

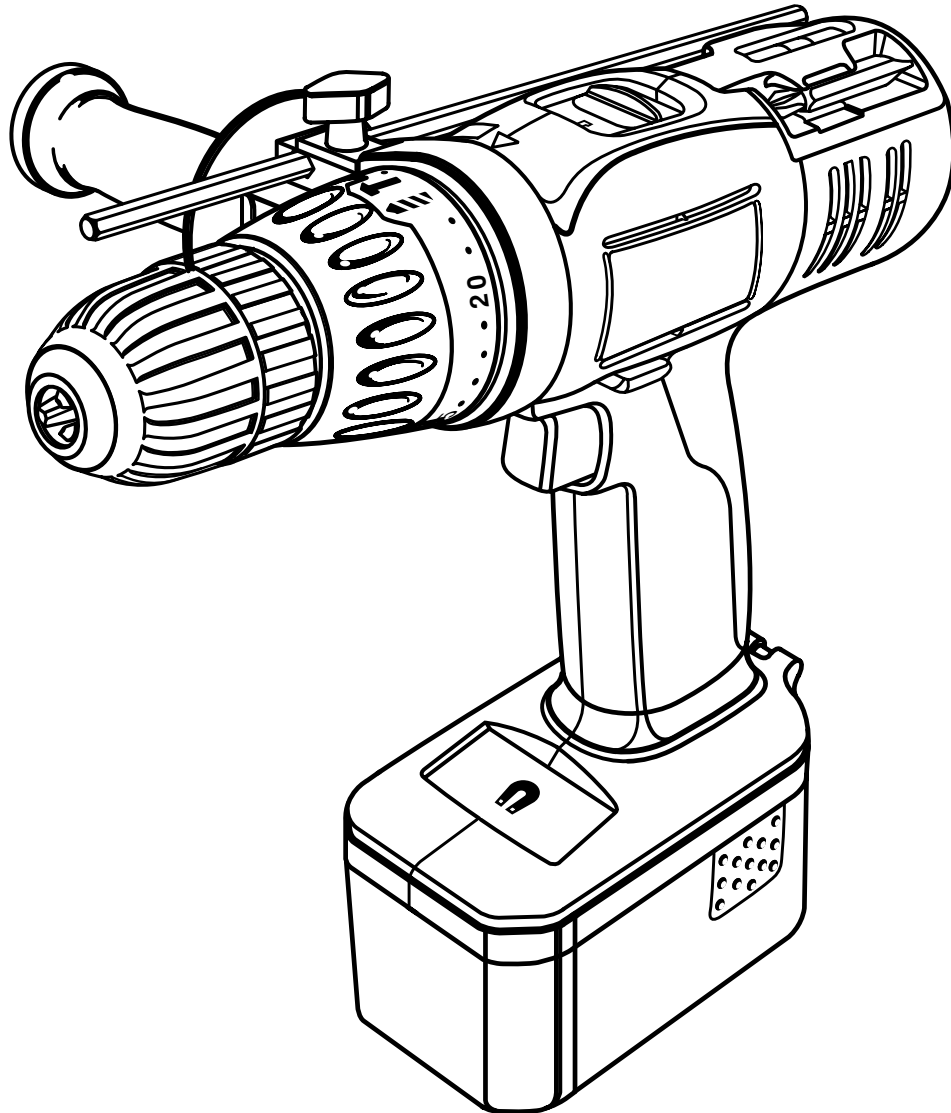


OPERATOR'S MANUAL

HAMMER DRILL

18 VOLT

HD1800M



Your new hammer drill has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation, and operator safety. When properly cared for, the hammer drill will give you years of rugged, trouble-free performance.

⚠ WARNING:

To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for buying a Ryobi product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

TABLE OF CONTENTS

■ Introduction	2
■ General Safety Rules	3-4
■ Specific Safety Rules	4-5
■ Symbols	6
■ Specifications	7
■ Unpacking	7
■ Applications	7
■ Features	8-9
■ Adjustments	10-12
■ Operation	13-15
■ Maintenance	16-17
■ Customer Service Information	18

INTRODUCTION

Your hammer drill has many features for making the use of this product more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

WARNING:

Do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Pay close attention to the safety rules, including Dangers, Warnings, and Cautions. If you use your product properly and only as intended, you will enjoy years of safe, reliable service.



Look for this symbol to point out important safety precautions. It means attention!!! Your safety is involved.



The operation of any tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always wear eye protection which is marked to comply with ANSI Z87.1.

GENERAL SAFETY RULES



WARNING:

Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

WORK AREA

- **Keep your work area clean and well lit.** Cluttered benches and 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 may create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.** A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
- **Use battery operated tool only with specifically designated battery pack.** Use of any other batteries may create a risk of fire. Use only with battery pack listed.
- **Avoid body contact with grounded surfaces, such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Use battery only with charger listed.**

BATTERY PACK	CHARGER
1322401/1323303	1423701

PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- **Avoid accidental starting. Be sure switch is off before inserting the battery pack.** Carrying tools with your finger on the switch or inserting the battery

pack into a tool that has the switch on, invites accidents.

- **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- **Do not use on a ladder or unstable support.**

TOOL USE AND CARE

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force 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.
- **Do not use tool if switch does not turn it on or off.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce risk of starting the tool accidentally.
- **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **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 sparks, burns, or a fire.
- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- **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.

GENERAL SAFETY RULES

- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may create a risk of injury when used on another tool.
- **Keep the tool and its handle dry, clean, and free from oil and grease.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any strong solvents to clean your tool.

SERVICE

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- **When servicing a tool, use only identical replacement parts. Follow instructions 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.

SPECIFIC SAFETY RULES

- **Hold tool by insulated gripping surfaces when performing an operation where the tool may contact hidden wiring.** Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.

ADDITIONAL SAFETY RULES

- **Know your power tool. Read operator’s manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire, or serious injury.
- **Always wear safety goggles or safety glasses with side shields when operating this product.** Failure to do so could result in dust, shavings, or loose particles being thrown into your eyes, resulting in possible serious injury.
- **Protect your lungs.** Wear a face mask or dust mask if the operation is dusty.
- **Protect your hearing.** Wear hearing protection during extended periods of operation.

