

E⁺Draulic[®]

E3[™]

Operating Instructions

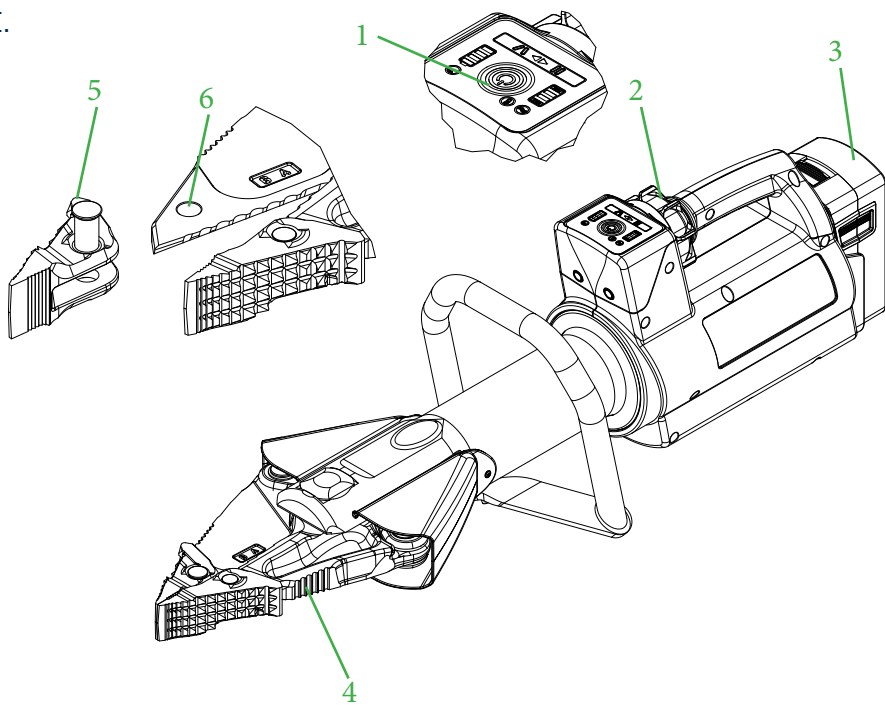
English | Español | Français | Português



HURST

TACTICAL

I.



en

es

fr

pt

English4

en

es

fr

pt

CONTENTS

1. Proper use.....	5
2. Product safety and pictograms.....	5
3. Structure of the devices	8
4. Operating the devices	8
5. Maintenance and care.....	10
6. Troubleshooting	11
7. Explanation of pictograms for performance tables.....	13
8. Accessories.....	17
9. Instructions regarding disposal	17

en

es

fr

pt

1. PROPER USE

The product described is an electro-hydraulic tool. The equipment is designed for ultimate stealth and power, these new tactical tools set a new standard for covert operations in law enforcement, military applications, tactical teams, first responders, and search and rescue missions.

It must always be used in combination with HURST original accessories.

The manufacturer is not liable for damage resulting from improper use. The user bears sole responsibility for such use.

The HURST E3 devices are suitable for underwater use to a depth of 3m. For use in salt water, a special salt water rechargeable battery is required; it is available from HURST as an accessory.

2. PRODUCT SAFETY AND PICTOGRAMS

The safety of the operator is the most important consideration in product design. Furthermore, the instruction manual is intended to help you use HURST products safely.

The generally applicable legal and other binding regulations pertaining to the prevention of accidents and protection of the environment apply and are to be complied with in addition to the operating instructions.

The device may only be operated by persons with appropriate training in the safety aspects of such equipment, otherwise, there is a risk of injury.

We would like to point out to all users that they should carefully read the instruction manual before using the device. All instructions contained must be followed without restriction.

We further recommend that you have a qualified trainer show you how to use the product.



WARNING / CAUTION!

The operational readiness of the device is not displayed, the device may start up unexpectedly when the star grip is actuated.



Read the instruction manual for the lithium-ion battery and battery chargers! This can be found at:
<https://akkupower.info/ewxt-saftysheet.pdf>

The battery housing must not be damaged or subjected to mechanical stress as this can damage the cells inside. Damaged batteries may no longer be used.

The battery must not be allowed to become fully discharged.

The battery may not be short-circuited.

Always allow wet batteries to dry before inserting into the charger.

If the battery displays an error code, note and follow the information in the separate instructions for the battery.

The operating instructions for accessories must also be taken into account.

Please ensure that the accessories you use are designed to withstand the maximum operating pressure of the tool.













en

es

fr

pt

	<p>Never work in a fatigued or intoxicated state!</p> <p>Always use the equipment as described in the section "Proper use".</p>
	<p>Please ensure that no body parts or clothing are caught between the moving parts.</p> <p>Always hold the equipment by the handles or housing. Do not touch the piston rods of the rams!</p>
	<p>Working under suspended loads is not permitted where such loads are only supported by hydraulic or electro-hydraulic devices. If this work is unavoidable, sufficient mechanical supports are also required.</p>
	<p>Wear a helmet!</p>
	<p>Wear a face guard!</p>
	<p>Wear protective clothing! Provides protection in hot and cold working environments and prevents injuries caused by sharp edges.</p>
	<p>Wear protective gloves!</p>
	<p>Wear safety shoes!</p>
	<p>Always wear ear protection when working in noisy environments. The noise of the equipment itself does not require ear protection.</p>
	<p>Inspect the device before and after use for visible defects or damage. The star grip valve must return to the central position by itself without fail.</p> <p>Report any changes immediately (including changes in operating behavior)! If necessary, the device is to be shut down immediately and secured!</p>



Do not carry out any changes (additions or conversions) to the device without obtaining the prior approval of HURST.

