

# evOLUTION®

[www.evolutionpowertools.com](http://www.evolutionpowertools.com)

## evoSAW<sup>230</sup>

Original Instructions



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**evOLUTION<sup>®</sup>**

# ENGLISH

Original Instructions

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## **THIS INSTRUCTION MANUAL WAS ORIGINALLY WRITTEN IN ENGLISH**

### **IMPORTANT**

Please read these operating and safety instructions carefully and completely. For your own safety, if you are uncertain about any aspect of using this equipment please access the relevant Technical Helpline, the number of which can be found on the Evolution Power Tools website. We operate several Helplines throughout our worldwide organization, but technical help is also available from your supplier.

### **WEB**

[www.evolutionpowertools.com/register](http://www.evolutionpowertools.com/register)

Congratulations on your purchase of an Evolution Power Tools Machine. Please complete your product registration 'online' as explained in the A4 online guarantee registration leaflet included with this machine. You can also scan the QR code found on the A4 leaflet with a Smart Phone. This will enable you to validate your machine's guarantee period via Evolution's website by entering your details and thus ensure prompt service if ever needed. We sincerely thank you for selecting a product from Evolution Power Tools.

### **EVOLUTION LIMITED GUARANTEE**

Evolution Power Tools reserves the right to make improvements and modifications to the product design without prior notice.

Please refer to the guarantee registration leaflet and/or the packaging for details of the terms and conditions of the guarantee.

**(1.5)** Evolution Power Tools will, within the guarantee period, and from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship. This guarantee is void if the tool being returned has been used beyond the recommendations in the Instruction Manual or if the machine has been damaged by accident, neglect, or improper service.

This guarantee does not apply to machines and / or components which have been altered, changed, or modified in any way, or subjected to use beyond recommended capacities and specifications. Electrical components are subject to respective manufacturers' warranties. All goods returned defective shall be returned prepaid freight to Evolution Power Tools. Evolution Power Tools reserves the right to optionally repair or replace it with the same or equivalent item.

There is no warranty – written or verbal – for consumable accessories such as (following list not exhaustive) blades, cutters, drills, chisels or paddles etc. In no event shall Evolution Power Tools be liable for loss or damage resulting directly or indirectly from the use of our merchandise or from any other cause. Evolution Power Tools is not liable for any costs incurred on such goods or consequential damages.

No officer, employee or agent of Evolution Power Tools is authorized to make oral representations of fitness or to waive any of the foregoing terms of sale and none shall be binding on Evolution Power Tools.

**Questions relating to this limited guarantee should be directed to the company's head office, or call the appropriate Helpline number.**

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## SPECIFICATIONS

| CUTTING CAPACITY                             | METRIC | IMPERIAL |
|--|--------|----------|
| Mild Steel Box Section (at 90°)              | 83mm   | 3-1/4"   |
| Mild Steel Box Section (at 45°)              | 54mm   | 2-1/8"   |
| Maximum Cutting Thickness (Mild Steel Plate) | 12mm   | 1/2"     |
| Maximum Wall Thickness (Box Section)         | 6mm    | 1/4"     |

| MACHINE                      | METRIC                | IMPERIAL |
|------------------------------|-----------------------|----------|
| Motor (USA) 120v ~ 60Hz      | 1750W                 | 15A      |
| Motor (UK/EU) 230v ~ 50/60Hz | 1750W                 | 8A       |
| Motor (UK) 110v ~ 50/60Hz    | 1750W                 | 15A      |
| Speed No Load                | 2700min <sup>-1</sup> | 2700rpm  |
| Weight                       | 8.6kg                 | 19lbs    |

| BLADE (MILD STEEL BLADE)         | METRIC                | IMPERIAL |
|----------------------------------|-----------------------|----------|
| Diameter                         | 230mm                 | 9"       |
| Bore                             | 25.4mm                | 1"       |
| Number of Teeth (Supplied Blade) | 48                    | 48       |
| Kerf                             | 2mm                   | .078"    |
| Speed                            | 3000min <sup>-1</sup> | 3000rpm  |

| NOISE & VIBRATION DATA                         |   |
|--|---|
| Sound Pressure L <sub>PA</sub> (Under Load)    | 108.7dB(A) K=3dB(A)                       |
| Sound Power Level L <sub>WA</sub> (Under Load) | 108.7dB(A) K=3dB(A)                       |
| Vibration Level (Under Load)                   | 3.9m/s <sup>2</sup> K=1.5m/s <sup>2</sup> |

**Note:** The vibration measurement was made under standard conditions in accordance with: BS EN 61029-1:2009

The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another.

