



HURT-e

Electrical Power Attachment

Operating Instructions



Thank you on purchase of our product.

We believe that we helped to adapt your car the best possible way thanks to our long-time experience.

Thank you that we could help you to improve your mobility and we will be honoured if you turn to us whenever in future.



Attention

Read carefully this manual before first usage. The user must have basic technical knowledge about this equipment which can be achieved by reading the whole manual.

This device can be used by well-trained user directly by the installer.

Any usage of non-original spare parts, interference with the equipment and removing protective parts is prohibited.



It is also stated that HURT company, following the Quality System guidelines, is certificated by ISO 9001:2016.



The product complies with the following standards:

EN ISO 12100:2010
EN 61000-6-1:2007
EN 61000-6-3:2007+A1:2011+AC:2012
EN 55014-1:2006+A1+A2
EN 61000-3-2:2014
EN 61000-0-0:2013
EN 55014-2:1997+A1+A2
IEC 61558-2-16:2009

Content

Attention.....	2
WARNINGS AND SAFETY PRECAUTIONS BEFORE USING THE PRODUCT.....	4
Purpose of the device.....	5
Preparation before use.....	5
Packaging, transport, delivery.....	5
Labels.....	5
Operating Instructions.....	6
Description of basic controls.....	6
Description of display controls.....	6
Start HURT-e.....	6
Switching off the machine.....	6
Change the program.....	7
Other settings.....	7
Reverse - R.....	8
Battery capacity - power consumption.....	8
Folding the handlebars.....	8
Stand.....	8
Battery and charging.....	9
Battery.....	9
Charger.....	9
Battery charging procedure.....	10
Charger connection.....	10
Disconnecting the charger.....	10
HURT-e connection with wheelchair.....	10
To connect the console.....	10
How to connect HURT-e with console.....	11
MAINTENANCE.....	11
Tires and tubes.....	11
Brakes.....	12
Brake centering on the Shimano main brake.....	12
Brake centering on the second black brake.....	12
Procedure for replacing brake pads on a Shimano brake.....	13
Brake pad replacement procedure on the second black brake.....	13
Clearance of the folding mechanism of the handlebars.....	13
Stand.....	14
Specifications.....	14
Climatic conditions for use.....	15
WARRANTY CONDITIONS.....	15



WARNINGS AND SAFETY PRECAUTIONS BEFORE USING THE PRODUCT

- Do not allow children or untrained individuals to use this equipment.
- Anyone using HURT should read this manual. HURT Ltd. is not responsible for injury or damage resulting from the use of this product.
- There is a risk of slipping on wet surfaces or uneven terrain. Always select your speed and driving style according to general conditions (weather, terrain and driving ability).
- Never drive at an increased speed towards a solid object and drive carefully in narrow passages.
- In the event of an accident, it is possible to suffer injuries on different parts of the body that are outside the wheelchair frame profile (e.g. hands, feet).
- Always maintain maximum attention and concentration. If attention is reduced, there is a greater likelihood of loss of control and accidents. Take special care when driving at a speed of more than 6 km/h, which is usually permissible maximum speed on the sidewalks - pedestrian speed. Driving across this border is only allowed in private areas off public roads and is under the sole and full responsibility of the driver!
- Always use a wheelchair with HURT-e as appropriate. For example, avoid braking without the presence of obstacles such as curbs, stairs or corners.
- Make sure that the wheelchair is more stressed at speeds above 6 km / h - especially wheel bearings, wheel mounts, wires, tires, wheelchair frame. If improperly handled, the wheelchair manufacturer may not accept a warranty for a wheelchair that is not designed for extreme handling at a speed higher than walking speed.
- Incorrect and irresponsible handling can easily result in malfunctions in the wheelchair, resulting in accidents and injuries.
- The performance of a wheelchair powered by HURT-e may be affected by the functioning of the electromagnetic fields present, such as from mobile phones. It's safer turn off HURT-e when using such devices.
- On the other hand, HURT-e could negatively affect the electromagnetic field of equipment such as alarm systems.
- Do not use HURT-e in constant rain, cover it. Avoid water entering the display and tube with electronics and batteries.
- Do not expose to unnecessarily very low temperatures. Remember that a low temperature below zero reduces the battery capacity by tens of percent.
- When driving down hills at high speeds, the brakes are overheated and worn. It is always necessary to descend the hills in a particularly careful way, especially at a very low speed.
- Improper handling is not a reason to claim consumable components (brakes, batteries...)

