SERVICE MANUAL for Work Chairs, Coxit-chairs and Standing support chairs

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HEPRO – aid manufacturer

HEPRO is a Norwegian industrial company that develops, manufactures and sells technical aids for adults and children with mobility impairment. The company was established in 1987 and has to day about 30 employees. The company`s headquarter and factory is located in Rognan, Nordland:
Hepro AS, Øvermoan 9, 8250 Rognan, N-Norway

Technical Service

Services are performed in the factory at Rognan, but also by partners in many parts of the country. Our sales personnel are also trained in technical maintenance. By defect of the products or other queries, please contact your distributor or importer.

Warranty

When used in accordance with the Operating Instructions and the User Reference Manual, Hepro provides a two year warranty against defects in material and workmanship. Please address warranty complaints or other inquiries about the product to your distributer or importer. Always state the product`s serial number as a reference.

The product is designed, tested and produced in conformity to following regulations and requirements:

NS-EN 12182	Technical aids for disabled persons – General requirements and test methods".
NS-EN 1335-1	Office work chair. Dimensions –Determination of dimensions.
NS-EN 1335-2	Office work chair. Safety requirements.
NS-EN 1335-3	Office work chair. Safety test methods.
EN 60601-1	Medical electric equipment Part 1: General requirements for safety.
EN 60601-1-2	Medical electric equipment Part 1: General requirements for safety – 1 Collateral standard: Electromagnetic compatibility – Requirements and test.
NS-EN 1021-1	Furniture – Assessment of the ignitability of upholstered furniture – part 1: Ignition source: smouldering cigarette.
NS-EN 1021-2	Furniture – Assessment of the ignitability of upholstered furniture – part 1: Ignition source: match flame equivalent.
93/42/EØF	CE marked. (Equipment class I)
NS-EN ISO 14971	Medical devices. Application of risk management to medical devices.

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Content

1. Short product description

Hepro`s work chairs, Coxit-chairs and Standing support chairs covers a wide range of models and variants. They are tested and approved in accordance with the NAV`s requirements. Permitted user weight is max. 150 kg. The model E1 Kilo, designed for heavy users, has allowed user weight 230 kg. The Standing support chairs is tested and approved for user weight up to 120 kg.

The wheel base for the work chairs and Coxit-chairs is four armed and of cast aluminum. It is painted with powder coating, which provides a robust and durable surface. For the model E1 Kilo the wheel base is of welded steel. When designed the emphasis was to get best possible space in front of the wheelbase to simplify the transfer by «kicking» oneself forward with the legs. To the Standing support chairs one use a five armed wheel base of cast aluminum.

Rear wheels for work chairs and Coxit-chairs have hand operated central brake, which locks both roll and rotation. The casters are of plastic, and designed to be most gently to the ankles.

The lifting unit for work chairs and Coxit-chairs are available in two models, manually seat lift with gas spring and electric seat lift with actuator. Both models have regulation height of 100mm,150mm and 200mm, 150 as standard and 100 and 200 as accessories. The seat height can be changed by further adjustment of the central unit`s mounting height (See section 2.5.1). For the model E1 Kilo there is one lifting column with 100mm electrical regulation height. To the Standing support chairs there are several gas springs with different lengths.

The seat unit for the work chairs has five main models, Standard, Aktiv, Tilto, Synkron and Kilo, all ergonomically designed to provide the best possible comfort. The models have several variants of seats and backrests. By combining these one can adjust the product to the great majority of users. Coxit seat with angle adjustable flaps is delivered to the Coxit-model. There are special seats (Sadel and Alternativ) to the Standing support chairs.

Seat cushions are «snapped» fastened and can be removed without tools with the exception of the seat cushion ”Aktiv” where the complete seat is removed from the sliders. The Sadel seat has no loose cushion, but is delivered as a complete seat.

Backrest cushions are ”snapped” fastened and can be removed without tools.

Regulations: Seat height, backrest height, angle adjustments of backrest and seat, adjust tilt function to body weight (Tilto and Synkron), armrest height, armrest width, armrest length and the position of brake handle. Can be done without the need of tools.

Adjustments: Seat height can be adjusted beyond regulation without tools. (Not the model E1 Kilo and the Standing support chairs).

1.1 Type / designation

Item no.	Model	Description
30000	Hepro G1 Standard	Gas lift, w/o rotation
30001	Hepro G2 Standard	Gas lift, w/ rotation
30051	Hepro E1 Standard	Electric lift, w/o rotation
30052	Hepro E2 Standard	Electric lift, w/ rotation
30007	Hepro G2 Coxit	Gas lift, w/ rotation
30058	Hepro E2 Coxit	Electric lift, w/ rotation
30003	Hepro G2 Tilto EHR	Gas lift, w/ rotation
30054	Hepro E2 Tilto EHR	Electric lift, w/ rotation
30064	Hepro E1 Kilo	Electric lift, w/o rotation, max user weight 230 kg
30004	Hepro G2 Synkron HR	Gas lift, w/ rotation, synchronous movement
30056	Hepro E2 Synkron EHR	Electric lift, rotation, synchronous movement
30030	Hepro G1 Aktiv	Gas lift, w/o rotation
30031	Hepro G2 Aktiv	Gas lift, w/ rotation
30100	Hepro S1	3 levers, free rotation, sliding knobs, backrest
30101	Hepro S2	3 levers, wheel Ø100, central break, saddle seat, backrest
30102	Hepro S3	2 levers, free rotation, load brake
30104	Hepro S6	3 levers, w/o rotation, load brake
30106	Hepro S8	2 levers, w/o rotation, load brake
30107	Hepro S9	2 levers, free rotation, chest support
30108	Hepro S10	3 levers, free rotation, saddle seat, backrest

1.2 Technical specifications

Measurements according to NS-EN 1335.