All safety instructions on the device must always be complete and in a legible condition.

Any mode of operation which compromises the safety and stability of the device is forbidden!

Safety devices must never be disabled!

Before switching on/starting up the device and during operation, make sure that nobody will be endangered by this.

Repairs may only be performed by a trained service technician.

Only genuine HURST accessories and spare parts may be used.

Please note that when working with the equipment, material could fall down or suddenly break free as a result of shearing, tearing or breaking.

Observe all intervals for recurring tests and inspections as described in the section "Maintenance and care".

The eDRAULIC devices and batteries are suitable for underwater use to a depth of 3m and a duration of 60 minutes. The special battery for salt water operation must be used in salt and sea water.

Swallowing or inhaling the hydraulic fluids can be detrimental to health. Avoid direct skin contact. Please note that handling hydraulic fluid can negatively affect biological systems.

Moving safety bolts, e.g. for removeable tips, must always be fully inserted and locked.

When using chain sets, make sure that the chains are attached in a straight line and that there are no knots in the chain.



When working near live components, high voltage flashovers and the passage of current to the device must be avoided.

Prevent the electrostatic charging of the device.







HURST eDRAULIC devices are not explosion-protected! Use in explosion-protected areas is forbidden.

en

es

fr

pt

	Please ensure that you do not become entangled in cables and trip when working with or transporting the device.
	Ensure adequate lighting at the location of use and on the way there.
	Always allow wet batteries to dry before inserting into the charger.
	Always keep this instruction manual in an easily accessible location close to the device at the place of operation.
	eDRAULIC devices have protection class IP58. They can be used for up to 60 minutes and to a depth of 3m under water.
	When working with or storing the device, ensure that the function and the safety of the equipment are not impaired by the effects of high temperatures or that the device is not damaged in any way. Observe the temperature limits for operation and storage of the devices. Please note that the device can heat up over a long period of use.
	Before transporting the device, always ensure that the device, battery and accessories are firmly secured.
	Dispose of all removed parts, hydraulic fluids and packaging materials properly.

3. STRUCTURE OF THE DEVICES

Page 2

- 1 Device indicator (Figure M)
- 2 Star grip valve
- 3 Battery
- 4 Tool
- 5 Removeable tips
- 6 Attachment/bolt hole

4. OPERATING THE DEVICES



WARNING / CAUTION!

The operational readiness of the device is not displayed, the device may start up unexpectedly when the star grip is actuated.

4.1. REPLACING THE BATTERY

Push the battery from above into the battery slot until it locks in place (figure A).

4.2. REMOVING THE BATTERY

Release the lock and remove the battery (figure B).

4.3. QUERYING THE BATTERY STATUS

Press the query button on the battery (figure C). Note also the separate instructions for the battery.

4.4. FLASHLIGHT FUNCTION OF THE BATTERY

To switch on the flashlight, press the query button on the battery twice in quick succession (Figure C.). To switch it off, press the query button again.

4.5. SWITCHING ON AND OFF

To switch on, press the main switch (Figure M; No. 1). To switch off, the main switch must be pressed for 0.5-1 second.

4.6. ACTUATING THE STAR GRIP VALVE

The working action is triggered by turning the star grip valve. (Figure D.). Every tool has a deadman function. When the star grip is released, it returns to the center/neutral position automatically. This ensures the load is retained.

4.6.1. CUTTING

Turn the star grip valve in the closing direction. (Figure E.).

Position the cutter as perpendicular as possible to the object to be cut (Figure F.). Cut close to the pivot point of the blade (Figure G.).

4.6.2. SPREADING

Turn the star grip valve in the opening direction (Figure H.).

Open a small gap at the start, then insert the spreader tips as far into the gap as possible. Do not spread with the aluminum arms! (Figure J.).

4.6.3. PULLING

Secure the traction device in the attachment / bolt hole (page 2; figure I; number 6) or on the spreader tips. Actuate the star grip valve in the closing direction. (Figure E.) Note the separate instruction manual for the traction device.

4.6.4. SQUEEZING

Only squeeze in the squeezing area and with the squeezing plates of the spreader arms (Figure K.). Actuate the star grip valve in the closing direction. (Figure E.).

4.7. REPLACING THE TIPS (SC AND SP ONLY)

The removable tips are connected to the device arm with bolts. To remove the tips, the bolts must be fully pushed in and then fully locked again (page 2; figure 1; numbers 5+6)

4.8. AUTOMATIC SWITCH-OFF

If the tool is not activated for a period of 60 minutes, it switches off automatically.

