

MEYRA[®]
WHEELCHAIRS AND REHABILITATION
EQUIPMENT

FOLDING WHEELCHAIR

Add-on Electric Drive

DUO

GB

OPERATING MANUAL



OPERATING MANUAL



D-GB-F-I-E-NL

Table of contents

Introduction	3
Acceptance	3
Assembly	3
Specifications / Utilization	3
Overview	4
Handling the Duo	4
Tips for accident prevention	5
CE regulations	5
Safety instructions	5
Releasing the brakes	6
Control box	6
Preparing the wheelchair for operation	7
Pre-operation checks	7
Drive and steering lever (Joystick)	8
Conversion for use with standard wheels	9
Adjusting the quick-clamping lever	9
Transport	10
Folding	10
Unfolding	10
Batteries	10
Service	12
Cleaning	12
Maintenance instructions	12
Fuse	13
Fault identification and correction	13
Fault diagnosis – control box	14
Repair	14
Service	14
Spare parts	14
Technical specifications	15
Guarantee	16
Guarantee note	16
Notes	17
Illustration section of the operating manual	19

INTRODUCTION

We thank you for the trust you have placed in our company by way of choosing the *DUO* add-on drive.

The *DUO* add-on drive is a retrofittable powerful electric add-on drive for folding wheelchairs.

The purpose of this operating manual is to make you familiar with the handling of the *DUO* add-on drive.

Remark:

Please note that the illustrated wheelchair can deviate from your model. However, the handling of the *DUO* add-on drive is identical.

Please read and observe this Operating Manual for the *DUO* add-on drive before you use it for the first time.

It supplements the Operating Manual for your wheelchair.

Pictures and graphic illustrations are contained in the appended illustration part.

ACCEPTANCE

All MEYRA products are checked for faults in the factory and packed in special boxes.

However, we request that you check the vehicle for possible transport damage immediately on receipt – preferably in the presence of the carrier.

Please arrange the following if you believe damage occurred during transport:

- a) Draw up a **DAMAGE REPORT** – the carrier is required to do this.
- b) Draw up a **LETTER OF SUBROGATION** – you assign to the supplier all claims resulting from this damage.
- c) Send back the **BILL OF LADING**, the **DAMAGE REPORT** and the **LETTER OF SUBROGATION** to us.

We are unable to accept any claims for compensation if you fail to observe these instructions or notify us of damage after the goods have been accepted.

ASSEMBLY

The specialist workshop delivers your wheelchair with the *DUO* add-on drive in a ready-to-use condition and adapted to your needs.

SPECIFICATIONS/ UTILIZATION

The *DUO* is an add-on drive and supports the forward and reverse travel.

Remark:

Fitting the add-on drive reduces the maximum user weight by 10 kg!

The use of identical wheel sizes enables a problem-free change to standard wheels.

The wheelchair should be adapted to your needs by a MEYRA specialist dealer before the first use. The adaptation will take into account the driving experience, the physical limits of the user and the main place of use of the wheelchair.

Attention:

- Always have adaptation and adjustment work carried out by an authorised MEYRA specialist dealer.



OVERVIEW

Components of the DUO add-on drive (fig.1)

- ① Control box
- ② Electronics unit
- ③ Brake release device

Components of the DUO add-on drive / battery pack (fig.2)

- ④ Drive unit (electric motor)
- ⑤ Battery pack
- ⑥ Battery carrier

Control box (fig.3)

- ① Drive and steering lever (joystick)
- ② Clamping lever for height adjustment

Battery charger (fig.4)

- ① Fuse
- ② Battery pack
- ③ Battery charger

HANDLING THE DUO

Driving and user instructions

Before the add-on drive is used, the user and the accompanying person must be familiar with the operation of the wheelchair to an extent which allows them to handle any driving situation without problem.

A valid personal liability insurance cover is recommendable for the financial security of yourself and others.

The driving characteristics of the *DUO* are set in the factory to suit an adult user of average size and weight. The user can change these settings to suit his wishes by way of the two rotating knobs on the control box. Please contact your MEYRA specialist dealer if these adjustment possibilities do not suffice. The authorised MEYRA specialist dealer can adjust the electronics of the *DUO* with a programming unit in order to optimise the driving characteristics or effect an adaptation for a greater user weight.

- The additional weight of the *DUO* system alters the centre of gravity and thus the driving behaviour of the wheelchair. The handling of the wheelchair must therefore be relearned. Use support castors for safety reasons.
- Holes, stones, grooves, gully covers and similar obstacles can lock the wheels. Always be ready to brake. Think ahead when manoeuvring. Drive wide around obstacles if possible.