Measured	Unit	G1/G2 Std	E1/E2 std	G2 Coxit	E2 Coxit	G1/G2 Tilto	E1/E2 Tilto	E1 Kilo	G1/G2 Synk.	E1/E2 Synk.	G1/G2 Aktiv
Seat height	cm	40-67	45-67	43-67	46-67	47-71	50-76	51-66	44-65	47-73	43-70
Regulated seat lift	cm	15	15	15	15	15	15	10	15	15	15
Max adjustment seatlift	cm	+12	+7	+9	+6	+9	+11	+5	+6	+11	+12
Seat depth	cm	42	42	46	46	44-54	44-54	46-60	41-57	41-57	42-49
Seat size (BxD)	cm	46x42	46x42	48x46	48x46	47x47	47x47	55x50	47x47	47x47	43x43
Seat angle reg., backw.	^{0}	0	0	-3, +8	-3, +8	-13	-13	-	-9	-9	-7
Seat angle reg., forw.	^{0}	20	20	-3,+45	-3,+45	+7	+7	-	+5	+5	+6
Backrest height reg.	cm	8	8	8	8	10	10	8	9	9	10
Backrest size (BxH)	cm	40x36	40x36	40x36	40x36	44x63	44x63	40x36	44x63	44x63	37x43
Backrest angle reg	^{0}	5, -48	5, -48	5, -48	5, -48	0, +28	0, +28	5, -48	0, -21	0, -21	23
Armrest size, (LxB)	Cm	35x8	35x8	35x8	35x8	35x8	35x8	35x7	35x8	35x8	35x8
Armrest height reg.	cm	18-26	18-26	18-26	18-26	19-27	19-27	17-27	19-27	19-27	18-26
Width between armrest	cm	42-52	42-52	42-52	42-52	42-52	42-52	46*63	42-52	42-52	42-52
Wheel size, diam.	cm	10	10	10	10	10	10	12,5	10	10	10
User weight, max	kg	150	150	150	150	150	150	230	150	150	150
Product weight	kg	22	28	23	29	35	41	39	29	35	22

Measured	Unit	S1	S2	S3	S6	S8	S9	S10
Seat height	cm	51-69	49-62	54-72	54-72	56-74	54-72	54-72
Seat size (BxD)	cm	41x38	41x38	45x24	41x38	Ø35	35x32	41x38
Seat angle reg., backw.	^{0}	-14	-14	-8	-14	-7	-8	-14
Seat angle reg., forw.	^{0}	+18	+18	+16	+18	+19	+16	+18
Backrest height reg.	cm	10	10	10	10	-	10	11
Backrest size, (BxH)	cm	38x23	38x23	38x23	38x23	-	22x26	38x23
Backrest angle reg.	^{0}	7, -59	7, -59	7, -59	7, -59	-	7, -59	7, -59
Wheel size, diam.	cm	-	10	5	5	5	5	5
User weight, max	kg	120	120	120	120	120	120	120
Product weight	kg	11	16	11	11	8	11	11

MATERIALS AND COMPONENTS

Wheel base – model 2004.	Powder coated aluminum
Wheel base – model Kilo	Powder coated steel
Seat-/backrest shell	Cast plastic
Cushion	Cast PUR-foam
Fabric	Furniture fabric 100 % Trevira CS

2. Work Descriptions

General

Never use other parts than those stated in the split images with corresponding item numbers in Chapter 3. If other parts are used, the product could loose its accreditation as an aid product. If for any reason one wants to deviate from this rule, Hepro has to be contacted for review and possible approval.

2.1 Replace components

2.1.1 Front wheel casters for Work-and Coxit-chairs (including Standing support mod. S2)

- Unscrew the screw that locks the caster to the wheel base.
- The caster is now loose and can be taken out. Be aware of the difference between casters for front- and rear wheels.
- Assemble in reverse order. Tighten the screw properly.

2.1.2 Rear wheel casters for Work- and Coxit-chairs (including Standing support mod. S2)

- Remove the brake bail as described in 2.1.4.
- Unscrew the screw that locks the caster to the wheel base.
- The caster is now loose and can be taken out. Be aware of the difference between casters for front- and rear wheels. (see section 3.).
- See 2.5.2 for adjusting the brake force.
- After adjusting, replace the caster and the screw and tighten properly.

2.1.3 Casters for Standing support chairs

- Remove the caster by pulling it directly out of its hole.
- Assemble it by pushing the pin into the hole.

2.1.4 Brake bail between casters-rear wheel (including Standing support mod. S2)

- Activate the brake for easy working position.
- Unscrew the two setscrews that lock the brake lever width regulation, and remove the lever.
- Take away the metal bushing. (see sect.2.1.19).
- Unscrew the bolt that keeps the bails together.
- The brake bails are now apart and can be taken away in two parts.
- Assemble in reverse order.

2.1.5 Hexagonal rod between the rear wheels mod. E1 Kilo

- The plastic caps on top of each rear wheel are removed and pushed away (along the hexagon rod).
- Pull out the hexagonal rod and remove it.
- The hexagonal rod and/or the adapter, fastened with a setscrew on the underside, can now be exchanged.
- Assemble in reverse order. Check that the brake lever adapter angle is correct for user operation.

2.1.6 Gas spring for G1 and G2, Work- and Coxit-chairs

- Disassemble the seat shell. For the seat G1 and G2 Aktiv, see sect. 2.1.17.
- Special for Synkron and Tilto, loosen the wire for seat lift and seat sliding.
- Loosen the rotation release or the rotation lock that keeps the central unit`s sliding tube to the seat mechanism. (Not the mod. G1 Std. w/o rotation, item no. 30000).
- Remove the splint under the central unit, and the wheel base with the central unit can be removed.
- The gas spring is now accessible, and can be loosened by «lifting» the chair holding the gas spring and «strike» with a plastic hammer against the seat mechanism in front of the gas spring.
- The gas spring is now loose and can be replaced with a new one. Don`t forget the color disc that indicates the force in the gas spring.
- Put the wheelbase with the central unit back in place, and set the splint back..
- The rest assembly in reverse order.

