VARI®

Pressure washer

W3000E

☒ **CZ** **Česky - původní návod k používání**

☒ **SK** **Slovensky – preklad pôvodného návodu na použitie**

☑ **EN** **English - translation of the original instructions**

☒ **PL** **Polsky - tłumaczenie oryginalnej instrukcji**

EN An electronic version of this manual can be found on our website **www.vari.cz** in the product card or in the Operating Instructions section. We recommend that you download it to your computer, phone, or tablet in the event of loss of the paper manual, or if you need enlarge the images to better understand.

Obsah / Contens / Treść

EN Basic information

As part of the pre-sale servicing ask your dealer to unwrap the machine and give you a brief training on how to use it!

EN Type	**W3000E**	EN *Stick the identification label here:*
EN Identification number[1]	**10076** _ _ _ _ _ . _ _ _ _ _ . _ _ _ _ _ _	
EN Engine type	**EGO PU2700E**	
EN Minitractor type		
EN Delivery date - date of sale		
EN Supplier (stamp)		

You are advised to make a copy of this page with filled in information about the machine's purchase in case the original manual is lost or stolen.

1 *Fill in the plate number from the name plate or stick the identification label.*

Revize 03/2024

1 EN Operating instructions

List of Contents

*The manufacturer **reserves** the right to implement technical changes and innovations not affecting the operability and safety of the device. These changes may not show in these Operating Instructions. Printing errors reserved.*

1.1 Introduction

Dear Customer/User!

Thank you for your confidence in purchasing our product. You have become an owner of a device from the wide range of machinery and tools of the gardening, farming, small agricultural and municipal technology system manufactured by **VARI, a.s.**

Please read these operating instructions carefully. If you follow the instructions contained herein, our product will serve you reliably for many years.

1.1.1 General Notice

The user **must read** these Operating Instructions and follow all the machine operating instructions in order to prevent any health risks or property damage to the user or other persons.

The safety instructions specified in these operating instructions do not cover all the possible conditions and situations, which may occur in practice. Safety factors such as a reasonable approach, care and caution are not described in these operating instructions but are assumed to exist with every person using the machine or doing any maintenance on it.

Only mentally and physically fit persons are permitted to operate this machine. Where the machine is to be used on a professional basis, the machine owner is obliged to provide the operator(s) with occupational safety training and machine operation training, and keep records of such training. **The owner must also implement so-called categorization of works per corresponding national legislation.**

If any piece of information contained in the manual is unclear to you, please contact **your dealer**[2] or directly the **device manufacturer**[3].

Operating instructions provided with this machine form the integral part of it. They must be available at all times, stored at an accessible place where they cannot get destroyed. When selling the machine to another person/entity, the operating instructions must be handed over to the new owner. The manufacturer bears no responsibility for the risks, hazards, accidents or injuries resulting from operation of the machine if the above-mentioned conditions and requirements were not met.

The manufacturer bears no responsibility for the damage caused by any unauthorized use, inappropriate operation or damage caused by any machine modification made without the manufacturer's approval.

During work, follow all applicable safety regulations to avoid any injury to yourself or other persons present nearby and to avoid any property damage.

Such instructions are marked with the following warning symbol in the operating instructions:

	**If you see this symbol in the operating instructions, carefully read the statement following after it, please!**
	**This international safety symbol indicates important safety-related instructions. If you see this symbol, be alert to avoid your or other persons' injury and carefully read the statement that follows the symbol.**

Table 1: Symbols

1.2 Operational Safety

For your safety, read thoroughly this user's manual and manuals for the use of the battery, charger and electric motor. Familiarize yourself with the control elements and the proper use of the device. Share these operating instructions with other users of the device.

Before you use the device for the first time, ask the dealer to instruct you regarding its safe use.

Get familiar with the device in a wide, open and flat terrain first.

1.2.1 Safety Regulations

- The pump generates very high output pressure due to which the jet of water has destructive effects when hitting soft objects. **IT IS PROHIBITED** to aim the water jet at individuals or animals. Non-compliance with this warning may have devastating effects such as permanent loss of vision, cutting wounds, amputations or even death.
- The high pressure may cause damage to soft and sensitive objects. It is not recommended to apply the high-pressure water jet from the close proximity in order to clean the rubber and tyres, glass, non-cohesive paints, plastering and wood. Using too strong a water jet may lead to a surface structure change, altering the structure permanently. If you have any doubts, it is recommended to test the effect of the water jet on a sample where any damage to the surface will not affect the function or appearance of the object. By increasing the distance of the nozzle from the surface of the object being washed you will decrease the pressure of the impacting water and, consequently, achieve the less aggressive washing effect. On the other hand, decreasing the distance from the surface will make the washing effect stronger while, at the same time, increasing the aggressiveness of the water vis-a-vis the surface.
- Always make sure that no part (especially the working mechanism or its cover) is damaged or loose **before using the machine**. Identified **defects** must be **immediately eliminated**. Use only original spare parts during repairs.
- Always switch the engine off before you start any activity near the device! Always switch OFF the engine before leaving the machine!
- It is forbidden to remove any protective devices and covers from the machines.
- All the repairs, adjustments, lubrication, and cleaning of the machine must be carried out while the engine is turned off and with the accumulators removed from the machine.

1.2.2 User restrictions

Never allow children or persons who are not familiar with the operating instructions to use the device.

Persons under 18 years of age may operate the device only under proper supervision. Local regulations determine the minimum age of the operator and the operating times.

The device must not be operated by the persons under the influence of alcohol, drugs or reaction retarding medicines or persons with physical and mental/emotional impairments or tired or sick persons.

	Electric shock hazard!		Exposing the device to rain or to work in humid environment is prohibited.
	Persons with pacemakers may not operate this machine.		Careless handling or incorrect storage of the battery may lead to explosion or fire.

1.2.3 Lithium-ion batteries: safety provisions

	Sound lithium-ion batteries are safe, any risks and safety measures apply only if the battery cover is damaged and the lithium-ion cells are opened.