- Uphill gradients of up to 20% (approx. 11°) can be driven with the add-on drive. The permitted uphill gradient data shown in the operating manual for the handrim wheelchair is applicable during wheelchair use without the *DUO* add-on drive.
- Always maintain a safety distance between the wheelchair and drops, stairs and similar obstacles sufficient for reaction, braking and turning.
- Before crossing roads, look for a suitable place to mount the pavement on the opposite side.
- The wheelchair must be fitted with a lighting system, such as available from a bicycle accessory shop, before it is used on public roads.

TIPS FOR ACCIDENT PREVENTION

Driving behavior

! Attention:

- Drive especially carefully and only with support castors during your first few journeys with the *DUO*.

Speeds of 6 km/h can be reached.

You drive by operating the joystick. The drive limits the maximum speed depending on the joystick position during downhill travel.

The *DUO* can cause interference in equipment which does not conform to standards.

Electromagnetic fields created by equipment which emits radiation can influence the drive performance characteristics.

Mobile telephones and other radio equipment should, therefore, only be used when the wheelchair is stationary.

- Only use the *DUO* when the support castors intended for use with the wheelchair are fitted.
- Turn the rotating knobs for speed and response behaviour located on the control box to the 'Minimum' position (anticlockwise) before starting off in order to ensure a slow and controlled start.
- The support castors can come to bear when crossing large drops. A further travel with the aid of the add-on drive is then no longer possible. The *DUO* is not suitable for driving over large drops.

CE REGULATIONS

Remark:

The technology of the *DUO* add-on drive complies with the applicable requirements of the EU directive for electromagnetic compatibility. However, the possibility of interference from high-frequency radiation from other electrical equipment cannot be excluded.

High-frequency radiation occurs, for example, in the proximity of radar and transmitting systems, all types of radio equipment and cellular telephones. Stop immediately and quickly switch off the control box if the *DUO* add-on drive reacts uncontrollably due to interference or causes interference to other electrical equipment.

! Attention:

- Never operate a wheelchair with an electric drive in the proximity of medical diagnostic equipment or electrical/electronic medical equipment with high danger potential and/or life-maintaining functions.

SAFETY INSTRUCTIONS

Observe the contents of the relevant wheelchair operating manual.

- Only operate the wheelchair with support castors.
- The *DUO* add-on drive must only be switched on or off when the wheelchair is stopped.
- Secure the *DUO* against unauthorised use (magnetic key).
- Take care when negotiating obstacles such as curbs when the *DUO* is switched on.

The following situations increase the risk of accidents!

- Driving with angle-adjusted backrest.
- Traveling uphill/downhill, especially when no safety belt is worn.
- Negotiating obstacles at an angle.
- Additional luggage behind the backrest or hanging on one side.
- Operation with too low tyre pressure.
- Operation on uneven and/or loose surfaces



RELEASING THE BRAKES

The wheelchair can be propelled in the usual way with the handrim when required.

This requires:

Motor mode deactivation

1. Switch off the control box.
2. Swivel the brake release lever (fig.5/ ①) upwards.

The automatic brake of the drive wheel is released and the wheelchair can be moved with the handrim or by a helper.

Motor mode reactivation

1. Swivel the brake release lever downwards (fig.6).
2. Switch on control box

CONTROL BOX

The control box (fig.7) is used to control the wheelchair. The wheelchair is accelerated and steered with the joystick (fig.7/ ①).

Overview

(fig.7)

The control box ON/OFF key (button) has a small indicator light next to it that is lit when the control box is switched on.

- 1 Joystick
- 2 Rotating knob for pre-selected top speed
- 3 Control box ON/OFF key + ON/OFF indicator light
- 4 Key symbol
- 5 Magnetic key
- 6 Battery indicator /fault indicator
- 7 Horn push button
- 8 Response behaviour to joystick movement.

Height adjustment

The control box can be adjusted in height after the clamping screw has been slackened with the aid of the clamping lever (fig.3/ ②).

Magnetic key

The magnetic key (fig.7/ ⑤) can be used to lock the control box in the switched-off condition in order to prevent an unauthorised use.

Locking the control box

You lock the control box by moving the magnetic key (fig.7/ ⑤) once over the key symbol (fig.8/ ④). The control box is locked (deactivated) after a single signal tone.