2.1.7 Gas spring for Standing support chairs

- Strike the wheelbase and the seat mechanism with a plastic hammer when lifting the chair by the gas spring.
- The gas spring is now loose and can be replaced with a new one.
- Assembling in reverse order.

Do not loosen the bushing fixed on the wheelbase with central brake on model S2.

2.1.8 Lifting Unit for G1 and G2, Work- and Coxit-chairs

- Disassemble as for changing the gas spring, see sect. 2.1.6.
- Loosen the lifting unit from the wheel base by unscrewing the lock bolt.
- Take away the lifting unit.
- Replace with a new lifting unit in desired height, and adjust correct according to the wheel base.
- Secure the lock bolt.
- The rest assembly as for the gas spring. (2.1.6).

2.1.9 Lifting Unit for E1 and E2, Work- and Coxit-chairs

- Disassemble as for changing seat lift actuator. (2.1.11).
- Loosen the lifting unit from the wheel base by unscrewing the lock bolt.
- Take away the lifting unit.
- Replace with a new lifting unit in desired height, and adjust correct according to the wheel base.
- Secure the lock bolt.
- The rest assembly, see sect. 2.1.11.

2.1.10 El.lifting column for E1 Kilo

- Disconnect the cable for the el.lifting column from the el.control box..
- Disassemble the seat unit with the bracket from the top of the lifting column and take it away.
- Unscrew the bolts securing the lifting column to the wheelbase. It is used special nuts which locks it to the frame, so it is only need of an Unbraco key to loosen the column.
- Assemble a new lifting column in the same position as the old one, cable down and backwards to the control box.
- Rest assembly in reverse order.

2.1.11 Seatlift actuator for E1 and E2, Work- and Coxit-chairs

- Disassemble the seat shell.
- Special for Synkron and Tilto, loosen the wire for seat lift and seat sliding.
- Loosen the rotation release or the rotation lock that keeps the central unit`s sliding tube to the seat mechanism.
- Disconnect the cable for the actuator from the el.control box and loosen it from the strip/protection stocking.
- Unscrew the bolt w/2 Nord-Lock washers under the central unit.
- Now the wheel base with the central unit can be removed.
- The complete actuator is now accessible. Unscrew the bolt on the seat mechanism top side aprox. 5mm and strike with a plastic hammer on the bolt to loosen the actuator from the seat mechanism.
- The actuator can now be taken away.
- Replace with a new actuator in the same position as the old one.
- Replace the wheel base with the central unit, and secure the bolt with the two Nord- Lock washers. It is best to use blue Locktite.
- The rest assembly in reverse order.

2.1.12 El.control box complete w/batteries

- Disconnect the cables from the el.control box.
- Unscrew the two screws holding the el.control box bracket to the wheel base.
- Loosen the box from the bracket (4 screws).
- Assemble in reverse order.

2.1.13 Replace batteries in the el.control box

- Disassemble as described in 2.1.8.
- Open the cover on the el.control box by bending the lock clips with a screw driver.
- The batteries, connected with cable terminals, are now free and can be disconnected. Be aware of which is + and -.
- Assemble in reverse order.

2.1.14 Switch box complete with charger connection

- Disassemble the switch box from the seat shell and loosen possible clips on the cable.
- Take away the protection stocking around the cable for the actuator and the switch.
- Disconnect the switch cable from the el.control box.
- Connect a new switch cable, and test it.
- Assemble in reverse order.

2.1.15 Wheel base complete

- Unscrew the lock bolt which secures the lifting unit to the wheel base.
- Take away the central unit with the seat unit. On the model E1 and E2 you must also disconnect the el.control box.
- Assemble in reverse order.
- Adjust the lifting unit according to forward direction of the wheel base.
- Secure the lock bolt.
- Replace the bracket with the el.control box.

2.1.16 Wheel base complete model E1 Kilo

- Disassemble the lifting column as described in sect. 2.1.10.
- Complete wheelbase is now loose and can be replaced.
- Assemble in reverse order.

2.1.17 Replace cushions

For all models except mod. G1/G2 Aktiv, E1 Kilo and Standing support:

- Remove the cushion by bending it loos with hand or with help of a flat screw driver.
- Replace with a new or newly washed cushion. A snap sound is heard for every snap lock.

For cushion mod. G1/G2 Aktiv the plastic shell sticks to the cushion. The whole seat is moved forward out of the slider. A «tap» midst of the shell is held down (with f.i. a flat screwdriver) to release the seat from the slider.
The seats for E1 Kilo and the Standing support chairs have not loose cushions, but are delivered as complete seats and must be replaced in its entirety. They are fastened to the seat mechanism with four screws.

2.1.18 Replace ¼-foot rest

- Putt the chair in a position to have easy access to the foot rest mount.
- Unscrew the foot rest mount on both sides.
- Remove the ¼ foot rest.
- Assemble in reverse order.

2.1.19 Replace the brake bails

- Remove the brake lever.
- Bend the metal bushing and remove it.
- Loosen the screw and remove it.
- The brake bails can now be taken away and replaced.
- The metal bushing can be put back, and the corners bended again.
- Rest assembly in reverse order.

2.2 Cleaning

Cleaning method

- The products are not designed to be washed in automatic washing machine!
- Cushion w/fabric can be vacuumed or cleaned with special furniture cleaning solution. The fabric can be washed in water up to 60 °C.
- Old and dirty cushions are recommended, of hygiene conditions, replaced when recycling the chair.
- Electrical components must be wiped clean with a damp cloth, and must never be exposed to flushing.
- Painted frame and shelf can be cleaned gently with a high-pressure washer after the electrical components are properly covered and "sealed". It is important to check that the plastic cover, that protects the top of the gas spring, is in place. If not corrosion will lead to damaged the gas spring.

