

LIMITED 2 YEARS WARRANTY

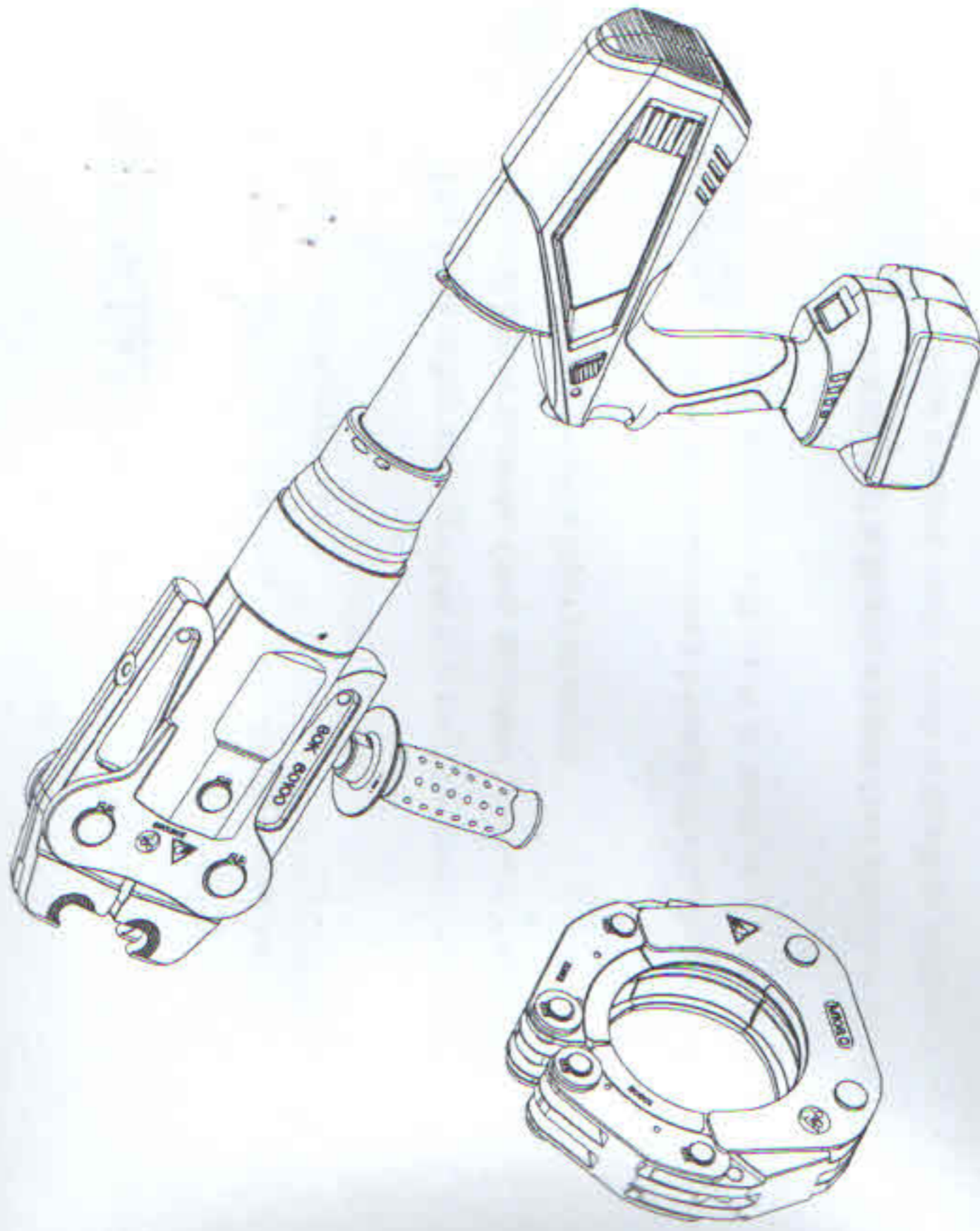
We make every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of two years from the date of purchase (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. **THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.**

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

The warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Instruction Manual

Battery Powered Pressing Tool ED-60100



Due to continuing improvements, actual product may differ slightly from the product described herein.



Read this material before using this product.

Failure to do so can result in serious injury.

SAVE THIS MANUAL

SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the month and year of purchase. Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

GENERAL SAFETY RULES

TO WORK IN SAFE CONDITIONS WITH THIS TOOLING, IT IS IMPERATIVE TO READ CAREFULLY THE DIRECTIONS FOR USE AND TO FOLLOW THE INSTRUCTIONS IT CONTAINS. IF YOU DO NOT RESPECT THE INFORMATION WRITTEN IN THAT INSTRUCTION MANUAL THE WARRANTY WILL BE CANCELLED.

1. Work area safety

- a. Keep work area clean and clear. Cluttered or dark areas invite accidents.
- b. This tool is not insulated; please do not use it on live conductor.
- c. Please do not use or store the tool under high temperature, or one surrounding filling with corrosive fluid. Pay attention to the sealing kits becoming aging.
- d. Keep children and bystander away while operating the Battery powered tool. Distractions will cause you to lose control.

2. Electrical safety

- e. Make sure the plug matches with the plug seat. Never try any changes on the plug.
- f. Do not put tool, battery and charger under a rainy or humid surroundings. It is easy to trigger an electric shock accident if any water goes into the electric system of the tool.
- g. Do not use electric wire to carry, pull, or to draw out the plug and do not connect the “-“and “+”, the damaged or twined wire may cause an electric shock accident.
- h. If the charger was strongly crashed, or dropping down or any other damages happening, please do not try to repair it by yourself, send it back to the authorized service center as soon as possible. The damaged charger may cause an electric shock accident.
- i. The best temperature for charging is between 10°C-40°C. Make sure the air hole

of the battery and charger are uncovered during charging.

- j. Please cut off the power of the charger each time to reduce the hazard from child or the person who not expert on the tool.
- k. Do not charging when the power give out, the give out will caused the battery does not working anymore. Please keep the battery out of the tool to avoid the power discharge.
- l. Please do not burn the battery or make it being short-circuited, it may cause explosion.
- m. Do not use the waste battery otherwise it will caused the electric shock.
- n. Do not disassemble the battery and charger. If any problem please contact with manufacture or agent.

3. Personal safety

- o. Stay alert, watch what you are doing and use common sense when operating the tool. Do not use the tool while you are tired or still under the influence of drugs, alcohol or medication. A moment of inattention may result in series personal injury.
- p. Use safety equipment. Always use safety equipment such as mask, helmet, safety cap, insulating shoes and etc to reduce the risk of personal injury.
- q. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes jewelry or long hair can be caught in moving parts.
- r. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool operation. If damaged, have the tool repaired before use. Many accidents are caused by poorly maintained power tools.
- s. Please use the tool properly, the tool with correct power will do the job better and safer at the rate for which it was designed.
- t. Do not put your fingers into the head of the tool during operating. Your fingers could be pinched very severely.

