LiTool®

Mini Circular Saw

7663L

Instruction Manual

Warning: Please make certain that the person intended to use this equipment carefully reads and understands these instructions before starting opertions.

GENERAL AND SPECIFIC SAFETY INSTRUCTIONS

1. KNOW YOUR TOOL

Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. DON'T USE power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

3. USE RIGHT TOOL.

Don't force the tool or the attachment to do a job for which it was not designed.

4. WEAR PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

5. MAINTAIN TOOL WITH CARE.

Keep tool clean for best and safest performance. Follow instructions for operation and changing accessories.

6. DISCONNECT TOOLS.

Before servicing, when changing accessories or attachments.

7. AVOID ACCIDENTAL STARTING.

Make sure the switch is in the ''OFF'' position before plugging in.

8. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

9. CHECK FOR DAMAGED PARTS.

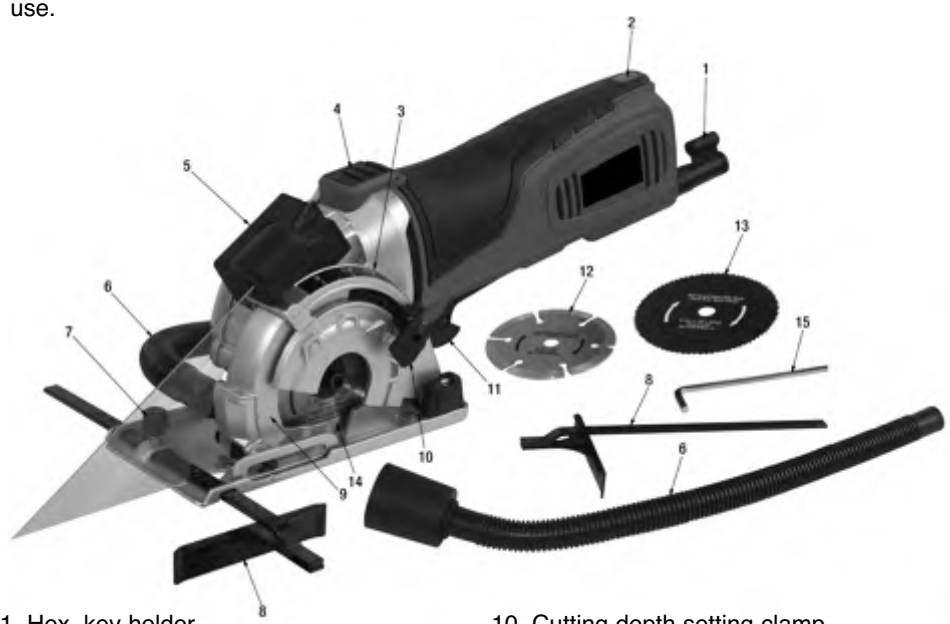
Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts which are damaged should be properly repaired or replaced.

SPECIFIC RULES FOR SAFE OPERATION

1. Keep hands away from cutting area and blade.
2. Do not reach underneath the workpiece.
3. Adjust the cutting depth to the thickness of the workpiece.
4. Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.
5. Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.
6. When ripping always use the straight edge guide.
7. Always use identical replacement blades with correct diameter and arbor.
8. Never use damaged or incorrect blade washers or bolt.
9. Don't use any abrasive wheels with this machine!
10. This tool should always be used with the dust hose connected and attached to a suitable vacuum cleaner/dust extractor.

GETTING TO KNOW YOUR MINI PLUNGE SAW

This mini plunge saw is primarily intended for the sawing, longitudinally and transversely, of solid wood, chipboard, plywood, plastic, aluminum, tiles and stone held in a fixed position. Please note that the TCT blade pre-installed in the saw is intended for wood only. Any other usage or modification to the device shall be considered as incorrect use and could give rise to considerable dangers. Not suitable for commercial use.



1. Hex. key holder
2. Power on light
3. Cutting depth scale
4. Plunge actuator
5. Laser guide housing
6. Flexible dust extraction hose
7. Edge guide lock knob
8. Edge guide
9. Retractable blade guard
10. Cutting depth setting clamp
11. Trigger
12. Segment diamond blade- cuts ceramic tiles
13. HSS blade- cuts aluminum and sheet metal
14. Universal TCT blade- cuts wood, plastic
15. Blade changing hex. key

SPECIFICATIONS

Model	7663L
Rated power	600W
Voltage	230-240V
Frequency	50Hz
No load speed (RPM)	5,500
Blade diameter	150mm
Arbor size	10mm
Max cutting depth	28.5mm

ASSEMBLY & OPERATION

Setting the cutting depth

NOTE: If possible we recommend that the cutting depth be set approximately 1/16" deeper than the material thickness. This should help to ensure you achieve a clean cut.

1) Lift the lock lever (A) Fig.3 to release the cutting depth setting clamp (B).

