



# Battery gate valve wrench

DA1-05 S

DA1-13 S

# Operating manual



Store for future reference.

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# 1. Manufacturer

Maschinenfabrik Wagner GmbH & Co. KG  
53804 Much, Germany  
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## 2. Notes

### 2.1. CE mark

The products are labelled with the CE mark. The Declaration of Conformity verifies that the products are in compliance with the safety directives of the European Union.

### 2.2. Directives

This product complies with the provisions of the EC Machinery Directive 2006/42/EC, standards EN 60745-1 and EN 60745-2-2, and the EMC requirements in accordance with:

EN 55014-1 (2006) Emission  
EN 55014-2 (1997) A1 Interference Immunity, Cat. II  
EN 61000-3-2 (2006) Current Harmonics  
EN 61000-3-3 (1995) + A1, A2 Flicker

### 2.3. Information about this manual

This manual contains important instructions on how to operate, set up and connect the machine. Read these instructions carefully before putting the machine into operation.

This is for your own protection and will provide you with important information on how to connect and use the device in a safe manner.

The operating manual is an integral part of the device. Store it close to the device where it is available at all times. Observing every detail of the operating manual is a requirement for using the tool correctly and as intended. For this reason, pass this operating manual on to the next owner when selling the machine.

Please note that details of the illustrations and technical specifications contained in this operating manual may be different from the product you purchased.

The information provided in this operating manual is current as of the time it was printed. We reserve the right to make changes at any time without prior notice.

### 2.4. Information about the workplace

The safety of the operator and the trouble-free operation of the machine are only guaranteed if original Plarad components are used. This applies both for machine components and spare parts.

If different components are used, Maschinenfabrik Wagner cannot guarantee the safe and reliable operation of the tool.

### 2.5. General safety information for power tools



#### **Warning!**

**Read all safety information and instructions.** Failure to observe the safety information and instructions can result in electric shock, fire and/or serious injuries.

**Store all safety information and instructions for future reference.**

The term "power tool" used throughout the safety information refers both to mains-operated power tools (with mains cable) and battery-powered electric tools (without mains cable).

#### 1. Safety at the workplace

**a) Keep your work area clean and sufficiently illuminated.**

Working in untidy or unlit work areas can result in accidents.

**b) Do not use your power tool to work in explosive atmospheres that contain inflammable liquids, gases or dust.** Power

tools generate sparks that can ignite dust or vapours.

- c) **Keep children and other persons away from the power tool while using it.** Any distractions can cause you to lose control of your machine.

## 2. Electrical safety

- a) **The connection plug of the charger must fit in the power outlet. The plug must not be modified in any way.** Unchanged plugs and matching power outlets reduce the risk of electric shock.
- b) **Avoid body contact with grounded surfaces such as pipes, heaters, stoves and refrigerators.** There is an increased risk of sustaining electric shock when your body is grounded.
- c) **Do not expose the charger to rain or moisture.** Water penetrating a power tool increases the risk of electric shock.
- d) **Do not divert the cable from its intended use and refrain from using it to carry or hang up the charger or pull the plug out of the power outlet. Keep the cable away from heat, oil, sharp edges or moving machine parts.** Damaged or entangled cables increase the risk of electric shock.
- e) **When using a charger for outdoor work, only use extension cables that are also suitable for outdoor use.** Using an extension cable that is suitable for outdoor use reduces the risk of electric shock.
- f) **If operating the charger in wet environments cannot be avoided, use a residual current circuit breaker.** Using a residual current circuit breaker reduces the risk of electric shock.

## 3. Safety of persons

- 1. When working with a power tool, stay alert, pay attention to what you are doing and apply common sense. Never operate a power tool when you are tired or under the influence of drugs, alcohol or medication.** Even a brief moment of carelessness during the use of a power tool may lead to serious injury.
- 2. Always wear personal protective equipment and safety goggles.** Wearing personal protective equipment such as a dust mask, non-slip safety shoes, hard hat or hearing protection (depending on the type and use of the power tool) reduce the risk of injury.
- 3. Avoid any inadvertent start-up of the machine. Ensure that the power tool is switched off before connecting it to the power supply and/or the battery and before picking it up or carrying it.** Carrying the power tool with your finger on the switch or connecting it to the power supply while the device is switched on can result in accidents.
- 4. Remove all adjusting tools or spanners before switching on the power tool.** Any tool or spanner located in a rotating machine part can result in injuries.
- 5. Refrain from assuming an abnormal body posture. Assume a firm stand and keep your balance at all times.** This will help you retain better control over the power tool if faced with unexpected situations.
- 6. Wear suitable clothing. Do not wear any loose-fitting clothes or jewellery. Keep hair, clothing and gloves out of reach of moving parts.** Loose-fitting clothes, jewellery or long hair may become caught in moving components.
- 7. If an option to fit dust-exhaust and dust-collecting equipment is available, make sure these devices are connected properly and used appropriately.** The use

