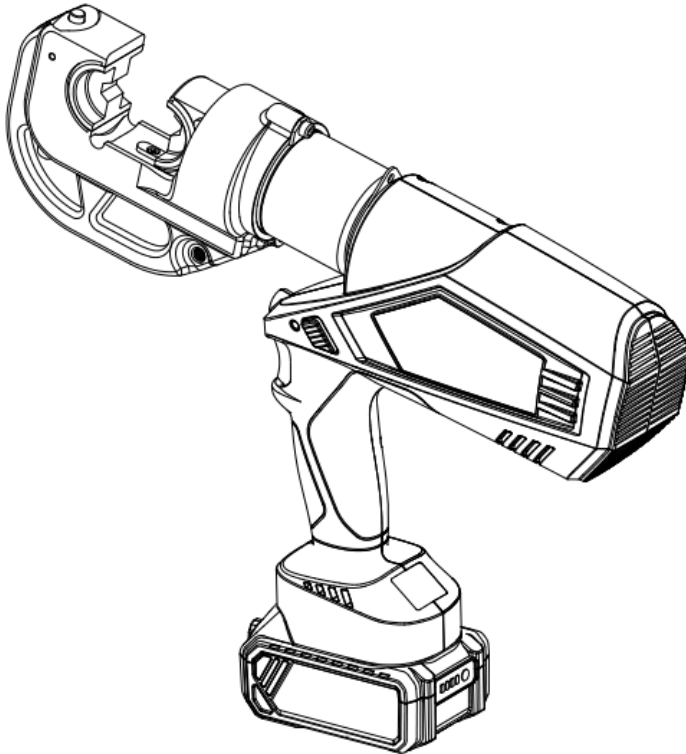


Instruction Manual

Battery Powered Crimping Tool PT-400



Due to continuing improvements, actual products 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 the 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 has crashed, or dropped down or any other damage 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 in 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 is not expert on the tool.
- k. Do not wait until the battery runs over for recharging, the recharging will cause the battery to not work anymore. Please keep the battery out of the tool to avoid power discharge.
- l. Please do not burn the battery or make it short-circuited, it may cause an explosion.
- m. Do not use the waste battery otherwise it will cause electric shock.
- n. Do not disassemble the battery and charger. If there is 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 a series of personal injuries.
- p. Use safety equipment. Always use safety equipment such as a mask, helmet, safety cap, insulation 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.

3. Service

Have your Battery Crimping Tool serviced by a qualified service technician using only identical replacement parts. This will ensure that the safety of the Battery Crimping 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, it keeps it out of reach for 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 is locked firmly during operation.
- 5) Do not use the tool without die.
- 6) Do not crimp on live cables or conductors
- 7) Do only crimp Cu copper or Al conducting material
- 8) Do not knock any parts of the tool, otherwise it will cause injury.
- 9) Do not operate at will, it will damage the MCU and electric system
- 10) The design of the limit screw on the head is for preventing the head from dropping or popping.
- 11) Make sure the head is locked firmly during operation.
- 12) Do not use this tool for continuous use. After 30 to 40 cycles, allow the tool to cool for 15 minutes.
- 13) Do not secure this tool in a vice. This tool is designed for hand-held operation.
- 14) 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 to the service center. The tool only can be reused after checking and testing by trained person.
- 15) 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.

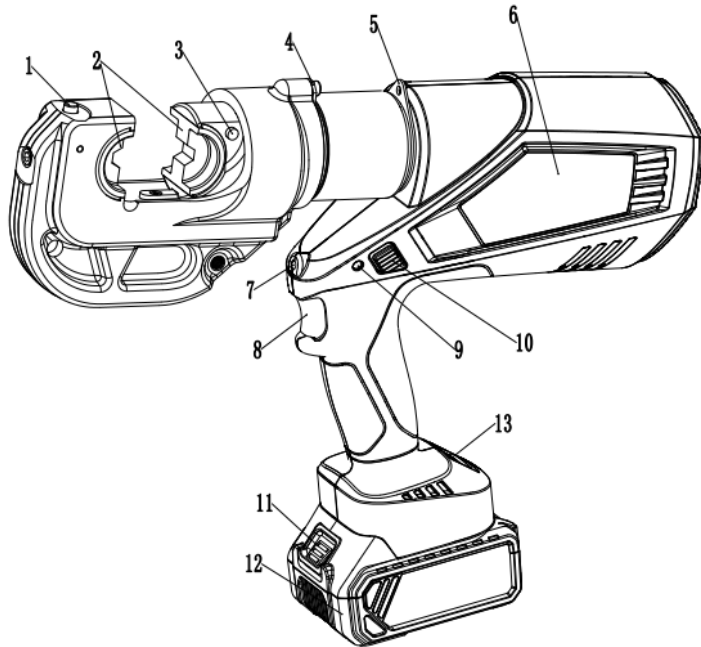
UNDERSTAND YOUR TOOL

PT-400 is a tool for crimping Cu/Al lugs with cables from 16-400mm². It is powered by Li-ion, actuated by motor and controlled by MCU, with OLED display and a high-pressure hydraulic system, it is a perfect tool to be used in electrical construction sites.