2 *Fill in the dealer's address in the table in the heading of this manual (unless already filled in by the dealer).*
3 *For the address of the manufacturer, see the end of these operating instructions*

- Lithium-ion is harmful upon ingestion or contact with skin.
- Lithium-ion can cause a serious eye injury.
- Lithium-ion can cause an allergic skin reaction.
- Lithium-ion can cause damage of organs upon prolonged or repeated exposure.
- Avoid breathing lithium-ion dust or vapours.
- Use personal protective equipment while handling a damaged lithium-ion battery.
- Wash your hands thoroughly after handling damaged product with lithium-ion components.
- Do not eat, drink and smoke while handling lithium-ion products.
- Clothing contaminated with lithium-ion must be disposed of immediately.

1.2.4 First aid

Each battery cell contains chemical materials enclosed in hermetically sealed casing, designed to resist temperatures and pressure present during normal use. During normal use there is no physical danger of ignition or explosion and chemical danger of leakage of dangerous materials.

If the battery casing is exposed to fire, hard mechanical impacts, if it is cracked or exposed to external electrical voltage during incorrect use, harmful substances may be released. In such case, do not touch the leaked substances.

The following information regarding the first aid are relevant only if the battery is damaged and direct contact of persons with the battery components occurred.

Inhalation: Upon inhalation, take the affected person to fresh air. If the affected person doesn't breath, perform CPR: If breathing is laboured, provide oxygen and seek medical assistance.
Contact with skin: In case of contact with skin remove the contaminated clothing immediately and wash the affected are with water. Seek medical assistance.
Contact with eyes: Do not rub your eyes after contact with eyes! Flush carefully with water for several minutes. Remove contact lenses, if worn and can be easily removed. Continue flushing. Seek medical assistance.
Ingestion: Do not swallow. Do not provide mouth-to-mouth resuscitation to an unconscious person. Seek medical assistance immediately.

1.2.5 Lithium-ion batteries: General safety

Read the instructions below thoroughly and understand them: this is a prerequisite for a correct use, maintenance and storage of the batteries and the charger.

In order to prevent a serious injury, risk of fire, explosion and the electric shock hazard:

- Do not allow children or handicapped persons to play with the battery or the charger.
- Do not open the battery or charger under any circumstances, only authorized person may open them.
- Do not squeeze the battery, prevent pressure and impacts on it, do not step on it.
- Do not solder directly on the battery, do not pierce it with nails or any other sharp objects.
- Do not expose the battery to water or other liquids.
- Do not store the batteries in places with high temperatures, e.g. near fire, heater etc.
- Store batteries in a cold, dry and dark place at 10°C to 35°C.
- If the cover is damaged, do not use the battery or charger. Replace it.
- The charger is not designed for use by persons with reduced physical or mental capacity or lack of experience and knowledge.
- If the power-supply cable is damaged, it has to be replaced by the manufacturer or its service engineer to prevent risk.
- We recommend the charger to be connected to power grid with a circuit breaker with breaking current not exceeding 30mA.
- Use the charger only indoors. Do not charge thebattery outdoors or in direct sunlight.
- Remove the battery from the product or charger before cleaning or storage.
- Do not test conductive materials using the charger.
- Never connect two chargers together.
- If any part of the charger is broken or damaged, do not replace it. Only trained professional in manufacturer's authorized service may perform repairs.
- Do not charge the battery from any other charger type.
- Do not charge alkaline batteries in the charger.
- Prevent penetration of liquids and other debris into the battery or charger.
- Do not try to use the charger for other products.
- Do not short the battery terminals.
- Do not modify the battery or charger in any way.
- Do not charge the battery in the rain or wet.
- If you can feel any unusual odour or smoke, or if the battery is hot, changes its colour or shape or is changing in any way, remove the battery from the product immediately.
- Do not submerge the battery or charger into water or other liquids.
- Prevent the battery or charger from heating. If the battery or charger is hot, let it cool down for 1 hour as a minimum before attempting to charge the battery. Charge only at room temperature, i.e. between 10°C and 35°C.
- Do not cover the ventilation holes in the top of the charger or on the sides of the battery.
- Do not place the charger on soft surface, i.e. a blanket, pillow etc., because the ventilation slit might be blocked. Keep the ventilation holes for the battery/charger clean at all times.

- When not in use, keep the battery or charger away from metallic objects, such as paper clips, coins, keys, nails, bolts or other small metallic objects, which might create a contact between the terminals. Shorting of leads may cause fire or burns.
- Prior to cleaning and storage, disconnect the charger from power.

1.2.6 Noise and Vibrations Levels

Description	Value	Measurement uncertainty
Declared acoustic pressure emission pressure **A** at the operator's site[4] L_{pAd}		
Guaranteed level of acoustic power **A**[5] $L_{WA,G}$		
Declared cumulative value of acceleration of vibrations transmitted to the operator's hand-arm[6] a_{hvd}		

Table 2: Noise and Vibration Levels

1.2.7 Safety Pictograms

The user is obliged to keep the pictograms on the machine in a readable state and, in case of any damage, ensure their replacement.

Position:	Number:	Description:
Fig. 12 Safety Pictograms	1 - 3	Caution - Before using the device, read through the operating instructions.
	2 - 4	Caution – when performing maintenance of the machine, remove the batteries

Table 3: Safety Pictograms

1.3 Basic Information

1.3.1 Use of the Machine

The pressure washer **W3000E** is intended for washing machines, vehicles, structures, tools, facades, terraces, garden tools, etc. by means of a high-pressure

water jet (with cleaning agents added if needed).

1.3.1.1 Technical Data

Description	Unit	Value
Length x width x height	mm	630 x 520 x 970
Weight	kg	21
Water pressure	PSI/bar	2610/180
Water flow	$l.min^{-1}$	8.8
Pressure hose length	m	7.8
Self-suction of water function	-	Yes
The function of additional suction of the detergent	-	Yes

Table 4: Technical specifications

1.3.1.2 Engine Information

N.B.: Additional motor information can be found in the multilingual manual provided.

