



**20V LI-ION CORDLESS
IMPACT WRENCH
2.0Ah POWER TOOLS**

OWNER'S MANUAL



DO NOT RETURN TO STORE!
HAVE QUESTIONS OR NEED SERVICE
1-866-591-8921
www.pulsar-products.com

PT28220



WARNING! To Reduce The Risk Of Injury, User
Must Read And Understand Instruction Manual.

20V Li-ion Cordless Impact Wrench

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WARNING! READ AND CALL SAFETY PRECAUTIONS IN THIS MANUAL BEFORE OPERATION. FAILURE TO COMPLY WITH INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE, AND/OR VOIDING OF YOUR WARRANTY. PULSAR PRODUCTS, INC. WILL NOT BE LIABLE FOR ANY DAMAGE BECAUSE OF FAILURE TO FOLLOW THESE INSTRUCTIONS.

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How to Obtain Warranty Service:

Take the original receipt and product to the place of purchase or mail the original receipt and product to the address found on the web site if purchased on-line. It is recommended you retain all of your receipts covering the purchase and maintenance of your power tool. Pulsar will not deny you warranty coverage as long as proof of purchase or service can be obtained.

PULSAR OBLIGATION UNDER THIS WARRANTY IS EXCLUSIVELY LIMITED TO PRODUCT REPAIR OR REPLACEMENT AND SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, THE EXPENSE OF DELIVERING PRODUCT TO AND FROM REPAIR CENTER, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, TELEPHONE CHARGES, LOSS OF TIME, OR INCONVENIENCE. SOME STATES, PROVINCES, OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

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1. GENERAL SAFETY RULES



WARNING! READ ALL INSTRUCTIONS. FAILURE TO FOLLOW ALL INSTRUCTIONS LISTED BELOW MAY RESULT IN ELECTRIC SHOCK, FIRE AND/OR SERIOUS "POWER TOOL" IN ALL OF THE WARNING LISTED BELOW REFERS TO YOUR MAINS-OPERATED (CORDED) POWER TOOL OR BATTERY-OPERATED (CORDLESS) POWER TOOL.

Save These Instructions

Work area

- Keep work area clean and well lit, cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which, may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.



Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (ground) power tools.
- Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surface, such as pipes, radiators, ranges and refrigerators. These are an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving part. Damaged or entangled cord increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduce the risk of electric shock.

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Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce, personal injuries.
- Avoid accidental starting, Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

Power tool use and care

- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustment, changing accessories or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by

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customer will pay any additional charges for expedited shipments.

- Consumer is responsible for labor costs associated with warranted repairs twelve (12) months after the purchase date. Labor rates will only be based on normal working hours.
- Consumer is responsible for maintaining power tool as specified in the owner's manual. Documentation of this maintenance may be required to cover warranty requests.
- Consumer is responsible for presenting any problems with the power tool to an authorized Service Center as soon as the problem exists. Warranted repairs will be completed in a reasonable period of time, not to exceed 30 days.

What this Warranty Does Not Cover:

- **Maintenance:** This warranty does not cover any adjustments or repairs not performed by an authorized repair facility.
- **Misuse:** This warranty does not apply if your product has failed due to abuse, misuse, neglect, using incorrect batteries **or lubricants, overloading, over-speeding, improper maintenance, improper storage, unapproved modifications, or has** been operated in any way contrary to the instructions found in the products owner's manual.
- **Adverse conditions:** This warranty does not apply if your product has failed due to freezing, accident, natural disasters.
- **Product Shipment:** This warranty does not apply to damage resulting from shipping, handling, or warehousing: **Any damage claims to this product caused by shipment must be filed with freighter.**
- **Other exclusions:** This warranty does not apply if your product has been sold "as is" or where the factory applied serial **number has been removed. Refurbished, used, demonstration or floor models are not covered by this warranty.**

Where Warranty is Valid:

For warranty coverage, this product must be purchased from an authorized retailer and the warranty only extends **to the original purchaser in the United States, Canada, or Mexico, Refurbished used, demonstration, or floor models are** not covered by this warranty. Products purchased from on-line auction websites are not covered under this warranty. Products used for commercial use are not covered under this warranty.

