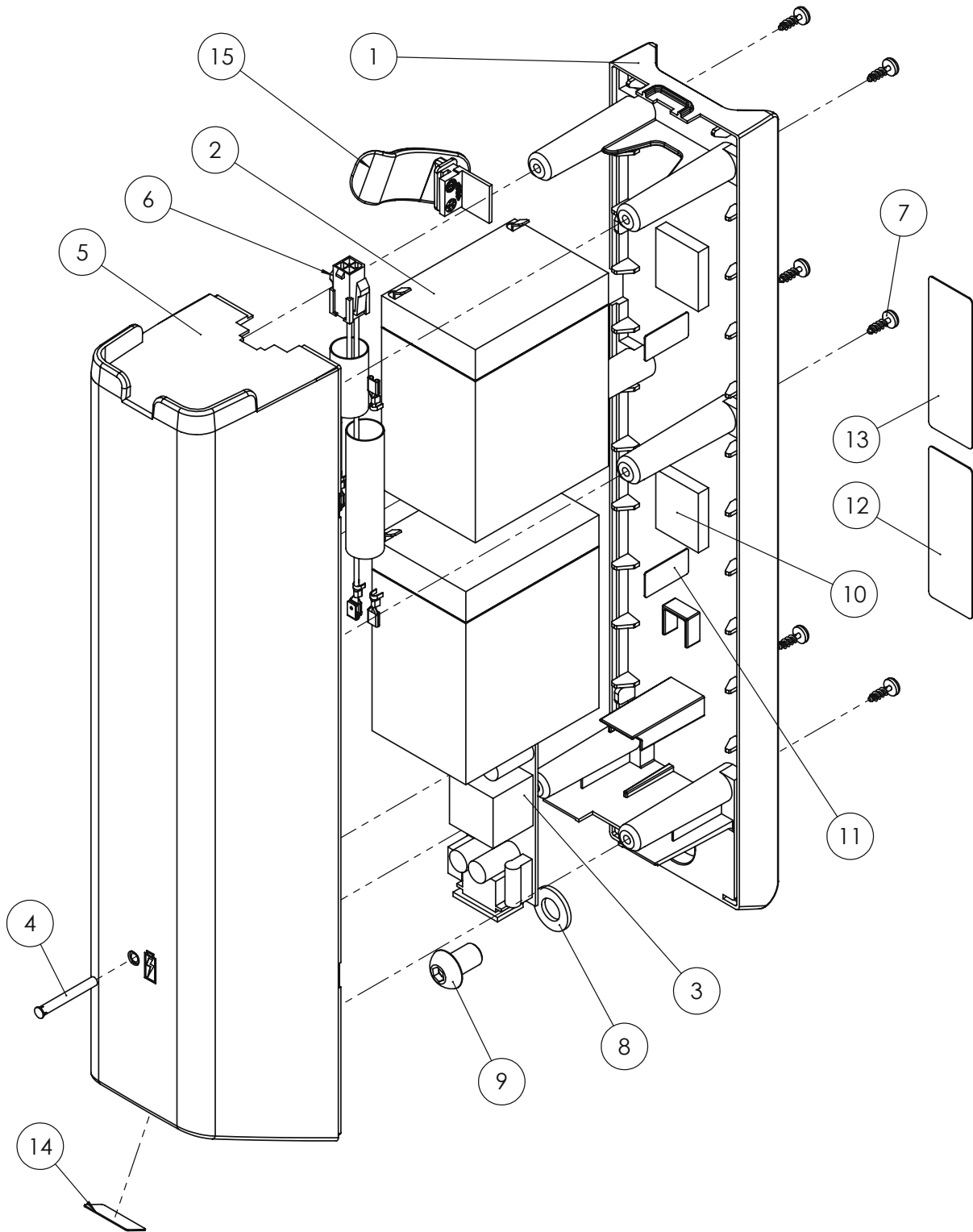
Trolley / Article no. 2910035



2910035 Trolley

Pos	Article no.	Description
1	2920042	Trolley Machined
2	2920043	Axle
3	1120705	Radial Ball Bearing
4	2920044	Wheel
5	1310108	Guide Sealing
6	1320209	Screw, Socket Head Cap

Charger and PowerPac 24V SLA / Article no. 2910040

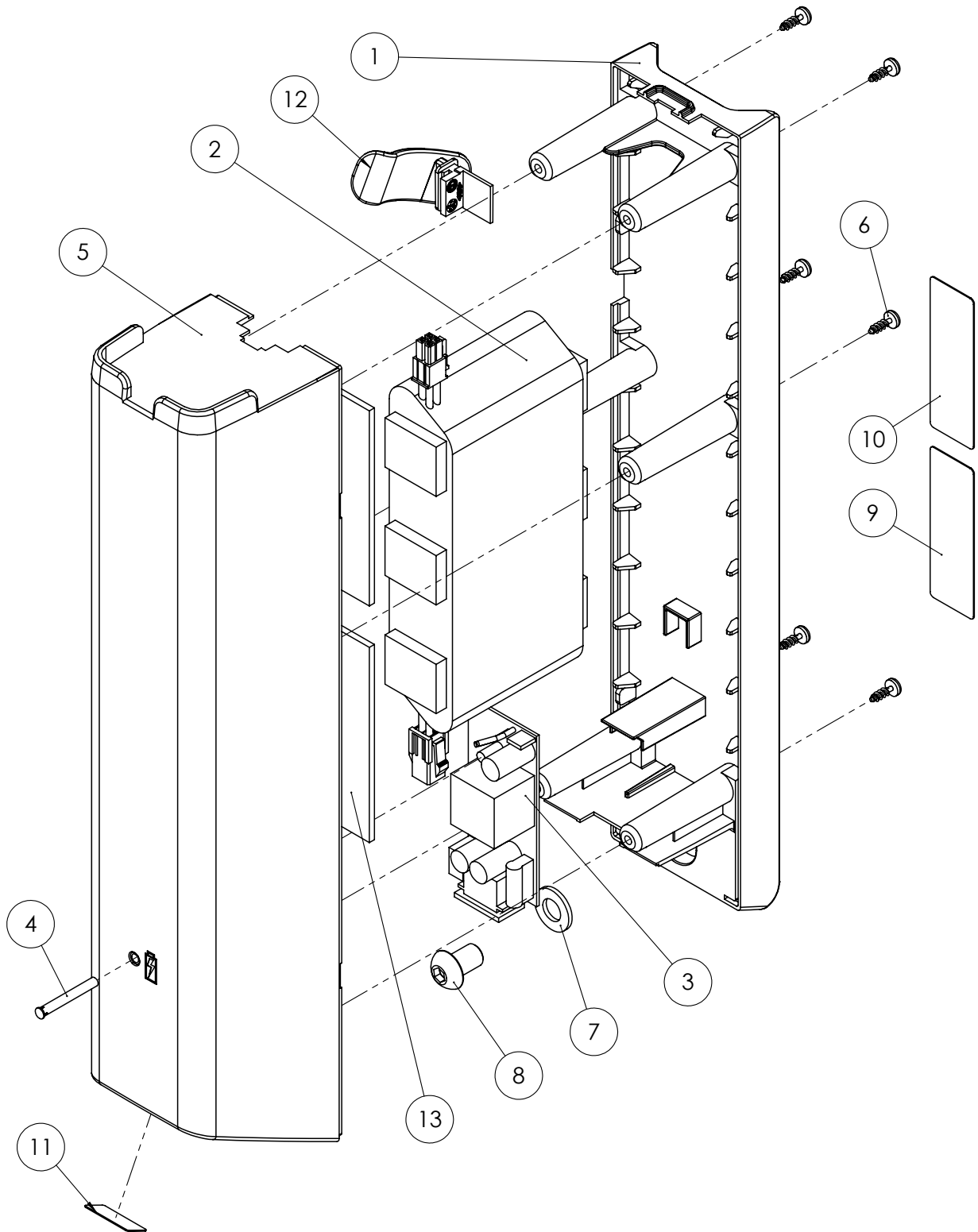


Charger and PowerPac
24V SLA
Exploded Drawing
20-103 Rev. I

2910040 Charger and PowerPac 24V SLA

Pos	Article no.	Description
1	2920003	Battery box back
2	2920007	SLA battery 2x12V 2,9Ah
3	2920086	Charger, SLA
4	2920087	Light pipe - BIVAR PLP5-2-1250
5	2920088	Battery Box Front
6	2920076	Cable for SLA battery box
7	2920035	Screw, Plastic
8	0220122	Washer DIN 125 ø10,5
9	2920075	Screw, ISO 7380-2 M10x16 Dri-Loc
10	2920089	Foam tape, RS-619-1764
11	2920150	Battery warranty label
12	2920091	SLA battery pack product label
13	2920142	Warning label
14	2920181	Input Voltage Label
15	2920190	Battery box cable clip

