MINI CIRCULAR SAW

ITEM # 47517

OWNER'S MANUAL AND SAFETY INSTRUCTIONS

SAVE THIS MANUAL. KEEP THIS MANUAL FOR SAFETY WARNINGS, PRECAUTIONS, ASSEMBLY, OPERATION, INSPECTION, MAINTENANCE AND CLEANING PROCEDURES. WRITE THE PRODUCT'S SERIAL NUMBER ON THE BACK OF THE MANUAL, OR THE MONTH AND YEAR OF PURCHASE IF PRODUCT HAS NO SERIAL NUMBER

FOR QUESTIONS, PLEASE CALL CUSTOMER SERVICE: 909.628.0880

SAFETY INFORMATION

WARNING

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in injury and/or property damage. Save all warnings and instructions for future reference. 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.

WORK AREA SAFETY

• Keep work area clean and well lit. Cluttered or dark areas invite accidents.

• Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

• Keep children and bystanders away while operating power tool .Distractions can cause you to lose control.

ELECTRICAL SAFETY

• Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

PERSONAL SAFETY

• Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

• Use personal protective equipment.Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes,hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

• 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.

• Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

• Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

• Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

• If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

• 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.

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.

• Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

• Maintain power tools. Check for misalignment or binding of moving parts, breakage of part s 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.

• Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

• Use the power tools, accessories and tools bits etc. In accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

BATTERY TOOL USE AND CARE

• 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.
• Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
• When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails,screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
• 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.

SERVICE

Have your power tools serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tools is maintained.

SPECIFIC SAFETY RULES FOR CIRCULAR SAWS

CUTTING PROCEDURES

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. Do not reach underneath the workpiece. The guard cannot protect you from the blade below the workpiece.

• 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.

• Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform. It it important to support the work properly to minimize body exposure, blade binding, or loss of control.

• Hold the power tool by insulated gripping surfaces only, 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 could give the operator an electric shock.

• When ripping, always use a rip fence or straight edge guide. This improves the accuracy of cut and reduces the chance of blade binding. .

Always use blades with correct size and shape of arbour holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

• Never use damaged or incorrect blade washers or bolt. The blade washers and bolt were specially designed for your saw, for optimum performance and safety operation.

• Always use blades with correct size and shape of arbour holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

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Further safety instructions for all saws Kickback causes and related warning

• 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:

• 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.

• 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 any occur. Investigate and take corrective actions to eliminate the cause of blade binding.

• When restarting a saw in the workpiece, centre the saw blade in the kerf 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.

• Support large panels to minimise 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.

• Do not use dull or damaged blades. Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

• Blade depth and bevel adjusting locking knob must tight and secure before making cut. If blade adjustment shifts while cutting, it may cause binding and kickback.
Use extra caution when sawing into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback.
Lower guard function

• Check lower guard 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.

• Check the operation of the lower guard spring. 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.

• Lower guard should be retracted manually only for special cuts such as “plunge cuts and angle cuts” . Raise the lower guard by retracting the handle and as soon as the blade enters the material, release the lower guard. For all other sawing operations, the lower guard should operate automatically.

• Always observe that the lower guard 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.

• Do not reach into the chip ejector with your hands. They could be injured by rotating parts.

• Do not work overhead with the saw. In this manner you do not have sufficient control over the power tool.

• Use appropriate detector to determine if utility lines are hidden in the work area or call the local utility company for assistance. Contact with electric lines can lead to fire and electric shock. Damaging as gas line can lead to explosion. Penetrating a water line causes properly damage.

• Do not operate the power tool stationary. It is not designed for operation with a saw table.

• Do not use high speed steel saw blades. Such saw blades can easily break.

• Do not saw ferrous metals. Red hot chips can ignite the dust extraction.

•Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.

• Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control over the power tool.

• Do not open the battery. Danger of short-circuiting. Protect the battery against heat, e.g., against continuous intense sunlight, fire, water, and moisture. Danger of explosion.

• In case of damage and improper use of the battery, vapours may be emitted. Ventilate the area and seek medical help in case of complaints. The vapours can irritate the respiratory system.

• Use the battery only in conjunction with your product. This measure alone protects the battery against dangerous overload.

• The battery pack can be damaged by pointed objects such as nails or screwdrivers or by force applied externally. An internal short circuit can occur and the battery pack can burn, smoke, explode or overheat.