- **Do not charge cordless tool in a damp or wet location.** Following this rule will reduce the risk of electric shock.
- **For best results, your cordless tool should be charged in a location where the temperature is more than 50°F but less than 100°F. Do not store outside or in vehicles.**
- **Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention.** Following this rule will reduce the risk of serious personal injury.

ADDITIONAL CORDLESS TOOL RULES

- **Cordless tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your cordless tool or when changing accessories.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not place cordless tools or their batteries near fire or heat.** This will reduce the risk of explosion and possibly injury.
- **A damaged battery is subject to explosion.** To avoid serious personal injury, properly dispose of a damaged battery.
- **Batteries vent hydrogen gas and can explode in the presence of a source of ignition, such as a pilot light.** To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemical. If exposed, flush with water immediately.

SPECIFIC SAFETY RULES

CHARGER RULES

- **Before using battery charger, read all instructions and cautionary markings in this manual, on battery charger, and product using battery charger.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce risk of injury, charge only nickel-cadmium type rechargeable batteries. Other types of batteries may burst causing personal injury and damage.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not use charger outdoors.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not expose charger to rain or snow.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce risk of damage to charger body and cord, pull by charger plug rather than cord when disconnecting charger.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.** Following this rule will reduce the risk of serious personal injury.
- **Do not abuse the cord. Never carry the charger by the cord or yank it to disconnect it from the receptacle. Keep the cord from heat, oil, and sharp edges.** Following this rule will reduce the risk of electric shock or fire.
- **An extension cord should not be used unless absolutely necessary.** Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size and shape as those of plug on charger.
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is large enough for AC ampere rating of charger as specified below:

Cord Length (Feet)	25'	50'	100'
Cord Size (AWG)	16	16	16

Note: AWG = American Wire Gage

- **Do not operate charger with a damaged cord or plug. If damaged, have replaced immediately by a qualified serviceman.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not disassemble charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **To reduce the risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not use charger outdoors.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Disconnect charger from power supply when not in use.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.

WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:




- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SAVE THESE INSTRUCTIONS

SYMBOLS

Important: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
---	Direct Current	Type of current
~	Alternating Current	Type of current
n_0	No Load Speed	Rotational speed, at no load
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc. per minute
	Safety Alert	Precautions that involve your safety
	Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL MEANING



DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.



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. It may also be used to alert against unsafe practices that may cause property damage.

Important: Advises you of important information or instructions vital to the operation or maintenance of the equipment.

Note: Advises you of additional information concerning the operation or maintenance of the equipment.

SPECIFICATIONS

HAMMER DRILL

Chuck	1/2 in.
Maximum Torque	350 in.lbs
Switch	Variable Speed
Clutch	24 positions
Motor	18 Volt DC
Hammer Speed	Low (0 - 5,200 BPM*) & High (0 - 18,200 BPM*)
No Load Speed	Low (0 - 400/min) & High (0 - 1400/min)

CHARGER ASSEMBLY

Charger Input	120 Volts, 60 Hz, AC only
Charger Voltage	18 Volt
Charge Rate	1 Hour

* Blows Per Minute

UNPACKING

INSTRUCTIONS

Your hammer drill has been shipped completely assembled.

- Carefully remove the tool and accessories from the box.
- Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.

PACKING LIST

Hammer Drill with Auxiliary Handle Assembly
Battery Pack (2)
Charger
Carrying Case
Operator's Manual

WARNING:

If any parts are missing do not operate your tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

WARNING:

The hammer drill should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

APPLICATIONS

You may use the hammer drill for the purposes listed below:

- Hammer drilling in concrete, brick, or other masonry.
- Drilling in wood.
- Drilling in ceramics, plastics, fiberglass, and laminates.
- Drilling in both soft and hard metals.
- Driving screws with screwdriver bits, using driving accessories.
- Mixing paint.

FEATURES

Before using the hammer drill, familiarize yourself with all operating features and safety requirements. However, do not let familiarity with the tool make you careless.



WARNING:

Exercise caution when using the hammer drill. Careless actions, for even a fraction of a second, can result in serious personal injury.

Your new hammer drill is equipped with the following features. See Figure 1.

SWITCH

Your hammer drill has a conveniently located trigger switch.

TWO-SPEED GEAR TRAIN

The hammer drill has a two-speed gear train designed for drilling or driving at **LO (1)** or **HI (2)** speeds. A slide switch is located on top of the drill to select either **LO (1)** or **HI (2)** speed. When using the drill in the **LO (1)** speed range, the speed decreases and the tool has more power and torque. When using the drill in the **HI (2)** speed range, the speed increases and the tool has less power and torque. Use **LO (1)** speed for high power and torque applications and **HI (2)** speed for fast drilling or driving applications.

REVERSIBLE

This hammer drill allows you to reverse the bit rotation. You can control the direction with the lever located on the top of the tool.

ADJUSTABLE TORQUE CLUTCH

The hammer drill is equipped with an adjustable torque clutch for driving different types of screws into different materials.

DEPTH GAUGE ROD

A depth gauge rod is installed on the auxiliary handle assembly to assist you in controlling the depth of drilled holes.

AUXILIARY HANDLE ASSEMBLY

An auxiliary handle is installed on the hammer drill. For ease of operation, you may use the handle with either the left hand or the right hand.

LEVEL DRILLING

Two levels are recessed in the motor housing of the hammer drill. One is located on top, while the other is located on the end. They can be used to keep drill bits level during both horizontal and vertical drilling operations.

BIT STORAGE

When not in use, you can place the bits provided with your hammer drill in the storage area located on the top of the drill.

MAG TRAY™

For convenience, your hammer drill has a Mag Tray™ to place small parts when doing a variety of tasks.

ERGONOMIC DESIGN

The design of the hammer drill provides for easy handling. It is designed for comfort and ease of grasp when operating in different positions and at different angles.