4. Service

Have your Battery Pressing Tool serviced by a qualified service technician using only identical replacement parts. This will ensure that the safety of the Hydraulic Pressing Tool Kit is maintained.

SPECIFIC SAFETY RULES

- 1) Maintain labels and nameplates on the tool which carry important safety information. If unreadable or missing, contact the agent to replace.
- 2) This product is not a toy, keep it out of reach of children.
- 3) Do not put your fingers into the head of the tool during operating. Your fingers could be pinched very severely.
- 4) Make sure the head was locked firmly during operation.
- 5) Do not use the tool without dies
- 6) Do not knock any parts of the tool, otherwise it will cause injury.
- 7) Do not operate at will, it will damage the MCU and electric system
- 8) The design of the limit screw on the head is for preventing the head from dropping or popping.
- 9) Make sure the head was locked firmly during operation.
- 10) Do not use this tool for continuous use. After 30 to 40 cycles, allow the tool to cool for 15 minutes.
- 11) Do not secure this tool in a vise. This tool is designed for hand-held operation.
- 12) The built-in safety valve goes through strict pressure test before marketing; please do not adjust the pressure by unprofessional person. If the pressure is not enough please return the tools back to the service center. The tool only can be reused after checking and testing by trained person.
- 13) The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

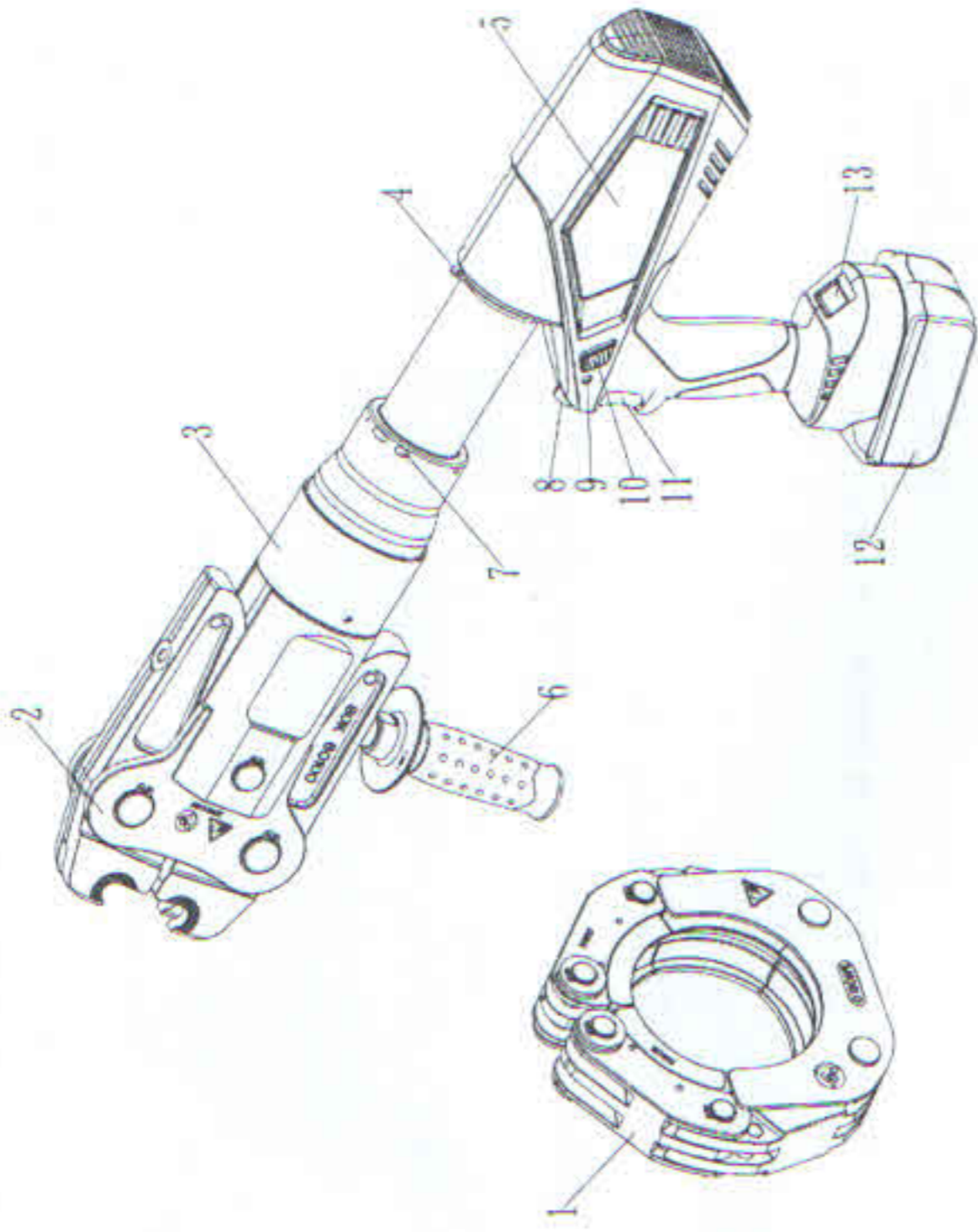
UNDERSTAND YOUR TOOL

ED-60100 is a tool for connecting big size stainless steel pipe and copper pipe with fittings. It is powered by Li-ion, and controlled by MCU. With a high pressure hydraulic system, it is a perfect tool to be used in plumbing construction site.

1. Specification

Max. pressing force:	80kN
Stroke:	80mm
Pressing range:	Thin-wall stainless steel pipe and copper pipe: 60-108mm(2"-4")
Hydraulic oil:	Shell Tellus T15# S2V HV15
Oil capacity:	250ml
Ambient temperature:	-10-40°C
Voltage/capacity:	18V/5.0Ah
Time/press:	18-25s(depend on the dia of pipe)
Time/charger:	Approx. 350 times (DN20)
Charging voltage:	AC 100V~240V ;50~60Hz
Charging time:	Approx. 100mins
Weight:	11.9kgs(with battery)
Size of tool:	620x360x84mm
Accessories:	
Battery:	2 pcs
Charger:	1 pc
Sealing ring of cylinder:	1 set
Sealing ring of safety valve:	1 set

2. Description of components:



Parts No.	Description	Function
1	Ring jaws	For pressing, interchangeable jaws
2	Adaptor	For connecting ring jaws
3	Sheath	For preventing clamping hand
4	Strap buckle	For mounting strap
5	Label	For sticking company logo
6	Handle	For opening adaptor easily
7	Limited bolt	For preventing head from dropping or popping
8	White LED	For lighting
9	Red LED	For indicating the operating condition and battery discharging situation.
10	Retract button	For manual retracting the piston in case of an incorrect operation.