Description		Unit	Value	
Motor			Electric motor EGO PU2700E	
Power		kW	3.47	
Revolutions of the motor	ECO	min^{-1}	2700	
	TURBO		2900	
Weight (without accumulators)		kg	11.8	
Batteries (not included among machine parts) ***Fig. 13***		Lithium-ion	BA5600T	BA6720T
Voltage/Capacity		V/Ah	56/10	56/12
Charging time		min	~70	~90
Charger (not included among machine parts) ***Fig. 13***		Lithium-ion charger	CH5500E	
Input voltage / frequency / input power		V/Hz /W	220-240 AC / 50 / 550	
Output voltage / current		V / A	56 / 5-8	

Table 5: Motor – technical specification

1.3.2 Description of the machine and its parts

1 Bottom part of the frame including the chassis	5 Top part of the frame - handle	9 Pressure hose
2 Motor plate	6 Hose holder	10 High-pressure nozzles
3 Motor	7 High-pressure gun	11 Flexible clip for locking the handle
4 High-pressure pump	8 The gun extension with the quick coupling	

Table 6: Legend for1

1.4 Operating Instructions

If the operating instructions contain "left side" or "right side", it is always from the view of the operator behind the handle.

4 *per ČSN EN 12733+A1, Annex **B** and ČSN EN ISO 11201 : April 2010*
5 *per government decree No. 9/2002 Coll. or Directive 2000/14/EC, Annex No. 3, part B, item 33, and ISO 3744*
6 *per ČSN EN 12733+A1, Annex C , and EN ISO 20643*

1.4.1 Machine Assembly

Request the machine unpacking and basic training from your dealer as part of the pre-sale service!

Owing to the weight of the device, we recommend that assembly be done by two persons.

1.4.1.1 Machine Assembly Procedure

The pressure washer **W3000E** is supplied and partially assembled in a cardboard box. During assembly, proceed as follows.

Fig. 7

1. **> 1** Using the pin, washers and cotter pins, **A** mount, to the frame, **1** the wheels **2**.
2. **> 2** Mount, **1** using the M6x25 screw, the small rubber leg to the frame **B**.
3. **> 3** To the holes in the plastic holder of the hose, **3** push the rubber holders of the nozzle **C**.
4. **> 4** Mount the hose holder **3**, using the clamping clips, **D** to the handle **4**. Stuff, into the rubber holders of the nozzles, (**C** in the step **> 3**) the nozzles in **E** - the colour of the nozzle corresponds to the colour of the type on the sticker.
5. **> 5** Fix the top part of the frame - handle on bottom part by sliding it on the narrowed part of the tube and locking by means of the flexible metal spring.

Before you attach the hoses, remove, and dispose of, the transport plugs from the high-pressure pump outlet and the water inlet!

6. **> 6** On the input low-pressure part of the pump, **5** screw the adapter on the garden hose on **6** – it can be mounted by the manufacturer.
7. **> 7** Screw the pressure hose **7** on the high-pressure outlet part of the pump **8** and the other end on the high-pressure gun **9**.
8. **> 8** To high-pressure gun **9**, screw the stainless extension **10**; into the quick-coupling of the extension, **11** slide the required nozzle **12**.

1.4.2 Machine/battery transport

1.4.2.1 Transport of the machine

After finishing work, push the ON/OFF button until the light goes out, in order to switch off the motor. Remove all batteries.

It takes two persons to lift the device safely.

If needed, demount the pressure hose and handle

1. Gipping points are marked in ***Fig. 2*** with the symbol **of the hand** – at the front, by the lower frame, in the back, by the handle.
2. When transporting by road vehicle, secure the machine against rolling, sliding or tilting using suitable slings. **In some countries unsecured machine during transport by road vehicles is subject to high fines.** For attaching the machine during the transport, the bottom frame – see ***Fig. 2***

1.4.2.2 Battery transport

The battery is subject to legislation governing dangerous things. If the battery is transported within business activities, specific requirements must be met and all applicable local and national laws must be complied with.

- A damaged or defective battery must be stored and transported so that no persons are endangered and no property damage takes place if smoke is formed or the battery material catches fire.
- Transport the battery in an electrically non-conductive packaging/transport casing.
- Wrap the battery and fix it in the packaging/casing so it cannot move. Fix the packaging/casing so it cannot move.

Protect the battery from direct solar radiation. Do not leave the battery in a parked vehicle.

1.4.3 Battery charging

A damaged or defective battery can produce smoke or catch fire and cause life-threatening harm or large property damage.

A damaged or defective battery must not be charged or used.

It must be disposed of in accordance with applicable local regulations.

Follow the instructions in the Section 1.2.3 Lithium-ion batteries: safety provisions

Also read thoroughly the instructions for use of the charger/battery. This way, you will prevent their potential damage.

The battery is supplied only partially charged. Prior to the first use, it is advisable to fully charge the battery to ensure its maximum service life.

A lithium-ion battery has no memory effect and can be charged any time. If a battery is stored idle for a long time without charging, the charger switches to the recovery mode and it may take 20 hours for the battery to get fully charged. The battery life is thereby extended. Once the battery is fully charged, the charging will switch to standard mode.

To attain the best results, the battery should be charged at an ambient temperature between 10°C and 35°C.

1. Connect the charger to an (AC) socket.
2. Put the battery into the charger.
3. Once the battery has been fully charged, first unplug the charger and only then remove the battery from it.

1.4.4 Inserting batteries in the motor

First, read thoroughly the instructions for use of the [7] motor, charger and battery! This way, you will prevent their potential damage.

It is advised to use 2 batteries possessing the same capacity and identically (best fully) charged.

Use batteries 7.5 Ah capacity or higher.

Only 80% of the motor power is available if a single battery or batteries less than 7.5 Ah capacity are used.

1. Open the batteries compartment cover and hold it open.
2. Insert 2 batteries **12** to the motor – see ***Fig. 3***. In order to connect the battery, align the battery fins with the installation grooves and push on the battery until clicking is heard.
3. Make sure the battery-releasing button clicked home and the battery is properly seated and secured in the motor.
4. Close slowly the battery compartment cover. Do not let the cover drop, the impact might damage it.

