

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



R2 RECHARGEABLE SPEED RATCHET

FOR CUSTOMER SERVICE

Technical Question?

CALL 1-866-458-2472
customerservice@oem-tools.com

UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with the carrier. DO NOT use the OEMTOOLS™ 24493/24494/24499 R2 Rechargeable Speed Ratchet if broken, bent, cracked or damaged parts (including labels) are noted. Any Speed Ratchet that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Speed Ratchet was subjected to shock load (a load that was dropped suddenly, unexpectedly, etc.), immediately discontinue use until it has been checked by a factory authorized service center.



⚠️ WARNING

The following safety information is provided as a guideline to help you operate your Speed Ratchet under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your Speed Ratchet. Failure to follow instructions listed below may result in serious injury. In addition, make sure that anyone who uses the equipment understands and follows these safety instructions as well.

Explanation of Safety Signal Words

⚠️ **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠️ **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTES: Provide clarity and helpful information.

Thank you very much for choosing an OEMTOOLS™ Product!

For future reference, please register your new tool at www.oem-tools.com and complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This product is designed for certain applications only. OEMTOOLS™ cannot be responsible for issues arising from modification. We strongly recommend that this product is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted customer service to determine if it can or should be performed on the product.

⚠️ **WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



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SAFETY NOTES

General Safety Warnings

Save These Important Safety Instructions

⚠️ WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference. This operator's manual contains important safety and operating instructions for power tool, lithium-ion battery pack and battery charger. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or BATTERY-operated (cordless) power tool.

Please fully charge the lithium-ion battery powered power tool before first use.

Before using the battery and charger, read this operator's manual and all labels on the battery pack, charger and power tool.

⚠️ CAUTION! To reduce the risk of injury charge power tool lithium-ion batteries only in power tool lithium-ion charger. Other types of chargers may cause personal injury or damage. The Charger need to be used with the Adaptor which is provided by power tool. A charger that may be suitable for one type of battery may create a risk of fire when used with another battery. Do not wire a battery pack to a power supply plug or car cigarette lighter. Doing so will cause batteries to be permanently disabled or damaged.

Use power tool lithium-ion batteries only in power tool.

Use with other tools may result in a risk of damage, electric shock or personal injury.

Work area safety:

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **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.** Avoid dangerous environments. Do not charge battery pack in rain, snow, damp or wet location.
3. **Keep children and bystanders and visitors away while operating a power tool.** Distractions can cause you to lose control. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the tool.
4. **(For EU Market) This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.** Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or similar qualified person in order to avoid a hazard.

Electrical safety:

1. **Power tool charger plugs must match the outlet.** Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
3. **Do not expose power tool to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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 parts. Damaged or entangled cords increase the risk of electric shock.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a RESIDUAL CURRENT DEVICE (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
7. **Charge in a well-ventilated area. Do not block charger vents.** Keep them clear to allow proper ventilation. Do not allow smoke or open flames near a charging battery cartridge. Vented gases may cause a risk of explosion.



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8. **Maintain charger cord.** When unplugging charger, pull plug rather than cord to reduce the risk of damage to the electrical plug and cord. Do not abuse the cord. Never carry charger by its cord. Keep cord from heat, oil, sharp edges or moving parts. Make sure cord will not be stepped on, tripped over or subjected to damage or stress. Do not use charger with damaged cord or plug. If cord is damaged, it must be replaced by the manufacturer or service agent. Damaged cords may create a fire. Unauthorized replacement or repair may cause a hazard.
9. **Do not use an extension cord unless it is absolutely necessary.** Using the wrong, damaged or improperly wired extension cord could result in the risk of fire and electrical shock.
10. **Charger is rated for 100-240 V AC only.** Charger must be plugged into an appropriate receptacle.
11. **To reduce risk of electric shock, always unplug charger before cleaning or maintenance.** Do not allow water to flow into plug.
12. **Unplug charger when not in use.** Remove battery pack from unplugged charger.
13. **Do not disassemble charger.** Incorrect reassembly may result in the risk of electric shock, fire or exposure to battery chemicals. If it is damaged, take it to a service agent.
14. **Do not short circuit.** A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as coins, keys or nails in your pocket. A short circuited battery pack may cause fire and personal injury.

Personal safety:

1. **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 tool may result in serious personal injury.
2. **Use personal protective equipment.** Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Prevent unintentional starting.** Ensure the switch is in the locked position before connecting to power source and/or inserting battery pack, picking up or carrying the tool. Carrying tools with your finger on the switch or inserting the battery pack into a tool without the switch locked invites accidents.
4. **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.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **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. Be aware of entanglement of the moving parts of the tool with loose clothing, neckties, long hair, jewelry, watches, etc. This could cause body parts or objects to be drawn into the moving parts of the tool, causing a hazard.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power tool use and care:

1. **Do not force power tool.** Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
2. **Do not use power tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect battery pack from tool or place the switch in the locked position before making any adjustments, change accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
4. **Store idle power tool 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 tool is dangerous in the hands of untrained users.
5. **Maintain power tool and accessories.** 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 poorly maintained power tool.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.



