



BRAVO

INSTRUCTIONS FOR USE



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Instructional video tutorials here:

www.motucko.cz/navody

Intended use:

Mobarrow serves to facilitate work in the garden, in the forest, in construction, industry, farming and also wherever there is a need to move or transport materials, products, components, etc.



Safety precautions

- Before use, read the Mobarrow instruction and safety instructions carefully and save for future reference.
- Only use Mobarrow for its determined purpose to prevent possible injuries.
- Do not start working with Mobarrow unless you are sure that it is safe for you and your surroundings.
- The Mobarrow must not be operated by persons (including children) who's physical, sensory or mental ability, or lack of experience and knowledge, prevents the safe use of the Mobarrow.
- Children must not be allowed to play with Mobarrow. Cleaning and maintenance must not be carried out by children without adult's supervision.
- When leaving Mobarrow unattended, always remove the fuse!
- Attention – risk of injury! When carrying out maintenance, ALWAYS REMOVE THE FUSE!
- Never place limbs or hands in to movable parts, e.g. traveling wheel, engine case, etc.
- Carrying persons or overloading the barrow is strictly prohibited!
- Think and asses risk of use, especially repeated operation in or over difficult terrain.
- If travelling up or down hill never overestimate your physical ability, always consider the risk of slipping and consequent injury. Use Mobarrow only on slopes you can safely handle, overloading Mobarrow can damage the equipment or cause serious injury to the operator.
- In the unlikelyhood of technical failure causing the Mobarrow motor to run and not switch off, immediately lay the Mobarrow on its side and remove the fuse keep clear of the rotating wheel.
- Use Mobarrow only for the purpose for which it is designed. Always store in a dry place.
- Do not use Mobarrow if the electrical installation or any other part of the equipment is damaged in any way.
- Do not use Mobarrow if the motor is not functioning properly; always return to an authorized service department for repair, revision, or regulation of settings.
- Do not take off or damage the individual covers of the Mobarrow.

- Overloading the Mobarrow can damage it or endanger your health.
- Don't overload the motor, e.g. by driving in extreme slopes or overloading above the advised maximum rating of your Mobarrow.
- Use only original accessories or spare parts. There is danger of personal injury or damage to Mobarrow if using spare parts other than those recommended by the producer.
- Do not immerse Mobarrow in water. Do not leave it where it will be constantly exposed to rain or humid conditions.
- The use of Mobarrow is prohibited on scaffolding and all other elevated workplaces.
- If working with corrosive materials (manure, liquid manure, etc.), clean Mobarrow properly. Use only a hose pipe and mild soap not a pressure washer and strong detergents.
- Mobarrow cannot be used on public roads.
- Always wear non-slip safety shoes when operating. Safety shoes with closed toe and non-slip sole reduce the risk of injury.
- Check the path before use. Thorough inspection of the path and verification that the path is wide enough to guide the Mobarrow safely will help reduce the risk of losing control of the machine.
- Be extremely careful on slippery, loose, or unstable terrain. Wet and slippery surfaces, such as damp lawns, snow or ice, and loose or unstable terrain, such as sandy or gravel surfaces, can cause the Mobarrow to lose traction and adversely affect steering, braking and stability.
- Do not operate your Mobarrow on extremely steep slopes. Steep slopes increase the risk of loss of control, slipping and falling and possible personal injury, and may adversely affect the ability to safely stop.
- When working on slopes, always make sure that you have solid ground under your feet, and be extremely careful when changing direction.
- Whenever possible, use a flat surface to stop, load and unload, and never leave the Mobarrow unattended. Mobarrow standing on a slope is less stable than the Mobarrow standing on a flat surface.
- Safety on the hill. Each Mobarrow is equipped with the "Safe on a hill" function (described in detail on page 10). This function is automatically activated if you overload the Mobarrow when driving uphill and the fuse blows and turns off. In this case, the Mobarrow is strongly electrically braked. In this case, keep calm **KEEP THE TRAVEL LEAVER STILL PRESSED AS BEFORE** AND back up with Mobarrow to a safe place where you can park it. Replace the fuse and reduce the load



Warning:

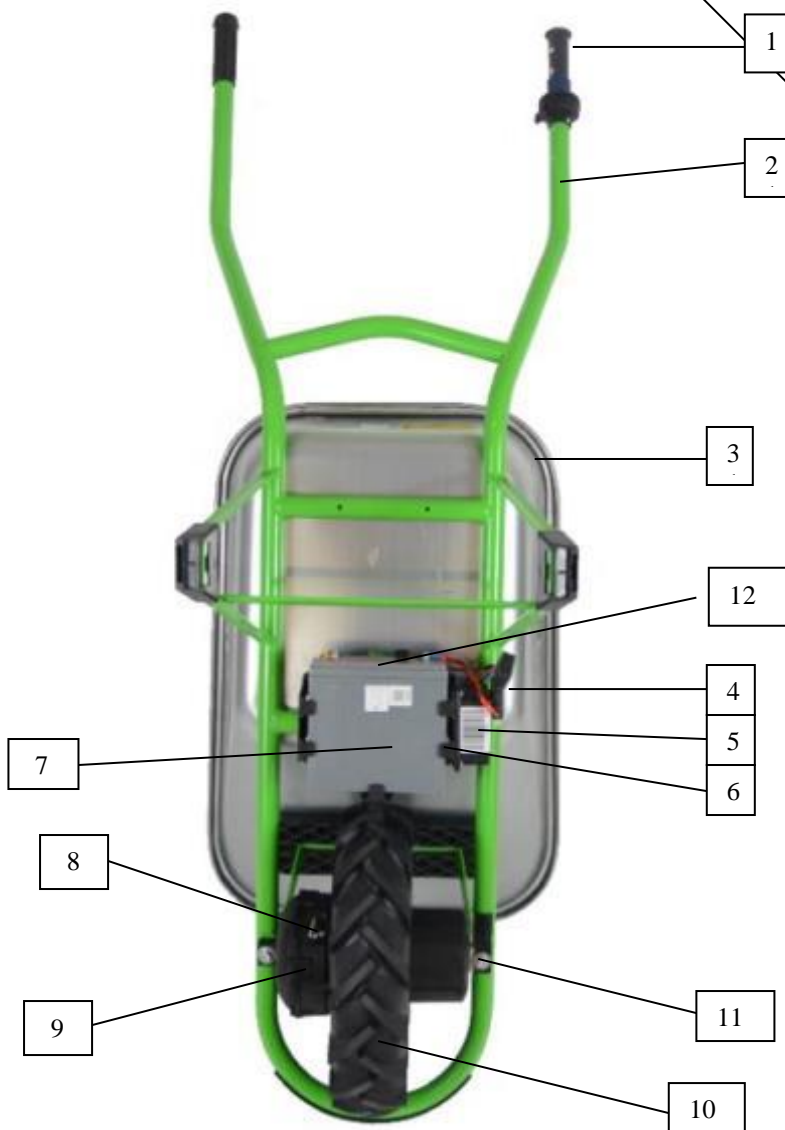
Maximum design load capacity of Mobarrow is 150 kg. Do not exceed this weight. Make sure all assembly hardware is properly tightened.