FEATURES

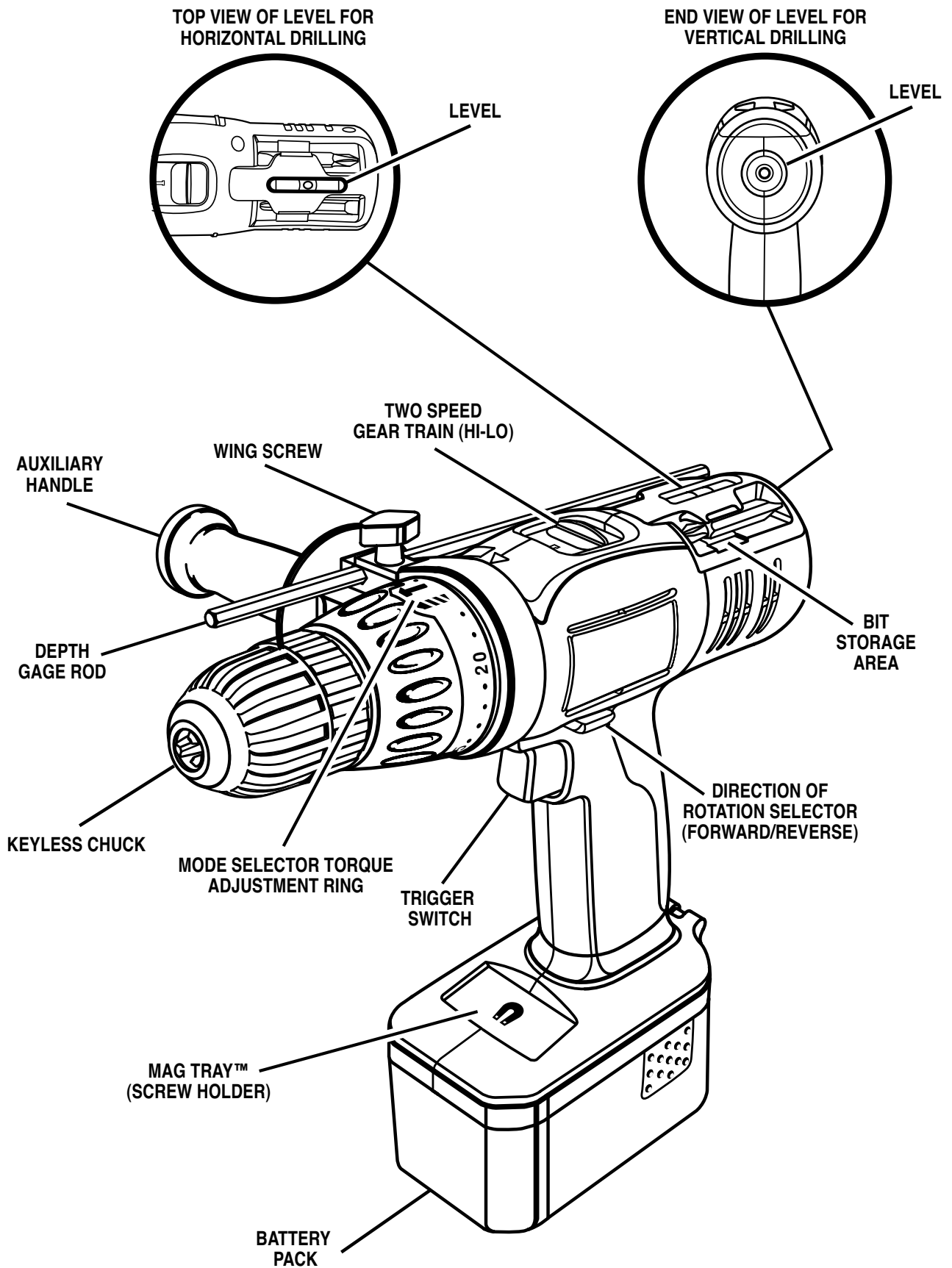


Fig. 1

ADJUSTMENTS

⚠ WARNING:

The hammer drill should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

ADJUSTING THE AUXILIARY HANDLE ASSEMBLY

See Figure 2.

Follow these steps to adjust the auxiliary handle assembly.

- Loosen the auxiliary handle assembly by turning the knob counterclockwise.
- Rotate the auxiliary handle assembly to the desired location.
- Tighten the auxiliary handle assembly securely by turning the knob clockwise.

ADJUSTING THE DEPTH GAUGE ROD

See Figure 3.

Follow these steps to adjust the depth gauge rod.

- Lock the trigger switch by placing the rotation selector in the center position.
- Loosen the auxiliary handle assembly by turning the knob counterclockwise.
- Adjust the depth gauge rod so that the drill bit extends beyond the end of the rod to the required drilling depth.
- Tighten the auxiliary handle assembly by turning the knob clockwise.

ADJUSTING THE SPEED

See Figure 4.

The hammer drill has a two-speed gear train that provides a high speed of approximately 1,400/min and a low speed of approximately 400/min (stated speeds are with the trigger switch in the "Full-on" position).

Follow these steps to adjust the speed.

- *For high speed:* Slide the two-speed gear train switch to "2."
- *For low speed:* Slide the two-speed gear train switch to "1."

Note: If you have difficulty changing from one gear range to the other, turn the chuck by hand until the gears engage.

⚠ CAUTION:

Never change gears while the tool is running. Failure to obey this caution could result in serious damage to the drill.