2) Move setting clamp indicator (C) to the desired depth of cut.

3) Lower the lock lever to secure depth of cut.

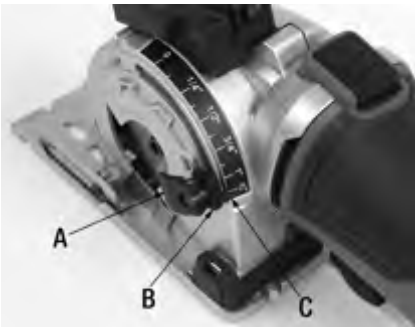


Figure 3

Selecting/changing a saw blade

•Universal TCT blade- cuts wood, plastic.
•Segment diamond blade- cuts ceramic tiles, stone.
•HSS blade- cuts aluminum and sheet metal

See "Cutting" section for more specific information.

WARNING!: Incorrect positioning of the blade can permanently damage the tool.

1) Set the cutting depth to maximum. See section above.

2) Press and hold the spindle lock button (A) Fig.4.

3) Use hex. key (A) Fig.5 to loosen and remove the cap screw and plain washer (B). Remove the blade flange (C).

4) Press the plunge lock button (B) Fig.4 to lift up the base plate (D) Fig.5.

5) Lift blade (E) Fig.5 up off the spindle then pull from the tool to remove blade.

6) Install the desired blade in the reverse order.

NOTE: The arrows on the blade must turn in a clockwise direction of rotation as shown.

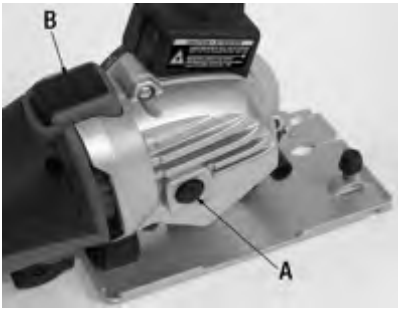


Figure 4

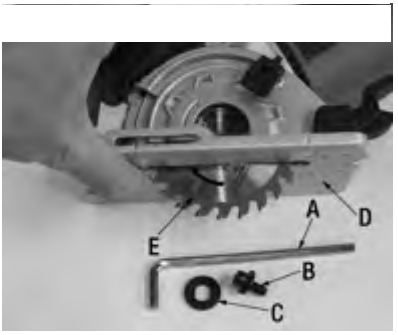


Figure 5

ASSEMBLY & OPERATION

Switching on the tool

WARNING!: Before switching the tool on, check that the saw blade is properly fitted and runs smoothly, and that the blade cap screw is well tightened.

Connect the 120V plug to the power supply. The LED power-on light (C) Fig.6 will turn on until the tool is disconnected from the power supply.

Push the lock-off button (A) Fig.6 forward with the forefinger, depress the ON/OFF trigger (B) firmly and keep it pressed.

Once you release the trigger, the main switch returns automatically to its initial position and the tool turns off.

WARNING!: The saw blade continues to rotate after the tool is switched off.

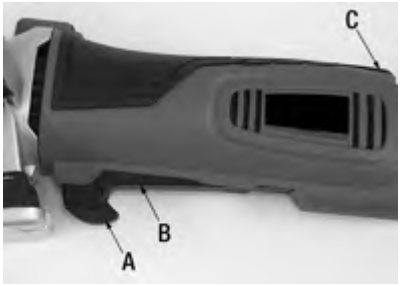


Figure 6

Releasing the plunge stop

Press the plunge lock button (A) Fig.7 downwards and keep it pressed.

NOTE: Pressing the plunge lock button unlocks the plunge cut mechanism, so that the motor can be moved downwards. The saw blade emerges below the base of the tool.

Figure 7

Setting the edge guide

Unscrew the edge guide lock knob (A) Fig.8 on the base plate (B).

Slide the edge guide (C) in the slots (D).

Set a desired width and retighten the edge guide lock knob (A).

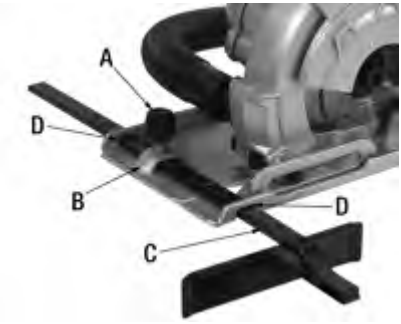


Figure 8

ASSEMBLY & OPERATION

Laser guide

WARNING!: Do not stare directly at the laser beam, do not deliberately aim the beam at personnel and ensure that it is not directed towards the eye of a person for longer than 0.25s.

When you make a cut line on your workpiece, the laser can help you get better alignment.

Turn on: Press the laser switch (A) Fig.9 to the "I" position. Line the laser up with the cut line on your workpiece.
Turn off: Press the switch (A) to "O" position.