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8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
9. **When using power tool with Lithium-ion batteries, usage must halt and the batteries charged immediately when LED indicator light shows continuous red (low voltage protection).** This is in order to prevent damage and ensure product lifespan.
10. **Clean the tool regularly with a dry cloth.** Do not use oil, gasoline, paint thinner, water, metal, water chemicals, flammable materials or other corrosive liquid, all of which may damage the tool.
11. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operations.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

Battery tool use and care:

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of BATTERY pack may create a risk of fire when used with another BATTERY pack.
2. **Use power tool only with specifically designated BATTERY packs.** Use of any other BATTERY packs may create a risk of injury and fire.
3. **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 objects, that can make a connection from one terminal to another.** Shorting the BATTERY terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the BATTERY; avoid contact.** If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the BATTERY may cause irritation or burns.
5. **Do not use a BATTERY pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, EXPLOSION or risk of injury.
6. **Do not expose a BATTERY pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130°C (265 °F) may cause explosion.
7. **Follow all charging instructions and do not charge the BATTERY pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the BATTERY and increase the risk of fire.
8. **Do not burn or incinerate batteries.** Batteries may explode, causing personal injury or damage. Toxic fumes and materials are created when batteries are burned.
9. **Do not crush, drop, or damage batteries.** Do not use a battery pack or charger that has received a sharp blow, been dropped, run over, or damaged in any way leading any danger (e.g., pierced with a nail, hit with a hammer, stepped on).
10. **Battery chemicals cause serious burns.** Never allow contact with skin, eyes, or mouth. If a damaged battery pack leaks battery chemicals, use rubber or neoprene gloves to dispose of it. If skin is exposed to battery fluids, wash with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose if contaminated clothing.
11. **Store your R2 Rechargeable Speed Ratchet in a cool, dry place.** Do not store R2 Rechargeable Speed Ratchet where temperatures may exceed 60°C (140°F) such as in direct sunlight, a vehicle or metal building during the summer.

Service:

1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
2. **Never service damaged BATTERY packs.** Service of BATTERY packs should only be performed by the manufacturer or authorized service providers.
3. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in a risk of injury.
4. **When servicing a tool, use only identical replacements parts.** Follow instruction in the maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

Wrench Safety Warnings - performing operation

Hold the power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord. Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

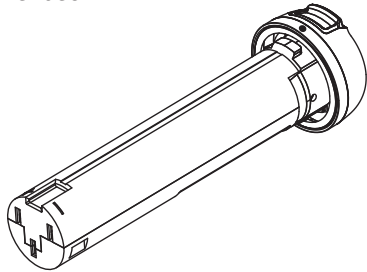


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IMPORTANT SAFETY INSTRUCTION FOR BATTERY PACK

Failure to follow all instructions listed below may result in damage and lifetime decline of lithium-ion battery pack.

Please fully charge the lithium-ion battery powered power tool before first use.



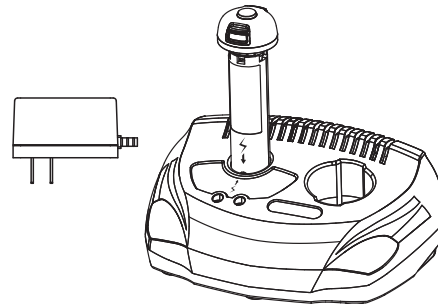
1. DO NOT expose your battery pack or cordless tools to water or rain, or allow them to get wet. DO NOT use in a hyperbaric environment. DO NOT use oil or solvents to clean or lubricate your battery pack. This plastic casing will become brittle and crack, causing a risk of injury.
2. Store battery pack at room temperature away from moisture. DO NOT store in damp locations, where corrosion of terminals may occur. Permanent capacity loss and damage can result if the battery pack is stored for long periods of time at high temperatures (over 95°F / 35°C).
3. To reduce the risk of injury or explosion, never burn or incinerate a battery pack even if it is damaged, dead or completely discharged. When burned, toxic fumes and materials are created.
4. DO NOT modify the battery pack or charge it with other chargers; that may cause personal injury or damage.
5. If an unusual smell, color or amount of heat occurs when battery pack is being charged or stored, stop using it immediately and take it to a service agent.
6. Always dispose of your battery pack according to local regulations. Contact a recycling agency in your area for recycling locations. Even discharged batteries contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.
7. When using R2 Rechargeable Speed Ratchet with lithium-ion batteries, usage must halt and the batteries charged immediately when LED indicator light shows continuous red (low voltage protection). This is in order to prevent damage and ensure product lifespan.
8. When lithium-ion battery packs are left unused for over 3 months, they must be charged before use in order to maintain their lifespan.