- After flushing, the electrical components must be ”unpacked” before the product is set dry.
- Casters/wheels must be cleaned for dirt and hair. Easiest way to do it is to use a thin screwdriver or a sharp plier.

Recommended detergents

- For cleaning of fabric upholstery, use normal upholstery cleaning solution, sold in stores.
- If the cushion or fabric for cushion is washed, one must be careful with flushing all the detergents out of the PUR-foam, and dry it properly.
- On lacquered steel parts and plastic shelf strong soap water can be used.
- If high-pressure washing is used, detergent designed for and approved for exterior cleaning of car paint can be used.
- After high-pressure washing, the chair`s joint and bolts must be lubricated.

2.3 Maintenance routines

2.3.1 Periodic inspection

GENERAL
It is basically sufficient with an inspection when recycling.

PRODUCTS WITH SPECIAL LOADS
The product has no special need for periodic inspection, if it is a standard product used without particular or special loads.
If the product is exposed to special loads, it would be an advantage for all that in each case it will be established necessary maintenance. Hepro can of course be of help with advice and guidance, if wanted.

2.3.2 Preparation for reuse

To ensure that the user of a work chair will get the best and safest possible aid when recycling, it is important that the aid undergo a thorough technical control and is properly cleaned before it is delivered to a new user. As a supplier we believe that the control described in sect.2.4 is sufficient to ensure safety and functionality.
Worn parts have to be checked and replaced if they are considered to lead to reduced safety.

2.3.3 Adjustments associated with repair and maintenance

GENERAL
Check the following and if necessary, tighten or adjust:

- The lock bolt that secures the lifting unit to the wheel base.
- The screws that secure the seat- and backrest shell to the seat mechanism.
- The locking force for the seat angle adjustment.
- The hand operated central brake.
- The screws securing accessories.

CASTERS / WHEELS

- Check securing and shafts and if necessary, tighten or adjust.

2.4 Feature Control and testing of product and accessories

Item no.:		Lifting unit 150 ☐ 200 ☐ 100 ☐ .....☐
G ☐ E ☐ Aktiv ☐ Standard ☐ Tilto ☐ Synkron ☐ Coxit ☐ Kilo ☐ Stand.support ☐		

CONTROL:	CONTROL METHOD:	SPEC.:	Performed
SEAT UNIT			
Backrest cushion, Type:	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Backrest shell - plastic	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Seat cushion, Type	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Seat shell - plastic	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Armrest, Type	Visual, Adjusted and tested	Ok ☐ Cleand ☐ Replaced ☐	
Seat mechanism, Type	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Operate levers seat mechanism	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
LIFTING UNIT w/gas spring			
Complete	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
Gas spring	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
LIFTING UNIT w/el.actuator			
Complete	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
Actuator	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
WHEEL BASE – 4 armed			
Wheel base	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Secure bolt w/o slack	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
¼-Footring w/o damage	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
Casters / knobs	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
WHEEL BASE – 5 armed			
Wheel base	Visual	Ok ☐ Cleand ☐ Replaced ☐	
Casters / knobs	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
ELEKTRO:			
El.box	Visual, secured	Ok ☐ Cleand ☐ Replaced ☐	
Switch box	Visual and tested	Ok ☐ Cleand ☐ Replaced ☐	
Cables and plugs, undamaged	Visual	Secured against injury	
FINAL CHECK			
Noise and vibration	Tested		
Appearance generally	Visual	Clean, undamaged	
Product marking	Visual	Serial no., month/year produced	
Covers, undamaged	Visual		
Complete product control	Tested		
Accessories, coments			

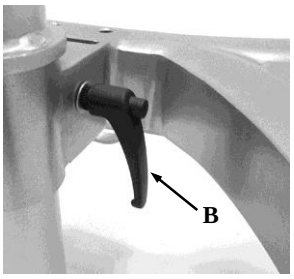
Serial no.:			Date:	Controled by:

2.5 Adjustments

2.5.1 Adjusting the seat height

Beyond the regulation of the gas spring or actuator the seat height can be adjusted by adjusting the attachment point for the central unit:

- Tilt the chair to the back.
- Loosen the locking handle (B) - (counter clockwise).
- Central unit is now loose and can be raised or lowered to desired position.
- Check that the seat unit is in line with the wheel base.
- Secure the locking handle (B)



2.5.2 Adjusting the brake

The force that locks the rear wheel when the brake is activated can be adjusted as follows:

1. Take away the brake lever (see sect. 2.1.19) .
2. Unscrew the screw that secure the caster to the wheelbase, and remove it.
3. The casters can now be taken out of the wheel base. Be aware of the red marking position!
4. Turn the plastic nut on top of the caster, to the left or to the right, to change the brake force. Clockwise will increase the force and counter clockwise decrease it.
   As a standard the brake is activated by moving the brake lever forward. By turning the whole caster 180 dgr. and mount it with the red marking to the other side, the brake will be activated by moving the lever backwards.
5. Assembly in reverse order.

2.6 Electrical equipment

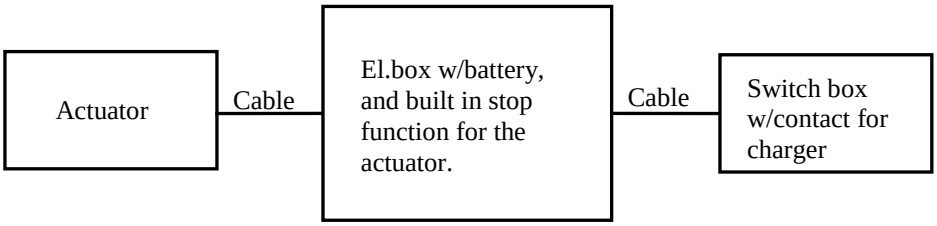
2.6.1 System Structure

GENERAL

All electrical components have cable and connector fixed. If something is wrong with the component, it is replaced including cable and connector.