Preparing for use, description

Check if the product has not suffered damage during transportation.

Insert the enclosed fuse into the appropriate fuse box (No. 4) located under the body and close the housing to prevent the risk of corrosion of the contacts and loss of power of Mobarrow.

Occasionally, we recommend spraying the contacts of the case with an electrical preservative spray.

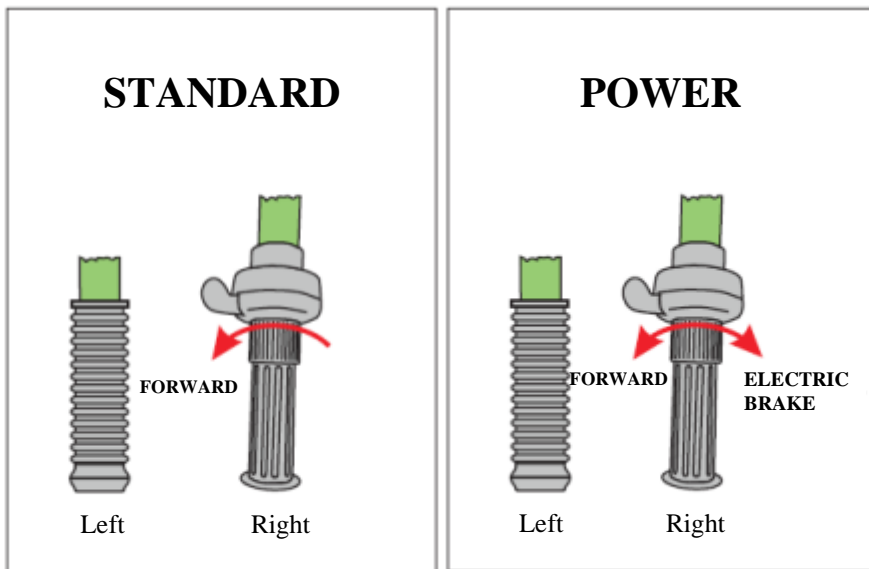


Description:

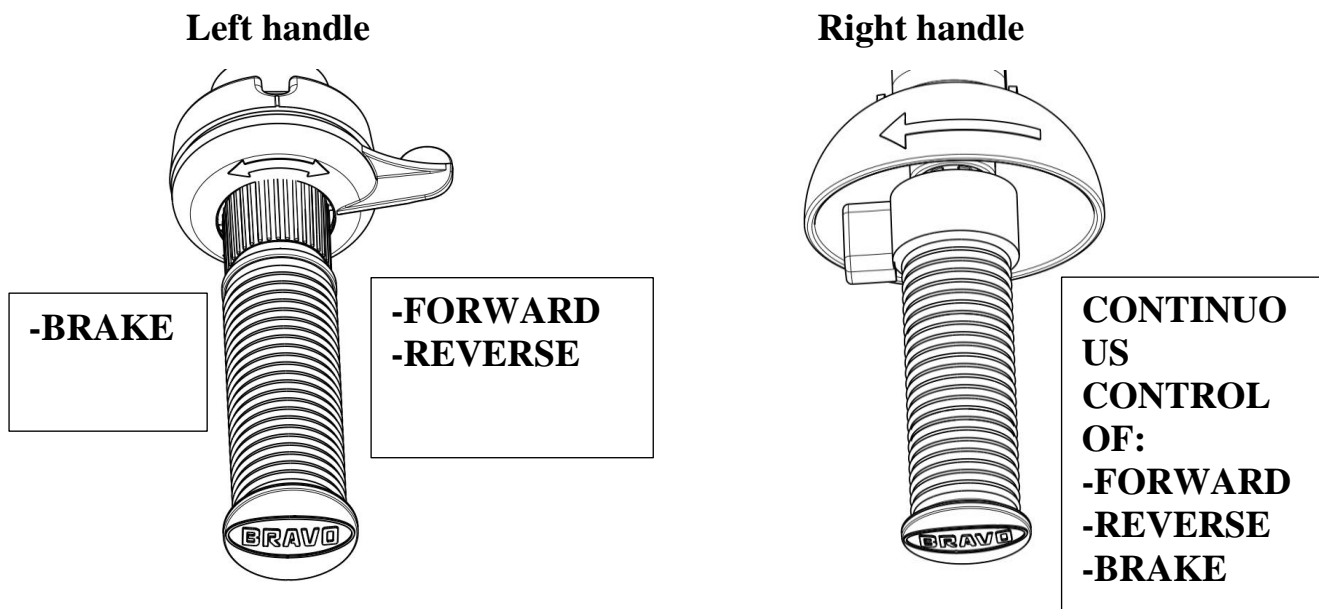
- 1- Motor switch on / off control
- 2- Frame
- 3- Bin / extension
- 4- Fuse
- 5- Electronic control box
- 6- Battery holder
- 7- Battery
- 8- Freewheel mode selector
- 9- Transmission
- 10- Drive wheel
- 11- Wiring protection cover
- 12- Voltmeter

Instruction

Mobarrow control according to versions



Mobarrow Extra Power Control



It is necessary to activate the electronics before use!