9. Lithium-ion battery pack must be charged periodically in order to maintain lifespan.
10. When battery pack is not in use, keep it away from other metal objects, such as paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause sparks, burns, or a fire.

IMPORTANT SAFETY INSTRUCTION FOR BATTERY CHARGER

⚠ WARNING: Charge only the R2 Rechargeable Speed Ratchet lithium-ion battery pack in the R2 Rechargeable Speed Ratchet lithium-ion battery charger. Other types of batteries may cause personal injury and damage. To reduce the risk of electric shock, DO NOT allow water to come into contact with the plug.

⚠ WARNING: To reduce the risk of injury, always unplug the charger and remove the battery pack from the charger before performing any maintenance. Never disassemble the battery pack or charger. Contact a service agent for ALL repairs. To reduce the risk of injury and damage, never immerse your battery or charger in liquid or allow a liquid to enter the housing.



1. DO NOT expose the charger to rain or damp conditions. There is an increased risk of an electric shock if water penetrates the charger.
2. Use the voltages indicated in the technical specifications to recharge the R2 Rechargeable Speed Ratchet lithium-ion batteries. Failure to do this could create a risk of fire and explosion.
3. Keep the charger clean. There is a risk of electrical shock if it is dirty.
4. Check the charger, cable and plug before each use. DO NOT use the charger if you detect any damage. DO NOT open up the charger itself. Have it repaired by qualified technical staff using original spare parts only. There is an increased risk of electric shock from damaged chargers, cables and plugs.
5. Always unplug charger before cleaning or maintenance to reduce the risk of electric shock. DO NOT allow water to enter the housing. Cleaning cannot be



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performed using oil, gasoline, paint thinner, water, metal, water chemicals, flammable materials or other corrosive liquid, all of which may damage the tool.

6. Store the charger in a cool, dry place.
7. Pull on the plug to disconnect it from the power source. DO NOT pull on the cord.
8. DO NOT place the charger near any heat source. As a general practice, it is best to unplug charger when not in use.
9. DO NOT use the charger on easily flammable surfaces, such as paper or textiles, or in flammable surroundings. There is a risk of fire due to charger heating up during charging.
10. Make sure that the charger cord is positioned where it will not be stepped on, tripped over or otherwise subjected to damage or stress.
11. Suitable charging environment in order to avoid any damage or reduction of battery lifespan:
 - Charging temperature: 32°F to 104°F (0°C to 40°C)
 - Discharging temperature: -4°F to 104°F (-20°C to 60°C)
 - Storage temperature: < 95°F (< 35°C)
12. When lithium-ion batteries are left unused for over 3 months, they must be charged before use and charged periodically in order to maintain their lifespan. DO NOT use an extension cord unless it is absolutely necessary. The use of an improper extension cord could cause the risk of fire, electric shock or electrocution.
13. Use original spare parts only. There is an increased risk of electric shock from damaged chargers, cables and plugs.

PRODUCT DESCRIPTION

The OEMTOOLS™ 24493/24494/24499 R2 Rechargeable Speed Ratchet is engineered to quickly adjust fasteners, while an innovative and time-saving design allows for smooth operation in tight spaces.

Rechargeable Li-ion battery pack	
Model Number	24493A/24494A/24499A
Rating	DC 3.6V
Capacity	2000 mAh

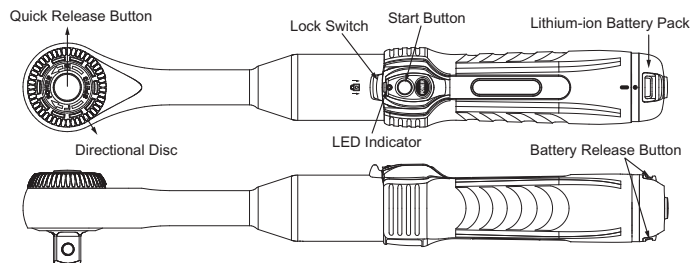
Battery Charger		Adaptor	
24493B/24494B/24499B		AMS159A-0502000FU	
Input	DC 5V 2.0A	Input	AC 100-240V 50/60Hz 0.5A
Output	DC 4.2V 2.0A	Output	DC 5V 2.0A

Model Number	24493D	24494D	24499D
Shaft	1/2" Drive	3/8" Drive	1/4" Drive
Teeth	60	60	60
Manual Torque	610 Nm	244 Nm	60 Nm
Rotational Torque	8.85 In-lbs (1 Nm)	8.85 In-lbs (1 Nm)	8.85 In-lbs (1 Nm)
Charging time (approximate)	45 minutes	45 minutes	45 minutes
Rotational speed under no-load (at DC 3.6V)	200/min	200/min	200/min
Weight	765g	655g	560g
Voltage	DC 3.6V	DC 3.6V	DC 3.6V

CONTENTS

OEMTOOLS™ R2 Rechargeable Speed Ratchet (1), Battery Charger (1), 3.6V 2000mAh Li-ion Batteries (2), 100~240V AC Wall Adapter (1), User Manual (1).

