

CHICAGO

Electric Power Tools

POWER TOOL SET

Model 66755

SET UP AND OPERATING INSTRUCTIONS



Distributed exclusively by Harbor Freight Tools®.

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Visit our website at: <http://www.harborfreight.com>



**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.**

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 09I

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SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the serial number of the products in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

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



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

DANGER

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

WARNING

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

CAUTION

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

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

General Power Tool Safety Warnings



WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. **Work area safety**
 - a. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
 - b. **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.
 - c. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.
2. **Electrical safety**
 - a. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
3. **Personal safety**
 - a. **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.*

- b. **Use safety equipment. Always wear eye protection.** *Safety equipment such as a)dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- d. **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.*
- e. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*
- g. **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.*
- h. **Only use safety equipment that has been approved by an appropriate standards agency.** *Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection*

must be NIOSH-approved for the specific hazards in the work area.

4. **Power tool use and care**

- a. **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.*
- b. **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.*
- c. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d. **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.*
- e. **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 poorly maintained power tools.*
- f. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g. **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.

5. **Battery tool use and care**

- a. **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.*
- b. **Use power tools only with specifically designated battery packs.** *Use of any other battery packs may create a risk of injury and fire.*
- c. **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.*
- d. **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.*

6. **Service**

- a. **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.*

Circular Saw Safety Warnings

- 1. **▲DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** *If both hands are holding the saw, they cannot be cut by the blade.*
- 2. **Do not reach underneath the workpiece.** *The guard cannot protect you from the blade below the workpiece.*
- 3. **Adjust the cutting depth to the thickness of the workpiece.** *Less than a full tooth of the blade teeth should be visible below the workpiece.*
- 4. **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.** *It is important to support the work properly to minimize body exposure, blade binding, or loss of control.*
- 5. **Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.** *Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.*
- 6. **When ripping always use a rip fence or straight edge guide.** *This improves the accuracy of cut and reduces the chance of blade binding.*
- 7. **Always use blades with correct arbor hole for the tool.** *Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.*
- 8. **Never use damaged or incorrect blade washers or bolt.** *The blade washers and bolt were specially designed for your saw, for optimum performance and safe-*

ty of operation. Observe thread direction of the bolt.

9. **Causes and Operator Prevention of Kickback:**

- Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- a. **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** *Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.*
- b. **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** *Investigate and take cor-*

rective actions to eliminate the cause of blade binding.

- c. **When restarting a saw in the workpiece, center the saw blade in the cut and check that saw teeth are not engaged into the material.** *If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.*
 - d. **Support large panels to minimize the risk of blade pinching and kickback.** *Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.*
 - e. **Do not use dull or damaged blades.** *Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.*
 - f. **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** *If blade adjustment shifts while cutting, it may cause binding and kickback.*
 - g. **Use extra caution when making a "plunge cut" into existing walls or other blind areas.** *The protruding blade may cut objects that can cause kickback.*
10. **Check Lower Guard (A7) on Circular Saw for proper closing before each use. Do not operate the saw if Lower Guard does not move freely and close instantly. Never clamp or tie the Lower Guard into the open position.** *If saw is accidentally dropped, Lower Guard may be bent. Raise the Lower Guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.*
 11. **Check the operation of the Lower Guard (A7) spring on the Circular Saw. If the Guard and the spring are not operating properly, they must**

be serviced before use. *Lower Guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.*

12. **Lower Guard (A7) on the Circular Saw should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts." Raise Lower Guard by retracting handle and as soon as blade enters the material, the Lower Guard must be released. For all other sawing, the Lower Guard should operate automatically.**
13. **Always observe that the Lower Guard (A7) on the Circular Saw is covering the blade before placing saw down on bench or floor. An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.**
14. **The Circular Saw is designed for use only with a 5-1/2" diameter Saw Blade having a 10mm arbor and rated to 4,000 RPM or greater. Do not use any other rated blade.**
15. **To prevent serious injury from flying shrapnel, do not use any abrasive wheels on the circular saw. The saw and its guards are not designed to accommodate abrasive wheels.**


Drill Safety Warnings

1. **Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.**

Reciprocating Saw Safety Warnings

1. **Hold power tool by insulated gripping surfaces when performing an operation where cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.**
2. **Use clamps or another practical way to secure and support the work piece to a stable platform. Holding the work by hand or against your body leaves it unstable and may lead to loss of control.**
3. **When using the Reciprocating Saw, do not cut material that is thicker than the Saw Blade is long. Allow for blade stroke.**

Additional Safety Warnings

1. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. Avoid unintentional starting. Prepare to begin work before turning on the tool.
3. Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
4. When using a handheld power tool, maintain a firm grip on the tool with both hands to resist starting torque.
5. Do not leave the Charger unattended when it is plugged into an electrical outlet. Unplug it from its electrical outlet before leaving.
6.  The battery charger gets hot during use. The charger's heat can build up to unsafe levels and create a fire hazard if it does not receive adequate ventilation, due to an electrical fault, or if it is used in a hot environment.
Do not place the charger on a flammable surface. Do not obstruct any vents on the charger. **Especially avoid placing the charger on carpets and rugs; they are not only flammable, but they also obstruct vents under the charger.** Place the charger on a stable, solid, nonflammable surface (such as a stable metal workbench or concrete floor) at least 1 foot away from all flammable objects, such as drapes or walls. Keep a fire extinguisher and a smoke detector in the area. Frequently monitor the charger and battery during use.
7. This product is not a toy. Keep it out of reach of children.
8. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
 - Avoid operating alone.
 - Do not use with power switch locked on.
 - Properly maintain and inspect to avoid electrical shock.
 - Any power cord must be properly grounded. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.
9. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] 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 or other masonry products
 - Arsenic and chromium from chemically treated lumberYour 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. (California Health & Safety Code § 25249.5, *et seq.*)
10. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be

understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Wear suitable gloves to reduce the vibration effects on the user.
4. Use tools with the lowest vibration when there is a choice between different processes.
5. Include vibration-free periods each day of work.
6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.

7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.



SAVE THESE INSTRUCTIONS.

GROUNDING

⚠ WARNING

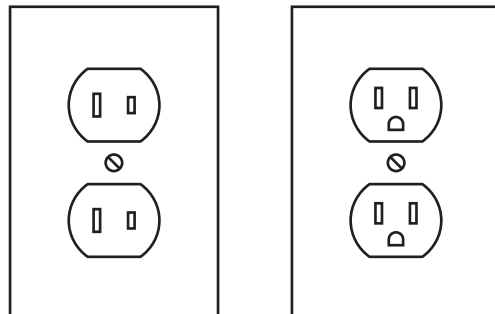
TO PREVENT ELECTRIC SHOCK

AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:



Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Double Insulated Tools: Tools with Two Prong Plugs



Outlets for 2-Prong Plug

1. Tools marked "Double Insulated" do not require grounding. They have a special







double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Outlets for 2-Prong Plug.)**

2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration.
(See Outlets for 2-Prong Plug.)