In addition, a V-shaped notch (B) Fig.9 at the front of base and a protruding pointer (C) at the rear allow the user to accurately align the cutting mark on the workpiece.

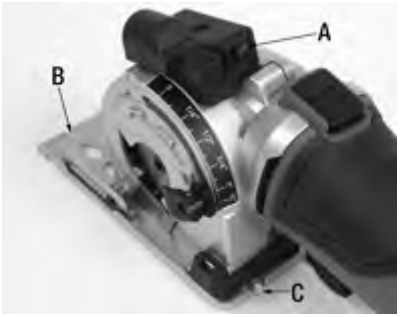


Figure 9

Dust extraction

This mini plunge saw is a powerful tool capable of producing a large amount of dust. As the tool has a fully enclosed blade, forced dust extraction is particularly efficient. Forced dust extraction should be used for all but small trimming jobs.

Push the dust extraction hose (A) Fig.10 onto the dust extraction nozzle (B).

The dust extraction hose can be adapted to King Wet-Dry Vacuums or others having a 1-1/4" hose diameter as shown in Fig.10.

Figure 10

OPERATION

CUTTING

WARNING!: Always cut in a forward direction. Never draw the tool backwards. If you are a novice user, practice by cutting thin wood until proficient.

1) Install the correct blade ensuring it is sharp and not damaged.
2) Set the depth of cut.
3) Place the material to be cut onto a flat surface such as a workbench, table or floor. Use a piece of scrap material underneath if you do not wish to damage the work surface.
4) Plug into main power supply.
5) Grasp the tool firmly and rest its metal base plate onto the surface to be cut. Ensure that the rear half of the base plate overhangs the work surface. Do not plunge the blade into the material.
6) Switch on the tool and wait for a moment for the blade to run up to speed. Next, depress the plunge lock button (A) Fig.7 and plunge the blade into the material slowly and gently, but firmly. Then push the tool forward along the line to be cut. If necessary, switch on the laser.

NOTES:
- Never draw the tool backwards.
- Very little force should be used to feed the tool along the cut. Excess force will cause operator fatigue and excessive wear to the blade and tool.
- Ensure that the base plate is always held flat on the material being cut. This is particularly important at the start or finish of a cut or if thin strips are being cut where the base plate is not fully supported.
- Once the cut has been finished, lift the tool from the work surface before switching off. If a lot of dust has been created, keep switched on for a few extra seconds to allow the dust to clear from within the tool.

CUT-OUTS

Plunge cutting may not be possible in some hard materials. Choose a suitable saw blade for hard materials and change to it.

- If the cut is to be covered, for example by a vent cover, the corners can be overlapped to ensure that the waste material is completely detached.
- If the cut-out is to be seen, do not overlap the corners. In this circumstance, as the cutting blade is circular, the waste material will not be fully detached. The corners will therefore, require finishing with a knife. If the material is thin and the back surface unimportant, the waste material can just be pushed out.
- Where there is access to the back surface of the material to be cut, the cut-out can be marked out with an over cutting allowance. The cut is then made from the back surface to ensure perfect corners on the front surface.

OPERATION & MAINTENANCE

CUTTING PARTICULARLY TOUGH OR ABRASIVE MATERIALS

Learn to use the tool by cutting wood before attempting to cut anything tougher. When cutting tougher material, such as metals, more force is required to hold the workpiece and clamping may be required.

Sheet metal: Use the HSS balde. Always set the depth adjustment to at least 1 mm deeper than the material thickness to avoid the blade riding up over the surface. Scrap material is required underneath the work surface.

- Remove burrs and rust as these impede the feed across the material.
- Thick beeswax (furniture polish) applied to the base plate of the tool makes metal cutting easier.
- Only suitable for cutting brass, copper, lead, aluminium or galvanised mild steel.
- Every 2 minutes of metal cutting should be followed by a rest of at least 3 minutes.

Ceramic tiles, stone: Use the segmented diamond balde.

•Always use with a suitable vacuum connected as the dust can be hazardous to the operator and prevent the guard from operating correctly.

CLEANING AND MAINTENANCE

Regular cleaning is required for the safe operation of the tool, as an excessive build up of dust will prevent the tool from operating correctly.

- The dust extraction hose may block and require cleaning occasionally, especially if damp wood is being cut. Clean thoroughly with a small soft brush, like a paint brush.
- Keep the cooling vents on the motor housing clean and unobstructed at all times.
- Never use any caustic agents or solvents to clean the plastic parts.

Blades

Always use a sharp blade. If the tool does not cut as well as expected or if it overheats the most common cause is a blunt blade. It is difficult to see or feel if the blade is blunt. When in doubt use a new blade.

- Replacement blades are available at your nearest distributor of King Canada products.

Universal TCT blade (Wood, plastic)

Segmented Diamond blade (Ceramic tile, stone)

HSS blade (sheet metal, aluminum)

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