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LIMITED WARRANTY

Limited 3 Year Warranty:

From the date of original purchase, warrants to the original purchaser, that each power tool sold, shall be free from defect in material and workmanship, for the items and time period set forth below. Pulsar at its discretion, agrees to repair or replace any defective part that upon examination, inspection, and testing by a authorized service dealer, is found to be defective within the original warranty period. We will also decide upon the use of new or rebuilt parts or comparable product. Any part or product that is replaced, will be retained by us. This warranty period shall not be extended and any repaired product shall be warranted for the remaining period of the original warranty. The consumer is responsible, and shall prepay all transportation costs, including returning items to the factory or warehouse. This warranty is not transferable and proof of purchase must be presented for requesting warranty service. If proof-of-purchase or a receipt is not provided, the product's shipping date by the manufacture will be used to determine the warranty period.

Length of Warranty:

Personal use applications of this power tool are warranted for three (3) years. Proof of purchase and of maintenance must be provided.

- Year 1 - Limited comprehensive coverage on all power tool components and labor.
- Year 2 and 3 - Limited coverage on power tool parts only.

“Personal use” means personal residential household use or recreational use by the retail consumer. “Commercial use” means all other uses including commercial, construction, or other income producing purposes. Once a power tool has been used for commercial purposes, it shall thereafter be considered as a “commercial use” power tool for the purposes of this warranty. Any power tool used for commercial use or rental equipment will not be covered under this warranty.

Consumer Responsibilities:

- Consumer is responsible for carefully reading and following all instructions in the owner's manual. Any product that is damaged due to misuse or abuse will not be covered by this warranty.
- Consumer is responsible for all transportation costs to an authorized Service Center. Unless otherwise requested, ground shipping will be applied for part shipment and

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poorly maintained power tools.



- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc. In accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

- Endure the switch is in the off position before inserting battery pack. Inserting the battery pack into power tools that have the switch on invites accidents.
- Recharger only with the charger specified by the manufacturer. A charger that is suitable for one type of battery may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws or other small metal object, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

2. SYMBOLS

For your easy reference, here are the tools symbols you may see on your tool label:

| | |
|--|-------------------------------------|
| V.....Volts | A.....Amperes |
| Hz.....Hertz | W.....Watts |
| min.....Minutes | ~Alternating current |
| — — —Direct current | no.....No load speed |
| CassI construction | DO NOT BURN |
| Safety alert symbol | DO NOT DISPOSE WITH HOUSEHOLD WASTE |

3. ADDITIONAL SAFETY RULES

- Wear ear protectors with cordless drill. Exposure to noise can cause hearing loss.
- Use auxiliary handles supplied with the tool. Always hold the tool with both hands.

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Less of control can cause personal injury.

- Hold tool by insulated gripping surface when performing an operation where the cutting tool may contact hidden wiring. Contact with a “live” and shock the operator.
- Always wear safety goggles or eye protection when using this tool. Use a dust mask or respirator for applications which generate dust.
- Secure the material being drilled. Never hold it in your hand or across legs. Unstable support can cause the drill bit to bind causing loss of control and injury.
- Disconnect battery pack from tool, or place the switch in the locked or off position, before making any assembly, adjustments or changing accessories. Such preventive safety measures reduces the risk of starting the tool accidentally.
- Position yourself to avoid being caught between the tool or side handle and walls or post. Should the bit become bound or jammed in the work, the reaction torque of the tool could crush your hand or leg.
- If the bit becomes bound in the workpiece, release the trigger immediately, reverse the direction of rotation and slowly squeeze the trigger to back out the bit. Be ready for a strong reaction torque. The drill body will tend to twist in the opposite direction as the drill bit is rotating.
- Do not grasp the tool or place your hands too close to the spinning chuck or drill bit. Your hand may be lacerated.
- When installing a drill bit, insert the shank of the bit well within the jaws of the chuck. If the bit is not inserted deep enough, the grip of the jaws over the bit is reduce and the loss of control is increased.
- Do not use dull or damaged bits and accessories. Dull or damaged bits have a greater tendency to bind in the workpiece.
- When removing the bit from the tool avoid contact with skin and use proper protective gloves when grasping the bit or accessory.

Accessories may be hot after prolonged use.

4. BATTERY CHARGER & PLUG

Battery Charger



WARNING! THIS CHARGER AND BATTERY PACK ARE SPECIFICALLY DESIGNED TO WORK TOGETHER. DO NOT ATTEMPT TO CHARGE ANY OTHER BRAND OF CORDLESS TOOL OR BATTERY PACK WITH THIS CHARGER.

- This 120V~60Hz charger is double insulated and therefore does not require a grounding connection. It is a sealed unit fitted with an internal fuse which cannot be

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- Store the tool in a clean dry place.
- All repairs must be performed by a qualified electrician.
- Opening the tool voids the warranty.