The declared vibration total value may also be used in a preliminary assessment of exposure.

## VIBRATION

**WARNING:** When using this machine the operator can be exposed to high levels of vibration transmitted to the hand and arm. It is possible that the operator could develop "Vibration white finger disease" (Raynaud syndrome). This condition can reduce the sensitivity of the hand to temperature as well as producing general numbness. Prolonged or regular users of this machine should monitor the condition of their hands and fingers closely. If any of the symptoms become evident, seek immediate medical advice.

- The measurement and assessment of human exposure to hand-transmitted vibration in the workplace is given in: BS EN ISO 5349-1:2001 and BS EN ISO 5349-2:2002
- Many factors can influence the actual vibration level during operation e.g. the work surfaces condition and orientation and the type and condition of the machine being used. Before each use, such factors should be assessed, and where possible appropriate working practices adopted. Managing these factors can help reduce the effects of vibration:

## Handling

- Handle the machine with care, allowing the machine to do the work.
- Avoid using excessive physical effort on any of the machine's controls.
- Consider your security and stability, and the orientation of the machine during use.

## Work Surface









- Consider the work surface material; its condition, density, strength, rigidity and orientation.

**WARNING:** The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used. The need to identify safety measures and to protect the operator are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle, such as the times the tool is switched off, when it is running idle, in addition to trigger time).

## LABELS & SYMBOLS

**WARNING:** Do not operate this machine if warning and/or instruction labels are missing or damaged. Contact Evolution Power Tools for replacement labels.

**Note:** All or some of the following symbols may appear in the manual or on the product.

| Symbol  | Description                             |
|---|---|
| V   | Volts                                   |
| A   | Amperes                                 |
| Hz  | Hertz                                   |
| Min <sup>-1</sup>   | Speed                                   |
| ~   | Alternating Current                     |
| n <sub>0</sub>  | No Load Speed                           |
|    | Wear Safety Goggles                     |
|    | Wear Ear Protection                     |
|    | Wear Dust Protection                    |
|    | Read Instructions                       |
|  | CE Certification                        |
|  | CSA Certification                       |
|  | Waste Electrical & Electronic Equipment |
|  | Warning                                 |

### INTENDED USE OF THIS POWER TOOL

**WARNING:** This product is a Steel Cutting Hand Held Circular Saw and has been designed to be used with special Evolution blades. Only use blades designed for use in this machine and/or those recommended specifically by Evolution Power Tools Ltd.

When fitted with an appropriate blade this machine can be used to cut:

#### Mild Steel

**Aluminium (blade change recommended)**

**Stainless Steel (blade change recommended)**

**Lumber (blade change recommended)**

### PROHIBITED USE OF THIS POWER TOOL

**WARNING:** This product is a Steel Cutting Hand Held Circular Saw and must only be used as such. It must not be modified in any way, or used to power any other equipment or drive any other accessories other than those mentioned in this Instruction Manual.

**WARNING:** This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the machine by a person responsible for their safety and who is competent in its safe use.

Children should be supervised to ensure that they do not have access to, and are not allowed to play with, this machine.



## ELECTRICAL SAFETY

This machine is fitted with the correct moulded plug and mains lead for the designated market. If the mains lead or the plug are damaged in any way, they must be replaced with original replacement parts by a competent technician.

## OUTDOOR USE

**WARNING:** For your protection, if this tool is to be used outdoors it should not be exposed to rain or used in damp locations. Do not place the tool on damp surfaces. Use a clean, dry workbench if available. For added protection use a residual current device (R.C.D.) that will interrupt the supply if the leakage current to earth exceeds 30mA for 30ms. Always check the operation of the residual current device (R.C.D.) before using the machine.

If an extension cable is required it must be a suitable type for use outdoors and so labelled. The manufacturer's instructions should be followed when using an extension cable.

## POWER TOOL GENERAL SAFETY INSTRUCTIONS

(These General Power Tool Safety Instructions are as specified in BS EN 60745-1:2009 & EN 61029-1:2009).

**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) General Power Tool Safety Warnings [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, gasses or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating power tool.** Distractions can cause you to lose control.

### 2) General Power Tool Safety Warnings [Electrical Safety]

- a) Power tool plugs must match the outlet.** Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or 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 an RCD reduces the risk of electric shock.

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### 3) General Power Tool Safety Warnings [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 masks, 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 energising the 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 key left attached to a rotating part of a 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 that these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

### 4) General Power Tool Safety Warnings [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 a rate for which it was designed.