1.4.5 Removing the batteries out of the motor

Before replacing the batteries, always turn off the motor by pressing and holding the ON/OFF button (for quite a long moment) until the motor status indicator light goes out.

When replacing the batteries with other ones (e.g. with fully charged ones) or before long-term machine storage, remove the batteries from the motor as follows (***Fig. 4***):

1. Open the battery compartment cover with your left hand and hold it open.
2. Push on the button serving to release the battery – designated **2-PUSH** in the picture The battery will pop up.
3. Slide the battery out of the bed in the motor – designated **3-SLIDE OUT** in the picture.
4. Close slowly the battery compartment cover. Do not let the cover drop, the impact might damage it.

Always remove/replace both batteries.

Batteries reinsertion – see the procedure in **Section1.4.4 Inserting batteries in the motor**.

1.4.6 Battery charging indicator

Press the button (**1** on ***Fig. 5***). The LEDs (**2** in ***Fig. 5***) will illuminate for ~10 seconds to indicate the battery charging status.

5 LEDs illuminate green	80% - 100%
4 LEDs illuminate green	60% - 80%
3 LEDs illuminate green	40% - 60%
2 LEDs illuminate green	20% - 40%
1 LED illuminates green	10% - 20%
1 LED flashes red	Less than 10%
5 LEDs flash red	the battery is too low and must be charged.
5 LEDs illuminate red	The battery is too hot, allow it to cool down.

Table 7: Battery status

1.4.6.1 Automatic maintenance

If 5 LEDs alternately illuminate red for 10 seconds and are off for 10 seconds or 5 LEDs flash green every 2 seconds, the battery is in its automatic maintenance mode.

1.4.6.2 Battery/charger status

The LEDs on the charger indicate status – ***Fig. 6.***

Flashes red or is off	Off	Off	Off	The battery or charger is defective
Illuminates red	Off	Off	Off	The battery is too cold or too hot
Flashes green	Off	Off	Off	The battery is charging
Flashes alternately green		Off	Off	
Flashes alternately green			Off	
Flashes alternately green				
Illuminates green				The battery is fully charged
Flashes green quickly				The battery is in the automatic maintenance mode

Table 8: Battery/charger status

If **LED 1** flashes red:

- Remove the battery from the charger and reinsert. If **LED 1** flashes red again, the battery may be defective. Remove the battery and attempt to charge another battery.
- If this other battery is normally charged, discard the defective battery (dispose of it appropriately).
- If **LED1** flashes red with the new battery inserted, unplug the charger. Wait till **LED 1** ceases to flash and goes down. Plug in the charger again. If **LED 1** continues to flash red, the charger is defective and must be replaced.
- Follow the guidelines in the instructions for use of the battery/charger/motor.

1.4.7 Using the machine

1.4.7.1 Water supply

Do not turn the pump on without connected and activated supply of water. The yield of the water source must be, at minimum, 12 litres per minute at the pressure of, at minimum, 1 bar. If purity of the connected water cannot be ensured, it is necessary to place, in front of the pump inlet, the water filter in order to prevent the contamination, with solid particles, of the pump.

After connecting the hoses, fully open the water-suppl y tap and press the control lever on the high-pressure gun. For the purpose of discharging the air from the hoses and pump, hold the gun pressed until the continuous stream of water starts pouring from the quick coupler. Insert the high-pressure nozzle into the quick coupler of the extension. **If the pump, after the motor is started, does not generate the pressure within 30 seconds, turn the motor off and proceed in accordance with the instructions contained in the part *1.5.3 Troubleshooting*** Damage caused to the equipment as a result of non-complying with this instruction will re sult in cancelling the validity of the warranty.

The dry operation for more than 30 seconds will damage the pump!

If your high-pressure pump is equipped with the function of **self-suction**: The high-pressure cleaning device may be used, in combination with the suction hose with non-return valve (the special accessories, order no. SP000-HI001), to suck the surface water such as the water from rain water reservoirs. The water in the reservoir must be clean without solid particles or mud. The contaminated water will irretrievably damage the internal components of the high-pressure pump.

Fill the suction hose fully so that there are no air bubbles in the hose.

Connect the hose directly to the suction neck of the pump (without supplied end of the quick coupling). Check that the gasket between the hose and the end piece of the pump is not damaged.

Dip the other end to the vessel containing the water. Remove the nozzle from the quick coupling of the end of the extension of the high-pressure gun. After starting the motor, press the lever for controlling the gun and let the water freely pour out until the air bubbles stop coming out. After bleeding,í turn the motor off, put the nozzle back on and start the motor again. Now the pump is ready for operation. If the pump does not create pressure, with the motor running, within 30 seconds, turn the motor off and proceed as per the instruction in the part ***1.5.3 Troubleshooting***.

If the pump sucks the air in, the entire bleeding procedure must be repeated.

1.4.7.2 Motor start-up

Press the ON/OFF button, the LED indicator for the status of the motor is shining and indicating the motor status. After that move the control stick to the position **„1"** (***Fig. 8***).

When the ON/OFF electronic switch is on, the standby time is 120 sec. Activate the machine during that time. If you don't, the motor will automatically deactivate and you must reactivate it by pushing the electronic switch.

1.4.7.3 Switching off the motor

Press and hold the ON/OFF switch until the motor status indicator light goes down. Move the motor control lever to the position "0" – OFF (***Fig. 8***)

1.4.7.4 Motor status light on the switch

The switch is combined with a motor status control. This control is lit when the motor is in the standby mode. It indicates motor status.

- It is not lit: The motor is not ready for operation.
- It is lit green: The motor is not ready for operation or rotates.
- It is lit yellow, motor is stopping: The motor is overheated. Allow the motor to cool down.
- It flashes red, motor is stopping: Batteries are low. Replace or charge the batteries
- It flashes yellow, motor is stopping: The motor is overloaded. Reduce working load.
- It flashes alternately red and green, motor is stopping: Communication failure. Have the machine overhauled in an authorised workshop.