of a dust extraction system can reduce the risks caused by dust.

#### 4. Using and handling the power tool

- a) **Do not overload the machine. Use the power tool that is designed for the work you wish to complete.** Using the appropriate power tool will help you work more efficiently and safely within the specified range of capacity.
- b) **Do not use any power tools that have a defective switch.** A power tool that can no longer be switched on or off is dangerous and must be repaired.
- c) **Pull the plug from the power outlet and/or remove the battery before making any adjustments to the device, changing accessories or putting the device away.** This precaution prevents the power tool from starting up inadvertently.
- d) **Store power tools that are not in use out of reach of children. Never allow persons to use the machine who are not familiar with its operation or who have not read the instructions.** Power tools are dangerous if used by inexperienced persons.
- e) **Maintain the power tool with care. Check if moving components function properly and without sticking and whether parts are broken or damaged in such a way that the power tool's proper operation is impaired. Have damaged parts repaired before using the machine.** Many accidents can be attributed to poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Carefully looked-after cutting tools with sharp edges have a lower tendency to become jammed and are easier to operate.
- g) **Use power tools, accessories, insertion tools, etc. only in accordance with these instructions. During use, take into**

**consideration the operating conditions and the task to be completed.** The use of power tools for applications other than the ones specified can result in dangerous situations.



**5. Service**

- a) **Do not charge the batteries in chargers other than those recommended by the manufacturer.**

A charger that has been designed for a specific type of battery will pose a fire hazard when used for different types of batteries.

- b) **Only use the batteries designated by the manufacturer for use with your power tools.**

Using other batteries may result in injury and fire.

- c) **When not in use, keep the battery away from paper clips, coins, keys, nails, screws or other small metal objects that may bypass the contacts.**


A short circuit between the battery contacts may result in burns or fire.

- d) **If used incorrectly, the battery may leak fluid. Avoid contact with any such fluid. Rinse the affected areas with plenty of water if contact has occurred inadvertently. Seek additional help if the fluid has entered your eyes.**

Fluid exiting the battery may cause skin irritations and burns.

- e) **Have your power tool repaired only by qualified experts using original spare parts.** This ensures that the safety of your power tool will be maintained.

**2.6. Safety information for battery gate valve wrenches**




**Warning!**

Hold the device by the insulated handle surfaces during work.

**If coming into contact with a live wire, the gate valve may also energise the metal parts of the device and cause electric shock.**

**2.7. General safety information**



**Warning!**

Contact with live components can result in serious injuries and death from electric shock.




**Observe the following safety information when operating electric battery gate valve wrenches.**

When operating the device, observe all laws and regulations applicable at the site of operation.

Verify every time before using the device that the device operates in a reliable manner and is in proper condition. The user must be familiar with the operation of the device. Before putting the device into operation, check the device and the power cable of the charger for damage. Never continue using defective devices or devices with defective cables or connectors! Have damaged cables and connectors replaced by authorised electricians before resuming operation.

**2.8. Product identification**



<b>PLARAD</b> <small>Torque &amp; Tension Systems</small>		<b>Maschinenfabrik Wagner GmbH &amp; Co. KG</b>	
<small>Birrenbachshöhe • 53804 Much • Germany</small>			
<b>Battery Nut Runner</b>		<b>1.0</b>	
<b>Serial No. Plarad</b>			
<b>Serial No.</b>		<b>18 V</b>	
<b>Torque max.</b>			
<b>Built / weight</b>		<b>Made in Germany</b>	

The battery gate valve wrench is identified by its type plate.