**b) Do not use the power tool if the switch does not turn it on or off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

**c) Disconnect the power tool from the power source and/or battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventative 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 moving 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) General Power Tool Safety Warnings [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.

### HEALTH ADVICE

**WARNING:** When using this machine, dust particles may be produced. In some instances, depending on the materials you are working with, this dust can be particularly harmful. If you suspect that paint on the surface of material you wish to cut contains lead, seek professional advice. Lead based paints should only be removed by a professional and you should not attempt to remove it yourself. Once the dust has been deposited on surfaces, hand to mouth contact can result in the ingestion of lead. Exposure to even low levels of lead can cause irreversible brain and nervous system damage. The young and unborn children are particularly vulnerable.

You are advised to consider the risks associated with the materials you are working with and to reduce the risk of exposure. As some materials can produce dust that may be hazardous to your health, we recommend the use of an approved face mask with replaceable filters when using this machine.

#### You should always:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as dust masks that are specially designed to filter microscopic particles.

**WARNING:** the operation of any power tool can result in foreign objects being thrown towards your eyes, which could result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shield or a full face shield where needed.

### ADDITIONAL SAFETY INSTRUCTIONS

**a) 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.

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

**c) 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.

**d) 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.

**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.

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### 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:

1. **When the blade is pinched or bound tightly, the blade stalls and the motor reaction drives the unit rapidly back toward the operator.**
2. **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 workpiece causing the blade to close in around the material and jump back towards 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) **If the blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blades come to a complete stop.** Never attempt to remove the saw from the work or pull the saw backward while the blades are in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
- c) **When restarting a saw in the workpiece, centre the saw blade in the cutting groove 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 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.

- e) **Blade depth and bevel adjusting locking levers must be tight and secure before making a cut.** If the blade adjustment shifts while cutting it may cause binding and kickback.
- f) **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce a narrow cutting groove causing excessive friction, blade 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.

### Further Safety Instructions

**Caution:** Unplug the power tool before making these checks.

- a) **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 and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) **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.
- c) **Lower guard may 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.

**d) Always observe that the lower guard is covering the blade before placing saw down on a bench or the 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.

**e) Do not use High Speed Steel (HSS) saw blades.**

**f) Inspect the machine and the blade before each use.** Do not use deformed, cracked, worn or otherwise damaged blades.

**g) Never use the saw without the original guard protection system.** Do not lock the moving guard in the open position. Ensure that the guard operates freely without jamming.

**h) Only use blades that comply with the specifications in this manual.** Before using accessories, always compare the maximum allowed RPM of the accessory with the RPM of the machine.

**WARNING:** If any parts are missing, do not operate your machine until the missing parts are replaced. Failure to follow this rule could result in serious personal injury.

## GETTING STARTED - UNPACKING

**Caution:** This packaging contains sharp objects. Take care when unpacking. Remove the machine, together with the accessories supplied from the packaging. Check carefully to ensure that the machine is in good condition and account for all the accessories listed in this manual. Also make sure that all the accessories are complete. If any parts are found to be missing, the machine and its accessories should be returned together in their original packaging to the retailer. Do not throw the packaging away; keep it safe throughout the guarantee period. Dispose of the packaging in an environmentally responsible manner. Recycle if possible. Do not let children play with empty plastic bags due to the risk of suffocation.

## ITEMS SUPPLIED

| Description                               | Quantity |
|---|----------|
| Instruction Manual                        | 1        |
| Parallel Edge Guide                       | 1        |
| Auxiliary Front Handle                    | 1        |
| Wrench (Blade Change)                     | 1        |
| 9" Steel Cutting Blade (Where applicable) | 1        |
| Carbon Brush Set                          | 1        |
| Carry Case                                | 1        |
| Batteries 'AAA'                           | 2        |
| Safety Goggles                            | 1        |
| Ear Plugs                                 | 1 Set    |

## ADDITIONAL ACCESSORIES

In addition to the standard items supplied with this machine the following accessories are also available from the Evolution online shop at [www.evolutionpowertools.com](http://www.evolutionpowertools.com) or from your local retailer.

| Description                | Part No    |
|----------------------------|------------|
| 230mm (9") Mild Steel      | 230BLADEST |
| 230mm (9") Thin Steel      | 230BLADETS |
| 230mm (9") Stainless Steel | 230BLADESS |
| 230mm (9") Aluminium       | 230BLADEAL |

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**MACHINE OVERVIEW**

- 1. ON/OFF TRIGGER SWITCH**
- 2. AUXILIARY FRONT HANDLE**
- 3. LASER ON/OFF SWITCH**
- 4. LASER BATTERY COMPARTMENT**
- 5. LOWER BLADE GUARD**
- 6. FITTED BLADE IN SITU**

## GETTING STARTED - PREPARATION

**WARNING:** Always disconnect the saw from the power source before making any adjustments.

This saw is equipped with an approved mains lead and plug for its intended country of use. Do not alter or modify the mains lead.