1.4.7.5 Motor speed selector

The speed selector is located under the battery cover – ***Fig. 4.*** This selector can be used to set the motor speed.

ECO: Reduced motor speed, battery remains charged-up longer.

TURBO: High motor speed, shorter battery operating time before recharging.

1.4.7.6 Recommendation concerning the selection of the revolutions rate of the motor

ECO: Lower speed for a longer battery operation before recharging and lower emissions. To be used where lower power is required.

TURBO: High speed for a high performance. To be used where a high power is required.

1.4.7.7 Pump

The pump is of the all-metal design to ensure the long service life and defect-free operation. There are moving parts in the pump that are very precisely positioned. Therefore, it is **NECESSARY** to ensure that the water supplied into the pump is free of any mechanical impurities. Such impurities may rub down the contact surfaces in the pump causing the clearance between the internal parts to grow and the output pressure to decrease.

The pump generates very high output pressure due to which the jet of water has destructive effects when hitting soft objects. IT IS PROHIBITED to aim the water jet at individuals or animals. Non-compliance with this warning may have devastating effects such as permanent loss of vision, cutting wounds, amputations or even death.

The high pressure may cause damage to soft and sensitive objects. It is not recommended to apply the high-pressure water jet from the close proximity in order to clean the rubber and tyres, glass, non-cohesive paints, plastering and wood. Using too strong a water jet may lead to a surface structure change, altering the structure permanently. If you have any doubts, it is recommended to test the effect of the water jet on a sample where any damage to the surface will not affect the function or appearance of the object.
By increasing the distance of the nozzle from the surface of the object being washed you will decrease the pressure of the impacting water and, consequently, achieve the less aggressive washing effect. On the other hand, decreasing the distance from the surface will make the washing effect stronger while, at the same time, increasing the aggressiveness of the water vis-a-vis the surface.

The applied pump is maintenance-free. At the inlet into the pump, the safety strainer is situated. This strainer must be regularly inspected in order to make sure that it is free of impurities and any damage. The deposited impurities would cause a drop of the supplied water flow and, consequently, the reduced washing effect.

The damaged strainer must be replaced with the new one IMMEDIATELLY.

Any mechanical damage to the internal parts of the pump by contaminated water will not be covered by the warranty!

The safety valve's ***Fig. 10*** function ids to release a small amount of hot water from the pump without any intervention by the operator and thus protect the pump from overheating. During the normal operation, there is no risk of overheating due to the fact that cold water is continuously supplied into the pump, which cools the pump down. The device may excessively overheat if the motor is running while the high-pressure gun is off with no water coming out of the nozzle. The pump will automatically switch over to internal circulation of the water. By this continuous circulation of water, it is heating up to the temperature when the safety valve releases a small amount of the water that is heated up in this way while ensuring that cold water gets in the pump and cools the pump down. **For this reason, only water with the maximum temperature of 40°C may be used.** If it is obvious that the pressure washer will not be in use for more than a couple of minutes, it is more suitable to turn it off, which will prevent too excessive load on the safety valve and pump.

If the self-suction variant of the supply of the water is used: Ensure that the water level in the vessel from which the water is to be drawn is as high as possible in comparison to the inlet of the water into the pump. The higher difference between the levels will ensure that the water is sucked in more easily; this will lower the risk of cavitation (the phenomenon occurring when air bubbles start to be released from the liquid). That may occur in the internal space of the pump if the vacuum at the inlet is too high (suction is more difficult). Therefore, use, on the suction side, the hose having as big a diameter as possible and being as short as possible.

Use of the self-suction of the detergent ***Fig. 11*** : The pump is capable of automatically sucking the detergent from the vessel by means of the vacuum. To activate this function, it is necessary to use the detergent-application nozzle. Only when such nozzle is applied, the pump will start sucking the detergent via the hole marked with the arrow. Connect the supplied hose for the detergent to the protrusion marked with an arrow (close to the high-pressure end piece of the pump); immerse the other end containing the suction strainer to the vessel containing the diluted detergent. Apply the detergent by pressing the trigger of the gun. This configuration does not serve to create active foam. To create active foam, it is necessary to purchase the foam maker (order no.: SP000-FL001).

1.5 Maintenance, Care, Storage

The maintenance, adjustment, cleaning and repairs of the device must be performed when the device is at a standstill.

To secure a long-term satisfaction with our product, it is necessary to provide it with due care and maintenance. By providing regular maintenance you will prevent its rapid wear and you will secure correct operation of all its parts.

Observe all instructions concerning maintenance and adjusting intervals. We recommend that you keep records of operating hours and the conditions under which the machine is used (these may be useful for servicing centres). We recommend that you have the post-season maintenance implemented by one of our authorized service centres; the same applies to standard maintenance if you are not certain of your technical capabilities.

Before every use, check the tightness of the screw connections.

1.5.1 Motor maintenance

The instructions for use of the motor have been developed by the motor manufacturer. All the mandatory regulations and maintenance guidelines are listed and explained in the instructions, as are the warranty conditions. If any operations falling in the warranty have to be performed on the motor, please contact the authorised service organisation.

Adequate motor cooling is vital for maintaining a long service life. Take steps to maintain the air filter constantly clean.

1.5.1.1 Air Filter Maintenance

The use of flammable cleaners is associated with the fire or explosion hazard. Never use flammable solvents to clean the air filter.

Fig. 9

1. Turn the arresting pin **1** counter-clockwise and remove the air filter casing **2**.
2. Cautiously remove the air filter from the air filter casing **2**.
3. Clean the air filter (e.g., with compressed air) or replace it.
4. Reinsert the air filter into the air filter casing **2**. Make sure the air filter is uniformly seated and is not corrugated.
5. Reinsert the air filter casing **2** into the motor cover.
6. Push the air filter casing **2** and turn the arresting button **1** clockwise.

1.5.1.2 Battery/charger inspection

A damaged or defective battery can produce smoke or catch fire and cause life-threatening harm or large property damage.