**2.9. Symbols and warnings**



CE mark



Follow the instructions for installation and use



Use protective eye wear



Use protective footwear



Wear protective headgear



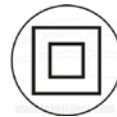
Crushing hazard warning



Warning about dangerous electrical voltage



Hazard warning. The hazard category is specified in the text found next to the respective warning.



Class 2 protective insulation



WEEE recycling/disposal instructions

10	1	2	3	4	5
11	next maintenance				6
12	nächste Überprüfung				7
13	12	11	10	9	8

Service seal specifying the date of the next inspection

## 3. Product information

### 3.1.Procedural description

The battery gate valve wrench can be used to turn the spindles of gate valves (open/close a gate valve and other types of valves).

The set maximum torque is controlled electronically.

The battery gate valve wrench is equipped with a four-speed gearbox with manual operation. The torque values listed in the chart refer to the corresponding speed. Once the corresponding torque has been reached, the built-in electronic system will switch the battery gate valve wrench off.

### 3.2.Intended use

The Plarad battery gate valve wrench is a hand-held tool that is designed exclusively for turning gate valve spindles (open and close).

It may only be used for commercial purposes.

The application of the tool requires the use of suitable accessories.

The suitability for use of accessories other than the ones specified must be tested and approved by the manufacturer. Make sure there is a proper positive connection between accessory and spindle.

Make sure there is a proper positive connection between the square drive of the battery gate valve wrench and the square retainer of the accessory.

The battery gate valve wrench is designed for indoor and outdoor operation within an ambient temperature range of 0 °C to +45 °C (storage temperature +5 °C to +25 °C in dry locations).

In the case of differences from these conditions, consult the manufacturer before use.

**The battery gate valve wrench is not suitable for continuous operation as a prime mover!**

Allow only Maschinenfabrik Wagner or bodies authorised by Maschinenfabrik Wagner to install, readjust, modify, expand and repair the device. Use the device only as described in the operating manual. Operating the unit in a safe and reliable manner will otherwise not be possible. Unauthorised modifications may lead to unexpected hazards.

The safety of the operator and the trouble-free operation of the machine are only guaranteed if original Plarad components are used. This applies both for machine components and spare parts.

If different components are used, Maschinenfabrik Wagner cannot guarantee the safe and reliable operation of the tool.

### 3.3.Non-intended use

Any use deviating from or exceeding the scope of intended use is considered to be improper.

The risk is borne solely by the owner / user.

### 3.4.Other applicable operating manuals

EU safety data sheet Klübersynth GE – 151



## 4. Scope of delivery

- Battery gate valve wrench, ready for operation
- Charger
- 2 battery packs
- Operating manual including EC Declaration of Conformity, chart
- Reaction arm, retractable

## 5. Technical specifications

**Range of capacity:** See capacity chart

**Weight:** 5.1 kg

**Vibration emission value  $a_h$ :** 0.5 m/s<sup>2</sup>

**Measuring uncertainty:** 1.5 m/s<sup>2</sup>

### Sound power level

**$L_{WA}$ :** 83 dB

### Emission sound pressure level

**$L_{pA}$ :** 72 dB

**Mains voltage - charger:** 220 – 240 V / 50 - 60 Hz

**Voltage - battery pack:** 18 V

**Capacity - battery pack:** 6.0 Ah

**Weight - battery pack:** 0.6 kg

For the device dimensions, refer to the technical data sheets which are available at [www.plarad.de](http://www.plarad.de).

## 6. Description of operation

### 6.1. Start-up

The battery pack ships with a partial charge. Fully charge the battery pack prior to initial use!

To remove the battery pack from the battery gate valve wrench, press and hold the latch button and take out the battery pack towards the front.



Latch button

To insert the battery pack, slide the battery pack onto the holder at the bottom of the handle until it locks into place.

To charge the battery pack, slide the battery into the holder of the charger as far as it will go, and connect the power cable of the charger to the mains voltage.

A microprocessor controls the charging status depending on the charge, temperature and voltage of the battery pack. The LED on the charger indicates the corresponding operating state of the charger:



LEDs

**LED yellow - permanent light =**

Charger is ready for operation, mains voltage available

**LED green - flashing =**

Rapid charging is active

**LED green - permanent light =**

Rapid charging is complete

**LED red - flashing =**

Charging not possible perhaps due to the following:

Contacts soiled - remedy: Clean contacts by inserting and removing the battery repeatedly.