11	Start button	For starting operation
12	Battery	For supplying power, rechargeable Li-ion (18V)
13	OLED display	Show pressing time, electricity errors info

3. Function description

Micro computer control system-automatically detects the pressure when in pressing with double safety protect.



OLED display - Dot matrix OLED display, which shows pressing times, battery power, working pressure (if equipped with pressure sensor), maintenance reminding and fault code.



Auto reset- Release the pressure automatically, retract the piston to the starting position when reached the max output.



Manual reset —Can retract the piston to the starting positioning in case of an incorrect operation.



The unit is equipped with a double piston pump which is characterized by a rapid approach of the jaw towards the idler wheel and a slow working motion.



The head can be smoothly turned by 310° around the longitudinal axis in order to gain better access to tight corners and other difficult working areas.



If a deviation from the set operation pressure or low battery charges is identified, an acoustic signal sounds and a red display flashes.





The overall structure of the tool is compact. It is ergonomically designed with a non-slip rubber grip and an optimized center of gravity for easier operation.



A temperature sensor makes the tool stop working automatically when the temperature over 60°C under long time working, the fault signal sounds, it means the tool can't continue working until the temperature reduce to the normal.

Table 1 Signal Instruction and Meaning:

Series No	Instruction	LED (red)	LED (white)	Speaker	OLED screen	What it means
1	Self-checking	□□□ (2Hz)			Welcome	Self-checking to assure everything is ok
2	Light		Delay 20s off		Device usage 250 Timeout 5 minutes off	Enter the working state, the battery is full
3	Charging reminding	□□□ (2Hz)			Device usage 250 ↓	Lacking power and need charging
		□ (5s)			Low battery	
4	Motor overload	□ (100ms)		○○○○○ (2Hz)	Battery empty	Lacking power and need charging
		□□□ (2Hz)		○○○ (2Hz)	E01 Motor overload	The screen doesn't respond, the battery lose efficacy and need to replace Motor get stuck, battery reloading, recovery work interface
5	Hydraulic system Malfunction	□ (5s)		● (5s)	Error: 02 Malfunction	Tool doesn't release pressure automatically when working over 2mins, reload battery

6	High temperature warning	□□□□ (2Hz)	●●●● (2Hz)	E03 Hot	Motor surface temperature is too high, waiting for cooling to restart the tool
7	Dangerous operation protection	□□□□ □ (2Hz)	●●●● (2Hz)	Error: 99 Danger operate	Auto-protection when press the start button on and off quickly, reload battery
8	Maintenance reminding		● (0.5s)	 Please maintain  Device usage 10001	Tools must be maintained

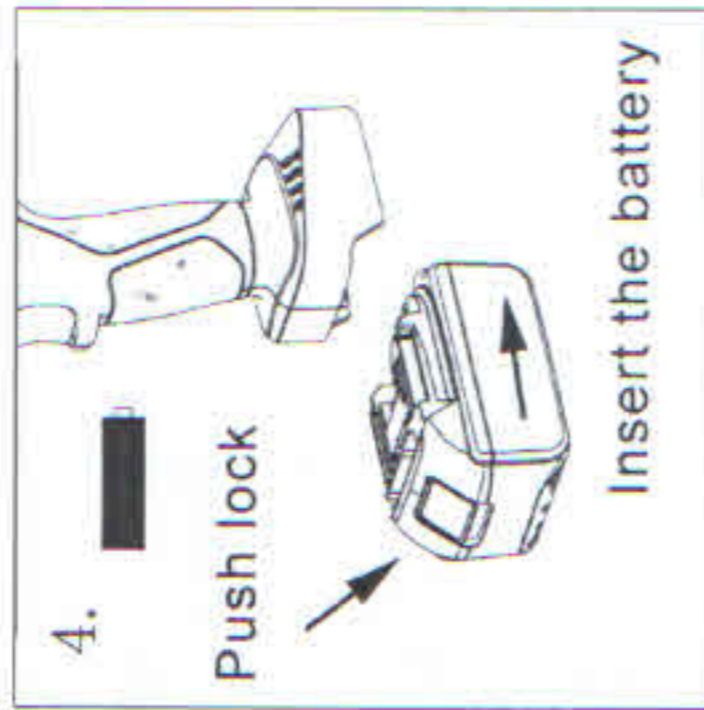
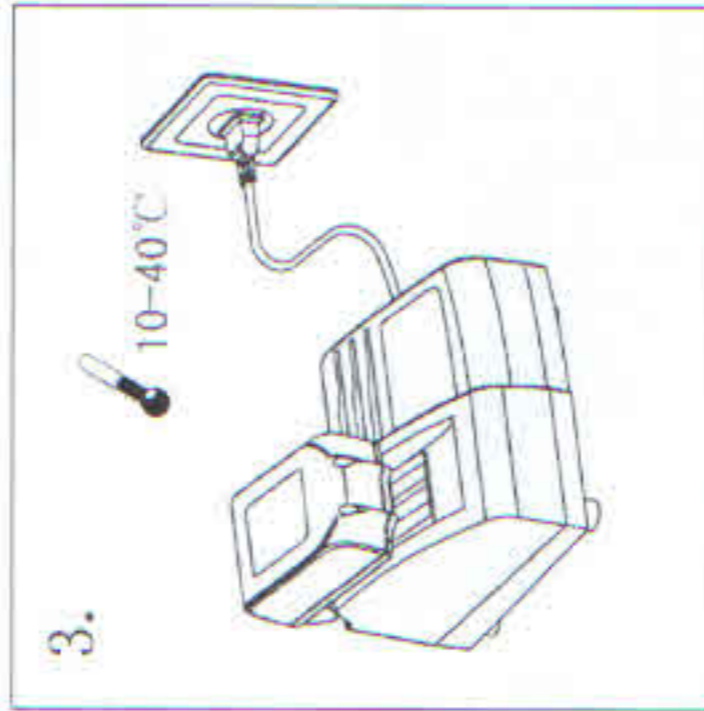
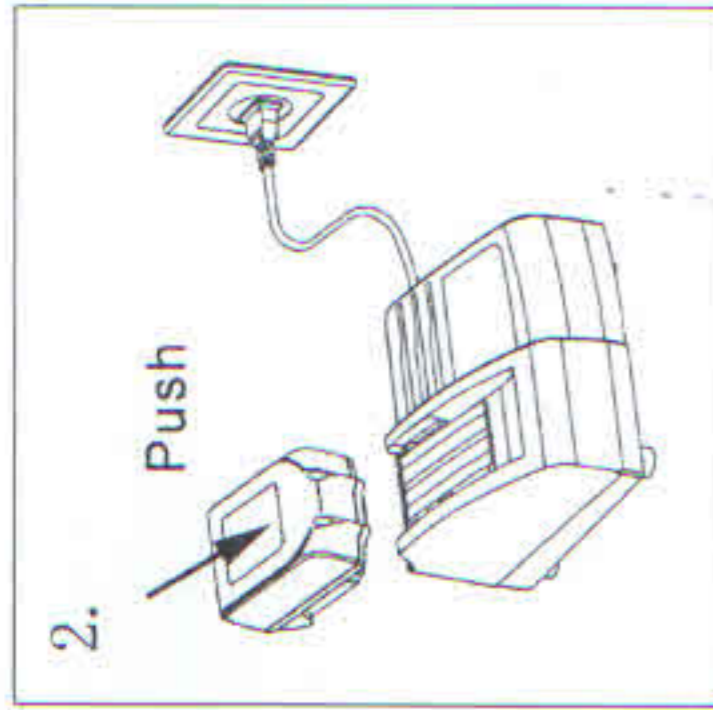
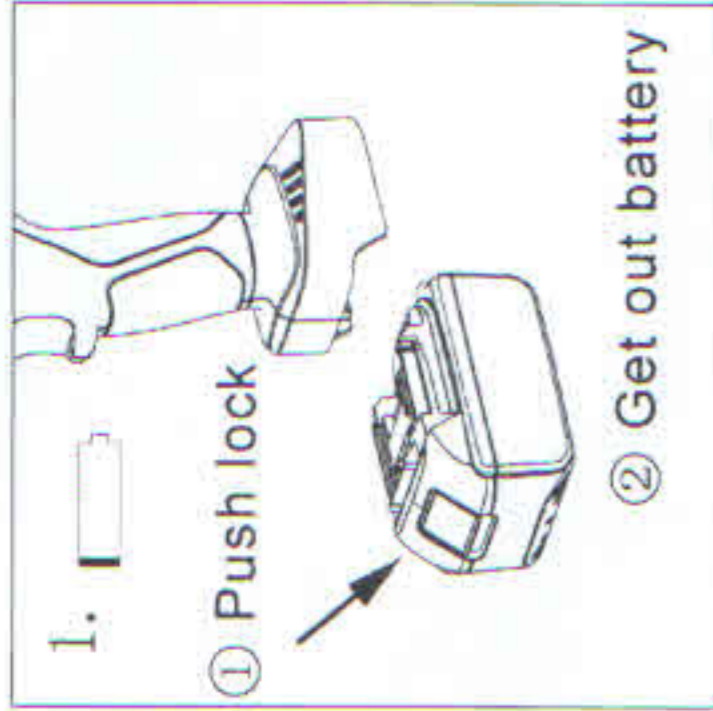
OPERATING INSTRUCTION