1. Specification

Max. crimping force:	120kN
Crimping range:	Cu 400mm ² /Al 300mm ²
Stroke:	42mm
Hydraulic oil:	Shell Tellus T15# S2V HV15
Oil capacity:	160ml
Ambient temperature:	-10-40℃
Voltage/Capacity:	18V/4.0Ah
Time/crimp:	5-8s (Depend on the size of cable)
Time/charger:	Approx. 120 times (CU 150 mm ²)
Charging time:	Approx. 80mins
Size of tool:	420x329x78mm
Package:	Plastic box
Accessories:	
Crimping dies:16.25.35.50.70.95.120.150.185.240.300.400mm ²	
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	Pin	For locking/unlocking the upper die
2	Die	For crimping, interchangeable crimping die
3	Retaining clips	For locking/unlocking the down dies
4	Limited block	For preventing head from dropping or popping
5	Sling swivels	For mounting strap
6	Label	For sticking company logo
7	Light (LED)	For lighting
8	Start button	For starting operation
9	Retract button	For manual retracting the piston in case of an incorrect operation.

10	LED indicator (red LED)	For indicating the operating condition and battery discharging situation.
11	Battery lock	For locking/unlocking the battery.
12	Battery	For supplying power, rechargeable Li-ion (18V)
13	OLED display	Show crimping time, electricity errors info

3. Function description



Microcomputer control systems automatically detect the pressure when in crimping with double safety protection.



OLED display - Dot matrix OLED display, which shows crimping 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.



Retraction stop-When multiple crimps, press start button again during piston retracting, piston will stop retracting and continue working. It saves time and improves work efficiency.



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 die towards the connector and a slow crimping motion.



The head can be smoothly turned by 350° around the longitudinal axis in order to gain better access to tight corners and other difficult working areas.



Illumination for working safely in a dark place., the light will automatically turn off after a delay of 20 seconds



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





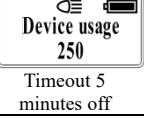
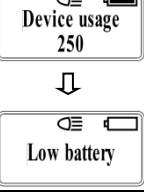
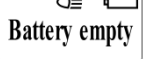

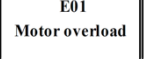
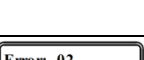
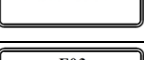
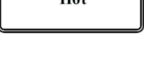

The overall structure of the tool is compact.

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 70°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:

No	Instruction	LED (red/ white)		OLED screen	What it means
1	Self-checking	□□ (2Hz)			Self-checking to ensure everything is ok
2	Light	Delay 20s off (white)			Enter the working state, the battery is full
3	Charging reminders	□□□□ (2Hz)			Lacking power and need charging.
		□ (5s)	●●●●●● (2Hz)		Lacking power and need charging.
		□ (100ms)			The screen doesn't respond, the battery loses efficacy and needs to replace
4	Motor overload	□□□□ (2Hz)	●●●● (2Hz)		Motor overload, battery reloading, please contact the dealer or manufacturer if still can't work normally
5	Hydraulic system Malfunction	□ (5s)	● (5s)		Tool doesn't release pressure automatically when working over 2mins, reload battery
6	High temperature warning	□□□□□ (2Hz)	●●●●● (2Hz)		Motor surface temperature is too high, waiting for cooling to restart the tool
7	Dangerous operation protection	□□□□□□ (2Hz)	●●●●●● (2Hz)		Auto-protection when press the start button on and off quickly, reload battery
8	Maintenance reminding		● (0.5s)		Tools must be maintained