Purpose of the device

HURT-e allows you to easily and quickly convert the vast majority of mechanical wheelchairs available on the market into an electric scooter.

When connecting the HURT-e to a manual wheelchair, the front swivel wheels are lifted off the ground to increase the load on the HURT-e wheel (which is directly connected to the electric motor) to ensure efficient traction while maintaining other wheelchair features.

HURT-e is an electric attachment that can be connected to wheelchairs. It is based on the idea of giving more independence to people who, for various reasons, cannot walk and are forced to live in a wheelchair and who have to rely on their own strength or on someone else's help to move.

Preparation before use

Packaging, transport, delivery

When HURT-e is sent by a shipping company, it is delivered in a cardboard box that protects against deformation, weathering and dust.

HURT-e must be transported by the user with the same care as in the transport packaging to protect it from external influences.

For normal protection when transporting the device, a cloth cover is supplied, which protects against scratches, dust and liquids.

Labels

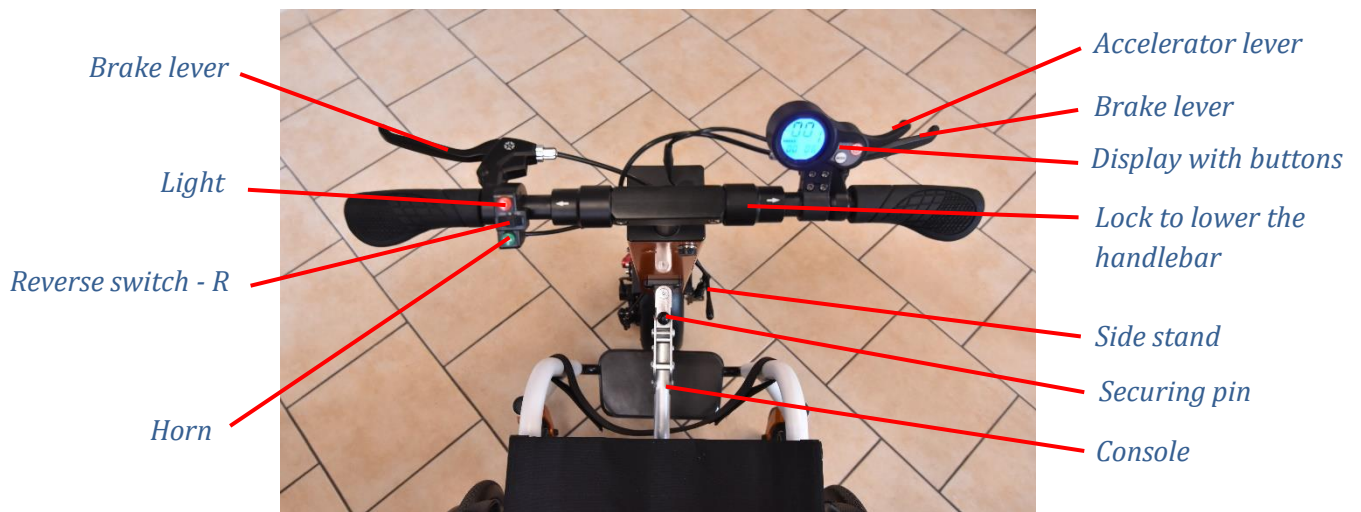
Labels are placed on the body informing about the manufacturer, product serial number, date of manufacture and other warnings.