Read the entire **SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before using this product.

Use this tool for the manufacturer's intended purpose only. Use other than that which is described in this manual can result injury or property damage.

1. Charging

Push battery into charger and connect the plug with the plug seat. Make sure the room temperature is between 10°C-40°C. The charging time is around 100mins. Please see the illustration below.



The detail of the charging information, please refer the manual (MANUAL FOR CHARGER)

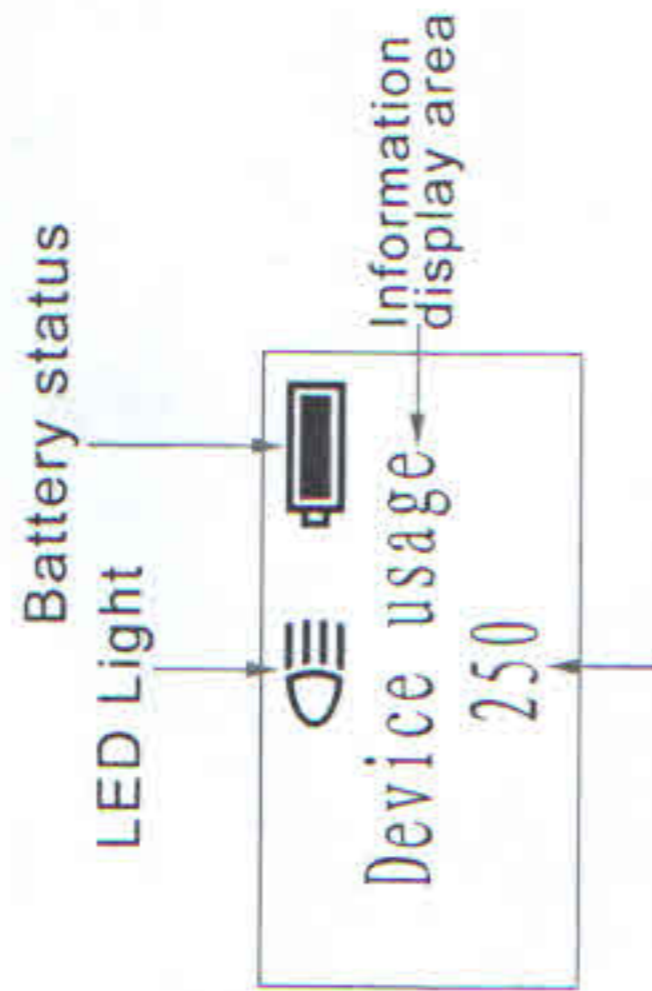
CAUTION

- 1) The battery can be used for hundreds of times, when the life span reduced obviously, change to a new battery please.
- 2) Please charging the battery in time to avoid it to be used up absolutely; otherwise it will become useless forever. if the battery not be used for a long time, it will discharge automatically. Make sure to charge it one time per/each quarter.
- 3) Do not connect the two poles of the battery with a wire, which is likely to cause electric spark, combustion or even explosion.
- 4) Do not use the damaged battery or charge it, or it will increase the risk of electric shock.
- 5) Under no circumstances should batteries be burned, or they may explode.
- 6) When charging the battery, do not cover the charger with any object, so that the charger cannot dissipate heat, which is likely to cause fire.
- 7) Disconnect the charger when not in use. It will reduce the risk of injury to children and untrained personnel.

- 8) Do not use the charger in humid environment, and do not expose to rain and snow, or it will increase the risk of electric shock.
- 9) Do not disassemble the battery and charger without permission. If there is any fault in the process of use, please send it to the professional or the manufacturer for maintenance, until the problem is solved.