Extension Cords

Note: Extension cords must not be used with this item's charger.

Symbology

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
	Volts Alternating Current
	Amperes
	No Load Revolutions per Minute (RPM)

SPECIFICATIONS

Battery Specifications

Type	18VDC, NiCd, 1.3Ah
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Circular Saw Specifications

Max. RPM	4000 RPM
Blade	5-1/2" Dia. / 6,000 RPM
Arbor	10MM
Max Cutting Depth	1-1/2" at 90°, 1-1/16" at 45°
Cutting Angle	0 to 45°

Reciprocating Saw Specifications

Blades	Two 4-3/4" / 3,300 SPM
Stroke Length	7/8"

Drill Specifications

Max. RPM	600 RPM
Chuck	3/8" Keyless Type
Torque Settings	23 Torque Settings/ 1 Drill Setting

Flashlight Specifications

Switch	Push Button On/Off
Bulb Type	9 LEDs
Head Positions	7

Charger Specifications

Input Power	120V / 60 Hz
Output Power	22VDC (max.) / 400mA
LED Indicator Light	Red when charging; Green when fully charged,
Charge Time	3 - 5 hours

UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

INSTRUCTIONS FOR PUTTING INTO USE



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠️ WARNING

TO PREVENT SERIOUS INJURY

FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its Battery Pack (1) before assembling or making any adjustments to the tool.

TO PREVENT SERIOUS INJURY FROM FLYING SHRAPNEL:

Do not use any abrasive wheels on the circular saw. The saw and its guards are not designed to accommodate abrasive wheels.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

The Battery Packs

- Two Battery Packs (1) are included with this tool kit. They can be used in combination with the Work Light and any of the other tools at the same time, or you can have an extra fully charged stand-by Battery Pack available for use when needed.
- Charge both Battery Packs before using the tools.
- Charge the Battery Pack (1) only with the 18V Charger (3) provided.
- Charge indoors only.
- If the Battery Pack is hot from use in a tool, allow time for it to cool down before Charging.
- If the Battery Pack is hot after charging, allow time for it to cool down before using in a tool.

To Charge the Battery Pack:

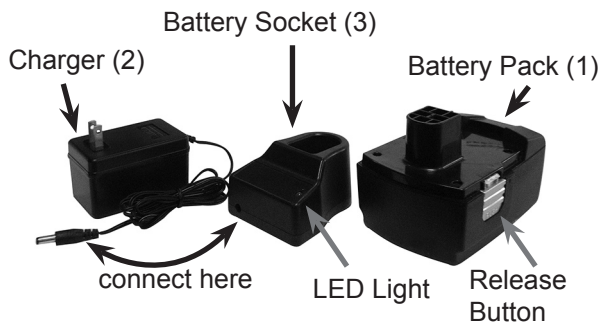


Figure 1

1. Insert the Battery Pack (1) into the Battery Socket (3).
2. Plug the Charger (2) cord into the Battery Socket (3), then plug the Charger into an appropriate AC 120V, 60 Hz power outlet. The red LED light on the Battery Socket will activate, indicating the Battery Pack is charging.
3. The initial charge time is 3-5 hours, after which the Battery Pack should be re-

moved from the Battery Socket/Charger assembly.

Note: When the Charger is plugged into a power outlet and connected to the Battery Socket without a Battery Pack attached, the LED will flash from green to red, and then off. When the Battery Pack is inserted into the Battery Socket the LED changes to a solid red. The light changes to green when the Battery Pack is fully charged. Do not charge for over 5 hours. Do not place the Charger on carpeting or near flammables.

4. After each subsequent use, 3 hours of charging time is needed for the Battery Pack to be fully charged. However, the Battery Pack can be left to charge for 5 hours to ensure longer running time in the tools.
5. If the Battery Pack will not hold a full charge, discharge batteries by keeping the tool in the "ON" position until tool slows or the light begins to dim. Do not completely discharge batteries. Remove Battery Pack from tool, allow it to cool, and charge for 3-5 hours, making sure not to exceed 5 hours of charging time.
6. When not charging, unplug Charger from outlet and store in secure location.
7. The batteries contained in the Battery Pack are nickel-cadmium (Ni-Cd). Do not dispose of Ni-Cd batteries in household waste.
8. Follow all local regulations regarding the proper disposal of Ni-Cd batteries.
9. **⚠WARNING! If the Charger cord is damaged, it must be replaced only by a qualified service technician.**

SET UP AND OPERATING INSTRUCTIONS



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Tool Set Up

⚠️ WARNING TO PREVENT SERIOUS INJURY

**FROM ACCIDENTAL
OPERATION:**

Turn the Power Switch of the tool to its “OFF” position and remove the Battery Pack (1) from the tool before performing any inspection, maintenance, or cleaning procedures.

Work Piece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent injury and distraction.
2. Route the charger cord for the Charger/ Battery Socket assembly along a safe route to reach the charger location without creating a tripping hazard or exposing the cord to possible damage.
3. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. Verify that there are no utility lines, foreign objects or other hazardous objects nearby that will present a hazard while working.
5. Check to make sure there is enough space under and behind the workpiece for the Saw Blade when using the Re-

ciprocating Saw or the Circular Saw. Ensure you will not be cutting through any electrical wires, pipes, or your workbench.

Circular Saw Set Up and Operating Instructions

⚠️ WARNING TO PREVENT SERIOUS INJURY

FROM FLYING SHRAPNEL:

Do not use any abrasive wheels on the circular saw. The saw and its guards are not designed to accommodate abrasive wheels.

- **DO NOT** install the Battery Pack (1) until **AFTER** you complete the following steps to set up the Circular Saw for use.
- Refer to Figure A1 for the location of the parts of the saw for the following steps.