Only a single signal will now be heard when an attempt is made to switch on the control box with the ON/OFF switch.

Unlocking the control box

You unlock and activate the control box by again moving the magnetic key (fig.7/ ⑤) over the key symbol (fig.8/ ④). The control box can be switched on again after you hear two signal tones.

Unlocking the control box after key is lost

A control box locked to prevent unauthorised use can be unlocked and reactivated by pulling out the plug (fig.8/ A) and then inserting it again.

It is also possible to use any magnet for the unlocking and activation. You do this by moving the south pole of the magnet (try both ends) over the key symbol.

PREPARING THE WHEELCHAIR FOR OPERATION

Switching on the control box

Press the ON/OFF key (fig.9/ ③) to switch on the control box.

Remark:

If you hear a single signal tone, you must first unlock and activate the control box with the magnetic key. Then press the ON/OFF key again.

- The indicator lights of the ON/OFF key and the battery indicator (fig.8/ ⑥) signal that the electronics is performing a system test.

Remark:

Do not move the joystick during the test duration of approx. 1 - 2 seconds.

- The electronics is ready when the indicator lights of all keys and the battery indicator are permanently on.

Remark:

- The batteries need to be charged when the battery indicator blinks slowly.
- A fault exists when the battery indicator blinks quickly.
- The system switches off automatically when the joystick is not operated for more than 10 minutes whilst the control box is switched on. The ON/OFF key (fig.9/ ③) must be operated twice in order to switch the control box on again.

Switch off the control box at the end of the journey. This causes the add-on drive to be deactivated and the brakes to be applied.

PRE-OPERATION CHECKS

Battery capacity

The battery indicator (fig.10) shows the battery capacity after the control box has been switched on and the system test has ended.

The number of lit light segments of the battery indicator reduces with decreasing battery capacity.

Battery display

The battery indicator (photo 10) shows the available battery capacity as follows:

The colours mean:

A > green = batteries OK,

B > yellow = recharging recommended,

C > red = batteries discharged, recharge immediately.

The battery indicator blinks slowly when the batteries are discharged. Recharge batteries immediately in order to avoid a possible battery damage. A fault exists in the case of a quick blinking.

Remark:

An accurate battery indication is only given during travel on a level surface.

Uphill/downhill travel falsifies the indication.

Evaluation

The value shown depends on the ambient temperature, the age of the battery and the type of load. It should therefore only be taken as an approximate value. The kilometric performance (range) of the wheelchair should be tested at least once.



Pre-selectable top speed

The pre-selectable top speed can be set with the rotating knob (fig. 8 / ②).

! Attention:

- Danger of accident from inappropriate top speed pre-selection!
- The top speed should be pre-selected to suit the personal circumstances and the respective driving situation!

Pre-select a low top speed for driving situations in which you feel unsafe (e.g. driving in confined spaces, downhill driving, driving on ramps or similar).

! Attention:

- Adapt and reduce speed when traveling up or downhill in accordance with gradient. Always, ensure that you never exceed the maximum speed of 6 km/h.

– Danger of accidents!

1. Situation example:

Use in the home.

Necessary setting:

low top speed pre-selected.

Incorrect setting:

high top speed pre-selected.

Consequence:

Small movements of the joystick cause the wheelchair to set off at speed. – The operator loses control in the confined space of the home.

– Danger of accidents!

2. Situation example: Crossing a road junction.

Necessary setting:

high top speed pre-selected.

Incorrect setting:

low top speed pre-selected.

Consequence:

The wheelchair does not cross the junction quickly enough.

Accident risk due to oncoming vehicles!

DRIVE AND STEERING LEVER (JOYSTICK)

! Attention:

- Do not move the joystick ① until the battery indicator ⑥ has stopped blinking (fig. 8).

Wheelchair response behaviour

The response behaviour of the wheelchair to joystick movements is damped with the rotating knob ③.

Rotating knob anti-clockwise : damped response.

Rotating knob clockwise: quick and direct response.

Drive and steering movement

The wheelchair is accelerated and braked with the joystick. Move the joystick ① slowly in the desired driving direction.

The speed of the wheelchair increases (up to the pre-selected top speed) as you move the joystick further from the centre position.

Simultaneous sideways movement of the joystick causes a curve travel. A sideways-only movement of the joystick causes the wheelchair to turn almost on the spot.

Remark:

The speed is reduced automatically during reverse or curve driving.

Braking the wheelchair

The wheelchair stops when you let go of the joystick.

Move the joystick slowly back into the centre position (zero position) for a slow controlled braking.