There is also a label with the principles of using the battery and charging.

A label related to the charging parameters is located on the charger.

Operating Instructions

Description of basic controls



Description of display controls



Start HURT-e

Press and hold the ON / OFF button for a few seconds. The display lights up and the device is ready to start.

On some models: If the light button is pressed, the device will not start.

Switching off the machine

Press and hold the ON / OFF button for a few seconds. The display turns off.

If left idle for a few minutes, the electronics will automatically turn off and the display will turn off. The device must be switched on again to start.

Change the program

The power and maximum speed programs - 1, 2, 3 are set by default. Program No. 1 is the slowest and meets a maximum speed of 6 km/h for normal pedestrian use. Program 2 is medium performance and program 3 is the highest performance.

Briefly press the ON / OFF button until the program number flashes. Press the MODE button to select one of the three programs. Confirm with the ON / OFF button. The program can be changed at any time while driving.

Other settings

The operating parameters on the bottom line of the display are switched by the MODE button.



TIME
Time since the device started. It automatically resets to zero when it is turned off.



TRIP
Trip distance. It resets each time the machine is turned off or long press MODE.



ODO
Total distance. Cannot be reset only after disconnecting the battery.



CHA
(on some models)
This data does not record any activity. The function is not activated.



VOL
Current battery voltage.



DST
(on some models)
This data does not record any activity. The function is not activated.



CH
Charging for your phone. Countdown 2 hours. The USB connector is at the bottom of the display.

The electronics enable detailed setting of other parameters in the sub-menu, which need not be changed. The submenu is triggered in a special way. Any change to the default settings is the sole and complete responsibility of the user and the supplier bears no responsibility as a result of improper settings.

Reverse - R

To activate reverse, turn the switch on the left handlebar to the R position on the far right. The position of the switch on the far left and center is for forward drive.

Reversing is only activated when fully stopped.

The maximum reverse speed is approx. 10 km/h in any of the three speed programs.

Reversing is only used for the necessary turning and handling in confined spaces.

Reverse gear is not used to drive up hills backwards. Reduced power does not even allow it.

Be very careful when starting behind. Starting can be faster than you expect and always make sure that there are no obstacles or people behind you.

Note that reverse braking takes longer than forward braking. Even if you lock the front wheel with the brake, it may take a long time to stop the wheelchair.

Before switching on the device, always make sure that the required direction of movement is connected.

Battery capacity - power consumption

Use the VOL parameter to determine the exact battery level. When the battery is fully charged, the value is around 54 V. The drive is switched off when it reaches a constant value of 41.5 V. While driving, you can see the current voltage drop (it drops after acceleration). So, you have 13 V available for consumption. E. g. if you go to a designated cruise point and lose for example 4 V, you know that you will safely go back.

Folding the handlebars

Push the lock rings outwards and lower the handlebars. If the locks slide stiffly, push the handlebar grips upwards while the locks slides. Possibly, you can also lubricate the locks. If there is too much play in the handlebars, you can adjust the play, see [Handlebar Folding Clearance](#).

Stand

The HURT-e drive has a stand for independent standing. The stand is constructed in a compromise way. The stand is functional under acceptable conditions, but it is not 100% stable, it would have to be too big, heavy and would interfere.

Battery and charging

Battery

Never charge the battery with a charger other than the one that belongs to the drive! There is a risk of serious damage or destruction of the battery. Our company is not responsible for the destruction of the battery or charger if you do not follow this instruction.

To ensure that you reach your destination, we recommend recharging the battery to full capacity if the battery indicator already shows only two cells on the display while driving.

If you do not use the HURT-e for a long time (more than 2 months), charge the battery to approx. 60% capacity.