To do this, turn the left handle momentarily fully clockwise. The green LED on the electronics box will light up and the voltmeter will display the battery voltage at rest. The electronics is automatically deactivated after 60 minutes idling.

Control description (since 2020):

- Turn the left handle fully clockwise to change the direction of the travel. To reverse, the left handle must be permanently held in the fully clockwise position.
- When released the left handle automatically returns to the zero position, the direction of the movement is reset to **Forward**.
- Turning the left handle momentarily counterclockwise fully activates the electronic motor brake. The brake remains activated until you turn the left handle momentarily fully clockwise again which re sets the direction control.

- **The lever on the right handle** controls the speed of movement or the intensity of braking - depending on the function selected by the left handle.

- When the fuse is pulled out and you push the lever on the right handle, the wheel is braked by electrical brake. This is the **Safe-In-Hill** function. Every Mobarrow is equipped with this safety function, which is activated automatically in case that Mobarrow is overloaded on a steep hill and the electrical fuse blows. Should this happen, Mobarrow starts immediately braking which enables you to reverse safely to a suitable place. In such a case, push always immediately the lever on the right handle.

Voltmeter functions:

When the electronic is deactivated, the voltmeter display is unlit. After activating the electronics (see above), the voltmeter shows the battery voltage at rest. While driving, the voltmeter displays the instantaneous voltage, after 30 seconds without driving the voltmeter again displays idle voltage. Should idle voltage fall below 11.4 V - then it is necessary to fully recharge the battery immediately.

Diode Function:

- LED lights green: Drive forward
- LED lights orange: Reverse drive
- LED lights red: Brake
- LED flashes red: The control has shut down the electric drive due to a low battery voltage

Freewheel function:

The freewheel is intended to be used in non-standard situations, such as too low battery voltage. In the ON (lower position of the pin), the motor is connected to the wheel. To engage the freewheel function (i.e. to disconnect the motor from the wheel), pull the pin out and turn it by 90° to the OFF position (upper position). To get the motor connected to the wheel again, follow the reverse procedure (it may take 1 to 2 wheel revolution before the pin engages in the corresponding hole).

I wish you many years of working with pleasure with your Mobarrow!

Protective equipment:

When working with Mobarrow, it is necessary to use protective aids according to the nature of the work, the terrain and the transported material. In any case, use work or other sturdy shoes.

Cleaning and routine maintenance:

Wash the Mobarrow with water in the usual way. Never wash the Mobarrow by immersion in water. **Do not use WAP (Pressure washer?)** or other pressurized water cleaning equipment. Should additional cleaning be required use warm water with detergent. Use a brush to remove coarser dirt, never clean the Mobarrow by hammering, especially in the areas of the gearbox

and motor. After each work in a harsh environment, clean the bearing areas of dirt. A Panasonic battery is supplied with the Mobarrow.

Always remove the fuse when not using the Mobarrow

Small repairs:

The Mobarrow is very reliable and requires very little maintenance. Our motto is that...“Mobarrow will be a legacy from father to son and from grandfather to grandson.”

Front wheel repair:

To replace a tire or tube, follow these steps: Turn the Mobarrow over so that it lies on its bin. Remove the fuse. Deflate the tire inner tube completely, unscrew the 2 x M8 socket headed cap screws holding the wheel on the frame. Pull out the wiring leading to the frame until you find the cable terminal block. Disconnect the cables and remove the drive unit. Remove the 5 bolts securing the wheel to the transmission case. Remove the drive wheel from the engine cover.



Remove the split rim by unscrewing the 2x5 bolts. Replace the tube or tire. Re assembly is the reverse procedure. Tighten the terminal block screws properly and in addition, add a drop of thread retainer solution onto the threads of the 2 x M8 socket headed cap screws then tighten fully.

Important notice:

Never exceed the maximum permissible inflation – MAX 1,5 BAR!

Never disassemble a split rim before blowing out the tube, there is a risk of damage

Never inflate the tube unless the split rim is screwed on properly

Do not the inner tube, the rim is equipped with a safety device against over inflation, there is a risk of puncture of the inner tube or serious damage to the rim and endanger your health!

- Motor drive does not work:

Make sure that fuse is inserted, terminals clean and has not blown

Make sure the battery is connected properly, correct polarity, terminals clean and tight

Make sure the battery is fully charged

Make sure that the rotating part of the handle can move freely

- Freewheel does not work:

Make sure the pin is up and in the “OFF” position

Important safety instructions for the battery

- Do not short-circuit the battery
- Do not touch the clamps with any conductive material
- Do not store the battery in the container with other metal objects such as nails, coins, etc.
- Do not expose the battery to water or rain
- Consultation with a hazardous materials expert is required to prepare the goods for transport. Cover the exposed contacts with insulation tape or otherwise secure and wrap the batteries so that they cannot move in the package.
- Follow local regulations when disposing of the battery

Battery replacement

Use workshop tools to disconnect the wires from the battery – pict. 8. Press the plastic latch in the direction of the arrow show in pict. 7. Use for example screwdriver to press the latch. Then slide the battery out to the holder.



pict. 7. – disconnecting the battery from the holder



pict. 8. – marking the place where the the battery is unscrewed from the wires

Charging the battery

- Connect the red clamp of the battery charger to the positive (+) contact and the black terminal to the negative (-) contact of the battery
- Connect the charger to socket
- If the indicator light on the charger is red, the battery is charging
- If the indicator light on the charger is green, the battery is charged
- Intermittent signaling of red and green diodes – short circuit of clamps or cabling
- After charging the battery, unplug the charger and disconnect the clips from the battery contact
- **Always insert the battery contact to the body, see picture 7 and 8**
- We charge the battery directly on Mobarrow without disconnecting the wires. The approximate charging time for a fully discharged battery is up to 6 hours with our charger LC2213.