CONVERSION FOR USE WITH STANDARD WHEELS

The drive wheels can be removed for transportation or for use with standard wheels.

Removal of **DUO** drive wheels - fitting of standard wheels

1. Safely position the wheelchair and switch off the control box. – Do this by pressing the ON/OFF key (fig. 9/ ③).

Remark:

Remove the battery pack first in order to make the conversion easier.

2. Swivel the lever of the quick-clamping device (fig. 11/ ②) to the rear, hold the wheel, lift the wheelchair and remove the wheel (fig. 12).
3. Slide the standard wheel, from the side, into its bearing bush (fig. 12/ A).
4. Leave the supporting castors on the wheelchair if required.

Attention:

- The brakes of the add-on drive are now no longer effective, the wheelchair's own brakes must be used to prevent an unintentional rolling.

Removal of standard wheels - fitting of **DUO** drive wheels

Carry out in reverse order the steps described under 'Removal of DUO drive wheels – fitting of standard wheels'.

Remark:

Move or agitate the wheel slightly when closing the quick-clamping lever in order to assist the centring of the hub and the full connection of the electrical contacts.

Attention:

- Do not close the clamping lever with force but align if required.

ADJUSTING THE QUICK-CLAMPING LEVER

The quick-clamping lever is screwed in the drive and consists of the following parts (fig. 13).

- ① quick-clamping lever
- ② shaped ring
- ③ adjustment ring
- ④ bearing ring
- ⑤ spring

The spacing A (fig. 14) can be adjusted with the adjustment ring (fig. 13/ ③).

A clockwise rotation reduces the spacing A and an anticlockwise rotation increases it.

1. Fit the wheel for adjustment.
- The adjustment is correct when the quick-clamping lever can be closed with only a slight force and the wheel no longer has a sideways play.



TRANSPORTATION

The wheelchair can be disassembled into carryable elements and folded as usual without tools for stowing and transport purposes.

When assembling, ensure that every part is fitted correctly and safely secured. Check the correct seating of the components.

- Ensure that the *DUO* is transported in such a way that it cannot be damaged.

FOLDING

- Safely position the wheelchair and switch off the control box. – Do this by pressing the ON/OFF key (fig.7/ ③) on the control box. The battery control display goes off.
- Pull the locking lever on the battery plug (fig.15/ ①) to the rear, turn the plug anticlockwise and pull it off.
- Lift the battery pack out of the battery carrier (fig.21).
- Lift out the battery carrier (fig.23). – Do this by first lifting the rear part of the battery carrier out of the guide rails (fig.22).
- Fold the wheelchair as usual (fig.24). – See the operating manual for the wheelchair.

UNFOLDING

- Unfold the wheelchair as usual (fig.23). – See the operating manual for the wheelchair.
- Secure the wheelchair against unintentional rolling.
- Fit the battery carrier (fig.21). – Do this by pushing the bolts of the battery carrier into the guide rails (fig.22).
- Place the battery pack on the battery carrier (fig.2). – The fuse must be located on the left side when looking in the forward direction.
- Plug the battery plug into the socket on the battery pack (fig.15/ ①). – Check for correct locking of the locking lever.

BATTERIES

Recharge batteries!

The batteries should be recharged immediately after the daily use of the wheelchair so that you have the full driving performance available on the following day.

The battery charger can remain connected when the wheelchair is not required straight away.

Every battery has a normal 'self-discharge'. The batteries should be recharged once a week when the *DUO* is not required for a long period of time. The electric wheelchair will then always be ready for use. Leaving the battery charger permanently connected is better because the technical design of the battery charger ensures that the batteries cannot be overcharged.

Remark:

The acid of the battery is sealed leak-proof in the housing. The battery cannot be further used in the event of damage to the housing.

What do to on contact with acid:

Immediately wash all skin areas or body parts that have come in contact with acid under running water for a lengthy period of time. Then see a doctor. Immediately remove clothing wetted with acid. Wash clothes with soap solution and rinse with much water.

Remark:

Batteries and battery box are to be treated as a single unit.

Maintenance and replacement of the batteries are only to be carried out by an authorised specialist dealer.

Only the supplied battery charger, product no. 8 454 868, is to be used for charging.

Direct charging on the wheelchair

The batteries are charged via the control box.

1. Secure the wheelchair against rolling and switch off the control box
2. Open the protection cap (fig. 16/ ①) on the control box and insert the charging plug of the battery charger.
3. Connect the battery charger to the mains socket (230 V).
4. Disconnect the battery charger from the mains socket at the end of the charging process and then pull the charging plug out of the control box.