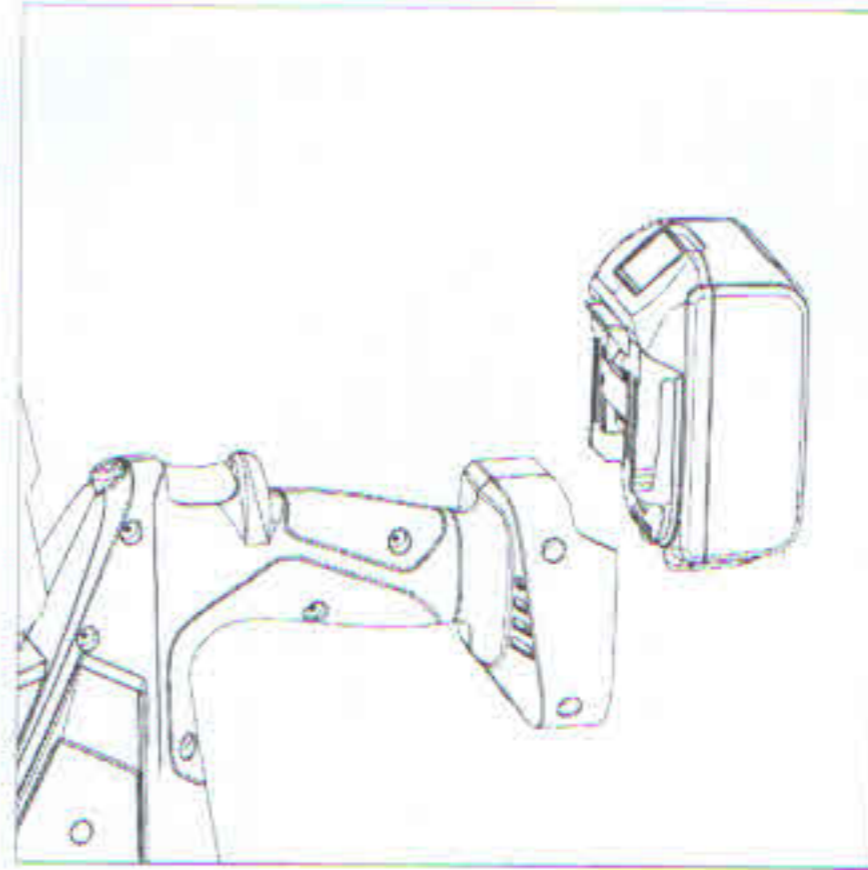
2. Usage of the tool

1.1. OLED display interface description:

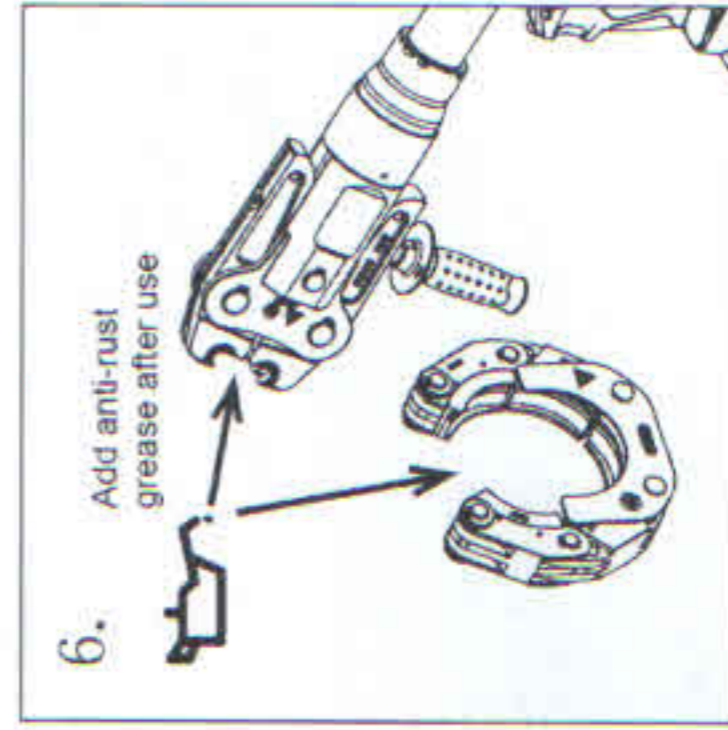
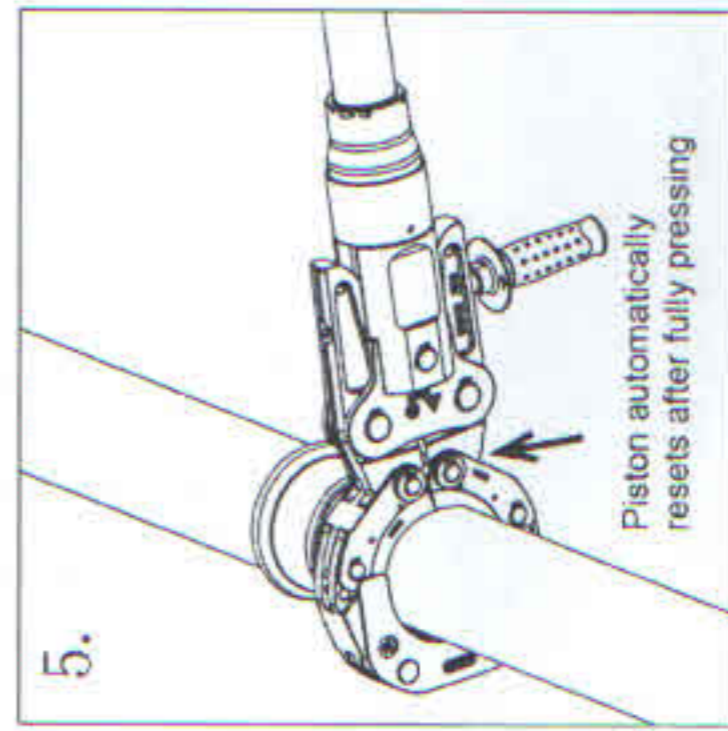
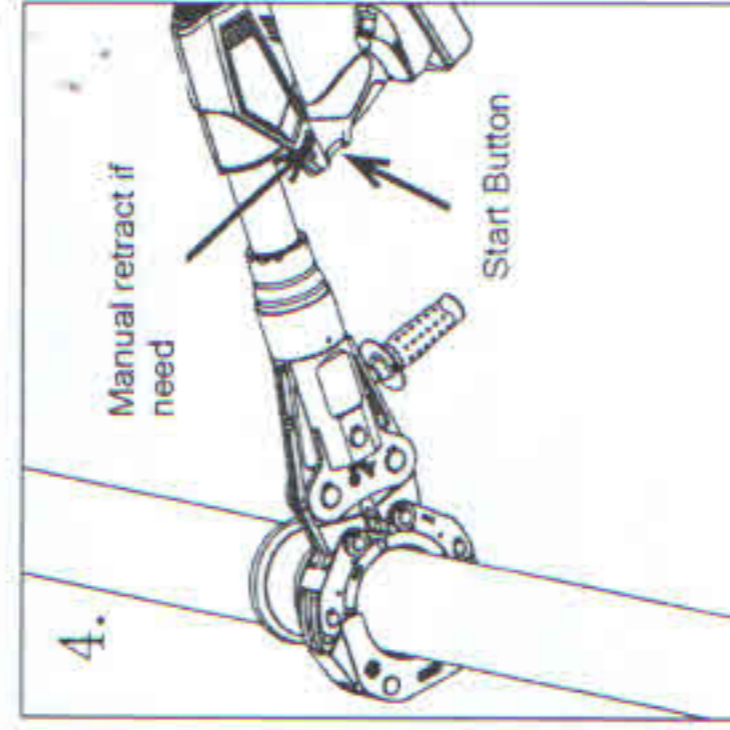
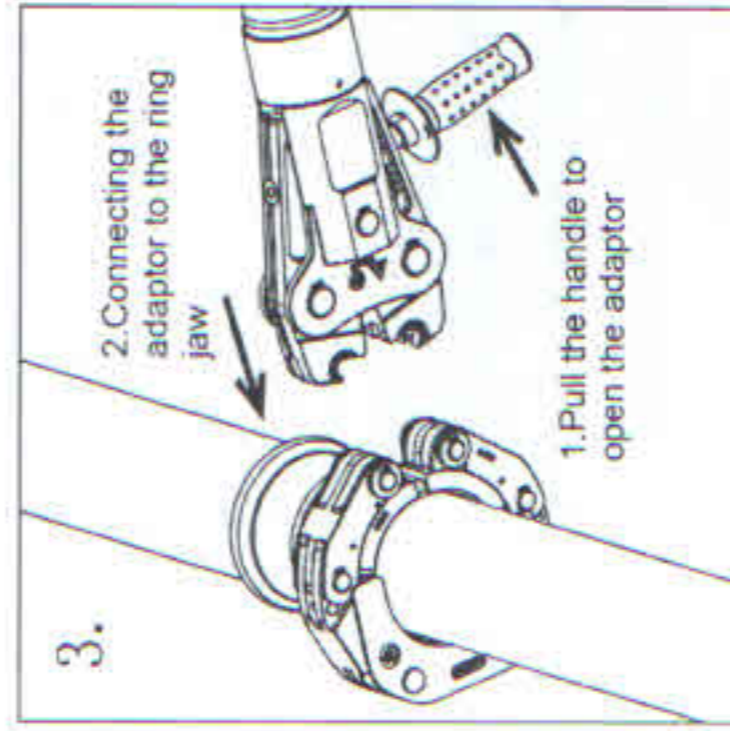
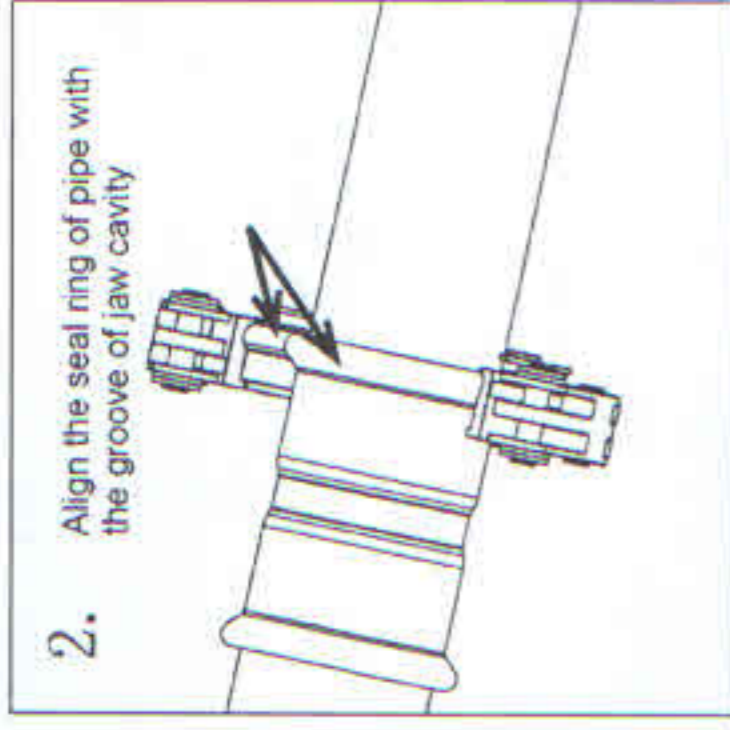
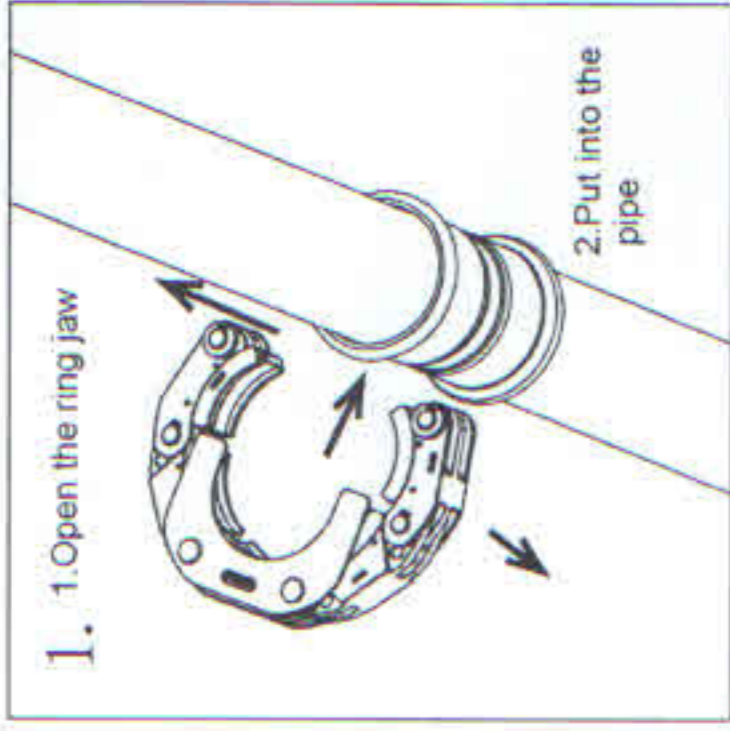


Cumulative pressing times

Tool LED illuminator: After clicking the start button, the LED illuminator lights on. After the tool is released, the button will automatically turn off after a delay of 20 seconds. Press the start button before installing the battery. When the battery is installed, release the start button and the LED light is off. If the light is on, the battery must be reinstalled once. As shown in the figure.



