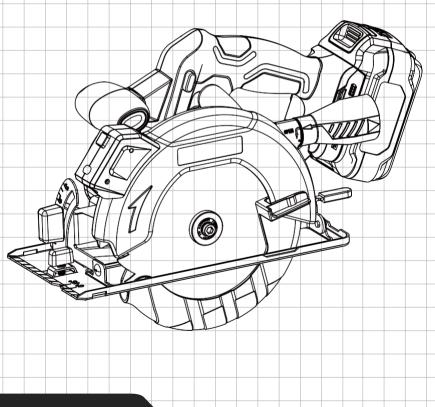






Owners Manual 16mm Circular Saw





A WARNING before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.





CATALOGUE

LCS165

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General Power Tool Safety Warnings

A 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 tools or battery-operated (cordless) power tools.

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. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

b. 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.

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

d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of a RCD reduces 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 personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

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 jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery 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 dust collection can reduce dust-related hazards.

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.

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Power tools are dangerous in the hands of untrained users.

e. Maintain power tools. Check for misalignment or binding of moving parts, break- age of parts and any other condition that may affect the power tools 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.

6. Special Safety rules for Circular Saws

AWARNING: 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.

b. Do not reach underneath the work piece. The guard cannot protect you from the blade below the work piece.

c. Adjust the cutting depth to the thickness of the work piece. Less than a full tooth of the blade teeth should be visible below the work piece.

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

e. Hold power tool 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 also make exposed metal parts of the power tool "live" and shock the operator.

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

g. Always use blades with correct size and shape (diamond versus round) of arbor holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

h. 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 of operation.

LUMBER JACK

Kickback Causes and Related Warnings

Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the work piece 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 on the saw and position your arms to allow you to resist kickback force. Always stay to the side of the saw blade, never putting the saw blade in line with your body. The saw can jump backwards in the event of kickback, but the operator can control kickback force 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 may occur. Investigate and take corrective actions to eliminate the cause of blade binding.

• When restarting a saw in the work piece, 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 work piece as the saw is restarted.

• 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.

• 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 levers must be 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.

• The lower guard may 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.

Safety Rules for Laser Lights

A WARNING: Do not stare directly at the laser beam.

A hazard may exist if you deliberately stare into the beam, please observe all safety rules as follows:

• The laser shall be used and maintained in accordance with the manufacturer's instructions.

- Never aim the beam at any person or an object other than the work piece.
- The laser beam shall not be deliberately aimed at personnel and shall be prevented from being directed towards the eye of a person for longer than 0.25s.

• Always ensure the laser beam is aimed at a sturdy work piece without reflective surfaces. I.e. wood or rough coated surfaces are acceptable. Bright shiny reflective sheet steel or the like is not suitable for laser use as the reflective surface could direct the beam back at the operator.

• Do not change the laser light assembly with a different type. Repairs must be carried out by the laser manufacturer or an authorized agent.

CAUTION: Use of controls or adjustments or performance of procedures other



Than those specified herein may result in hazardous radiation exposure.

Service

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.

7. Symbols

a. Some of the following symbols may appear on this product. Study these symbols and learn their meanings. Proper interpretation of these symbols will allow for more efficient and safer operation of this product.

SYMBOL	DESCRIPTION
	Class II construction Double Insulated construction.
	Read the manual before set-up and/or use.
.	Wear safety glasses, ear protection and respiratory protection.
	Use dust mask. Dust which is injurious to health can be generated when working on wood and other materials. Never use the device to work on any materials containing asbestos.
	Do not dispose with house-hold waste.
(E	Conforms to relevant safety standards.

b. Technical Specification

Model:	97615
Rated Voltage:	DC-20V
No-load Speed:	4300RPM
Blade size:	165mm
Cutting Depth:	At 45Deg: 35mm / At 90Deg: 52mm



c. Function Description

- 1. Battery
- 2. Rechargeable Battery Release
- 3. Handle
- 4. ON/OFF Switch
- 5. Handle
- 6. Lock-Off Switch
- 7. Auxiliary Handle
- 8. Laser Switch
- 9. Clamping Lever for Miter Angle
- 10. Clamping Lever for Guide Ruler
- 11. Base Plate
- 12. Clamping Bolt with Clamping Flange
- 13. Adjusting Lever for Retracting Guard
- 14. Clamping Lever for Cutting Depth
- 15. Dust Port
- 16. Saw Blade
- 17. Rip Guide

7. Assembly

inserting the

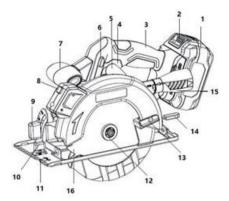
battery

Press the release button of the battery, and then insert the charged battery from the front into the base of the power tool. Push the battery completely into the base until the stripe can no longer be seen and the battery is securely locked.

NOTE : Use only original batteries with the voltage listed on the nameplate of your power tool. Using other batteries can lead to injuries and pose a fire hazard.

Removing the battery

Press the release button of the battery, and then pull the battery from the front pf the base of the power tool.







WARNING : Please remove battery from the machine before operate the following installations.

Installing or Removing the Blade

A WARNING: Always wear sturdy gloves when handling or changing blades as they can be very sharp. Only use sharp and undamaged saw blades. Cracked or distorted saw blades must be replaced immediately.

1) Remove the battery first, and then place the saw on its side on a flat surface. Rotate the saw blade by hand whilst depressing the spindle lock button until the blade locks.

2) While depressing the spindle lock button, turn the blade bolt clockwise using the blade wrench provided.

3) Remove the outer blade flange and the blade bolt.