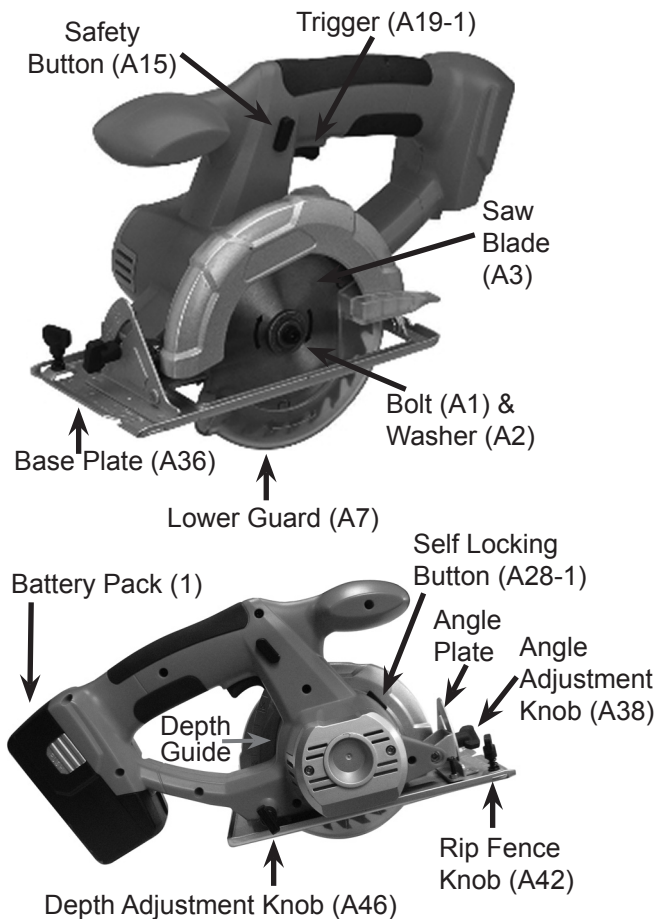


Figure A1

Changing the Circular Saw Blade

The Blade comes installed on the Circular Saw, but replacement Blades will need to be installed when the blade gets dull or is damaged. To replace the Blade:

1. Place the unit on a flat, hard horizontal bench or table.
2. Secure the Blade in place by depressing the Self-Locking Button (A28-1). Use the Hex Wrench (A45) (not shown in Figure A1) to remove the Bolt (A1), unthreading in a clockwise direction.
3. Move the Lower Guard (A7) out of the way, remove the Washer (A2) and Saw Blade (A3) and replace with a new 5-1/2" blade rated to at least 4,000 RPM. Blade rotation must match up with the direction arrow on the Lower Guard (A7) of the Saw. The Blade's teeth must be facing upwards.
4. Replace the Washer (A2) and Bolt (A1) and tighten securely, rethreading in a counterclockwise direction.

Set the Cutting Angle

The cutting angle of the saw can be adjusted from a standard vertical cut, up to a 50° angled left cut. To adjust the cutting angle of the Saw:

1. Loosen the Angle Adjustment Knob (A38).
2. Pivot the Base Plate (A36) to the desired cutting angle, using the measurements on the Angle Plate as a guide.
3. Tighten the Angle Adjustment Knob (A38) to hold the Base Plate (A36) at the desired angle.

Set the Cutting Depth

The cutting depth of the Saw Blade (A3) can be adjusted up to a 1-1/2" depth when the cutting angle is set to 90°, or up to 1-1/16" when the cutting angle is set to 45°.

The cut should be deep enough to cut all the way through the material but not deep enough to bite into a surface beneath. Adding about 1/8" cut greater than the thickness of the material is advised. To adjust the cutting depth of the Saw:

1. Loosen the Depth Adjustment Knob (A46).
2. Pivot the Base Plate (A36) to the desired cutting depth, using the measurements on the Depth Guide as a guide.
3. Tighten the Depth Adjustment Knob (A46) to hold the Base Plate (A36) at the desired cutting depth.

Using the Rip Fence

The Rip Fence can be used to make a long uniform cut of a piece of material to the same width, or to make repeated cuts of the same width. To position the Rip Fence for use:

1. Loosen the Rip Fence Knob (A42).
2. Position the Rip Fence (A35) (not shown in Figure A1) so that the top of the "T" shape is facing down.
3. Slide the arm of the Rip Fence through the mounting slots (not shown) at the front of the Base Plate (A36).
4. Adjust the Rip Fence to the desired cutting width.
5. Tighten the Rip Fence Knob (A42).

6. To prevent accidents, turn off the tool and disconnect its power supply after use. Clean, then store the tool indoors out of children's reach.

Operating the Circular Saw

1. Mark the line to be cut on the workpiece.
2. Adjust the depth and angle of the cut as needed.
3. Slide a fully charged Battery Pack (1) into the end of the handle of the Circular Saw, making sure that it clicks into place securely. Be sure the Battery Pack (1) is securely seated into the Saw Handle so it will not fall off during use.
4. Position the Blade near the workpiece, depress the Safety Button (A15) and hold the Trigger (A19-1) down. Release the Safety Button once the tool has power. Allow the Saw to come up to full speed before addressing it to the workpiece.
5. Hold the Circular Saw with both hands and allow it to cut through the workpiece at its own pace.
6. When the cut is complete, release the Trigger. Allow the Saw to coast to a stop before setting it down.
7. Remove the Battery Pack (1).
8. Clean then store the Circular Saw indoors and out of children's reach.

Reciprocating Saw Set Up and Operating Instructions

- **DO NOT** install the Battery Pack (1) until **AFTER** you complete the following steps to set up the Reciprocating Saw for use.
- Refer to Figure B1 for the location of the parts of the saw for the following steps.

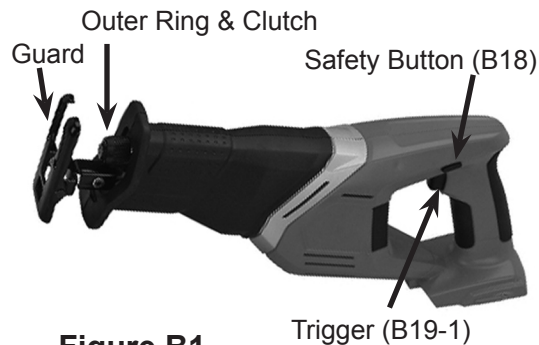


Figure B1

Installing the Saw Blade

1. Choose the correct Saw Blade (B15/B16) for the material being cut. Fine tooth Saw Blades (B16) are generally used for cutting metal. Saw Blades (B15) with larger teeth are generally used for cutting wood.
2. To avoid accidental injury, make sure to wear heavy duty work gloves when installing the Saw Blade.
3. Open the Outer Ring of the Clutch by turning it *counterclockwise*. Insert the shank of the Saw Blade (B15/B16) fully into the Chuck, making sure the teeth of the Saw Blade face downward, away from the tool. Then release the Outer Ring and make sure it locks the Saw Blade in place.

Operating the Reciprocating Saw

4. With the Saw Blade installed, squeeze, then release the Trigger (B19-1) to make sure it is locked. It should not move.

5. Slide a fully charged Battery Pack (1) into the bottom of the Handle of the Reciprocating Saw, making sure that it clicks into place securely. Be sure the Battery Pack (1) is securely seated into the Saw Handle so it will not fall off during use.
6. Firmly hold the Reciprocating Saw with both hands. Position the Blade near the work piece, depress the Safety Button (B18) and hold the Trigger down. Release the Safety Button once the tool has power. Allow the Saw to come up to full speed before addressing it to the work piece.