OPERATION



1. To attach a socket to the tool, match the protruding square end of the ratchet wrench to the square hole of the socket you selected. Remove the socket by pressing the quick release button on the top face of the drive head.

NOTE: It is recommended that you use a magnetic insert with a regular socket, or a socket equipped with a magnetic retainer to improve working speed during tightening / loosening of fasteners.

2. Change the ratcheting and driving direction by turning the directional disc on the top face of the ratchet head. Turn the directional disc on the top of the head to tighten and loosen fasteners.
3. The ratchet can be used in both powered and manual modes. When the lock switch is in the forward position, the ratchet can be used in powered and manual mode. In the rear position, the start button is disabled, and the tool can be used by hand like a regular non-powered socket wrench (manual mode).
4. The motor is designed with over-torque protection, in which a clutch mechanism activates a tactile vibrating notification when maximum torque is reached around



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0.74 Ft/Lb. (1 Nm); at that time the user can change over to manual driving mode.

- When tightening fasteners, the final torque must be applied manually to tighten the nut. DO NOT use powered mode for final tightening.
- R2 Rechargeable Speed Ratchet can operate in a temperature of -4°F to 140°F (-20°C to 60°C) in power mode.

Tool Indicator Light

Indicator Light	Status
Continuous Green	Power status normal, battery at 50~100%
Continuous Blue	Power status normal, battery at 20~50%
Flashing Blue	Charging required, battery at 5~20%
Continuous Red	Charging required, battery at < 5%
Flashing Red	Over current protection activated; Automatic shut off.
Flashing Green	Over temperature protection activated; Automatic shut off.
	Battery pack temperature has exceeded discharge range.

CHARGING THE BATTERY PACK WITH BATTERY CHARGER

- Remove the battery pack from the tool for charging at a convenient time. The R2 Rechargeable Speed Ratchet batteries do not develop a “memory” when charged after only a partial discharge. It is not necessary to run down the battery pack before placing it on the charger.
- You can “Top-Off” your battery pack’s charge before starting a big job or an expected long period of use.
- The only time it is necessary to charge the R2 Rechargeable Speed Ratchet lithium-ion battery pack is when the battery pack has reached the end of its charge. To signal the end of charge (indicator light is continuous red), power to the tool will drop quickly. The battery pack will need to be charged.
- When using the R2 Rechargeable Speed Ratchet with lithium-ion batteries, usage must halt and the batteries charged immediately when LED indicator light shows continuous red (low voltage protection). This is in order to prevent damage and ensure product lifespan.
- When lithium-ion batteries are left unused for over 3 months, they must be charged before use in order to maintain their lifespan.
- Lithium-ion batteries must be charged periodically in order to maintain their lifespan.

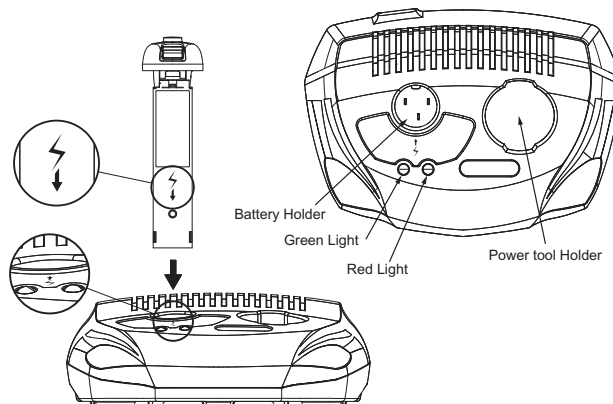
HOW TO CHARGE THE BATTERY PACK

- Align the battery pack with the bay and slide/insert the battery pack into the battery charger as far as possible. The LED light will come on, either flashing or continuous.
- A fully discharged battery pack with an internal temperature in the normal range will charge in approximately 45 minutes.
- After charging is complete, the green indicator light will stay lit.
- The battery charger will keep the battery pack fully charged as long as it is left on the charger.
- If the indicator light does not come on, check that the battery pack is fully seated into the bay. Remove the battery pack and reinsert. If the indicator light still does not come on, contact a service agent.
- If the light continues to flash red and green at the same time on the charger, the battery pack may be excessively hot (104°F/40°C or more) or cold (32°F/0°C or less). Allow the battery pack to cool down, warm up, and then reinsert.

*If the problem persists, contact a service agent. Once the battery pack is within the acceptable range, normal charging will take place.