The diagram below shows schematic the electrical wiring and connections between the components.

Detailed information with description, item no. and numbers appears in sect. 3.



EL.CONTROL BOX

In the el.control box there are 2 pcs. 12V, 2,7 or 2,9Ah batteries which are connected in series and gives 24V opertation voltage.
The batteries are sealed lead-acid batteries, where the electrolytic liquid is absorbed in a mat of glass fibre. This makes it possible to place the batteries in whatever position..
The el.control box has a built in curcuit which disconnect the voltage to the actuator when it reach its end position.

BATTERY CHARGER

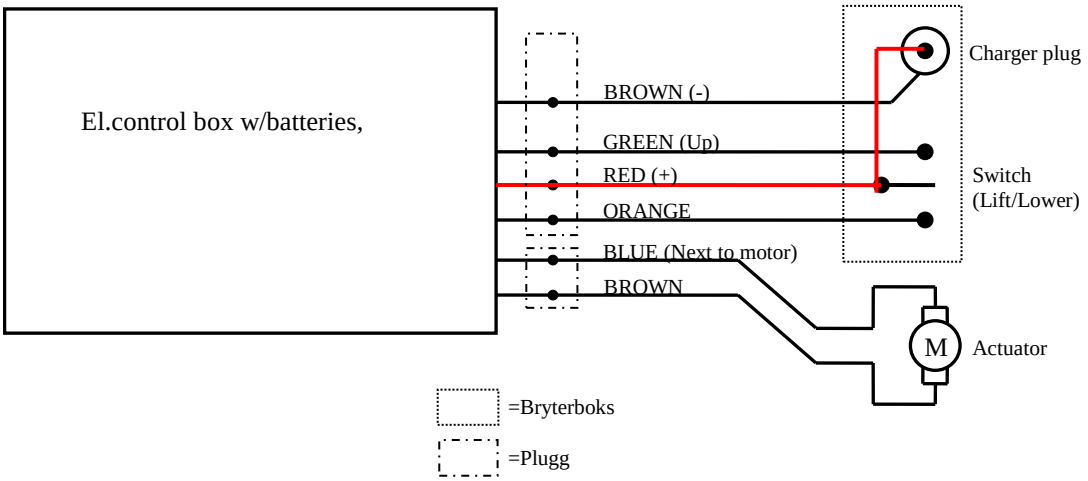
The charger is a model Linak CH 08, for line voltage 130V, 50Hz. It is double isolated and approved by NEMKO (Certificate no. L91991).
Charging voltage is 27,6VDC +/-2%. Maximum charging current is 300mA. It is recommended to carry out the charging at night. Then the chair will have up to 8 hours of charging.

2.6.2 Charging the batteries on ELEKTRO - models

The batteries MUST be charged with the included charger that provides 24V. The charger is connected to the socket located on the same box as the switch that regulates the seat height.
When the batteries needs recharging, you will hear a beep that indicates this. The charger stops charging when the batteries are fully charged. The batteries will not be damaged if the charger is connected for a time, after charging has been completed.
It is good for the batteries to be charged regularly, preferable every day if the chair is in daily use. When the chair is not in use, it should be recharged at least once a month.

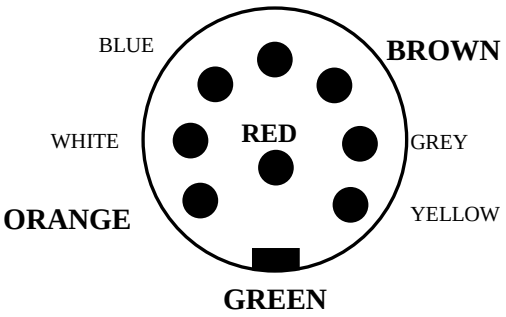
The seat can be raised or lowered during charging.

2.6.3 Electrical form

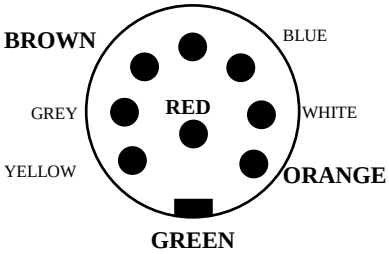


2.6.4 Wiring diagram for 9-pin contact

The plug on the cable from the switch box is seen from the pin-side (not the solder side). It is only the colors with fat types that are used on standard product.



"The femail connector" on the el.control box is seen from outside. It is only the colors with fat types that are used.



2.6.5 Troubleshooting on the ELEKTRO-models.

GENERAL

It is important first of all to ascertain what in fact is wrong!

Since the product is modular built with ”closed” cable connections and molded plugs, we recommend from experience the following:

- Test the product as far as possible, and find the problem.
- Are the batteries fully charged? If not, charge them before further control is accomplished.
- The switch box is the component most exposed and is the first to be checked.
- Base don the diagram showing the plugs on the el.control box the following can be tested::
  - Check 24V DC between ”Red” and ”Brown”.
  - Test the switch function by short-circuit the ”Red” and ”Green”. Then the chair shall og up.
  - Corresponding test by short-circuit ”Red” and ”Orange will make the chair go down.

If this works, it is the switch that is defect and has to be replaced.
If this does not work, it is the el.control box that is defect and has to be replaced.

3 Parts Catalog

3.1 Structure

General the products are built with the following main components.

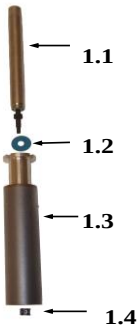
- Wheel base.
- Lifting Unit.
- Seat Mechanism.