BE CAREFUL :

If you use another charger, make sure that it is properly connected to the battery
Make sure that the charging current of your charger does not exceed 8.8.A!
Do not use chargers that do not limit the charging current – this will destroy the battery!
We enclose its operating characteristic with the charger supplied by us

Product disposal

If the product expires, it must be disposed of in an environmentally friendly manner so that it does not harm the environment in accordance with the applicable legislation. Under no circumstances may the product be disposed of in municipal waste or in the wild!



Technical data of the basic model of Mobarrow:

Motor power	250 W/300 W/400 W (according to model)
Motor voltage	12 V
Battery	12 V
Total weight	28 kg (according to model)
Maximum load	150 kg (according to model)
Bin volume	according to model
Travel speed	3,2 – 4 km / h depending on load and model (STANDARD, POWER, EXTRA POWER...)

The sound pressure level at the operating position does not exceed 80 dB.

Service provision

Thovo AB

Habäckebröstigen 3

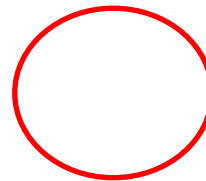
429 41 Särö

+46 725642012

info@thovo.se

Name of manufacturer

Isolit-Bravo, spol. s r.o.

**General warranty condition**

Consider your expectations very carefully when choosing our product because we cannot consider claims relating to unrealistic expectations of performance or if Mobarrow is not being used in full accordance with recommendations/instructions written above.

The warranty period for this product begins on the day of purchases of the product. The warranty period is provided for 24 months to consumers who have purchased the product for non-business use and for 6 months to businesses who have purchased the product for business use. Rights and liability for defects can be exercised at the dealer from whom the product was purchased. The right to repair the product can be exercised after delivery of the product and proof of purchase of the product, which is the subject of the complaint, by submitting a warranty card and the original document with the date of sale. Simple copies of warranty cards or proof of purchase of the product, altered, supplemented, without the original information or otherwise damaged warranty cards or proof of purchase of the product will not be considered as proof of purchase of the claimed product from the seller.

The warranty does not cover wear and tear of items (product) caused by its normal use. (§619 para. 2 of the Civil Code). The warranty also does not cover product defects caused by other than normal use of the product. For usual use in this sense, the company Isolit-Bravo, spol. s r. o. considers in particular if the product is:

- The product can only be used for its determined purpose in accordance with the instructions written above. Only instructions issued by Isolit-Bravo, spol. s r. o. is binding on consumers
- The product is properly maintained by the user and not overloaded
- It is important to protect the product against damage, water saturation, over-voltage, faulty electrical input/output, electrostatic discharge / lightning strike, unsuitable polarity, chemical damage etc.
- It's to be cleaned in the recommended way without using WAP, unsuitable chemical compounds or physical or mechanical impact
- Adjustments, modifications, changes of construction or adaptation will automatically invalidate the warranty
- Must be used with recommended accessories including the battery. Isolit-Bravo, spol. s r. o. will accept no liability for defects caused through the use of unsuitable accessories
- It is used in accordance with the laws, technical standards and safety regulations applicable to Czech Republic which also applies to electrical input and voltage

Defects not covered by the warranty of Isolit-Bravo, spol. s r. o. are as follows:

- Normal wear and tear (including battery capacity, worn tires and tube)
- Damage caused through inappropriate use
- Damage caused by scratches, bad washing, etc.
- End of manufacturers recommended life expectancy (Panasonic battery warranty is 450

charge cycles. Fuses, tire and tube should have at least 6 months working life).

If the product is defective and can be easily removed, Isolit-Bravo, spol. s r. o. will resolve the problem by repairing or exchanging product. Entitlement to this exchange arises only in the case that the fault is not due improper use.

Dist: Thovo AB, Habäckebröstigen 3, 421 29 Särö, Sweden +46 725642012

Package contents

Package contents Mobarrow including battery, fuse (included with the operating instruction), operating instruction and output inspection report.

Rear Wheels Triglav With parking brake

Before mounting, remove the Mobarrow fuse



Pict. 1 – turn the Mobarrow so that it lies on the bin. The legs are equipped with plastic caps with a slot on inside according to (pict.2), install additional wheels through these caps

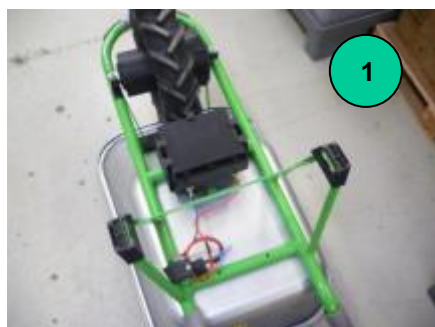
Pict. 3,4,5 – the set of additional wheels is equipped attachments, which are inserted into the hole (pict.3) and tighten the screws (one attachment must be completely removed before mounting and mounted after installation)

Pict. 6 – turn the Mobarrow to the working position and insert the fuse back into the case