Battery Charger Indicator Light

Indicator Light	Status
Continuous Red	Stand by
Continuous Green	Battery pack fully charged
Flashing Red	Charging
Flashing Red & Green	Not charging. Battery pack temperature has exceeded discharge range. Charging will begin when battery reaches the correct charging temperature (0°~40°C (32°~104°F))





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Maintenance

1. When the battery is no longer operative, please refer to an authorized after-sales service agent.
2. If the R2 Rechargeable Speed Ratchet break down despite the great care taking during manufacture and testing, you should have an authorized customer service center for carry out any repairs.
3. You must indicate the reference number on the power tool's nameplate if you have any question or need order replacement parts.
4. Please fully charge the lithium-ion battery powered power tool before first use.
5. When using power tool with Lithium-ion batteries, usage must halt and the batteries charged immediately when LED indicator light shows continuous red (low voltage protection). This is in order to prevent damage and ensure product lifespan.
6. When Lithium-ion batteries are left unused for over 3 months, they must be charged before use and charged periodically in order to maintain their lifespan. Do not use an extension cord unless it is absolutely necessary. The use of an improper extension cord could cause the risk of fire, electric shock or electrocution.
7. Lithium-ion batteries must be charged periodically in order to maintain their lifespan.
8. Maintain charger cord. When unplugging charger, pull plug rather than cord to reduce the risk of damage to the electrical plug and cord. Do not abuse the cord. Never carry charger by its cord. Keep cord from heat, oil, sharp edges or moving parts. Make sure cord will not be stepped on, tripped over or subjected to damage or stress. Do not use charger with damaged cord or plug. If cord is damaged, it must be replaced by the manufacturer or service agent. Damaged cords may create a fire. Unauthorized replacement or repair may cause a hazard.
9. Maintain R2 Rechargeable Speed Ratchet and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the R2 Rechargeable Speed Ratchet's operation. If damaged, have the R2 Rechargeable Speed Ratchet repaired before use. Many accidents are caused by poorly maintained R2 Rechargeable Speed Ratchet.
10. Clean the tool regularly with a dry cloth. Do not use oil, gasoline, paint thinner, water, metal, water chemicals, flammable materials or other corrosive liquid, all of which may damage the tool.
11. Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
12. Before any work on the tools itself (e.g.maintenance, tool change,etc.) as well as during transport and storage remove the battery from the R2 Rechargeable Speed Ratchet. There is danger of injury when unintentionally actuating the On/Off switch.
13. For safe and proper working, always keep the tools clean.

Troubleshooting

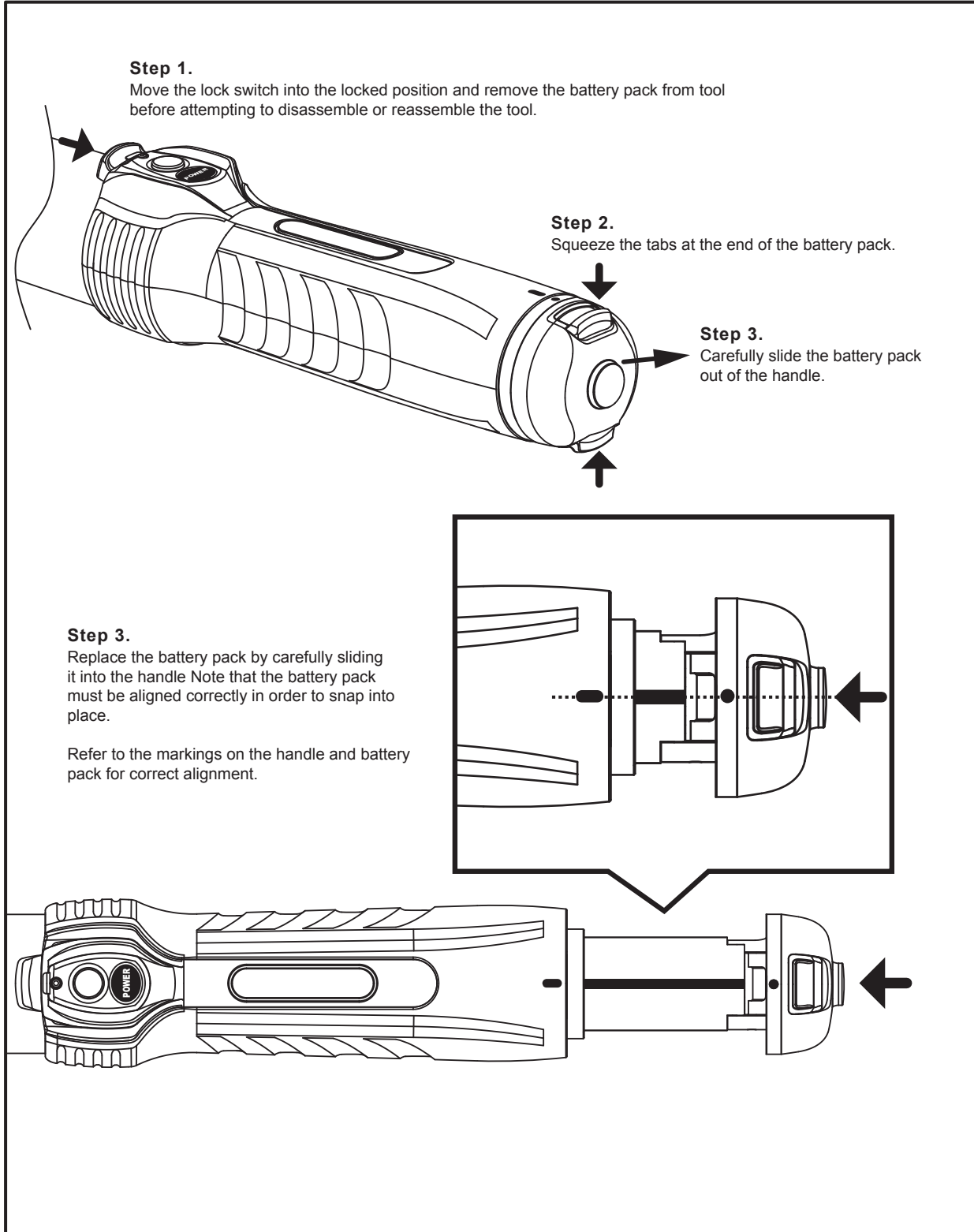
1. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
2. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
3. Never service damaged BATTERY packs. Service of BATTERY packs should only be performed by the manufacturer or authorized service providers.
4. If the charger light continues to flash red & green at the same time on the charger, the battery pack may be excessively hot (40°C/104°F or more) or cold (0°C/32°F or less). Allow the battery pack to cool down, warm up, and then reinsert. If the problem persists, contact a service agent. Once the battery pack is within the acceptable range, normal charging will take place.
5. When the battery is no longer operative, please refer to an authorized after-sales service agent.
6. If the R2 Rechargeable Speed Ratchet break down despite the great care taking during manufacture and testing, you should have an authorized customer service center for carry out any repairs.
7. You must indicate the reference number on the power tool's nameplate if you have any question or need order replacement parts.