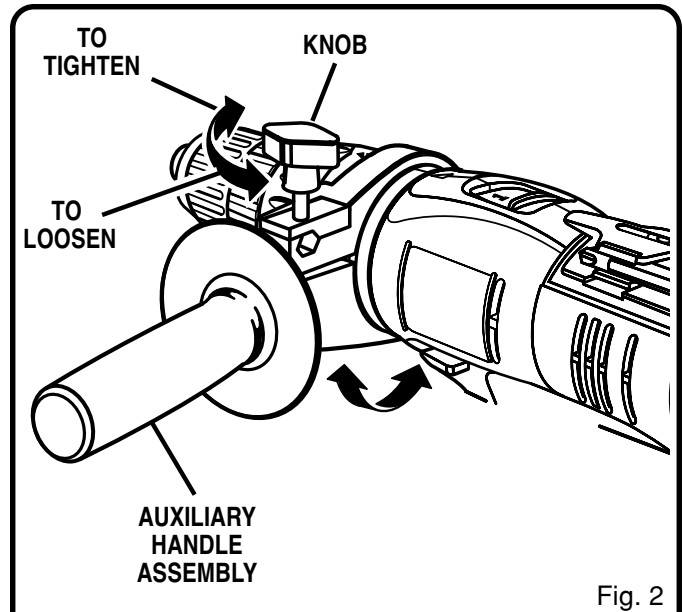


Fig. 2

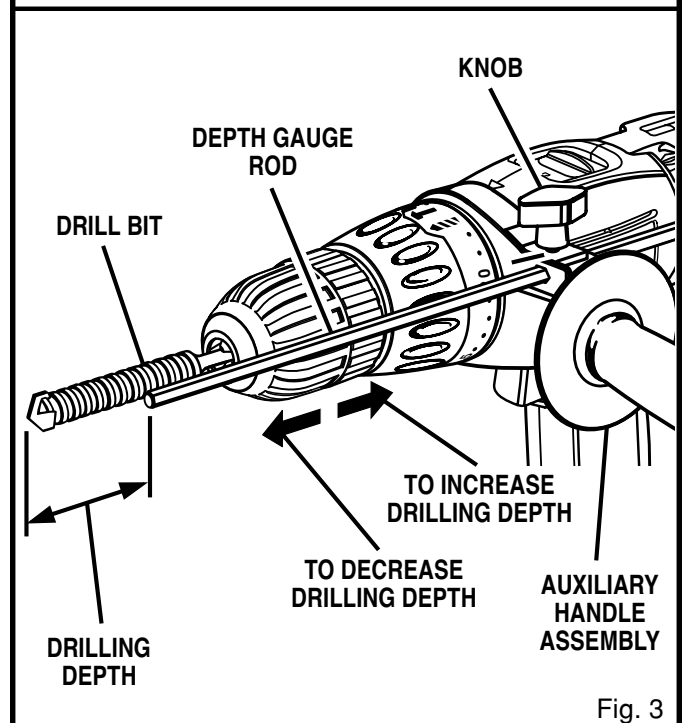


Fig. 3

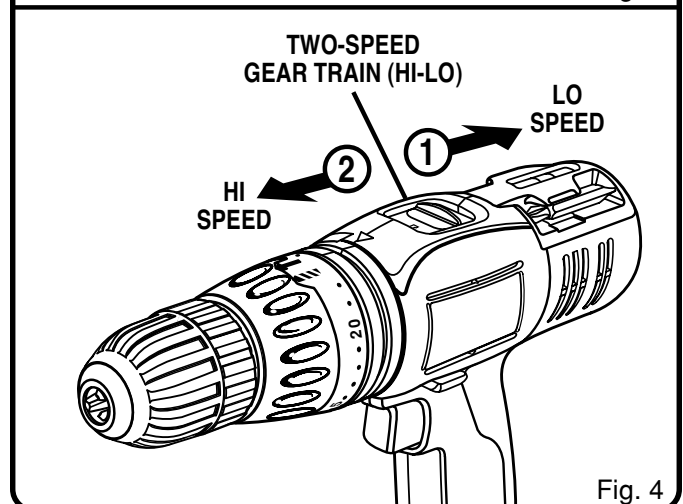


Fig. 4



ADJUSTMENTS

ADJUSTING THE TORQUE

See Figure 5.

The hammer drill is equipped with an adjustable torque clutch for driving different types of screws into different materials. Adjust the torque as necessary. We recommend that you use carbide-tipped bits and select hammer mode when drilling in hard materials such as brick, tile, concrete, etc.

Follow these steps to adjust the torque.

- Identify the torque indicator settings located on the front of the hammer drill.
- Rotate the adjusting ring to the desired setting.
 - 1 - 4 For driving small screws.
 - 5 - 8 For driving screws into soft material.
 - 9 - 12 For driving screws into soft and hard materials.
 - 13 - 16 For driving screws in hard wood.
 - 17 - 20 For driving large screws.
 - 21 -  For heavy drilling.
 -  For hammer drilling.

CHANGING THE BIT ROTATION

See Figure 6.

The direction of the chuck is controlled by the rotation selector located above the trigger switch.

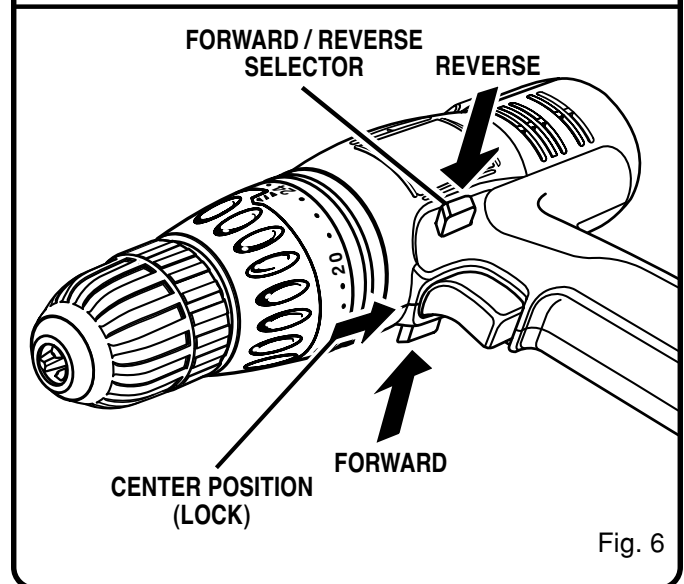
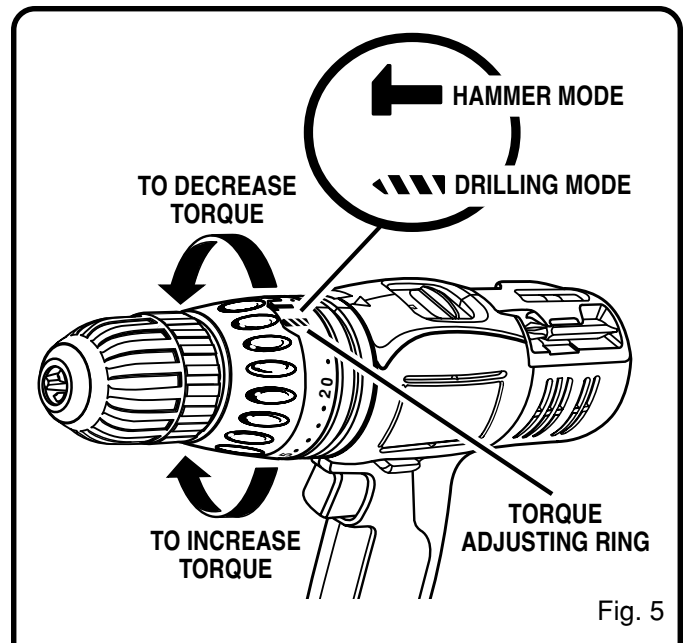
Follow these steps to change the bit rotation.