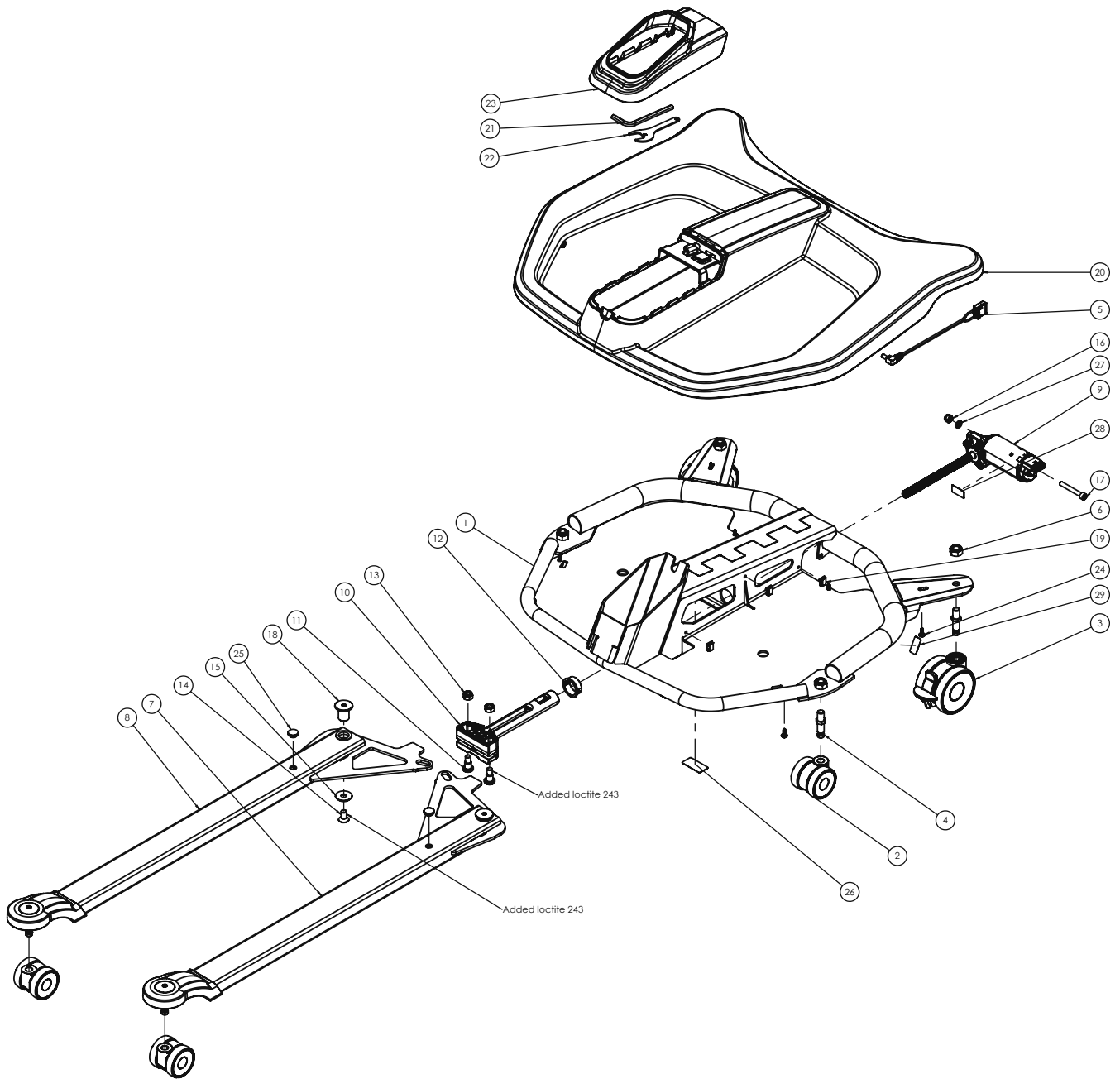
Charger and PowerPac LiFePO4 / Article no. 2910041



2910041 Charger and PowerPac LiFePO4

Pos	Article no.	Description
1	2920003	Battery box back
2	2920197	LiFePO4-Battery Assy 25,6V
3	2920107	Mascot 2240 LiFePO4 Open Frame
4	2920087	Light pipe - BIVAR PLP5-2-1250
5	2920088	Battery Box Front
6	2920035	Screw, Plastic
7	0220122	Washer DIN 125 ø10,5
8	2920075	Screw, Button Head Socket Cap
9	2920198	LiFePO4-battery pack product label
10	2920142	Warning label
11	2920181	Input Voltage Label
12	2920190	Battery box cable clip
13	2920199	Level plate

Chassis / Article no. 2910045/2910046



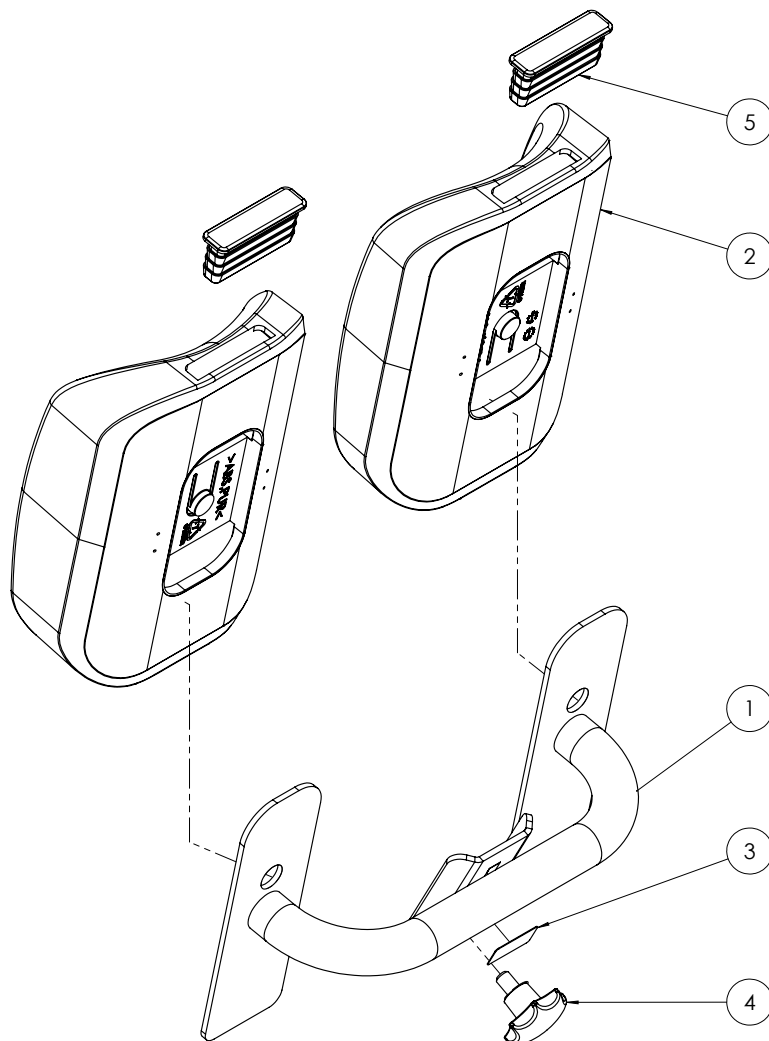
2910045 Chassis (Ø50/75mm)

Pos	Article no.	Description
1	2920020	Chassis Welded
2	2920021	50mm Castors
3	2920022	75mm castors Tente Linea w/ break
4	2920023	Bolt to fasten caster 10mm (M10x15)
5	2920024	Cable harness for column - Motor 2
6	1120315	Lock Nut
7	2910050	Left Leg Complete
8	2910051	Right Leg Complete
9	2920025	Motor 2
10	2920026	Spindle bracket
11	2920027	DIN 923 - M8X10
12	2920036	Bushing Ø23,8mm
13	1150414	Lock Nut DIN 985 M8
14	2920028	Screw DIN7991 M8x16 10.9 ElZn
15	2920029	BN 1277 - Washer Ø8.4
16	0228125	M6 DIN 985
17	2920030	DIN912 M6 x 45
18	2920031	Low Profile barrel nut int.
19	2920177	Wire Clip
20	2920032	Chassis Cover
21	2510137	Allen Key 6mm
22	2920019	Flat Spanner 17mm
23	2920034	Cover for lifting arm
24	2920035	Plastic Screw 4x12
25	2920147	Sliding block
26	2920146	Product label Chassis QR205
27	1220305	Washer (WSH-DIN125-A- 140HV-(A2K)-D6,4)
28	2920150	Warranty Label
29	2920174	Arrow label

2910046 Chassis (Ø75/100mm)

Pos	Article no.	Description
2	2920013	Castor Ø75mm
3	2920015	Castor Ø100mm with brake
4	2920017	Castor pivot pin, Ø11mm (for castor Ø100mm)

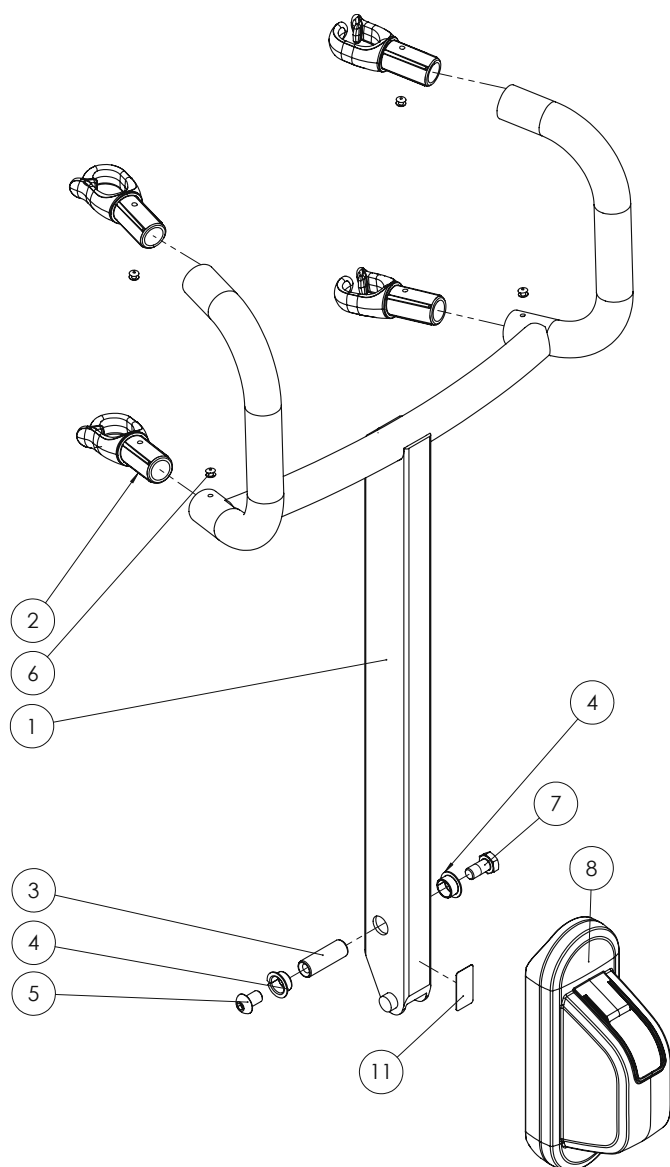
Leg support / Article no. 2910055



2910055 Leg Support

Pos	Article no.	Description
1	2920098	Leg Support Bracket
2	2920099	Knee cushion Complete
3	2920145	Product label
4	2920100	DIN6336 - R5033M1015S
5	2920148	Plug for cushion