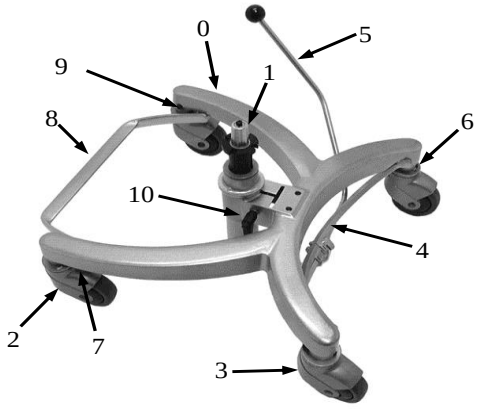
❑ Standard Seats and Backrests together with alternativ accessories appears in the brochure.

3.2 Split-drawings and photos

Stated in the following are descriptions and item numbers on the components included in standard products.

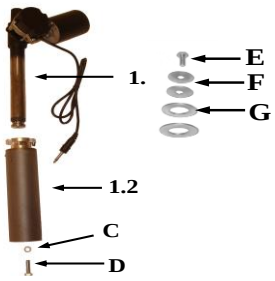
3.2.1 Wheelbase complete Hepro Work chair G - Gasso

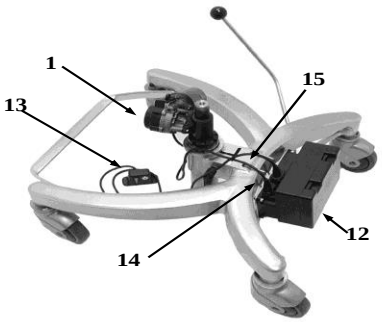




Pos.	Description	No.	Hepro Item no
-	Wheel base 2004, compl. w/o lifting unit and footring	1	31153
0	Wheel base 2004	1	31152
1	Lifting unit G150 2004	1	31302
1.1	Gas spring 150 300N	1	30500
1.2	Marking disc, blue 300N	1	30570
1.3	Central unit G150 2004	1	31301
1.4	Lock ring for gas spring	1	70237
1.5	Lifting unit G150 2004 w/locked rotation in gas spring	1	31547
1.5.1	Conus tube	1	31545
1.5.2	Gas spring RH 4F , locked rotation	1	31495
2	Caster, plastic, w/o brake, wheel Ø100	2	31170
3	Caster, plastic, w/brake, wheel Ø100	2	31171
4	Brake bail complete	1	31548
4.1	Brake bail, pair	1	31154
4.2	Bushing for brake lever	1	30548
4.3	Screw M5x50 w/cross mark	1	70130
4.4	Lock nut Nylock M5	1	70058
4E	Eccentric arm	1	80251
5	Brake lever, complete	1	30546
6	Unbraco screw, UBL M6x10	2	70145
7	Hold for footring, w/bushing and srew	2	30878
8	Footring 2004, ¼ footring	1	30877
9	Unbraco screw, UBL M8x16	2	70154
10	Hold bolt, complete	1	31549
10.1	Lock handle APB79M8	1	80244
10.2	Screw 6-eck. M8x70	1	70090
10.3	Washer M8	1	70025

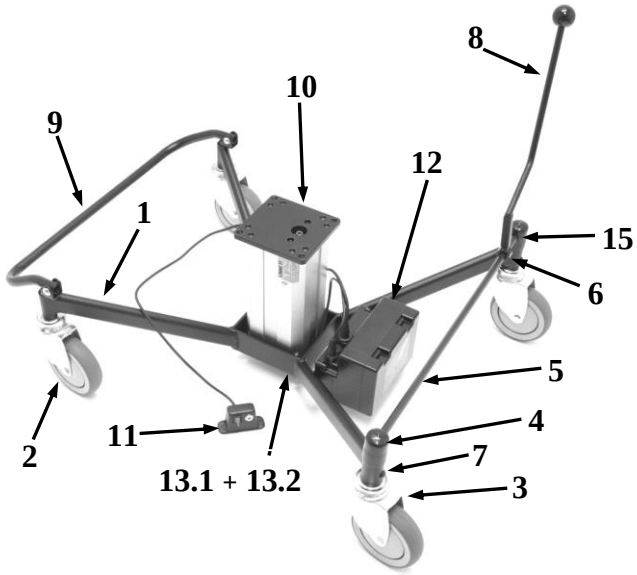
3.2.2 Wheelbase complete Hepro Work chair E- Elektro





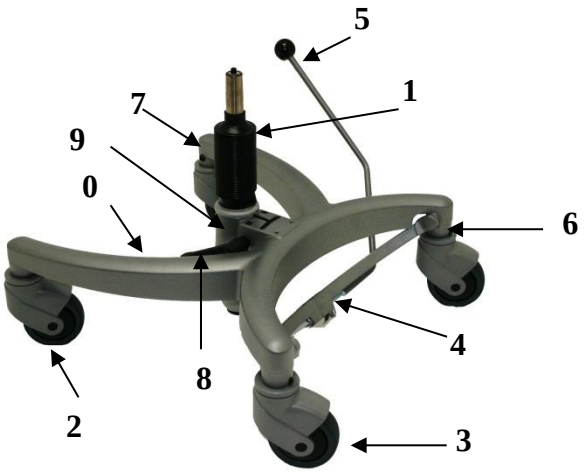
Pos.	Description	No	Hepro Item no
-	Wheel base 2004, compl. w/o lifting unit and footring	1	31153
0	Wheel base 2004	1	31152
1	Lifting unit E 150 2004	1	31424
1.1	Actuator LA30.3L-150 Std. w/conus	1	61670
1.2	Central unit E150 2004	1	31423
2	Lifting unit E150 Tilto 2004	1	31685
2.1	Actuator LA30.3L-150 Tilto w/conus	1	61789
2.2	Central unit 150 2004	1	31423
C	Locking disc M8 Nord-Lock	2	70003
D	Hex.screw M8 x 35, fully thread	1	70100
E	Hex.srew M10 x 16	1	70097
F	Washer 10,5 x 40 x 2	2(3)	70250
G	Washer 27x50x4	2	70249
2-10	See Sect. 3.2.1.	-	-
12	El.control box CB8001A40-00	1	61681
12.1	El.control box wo/batteries CB08-1A-40-24	1	61680
12.2	Batteries FG 20271, 2 pcs. 12V/2,7Ah	1	60022
	Charger, Fladd CH08 220V	1	60504
13	Switch box compl. w/cable L120	1	31379
14	Bracket for El.box, 2004	1	31407
15	Screw self thread, ELM 6x20 Torx	2	70224