IMPORTANT: Do not start the Saw if the Saw Blade (B15/B16) is in contact with anything before operation. If necessary, lift the tool from the work piece before squeezing the Trigger.

7. NEVER cut into areas where you cannot identify any possible hazards behind or inside the surface being cut.
8. In preparation to making a cut, place the Guard on the surface to be cut. Align the Saw Blade with the direction of the cut and slowly lower the saw blade onto the cut line to begin the cut. Do not attempt to cut with the tip of the blade; kickback and damage to the blade could result. Note: When cutting hard woods, a hole should be drilled first to insert the saw blade (see Plunge Cutting on next page).
9. When finished cutting, release the Trigger to stop the tool.
10. Remove the Battery Pack (1).
11. Clean, then store the Saw indoors and out of children's reach.

Plunge Cutting

Note: Before Plunge Cutting, drill a hole or opening for inserting the saw blade.
Never allow the tip of the saw blade to contact the workpiece.

1. Clearly mark the line of cut on the work piece.
2. From a convenient starting point within the cut out area, place the blade tip into the hole or opening. The saw should be positioned vertically at a 90° angle to the workpiece.
3. Slowly lower the Saw until the lower edge of the Guard rests on the work piece - See Figure B2.
4. Start the Saw and allow it to reach full speed.
5. With the Saw resting on the Guard, slowly lower the Saw Blade (B15/B16) onto the cut line. Continue this motion until the Saw Blade is perpendicular to the work piece.

Metal Cutting

1. When cutting metal materials with the Saw, make sure to use the metal Saw Blade (B16).
2. Lubricate the cutting surface with cutting oil to avoid heat build-up. Follow the **“Operating the Reciprocating Saw”** section on page 17 of this manual.

Drill/Driver Set Up and Operating Instructions

- **DO NOT** install the Battery Pack (1) until **AFTER** you complete the following steps to set up the Drill/Driver for use.
- Refer to Figure C1 for the location of the parts of the Drill/Driver for the following steps.

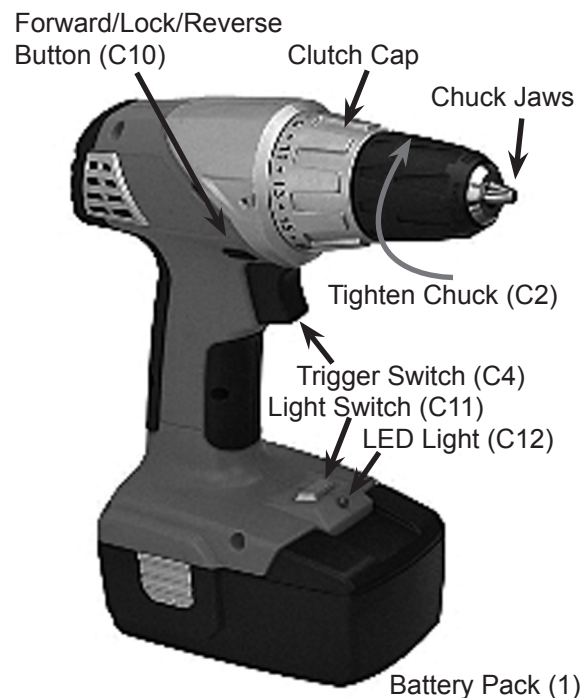


Figure C1

1. Center the Forward/Lock/Reverse Button (C10) to “lock” the trigger mechanism as a safety measure, so the drill does not turn on accidentally.
2. Loosen the Chuck (C2) if needed and place the desired drill bit or screw driver bit into the drill between the Chuck Jaws.
3. Tighten the Chuck until the bit is held securely in place, centered between the Chuck Jaws.

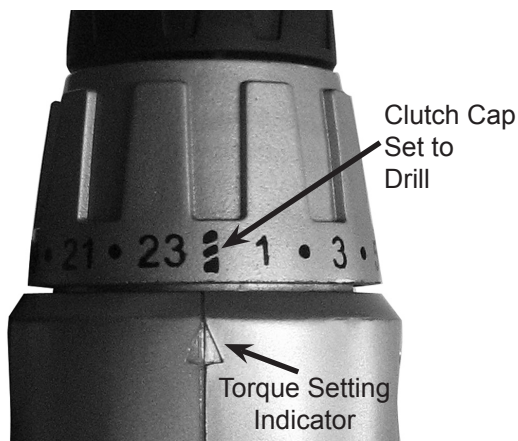


Figure C2

4. Set the desired torque setting by rotating the Clutch Cap.
 - a. To drill holes, turn the torque Clutch Cap so that the drill icon is lined up with the torque setting indicator.
 - b. The numbered settings from 1 to 23 are for driving screws, bolts and nuts.
 - It is recommended that a very low torque setting be used for the first drive, and adjust the setting as the proper force required is determined.
 - The torque setting required depends on the item being driven. In the case of screws, consider the size, length, and type of material.
 - If a pilot hole has been drilled into the material, the torque setting required will be less to drive the screw.
 - c. In addition to single or double-ended screwdriver bits, adapters with hexagonal shafts with matching socket heads can also be used.
 - Fix the torque setting low enough to allow a safety margin.

Operating the Drill/Driver

1. Insert the fully charged Battery Pack (1) into the base of the Drill/Driver, making sure that it clicks into place securely.

Be sure the Battery Pack (1) is securely seated into the Drill/Driver Handle so it does not fall off during use.

2. Slide the Forward/Lock/Reverse Button (C10) (which should initially be centered in the “lock” position) to either Forward or Reverse as required.
3. If using the Drill to insert or remove screws, position the driver tip in the item to insert or remove.
4. If drilling a hole, hold the Drill Driver above the area to drill.
5. Depress the Trigger Switch (C4) to start the drill.
6. When inserting or removing a screw or bolt, use slight pressure at first to keep the screw driver bit in the head of the screw or bolt and cause the screw or bolt to thread into or unthread from the material.
7. When drilling a hole, let the Drill/Driver do the work, using only enough pressure to follow the drill as it cuts the hole in the material.
8. When finished using the Drill/Driver, release the Trigger Switch (C4), and center the Forward/Lock/Reverse Button (C10) to lock the trigger mechanism as a safety measure.
9. Remove the Battery Pack (1).
10. Clean then store the Drill/Driver indoors and out of children’s reach.

Work Light Set Up and Operating Instructions

1. Insert the fully charged Battery Pack (1) into the base of the Work Light, making sure that it clicks into place securely.



Figure D1

2. Adjust the Head position of the Work Light by rotating it to click in place at any of the seven locking positions.
3. Press the Power Switch (D17) to turn the light on.
4. When finished using the Work Light, press the Power Button again to turn the light off.
5. Disconnect the Battery Pack after use. Clean, then store the tool indoors out of children's reach.