## INSTALLING/REMOVING A BLADE

**WARNING:** Only use genuine Evolution blades which are designed for this machine. Ensure that the maximum speed of the blade is compatible with the machine. Only perform this operation with the machine disconnected from the power supply.

**Note:** It is recommended that the operator considers wearing protective gloves when handling the blade during installation or when changing the machine's blade.

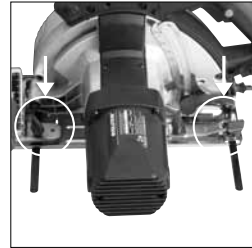
- Place saw on a level, secure surface.
- Remove the chip collector from the machine by undoing the large thumb screw. **(Fig. 1)**

**Note:** The chip collector thumb screw is 'captive' and cannot be removed from the machine.

- If the Parallel Edge guide is fitted, remove it by loosening the two (2) thumb screws and slide the guide from the machines base plate. **(Fig. 2)**
- Remove the wrench from the base plate by removing the thumb screw and sliding the wrench from the machine. **(Fig. 3)**



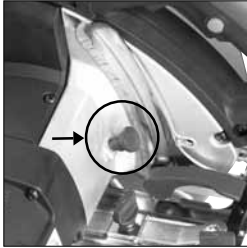
**Fig. 1**



**Fig. 2**



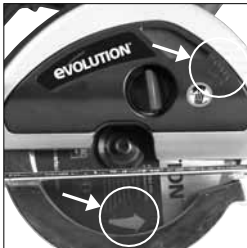
**Fig. 3**



**Fig. 4**

- Press the arbor lock button to lock the arbor. **(Fig. 4)**
- Unscrew the arbor bolt using the wrench.

**Note:** The arbor bolt has a right hand thread.



**Fig. 5**

- Remove the saw blade, leaving the inner blade flange in its service position.
- Thoroughly clean inner and outer blade drive flanges and blade mounting surface before installing a new blade.
- Ensure that the direction of rotation arrows printed on the blade match the direction of rotation arrow found on the chip collector. **(Fig. 5)**
- Reinstall the outer drive flange and the arbor bolt.
- Engage the arbor lock and tighten the arbor bolt securely using the wrench.
- Replace the chip collector and securely tighten the thumb screw.
- Check that the arbor lock is fully released by manually rotating the blade.
- Replace the wrench and secure it into the base plate using the thumb screw.
- Replace the parallel edge guide if required.

**Parallel Edge Guide**

A parallel guide (for help when rip cutting) can be fitted to the base plate of the machine. The guide's arms should be inserted into the rectangular slots in the turned up edges of the base plate, and slid under the locking thumb screws. **(Fig. 6)**



**Fig. 6**

**Note:** The parallel edge guide can be fitted to either side of the base plate and should only be fitted and adjusted with the machine disconnected from the power supply.

Adjust the parallel edge guide so that it is at the required distance from the blade and tighten the two thumb screws. Check that the parallel edge guide is parallel to the saw blade.



### Auxiliary Handle (Fig. 7)

The auxiliary handle (supplied) can be screwed into the boss found on the Bevel Locking Quadrant.

This handle will provide the operator with a convenient position for their left (or right) hand during cutting operations.

### Adjustment of the Cutting Depth

Release the lever lock (**Fig. 8**) to adjust to the required cutting depth. In most cases the depth should be set at maximum unless there are obstructions below the work surface.

**Note:** Always check to see if there are any obstructions below the work surface that could influence the setting of the cutting depth.

Tighten the lever lock securely to lock in the required position.

### Adjustment of the Cutting Angle

- Loosen the bevel locking screw found at the front of the saw.
- Loosen the rear bevel locking screw found at the rear of the machine's base plate.
- Tilt the blade to the required angle (**Fig. 9**)
- Tighten both bevel locking screws securely.