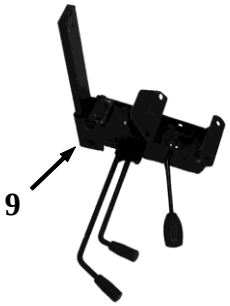
3.2.3 Wheelbase complete Hepro Work chair E1 Kilo



Pos.	Description	No.	Hepro Item no
-	Wheel base for E1 Kilo (wo/lifting unit and footring)	1	31049
1	Wheel base for E1 Kilo	1	31047
2	Caster steel wo/brake, wheel Ø125	2	31160
3	Caster steel w/brake, wheel Ø125	2	31161
4	Ferrule A/PVC 32 x 45 mm	2	80182
5	Hex.rod for brake, Kilo	1	30540
6	Adapter for brake	1	30541
6.1	Thread pin UBL M8 x 10 mm	1	70200
7	Unbraco screw, UBL M8 x 10 mm	2	70139
8	Brake lever, compl.	1	30551
9	Footring Kilo, ¼ footring compl.	1	31397
10	Lifting column LP2-2.1-100	1	61705
11	Switch box compl. w/cable	1	31379
12	El.control box w/batteries	1	61681
12.1	El.control box wo/batteries CB08-1A-40-24	1	61680
12.2	Batteries FG 20271, 2 pcs. 12V/2,7Ah	1	60022
12.3	Charger, Fladd CH08 220V	1	60504
13.1	Unbraco screw, ELZ M10 x 30	4	70170
13.2	Hex.nut ELZ M10 Special	4	70044
15	Brake lock	2	30545

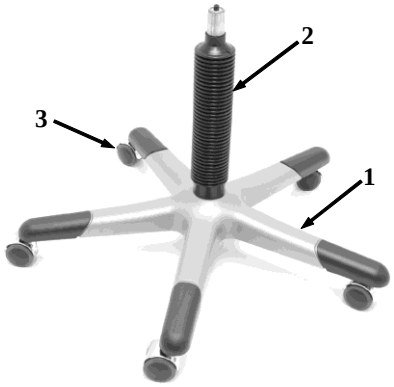
3.2.4 Wheelbase complete Hepro Standing Support Chair, S2 w/central brake





Pos.	Description	No.	Hepro Item no
-	Wheel base S 2, compl. wo/lifting unit	1	31684
0	Wheel base 2004	1	31152
1	Gas spring RH 4C, locked rotation, 19 cm	1	31493
2	Caster plastic wo/break, wheel Ø100	2	31170
3	Caster plastic w/break, wheel Ø100	2	31171
4	Break bail, complete	1	31548
5	Break lever w/ball, Stando	1	31574
6	Unbraco screw, UBL M6x10	2	70145
7	Unbraco screw, UBL M6x16	2	70154
8	Hold bolt complete	1	31549
10	Conus tube	1	31545

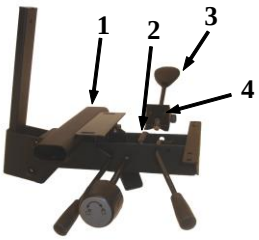
3.2.5 Wheelbase complete Hepro Standing Support Chair

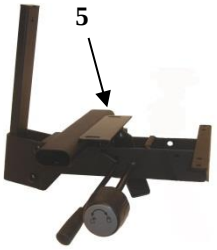


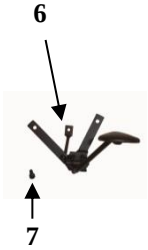
Pos.	Description	No.	Hepro Item no
1	Wheel base RH 5L	1	31500
2	Gas spring 19 cm, free rotation	1	31492
3	Caster RH 7G double Ø50mm, weight operated brake	5	31484
3.1	Sliding knobs	5	31477
3.2	Caster RH 7H double Ø50mm, wo/brake	5	31481

3.2.6 Seat mechanism for Work-/Coxit-chairs and Standing support chairs

STANDARD (for G/E Std. and G/E Coxit)