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REMOVING AND REPLACING BATTERY PACK

⚠ CAUTION: Move the lock switch into the locked position and remove the battery pack from tool before disassembling/reassembling any parts.





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DISASSEMBLING THE DRIVE HEAD MECHANISM

⚠ CAUTION: Move the lock switch into the locked position and remove the battery pack from tool before disassembling/reassembling any parts.

Step 2.
Use the pliers to compress the ends of the retaining C-ring, and remove the directional disc while the ring is compressed.

Step 1.
Insert the ends of a pair of snap ring pliers into the slot at the base of the directional disc, located on the top face of the D-head. The tips of the pliers must be on the outside of the two ends of the C-ring inside. This may require manual adjustment to get the C-ring ends centered in the slot.

Step 3.
Carefully remove the retaining C-ring and the three other ring components.

Step 4.
Remove the
 (a) Driver head
 (b) Holder
 (c) Transmission gear assembly from the ratchet head



R2 RECHARGEABLE SPEED RATCHET

REASSEMBLING THE DRIVE HEAD MECHANISM

⚠ CAUTION: Move the lock switch into the locked position and remove the battery pack from tool before disassembling/reassembling any parts.

Step 1.
Make sure the transmission bar is positioned in the hole of motor correctly.

Step 2.
Place **(a)** Transmission gear inside the **(b)** Holder and insert both on **(c)** transmission bar as shown. Push the holder and checked the position by turning the transmission gear once it is in place, making sure they are exactly placed. The top face of the holder should be flush with the inner periphery of the head.

Step 3.
Insert the driver head assembly into the ratchet head with the drive square on the opposite side from the start button. Make sure that the teeth of the ratchet wheel have engaged with the teeth of the pawl in the ratchet. This can be checked by turning the driver head once it is in place, and listening for the clicking sound of normal ratcheting.

Step 4.
Place the toothed ring over the top of the drive assembly as shown. Again, make sure that the teeth of the ring have correctly engaged with the inner mechanism teeth. The ring should be flush against the head assembly when the teeth are properly aligned.

Step 5.
Place the remaining two rings onto the assembly as shown, making sure that they are placed in the correct order.

Step 4.
Use a pliers to compress the ends of the retaining C-ring, and place the directional disc over the C-ring so that the ends of the C-ring align with the slot of the directional disc.

Align the flat faces on the interior of the disc with the flat faces on the perimeter of the push button.

Then release the C-ring so that its expansion locks the directional disc in place. It may be easier if you brace the drive square on a firm surface while performing this step.

Test the ratcheting motion in both directions to make sure the tool is functioning properly.



R2 RECHARGEABLE SPEED RATCHET

REMOVING THE MOTOR

⚠ CAUTION: Move the lock switch into the locked position and remove the battery pack from tool before disassembling/reassembling any parts.

Step 1.
Move the lock switch into the locked position and remove the battery pack from tool before attempting to disassemble or reassemble the tool.

Step 2.

- Ⓐ Remove the "POWER" poly sticker annexed upon the retaining bolt.
- Ⓑ Using a 2mm hex driver, remove the retaining bolt located just behind the start button.
- Ⓒ Remove the top plate and holding two-step pin.
- Ⓓ Remove the start button, spring and solid pin.
- Ⓔ Remove the lock switch by sliding it out.