4.9. DISMANTLING/SHUTTING DOWN AFTER OPERATION

Once work has been completed, the device arms should be closed until the tips are only a few millimeters apart and the ram piston should be fully retracted and then extended a few millimeters. This relieves hydraulic and mechanical strain on the device. For transport and storage, all devices should be secured and not loosely stored.

5. MAINTENANCE AND CARE

5.1. GENERAL MAINTENANCE

A visual check is to be carried out after each use. After every use, the lubrication of the moving parts and bolts must be checked and topped off with a suitable grease, if necessary. The torque of the central bolt on cutting and combination tools must also be checked. To do so, check the specifications in the spare parts lists.

Any dirt must be removed with a damp cloth. The tool should not come into contact with acids or alkalis. If this is unavoidable, clean the device immediately afterwards.

An annual inspection of the device is due each year and must be documented. The annual inspection must be performed by a person with the necessary expertise. A function and load test must be conducted every three years or in case of any safety concerns. Only testing equipment approved by HURST may be used. Please also observe the relevant domestic and international regulations on the maintenance intervals of tools.

5.2. MAINTENANCE AFTER UNDERWATER USE

- Remove the battery after use. Rinse the device and battery several times in fresh, clean water. Immerse the device completely in order to fill the housing with clean water. Lift the device out and let it drain completely. Depending on the type of water (mud, sludge, algae, salt water, etc.) in which the device was used, repeat these steps another 2-5 times.
- Wipe the device and the battery with a clean, dust-free and damp cloth in order to remove any dirt and deposits.
- Perform function test.
- Leave the device to dry at room temperature in a well-ventilated location. 36 to 48 hours is recommended. During this drying time, the device is completely operational.
For the rechargeable battery, observe the relevant instructions.
- Lubricate all exposed steel parts (shear blade, pressure piece, etc.) with anti-corrosion agent. The contacts in the battery shaft may not be lubricated.

5.3. SHARPENING THE BLADES

Any burrs may be removed and the blade smoothed only in the grinding area (Picture N)! Chips or deep cracks cannot be ground away; in such cases the blades must be replaced.

Tools required:

1. Clamping device (e.g., vise) with jaw protection
2. Grinder (e.g. flex or belt grinder) with abrasive having a grain size of 80. A diamond file is adequate for small burrs.

Procedure:

1. Clamp the blade securely into the clamping device so that it cannot move, leaving the grinding area exposed (Picture N).
2. Carefully de-burr the grinding area with the grinding machine (Picture N).

5.4. REPAIR

Repairs may only be performed by HURST or personnel trained by HURST. When doing so, observe the information in the spare parts lists.

5.5. BATTERIES

If the devices are not used for a longer period, we recommend starting up the device with the appropriate battery 5 times after 30 days. Then charge the battery completely.

This supports optimal function and availability of the battery and devices.

6. TROUBLESHOOTING

Fault	Check	Cause	Solution
The motor does not start after activating the star grip		Device has not been used for 60 minutes and has switched off automatically	Switch the device on again with the main switch
		Battery dead	Recharge the battery or use another battery
		Battery defective	Replace battery
		There is a defect in the electronics	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself

en

es

fr

pt

Fault	Check	Cause	Solution
Motor always runs	Star grip in middle position, device does not move	Error in electronics	Switch off device on the main switch. Remove the battery. Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself
tool moves jerkily when operated		Air in the hydraulic system	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself
tool moves slowly when operated	Temperature of device and battery below -10°C	Cold ambient temperature	Use devices normally, device will warm up with use
	Check charging state display	Rechargeable battery almost dead	Recharge the battery or use another battery
Turbo function not available	Ambient temperature low		Use devices normally, device will warm up with use
		Changeover pressure reached	Perform movement without turbo function
		Electronics temperature too high	Perform movement without turbo function
Cylinder pistons do not move when operated	Battery fully charged?	Battery dead	Charge battery
		Battery defective	Replace battery
		Device defective	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself
Device doesn't perform at its given power		Device defective	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself

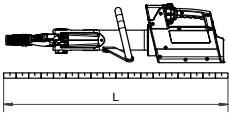
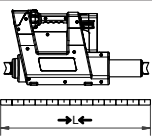
Fault	Check	Cause	Solution
Following release, the star grip doesn't return to the central/neutral position	Casing damaged or star grip not operating smoothly?	Damage to the torsion spring for reset	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself
		Soiled valve or star grip	
		Defective valve	
		Other mechanical damage (e.g. star grip)	
Hydraulic fluid leakage on the piston rod		Defective rod seal	Repair by an authorized dealer, by personnel specially trained by HURST, or by HURST itself
		Damage to the piston	
The useful operating time between the individual charging cycles is less than 5 minutes, despite charging the batteries according to the instructions		Battery defective	Replace battery