MAINTENANCE AND SERVICING



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠ WARNING TO PREVENT SERIOUS INJURY

FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the tool to its “OFF” position and unplug the tool from its Battery Pack (1) before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation.
2. **AFTER USE**, clean external surfaces of the tool with clean, moist cloth.
3. Store indoors, out of reach of children.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Charger will not turn on.	No power to Charger (2)	Make sure the Charger is plugged into a working, 120 volt, grounded, electrical outlet.
Battery Pack will not charge.	1. Components not connected. 2. Battery Pack damaged.	1. Make sure Battery Pack (1), Charger (2), and Battery Socket (3) are all connected securely. 2. Check for leaking or damaged Battery. Do not attempt to charge a leaking or damaged Battery.
Tool will not start	1. Battery Pack not fully connected. 2. Battery Pack not fully charged. 3. Tool is damaged or defective.	1. Make sure that the Battery Pack (1) is securely inserted into the tool. 2. Make sure the Battery Pack (1) is fully charged. 3. Have a qualified service technician check tool for damage or defects.
Tool does not run at full power.	1. Battery Pack not fully charged. 2. Low torque setting.	1. Remove Battery Pack (1) and replace with fully charged Battery Pack (1). 2. Adjust to higher torque setting.
Power Switch will not turn off tool.	Tool needs service check.	Immediately remove Battery Pack (1) from tool. Do not use tool until a qualified service technician checks out tool for damage or defects.
When using Circular Saw, cut quality is poor.	1. Blade damaged or dull. 2. Blade not installed properly. 3. Blade being forced into workpiece. 4. Blade mounted in incorrect direction of rotation.	1. Replace Blade (A3). 2. Check that Blade (A3) is properly secured in place. 3. Cut more slowly. Do not force tool. 4. Reinstall blade correctly.
When using Reciprocating Saw, cut line is irregular.	1. Bent, cracked, or broken Saw Blade. 2. Loose Saw Blade. 3. Improperly exerting side-to-side pressure on Saw Blade.	1. Replace Saw Blade (B15/B16). 2. Make sure Blade (B15/B16) is securely installed in tool. 3. Make sure Blade (B15/B16) is held at 90° angle to workpiece.
When using Reciprocating Saw, undesirable cutting action.	1. Dull Saw Blade. 2. Improper Saw Blade used. 3. Tool speed too slow. 4. Attempting to cut curves with tool	1. Replace Saw Blade (B15/B16). 2. Use metal Saw Blades (B16) for cutting metal and wood Saw Blades (B15) for cutting wood. 3. Increase tool speed by squeezing Trigger (B19-1) harder. 4. Use tool only to cut straight lines.
When using Drill as a screwdriver, unable to remove screw	1. Not enough torque. 2. Wrong size bit.	1. Use a tool with greater torque. 2. Use correct size bit.



Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.

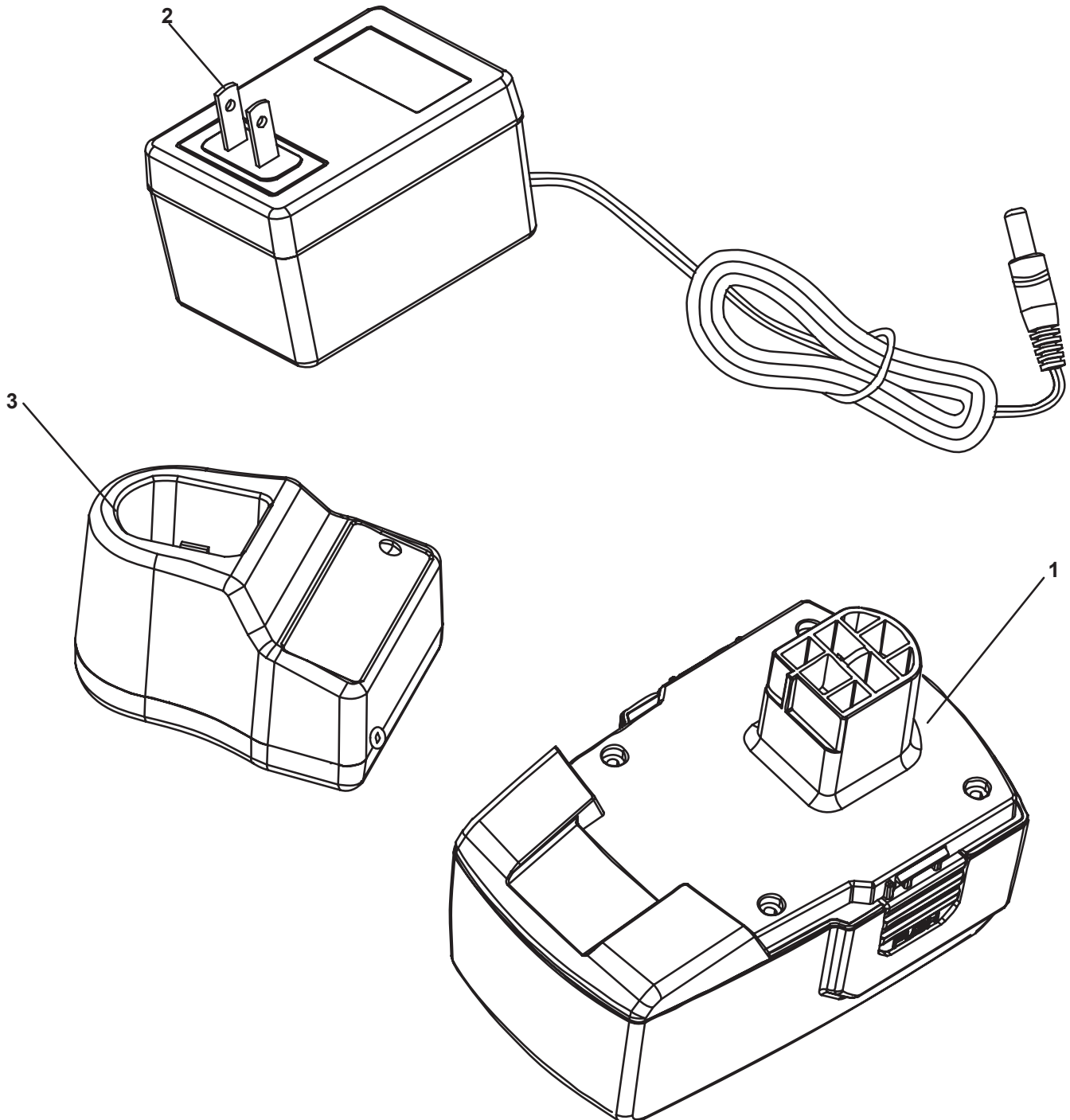
**PLEASE READ THE FOLLOWING
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PARTS LISTS AND ASSEMBLY DIAGRAMS