- *For forward rotation:* Move the rotation selector to the left.
- *For reverse rotation:* Move the rotation selector to the right.

Note: The hammer drill will not run unless the selector is pushed fully to the left or right.

CAUTION:

The hammer drill is not designed for reverse hammering. Failure to obey this caution may result in property damage.



ADJUSTMENTS

INSERTING BITS

See Figure 7.

Follow these steps to insert bits.

- Lock the trigger switch by placing the rotation selector in the center position.
- Position the chuck jaws so that the opening is slightly larger than the drill bit you intend to use.

Note: To open the chuck jaws, turn the chuck sleeve counterclockwise. To close the chuck jaws, turn the chuck sleeve clockwise.

- Raise the front of the drill to keep the drill bit from falling out of the chuck jaws.

⚠ WARNING:

Do not insert a drill bit into the chuck jaws and tighten as shown in Figure 8. This could cause the drill bit to be thrown from the drill resulting possible serious injury or damage to the chuck.

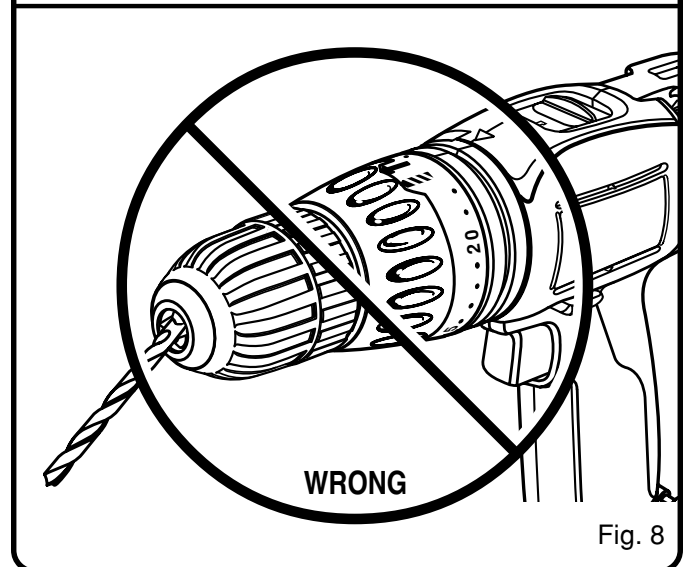
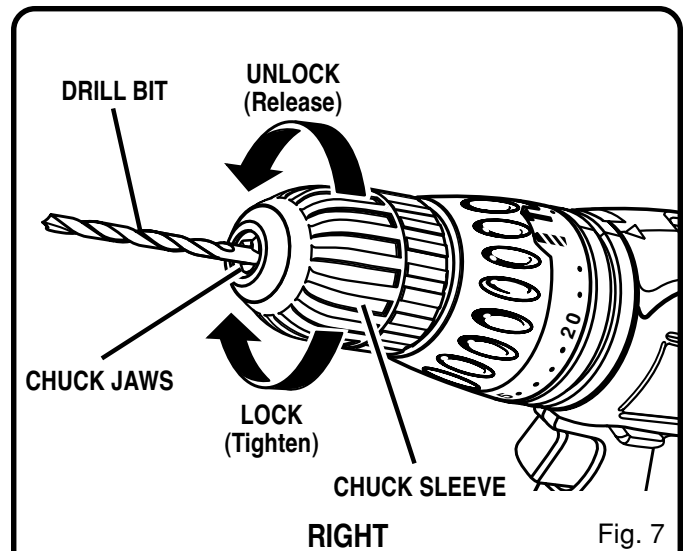
- Insert the drill bit completely into the chuck.
- Tighten the chuck jaws securely on the drill bit using the chuck key provided. **Do not use a wrench to tighten or loosen the chuck jaws.**

REMOVING BITS

See Figure 7.

Follow these steps to remove bits.

- Lock the trigger switch by placing the rotation selector in the center position.
- Loosen the chuck jaws using the chuck key provided.
- Remove the drill bit from the chuck jaws.



OPERATION

⚠ WARNING:

Always wear safety goggles or safety glasses with side shields when operating this tool. Failure to do so could result in dust, shavings, or loose particles being thrown into your eyes, resulting in possible serious injury.

⚠ WARNING:

Batteries vent hydrogen gas and can explode in the presence of a source of ignition, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemicals. If exposed, flush with water immediately.

CHARGING BATTERIES

See Figures 9 and 10.

The battery pack for this tool has been shipped in a low charge condition to prevent possible problems. Therefore, you should charge it prior to use.

Note: Batteries will not reach full charge the first time they are charged. Allow several cycles (cutting followed by recharging) for them to fully charge.

Follow these directions when charging batteries.

- Charge battery pack only with the charger provided.
- **Make sure power supply is normal house voltage, 120 volts, 60 Hz, AC only.**
- Connect charger to power supply.
- Place battery pack in charger. Align raised rib on battery pack with groove in charger.
- Press down on battery pack to be sure contacts on battery pack engage properly with contacts in charger. When properly connected, red light will turn on. When your battery pack becomes fully charged, the red light will turn off and the green light will turn on.

Note: Normally, the yellow and green lights on the charger will come on. This indicates charger is in control charge mode and should switch to fast charge mode within 5 minutes. When charger is in fast charge mode the red light will come on. If after a period of 15 minutes the yellow and green lights remain on, remove the battery pack, wait 1 minute and reinsert battery pack in charger. If the yellow and green lights continue to remain on an additional 15 minutes, the battery pack is damaged and will not accept charge. See Table 1.

After normal usage, 1 hour of charge time is required to be fully charged. A minimum charge time of 1 to 1-1/2 hours is required to recharge a completely discharged tool.

The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.

Do not place charger in an area of extreme heat or cold. It will work best at normal room temperature.