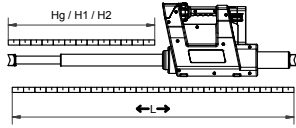
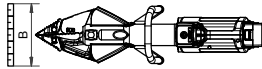
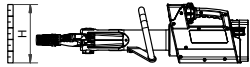
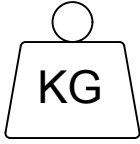

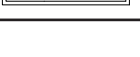
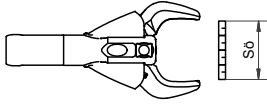
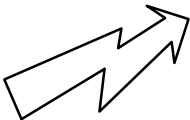

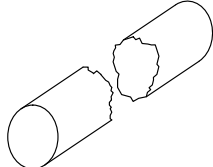
7. EXPLANATION OF PICTOGRAMS FOR PERFORMANCE TABLES

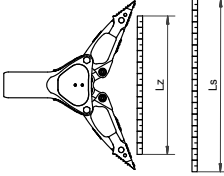

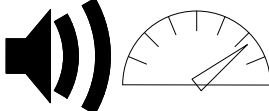
All technical data is subject to tolerances. For this reason, there may be slight deviations between the data in the table and that of your device.

7.1. TECHNICAL DATA

The technical data of the devices can be found starting on page 18.

Symbol	Description	Remarks / abbreviation
	Length	(without battery)
	Length retracted	→L←

Symbol	Description	Remarks / abbreviation
	Length extended	←L→
	Stroke	Hg
	Piston extension 1	H1
	Piston extension 2	H2
	Force piston 1	HSF1
	Force piston 2	HSF2
	Width	(without battery)
	Height	
	Weight	(without battery)
	Weight with battery	5 Ah  9 Ah 
	Min. cutting opening	
	Cutting opening in accordance with EN	
	Max. cutting force	(rear-most cutting point)
	Nominal voltage	U
	Power consumption at nominal load	I
	Protection class	(up to 60 minutes and a depth of up to 3 meters)
	Round material Ø	
	Cutting class (EN 13204)	
	Cutting class (NFPA 1960)	

Symbol	Description	Remarks / abbreviation
	Opening width	Ls
	Spreading force	HSF/LSF
	Min. spreading force	min. Fs (25mm from the tips)
	Max. spreading force	max. Fs *) computed value
	Traction path	Lz
	Pulling force	HPF/LPF
	Max. pulling force	max. Fz (with accompanying chain set)
	Operating temperature range	TB
	Storage temperature range	TL
	Acoustic pressure level at full load	L_{pAV}
	Acoustic power level at full load	L_{wAV}


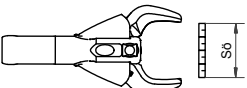
7.2. OSCILLATION/VIBRATIONS

The total oscillation value / vibration value to which human arms should be exposed to is typically below 2.5 m/s².

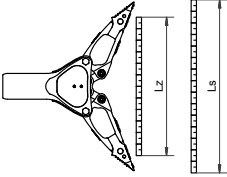
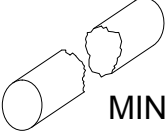

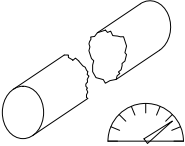





Higher values may be measured for short periods as a result of interaction with the materials to be processed.

(The oscillations / vibrations were determined in accordance with DIN EN ISO 20643.)

7.3. PRODUCT CAPACITY

Symbol	Description/note
	Type
	Cutter opening [mm]

en

Symbol	Description/note
	Spreading force [kN]
	Spreading width [mm]
	Classification based on the minimum performance of the cutter
	Weight [kg] (accurate to one decimal place)
	Cutter power
	Round material
	Flat material
	Round tube
	Square tube
	Rectangular tube

es

fr

pt

8. ACCESSORIES

8.1. BATTERIES

Only HURST lithium-ion rechargeable batteries may be used to operate eDRAULIC devices. Observe the separate operating instructions for the lithium-ion battery!

A special salt water battery is available from HURST for use in salt and sea water.

8.2. BATTERY CHARGER

Only the "eDRAULIC Power Pack Charger" may be used for the lithium-ion batteries. Observe the separate operating instructions for the charger.

8.3. POWER SUPPLY

For eDRAULIC devices, there is a power supply with which the devices can be connected directly to a power outlet. The power supply transforms the alternating current into direct current, so it can be used in place of the battery. Observe the separate operating instructions for the power supply.

8.4. CHAIN SETS

Chain sets and pulling adapters are required in order to perform pulling operations with the eDRAULIC spreaders and combination tools (see section, "Pulling"). Observe the separate operating instructions for the chains sets.

9. INSTRUCTIONS REGARDING DISPOSAL

Please dispose of all packaging materials and removed items correctly. Electrical equipment, accessories and packaging should always be disposed of in an environmentally compatible way.

Only for EU countries:

Do not dispose of electrical equipment with your household waste!

According to the European Directive 2002/96/EC governing electrical and electronic waste and their application in national legislation, old electrical equipment must be separately collected and recycled in an environmentally compatible manner.