4) Raise the lower blade guard using the blade guard lever. Remove the saw blade from the inner flange and pull it out.

5) Clean the saw blade flanges thoroughly before mounting the new saw blade. Wipe a drop of oil onto the inner and outer flange where they will touch the blade. (Optional)

6) Mount the new saw blade onto the spindle and against the inner flange.

7) Replace the outer flange and tighten the blade bolt.

AWARNING: The direction in which the blade rotates has to be the same as the direction of the arrow marked on the upper blade guard. Ensure that the spindle lock button is released. Before using the saw again, check that the safety devices are in good working order.

IMPORTANT: After replacing the saw blade, make sure that the saw blade runs freely by turning the blade by hand. Then replace the battery and run the saw under no load to check that it runs smoothly before using it to cut any material.

Installing the Parallel Guide

To install the rip guide on the machine, perform as the following steps:

a. Insert the rip guide through the slots on the base plate at the front of the saw, starting with slot in the left side edge of the base.

b. Slide the left guide through the slots until it extends out the right side of the base plate.

c. Adjust the rip guide for the desired width of cut and then securely tighten the rip guide locking screw.

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Supporting Large Panels/Securing Work piece

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

Operation

A NOTE : Insert the charged battery into the machine.

Switching On And Off

The tool is equipped with a lock-off button to avoid unintentional starting. To switch on, depress the lock-off button and squeeze the trigger switch. To switch off, release the trigger switch.

Adjusting the Cutting Speed

The speed is increased by increasing pressure on the trigger. Release the trigger to stop.

Adjusting the Bevel Angle

- Loosen the bevel locking lever located at the front of the base plate.

- Tilt the body of the saw until the required angle is reached using the bevel scale as a guide.

- Tighten the bevel locking lever to secure the base plate.
- Confirm the accuracy of the setting by checking the bevel angle of an actual cut on a scrap piece of material.

NOTE : Always make a trial cut in a scrap piece of material along a guideline to determine how much you should offset the blade from the guideline to make an accurate cut.

Adjusting the Cutting Depth

- Remove the battery first, then ensure that the saw is facing away from you.
- Loosen the depth locking lever.

- Hold the base plate flat against the edge of the work-piece and lift the body of the saw until the blade is at the right depth. Use the depth scale to determine



the cutting depth.

- Tighten the depth locking lever.

NOTE: Always use the correct blade depth setting. The correct blade depth setting for all cuts should not be more than 6.35mm (1/4") below the material being cut. Allowing more depth will increase the chance of kickback and result in a rough cut.

Dust Extraction

For optimum dust extraction, connect the dust extraction port to a suitable vacuum cleaner or workshop dust extraction system.

General Cuts

WARNING: To reduce the risk of injury, remove the battery, and follow all assembly, adjustment and set up instructions. Make sure lower guard operates. Select the proper blade for the material to be cut.

- Measure and mark work for cutting.
- Support and secure work properly.
- Use appropriate and required safety equipment.
- Secure and maintain work area.
- With battery inserted, make sure switch turns saw on and off.

Pocket Cutting

WARNING: Never tie the blade guard in a raised position. Never move the saw backwards when pocket cutting. This may cause the unit to raise up off the work surface which could cause injury. A pocket cut is one that is made when the edge of the material does not push the lower guard open, but the bottom edge of the rotating blade cuts into the middle of the material.

- Adjust the shoe so the blade cuts at desired depth.
- Tilt the saw forward and rest front of the shoe on material to be cut.
- Using the retracting lever, retract lower blade guard to an upward position. Lower rear of shoe until blade teeth almost touch cutting line.

- Release the blade guard (its contact with the work will keep it in position to open freely as you start the cut).

- Remove hand from guard lever and firmly grip secondary handle. Position your body and arm to allow you to resist kickback if it occurs.

- Make sure blade is not in contact with cutting surface before starting saw.

- Start the motor, allow saw to come to full speed, and then gradually lower the saw until its shoe rests flat on the material to be cut. Advance saw along the





cutting line until cut is completed.

- Release trigger and allow blade to stop completely before withdrawing the blade from the material.

- When starting each new cut, repeat as above.

8. Maintenance

a. Keep the machine clean all the time.

b. If you discover any damage, consult the exploded drawing and parts list to determine exactly which replacement part you need to order from our customer service department.

c. Clean the housing only with a damp cloth. Do not use any solvents! Dry thoroughly afterwards.

A CAUTION : Do not use cleaning agents to clean the plastic parts of the tool. A mild detergent on a damp cloth is recommended. Water must never come into contact with the tool.

10. Transport

Turn the motor off and disconnect the mains plug or battery. While transporting, be careful not to drop, or shock the machine. For transport, the machine has to be fixed against slipping and tipping over. Do not place objects on the machine.

11. Meaning of crossed–out wheeled dustbin:



Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local authority for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.



CE DECLARATION OF CONFORMITY

TOOLSAVE

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Unit C, Manders Ind. Est.,

Old Heath Road, Wolverhampton,

WV1 2RP.

Tel: 01902 450 470

Declares that the Circular Saw (LCS165) Is compliance with the regulations included in the Directives:2006/42/EC

EC DECLARATION OF CONFORMITY

Certificate for EC-type examination delivered by Interk Testing Services Hangzhou 16

No. 1 Ave., Xiasha Economic Development District, Hangzhou 310018, China

(Verification No.:150500566HZH-V1)

Person who declares: Bill Evans



The Director







UNIT C MANDERS IND ESTATE WOLVERHAMPTON WV12RP UNITED KINGDOM

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