COLOR	STATUS	Table 1
Red	Fast Charging Mode	
Green	Fully Charged	
Yellow and Green	Control Charge or Defective Battery Pack	

RECHARGING HOT BATTERIES

When using your hammer drill continuously, the batteries in your battery pack become hot. You should let a hot battery pack cool down for approximately 30 minutes before attempting to recharge.

Note: This situation occurs when continuous use of your hammer drill causes the batteries to become hot. It does not occur under normal circumstances. Refer to CHARGING BATTERIES for normal recharging of batteries. If the charger does not charge your battery pack under normal circumstances, return **both** the battery pack and charger/charging assembly to your nearest **Ryobi Authorized Service Center** for electrical check.

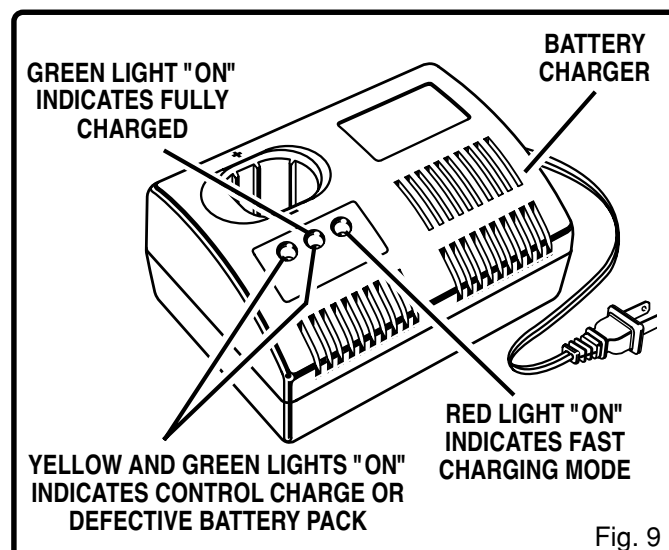


Fig. 9

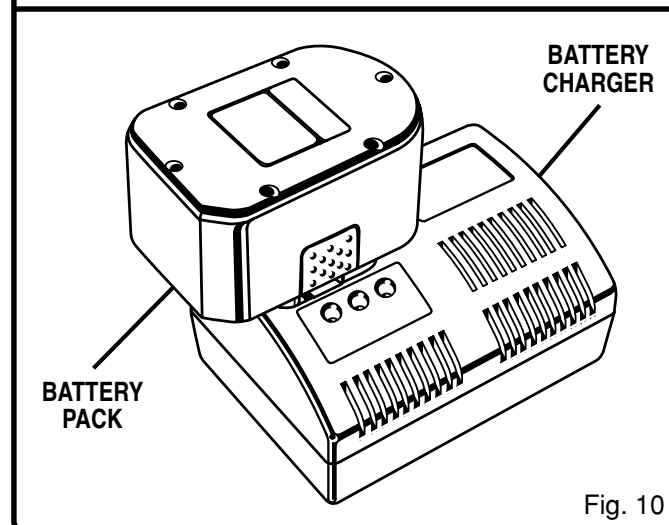


Fig. 10

OPERATION

INSTALLING THE BATTERY PACK

See Figure 11.

Follow these steps to install the battery pack.

- Lock the trigger switch by placing the rotation selector in the center position.
- Place the battery pack on the tool.
- Make sure the latches on each side of the battery pack snap into place and the battery pack is secured on the tool before beginning operation.

⚠ CAUTION:

When placing the battery pack on the tool, make sure that the raised rib inside the tool aligns with the groove on the battery pack and that the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.

REMOVING THE BATTERY PACK

See Figure 11.

Follow these steps to remove the battery pack.

- Lock the trigger switch by placing the rotation selector in the center position.
- Depress the latches on the side of battery pack.
- Remove the battery pack from the tool.

TURNING ON/OFF THE HAMMER DRILL

See Figure 12.

Follow these steps to turn on/off the hammer drill.

- *Turn on the hammer drill:* Depress the trigger switch.
- *Turn off the hammer drill:* Release the trigger switch.