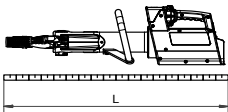
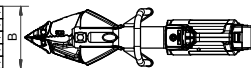
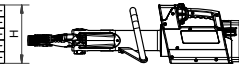


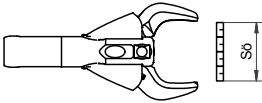
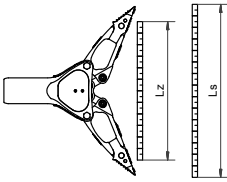
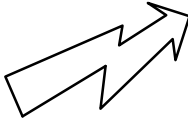

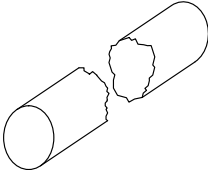



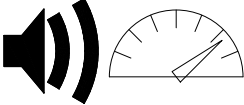
en

es

fr

pt

	[mm] / [in.]	792 / 31.2
	[mm] / [in.]	210 / 8.27
	[mm] / [in.]	253 / 9.96
	[kg] / [lbs.]	14,8 / 32.6
	[kg] 5 Ah	16 / 35.3
	[kg] 9 Ah 	16,4 / 36.2
	[mm] / [in.]	233 / 9.2
	[kN] / [lbf.]	280 / 63000
	Ls [mm] / [in.]	321 / 12.6
	HSF - LSF [kN] / [lbf.]	29 / 6500 - 24 / 5400
	min. Fs [kN] / [lbf.]	32 / 7200
	max. Fs [kN] / [lbf.]	700 / 157000
	Lz [mm] / [in.]	333 / 13.1
	HPF - LPF [kN] / [lbf.]	37 / 8320 - 28 / 6300
	max. Fz [kN] / [lbf.]	37 / 8320
	U [V DC]	25,2
	I [A]	43
	IP	58
	[mm] / [in.]	Ø 26 / 1.02
	EN 13204	F
	NFPA 1960	A6/B6/C6/D7/E7/F4

	TB [°C]	-20... +55
	TB [°F]	-4... +131
	TL [°C]	-30... +60
	TL [°F]	-22... +140
	EN [dB(A)]	70
	NFPA [dB(A)]	65

en

es

fr

pt

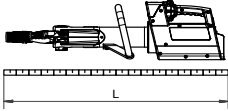
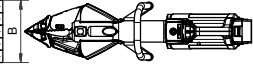
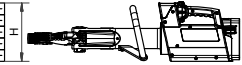
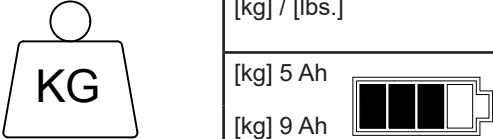
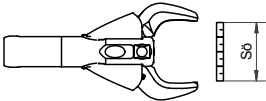
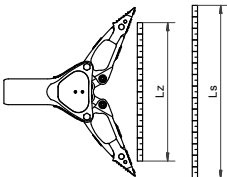
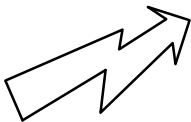

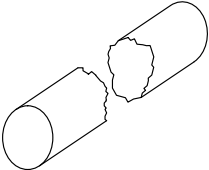
SC 358 E3


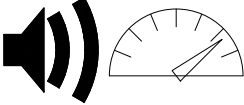
en

es

fr

pt

	[mm] / [in.]	876 / 34.5
	[mm] / [in.]	235 / 9.25
	[mm] / [in.]	253 / 9.96
	[kg] / [lbs.]	18,3 / 40.3
	[kg] 5 Ah	19,5 / 43
	[kg] 9 Ah	19,9 / 43.9
	[mm] / [in.]	309 / 12.2
	[kN] / [lbf.]	492 / 110600
	Ls [mm] / [in.]	368 / 14.5
	HSF - LSF [kN] / [lbf.]	43 / 9667 - 33 / 7419
	min. Fs [kN] / [lbf.]	38 / 8543
	max. Fs [kN] / [lbf.]	1500 / 337230
	Lz [mm] / [in.]	382 / 15
	HPF - LPF [kN] / [lbf.]	62 / 13940 - 43 / 9667
	max. Fz [kN] / [lbf.]	61 / 13714
	U [V DC]	25,2
	I [A]	43
	IP	58
	[mm] / [in.]	Ø 35 / 1.38
	EN 13204	I
	NFPA 1960	A7/B8/C7/D8/E7/F4