SAVE THESE WARNINGS.

BATTERY CHARGING

Use only the battery chargers listed on the manual. Only these battery chargers are matched to the lithium-ion battery of your power tool.

Note: The battery supplied is partially charged. To insure full capacity of the battery, completely charge the battery in the battery charger before using your power tool for the first time. The lithium-ion battery can be charged at any time without reducing its service life. Interrupting the charging procedure does not damage the battery.
When the battery is empty, the machine is switched off by means of a protective circuit: The inserted tool no longer rotates.

Do not continue to press the On/Off switch after the machine has been automatically switched off. The battery can be damaged. Observe the notes for disposal.

REMOVING THE BATTERY

The battery is equipped with two locking levels that should prevent the battery from falling out when pushing the battery unlocking button unintentionally. As long as the battery is inserted in the power tool, it is held in position by means of a spring. To remove the battery, press the battery unlocking button and pull the battery out of the power tool toward the rear. Do not exert any force.

BATTERY CHARGE-CONTROL INDICATION

The three LEDs of the battery charge-control indicator indicate the charge condition of the battery. For safety reasons, it is only possible to check the status of the charge condition when the machine is at a standstill. Press the On/Off switch halfway or completely through to indicate the charge condition.

LED	CAPACITY
Continuous lighting 3*green	≥2/3
Continuous lighting 2*green	≥1/3
Continuous lighting 1*green	<1/3
Flashing light 1*green	Reserve

When no LED light up after pressing the On/Off switch, the battery is defective and must be replaced.

MOUNTING/REPLACING THE SAW BLADE

- Before any work on the power tool, remove the battery.
- When mounting the saw blade, wear protective gloves. Danger of injury when touching the saw blade.
- Only use saw blades that correspond with t he characteristic data given in the operating instructions.
- Do not under any circumstances use grinding discs as the cutting tool.

REMOVAL OF THE SAW BLADE

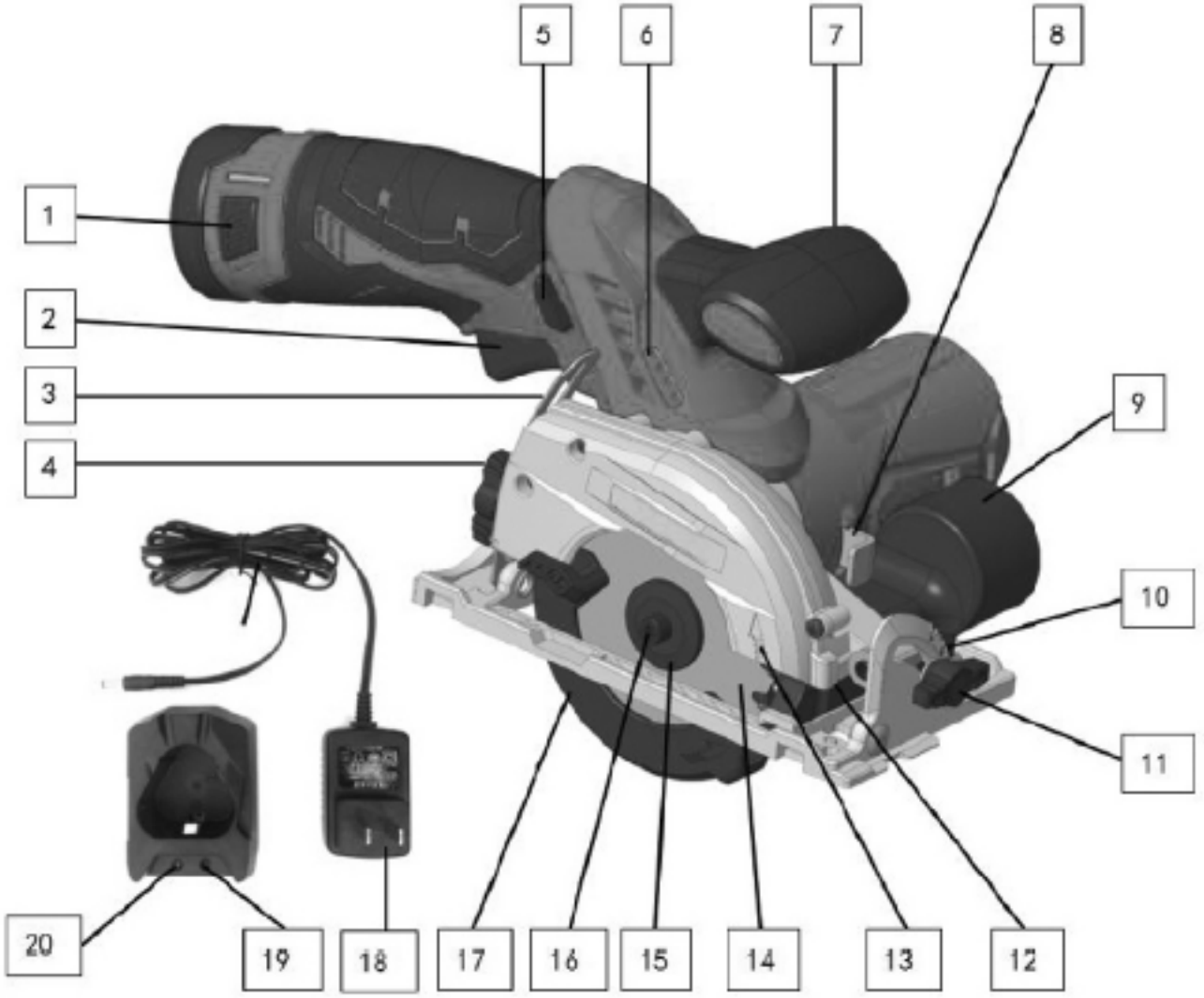
For changing the cutting tool, it is best to place the machine on the face side of the motor housing.
--Press the spindle lock button and keep it pressed.