External charging of batteries

The availability of a second battery set is sensible for high-mileage wheelchair users. This can be externally recharged whilst the wheelchair is being used. This enables a continuous use of the wheelchair.

Charging procedure

The green LED (fig. 18/ ④) indicates that the mains connection has been established.

The yellow LED (fig. 18/ ③) is permanently on.

The LED blinks when the batteries are 90% charged. The batteries are ready for use again but can be left in the charging station until it is fully charged.

Remark:

The full charging of the batteries lengthens the service life.

The green LED (fig. 18/ ②) goes on when the batteries are fully charged. The battery charger switches to the trickle charge, i.e. the batteries can be left in the charging station without being damaged.

A full charging process takes approx. 12 hours. A new charging process of 12 hours will occur when the charger is switched on again after a premature interruption of a charging process, even when the batteries were charged to 90% by the previous charging.

Overview of the four LED's

(fig. 18/ ①) – red LED is on:

Battery connections reversed. Pull out mains plug immediately, check/reverse battery connections.

(fig. 18/ ②) – green LED is on:

Batteries are fully charged. The battery charger has switched to trickle charge.

(fig. 18/ ③) – yellow LED is on:

Batteries are being charged.

(fig. 18/ ③) – yellow LED blinks:

Batteries are 90% charged.

(fig. 18/ ④) green LED is on:

Battery charger is connected to the mains.

Malfunction / Remedy

The indicator lamp of the battery charger does not go on during battery charging:

- Check the connection at the charging station / control box.
- Ensure that the mains plug of the battery charger is correctly plugged into the (230 V) mains socket.
- Check the household mains fuse.
- Check the fuse on the battery pack. Replace if defective (fig. 17/②).



SERVICE

CARE

The *DUO* system requires some care and maintenance in order to maintain the operational safety, the readiness for use and the reliability. The *DUO* system was manufactured from selected modern materials so that the care and maintenance cause minimum inconvenience.

Remark:

An incorrect or neglected care and maintenance of the *DUO* system results in a product liability restriction.

- Only clean the add-on drive with a clean dry cloth.
- Do not clean using high-pressure cleaning equipment.
- Do not spray clean with water.
- Defective batteries should be taken to the specialized retailer for disposal and not thrown in the household waste.
- Charge the batteries regularly. The batteries should be charged at intervals of approx. one week during longer periods of non-use because every battery has a normal self-discharge and will be damaged by an excessive discharge.
- Check the tyres regularly:
 - Tyre pressure (see technical data): Different tyre pressure will cause the wheelchair to pull to one side. A too low tyre pressure results in increased rolling resistance and the *DUO* must then expend more energy in order to propel the wheelchair. Do not exceed the permitted tyre pressure when filling the tyres.

- Check the tyre profile regularly. Replace worn tyres.
- Always use a valve cap to protect the tyre valve from dust.
- Be careful during cleaning: Keep water and moisture away from electrical components and cabling!
- Regularly check all screwed connections and components for correct tightness.

MAINTENANCE INSTRUCTIONS

The microprocessor of the electronic system continuously performs checks whilst the system is switched on. The user should carry out regular checks to supplement these electronic safety measures. Have the wheelchair checked immediately by an authorised specialist dealer if one of these checks shows irregularities.

Daily checks

- Check the operating panel, the keys (buttons), the joystick and the surrounding rubber sleeve for external damage.
- Whilst the wheelchair is switched off, check that the joystick can be freely moved and that it returns to its centre position when it is released.

Weekly checks

Automatic magnetic brake system:

Ensure that there is a free space of at least 1 m around the wheelchair before carrying out this check:

- Switch on the control box and then pre-select the lowest top speed with the rotating knob.
- Unlock the brake on one side. Now slowly move the joystick out of its central position. The battery indicator should now indicate this fault by blinking and the wheelchair must not have moved.
- Switch off the control box and lock the brake again. Repeat the check with the brake on the other side unlocked.

A technical fault exists when the check results are not as described. The fault must be remedied by an authorised service engineer. Do not use the wheelchair in the meantime.

- Check all cabling and plugs for external damage and proper tightness.

Bi-annual checks

For safety reasons and for the prevention of accidents resulting from an untimely identification of wear, have the wheelchair together with the DUO checked and serviced bi-annually by a MEYRA specialist dealer. The MEYRA specialist dealer will check and service all the safety-relevant parts of the DUO system and the wheelchair and check the functional reliability and operational safety. He can timely identify initial wear and uses exclusively original MEYRA spare parts or parts tested and approved by us.