The battery has protection against undercharging. The battery may still be overcharged during very long storage without continuous charging or while driving, when the display indicator previously showed low battery capacity, then the display will suddenly turn off while driving and you will turn on the drive again and hold the throttle. If the display switches off due to low battery capacity, this is an underrun protection signal - definitely do not switch on the drive again and do not continue driving with gas, otherwise the battery may be destroyed.

If the charged battery still does not respond after connecting to the charger, contact your dealer.

The battery can also be damaged due to abnormal exposure to water, shocks, etc. In this case, it is not covered by the warranty period.

Contact your dealer if:

- You smell a strange odor from the battery
- The battery becomes excessively hot while driving
- Liquid appears to be leaking from the battery

Charger

The intelligent charger supplied with the HURT-e drive automatically disconnects the charger when the battery is 100% charged - it has overcharge protection. For safety and optimal battery life, we do not recommend leaving the drive connected to the charger after the battery is fully charged.

Always charge the battery in a dry and ventilated area. Never cover the charger during charging, otherwise it may be damaged. The charger is intended for indoor use.

The charger may be damaged due to abnormal exposure to water, shocks, etc. In this case, it is not covered by the warranty period.

Battery charging procedure

Charger connection

Turn off HURT before charging and leave it off while charging.

1. First connect the charger connector to the port in the truck body.
2. Then connect the charger to a 230 V outlet.

When the battery is charging, the **red** light on the charger is lit.
A fully charged battery is indicated by a **green** light.

Disconnecting the charger

1. Disconnect the cable from the 230V outlet.
2. Disconnect the connector from the HURT-e port.

HURT-e connection with wheelchair

To make connecting with the wheelchair as easy as possible, we have developed our own bracket-to-wheelchair system.

The supplier prepares side handles for the wheelchair frame, which remain part of the wheelchair. On one handle there is a lock, which can be removed from the wheelchair by unlocking it.

The supplier adjusts the console according to the specific wheelchair and user requirements.

To connect the console

Connect the console to the trolley by inserting one end of the bar into the hole of the non-retaining bracket and the other end into the hole of the retaining bracket until the retaining pin is secured.

Make sure the console is securely locked. This operation can be performed with one hand after practice.



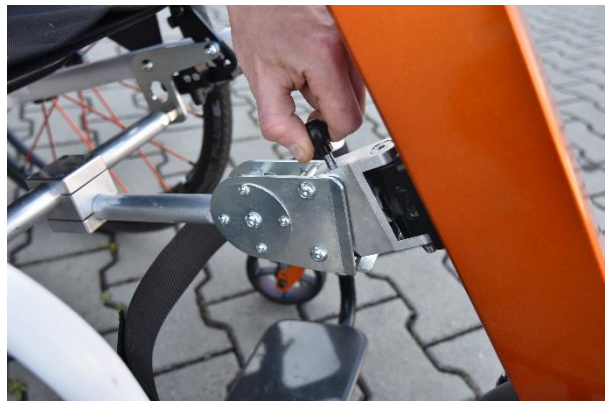
How to connect HURT-e with console

The connection is best done when the user is already in the wheelchair. Hold the handlebar to guide the HURT-e coupler into the center of the console by sliding the upper groove of the member under the center console axis by tilting the entire HURT-e down. After proper placement, push the handlebars forward until the locking pin is locked. During this movement, the front wheels of the wheelchair are raised. Proper connection needs to be verified: by hand, we can see if the locking pin is fully inserted. If not, move the device sideways until it snaps into place.



Disconnect HURT-e from the wheelchair

Press lightly in the center of the handlebar with one hand to relieve the HURT-e locking mechanism. With the other hand, lift the locking pin and tilt the HURT-e down. Tilt and guide the device until the HURT-e is completely separated from the wheelchair.



MAINTENANCE

Keep HURT-e clean. Observe the basic precautions at the beginning of this manual and the battery care precautions.

Check the brake settings and battery charge before each ride. Note that the battery indicator may not be accurate. Schedule battery charging before you plan to drive.