**Note:** An angle scale (0 – 45°) is incorporated into the bevel locking quadrant to aid setting.

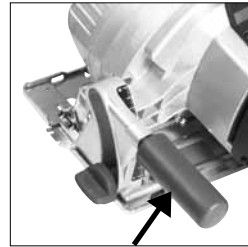
### OPERATING ADVICE

Carry out routine safety checks each time you use the machine. Check that all safety guards are operating correctly, and that all adjustment handles/screws are tightened securely.

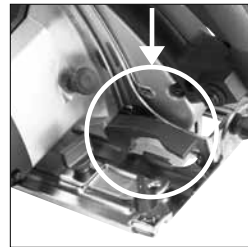
Check that the blade is secure and installed correctly. Also check that it is the correct blade for the material being cut.

Check the integrity of the power cord.

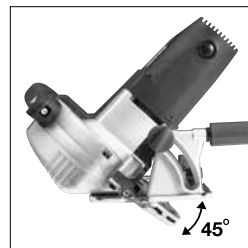
Always clamp the workpiece to a rigid support such as a bench or saw horse whenever possible.



**Fig. 7**



**Fig. 8**



**Fig. 9**

**Fig. 10****ON/OFF Trigger Switch (Fig. 10)**

This machine is equipped with a safety start trigger switch.

**To start the machine:**

- Push in the safety lock button on the side of the handle with your thumb.
- Depress the main trigger switch to start the motor.

**WARNING:** Never start the saw with the cutting edge of the saw blade in contact with the workpiece surface.

**Chip Collector**

This machine is fitted with a chip collector to capture metal chips. The chip collector cover plate is provided with a transparent 'window' so that the operator can see the contents and empty when necessary.

**WARNING:** The chip collector is very efficient and must be checked and emptied at regular intervals.

When cutting steel the chip collector can become hot. Care must be taken when handling the chip collector.

**To remove and empty the chip collector:**

- Loosen the chip collector thumb screw.
- Ease the chip collector from the machine.
- Empty the contents of the chip collector by tipping the collector and machine upside down over a suitable waste container, allowing the contents to fall out.

**Note:** To maintain operational efficiency we recommend that the collector is emptied when approximately 60% full. Dispose of the contents of the chip collector in an environmentally responsible manner.

- Replace the Chip Collector and securely tighten the thumb screw.

**Line of Cut Guide Slots**

Guide slots are provided at the front of the saw base plate. The right slot is used to follow a line when making a 90-degree cut. The left slot is used to follow a line when making a 45-degree cut.

### Laser Guide System

This machine is fitted with a laser guide system, which is intended as a guide only and should not be relied upon for the accuracy of a cut.

Remove the battery compartment (**Fig.11**) cover and fit the supplied batteries, taking care to observe the correct polarity, and then replace the cover.

Press the switch to the on position to activate the laser. (**Fig. 12**) Align the laser with a line of cut guide slot, if necessary, by means of the adjustment screw on the LH side of the laser module housing. (**Fig.13**)

### LASER SAFETY

The laser guide line used in this product uses a class 2 laser with a maximum power output of 1.5mW at a wavelength of between 635 and 670nm. These lasers do not normally present an optical hazard, although staring at the beam may cause temporary flash blindness.

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

The laser must be used and maintained as detailed in this manual. Never intentionally aim the laser beam at any person and prevent it from being directed towards the eye, or an object other than the workpiece. Always ensure that the laser beam is directed at the workpiece only and never at another person or animal.

Never direct the laser beam onto any bright, shiny, reflective surface, as the laser beam could be reflected back towards the operator. Do not change the laser unit for any other type.

Do not tamper with the laser unit. Only touch the unit when making adjustments. Repairs to the laser shall only be carried out by an authorised service centre.

**Note:** The following WARNING labels may be found on this machine:

**LASER RADIATION**  
**DO NOT STARE INTO THE BEAM**  
**CLASS 2 LASER PRODUCT**



**Fig. 11**



**Fig. 12**



**Fig. 13**

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## CUTTING ADVICE

**WARNING:** The operator should wear all relevant PPE (Personal Protection Equipment) necessary for the job at hand. This could include safety glasses, dust masks, safety shoes, etc.

The operator should always be aware of the position and routing of the power cable.

- Do not force the machine.
- Allow the saw blade do the work. Cutting performance will not be improved by applying excessive pressure to the machine, and blade life will be reduced.
- When using the parallel edge guide, ensure that it is parallel with the blade. The blade and/or motor could become damaged if the machine is used with an incorrectly adjusted parallel edge guide.
- To set the guide, loosen the two retaining screws, and adjust the guide to the required position. Tighten the locking screws.
- Place front edge of base plate squarely on the workpiece before starting the motor.
- When starting a cut, align the cutting line with the line of cut guide, taking care to introduce the blade to the material slowly, so as not to damage its teeth.
- Use both hands to move the saw forward through the workpiece.
- Apply smooth, constant pressure to move the saw forward through the workpiece.