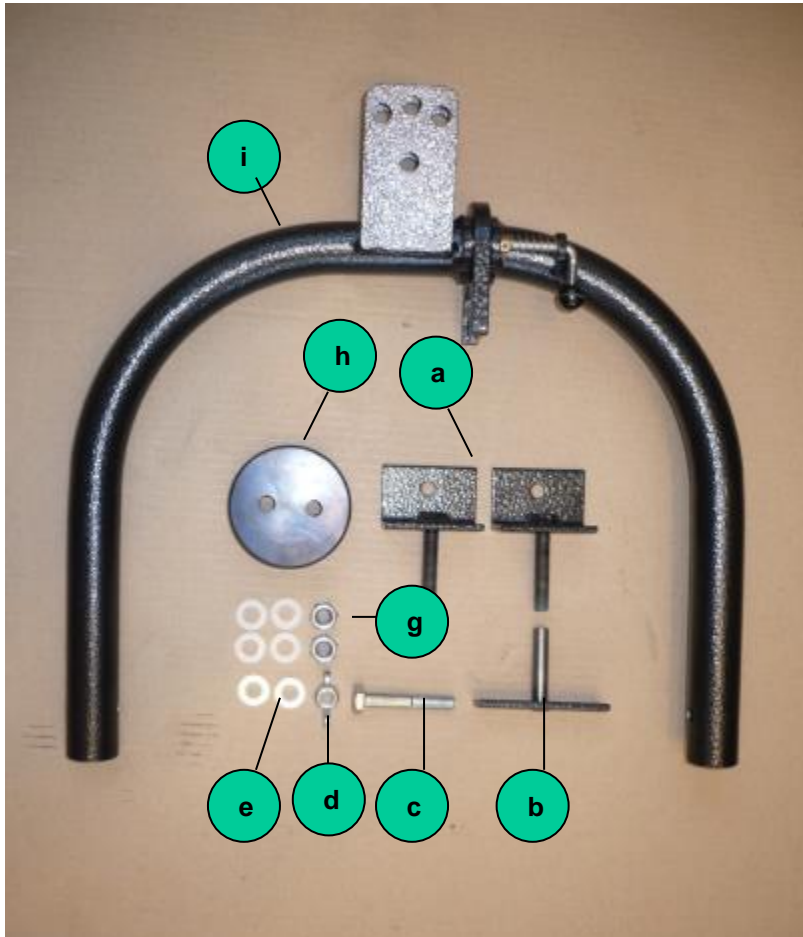
Important warning:

Rear Wheels are used to facilitate work with Mobarrow. Use them only with load, which you are able to handle safely without them. Use the parking brake when used in terrain where the Mobarrow may roll on its own!

Do not use in sloping terrain or on contours, there is a risk of tipping over



Universal tool holder



Before mounting, remove the Mobarrow fuse

Turn the Mobarrow so that it lies on the bin
pict.1 - Remove with a 6mm Allen key bolts
holding the wheel to the frame.

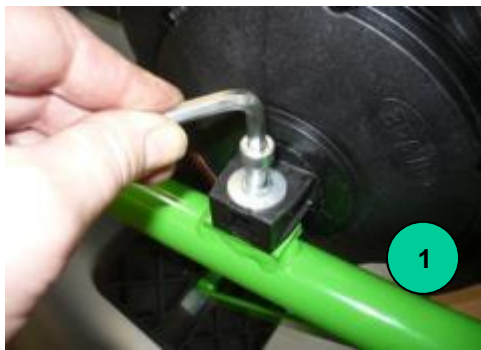
pict.2, 3 - Fit the brackets (a) of the universal tool
holder on the frame of the Mobarrow so
that they rest on top of the wheel mounts,
not under them

pict.4 - Tighten the nut (g) and secure universal
carrier brackets

(a) and the Mobarrow frame.

Turn the Mobarrow to the working position.

pict.5, 6 - With the universal carrier in its basic
position, add a part (h) and secure it with
the pin (b) of the screw (c), two washers
(e) and a wing nut (d)

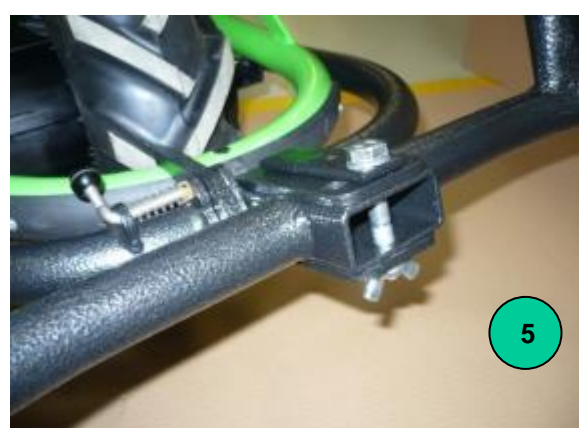


Herkules forks

Before mounting, remove the Mobarrow fuse

Pict. 1-5 Insert the Herkules forks into the Universal tool holder and secure them with a pin, screw, two washers and wing nut, which is part of the Universal tool holder.

Replace fuse, and the Mobarrow is ready for use



pict. 6-10 Load the load as follows:

Release the Universal toll holder lock latch carrier and lower the forks to the ground

pict. 7 Slide the lowered forks under the load or place the load on them

pict. 8 Lift up the handles of Mobarrow in a movement like tipping a load until a click is heard – see pict 9



Tubing bin

Before mounting, remove the Mobarrow fuse

pict.1 using a screwdriver, remove the bin and the bin support

pict.2 remove bin and bin support save for future use

pict.3 Tubing bin (a) is equipped with holes for fastening to frame:

- four holes in the bottom
- three holes in the front inclined part

pict.4 fasten to the frame using the same 6 screws removed from the bin (b)

pict.5 the Tubing bin includes a tubular strut (c)

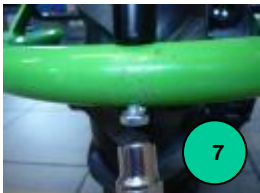
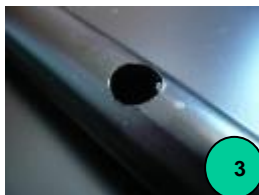
pict.6 remove the plastic blanking plugs on the Mobarrow frame in front of the wheel before installation

pict.7 place the strut between the front arch of the Mobarrow frame and the upper tube of Tubing bin fasten it with the two enclosed M8 screws, including the springs washers (d)

pict.8 It is now possible to use the Mobarrow with the body mounted in this way

pict.9,10 Location of the tool holder

If we want to use the Universal tool holder with the Mobarrow, it is the necessary to first remove the pipe strut for its assembly



Slip-No-More to Tubing bin

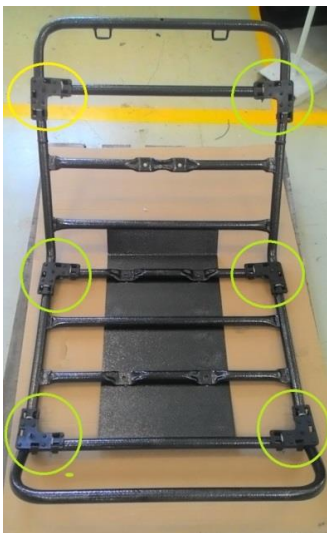
The softened plastic pad is designed for Tubing bin and prevents the load from slipping out of the Tubing bin