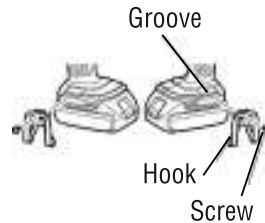
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LED worklight

The tool has an LED light to illuminate the work area and improve vision when working in areas with insufficient light. The LED light will switch on automatically while the trigger switch is depressed.

Hook

The hook is convenient for temporarily hanging the tool. This can be installed on both side of the tool. To install the hook, insert it into a groove in the tools housing on either side and then secure it with a screw. To remove, loosen the screw and then take it out.



Specifications

| Item | Value |
|---------------------|----------------------|
| Main voltage | 110-120 V~60 Hz |
| Output voltage | 20 V |
| Battery voltage | 20 V |
| Battery capacity | 2.0 Ah Li-ion |
| Battery charge time | 1 hours |
| Max. torque | 170 ft-lb (230 Nm) |
| Shaft size | 1/2 Inch square head |
| No-load speed | 0-2200 RPM |
| Impact Rate | 0-3000BPM |

6. MAINTENANCE

- Clean the tool with a rag dampened with clean water. Do not use chemicals or soap. Do not allow water to get inside the tool.
- Make sure the vent passages remain clear of dust and debris to avoid overheating the tool.

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replaced.

- There are no user serviceable parts inside this charger. Never remove any part of the casing unless qualified to do so. If in doubt, consult a qualified electrician.



WARNING! THIS UNIT CONTAINS DANGEROUS VOLTAGES.

- For your protection, do not expose this charger to rain or use in damp locations. Do not place the charger on damp or wet surfaces; use a workbench if available. For added protection use a suitable Residual Current Device (RCD) at the wall outlet.
- This charger unit is intended for use with this specific tool only and must not be used for any other use. Do not use any other charger for charging these batteries.



WARNING! NEVER USE THE CHARGER IN YOUR HOME, ALWAYS CHARGE BATTERIES ON A BENCH IN YOUR WORKSHOP.

- Never exceed the charging time specified in the manual as this could damage both the battery and the charger.
- When the battery fails to charge or maintain its charge, its usable life is exhausted. The battery should be disposed of in an environmentally friendly manner. Do not dispose of the battery in the household disposal system. Take the battery to a recycling or specialized center for disposal.



WARNING! DO NOT DISPOSE OF THE BATTERY BY INCINERATION AS THE BATTERY WILL EXPLODE.

Inserting the battery

Insert the battery pack into the tool handle.

Charging the battery

The battery supplied with this power tool contains a test charge only and must be fully charged before use. Be sure to read all safety instructions before charging the battery. The battery will become warm during charging. This is normal. (Fig A & Fig B)



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1. Connect the the power cord of the charge with a wall socket. The charging indicator light truns green.
2. Slide the battery onto the charger. The there intelligent battery indicators will contiue flashing when start charging. Two indicators will flash inturn when the capacity reach 70%.
3. About one hour later, battery will full charge, and the charger indicator turn green again. At the moment three indicators (green, yellow, red) light up together.
4. Unplug the charger and disconnect it from the battery pack when charging is finished.
5. Allow the battery pack cool completely before use it.
6. During working, user can check the battery status pressing the button.

| LED battery capacity indicator | Capacity |
|--------------------------------|----------|
| Green, Yellow and Red LED on | 100% |
| Yellow and Red LEDs on | >60% |
| Red LED on | >30% |



Note: Avoid charging your battery in freezing conditions as charging power will not be sufficient.



CAUTION: WHEN CHARGING MORE THAN ONE BATTERY PACK IN SUCCESSION, ALLOW AT LEAST 30 MINUTES FOR THE CHARGER TO COOL DOWN BEFORE CHARGING THE ADDITIONAL BATTERY.



WARNING! ALWAYS REMOVE THE BATTERY PACK AND STORE IT SAFELY WHEN THE TOOL IS NOT IN USE.

Additional or replacement batteries

Additional or replacement batteries specifically designed to work with this tool and charger are available from your service center. (1-866-591-8921)

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Discharging the battery

Use the tool until it loses all effective power before recharging the battery. Recharging partially used batteries may eventually cause a memory effect that will prevent batteries from accepting their full capacity. Making sure to charge batteries completely before use and discharge them completely before recharging will help them preserve their full capacity.

5. OPERATION



1. Insert the bit into bit the chuck until it snaps into place.
 2. Grasp the tool firmly with both hands, align the bit with the screw and press it firmly into the screw.
 3. Start the tool by squeezing the Forward/Reverse trigger button.
 4. To switch on: Press ON/OFF switch.
 5. To switch off: Release ON/OFF switch.
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