A damaged or defective battery must not be charged or used.

It must be disposed of in accordance with applicable local regulations.

Follow the instructions in the Section 1.2.5 Lithium-ion batteries: General safety

A plugged-in charger poses the electric shock hazard. Unplug the charger before cleaning or inspecting it.

Inspect the battery and charger for any visible damage. If the battery or charger is damaged, replace it immediately.

Check the state of the battery and charger – see Chapter **1.4.6 Battery charging indicator**

Follow the instructions for use of all the batteries and chargers as well as the instructions developed by the motor manufacturer.

1.5.1.3 Inspection of the battery compartment

Make sure the battery has correctly snapped into place in the battery compartment. Make sure that the disengaging button in the battery compartment releases the battery properly. If it does not, contact the authorised service organisation.

1.5.2 Storage

It is not recommended to store the pump in the premises where the temperature drops below the freezing point as the substantial change of the ambient temperature may cause condensation of the water vapour even in areas where the water is not present under normal circumstances. This may lead to internal corrosion and significantly shorten the service life of the pump and motor.

Storing the pump in premises where the ambient temperature is below the freezing point may lead to irretrievable damage to internal components if the pump is not entirely free of water!

The procedure of draining the remaining water from the pump:

- Check that the motor is switched off ***1.4.7.3 Switching off the motor***.
- Disconnect the hoses from the pump.
- Switch the motor on ***1.4.7.2 Motor start-up*** and leave it running for approximately 5 seconds. Thus, the water will get out of the pump via the high-pressure hole.
- Switch the motor off ***1.4.7.3 Switching off the motor*** and take the batteries out ***1.4.5 Removing the batteries out of the motor.***

1.5.3 Troubleshooting

Problem	Cause	Remedy
The pump is not able to produce the necessary water pressure; discontinuous water stream; too low water flow	1. The hole of the used nozzle is too big 2. The water supply is blocked 3. Too low volume of the supplied water 4. Clogged water supply strainer 5. The high-pressure hose is clogged or water is leaking from it 6. Too high temperature of the inlet water 7. The pressure is leaking from the gun 8. Clogged nozzle 9. Damaged pump 10. The pump is filled with water incorrectly during self-suction	1. Replace the nozzle with a new one having the correct dimensions 2. Check that the water flows freely 3. Apply higher water pressure or a hose of the higher diameter 4. Clean it or replace it with a new one 5. Remove impurities, turn the hose the other way around, rinse it or replace the hose with a new one 6. Provide the cooler water 7. Check that the joints are tightened; replace the gun 8. Clean the nozzle with steel wire and by flushing it with a counter current of water 9. Contact the service centre 10. Check the tightness of all the joints on the suction side, prime the pump with water
The pump does not draw the detergent in	1. The used nozzle is not correct 2. The suction hose is not immersed into the cleaning agent or is clogged 3. Clogged hose or strainer	1. Replace the high-pressure nozzle with the low-pressure (black) nozzle 2. Check the amount of the detergent and adjust the position of the hose 3. Clean the hose by means of the water jet; replace the suction hose
The motor cannot be started	1. The batteriesare not inserted 2. Depleted batteries 3. Another defect	1. Insert the batteries into the motor 2. Charge the batteries 3. Visit a service facility
Another defect		Visit a service facility

Table 9: Troubleshooting

1.5.4 Disposal of Packaging and the Machine at the End of its Service Life

When you unpack the machine you are bound to dispose of the packaging material according to national laws and decrees concerning waste disposal.

When disposing of the machine at the end of its service life, we recommend proceeding as follows:

- Demount from your machine all the parts that may still be used.
- Dismantle the tyres from the rims and dispose of them in a waste collection centre – the tyres represent hazardous waste[8].
- Dismount plastic parts and non-ferrous metal parts.
- The remaining machine and its removed demounted parts are to be disposed of according to national laws and decrees concerning waste disposal.

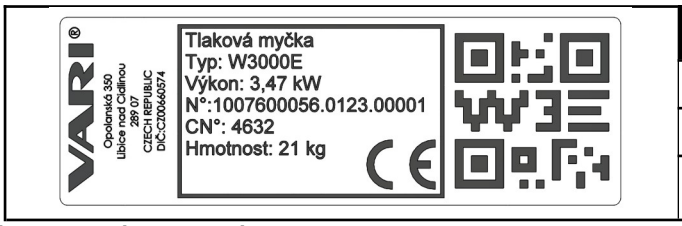
1.5.5 How to Order Spare Parts

These Operating Instruction do not include the list of spare parts.

8 *The respective local authority will inform you of the disposal centre location.*

For correct identification of your device, you have to know the type designation (**Type**), serial identification number (**№**) and order number (**CN№**) stated on the nameplate of the device, on the box or in the warranty card. Only with this information it is possible to search correctly for the designation of the respective spare part with your dealer.

To search spare parts in the electronic catalogue of spare parts at **http://katalognd.vari.cz**, the first 10 characters of the identification number (**№**) are sufficient. If you do not have Internet access, you can ask for the printed catalogue to be sent C.O.D.



Field	Description
Type	Device type designation ***W3000E***
№	Unique serial identification number: ***1007600056.0224.00001*** (product.period.order)
CN№	Business (order) number: ***4632***

Table 10: Nameplate - example

1.6 Manufacturer's Address

VARI,a.s.
Opolanská 350
Libice nad Cidlinou
289 07 Czech Republic

Phone: (+420) 325 607 111
E-mail: vari@vari.cz

http://www.vari.cz

http://katalognd.vari.cz

1.7 Attached illustrations

They can be found at the end of this manual in Chapter **2**, page **14**.