6x Slip-No-More



12x plastic cable ties



- 1) We suggest positioning of Slip-No-More parts to the places indicated



- 2) Attach each Slip-No-More with two cable ties



- 3) Cut off the ends of cables

Snow plough 3 directional

Before mounting, remove the Mobarrow fuse

Pict. 1,2 – insert Snow plough (a) into the universal tool holder and secure it with pin, screw, two washers and wing nut

Pict. 3,4 – set the Plough direction by selecting the Universal tool holder hole used

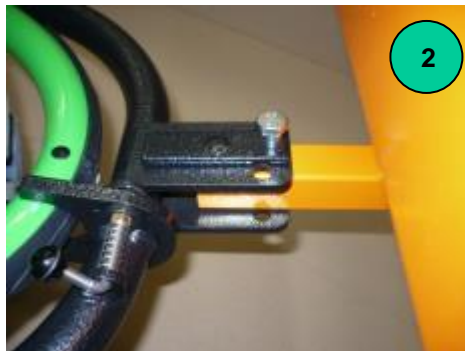
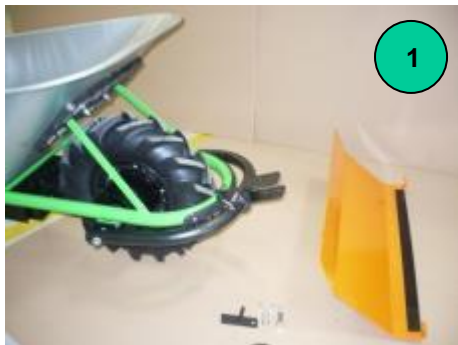
After insert the fuse back to fuse case is Mobarrow ready to use

Leave the lock to move to the snow clearing site
Universal tool holder in the locked position (pics.2)

Pict. 5,6 – Snow clearance:

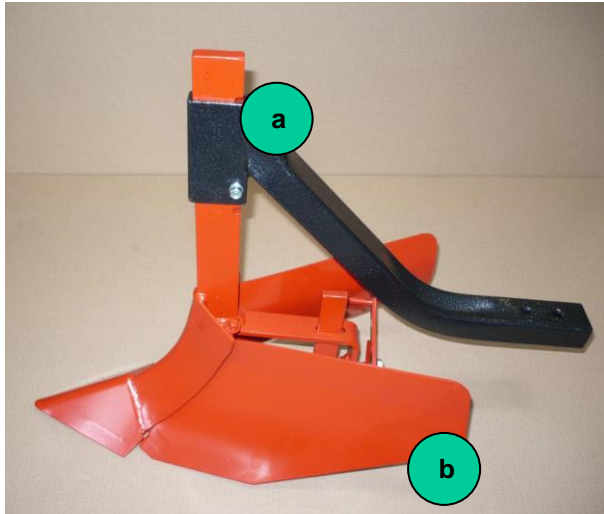
- release the lock latch of Universal tool holder and lower the Plough to the ground
- now you can start working

If the Mobarrow wheels slip on the icy surface, use the tire chain supplied by us or it is possible to load sand or gravel as a load on Mobarrow. You can then even spread the cleared area straight.



Plough

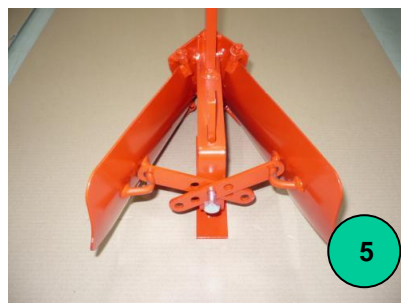
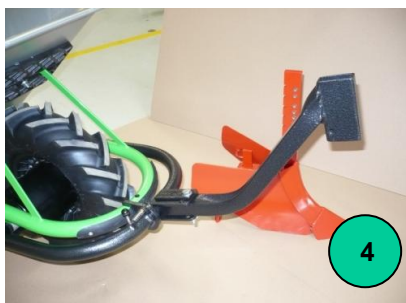
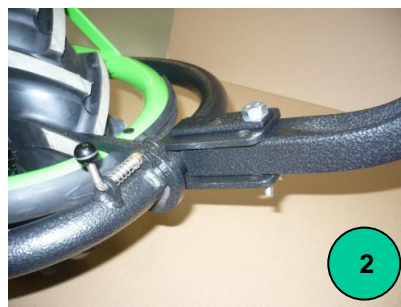
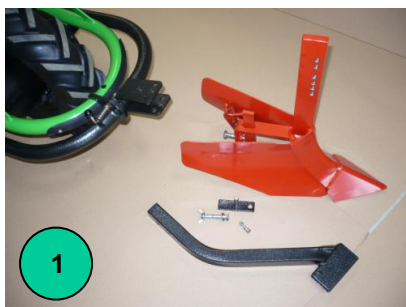
Before mounting, remove the Mobarrow fuse



Pict. 1-6 insert the Plough holder (a) into the Universal tool holder and secure it with a pin, screw, two washers and wing nut, which are part of the universal accessory carrier

Slide the Plough (b) into the holder (a), secure with screw, washers, wing nut and tighten with wrench

Afterwards insert the fuse to the fuse case and the Mobarrow is ready for use





To form furrows, the soil must be well prepared, for example by plowing and subsequently before betting plowed with a rotary cultivator

Plough adjustment (b)

Pict. 7 – the adjustable part is inserted as required furrow depth

Pict. 8 – the wing flaps are open to the width of the furrow



Pict. 9 – by changing the used hole in the Plough the furrow depth is set

The bin must have a load of about 30 kg, we also recommend snow chain, which we produce



Mobarrow model City Clean/Jumbo/Jumbo Double

(differences from the Mobarrow manual)

City Clean (a), Jumbo / Jumbo Double (b) is a transport platform with a reduced height of the loading area. The control is performed by the controller (c) or the lever (d) on right handle.