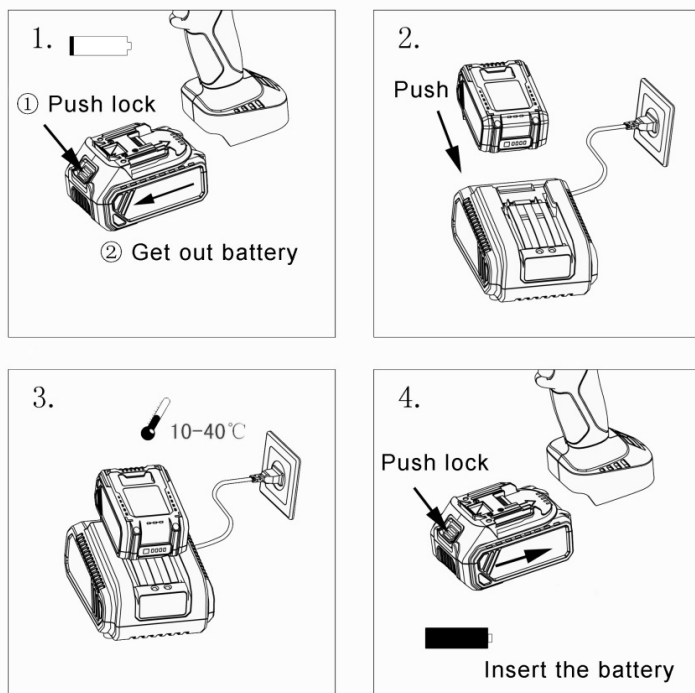
OPERATING INSTRUCTION

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

1. Charging

Push the battery into the 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 80mins. Please see the illustration below.



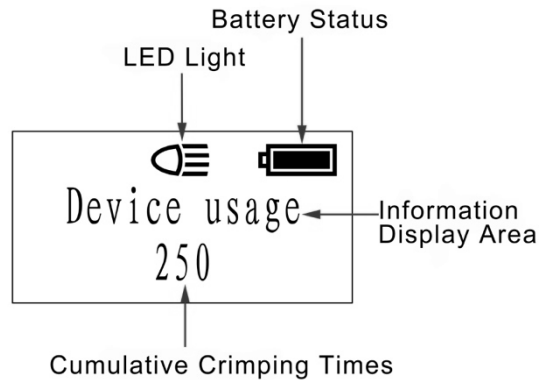
Details of the charging information, please refer to the manual (MANUAL FOR CHARGING)

⚠CAUTION

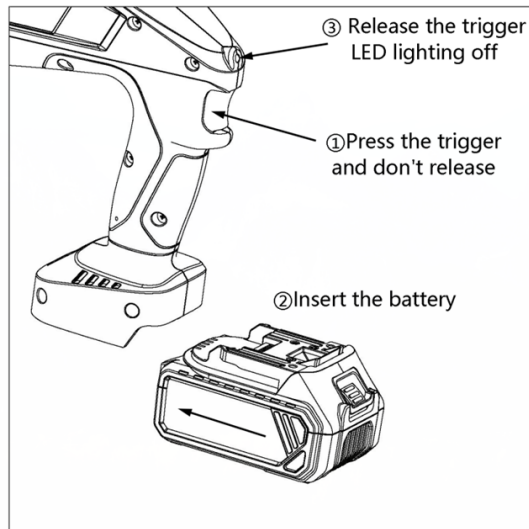
- 1) When use the factory's original battery, it must be charged by the original charger. 4.0Ah/5.0Ah battery charging current shouldn't exceed 5A. 2.0Ah battery charging current shouldn't exceed 3.0A. The battery will be smoking, burnt, even explode if charge with a non-compliant charger.
- 2) The battery can be used hundreds of times, when the life span reduced obviously, change to a new battery please.
- 3) Please charging the battery in time to avoid it to be used up completely; otherwise, it will become useless forever. If the battery is not used for a long time, it will be discharged automatically. Make sure to charge it one time per/each quarter.
- 4) Do not connect the two poles of the battery with a wire, which is likely to cause electric spark, combustion or even explosion.
- 5) Do not use the damaged battery or charge it, or it will increase the risk of electric shock.
- 6) Under no circumstances should batteries be burned, or they may explode.
- 7) 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.
- 8) Disconnect the charger when not in use. It will reduce the risk of injury to children and untrained personnel.
- 9) Do not use the charger in a humid environment, and do not expose yourself to rain and snow, or it will increase the risk of electric shock.
- 10) 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