•The spindle lock button may be actuated only when the saw spindle is at a standstill. Otherwise, the power tool can be damaged. With the hex key, unscrew the clamping bolt turning in rotation direction. Tilt back the retracting blade guard and hold firmly. Remove the clamping flange and the saw blade from the saw spindle.

MOUNTING THE SAW BLADE

For changing the cutting tool, it is best to place the machine on the face side of the motor housing. Clean the saw blade and all clamping parts to be assembled. Tilt back the retracting blade guard and hold firmly. Place the saw blade onto the mounting flange. The cutting direction of the teeth(direction of arrow on the saw blade) and the direction-of-rotation arrow on the retracting blade guard must correspond. Mount the clamping flange and screw in the clamping bolt turning in rotation direction. Observe correct mounting position of mounting flange and clamping flange. Press the spindle lock button and keep it pressed. With the hex key, tighten the clamping bolt turning in rotation direction.

PARTS INFORMATION



No.	Description	No.	Description
1	Battery Pack	11	Bevel Adjusting Knob
2	On/off Switch	12	LED Light
3	Cutting-Depth Scale	13	Rotation Arrow
4	Depth Adjustment Button	14	Saw Blade
5	Lock-off Button	15	Blade Flange
6	Capacity Showing	16	Screw
7	Auxiliary Handle	17	Lower Guard
8	Spindle-Lock Button	18	Plug
9	Dust Port	19	Red Light
10	Bevel Scale	20	Green Light

Model No.	47517
Rated Voltage	DC12V
Unloaded Speed	1400r/min
Max. Cutting Depth	90° 26.5mm
	45° 16.5mm
Battery Capacity	2000mAh
Charger	Rated Input Voltage:100-240VAC Rated Input Frequency: 50/60HZ Output Voltage:13.5V Output Current：1.5A
Charging Time	1 Hour

Inserting the battery: Use only original lithium-ion batteries with the voltage listed on the nameplate of your power tool. Using other batteries can lead to injuries and pose a fire hazard. Insert the charged battery from the front into the base of the power tool. Push the battery completely into the base until the red stripe can no longer be seen and the batter is securely locked.

Switching On and Off: To start the machine, first push the lock-off button for the On/Off switch and then press the On/Off switch and keep it pressed. To switch off the machine, release the On/Off switch.

Note: For safety reasons, the On/Off switch cannot be locked; it must remain pressed during the entire operation. Temperature Control/ Overload Protection Indicator: The red LED indicator will help you in protecting the battery against overheating and the motor against overloading. When the LED indicator continuously lights up red, the temperature of the battery is too high and the machine switches off automatically.