Accessory Parts List and Diagram

Part	Description	Qty
1	Battery Pack	2
2	Charger	1
3	Battery Socket	1

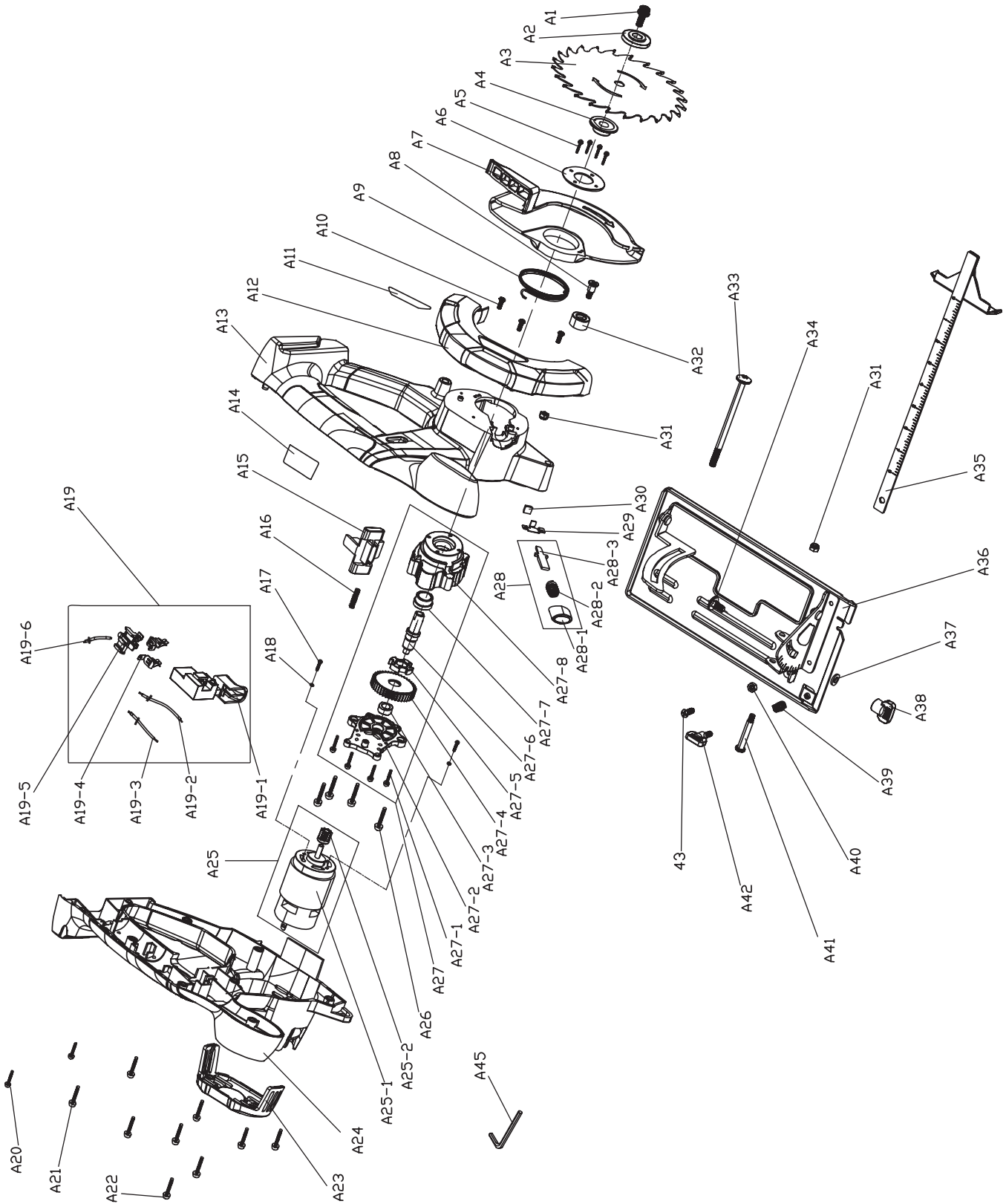


Parts List A - Circular Saw

Part	Description	Qty
A1	Bolt	1
A2	Washer	1
A3	Saw Blade	1
A4	Inside Clamping Plate	1
A5	Screw	4
A6	Clamping Board	1
A7	Lower Guard	1
A8	Bolt	1
A9	Spring	1
A10	Screw	3
A11	Label	1
A12	Upper Safety Cover	1
A13	Left Motor Housing	1
A14	Label	1
A15	Safety Button	1
A16	Compression Spring	1
A17	Phillips Head Screw	2
A18	Spring Shim	2
A19	Trigger Module	1
A19-1	Trigger	1
A19-2	Connecting Wire 1	1
A19-3	Connecting Wire 2	1
A19-4	Contact Plate	1
A19-5	Contact Plate Socket	1
A19-6	Connecting Wire 3	1
A20	Screw	2
A21	Screw	7
A22	Screw	2
A23	Rear Cover	1
A24	Right Motor Housing	1
A25	Motor Assembly	1
A25-1	Motor	1

Part	Description	Qty
A25-2	Motor Gear	1
A26	Screw	4
A27	Output Assembly	1
A27-1	Screw	4
A27-2	Gear Box	1
A27-3	Axle Sleeve	1
A27-4	Output Gear	1
A27-5	Self-Locking Plate	1
A27-6	Output Shaft	1
A27-7	Big Axle Sleeve	1
A27-8	Gear Box Cover	1
A28	Self-Locking Module	1
A28-1	Self-Locking Button	1
A28-2	Spring	1
A28-3	Self-Locking Board	1
A29	Clamp	1
A30	Seal	1
A31	Nut	1
A32	Retaining Ring	1
A33	Bolt	1
A34	Bolt	1
A35	Rip Fence	1
A36	Base Plate	1
A37	Washer	3
A38	Angle Adjustment Knob	1
A39	Impacting Spring	1
A40	Hex Nut	1
A41	Bolt	1
A42	Rip Fence Knob	1
A43	Phillips Head Screw	1
A45	Hex Wrench	1