The specialist dealer checks the following service points:

- The frame parts of the wheelchair for excessive stress and crack formation.
- The fixing and adjustment of the DUO system.
- All securing screws, cable connections and the brakes of the wheelchair and the DUO system.
- The correct functioning of the electronic system.

FUSE

The electrical circuit of the DUO system is protected against overload by a fuse. A 40 A fuse (fig. 19/ ①) is located on the battery box behind the cover cap.

! Attention:

- Only use fuses having the same value and construction as the original fuse.

FAULT IDENTIFICATION AND CORRECTION

Described below are some faults which can usually be easily corrected. Contact your

MEYRA specialist dealer if these measures are unsuccessful.

The wheelchair is only propelled slowly or insufficiently:

- The tyre pressure of the wheels is not correct.
- The battery capacity is depleted. The batteries must be recharged.

The wheelchair pulls to one side:

- The tyre pressures of the wheels are not identical.

The DUO stops during driving under large loading (e.g. uphill travel):

The drives (motor) of the DUO system are protected against overloading with a fuse.

- Check the fuse, replace if necessary and switch the control box on again.

The DUO system does not function:

- Check that the plugs on the drive units and on the control box are correctly inserted.
- The battery capacity is depleted. The batteries must be recharged.

The battery indicator blinks and the wheelchair remains standing during operation:

- Check if the brakes are locked.

When driving through a narrow door, for example, it is possible that an accidental contact with the door frame will cause one of the brake locking/unlocking lever to be pushed up into the unlocked position whereby the electronics will then stop the wheelchair for safety reasons.

If this happens, switch the control box off, lock both levers and then switch the control box on again.



FAULT DIAGNOSIS – CONTROL BOX

The LED segments of the battery indicator (fig. 10) blink quickly when there is a fault. The number of blinking segments indicates the possible fault source.

(fig.20)

LED segment 1 is on

Goes on (red colour) when the control box is switched on.

LED segment 2 blinks

Internal control fault /data memory.

- Control electronics defective.

LED segments 2 + 3 blink

Motor temperature too high.

- Allow the motor to cool.
- Motor is defective.

LED segments 2 – 4 blink

Battery voltage is too high or too small.

- Check the battery voltage = recharge.

LED segments 2 – 5 blink

Motor output stage is defective.

- The plug/cable to the motor is defective.
- Motor or control electronics defective.

LED segments 2 – 6 blink

Motor speed sensor defective.

- The plug/cable to the motor is defective.
- Motor or control electronics defective.

LED segments 2 – 7 blink

Joystick output defective.

- Plug / cable to joystick defective.
- Joystick or control electronics defective.

LED segments 2 – 8 blink

Signal cables defective.

- The plug/cable to the motor is defective.
- Motor or control electronics defective.

LED segments 2 – 9 blink

Brakes not locked / defective.

- Lock the brake.
- Plug / cable of brake switch defective.

LED segments 2 – 10 blink

Safety switch-off circuit defective.

- Plug / cable defective.
- Motor or control electronics defective.

REPAIR

Use your specialist workshop for repair and maintenance work. It has been instructed in the work and has trained personnel.

CUSTOMER SERVICE

Should you have any enquiries or need any assistance, please contact your local MEYRA specialized dealer, who has been trained in our factory in accordance with our guidelines and who can offer advice, customer service and repairs.

SPARE PARTS

can only be ordered through your specialized dealer. If repair is necessary, only use original MEYRA spare parts. Always quote the serial number of the DUO's (on the type plate) when ordering in order to ensure a correct spare part delivery!

TECHNICAL DATA

Speed:	.....	infinitely adjustable, 6.0 km/h max. on level surfaces
Max. passenger weight	.....	see data on wheelchair, less 10 kg
Tyre size:	.....	24" x 1 3/8"
Tyre pressure:	.....	3.8 bar
Battery fuse:	.....	40 A, plug-type fuse
Motor (rated power):	.....	24V / 90W per wheel
Battery charger	.....	230V 50/60Hz
Battery	.....	24V/15Ah
Ambient temperature:	.....	- 25° to + 50°C
Protection class (motor):	.....	IP44
Protection class (charger):	.....	IP 20

Weights:

Wheel and drive units:	.....	10.2 kg each
Battery pack, 15 Ah:	.....	13.0 kg
Control box and holder:	.....	0.8 kg (active standard version)
Electronics unit, complete:	.....	0.8 kg
Battery charger	.....	0.7 kg
Wheel adapter plates (pair):	.....	approx. 0.9 kg

Power supply: 24 V from two rechargeable lead acid batteries (maintenance-free)

Max. permitted gradient: 11° (20%) for user with body weight of 75 kg
..... 9° (15%) for user with body weight of 100 kg

Crossable step height: max. 3.0 cm (dependent on size of front wheels)

Kilometric performance, approx. : 23 km under test conditions (with 15 Ah batteries)

The actual kilometric performance is dependent on the technical condition of the wheelchair, the batteries, the prevailing conditions of use and the loading. The kilometric performance is significantly reduced by, for example, cold weather, insufficient tyre pressure and frequent starting.



GUARANTEE

Within the scope of our terms of delivery and payment, we offer the following guarantees in respect of the perfect condition of our *DUO* add-on drive:

- 6 months for the battery
- 2 years for the electronics and drive

We reserve the right to make technical improvements.

Should you have a complaint about the drive or parts of it do not fail to send us the illustrated Guarantee Note together with your complaint.

Do not forget to enter the requested information on the model designation, the delivery note no. and delivery date, the product no. and your authorised dealer. The product no. is shown on the type plate (on the inner side of the drive).

A precondition for the guarantee is always the use of the wheelchair with add-on drive for its intended purpose and the regular maintenance and service.

Damage to the surface, tyres, damage due to screws and washers which have worked loose or worn out mounting holes due to frequent assembly and dismantling are not covered by this guarantee.

Furthermore, damage to the drive and electronics caused by improper cleaning using steam cleaning equipment or the deliberate or accidental flooding of the components are also excluded.

Malfunctions due to sources of interference, such as mobile phones with high transmission power and other sources of radiation outside the standard specifications are not covered by the guarantee.

Failure to observe instructions in the operating manual, incorrectly carried out maintenance work and, especially, technical changes and additions (add-ons) carried out without the agreement of MEYRA will lead to general loss of guarantee and product liability.

This Operating Manual is part of the wheelchair and should be handed over whenever the wheelchair changes hands.

GUARANTEE NOTE

Fill in the details! If necessary, copy and return.

GUARANTEE

Model designation:

Delivery note no.:

Vehicle ID no. (Fz+Nr.):

Date of delivery:

Stamp of the authorized dealer:

MEYRA[®]
WHEELCHAIRS AND REHABILITATION
EQUIPMENT

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Kalldorf

Stamp of the authorized dealer:

Empty rectangular box for stamping the authorized dealer's name.

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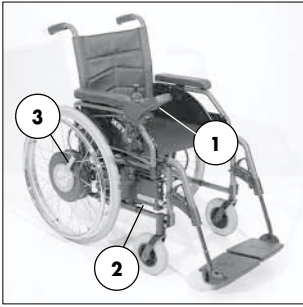
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e-mail: info@meyra.de
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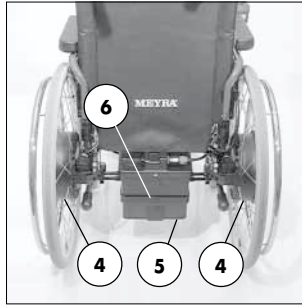
FALT-ROLLSTUHL

- D** Bildteil zur Betriebsanleitung
- GB** Illustration Section of the Operating Manual
- F** Illustration du mode d'emploi
- I** Illustrazioni relative alle istruzioni d'uso
- E** Fotos para las instrucciones de funcionamiento
- NL** Afbeelding voor Gebruiksaanwijzing