• Switch the power tool off.

• Allow the battery to cool down before continuing to work.

The LED indicator flashed red, the power tool is blocked and switches off automatically. Remove the power tool from the workpiece. The power tool will continue to work as soon as the blockage is rectified.

Protection Against Deep Discharging: The lithium-ion battery is protected against deep discharging by the “Electronic Cell Protection (ECP)”. When the battery is empty, the machine is switched off by means of a protective circuit: the inserted tool no longer rotates.

Switching on the LED Work area illumination: The power light lights up when the On/Off switch is slightly or completely pressed, and allows the work area to be illuminated when lighting conditions are insufficient.

Working Advice: Protect saw blades against impact and shock. Guide the machine evenly and with light feed in the cutting direction. Excessive feed significantly reduces the service life of the saw blade and can cause damage to the power tool. Sawing performance and cutting quality depend essentially on the condition and the tooth form of the saw blade. Therefore, use only sharp saw blades that are suited for the material to be worked.

Sawing Wood: The correct selection of the saw blade depends on the type and quality of the wood and whether lengthway or crossway cuts are required. Beech and oak dusts are especially detrimental to health. Therefore, work only with dust extraction. Before any work on the power tool, remove the battery.

Adjusting the Cutting Angle

It is best to place the machine on the face side of the blade guard. Loosen wing bolt. Tilt the saw sidewards. Adjust the desired setting at the scale. Tighten wing bolt again. When setting the mitre angle, use the reference mark upper edge of the holder.

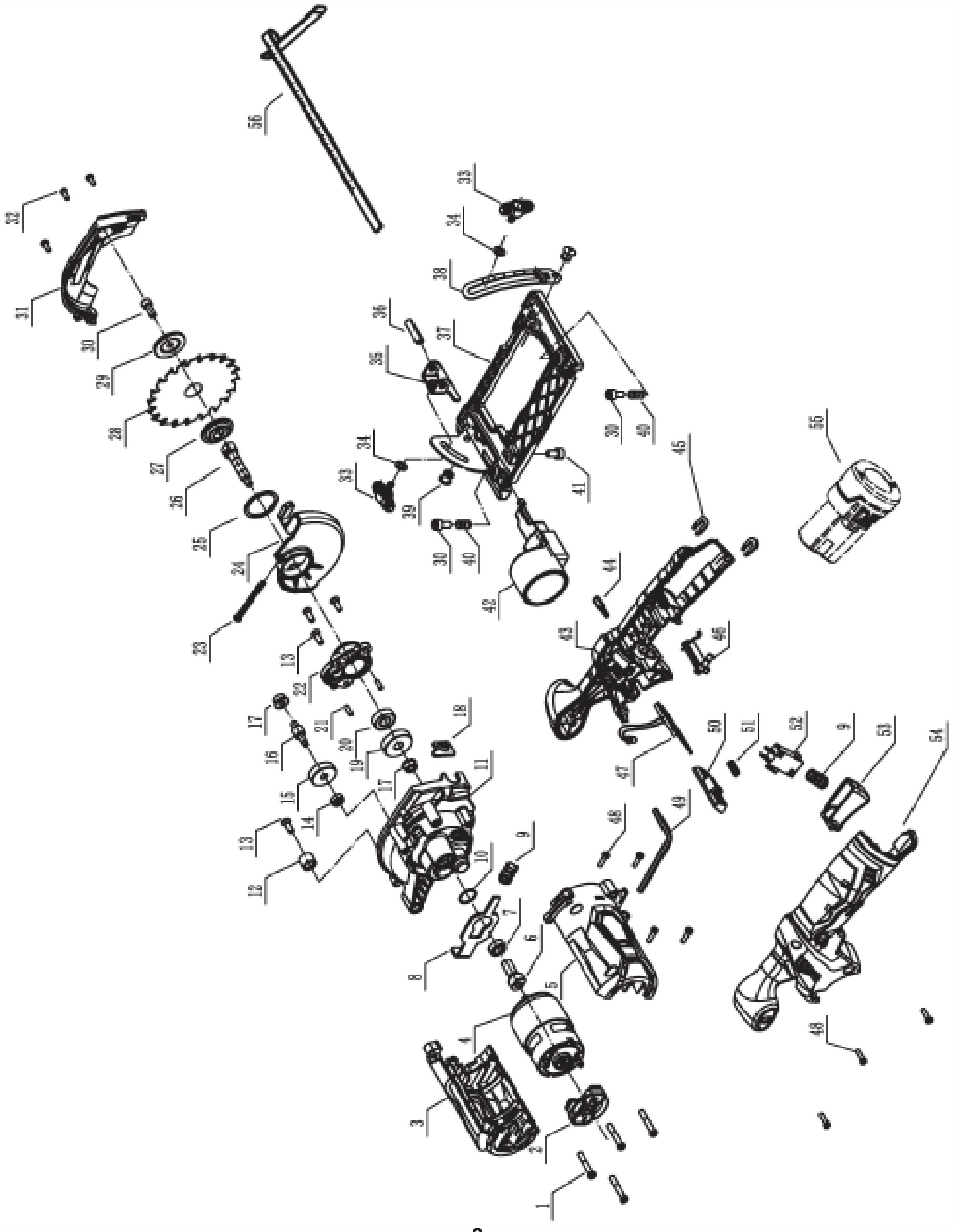
Note: For bevel cuts, the cutting depth is smaller than the setting indicated on the cutting-depth scale.