Tires and tubes

If the tube or tyre is damaged or too worn, have it replaced with a new one. Replacement must be performed at a professional workplace.

Brakes

The brakes are factory set. Only after a few rides will the brakes get to normal function.

The brake pads gradually wear out. The brakes can be tightened after some wear. If the brake pads are worn, they must be replaced - contact your dealer for spare parts.

By fine-tuning the turns of the cable on the handlebars, you set the beginning of the brake path of the lever, it is not a question of tightening worn brakes.

You need to position the drive so that the brakes are easily accessible, and you can also turn the wheel at the same time. It is ideal to attach the drive to the vice via the console holder or to place the drive over the corner of the table.

Brake centering on the Shimano main brake

You have fitted the brake pads, the threaded cable, with the locking screw (1) not tightened yet. The adjusting screw on the brake lever is fully tightened. Loosen the brake caliper main bolts (2). Slide the caliper so that the fixed (inner) pad is as close to the disc as possible. It must not touch the disc when turning the wheel. Tighten the caliper bolts. Turn the caliper brake mechanism (3) so that the movable pad almost touches the disc. Turn the wheel (calmly using the throttle with the drive on) to see if the disc plate touches when turning the wheel. Tighten the cable locking screw (1). Count with the fact that the cable comes loose slightly after tightening.

Brake centering on the second black brake

You have fitted the pads, the cable is threaded, the locking screw (4) is not yet tightened, the brake caliper is attached. The adjusting screw on the brake lever is fully tightened. You move the caliper so that the fixed (inner) pad is as close as possible to the disc. Turn the adjusting screws (7) to move the entire caliper. The pad must be parallel to the disc, it must not touch the disc when turning the wheel. Turn the caliper brake mechanism (8) so that the movable pad almost touches the disc. Turn the wheel (calmly using the throttle with the drive on) to see if the disc pad touches when turning the wheel. Tighten the cable locking screw (4). Count with the fact that the cable comes loose slightly after tightening.

Procedure for replacing brake pads on a Shimano brake

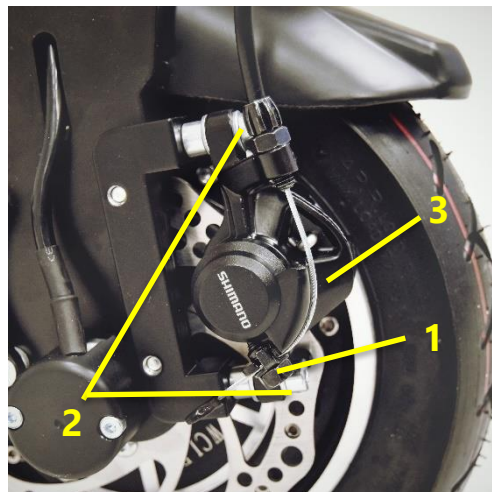
Loosen the cable locking screw (1).

Remove the brake caliper bolts (2).

Remove the brake pads and replace them with new ones.

Put the caliper back and slightly tighten the cable locking screw (1).

Adjust the brake as described in [Shimano Brake Center](#).



Brake pad replacement procedure on the second black brake

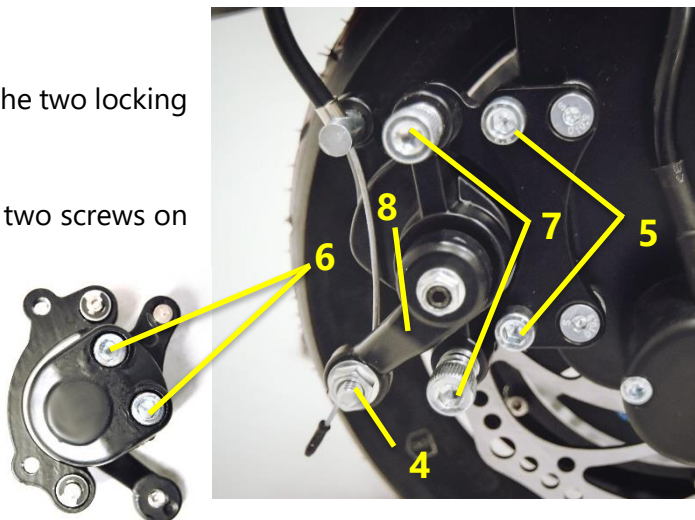
Loosen the cable locking screw (4).