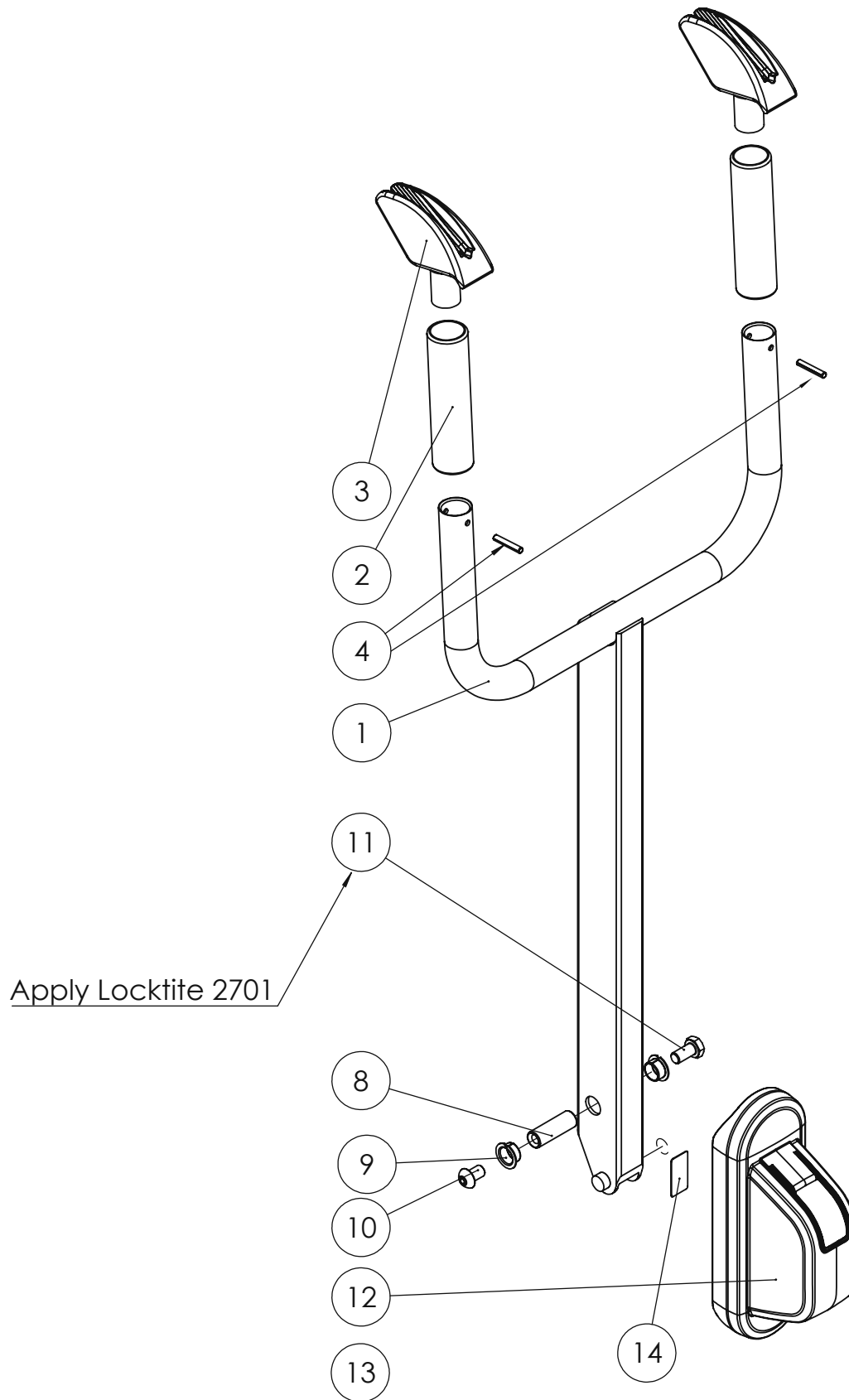
Active lifting arm / Article no. 2910060



2910060 Active Lifting Arm

Pos	Article no.	Description
1	2920079	Lifting Arm Welded
2	2920080	Hook for Sling
3	2920081	Bolt For Trolley
4	1310141	Flanged Bearing
5	2920075	Screw w/Dri-loc M10x16
6	1450120	Rivet DIN 7337
7	1109524	Hex. Screw
8	2920083	Trolley Cover
11	2920143	RgoSling Active Lifting arm label

StandUp lifting arm / Article no. 2910061

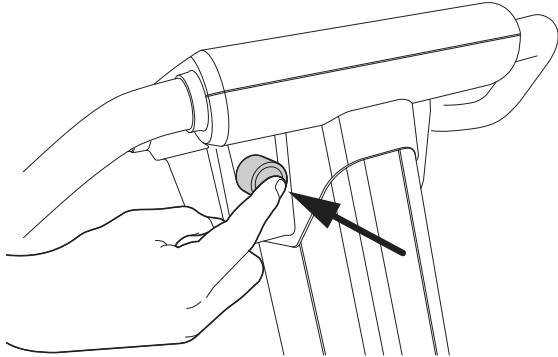


2910061 StandUp Lifting Arm

Pos	Article no.	Description
1	2920104	Lifting arm welded
2	0459101	Hand grip
3	0459102	Rope Clamp
4	0458011	Spirol pin ISO 8748 Heavy duty
7	0210112	Slide Bearing
8	2920081	Bolt For Trolley
9	1310141	Slide Bearing
10	2920075	Screw w/Dri-loc M10x16
11	1109524	Hex. Screw DIN 933
12	2920083	Trolley Cover
14	2910061	RgoSling StandUp Lifting arm label

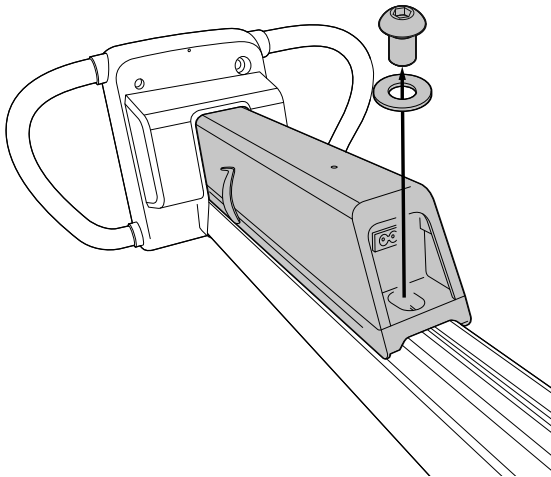
Before any service

Before any service or repair emergency stop must be pushed in and battery must be disconnected. There are 2 ways of disconnecting battery.

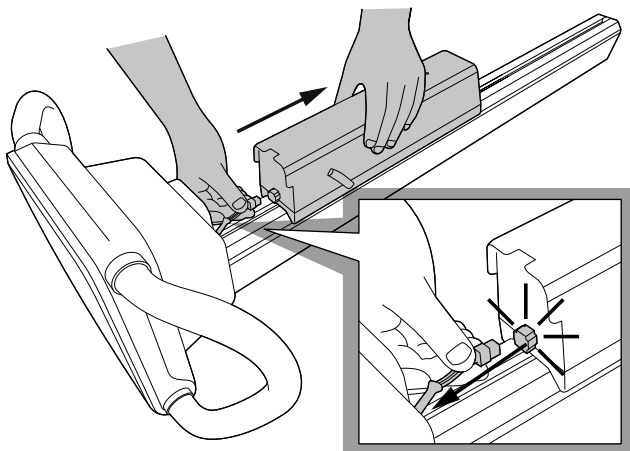


Push in emergency stop.

1. Remove battery box



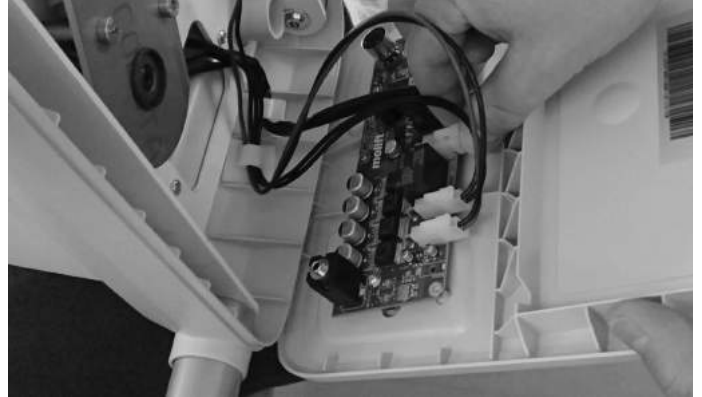
Use the allen key 6mm and remove screw.