2 EN Pictures

Fig. 1: Description of basic parts of the machine

Fig. 2: Gripping points and binding points

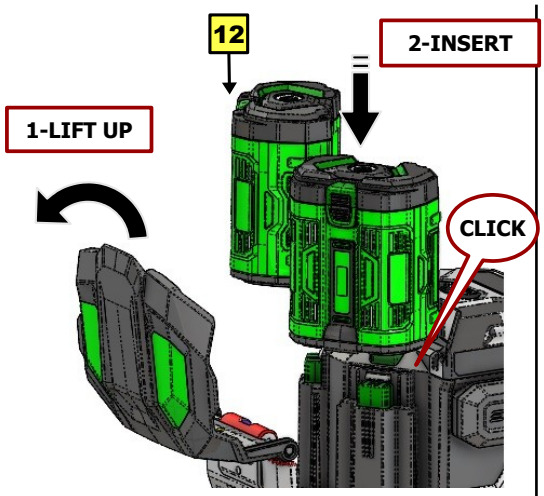


Fig. 3: Inserting batteries in the motor

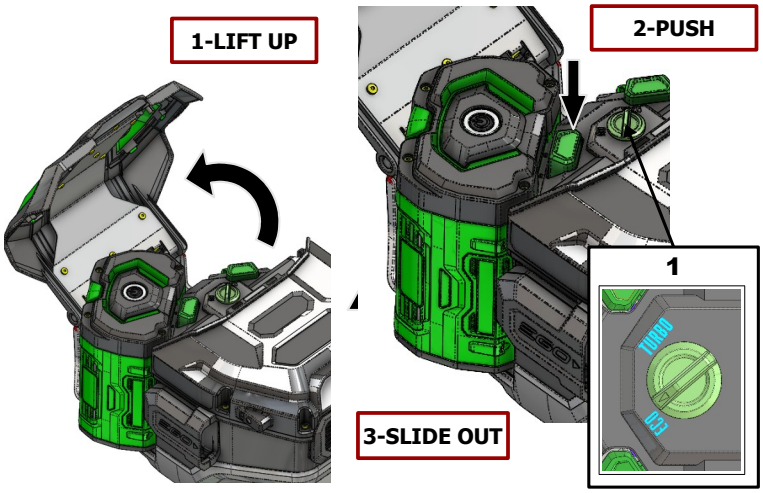
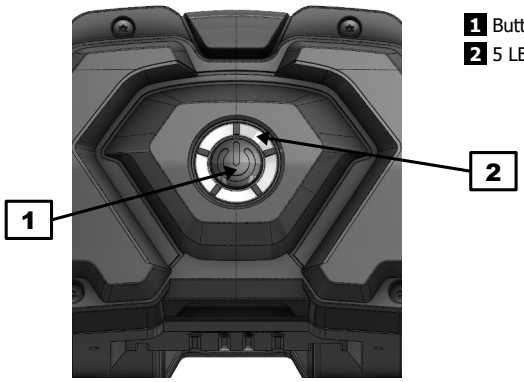


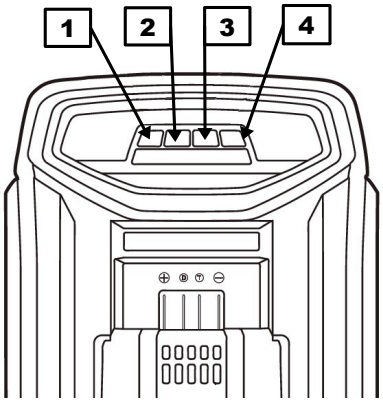
Fig. 4: Removing the battery from the motor

1 Speed selector (ECO/TURBO)



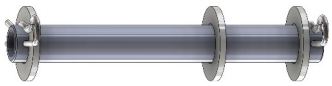
1 Button
2 5 LEDs

Fig. 5: Check of the battery status



1 LED 1
2 LED 2
3 LED 3
4 LED 4

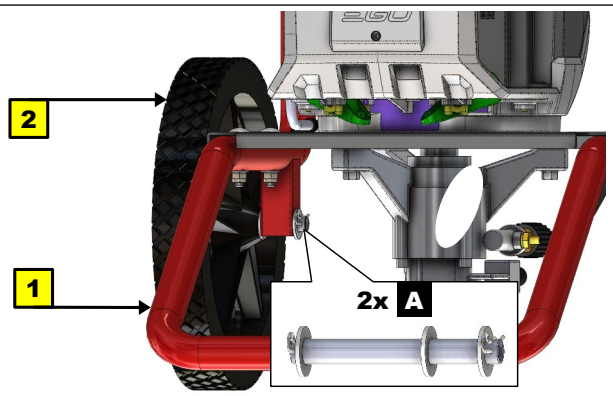
Fig. 6: Status of the battery and charger

 **A** Pin of the wheel+3x washer 15+2x cotter pin - 2x	 **B** Leg+M6x25 - 1x	 **C** Grommet - 3x	 **D** Fastening clamp - 4x	 **E** Nozzle yellow+white+black - 1x

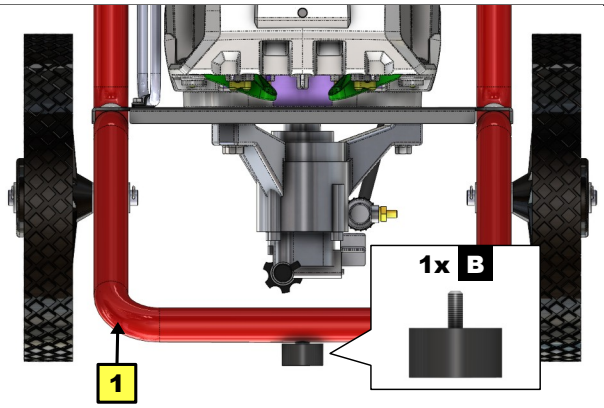
Connecting material for assembling the washer