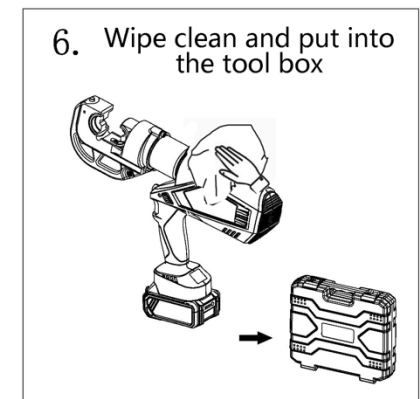
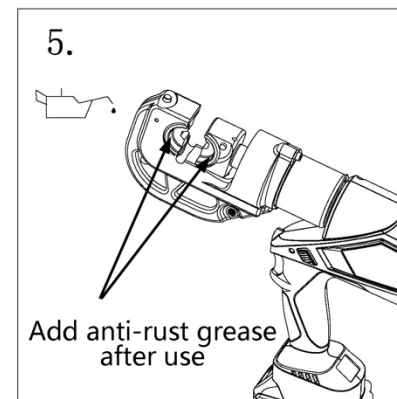
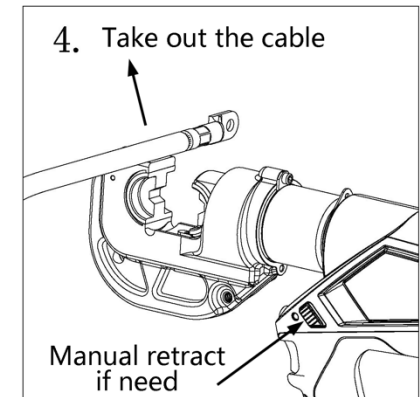
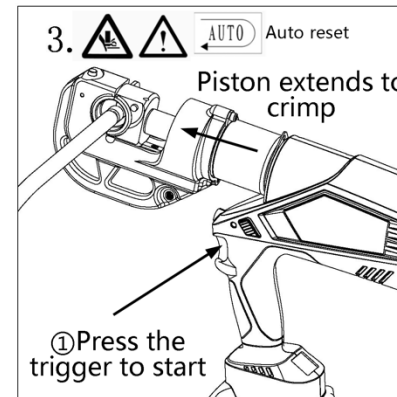
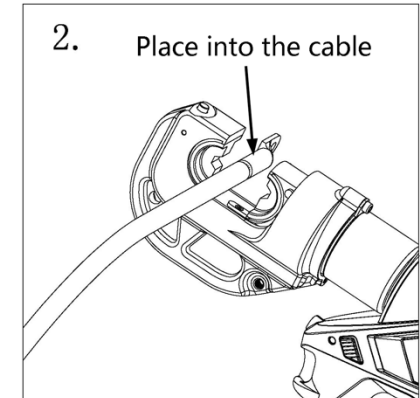
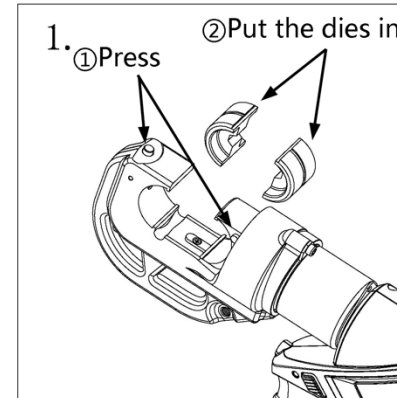
OLED display interface description:



Tool LED illuminator: After clicking the start button, the LED illuminator lights on. After the tool is released, the light 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.



3. Crimping operation



MAINTENANCE AND SERVICING

⚠WARNING

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

- Please note that routine maintenance and inspections can extend the life of your tools.
Before each use, 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.
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.
- Service to the tool should only be done by a qualified Service Technician.
- Keep the tool and spare parts dry. If the tool is wet, take out the battery, and wait until the tool is completely dry before reloading the battery.
- Do not put the tool in too hot or cold a place. Otherwise, the spare parts will be damaged.
- Do not use aggressive chemical cleaners or strong detergents to clean tools.
- The warranty of tool is 2years or 20,000cycles. To prolong the life of the tool please maintain every 10,000cycles.
- If the tool is not used for a long time, please make sure the piston stays 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.

TROUBLESHOOTING

FAULT	ANALYSIS	SOLUTION
A. Tool is inoperative	<ol style="list-style-type: none"> The battery runs out Circuit problem Dirt, contaminants, etc. in the ram area of the tool. 	<ol style="list-style-type: none"> Charge the battery Contact the dealer or manufacturer, and to be repaired by professional maintenance personnel Change the hydraulic oil
B. No power during operation or not up to the rated power	<ol style="list-style-type: none"> Lack of hydraulic oil Dirt, and contaminants inside of oil sac. Inner leakage 	<ol style="list-style-type: none"> Fill or change the hydraulic oil Change the hydraulic oil Contact the dealer or manufacturer, and to be repaired by professional maintenance personnel
C. Crimp not tight	<ol style="list-style-type: none"> Not up to rated power Error selects on the crimping die 	<ol style="list-style-type: none"> Refer to the B Change reasonable crimping die
D. Create many scrap	<ol style="list-style-type: none"> Error selects on the crimping die 	<ol style="list-style-type: none"> Change reasonable crimping die
E. Leakage on the head or plunger	<ol style="list-style-type: none"> Worn on the sealing kits 	<ol style="list-style-type: none"> Contact the dealer or manufacturer, and to be repaired by professional maintenance personnel
F. Running of the motor but no power output	<ol style="list-style-type: none"> Lack of hydraulic oil Air into the hydraulic system Cold oil 	<ol style="list-style-type: none"> Fill or change the hydraulic oil Contact the dealer or manufacturer, and to be repaired by professional maintenance personnel Use the tool under -10°C -40°C

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 tears, 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 the 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.