Disconnect wire from control panel to battery box.

2. Unplug battery cable from PCB

Remove top cover (see "Remove top cover" p. 24)




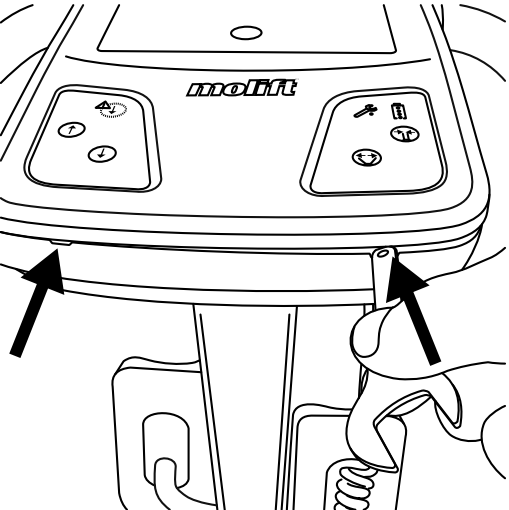
Locate battery cable on PCB, and disconnect



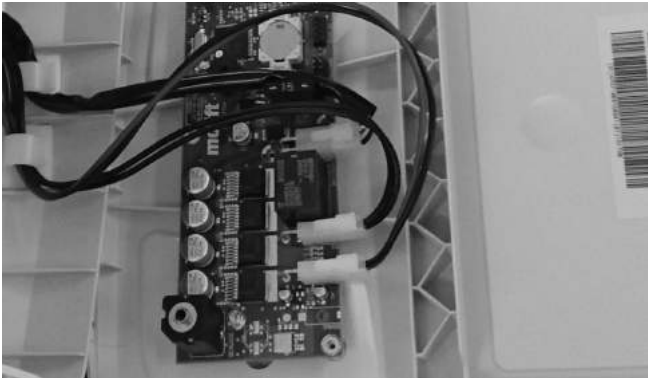
Be careful when removing contact. Make sure not to damage any of the PCB components when pulling out contact.

Remove top cover

 Push in emergency stop and disconnect battery before any repair or service.




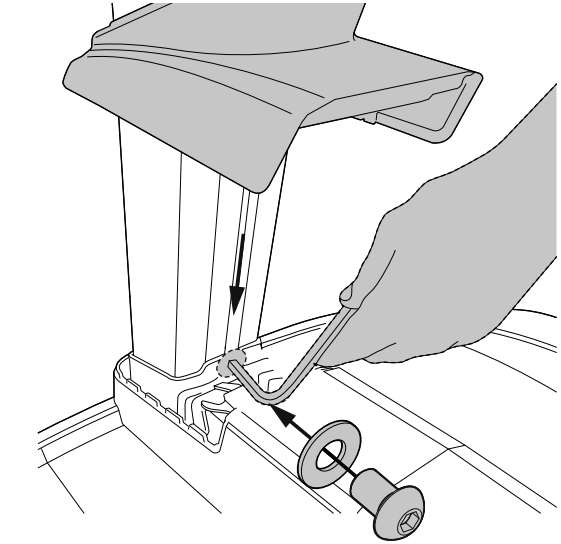
Remove top cover with 17mm spanner or a flat screwdriver.



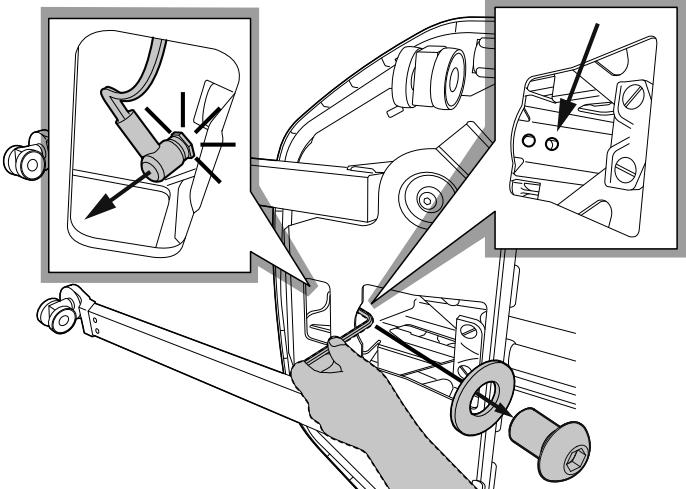
To remove cover completely, disconnect all 3 cables.

Remove column from chassis

 Push in emergency stop and disconnect battery before any repair or service.




Remove the screw with washer on column.

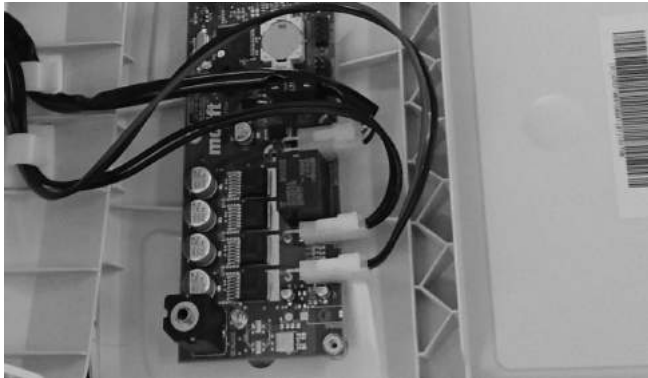


Turn the lifter over on the side. Remove screw with washer (6mm allen key). Disconnect cable between column and chassis. Lift the column straight up from the chassis.

Replace PCB / replace fuse / replace coin battery

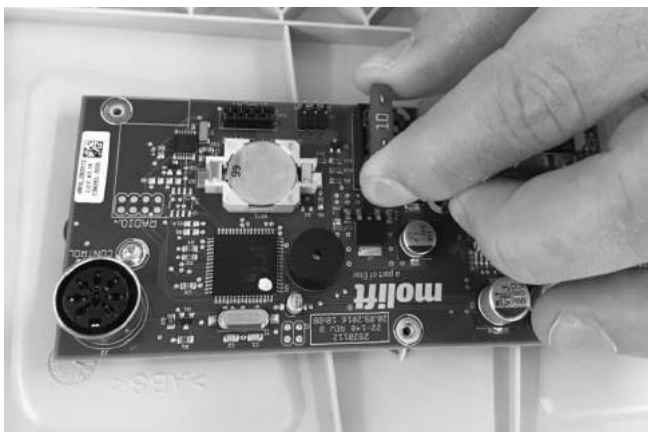
 **Push in emergency stop and disconnect battery before any repair or service.**

Remove top cover, see page 26.



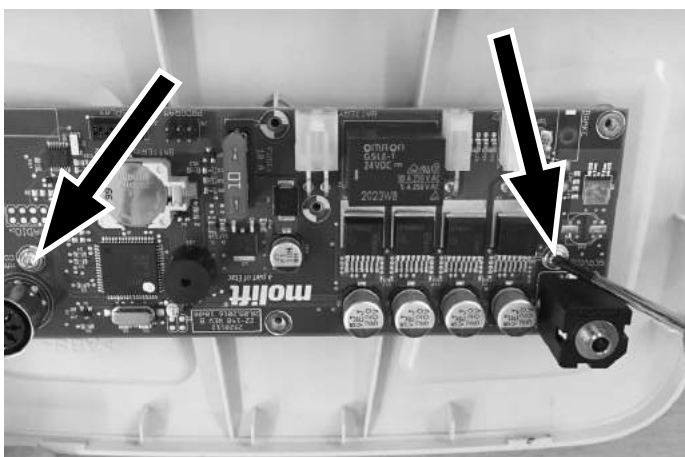
Disconnect all cables

Replace Fuse



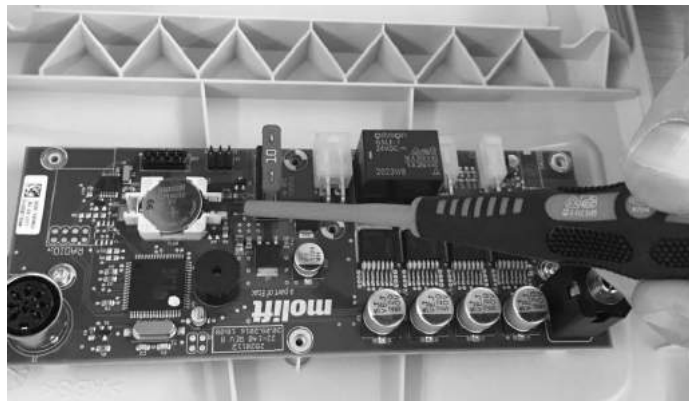
Change fuse art.2920161

Replace PCB



Remove 2x torx screws (T10), Change PCB art. 2920112

Replace Coin battery




Change battery art.2920105. Use a flathead screwdriver and tilt the battery off. When battery has been disconnected, the clock must be set in Molift Service Tool.



On the left hand side menu, there is a button "Set clock..." This feature sets the clock on the PCB according to the PC connected. Press "OK" to exit the feature.

Check after repair

- Make sure all functions on control panel are working (up/down)
- Make sure service light is not flashing yellow
- Check settings in Molift Service Tool

 **Perform and fill out Safety checklist after service and repair**

Parts

Article no.

2920161	Fuse, 10A
2920112	PCB (includes Fuse and battery)
2920103	Battery CR1632 QR205

Replace plastic cogwheel



Push in emergency stop and disconnect battery before any repair or service.



Perform and fill out Safety checklist after service and repair

Remove cogwheel plate



Remove control panel top cover (see page 24)
Remove 4x screws (4mm allen key) to remove cogwheel plate.