The battery is defective. Remedy: replace battery!

**LED green flashing and LED red flashing =**

Battery temperature is outside the charging range between 0°C and +45°C. Rapid charging will commence as soon as the battery is within the permissible charging temperature range.



**Attention!**

Only components and accessories that do not impair the function and safety of the tool are permitted to be used.

- **If in doubt, contact the manufacturer.**

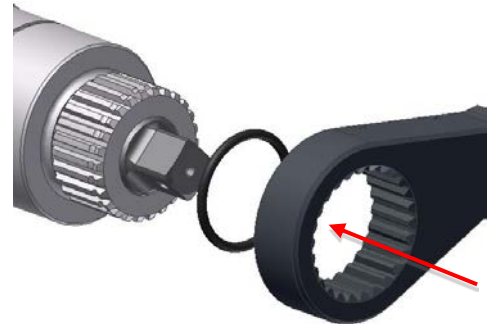


**Warning!**

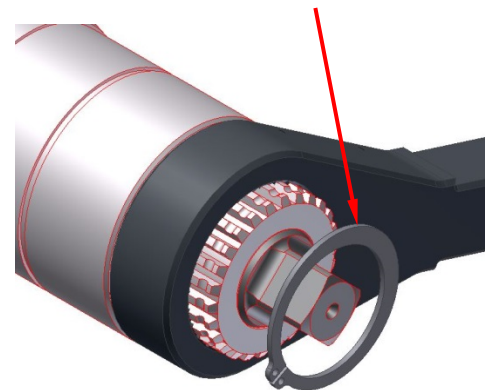
Contact with live components can result in serious injuries and death from electric shock.

**6.2. Preparing the tool**

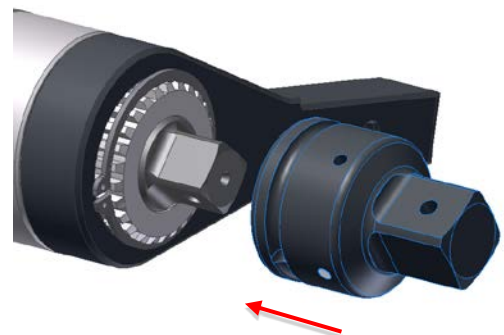
1. Slip the reaction arm onto the toothed holder on the battery gate valve wrench. Prior to doing so, slide the o-ring over the tothing until it snaps into place.



2. Secure the reaction arm using the retaining ring.



3. Put the accessory on the square drive on the battery gate valve wrench and secure it.



4. Use the retaining clip to lock the accessory in place



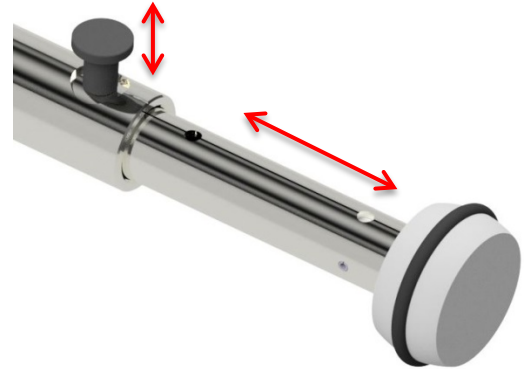
5. Slip on the reaction arm and secure it using the stud bolt



6. Illustration of secured reaction arm



7. Adjust the length of the reaction arm. Pull out the locking pin and select one of 4 possible positions.



8. Battery gate valve wrench with secured reaction arm and secured accessory.

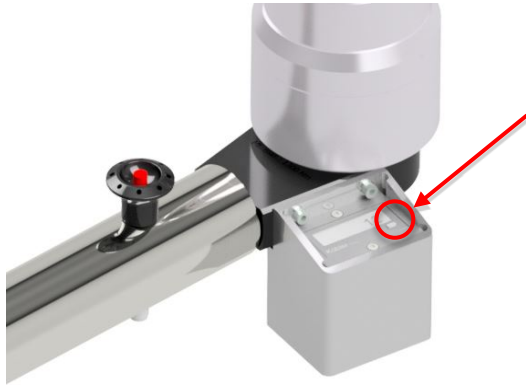


**Warning!**

If unsecured, components or the battery gate valve wrench can be flung out. **Secure the reaction arm and the accessory used for turning the spindle prior to start-up!** Follow the instructions and warnings provided on the battery gate valve wrench and the accessory. **Do not exceed the reaction arm's max. permissible torque of 550 Nm/1,300 Nm!** See the information on the sticker applied to the reaction arm!