Step 3.

- Ⓐ Unscrew the handle shell and remove it from the tool body.
- Ⓑ Use a 1.5mm hex driver to remove the retaining bolt as shown.
- Ⓒ Slide the motor out of its housing, the transmission bar will be pulled out together.

⚠ Step 4.
When the motor is removed, the transmission bar will be pulled out at the same time. This will disengage the transmission bar from the drive mechanism. Disassemble the drive mechanism after removing the motor (please refer to operation on page 10).



R2 RECHARGEABLE SPEED RATCHET

REASSEMBLING THE DRIVE HEAD MECHANISM

⚠ CAUTION: Move the lock switch into the locked position and remove the battery pack from tool before disassembling/reassembling any parts.

Step 1.

- Insert the transmission bar into the hole of motor.
- Slide the motor into the metal housing so that the screw hole in motor is exactly aligned with the hole in the housing.
- Screw in the 1.5mm bolt to secure the motor in place. The top of the bolt should be flush with the exterior of the housing. Do not overtighten, otherwise tool may be disabled or damaged.

Step 2.

- Screw the handle shell onto the tool body until it is tight. The holes on the shell should be aligned with the corresponding holes on the housing.
- Slide the lock switch into the slot at the front.
- Put the solid pin, spring and start button back.
- Put the holding two-step pin and press top plate back.
- Secure the assembly by screwing in the 2mm retaining bolt. Do not overtighten, otherwise tool may be disabled or damaged.
- Put "POWER" poly sticker onto the retaining bolt.

Step 3.
Reassemble the drive head mechanism into the ratchet head, please refer to the operation on Page 11.

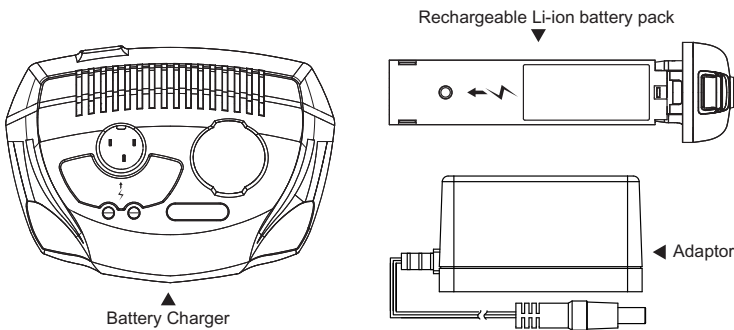
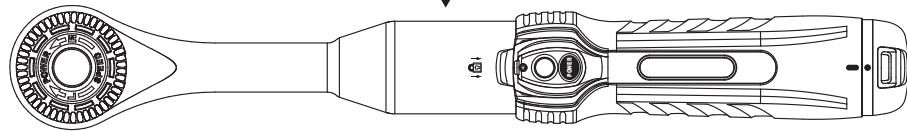
Step 4.
Return the battery pack to the handle of the tool. Refer to the markings on the handle and battery pack for correct alignment.