Parts

Article no.

2920114	Plastic cogwheel
2920160	Washer Nylon

Replace plastic cogwheel



Lift the plastic cogwheel up of axle to remove.
Remember loctite 243 on screws when reassembling. Assembly in reverse order.

Replace control panel bottom cover



Push in emergency stop and disconnect battery before any repair or service.

Remove battery box, see page 25.
Remove top cover, see page 26.



Remove the screw in t-slot inside opening for battery box (5mm allen key)

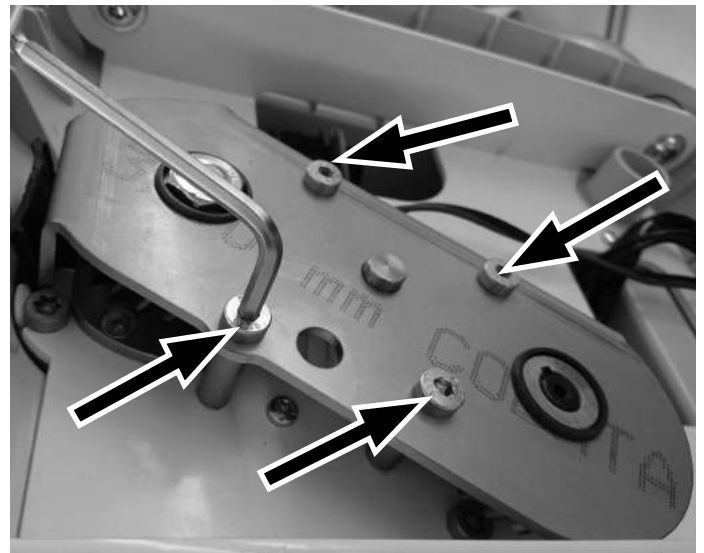


Remove 4x screws from plastic cover (T15)



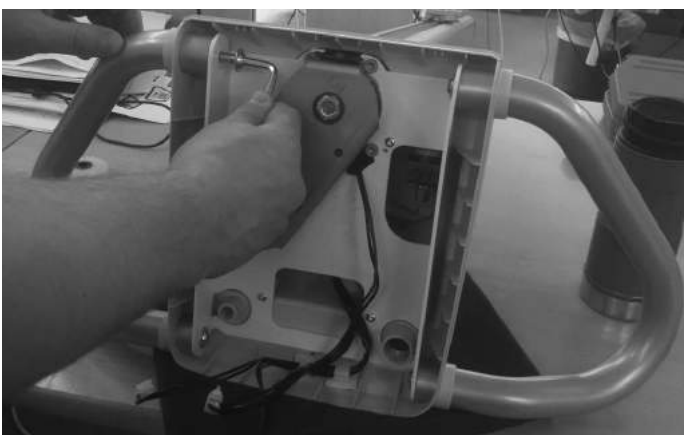
Lower plastic cover and remove screw from rubber profile (T15).

Remove cogwheel plate



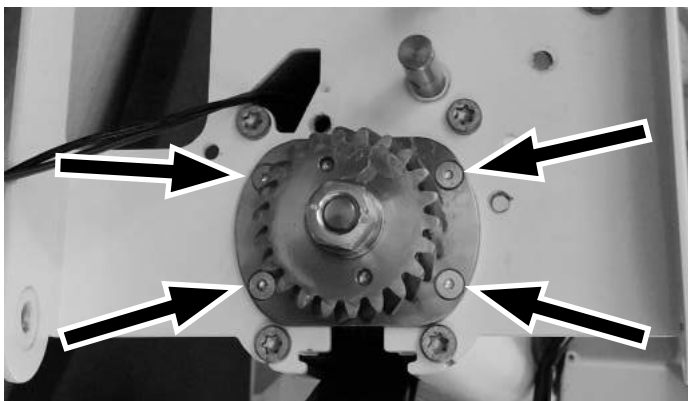
See page 28.

Remove steering handles

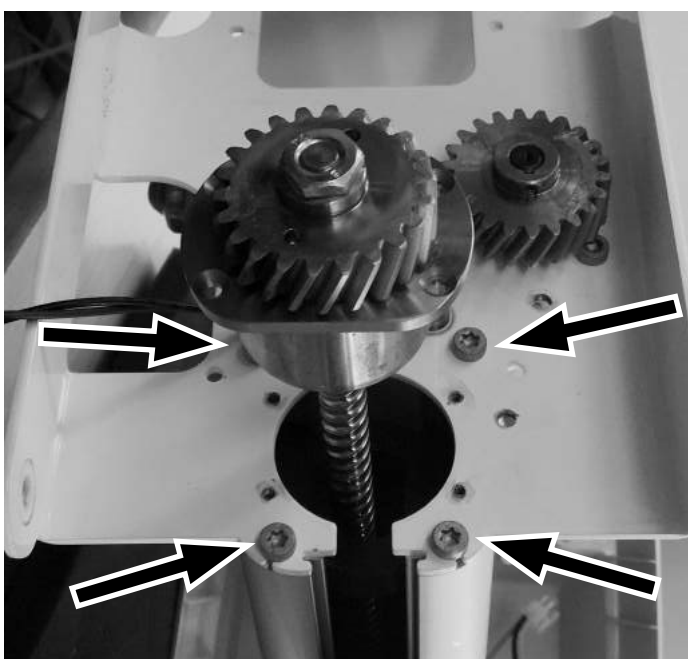


Remove 4x screws (4mm allen key) to remove steering handles.

Remove motor plate



Remove 4x screws (2,5mm allen key) to disconnect driveline from motor plate. Remember loctite 243 when reassembling.



Remove 4x screws




Remove motor plate and control panel bottom cover. Assembly in reverse order.

Parts

Article no.

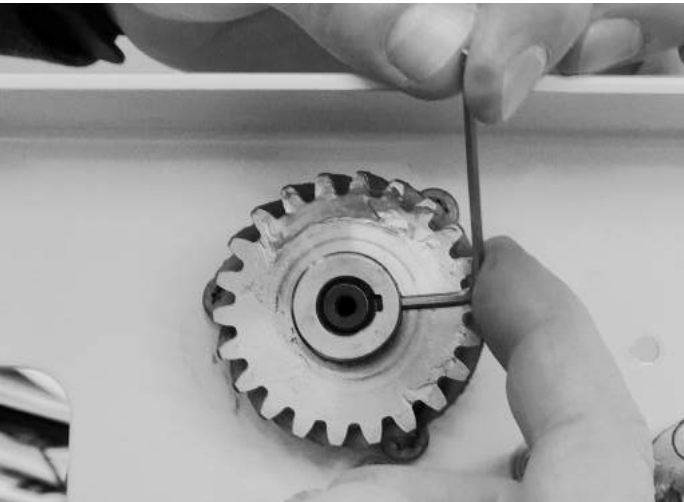
2920071	Control panel bottom cover
1109087	4 x countersunk head screws
2920149	Self drilling screw TT2000 M6x20

Replace motor 1

 **Push in emergency stop and disconnect battery before any repair or service.**

Remove battery box, see page 25.
 Remove top cover, see page 26.
 Follow instructions on page 29, and drop the cover to expose the motor.

Remove Motor

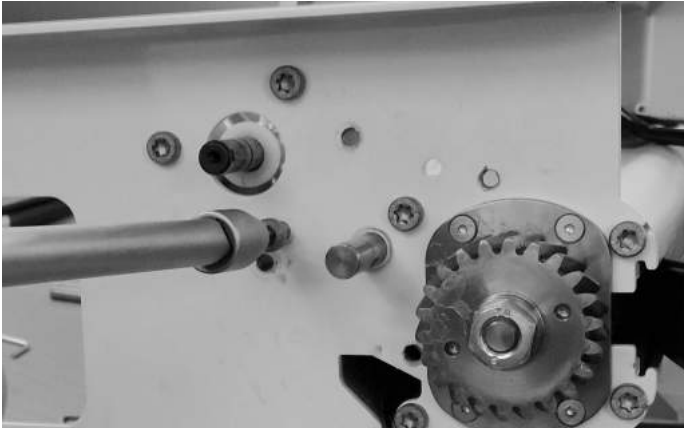


Remove set screw (2mm allen key) from the motor cogwheel. Pull cogwheel of the motors axle.



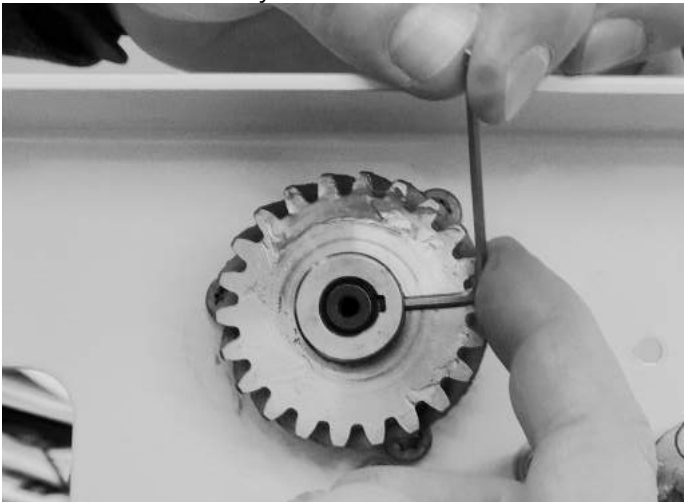
Remove 3x self tapping screws (T30) to replace motor.

Replace motor



New motor does not have threads so 3 pcs. self tapping screws art. 2920149 and a electric power drill with T30 bit must be used.