- 9) LED display counter  
 The counter captures pulses per revolution (clockwise and counter-clockwise rotation). You can use the RESET button to reset the counter to zero. The LED display counter comes with an integral lithium battery (approx. 8 years at 20°C) and cannot be switched off.



**Notice:**  
 This product comes with a lithium battery. Do not use force to open it and do not throw it into fire. Avoid temperatures below -20°C and above +70°C!

**6.3. Setting the torque**

**Important!**

You need to set the desired torque before starting the bolting process. Making adjustments while the bolting process is underway is not possible. Toggling the mechanical 4-speed gearbox is not possible unless the device is switched off!

**Warning!**

When the torque has reached **100 Nm** or more, the gate valve wrench must no longer be held by hand. A suitable reaction arm must be available on site to avoid the risk of serious injury!



The maximum torque is generated in this position  
 (See chart for values)

1. Use the included chart to determine the position of the maximum / required torque. (see appendix)
2. Set the desired torque by toggling the gear stages (1 to 4; maximum torque = stage 1) and operating the setting potentiometer located on the enclosure above the grab handle.



3. Set the torque to the value required for each individual application.

 **Warning!**

When setting the torque, make sure not to damage/overload the components!

**Risk of injury!**

**6.4. Active battery capacity indicator**

The LED found on the bottom of the handle serves as an active indicator of the battery capacity:

**LED flashing slowly =**  
**Battery pack is charged < 30%.**  
**The set torque will still be reached**

**LED flashing rapidly =**  
**The battery capacity/charge level is no longer sufficient to reach the set torque:**

- the motor switches off automatically
- Charge or replace the battery!

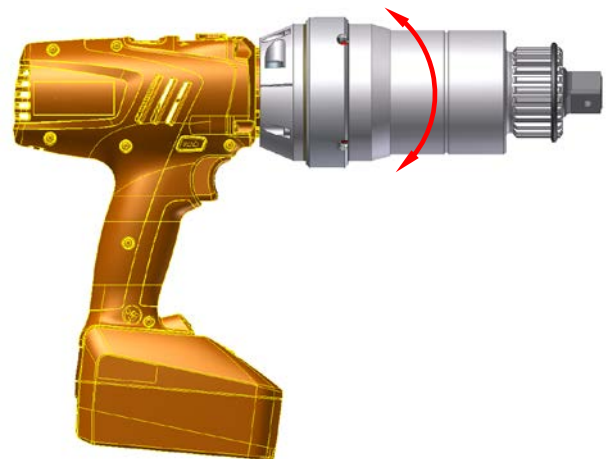


**6.5. The charge level indicator LED on the battery pack:**

The indicator does not show the actual percentage of the battery charge unless the motor is stopped. The motor will stop automatically when a total discharge of the battery is imminent

- a. 1 – 4 LED green LED =  
 Charge level in per cent.
- b. Red permanent light =  
 Battery pack is drained, charge battery.
- c. Red flashing light =  
 Battery is not operational.  
 Ensure that the battery is within the operating temperature range before charging it.

**6.6. Safety pivot**



The safety pivot situated between drive motor and gearbox makes it possible to rotate the grab handle into any desired position.





**Attention!**

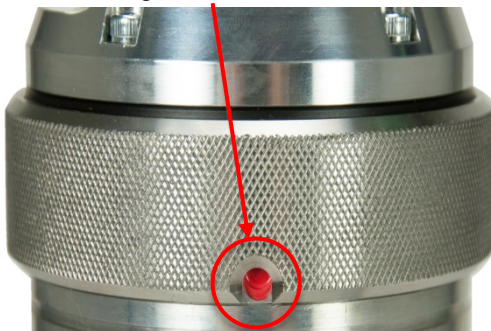
However, your wrist may still be subjected to undesired stress due to the torque generated by the motor!

In order to avoid this from happening, use the control ring to lock the battery gate valve wrench into place after positioning it for the application! To do so, turn the control ring fitted on the safety pivot clockwise until it engages. The safety pivot is now locked. To release the lock, turn the control ring counter-clockwise.