Unscrew the caliper from the fork with the two locking screws (5).

Unscrew the half of the caliper (6) with two screws on the other side of the caliper.

Replace the pads.

Screw the caliper half back in. You must press the locking plate at the same time.



Attach the caliper back to the fork.

Adjust the brake as described in [Centering the brake on the second black brake](#).

Clearance of the folding mechanism of the handlebars

The handlebars may have a slight play in the folding mechanism. If the clearance is too great, it can then be adjusted with a locking screw located in the joint of the mechanism (when the handlebars are lowered, the screw is visible). By gently turning the screw outwards, the play is reduced and vice versa. If the screw is turned too much, the handlebars will not fold - in which case the screw must be turned inwards

Stand

Use the stand only if the surface is stable, ideally only indoors in a safe place where people or animals do not move to prevent the drive from accidentally falling and being damaged. For normal outdoor handling, it is better to place the drive on the ground.

If it prevents someone from attaching the stand when turning, they can remove the stand.

Specifications

General information

Manufacturer	HURT s. r. o.
Address	Bambousek 664, 281 26 Týnec nad Labem, Czech Republic
Type	Removable electric wheelchair device to a mechanical wheelchair
Maximum driver weight	120 Kg (or lower according to wheelchair specifications)

Dimensions and weights

Dimensions	90 / 50 / 30 cm (device height / handlebar width / wheel length with handle). The handlebar height is adjustable.
Weight	12 kg

Wheels

Aluminum rim	10"
Tire	10 x 2,50 (60/85-6)
Tire pressure	240 – 310 kPa

Operational data

Maximal speed	From 6 km/h
Driving distance	30 km with fully charged battery (smooth road surface, flat surface, driver weight 75 kg, normal low speed movement with gradual acceleration).
Lithium battery	48 V
Charging time	Standard 8.8 Ah battery - from empty battery 5-6 hours to full charge.
Engine	48 V / 500 W
Disc brake	Diameter 140 mm

Climatic conditions for use

Do not expose the device to temperatures below -20 ° C and above 50 ° C.

Do not use the drive in constant rain, cover it. Avoid water entering the display and tube with electronics and batteries.

If conditions allow, do not expose HURT-e to high temperatures in direct sunlight for an unnecessarily long period of time.

Do not expose to unnecessarily low temperatures. Remember that a low temperature below freezing reduces the battery capacity by tens of percent.

WARRANTY CONDITIONS

The warranty period is 24 months from the date of sale.

Battery warranty is 12 months.

The warranty covers the mechanical and electrical parts of the product and its functionality.

The warranty does not cover defects and malfunctions of the product caused by improper installation, improper modification or repair, damage to the product due to accident or force majeure, and defects caused by improper use of the product.

We are not liable for direct or indirect damages resulting from an accident or control failure.

If the warranty is acknowledged and the warranty defect is removable, the product cannot be replaced.

Freight is not included in the guarantee, the customer always bears these costs himself.

HURT Ltd. is not obliged to perform warranty and post-warranty servicing at the customer's place of residence.

In case of need of service intervention, the customer must come to the company premises in Týnec nad Labem or to a workplace, which is the company HURT s. r. o. trained to perform service work on this equipment.

This product can also be shipped easily to the factory or supplier.

INSTALLATION DATE	
SERIAL NUMBER	
STAMP AND SIGNATURE OF THE PURCHASER	