R2 RECHARGEABLE SPEED RATCHET

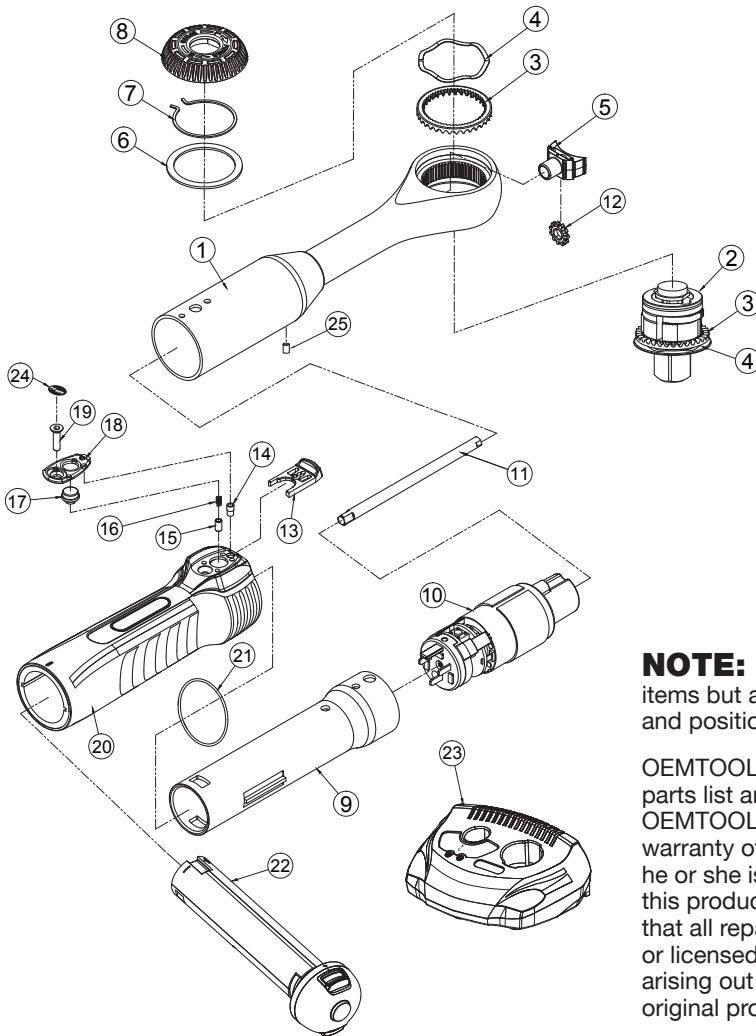
PRODUCT LAYOUT

R2 Rechargeable Speed Ratchet (Power tool)



Object	Model Number
1/4" R2 Rechargeable Speed Ratchet	24499D
3/8" R2 Rechargeable Speed Ratchet	24494D
1/2" R2 Rechargeable Speed Ratchet	24493D
Battery Charger for 1/4", 3/8", 1/2" R2 Rechargeable Speed Ratchet	24493B/24494B/24499B
Rechargeable Li-ion battery pack	24493A/24494A/24499A
Adaptor for USA	AMS159A-0502000FU

PRODUCT DIAGRAM



No.	Part Name
1	Body
2	Driver Head
3	Toothed Ring
4	Ring
5	Holder
6	Ring
7	C-Ring
8	Directional Disc
9	Tube
10	Motor
11	Transmission Bar
12	Transmission Gear
13	Lock Switch
14	Two-Step Pin
15	Solid Pin
16	Spring
17	Start Button

No.	Part Name
18	Top Plate
19	Bolt
20	Handle
21	O-Ring
22	Battery Pack
23	Charger
24	"POWER" Poly Sticker
25	Bolt

NOTE: Not all components of the product are replacement items but are illustrated as a convenient reference for location and position in the assembly sequence.

OEMTOOLS™ and/or its distributors have provided the parts list and assembly diagram as a reference only. Neither OEMTOOLS™ nor its distributors make any representation or warranty of any kind to the buyer and/or user of this tool that he or she is qualified to do any repairs or replace any parts of this product. OEMTOOLS™ and its distributors expressly state that all repairs or parts replacement should be done by certified or licensed technicians. The buyer assumes all risk and liability arising out of his or her repairs or parts replacement to the original production.



R2 RECHARGEABLE SPEED RATCHET

SPECIFICATION SYMBOLOGY

SYMBOLOGY			
	Volts		Hertz
	Direct Current		Amps
	Alternating Current		CSA approved
	Double Insulated		no load speed
	Properly Recycle Batteries		CE approved
	Charger Systems Efficiency Certificated		WEEE

Noise/Vibration information

Model Number	24493D	24494D	24499D
Shaft	1/2" Drive	3/8" Drive	1/4" Drive
A-weighted sound pressure level	78.4dB(A)	78.4dB(A)	78.4dB(A)
A-weighted sound power level	89.4dB(A)	89.4dB(A)	89.4dB(A)
Hand-arm vibration level	1.263 m/s ²	1.263 m/s ²	1.263 m/s ²

The measurement uncertainty for noise (3dB) and for vibration (1.5m/s²) is missing

WARNING:

The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used.

To prevent personal injury, always wear hearing protection whenever operating power tool.



Transport

The contained lithium-ion batteries are subject to the Dangerous Goods Legislations requirements. The user can transport the batteries by road without further requirements. When being transported by third parties (e.g.: air transport or forwarding agency), special requirement on packaging and labeling must be observed. For preparation of the item being shipping, consulting an expert for hazardous materials is required.



Disposal

The tools, rechargeable batteries accessories and packaging should be sorted for environmental friendly recycling. Do not dispose of Cordless Ratchet Wrench and rechargeable batteries into household waste! Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being. When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

OEMTOOLS™ ONE YEAR LIMITED WARRANTY

For up to one year from the date of purchase of this OEMTOOLS™ product, if you find any defect in material or workmanship (through normal usage), return it to the place of purchase or to OEMTOOLS™ for repair or replacement at our discretion. In order to obtain this service, send the product and proof of purchase (transportation pre-paid) to:

OEMTOOLS™ Q.A. Dept, 3580 E. Raines Road #3, Memphis, TN 38118.

We will not be responsible for lost or damaged goods during transportation; please insure your package. If our inspection verifies the defect, we will either repair or replace the product, 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.

OEMTOOLS™ does not provide warranty for products labeled other than OEM® or OEMTOOLS™. OEMTOOLS™ will not provide any warranty for products subjected to abnormal use. Abnormal use includes (but is not limited to) abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS™ reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold.

OEMTOOLS™ makes every effort to ensure 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 one year from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, 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. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

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