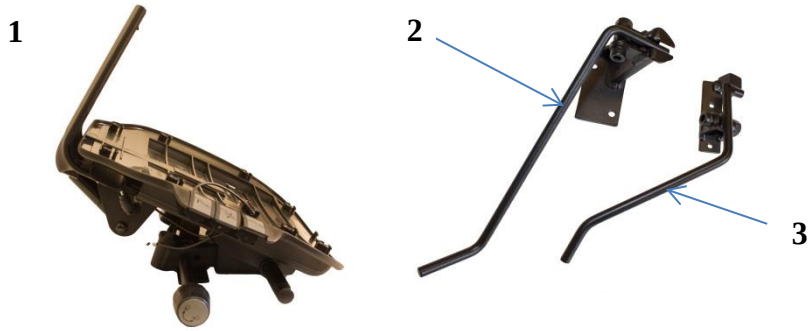






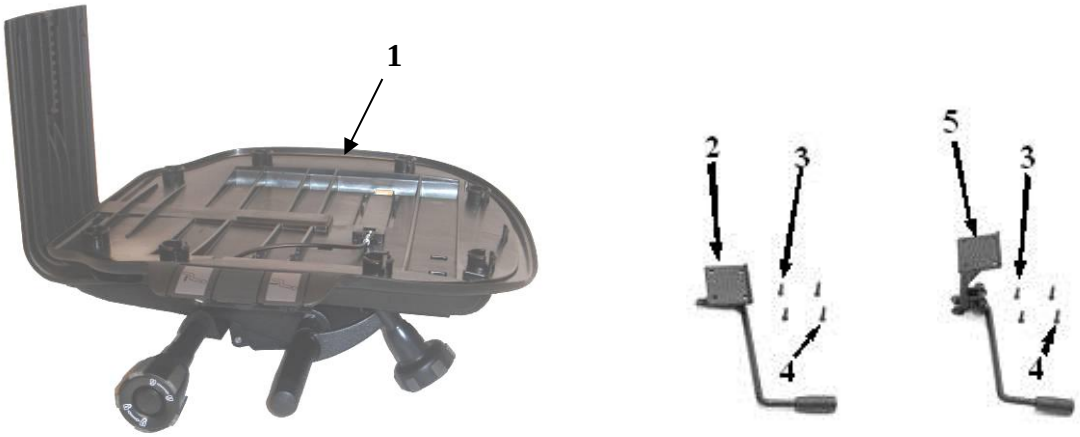
Pos.	Description	No.	Hepro Item no
1	Seat mechanism 3A G1/G2	1	31149
2	Washing cover G std.	1	30567
3A	Rotation release, G2 std.,compl.	1	30627
4	Unbraco screw, M8 x 16	2	70150
5	Seat mechanism 3A E1/E2	1	31409
6A	Rotation release, E2 std.,compl.	1	31365
Alt. 6B	Rotation lock, E1 std.,compl.	1	31352
7	Unbraco screw, M8 x 16	3	70150
8	Gas spring for backrest on 3A mechanism	1	30590

TILTO (for G/E Tilto)



Pos.	Description	No.	Hepro Item no
1.	Seat mechanism G/E Tilto, compl. w/sliding rail	1	31894
2.	Rotation release, E2 Tilto, compl.	1	31386
3.	Rotation release, G2 Tilto, compl.	1	30856
4.	Hex.screw M6 x 12 – to 30856	2	70098
5.	Unbraco screw, M8 x 16 - to 31386	2	70150

SYNKRON (for G/E Synkron)

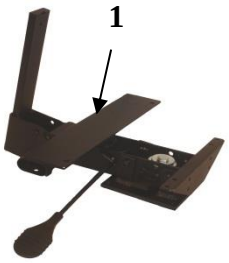


Pos.	Description	No.	Hepro Item no
1	Seat mechanism G/E Synkron, compl. w/sliding rail	1	30750
2	Rotation release, G2 Synkron, compl.	1	30865
3	Hex.screw M6 x 12	2	70098
4	Hex.screw M6 x 16	2	70068
5	Rotation release, E2 Synkron, compl.	1	31395

AKTIV (for G1/G2 Aktiv)

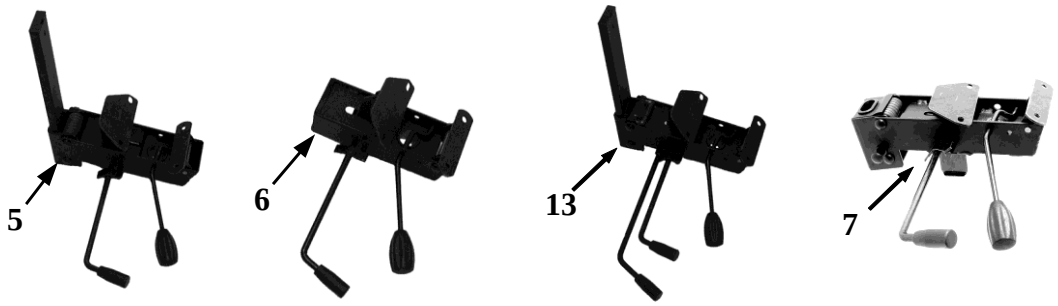
Pos.	Description	No.	Hepro Item no
1	Lifting unit Aktiv 150 kompl. w/seat mechanism	1	31547
2	Rotation lock G1 Aktiv	1	31929
3	Rotation release G2 Aktiv	1	31904

KILO (for E1 Kilo)



Pos.	Description	No.	Hepro Item no
1	Seat mechanism 3A, E1 Kilo	1	31591

HEPRO STANDING SUPPORT CHAIRS



Pos.	Description	No.	Hepro Item no
5	Seat mechanism RH3G incl.backrest post	1	31474
6	Seat mechanism RH3H for chair wo/backrest	1	31475
13	Seat mechanism RH3G w/3 levers	1	31473
7	Seat mechanism Alternativ	1	31476

3.2.7 Armrest

Armrest Comfort

Armrest Royal

Pos.	Description	No.	Hepro Item no
1	Armrest Comfort 2004 Right	1	31593
1	Armrest Comfort 2004 Left	1	31594
2	Armrest Royal Right	1	31689
2	Armrest Royal Left	1	31690

3.2.8 Seat / Backrest

Aktiv:

Seat:	Item no.	31901
Backrest:	Item no.	31900

Coxit:

Seat:	Item no.	31203
Backrest:	Item no.	31211

Standard:

Seat:	Item no.	31193
Backrest:	Item no.	31211

Tilto:

Seat:	Item no.	31896
Backrest:	Item no.	31804
Neckrest:	Item no.	31897

Kilo:

Seat:	Item no.	31624
Backrest:	Item no.	31211

Synkron:

Seat:	Item no.	31205
Backrest:	Item no.	31225
Neckrest:	Item no.	30744

Ståstol m/ryggst.

Seat:	Item no.	31530
Backrest:	Item no.	31218

Ståstol m/brystst.

Seat:	Item no.	31528
Chest rest:	Item no.	31532

4 Change log

Edt. 01	17.09.2011	Tender edition
Edt. 02	07.02.2012	Adapted to new contract
Edt. 03	10.01.2013	Varios changes