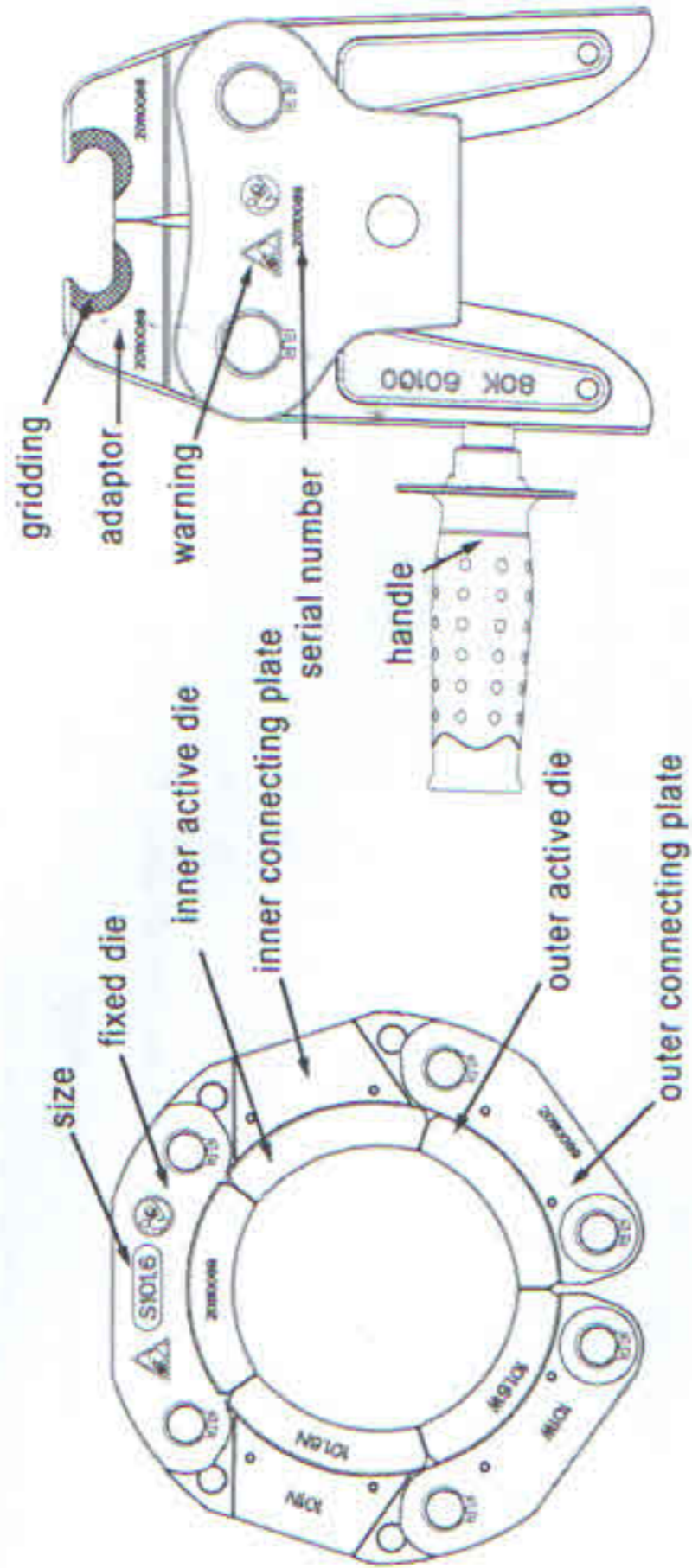
2.2. Pressing operation



Warning: During the extension of the tool piston, do not put any part of the human body such as your fingers into the working jaws to avoid accidents!

3. Pressing jaws

3.1. Introduction of press jaws



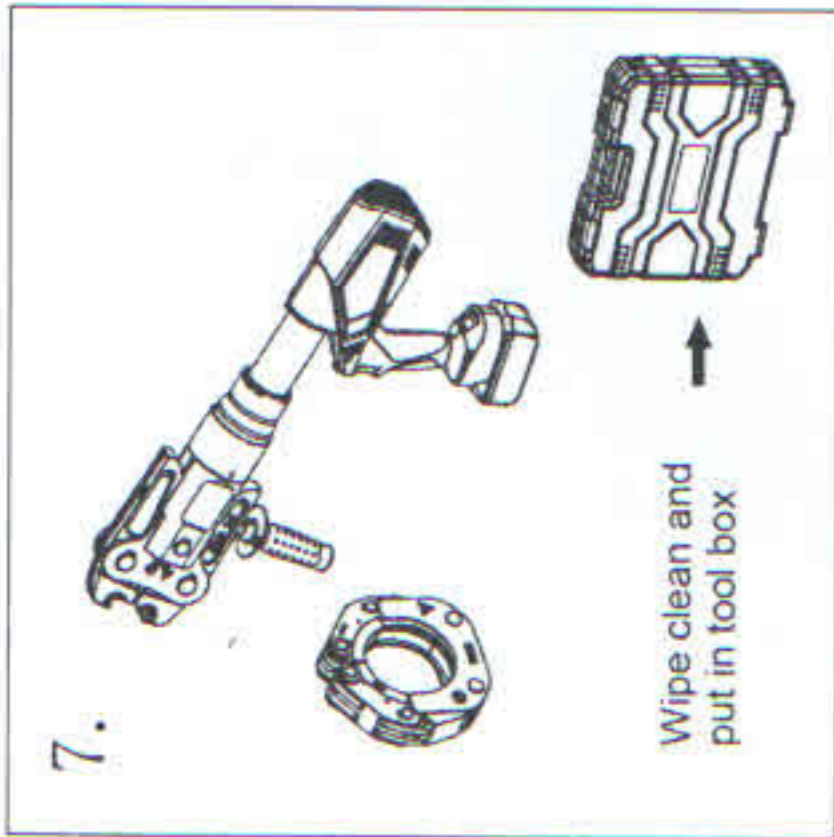
Ring jaws

Adaptor

CAUTION:

1). The operation staff must have participated in professional training, and the construction engineering company must have the corresponding construction qualification recognized by the state.

2). Pressing tool, pressing jaw, adaptor or ring jaw are only for the corresponding piping system and fittings. Use of other ways or modified standard accessories for other applications may damage tools and accessories, and may even result in personal injury.



Note: Start pressing when ring jaws fully connect to adaptor and cover the gridding.



Warning: 1) Do not hammer or knock any part of the tool. Before operation, check the tool for any damage, aging, missing parts,

misalignment or component jamming and any other unfavorable factors that endanger safety and normal operation. It works effectively without any jams. If you find any problems, stop using them immediately until the problem is solved.