Do not release the lock if the battery gate valve wrench is under load, as this may cause a torsion-induced rewinding of the drive following the release of the lock!

**Control ring indicator:**

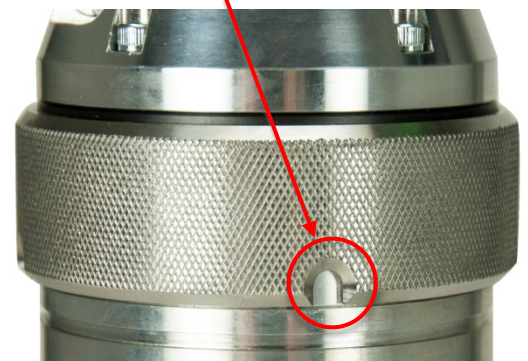
Red marking visible:



Pivot locked

This position is used for opening or closing the valve (transmission of the torque)

Red marking not visible:



Pivot not locked ("free movement")

This position is used only to perfectly position the battery gate valve wrench for the application

(lock the safety pivot in place for opening and closing the valve! – red dot visible)

**ATTENTION:**

**There is a risk of accident if you fail to observe these instructions!**



## 6.7. Absorbing the reaction momentum

Torques cannot be generated without an absorption of the reaction forces. This function is provided by the battery gate valve wrench's reaction arm. The battery gate valve wrench may only be supported at the attached reaction arm.



### Warning!

There is a crushing hazard between the reaction arm and the contact surface. The reaction arm attached to the battery gate valve wrench can cause serious crushing injuries.

**Do not reach between the reaction arm and the contact surface.**  
**Do not place hands/feet close to the contact surface.**

Use only reaction arms or extensions that have been approved for the battery gate valve wrench by Plarad. Suitable reaction arms - including custom models - are available on request.



### Warning!

If supported insufficiently, the battery gate valve wrench may slip off and be flung out.

**The thrust bearing must prevent the reaction arm from slipping off at the contact surface!**

## 6.7.1. Optimum support scenario

- You need to provide for appropriate support surfaces!
- If using a customer-provided reaction arm, you need to ensure that it is strong enough to absorb the generated reaction momentum.
- If the reaction force is absorbed by the operator, the operator must assume a firm stand before starting to operate the gate valve wrench. **(Observe the warning under 6.3.)**
- It must be ensured that the operator is in the physical condition necessary for safe operation. The operator must be able to absorb the generated reaction momentum.
- The speed of the gate valve wrench must be reduced to minimise the strain on the operator and on the reaction arm caused by the impact and blows in the reaction arm. This applies especially to striking valves in the Open and Closed position.



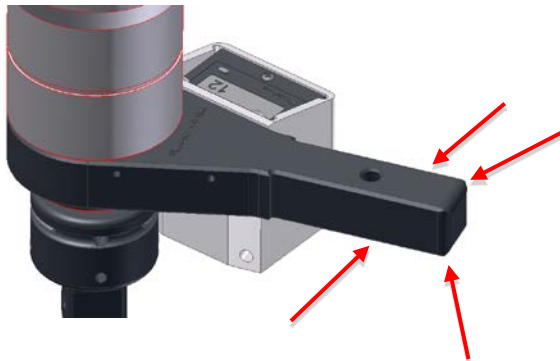
6.7.2. Impermissible support scenario



**Warning!**

If the reaction arm rests only partially against the surface at the corners of the reaction foot, considerable forces may impact the battery gate valve wrench. This may cause the reaction arm to be sheared off by the bolt. Operator or device accessories may be overloaded, and the battery gate valve wrench may be flung out.

**Do not support the battery gate valve wrench from the directions marked red in the image!**  
**Support the battery gate valve wrench exclusively using the fitted telescopic tube!**



7. Operation

**Warning!**



Danger from a fall or uncontrollable movements of the battery gate valve wrench!



**When working overhead, secure the battery gate valve wrench.**



**Wear protective headgear and safety footwear.**



**Attention!**

Check if a valid chart is available for your device.  
 When setting the torque, strictly ensure that the maximum permissible torque of the accessories is not exceeded.  
 Excessive torque levels may damage the accessories and/or the valve and lead to accidents / injuries!



**Warning!**

Components may tear/break during work. This may cause the battery gate valve wrench to be flung out.