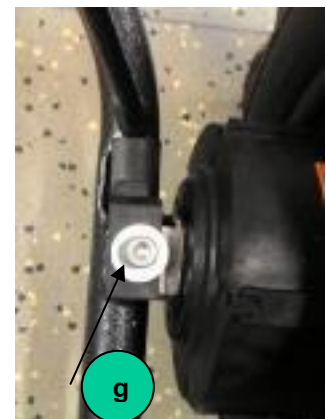
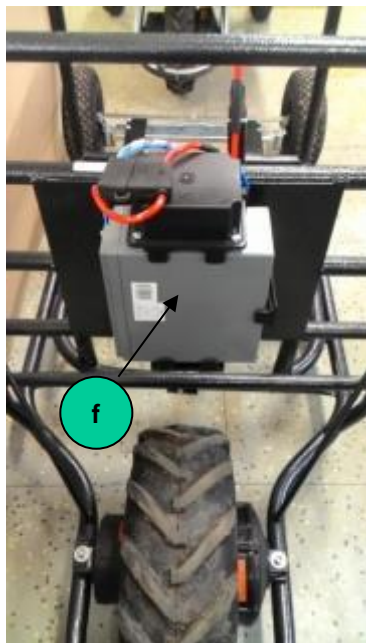
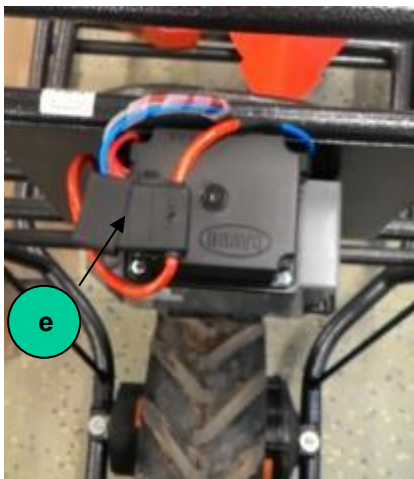
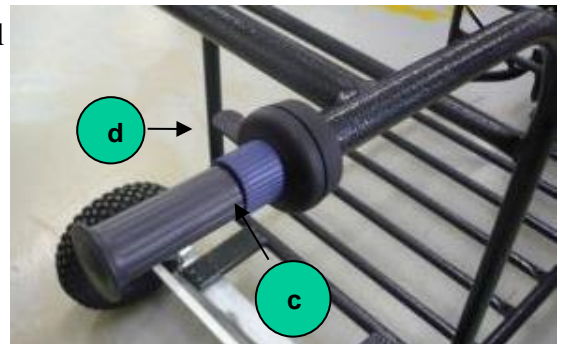
Insert the 40A fuse into the fuse case (e) before driving (70A fuse in Jumbo Double).

The differences here are compared to Mobarrow in the location of the battery (f), fuse box (e) and terminal block (g). In other provisions, follow the instructions of Mobarrow.

Attention!

Always work with such a load and in such a way terrain that you are able to handle safely without the use of motor and brake!

If you do not use the Mobarrow, remove the fuse, this will prevent the battery from self-discharging! Secure the load against release.



Technical parameters:

City Clean:

Motor Power: 250W

Accumulator: 12 V

Travel speed: 3,2 – 4 km/h

Maximum load: 120 kg

Location of the load area above the ground: 11 cm

Storage space dimensions:

City clean large - 66×84 cm (width x length),

City clean – 66x69 cm (width x length)

External dimensions of the whole device:

City clean large - 66 x 200 x 94 cm (width x length x height)

City clean – 66 x 184 x 94 cm (width x length x height)

Jumbo Double:

Motor Power: 2x 300W

Accumulator: 2x 12V

Travel speed: 0 – 4,5 Km/h

Bin: possible of 500 l plastic bin

Maximum load: 500 kg on the road

400 kg in terrain

Control:

Identical to the Mobarrow Extra Power



Using the plastic tool holder (hands free) on the bin

- Can be used for common tools with wooden handle as shovel, rake, etc..



Rake

Use:

Rakes are accessories for Mobarrow, intended for raking. To use it, Mobarrow must be equipped with an additional Rear wheels Triglav.

Function:

The rakes are attached to the additional Rear wheels Triglav. They are pressed into the ground in the basic position by their own weight and in the other two adjustable positions by the weight of the whole Mobarrow (with possible load) plus the operator's pressure on the handles. The depth to which the rake tips are to penetrate is adjustable by means of the screw (1). By releasing the lever (2) we lower the rake to the ground and we can rake.

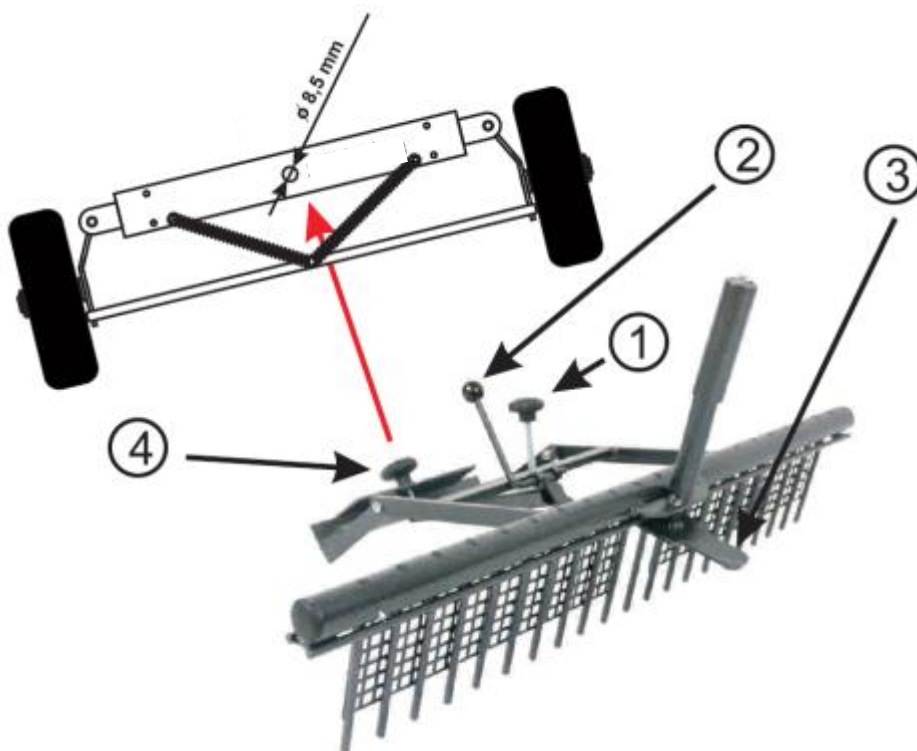
As soon as the space behind the teeth is filled, we raise the rake with the right foot until lever (2) locks the position. Then, using the foot pedal (3), wipe off the stuck grass from the rake and insert it into the body of the Mobarrow. Release the lever (2) to lower the rake to the working position again.