	TB [°C]	-20... +55
	TB [°F]	-4... +131
	TL [°C]	-30... +60
	TL [°F]	-22... +140
	EN [dB(A)]	74
	NFPA [dB(A)]	69

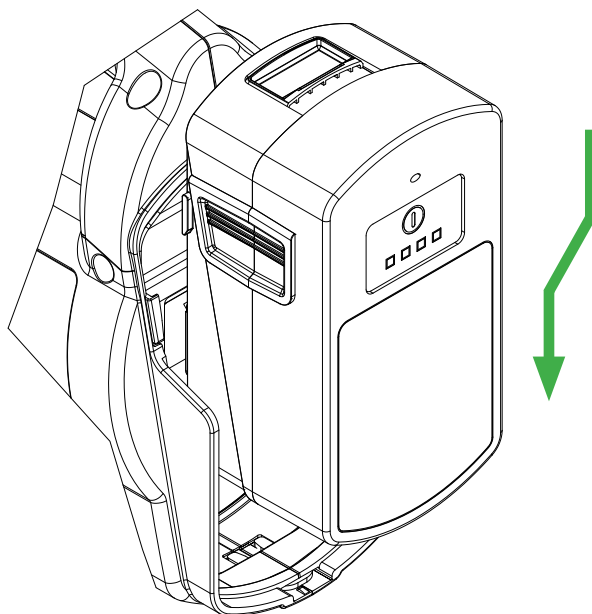
en

es

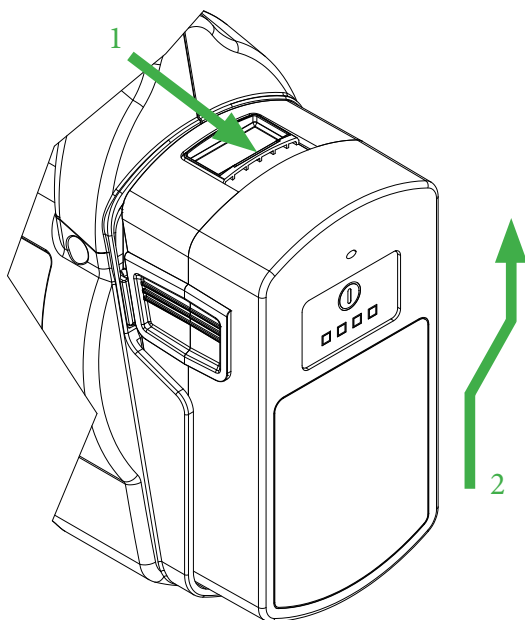
fr

pt

A.)



B.)



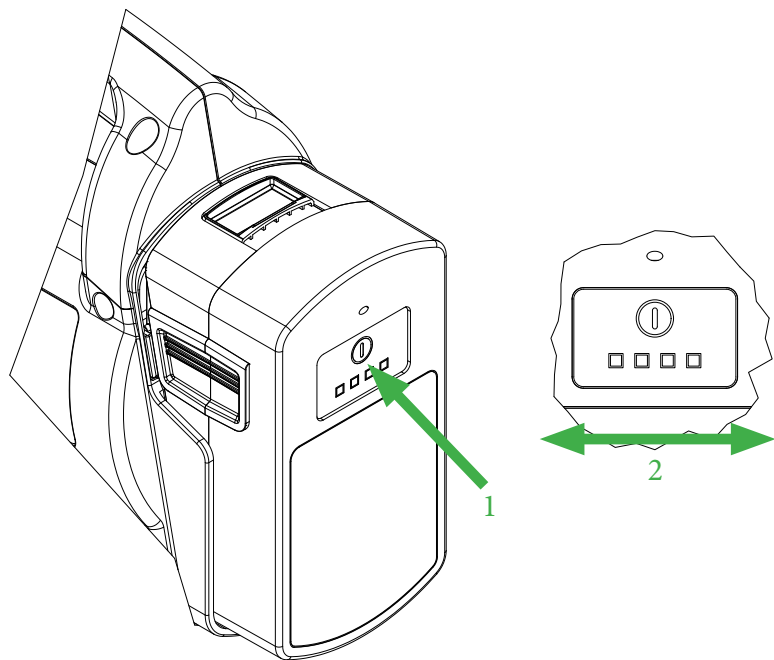
en

es

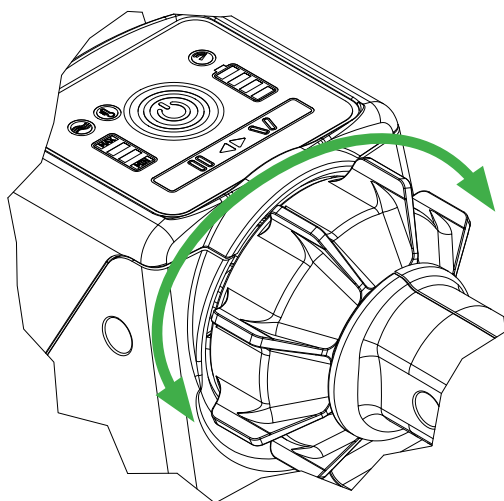
fr

pt

C.)



D.)