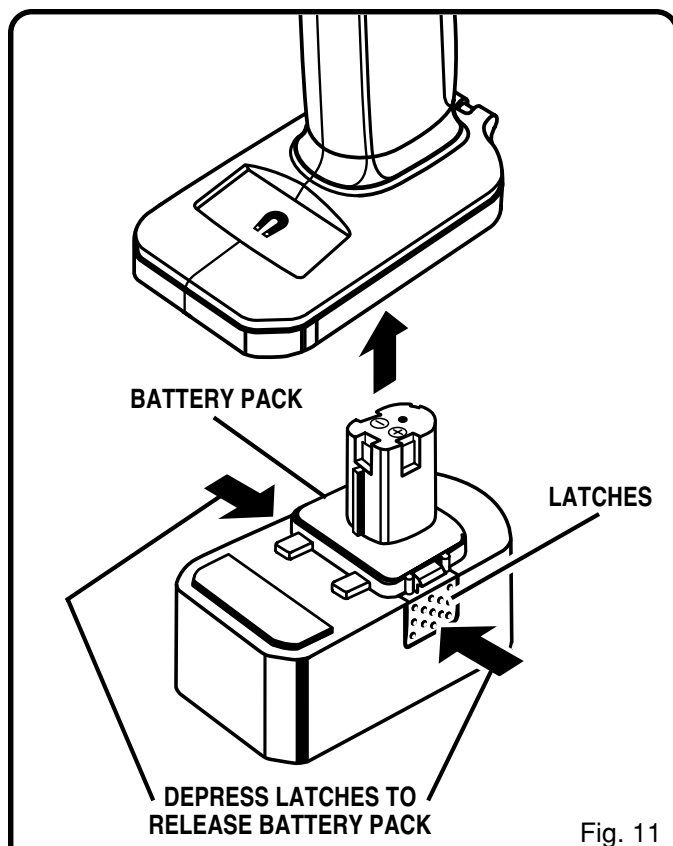


Fig. 11

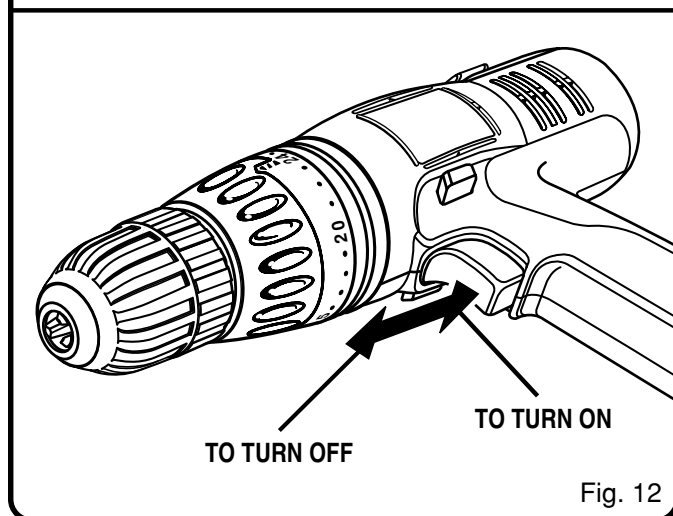


Fig. 12

OPERATION

USING THE LEVELS

See Figure 13.

Two levels are recessed in the motor housing of the hammer drill. One is located on top, while the other is located on the end. They can be used to keep drill bits level during both horizontal and vertical drilling operations.

DRILLING

See Figure 13.

Follow these steps to drill.

- Secure the material to be drilled in a vise or with clamps to keep it from turning as the drill bit rotates.
- Hold the tool firmly and place the bit at the point to be drilled.
- Depress the trigger switch to start the tool.
- Move the drill bit into the workpiece, applying only enough pressure to keep the bit cutting. Do not force or apply side pressure to elongate a hole.

⚠ WARNING:

Be prepared for binding or breakthrough. When these situations occur, the drill has a tendency to grab and kick in the opposite direction and could cause loss of control when breaking through material. If you are not prepared, this loss of control could result in possible serious injury.

HELPFUL TIPS

- When drilling hard, smooth surfaces, use a center punch to mark the desired hole location. This prevents the drill bit from slipping off center as you start the hole. You may, however, start holes without center punching if you use the lower speed. To accomplish this action, simply operate the drill at a lower speed until the hole is started.
- When drilling metals, use a light oil on the drill to keep it from overheating. The oil will prolong the life of the bit and increase the drilling action.
- If the bit jams in the workpiece or if the drill stalls, stop the tool immediately. Remove the bit from the workpiece and determine the reason for jamming.

⚠ WARNING:

Do not force the tool. Forcing the tool can result in jamming and loss of balance or footing, which could result in personal injury.

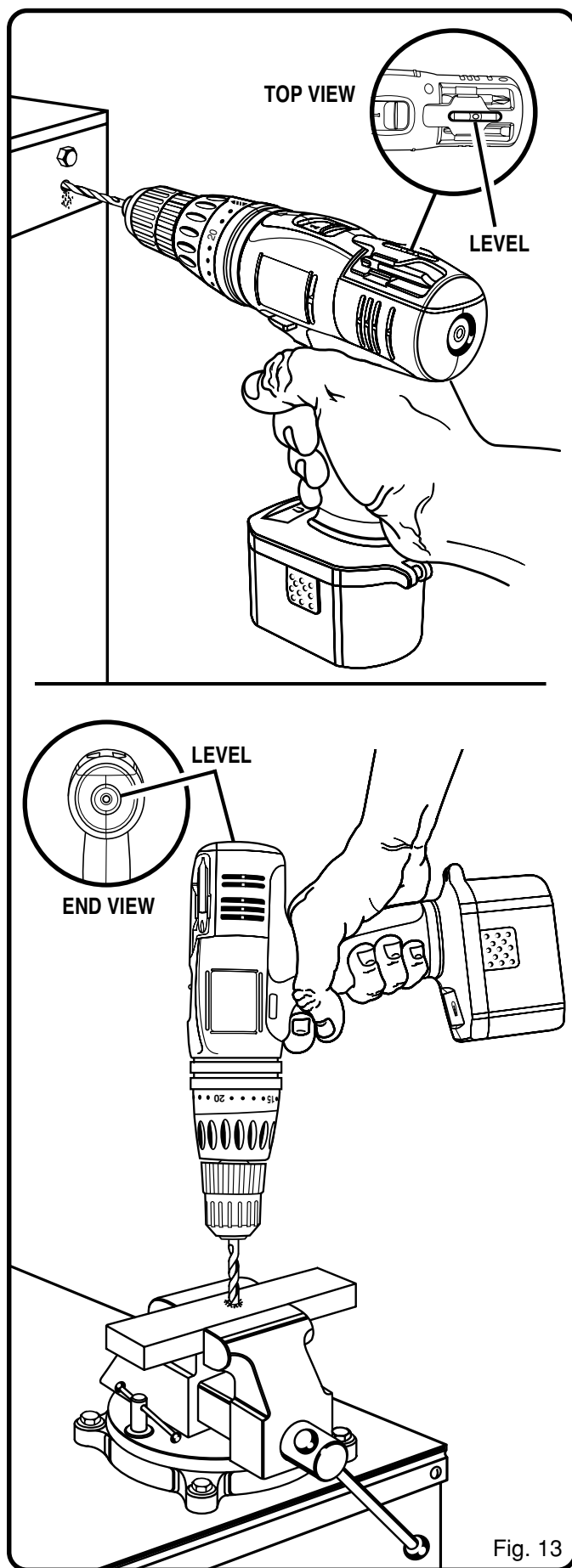


Fig. 13

MAINTENANCE

⚠ WARNING:

When servicing use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ WARNING:

The hammer drill should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

GENERAL

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, carbon dust, etc.

⚠ WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

BATTERIES

Your tool is equipped with Nickel-Cadmium rechargeable batteries. Length of service from each charging will depend on the type of work you are doing.

The batteries in this tool have been designed to provide maximum trouble-free life. However, like all batteries, they will eventually wear out. **DO NOT** disassemble battery pack and attempt to replace the batteries. Handling of these batteries, especially when wearing rings and jewelry, could result in serious burn.