Assembly Diagram A - Circular Saw

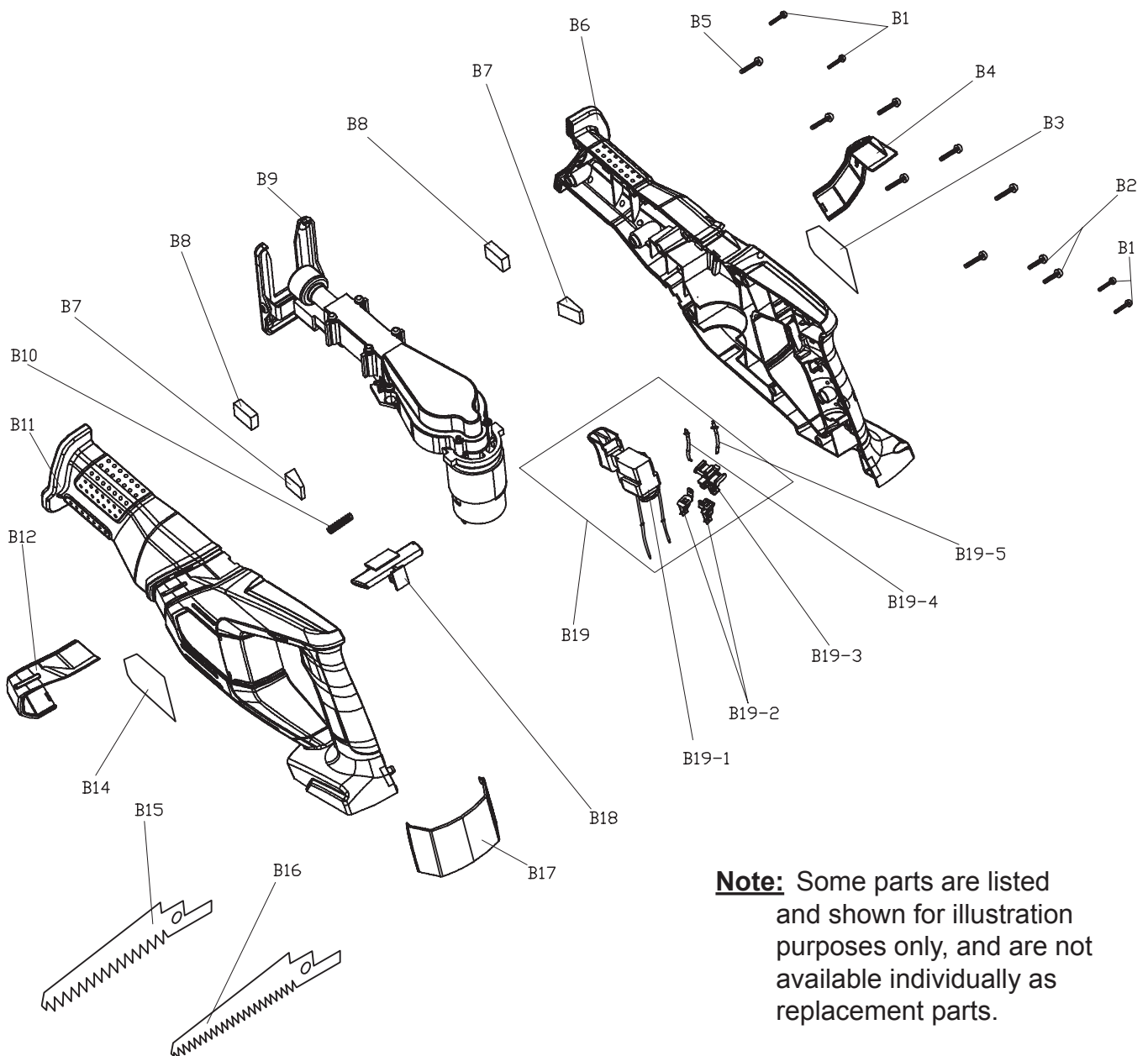


Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts List and Diagram B - Reciprocating Saw

Part	Description	Qty
B1	Phillips Head Screw	4
B2	Phillips Head Screw	2
B3	Label	1
B4	Right Housing Cover	1
B5	Phillips Head Screw	7
B6	Right Motor Housing	1
B7	Hacked-Type Rubber	1
B8	Square Rubber	1
B9	Motor Module	1
B10	Impacting Spring	1
B11	Left Motor Housing	1
B12	Left Motor Housing	1

Part	Description	Qty
B14	Label	1
B15	Saw Blade 1	1
B16	Saw Blade 2	1
B17	Rubber Molded Cover	1
B18	Safety Button	1
B19	Trigger Module	1
B19-1	Trigger	1
B19-2	Contact Plate	1
B19-3	Contact Plate Socket	1
B19-4	Connecting Wire 1	1
B19-5	Connecting Wire 2	1