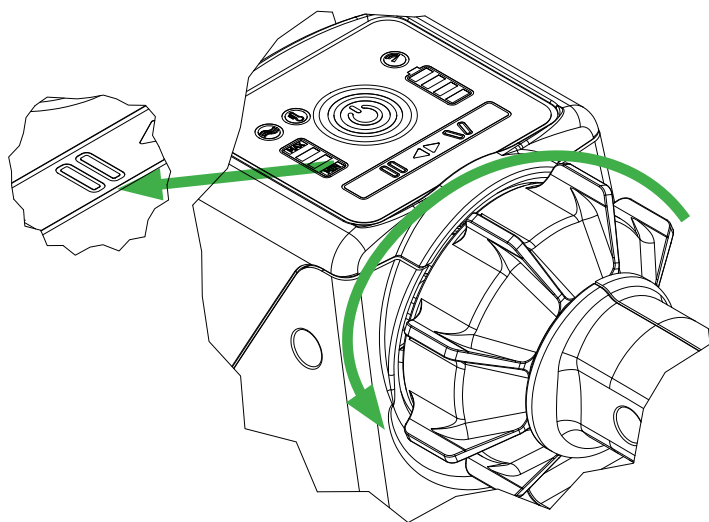
en

es

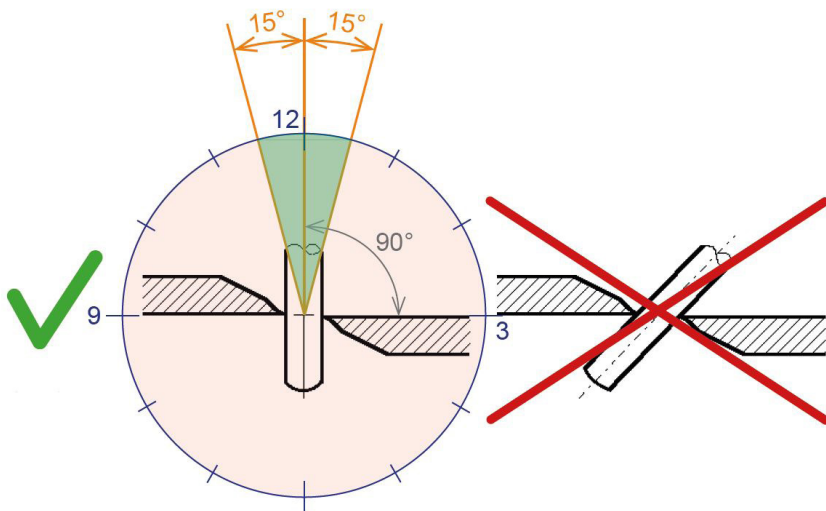
fr

pt

E.)



F.)



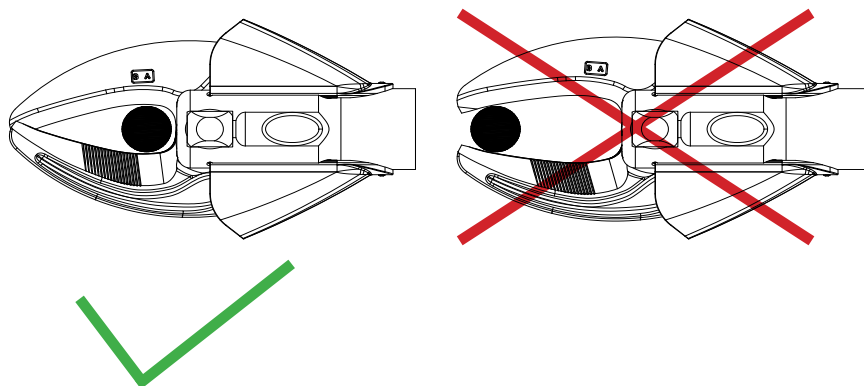
en

es

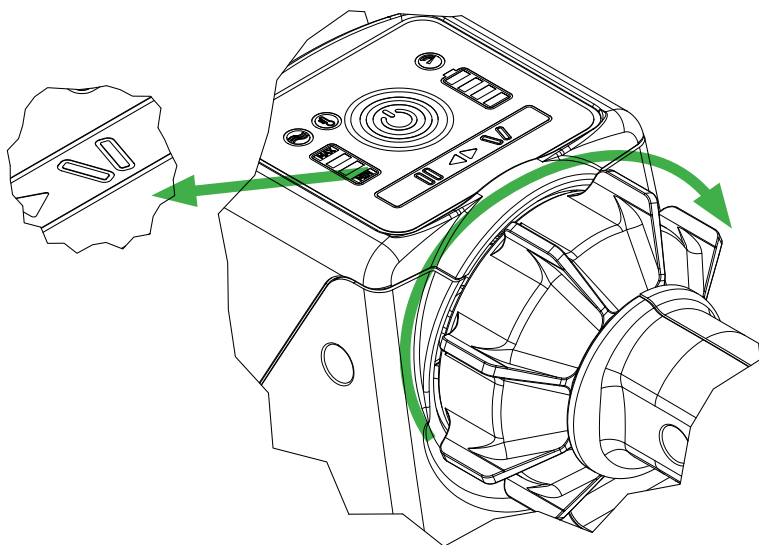
fr

pt

G.)



H.)