- 2) During the pressing process, the mold fixing pin must be fully inserted into the clamp head to lock and prevent the mold fixing pin from slipping out!
- 3) When pressing, the O-ring ring groove of the pipe fitting must be placed in the ring groove of the mold. Otherwise, the O-ring is easily crushed and water leakage occurs.
- 4) The limit screw on the clamp head prevents the clamp head from falling off or popping out. Do not remove it yourself!
- 5) Remove any grease, dust, especially on the handle and control components, to prevent the tool from slipping during use.
- 6) The built-in safety valve undergoes strict pressure detection before leaving the factory, and the user must not adjust it without authorization! If you are experiencing under-pressure, please take the tool to a qualified service technician and use it for pressure testing.

i

Important information:

- 1). The jaw is a consumable part. When it is often used for pressing, the material will be fatigued and cracks will occur. A heavily worn jaw is prone to breakage, especially if it is used improperly (such as over-sized fittings, skewed presses, etc.) or illegal operation.
- 2). Check the jaw for any breakage, cracks, or component jams and any other unfavorable factors that compromise safety and normal operation, either periodically or before each use. If you find any problems, please stop using them immediately, and return them to the professional repairing manufacturer or return to the factory for repair until the problem is solved.
- 3). Once you find the following phenomenon, please stop using it and replace it with a new one!
 - a. the board is cracked
 - b. the jaw arm is cracked and deformed
 - c. the jaw is cracked, scratched, sunken or severely worn
 - d. other anomalies
- 4). It is forbidden to disassemble the tools by yourself. It is strictly forbidden to weld, polish, drill or other changes to the die accessories!
- 5). Do not put any part of the human body, such as your fingers, into the jaw ring use!
- 6). This tool is a high-strength, heavy-duty appliance. Please strictly follow the instructions and precautions!



CAUTION: Improper operation can lead to leaks at the joint

- 1). Please ensure that the press fitting specifications are the same as the jaw.
- 2). It should be confirmed that the jaw has been completely closed after the pressing is completed.
- 3). When pressing, make sure that the jaw along with the pressing tool is properly positioned on the flange of the fitting.

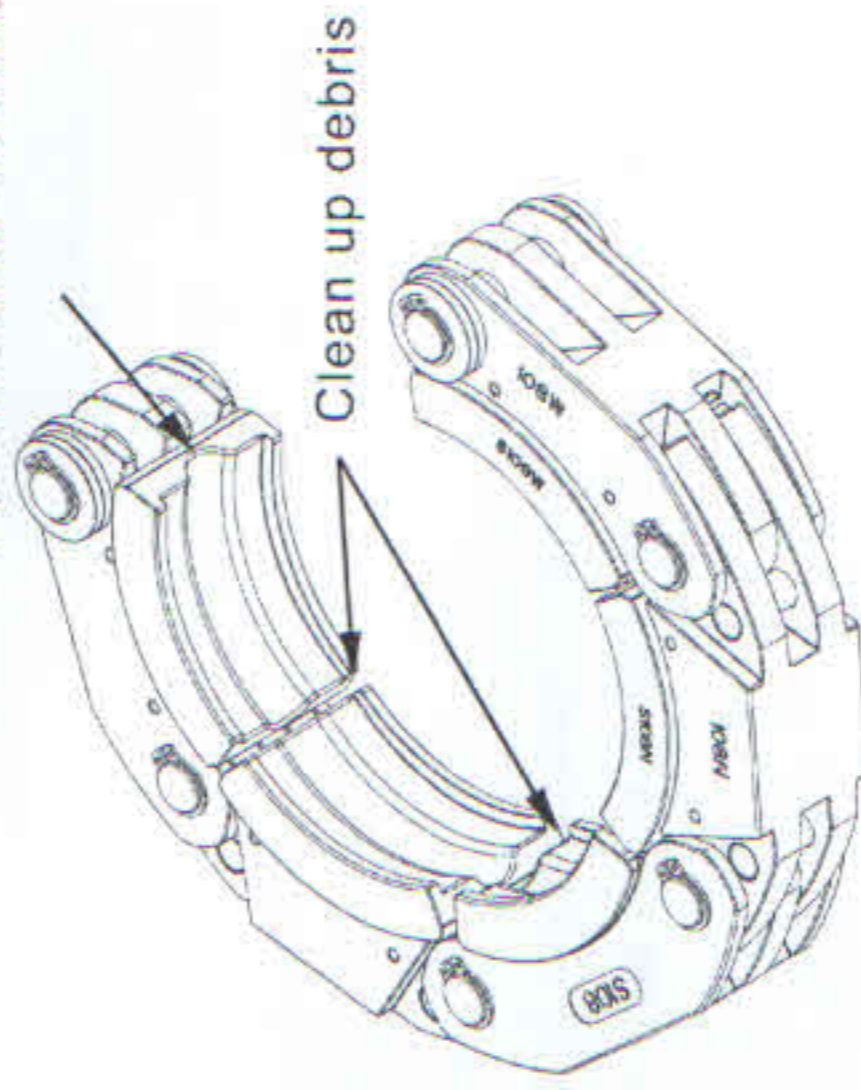
4). If the jaw cannot be completely closed when pressed, it should be sent to the tool dealer or manufacturer for repair.

5). If the jaw connection is incorrectly squeezed, replace a new jaw and do not continue to use it.

6). If there is a burr on the pipe joint after pressing, it should be handed over to the tool dealer or manufacturer for inspection.

3.2. Jaw cleaning and maintenance

Pipe material stacking



- 1). Clean the residue accumulated in the pressing jaws in time. Cleaning the residue can be done with a scouring pad or a steel wool, but it can't be cleaned with something harder (such as sandpaper, file, etc.), which will accelerate the wear on the edge of the cavity.
- 2). After each pressing is completed, remove the impurities and dust on the surface of the jaws, especially the gap at the bottom of the jaws; then rub the lubricant on the surface of the jaw, especially the pin and jaws, and then put it into the dedicated toolbox.
- 3). It is strictly forbidden to collide with any metal. It is strictly forbidden to contact any jaws with any sharp object.

- 4) Check the jaw return spring before each use. Normally, the jaw can be easily opened and closed by applying two hands.
- 5) It is recommended to check the wear of the jaw once a year by the dealer or manufacturer.







MAINTENANCE AND SERVICING

⚠ WARNING

Damaged equipment may cause serious personal injury. Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further using.

- 1) **Before each using**, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, or any other condition that may affect its safe operation.
- 2) **After using**, clean external surfaces of the tool with clean, moist, smear the rust preventing oil on the metal surface of the tool and the dies to avoid rusty. Store the tool in the dry environment.
- 3) Service to the tool should only be done by a qualified Service Technician.
- 4) In order to prolong the life of the tool please change the oil per year. Make sure the oil filtered by 120 mesh net or over 30µm strainer. Meantime avoid the dusty into the oil cup.
- 5) After a long time using, the sealing kits will be damaged, if there is leakage please contact with the manufacturer and/or the distributor to change the sealing kits.
- 6) If the tool not used for a long time, please make sure the piston stay on its starting position, clear up the tool and paint the rustproof oil both to the tool and accessories. Take out the battery and put them into box and store the tool in a dry surrounding.

The important icon in manual and jaws

Warning icon	Meaning
	Please read the manual and security icon carefully before using the product
	Caution
	Caution: Please operate carefully to protect any parts of the human body such as your fingers
	If misusing or jaws are worn, the fracture smash will fly out and cause dangerous
	Start pressing when ring jaws fully connect to adaptor and cover the gridding.
	Important information