Assembly of Rakes:

If the rakes are purchased as accessories to the previously delivered Mobarrow with Rear wheels Triglav, it is necessary to make a small adjustment to the Rear wheels chassis.

In the middle of the length and width of the steel 60x20 (base), which is part of Rear wheels, it is necessary to drill a hole with a diameter of 8.5 mm. For newly purchased Rear wheels this hole is already drilled.

Insert the rake holder into the base of the Rear wheels chassis as shown so that the center holes overlapped. Use screw (4) to secure the Rake position on the base.



Lawnspike

Use:

The Lawnspike is an accessory to the Mobarrow, intended for aerating the lawn. To use it, Mobarrow must be equipped with an additional Rear wheels Triglav.

Function:

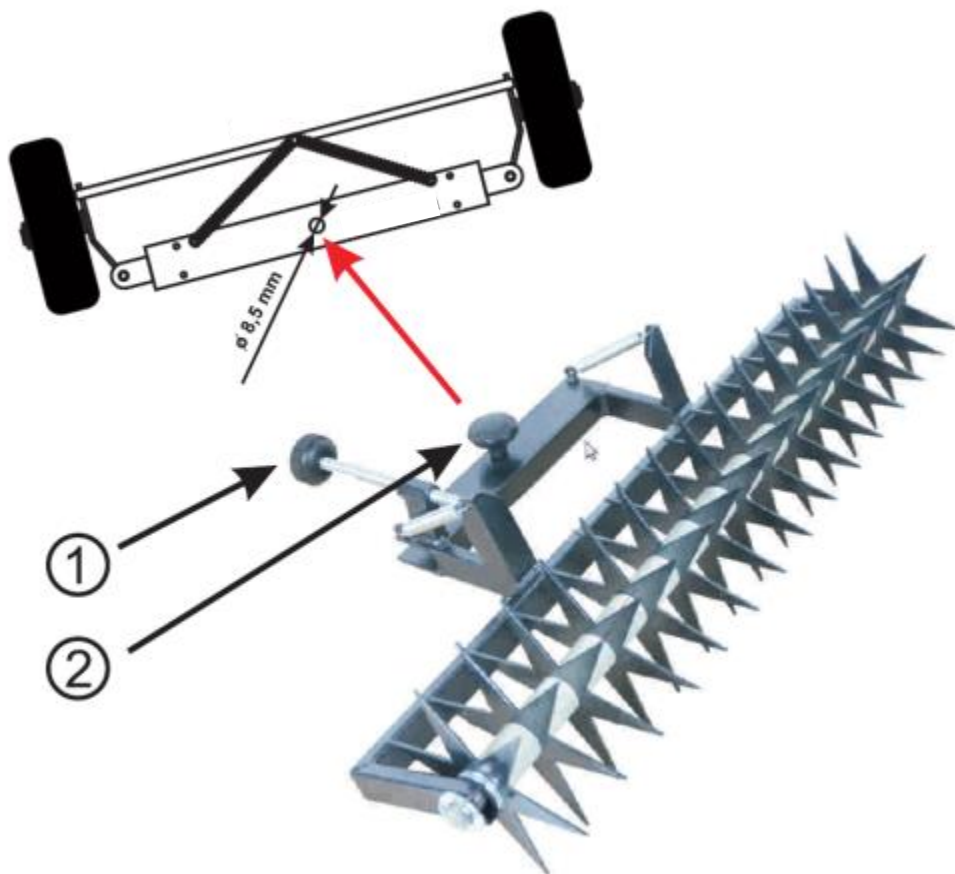
The Lawnspike has a continuously adjustable scarifying depth by means of an adjustable screw (1) to a value of 0 – 3 cm. To transport the Mobarrow with the Lawnspike attached, loosen this screw so that the teeth of the Lawnspike do not touch the ground.

Assembly of Lawnspike:

If the Lawnspike is purchased as accessories to the previously delivered Mobarrow with Rear wheels Triglav, is necessary to make a small adjustment to the Rear wheels chassis.

In the middle of the length and width of the steel 60x20 (base), which is part of Rear wheels, it is necessary to drill a hole with a diameter of 8.5 mm. For newly purchased Rear wheels this hole is already drilled.

Insert the Lawnspike holder into the base of the Rear wheels chassis as shown so that the center holes overlapped. It is advisable to have the Lawnspike in position above so that the nails do not touch the ground. For easier installation, it is advantageous to turn the Mobarrow over the bin.



INSTRUCTIONS FOR FOLDING FRAME FROM MARCH 2020

- 1) The folding frame arrives folded with the hinges secured.



- 2) To fold the frame, you must first release the lever from the locked position by 180°.



- 3) Loosen the fixing screw and then tilt it out. The handle is released at the moment and can be folded under the frame of Mobarow.



- 4) The No. 17 wrench, which is included in the delivery, can be used to loosen or possibly tighten the fastening crew.



- 5) AND THAT IS IT! Now all you have to do is turn the Mobarow down with the bin, fold down the handles and insert it into the trunk of the car, for example.