Put plastic washer art. 2920160 on motor axle. Insert woodroof key in slot on motor axle.



Place cogwheel on motor axle. Insert set screw (2mm allen key), use Loctite 243.

Reassemble in reverse order according to: instructions on page 30,
 Top cover, see page 26,
 battery box, see page 25.

Parts

Article no.

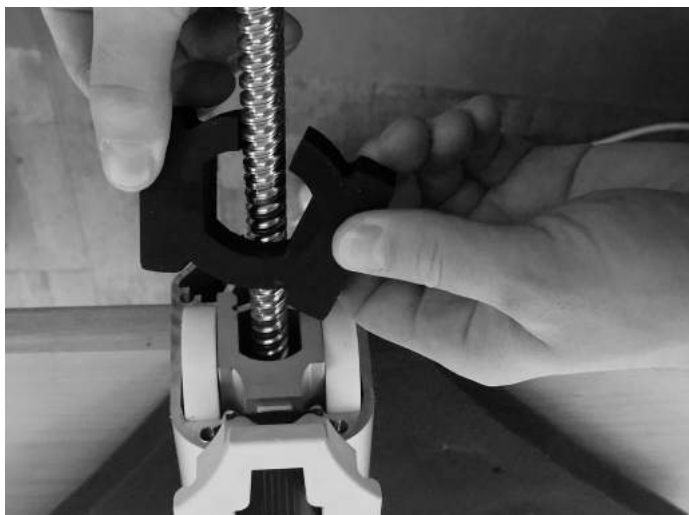
2510252	set screw
2920056	woodroof key
2920160	plastic washer
2920149	self tapping screws
2920053	motor 1

Replace rubber end stop



Push in emergency stop and disconnect battery before any repair or service.

Remove control panel bottom cover, see page 29.



Pull driveline/ball screw up to remove/replace rubber end stop.

Assembly in reverse order.




Perform and fill out Safety checklist after service and repair

Parts

Article no.

2920116	End Stopper
---------	-------------

Replace trolley / ball screw (driveline)

 Push in emergency stop and disconnect battery before any repair or service.

Remove control panel bottom cover, see page 29.



Remove 4x T30 screws from bottom cover



Pull driveline out of profile

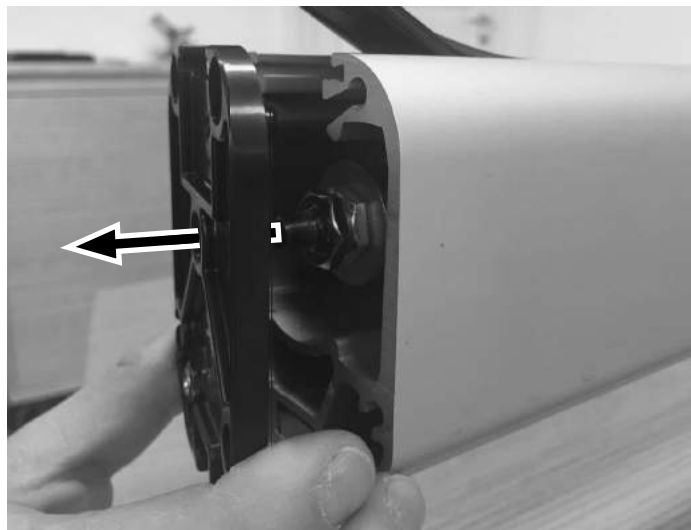


Lift trolley out from ball screw nut to replace trolley og ball screw (driveline)


Assembly



Thread the rubber profile trough the trolley as shown in the photo. See page 34 for details



Make sure the ball screw is correctly aligned with the bottom plate


 Perform and fill out Safety checklist after service and repair

Parts

Article no.

2910035	Trolley
2920060	Ball screw (driveline)

Replace rubber profile

 **Push in emergency stop and disconnect battery before any repair or service.**

Remove column from chassis, see page 26
 Follow instructions on page 29, and lower control panel cover to access screw from rubber profile.



Remove screw from rubber profile (T15).



Remove screw and washer (T20)



Pull the rubber profile out from trolley and column.

Assembly

Use a drill on the top screw on motor 1 to drive the trolley all the way to the top of the column. Fasten the rubber profile in the top of the column with the T15 screw, then drive the trolley 3/5 of the length towards the bottom of the column.



Thread the rubber profile as shown in the photo



Reassemble screw and washer (T20)

Apply silicone spray for lubrication on the entire rubber profile before use.

 **Perform and fill out Safety checklist after service and repair**

Parts

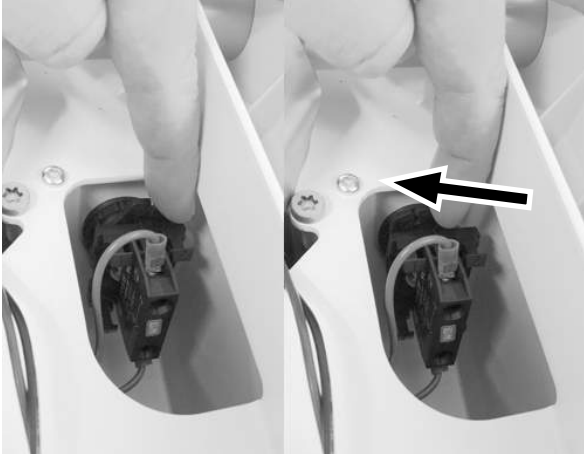
Article no.	
2920065	Rubber Profile, L=1156mm
1220339	Pop-rievet

Replace emergency stop switch



Push in emergency stop and disconnect battery before any repair or service.

Remove top cover, see page 26



Flip the small switch to remove the connector from the emergency stop switch.



Pull connector off the switch.



Remove nut and gasket to replace emergency stop switch.

Assembly in reverse order.

Check after installation

- Test emergency stop function



Perform and fill out Safety checklist after service and repair

Parts

Article no.

2920006	Emergency Stop Switch
---------	-----------------------

Replace fuse on battery cable



Push in emergency stop and disconnect battery before any repair or service.

Remove battery box, see page 25

Remove top cover, see page 26



Pull down the cable with the fuse holder, open the holder and replace fuse.

Assembly in reverse order.

Parts

Article no.

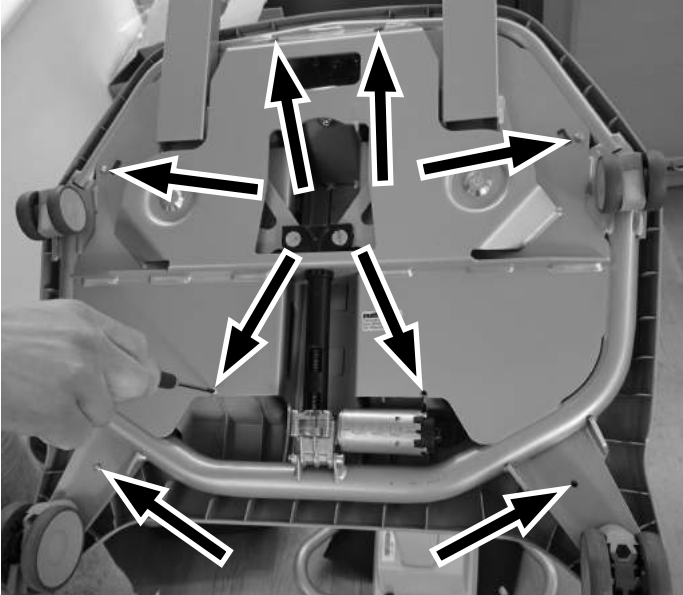
2920202	Fuse 15A / 32V
---------	----------------

Chassis cover



Push in emergency stop and disconnect battery before any repair or service.

Remove column from chassis, see page 24.



Remove 8x screw (T20) to remove chassis cover.

Assembly in reverse order.

Parts

Article no.

2920032	Chassis cover
2920035	Screw

Casters



Push in emergency stop and disconnect battery before any repair or service.

Rear casters



Remove the rear casters by using a wrench to flip it loose from the lifter.



To reattach the rear caster use a punch and a hammer.

Front casters



Remove the front casters by using a wrench to flip it loose from the lifter. To reattach the front casters simply push it back on.



Perform and fill out Safety checklist after service and repair

Parts

Article no.

2920021	Caster Ø50mm
2920022	Caster Ø75mm with brake
2920013	Caster Ø75mm
2920015	Caster Ø100mm with brake

Replace caster pivot pin



Push in emergency stop and disconnect battery before any repair or service.

Remove column from chassis, see page 26.

Front caster pivot pin



Use allen key 6mm and 13mm wrench to remove the pivot pin.

Middle caster pivot pin



Use 13mm and 17mm wrench to remove the pivot pin.

Rear caster pivot pin



75mm rear caster:
Use 13mm and 17mm wrench to remove the caster bolt.

100mm rear caster:
Use 2 pcs 17mm wrench to remove the pivot pin.



Perform and fill out Safety checklist after service and repair

Parts

Article no.

2920017	Caster pivot pin, Ø11mm (for caster Ø100mm)
2920023	Caster pivot pin, Ø10mm (for caster Ø50/75mm)

Change castor size



Push in emergency stop and disconnect battery before any repair or service.

Remove chassis cover, see page 36.
Remove all casters. see page 37.



Replace rear castor pin with correct size:

2920017	Caster pivot pin, Ø11mm (for caster Ø100mm)
2920023	Caster pivot pin, Ø10mm (for caster Ø50/75mm)

75mm rear castor:

Use 13mm and 17mm wrench to remove the castor bolt.

100mm rear castor:

Use 2 pcs 17mm wrench to remove the pivot pin.

Assembly in reverse order.



Perform and fill out Safety checklist after service and repair


Parts

Article no.