To obtain the longest possible battery life, we suggest the following:

- Storing or charging the batteries in temperatures above 100° F or below 50° F will shorten battery life.
- Never store batteries in a discharged condition. Wait for battery to cool and charge immediately.
- All batteries gradually lose their charge. The higher the temperature, the quicker they lose their charge. If you store your tool for long periods of time without using it, recharge the batteries every month or two. This practice will prolong battery life.

BATTERY DISPOSAL

To preserve natural resources, please recycle or dispose of the battery properly. **Local, state, or federal laws may prohibit disposal of Nickel-Cadmium batteries in ordinary trash.**

Consult your local waste authority for information regarding available recycling and/or disposal options.

For more information on battery recycling call 1-800-8BATTERY.



⚠ WARNING:

Do not attempt to disassemble the battery pack. Fire or injury can result.

⚠ WARNING:

Upon removal, cover the battery pack's terminals with heavy duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Also, never touch both terminals with metal objects and/or body parts, as short circuit can result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

MAINTENANCE

REMOVING THE CHUCK

See Figures 14, 15, and 16.

Follow these steps to remove the chuck.

- Lock the trigger switch by placing the rotation selector in the center position.
- Insert a 5/16 inch or larger hex key wrench into the chuck of the drill and tighten the chuck jaws securely.
- Tap the hex key wrench sharply with a mallet in a clockwise direction. This will loosen the screw in the chuck for easy removal.
- Open the chuck jaws and remove the hex key wrench.
- Remove the chuck screw by turning it in a clockwise direction.

Note: The screw has left-handed threads.

- Insert the hex key wrench in the chuck and tighten the chuck jaws securely.
- Tap sharply with a mallet in a counterclockwise direction. This will loosen chuck on the spindle. It can now be unscrewed by hand.

TIGHTENING THE CHUCK

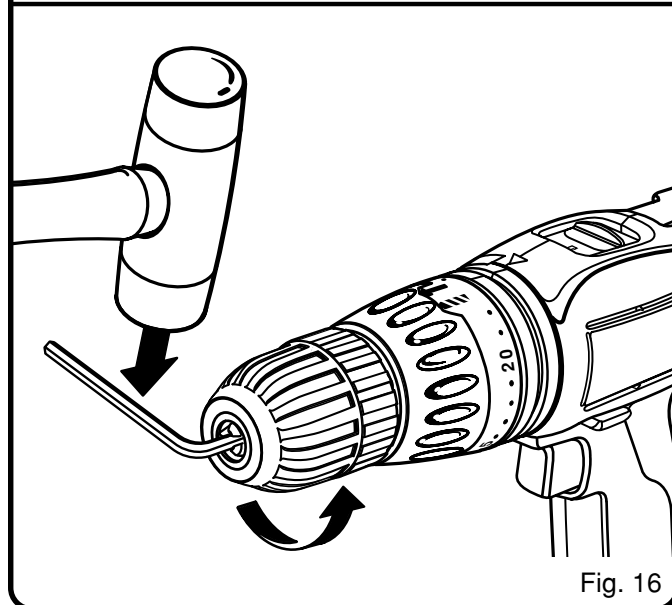
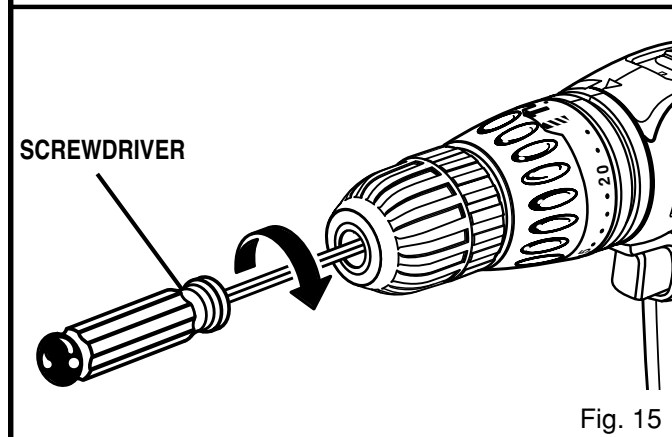
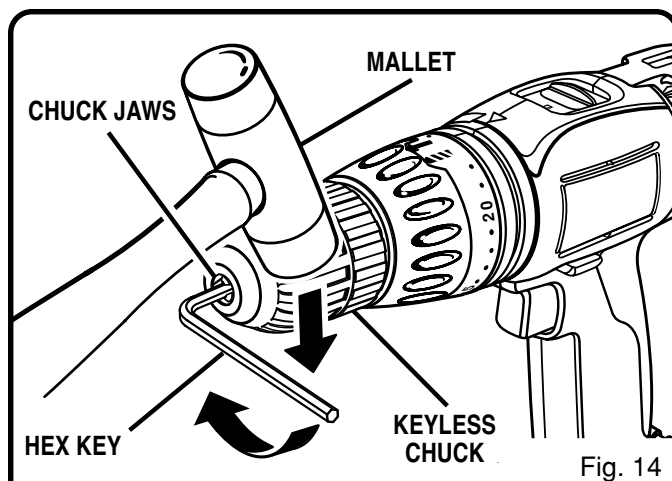
See Figures 14 and 15.

The chuck may become loose on the spindle and begin to shake when using the drill. Also, the chuck screw may become loose causing the chuck jaws to bind and prevent them from closing.

Follow these steps to tighten the chuck.

- Lock the trigger switch by placing the rotation selector in center position.
- Open the chuck jaws.
- Insert the hex key wrench into the chuck and tighten the chuck jaws securely.
- Tap the hex key wrench sharply with a mallet in a clockwise direction. This will tighten chuck on the spindle.
- Open the chuck jaws and remove the hex key wrench.
- Tighten the chuck screw.

Note: The chuck screw has left-handed threads.





OPERATOR'S MANUAL

HAMMER DRILL

18 VOLT

HD1800M

CUSTOMER SERVICE INFORMATION

For parts or service, contact your nearest Ryobi authorized service center. Be sure to provide all relevant information when you call or visit. For the location of the authorized service center nearest you, please call 1-800-525-2579 or visit us online at www.ryobitools.com.

The model number of this tool is found on a plate attached to the motor housing. Please record the serial number in the space provided below. When ordering repair parts, always give the following information:

Model No. **HD1800M**

Serial No. _____

RYOBI TECHNOLOGIES INC.

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