Step

> 1



> 2

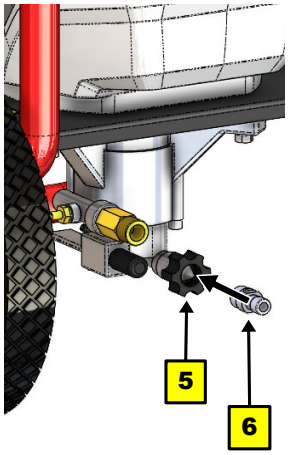


> 3

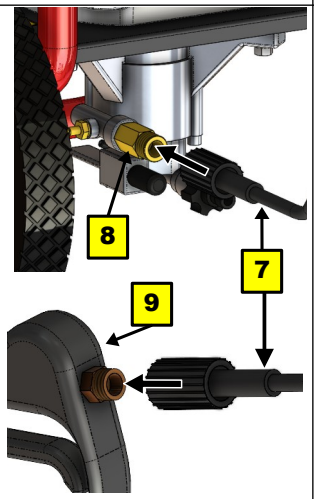
> 4

> 5

> 6



> 7



> 8

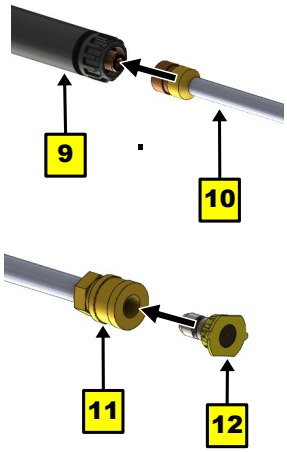


Fig. 7: Machine Assembly

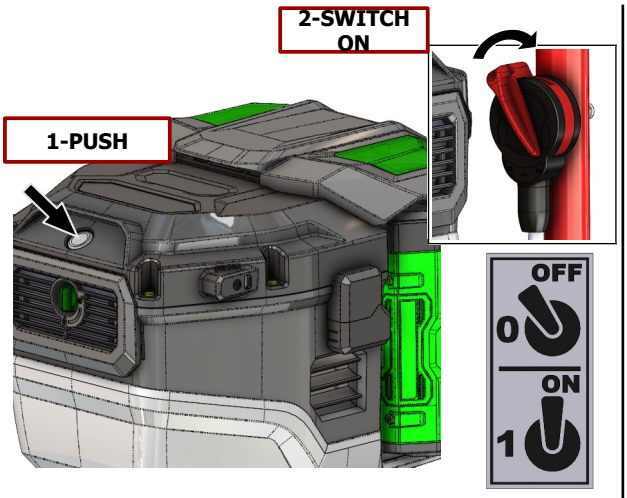


Fig. 8:Motor start-up

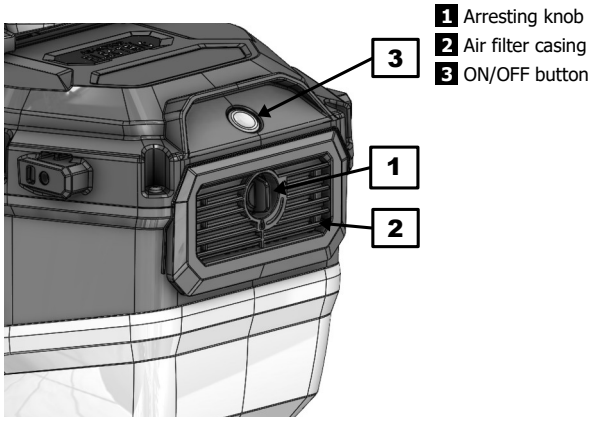


Fig. 9:Air Filter Maintenance

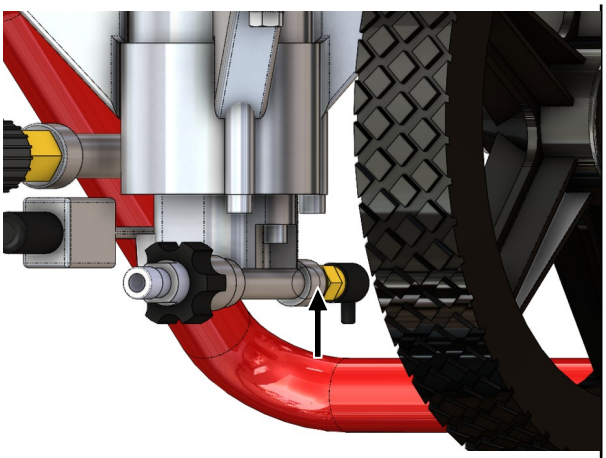


Fig. 10: Safety valve

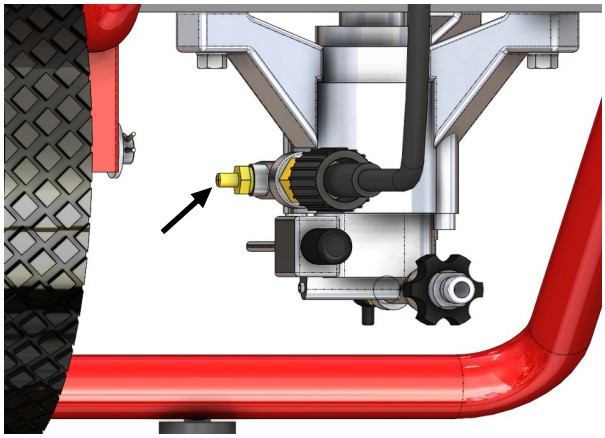
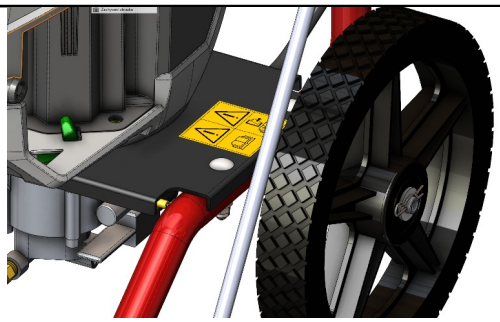


Fig. 11: Self-suction of the detergent

Fig. 12: Safety Pictograms



Battery 10.0 Ah
Ordering No. BA5600T

Battery 12.0 Ah
Ordering No. BA6720T

Fast charger 550 W
Ordering No. CH5500E

Fig. 13: Accessories – not included with the machine

Text and illustrations by © 21.03.2024 VARI, a.s.

VL-458-2024
CSKV 63007600076