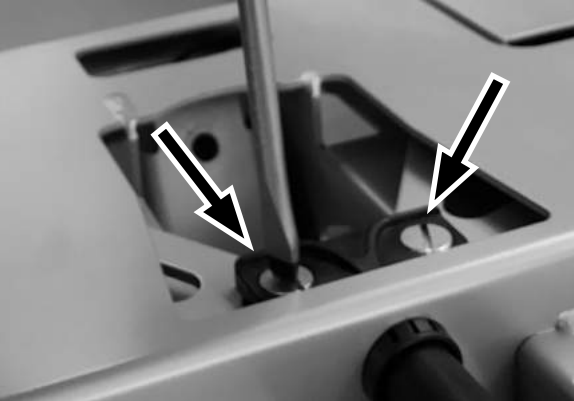
2920017	Caster pivot pin, Ø11mm (for caster Ø100mm)
1120315	Lock Nut
2920013	Caster Ø75mm Tente Linea
2920015	Caster Ø100mm with brake
2910058	Complete wheel set kit 75-100mm (Includes all articles above)

2920023	Caster pivot pin, Ø10mm (for caster Ø50/75mm)
2920021	Caster Ø50mm
2920022	Caster Ø75mm with brake
1120315	Lock Nut
2910057	Complete wheel set kit 50-75mm (Includes all articles above)

Replace motor 2 / Leg spread mechanism

 Push in emergency stop and disconnect battery before any repair or service.

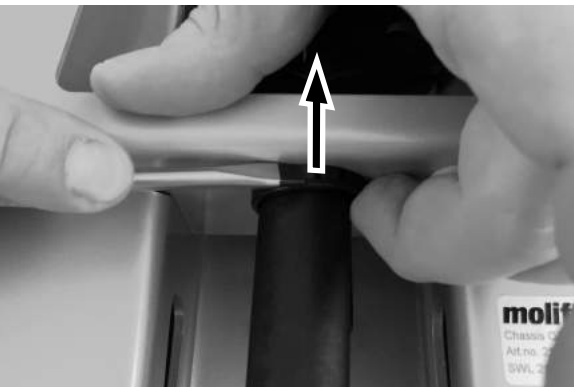
Remove chassis from column, see page 26.



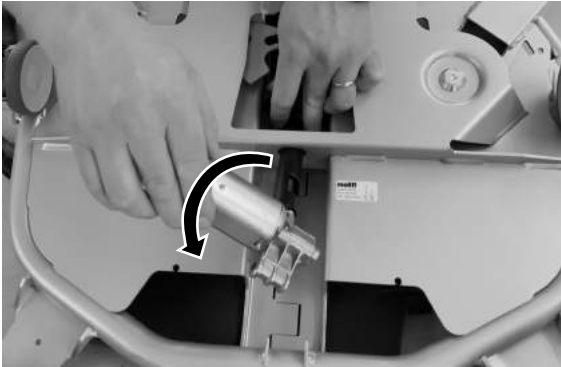
Use a flat screwdriver to remove the two screws.



Use a 15mm wrench and 5mm allen key to remove the motor from the chassis.



Push the bushing through the hole in the chassis in the direction shown in the photo.




Rotate the motor until it detaches from the leg spreader mechanism.



Pull out the the leg spreader mechanism.

Assembly in reverse order.

 Perform and fill out Safety checklist after service and repair

Parts

Article no.	
2920025	Motor 2
2920026	Spindle bracket
2920036	Bushing Ø23,8mm
2920027	DIN 923 - M8X10

Replace legs / sliding block



Push in emergency stop and disconnect battery before any repair or service.



Perform and fill out Safety checklist after service and repair

Remove chassis from column, see page 26.

Remove chassis cover, see page 36.

Detach legs from leg spread mechanism, see page 40.

Parts

Article no.

2910050	Left Leg Complete
2910051	Right Leg Complete



Use two 6mm allen keys to remove the legs from the chassis.



The sliding block will be visible when the legs are disassembled from the lifter.

Lubrication



Push in emergency stop and disconnect battery before any repair or service.



Perform and fill out Safety checklist after service and repair

Lubricating cogwheel and motor screw

Remove top cover, see page 26.

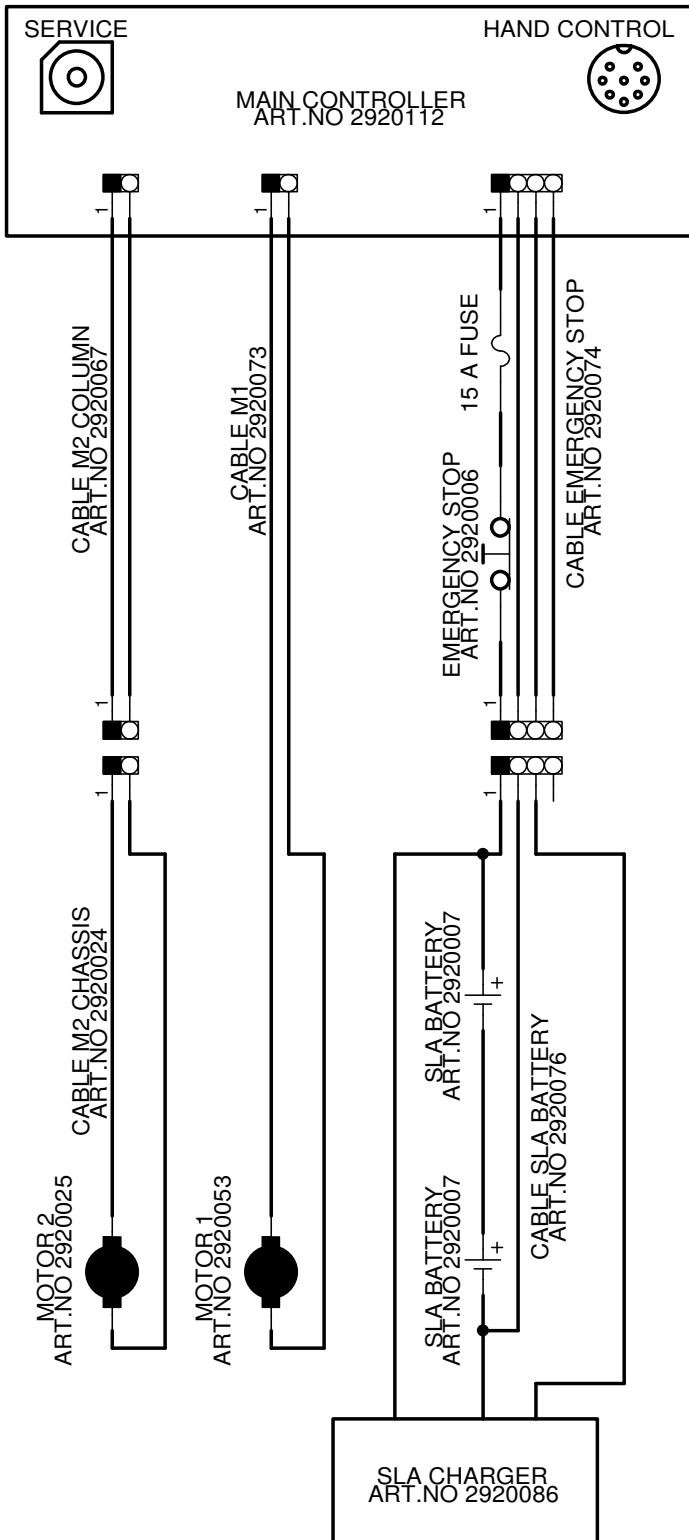


Apply SKF Bearing Grease LGWA 2 to cogwheels. Use a 17mm wrench to turn cogwheels to distribute the grease.



Apply SKF Bearing Grease LGWA 2 to motor screw. Run motor to distribute the grease.

Electric Diagram



Molift Service Tool

Authorised service personnel can use the Molift Service Tool software to take readings of the lifters data and to log servicing work. The owner of the lift is responsible for logging service work and repairs.

Connect Service Tool Cable



Service Tool Software

Molift Service Tool software can be downloaded from <http://molift.hwiig.no/download>, contact Etac Supply Gjøvik for user account.

Article no.

2920133	Service Cable USB/mini Jack (QuickRaiser 205 only)
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Documenting the Service

Any Service or Repair should be documented in the service log, and verified by using the Checklist after service and repair.

Checklist after Service and Repair


Use the checklist to verify that the lifter is properly installed and can operate correctly and safely before use. Document the job by signing the Service Log.

Service Log

The service manual has a table for logging of repair and work done on the lifter. Write down a short description of the incident in the appropriate interval. This will enable the owner and service partner to see previous history for the lifter and in that way maybe making future fault finding and repairs easier.

Periodic Inspection Scope

Periodic inspection is a visual examination (particularly of the lifter's load bearing structure and lifting mechanism with attachments, brakes, controls, safety devices and person-support devices) according to Periodic Inspection Report for Molift QuickRaiser 205. See www.etac.com.

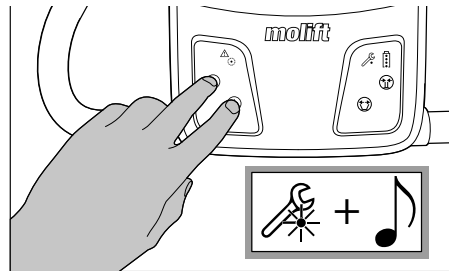


If there is any problems with the lifter that could jeopardize someones safety, the lifter shall immediately be taken out of service and marked "out of order". Do not use the lifter untill it is repaired.