**Do not subject gate valve wrench and accessories to more than the permissible torque.**



**Warning!**

If supported insufficiently, the battery gate valve wrench may slip off and be flung out.

**The thrust bearing must prevent the reaction arm from slipping off at the contact surface!**

1. Place the battery gate valve wrench at the application position in such a way that the drive end of the gate valve spindle is captured in its entirety by the accessory.  
If this is not possible, only subject the accessory to reduced torque.
2. Bring the gate valve wrench with the reaction arm into contact with the thrust bearing against the desired rotational direction of the battery gate valve wrench. Provide for full-surface contact/a firm stand.

**Also refer to the sample illustrations below!**



3. Select rotational direction at clockwise/counter-clockwise switch
  - Switch from right to left rotation = clockwise rotation
  - Switch from left to right clockwise rotation = counter-clockwise rotation
4. Place the battery gate valve wrench with the accessory on top of the gate valve to be turned.
5. Attach the reaction arm to the thrust bearing against the desired rotational direction of the battery gate valve wrench and **lock the pivot in place**
6. Press down and hold the power button until the battery gate valve wrench turns off or the turning process is complete.  
Important: Reduce the speed before reaching the end position (OPEN/CLOSED position of the valve).
7. The reaching of the set torque is also indicated by a signal tone.
  - single long signal tone: The set torque has been reached
  - — two short signal tones: The set torque could not be reached

## 8. Maintenance/Service

### 8.1. General

The battery gate valve wrench needs to be serviced in order to retain its operability and safety.



#### Attention!

Service work may only be performed by the Plarad.

Allow only Maschinenfabrik Wagner or bodies authorised by Maschinenfabrik Wagner to install, readjust, modify, expand and repair the device.

The safety of the operator and the trouble-free operation of the machine are only guaranteed if original Plarad components are used. This applies both for machine components and spare parts.

If different components are used, Maschinenfabrik Wagner cannot guarantee safe and reliable operation.

### 8.2. Service intervals

The battery gate valve wrench needs to be serviced on a regular basis depending on the frequency with which it is used. The service intervals specified merely represent recommendations. You can determine the service interval that fits your individual conditions of use by consulting one of our field representatives or service technicians.

You can arrange for the service to be performed by our service/repairs department on our premises by consulting our field representatives.

Prior to each use:

#### a. Visual inspection:

- Damage
- Leaks

#### b. Function check:

- all moving parts in order
- Output drive and reaction arm without damage
- no leaks at the drive square

#### c. Cleaning:

- Clean the surface of the battery gate valve wrench
- Remove rust as necessary

#### every 3 months

- in extreme conditions of use
- if application frequency is high
- if used during multi-shift operation
- if used continuously for work in the upper torque range

#### every 6 months

- in normal conditions of use
- if application frequency is moderate
- if used for work in the medium torque range

#### every 12 months

- if application frequency is low

### 8.3. About shipments of hazardous material



#### Attention!

All products containing chemicals that are flammable, pressurised, caustic, harmful to the environment or dangerous in another way are categorised as hazardous material.

The commercial transport of these products is, therefore, subject to certain conditions.

A hazardous product is governed by the provisions of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and the IATA dangerous goods regulations.

This means that these products carry a greater transport risk compared to other products.

#### Which requirements have to be observed for packaging?

If possible, ship the tool in its original case and original packaging. These are furnished with the necessary imprints and the packaging necessary to ship this product.

If the original packaging is damaged, please use a new package.

Make sure the packaging is firm and stable. Also keep the product from shifting back and forth inside the packaging and exclude the possibility of the product being turned on inadvertently.

## 9. Instructions on disposal

Dispose of the battery gate valve wrench in accordance with the applicable local regulations.



#### Attention!

This symbol points out that the product must not be disposed of with regular household waste as specified in the WEEE directive (Waste Electrical and Electronic Equipment Directive, 2002/96/EC) and national laws.

- **Dispose of this product at an authorised waste collection facility. Return the product if, for instance, purchasing a similar product or take it to a waste collection facility that is authorised to recycle waste electrical and electronic equipment.**
- **Turn to your local administration office, your public waste disposal authority, a facility that is authorised to dispose of waste electrical and electronic equipment or your waste management company.**



... eine erfolgreiche  
Verbindung!

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**Fax national:** (02245) 62-66  
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