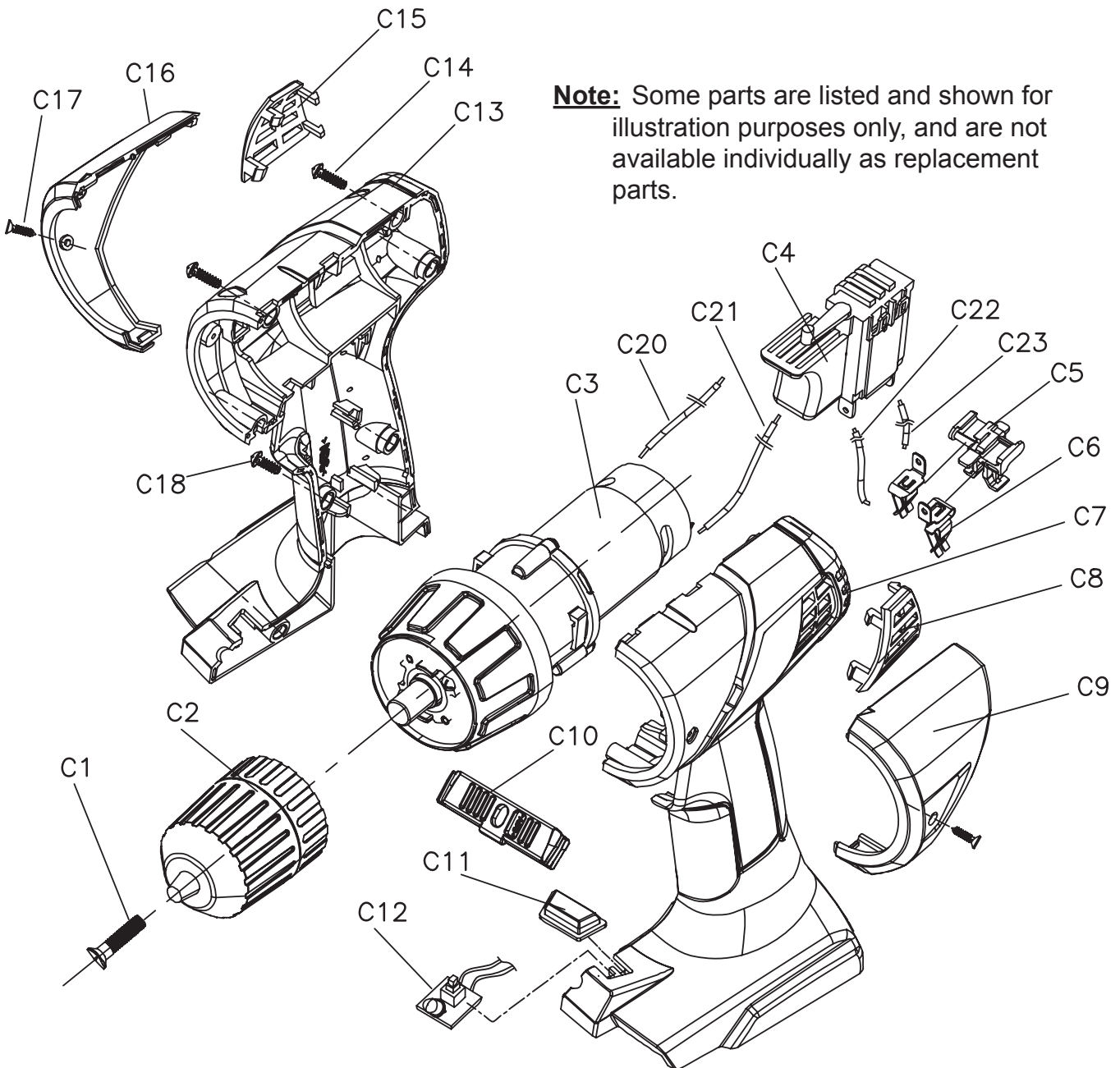


Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts List and Diagram C - Drill

Part	Description	Qty
C1	Screw	1
C2	Chuck	1
C3	Motor and Gear Box Module	1
C4	Trigger Switch	1
C5	Contact Plate Socket	1
C6	Contact Plate	1
C7	Left Motor Housing	1
C8	Left Rear Cover	1
C9	Left Front Cover	1
C10	Forward/Lock/Reverse Button	1
C11	Light Switch	1

Part	Description	Qty
C12	LED Light	1
C13	Right Motor Housing	1
C14	Screw	6
C15	Right Rear Cover	1
C16	Right Front Cover	1
C17	Screw	2
C18	Screw	2
C20	Connecting Wire 2	1
C21	Connecting Wire 1	1
C22	Connecting Wire 3	1
C23	Connecting Wire 4	1

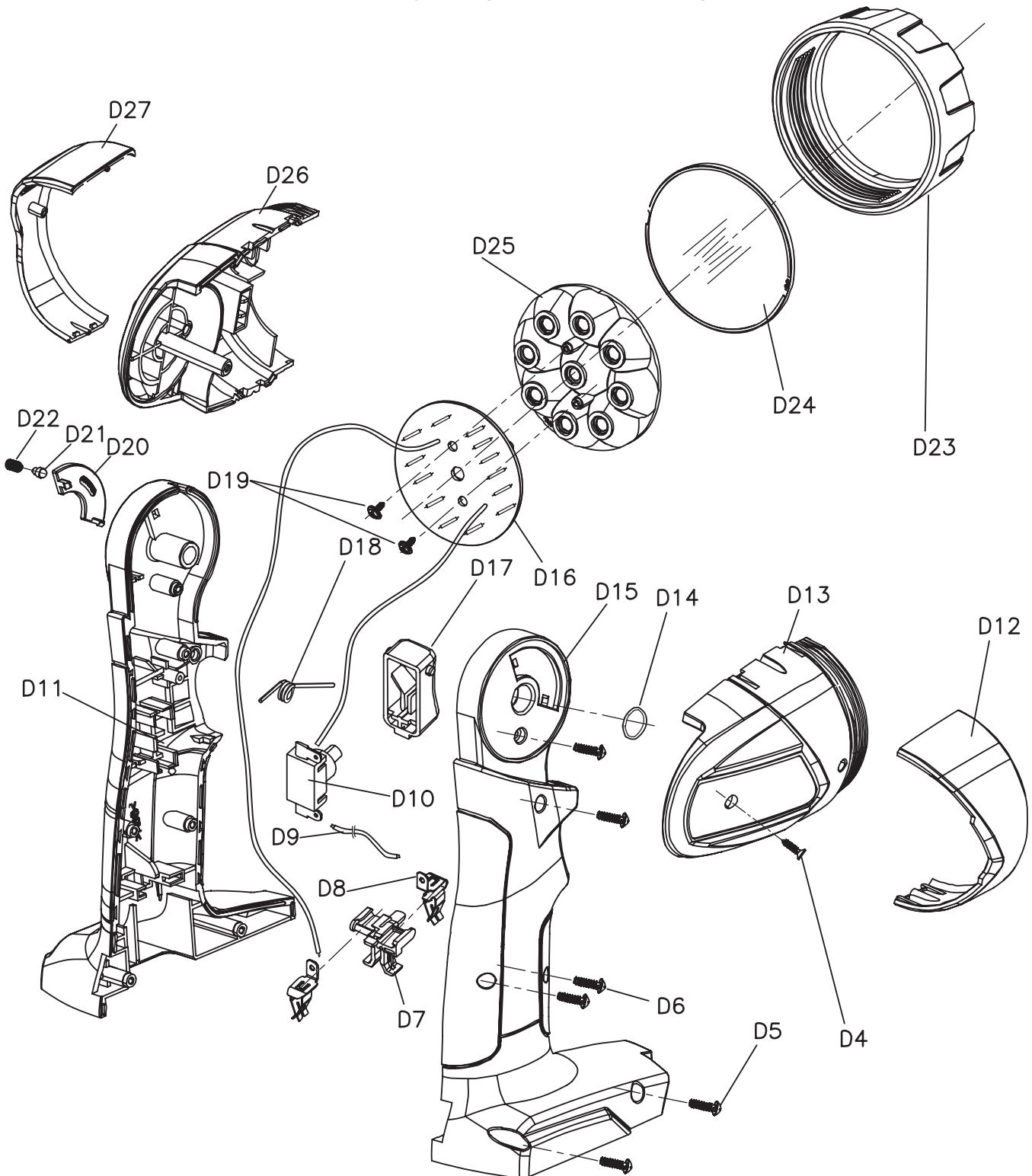


Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts List D - Flashlight

Part	Description	Qty
D4	Screw	1
D5	Screw	4
D6	Screw	2
D7	Contact Plate Socket	1
D8	Contact Plate	1
D9	Connecting Wire	1
D10	Switch	1
D11	Left Housing	1
D12	Right Front Cover	1
D13	Right Lamp Holder	1
D14	O-Ring	1
D15	Right Housing	1
D16	PCB	1
D17	Power Switch	1
D18	Spring	1
D19	Screw	1
D20	Lamp Holder Orientation	1
D21	Orientation Pin	1
D22	Spring	1
D23	Lamp Shade	1
D24	Lens	1
D25	Reflector	1
D26	Left Lamp Holder	1
D27	Left Front Cover	1

Assembly Diagram D - Flashlight



Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

LIMITED 90 DAY WARRANTY

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