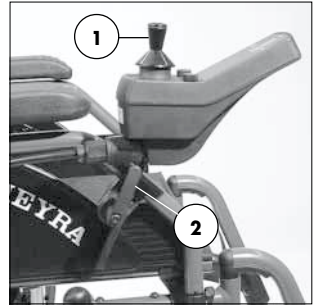




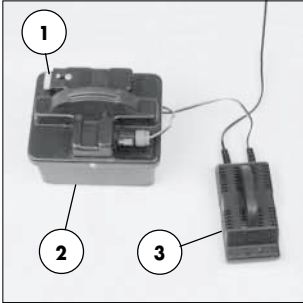
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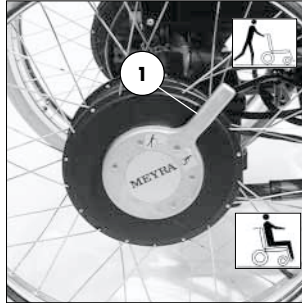
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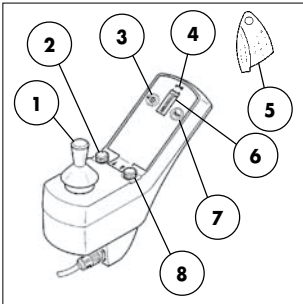
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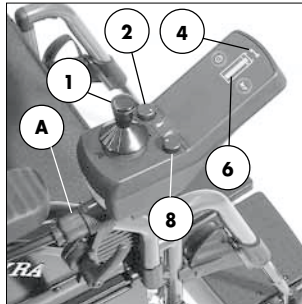
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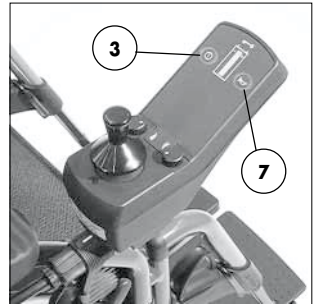
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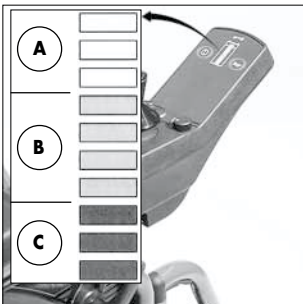
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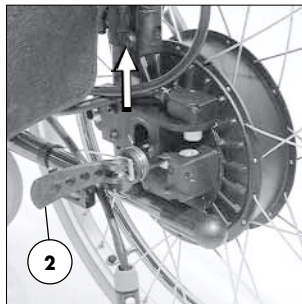
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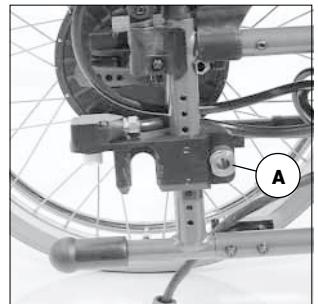
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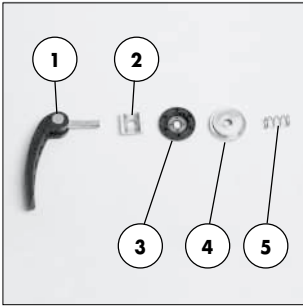
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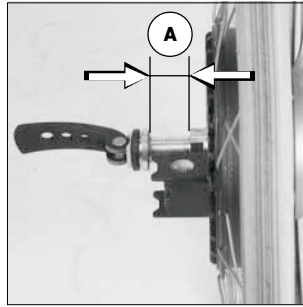
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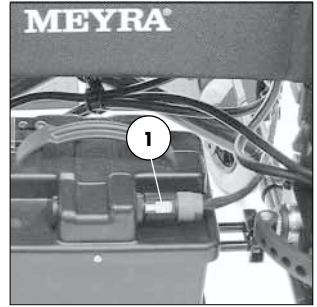
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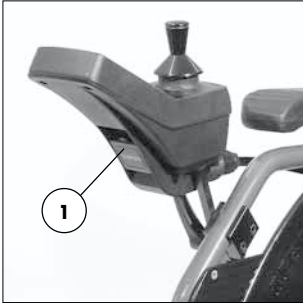
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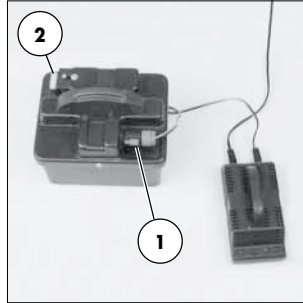
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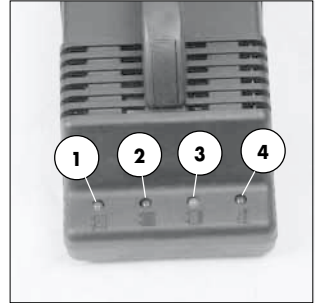
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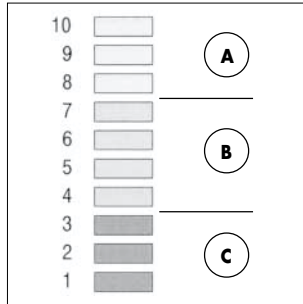
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Stempel vom Fachhändler:

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ROLLSTÜHLE UND REHABILITATIONSMITTEL

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