Cutting Marks

The 0° cutting mark indicates the position of the saw blade for right-angled cuts. The 45° cutting mark indicated the position of the saw blade for 45° cuts.
Recommendations for Optimal Handling of the Battery: Protect the battery against moisture and water. Charge the battery only within a temperature range between 0-45°C. As an example, do not leave the battery in the car in summer. Occasionally clean the venting slots of the battery using a soft, clean and dry brush. A significantly reduced working period after charging indicates that the battery is used and must be replaced. Observed the notes for disposal.

Maintenance and cleaning

Before any work on the machine itself (e.g maintenance, tool change, etc.) as well as during transport and storage, remove the battery from the power tool. There is danger of injury when unintentionally actuating the On/Off switch. For safe and proper working, always keep the machine and ventilation slots clean. The retracting blade guard must always be able to move freely and retract automatically. Therefore, always keep the area around the retracting blade guard clean. Remove dust and chips by blowing out with compressed air or with a brush. Saw blades that are not coated can be protected against corrosion with a thin coat of acid-free oil. Before use, the oil must be removed again, otherwise the wood will become soiled. Resign and glue residue on the saw blade produces poor cuts. Therefore, clean the saw blade immediately after use.



PARTS INFORMATION

No.	Descriptions	Qty
1	Screw	4
2	Rear Housing	1
3	left Housing	1
4	Motor	1
5	Right Housing	1
6	Pinion	1
7	Bearing	1
8	Spindle Lock Button	1
9	Spindle Lock Spring	2
10	O Ring	1
11	Front Housing	1
12	Space Bushing	1
13	Screw	4
14	Bearing	1
15	Primary Pinion	1
16	Gear Shaft	1
17	Shaft Bushing	2
18	Square Nut	1
19	Secondary Pinion	1
20	Bearing	1
21	Pin	2
22	Front Cover	1
23	Draw Spring	1
24	Lower Guard	1
25	Screw Circlip	1
26	Output Shaft	1
27	Lower Flange	1
28	Saw Blade	1

No.	Descriptions	Qty
29	Upper Flange	1
30	Screw	3
31	Saw Blade Cover	1
32	Screw	3
33	Knob	2
34	Washer	2
35	Bevel Scale	1
36	Spring Pin	1
37	Base	1
38	Depth Scale	1
39	Rivet	2
40	Spring	2
41	Screw	1
42	Dust Port	1
43	Right Handle	1
44	Led Cover	1
45	Buckle	2
46	Contact Shelf	1
47	Discharge Protection Board	1
48	Screw	7
49	Allen Key	1
50	Click Lever	1
51	Click Lever Spring	1
52	Switch On/Off	1
53	Trigger	1
54	Left Handle	1
55	Battery Pack	1
56	Guide	1

DISCALIMER

PLEASE READ THE FOLLOWING CAREFULLY

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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.

Questions, issues or missing parts?

Before returning to your retailer, our customer service team is here to help.

Call Us: 909.628.0880
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