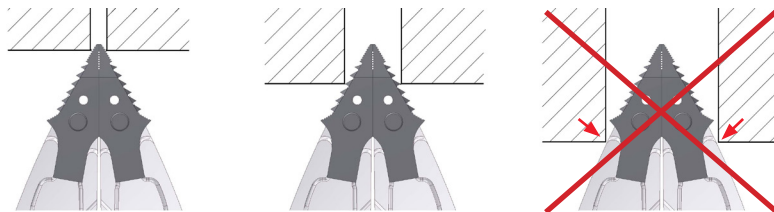
en

es

fr

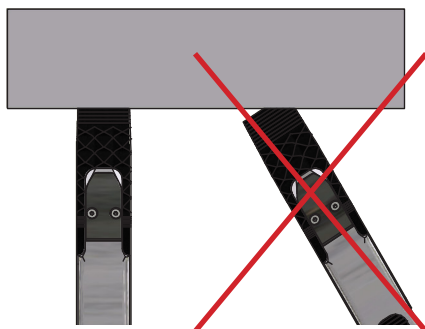
pt

J.)

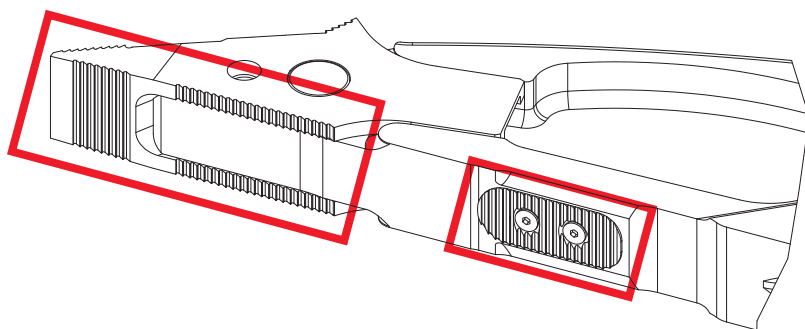


en

es

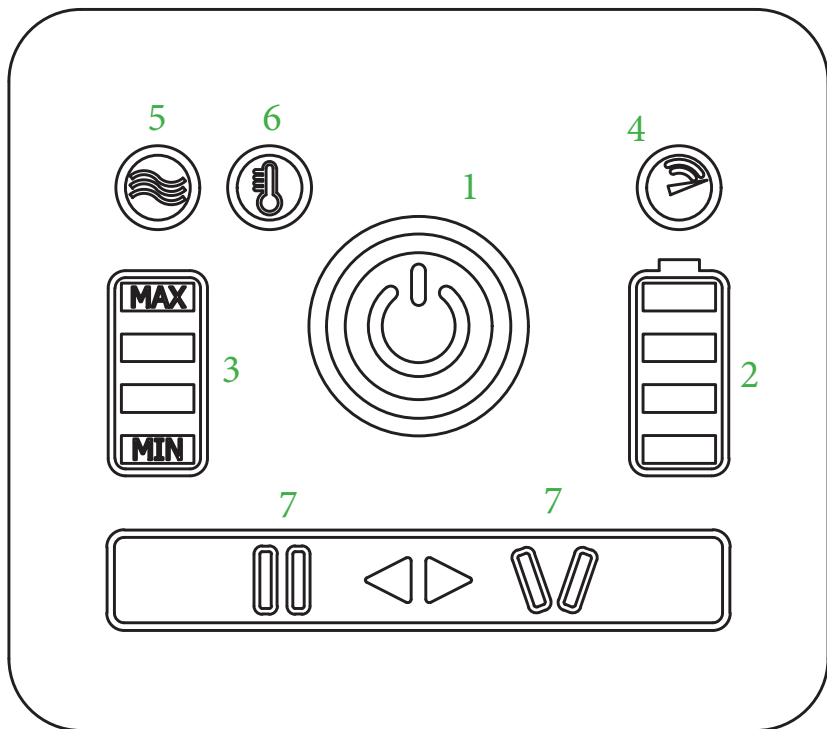


K.)

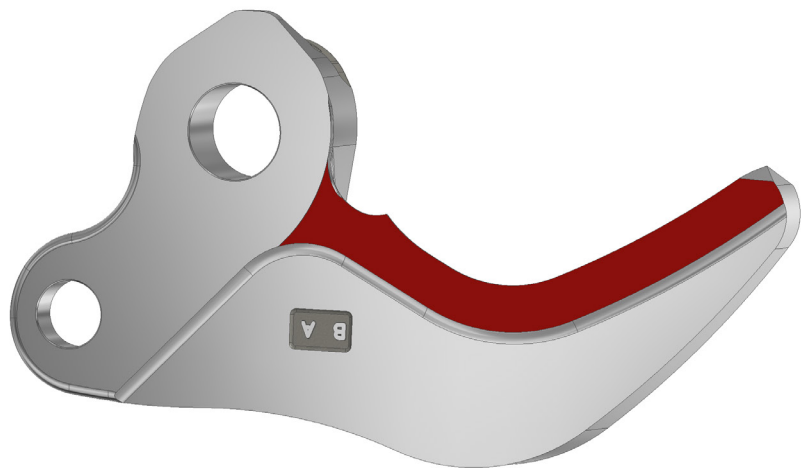


fr

pt



N.)



en

es

fr

pt



711 North Post Road
Shelby, NC 28150

Email: contacthurst@idexcorp.com

Phone: 1-800-537-2659

Web: www.jawsoflife.com

Subject to Revision