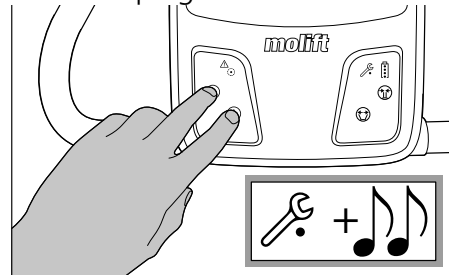
Periodic Inspection shall be performed at least once a year or more frequently if required by local requirements. The inspection must be performed by service personnel authorized by Etac. Contact Etac at molift@etac.com for training and authorization or recommendation of an approved service partner.

When performing a periodic inspection, the inspector shall fill out the inspection report for Molift QuickRaiser 205. The reports should be retained by the person(s) responsible for servicing the lifter. If the inspection reveals defects and damages, the lifter shall be taken out of operation and marked "out of order" until it is repaired. After performing periodic inspection reset the service indicator.

Reset service indicator



1. Push and hold "up" and "down" on the control until indicator start to flash yellow and makes a short beeping sound.



2. Within 5 seconds push and "up" and "down" again until you hear two short beeping sounds. Service indicator is now reset and will no longer be yellow.

Service indicator will start to flash yellow again when 12 months has passed and it is time for periodic inspection.

Periodic Inspection Checklist QuickRaiser 205

In accordance with ISO:10535 2006 Annex B.

Article no.:

Serial no.:

Production Year:

Owner:

Sling shall be inspected separately and is not included in this inspection.

Situation of use:

- Home
- Institution (type of institution):
 - Hospital
 - Nursing home
 - Other

Service light indicator

Status	<i>Service light</i>	<i>Mode</i>
<input type="checkbox"/>	No light	No service needed
<input type="checkbox"/>	Green flashing	Order service
<input type="checkbox"/>	Yellow	Periodic inspection required
<input type="checkbox"/>	Red	Perform service

Physical examination



Test FUNCTION and check for wear. All checkpoints must be checked of to approve lifter for further use.

- Perform 1 lifting cycle with the weight of a person (minimum 50kg/110lbs). Brake shall not slip, and the lifter shall have no abnormal sounds.
- Emergency stop, activate and reset switch.
- Hand control (all buttons).
- Control panel (all buttons, excluding electrical emergency lowering).
- Check tools for emergency lowering
- Leg opening mechanism.
- Brake on castors.
- Charger and battery
- Accessories:

Visual examination



Visual examination of load bearing structure to make sure there is no damage, cracks, frays or deformation. All checkpoints must be checked of to approve lifter for further use.

- Product labels
- Plastic covers
- Hand control and control panel
- Cables and other electronics.
- Rubber profile (on column)
- Leg opening mechanism
- Lifting arm and composite hooks
- Lifting arm connection (remove cover)
- Visible weldments on welded parts

Performed by

Periodic inspection should be performed by a person who is certified by Etac education.

Date/Place:

Signature:

Etac Molift Service ID (6 digits):

- Approved without faults, service indicator has been reset.
- Approved after repair, service indicator has been reset.
- Lifter is marked with "out of order" and sent for repair.
- Hoist is not eligible for repair and taken out of service.

If periodic inspection reveals any defect, wear or other damage that jeopardizes the safety of the patient it may not be used until the deficiency has been eliminated. Defects and damages should be reported back to the manufacturer for action in a non-conformity report (NCR).

- The owner is notified
- NCR report sent to Etac, molift.ncr@etac.com

Non conformity report can be obtained from www.etac.com or by request, molift@etac.com.

Safety checklist after Service and Repair

Article no.:

 Serial no.:

 Production Year:

 Owner:

 Number of lifts to next service:

Service/Repair performed

Service:
 PCB battery changed
 Lubricated cog wheel
 Lubricated leg spread mechanism

Repair:
 Replace PCB
 Replace fuse
 Replace coin battery
 Replace plastic cogwheel
 Replace control panel bottom cover
 Replace motor 1
 Replace rubber end stop
 Replace trolley
 Replace ball screw (driveline)
 Replace rubber band
 Replace emergency stop switch
 Replace castors
 Replace castor pivot pin
 Replace trolley
 Replace trolley
 Change wheel/castor size
 Replace motor 2 / Leg spread mechanism
 Replace legs / sliding block

Other (Repair):

Physical examination

Test FUNCTION and check for wear. All checkpoints must be checked of to approve lifter for further use.

- Perform 1 lifting cycle with the weight of a person (minimum 50kg/110lbs). Brake shall not slip, and the lifter shall have no abnormal sounds.
 - Emergency stop, activate and reset switch.
 - Hand control (all buttons).
 - Control panel (all buttons, excluding electrical emergency lowering).
 - Check tools for emergency lowering
 - Leg opening mechanism.
 - Brake on castors.
 - Charger and battery
 - Accessories:
-

Visual examination

Visual examination of load bearing structure to make sure there is no damage, cracks, frays or deformation. All checkpoints must be checked of to approve lifter for further use.

- Product labels
- Plastic covers
- Hand control and control panel
- Cables and other electronics.
- Rubber profile (on column)
- Leg opening mechanism
- Lifting arm and composite hooks
- Lifting arm connection (remove cover)
- Visible weldments on welded parts

Performed by

Periodic inspection should be performed by a person who is certified by Etac education.

Date/Place:

 Signature:

 Etac Molift Service ID (6 digits):

Manufacturer's Declaration

The QuickRaiser 205 is intended for use in the electromagnetic environment specified below.

Table 1: Manufacturer's Declaration – Electromagnetic Emissions

Emissions Tests	Compliance	Electromagnetic Environment
RF emissions CISPR 11	Group 1	The QuickRaiser 205 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The QuickRaiser 205 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Table 2: Manufacturer's Declaration – Electromagnetic Immunity

Immunity tests	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for mains ±1 kV for signal lines	±2 kV for mains ±1 kV for signal lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle <5% U_T (>95% dip in U_T) for 1 cycle 70% U_T (30% dip in U_T) for 25/30 cycles <0% U_T (100% interruption in U_T) for 5 sec	<5% U_T (>95% dip in U_T) for 0.5 cycle <5% U_T (>95% dip in U_T) for 1 cycle 70% U_T (30% dip in U_T) for 25/30 cycles <0% U_T (100% interruption in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the QuickRaiser 205 requires continued operation during power mains interruptions, it is recommended that the QuickRaiser 205 be powered from an uninterruptible power supply or a battery.
Power frequency magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE 1: U_T is the AC mains voltage prior to application of the test level

Manufacturer's Declaration

Portable and mobile RF communications equipment should be used no closer to any part of the QuickRaiser 205 including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Table 3: Manufacturer's Declaration – Electromagnetic Immunity (continued)

Immunity tests	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment
Conducted RF IEC 61000-4-6 outside the ISM bands ^a and amateur radio bands	3 Vrms 150 kHz to 80MHz	3 Vrms	Recommended separation distance $d = [3.5 / V_1] \sqrt{P}$
Conducted RF IEC 61000-4-6 inside the ISM bands ^a and amateur radio bands	6 Vrms 150 kHz to 80MHz	6 Vrms	Recommended separation distance $d = [12 / V_2] \sqrt{P}$
Radiated RF IEC 61000-4-3	10 V/m 80MHz to 2.7 GHz	10 V/m	$d = [12 / E_1] \sqrt{P}$ 80 MHz to 800 MHz $d = [23 / E_1] \sqrt{P}$ 800 MHz to 2.7 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ^d should be less than the compliance level in each frequency range ^e.

Interference may occur in the vicinity of equipment marked with the following symbol:



NOTE 1: At 80 MHz to 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- a) The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.
- b) The amateur radio bands between 150 kHz and 80 MHz are 1.8 MHz to 2.0 MHz. 3.5 MHz to 4.0 MHz. 5.3 MHz to 5.4 MHz. 7 MHz to 7.3 MHz. 10.1 MHz to 10.15 MHz. 14 MHz to 14.2 MHz. 18.07 MHz to 18.17 MHz. 21.0 MHz to 21.4 MHz. 24.89 MHz to 24.99 MHz. 28.0 MHz to 29.7 MHz and 50.0 MHz to 54.0 MHz
- c) The compliance levels in the ISM frequency bands and the amateur radio frequency bands between 150 kHz and 80 MHz and in the frequency range 80 MHz to 2.7 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 is used in calculating the recommended separation distance for transmitters in these frequency ranges.
- d) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the equipment is used exceeds the applicable RF compliance level above, the equipment should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the equipment.
- e) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.

Manufacturer's Declaration

The QuickRaiser 205 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the QuickRaiser 205 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the QuickRaiser 205 as recommended below, according to the maximum output power of the communications equipment.

Table 3: Recommended separation distances between portable and mobile RF communications equipment and the QuickRaiser 205

Radio Service	Frequency band [MHz]	Maximum Power [W]	Separation Distance [m]	Tested immunity Level [V/m]
TETRA 400	380-390	1.8	0.3	27
GMRS 460 FRS 460	430-470	2	0.3	28
LTE Band 13/17	704-787	0.2	0.3	9
GSM 800/900 TETRA 800 iDEN 820 CDMA 850 LTE Band 5	800-960	2	0.3	28
GSM 1800/1900 CDMA 1900 UMTS DECT LTE Band 1/3/4/25	1700-1990	2	0.3	28
Bluetooth WLAN 802.11 b/g/n RFID 2450 LTE Band 7	2400-2570	2	0.3	28
WLAN 802.11 a/n	5100-5800	0.2	0.3	9

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be determined using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz.

NOTE 3 An additional factor of 10/3 is used in calculating the recommended separation distance for transmitters in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range 80 MHz to 2,5 GHz to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas.

NOTE 4 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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