When a cut has been completed, release the ON/OFF trigger switch and allow the blade to come to a complete halt. Do not apply lateral pressure to the blade in an attempt to slow it down more quickly.

**WARNING:** If the motor should stop or stall whilst a cut is being attempted, release the trigger switch immediately and disconnect the machine from the power supply. Remove the machine from the workpiece before investigating the cause and attempting to restart the motor.

**Note:** This saw is fitted with an overload protection device. This is designed to prevent overloading and consequent damage to the motor. If this feature 'trips', the motor stops and will not operate.

Allow the machine to cool down and then press the 'reset switch' at the base of the main handle.

## MAINTENANCE

**WARNING:** Any maintenance must be carried out with the machine switched off and disconnected from the mains/battery power supply.

Check that all safety features and guards are operating correctly on a regular basis.

Only use this machine if all guards/safety features are fully operational.

All motor bearings in this machine are lubricated for life. No further lubrication is required.

Use a clean, slightly damp cloth to clean the plastic parts of the machine. Do not use solvents or similar products which could damage the plastic parts.

**WARNING:** Do not attempt to clean by inserting pointed objects through openings in the machine's casings, etc.

The machines air vents should be cleaned using compressed dry air.

Excessive sparking may indicate the presence of dirt in the motor or worn out carbon brushes.

**BRUSH CHECKING AND/OR REPLACEMENT**

- Disconnect the machine from the power supply.
- Place the machine on a level, secure surface.
- Unscrew and remove the two (2) brush retaining caps from the motor housing.
- Withdraw the brushes.

**Note:** If the carbon brush is less than ¼" long, or if there are signs of burning or damage to the carbon or the spring, replace the brushes.

- Fit the new brushes.
- Refit the brush retaining caps
- Run the machine without load for several minutes after brush replacement. This will aid the 'bedding in' process.

**Note:** If, upon checking, the brushes are found to be still serviceable, they can be returned to their original position. It is important that they are replaced in the same position as they were removed from the machine.

**ENVIRONMENTAL PROTECTION**

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.



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**EC DECLARATION OF CONFORMITY**

In accordance with EN ISO 17050-1:2004



**The manufacturer of the product covered by this Declaration is:**

Evolution Power Tools, Venture One, Longacre Close, Holbrook Industrial Estate, Sheffield, S20 3FR.

The manufacturer hereby declares that the machine as detailed in this declaration fulfils all the relevant provisions of the Machinery Directive and other appropriate directives as detailed below. The manufacturer further declares that the machine as detailed in this declaration, where applicable, fulfils the relevant provisions of the Essential Health and Safety requirements.

**The Directives covered by this Declaration are as detailed below:**

|   |  |
|---|--|
| <b>2006/42/EC.</b>                            | Machinery Directive.   |
| <b>2004/108/EC.</b>                           | Electromagnetic Compatibility Directive.   |
| <b>93/68/EC.</b>                              | The CE Marking Directive.  |
| <b>2011/65/EU.</b>                            | The Restriction of the Use of certain Hazardous Substances in Electrical Equipment (RoHS) Directive. |
| <b>2002/96/EC as amended by 2003/108/EC .</b> | The Waste Electrical and Electronic Equipment (WEEE) Directive.                                      |

**And is in conformity with the applicable requirements of the following documents:**

|   |
|---|
| <b>EN55014-1:2006 • EN55014-2/AA1:2001 • EN61000-3-2:2006<br/>EN61000-3-11:2000 • EN60745-1:2009 • EN60745-2-5:2007</b> |
|---|


**Product Details**

|                     |   |
|---------------------|---|
| Description:        | EVOSAW230 230mm (9") CIRCULAR SAW                     |
| Evolution Model No: | EVOSAW2301 / EVOSAW2302 / EVOSAW2302EU / EVOSAW2301US |
| Brand Name:         | EVOLUTION   |
| Voltage:            | 110V / 230V   |
| Input:              | 50/60Hz   |

The technical documentation required to demonstrate that the product meets the requirements of directive has been compiled and is available for inspection by the relevant enforcement authorities, and verifies that our technical file contains the documents listed above and that they are the correct standards for the product as detailed above.

**Name and address of technical documentation holder.**

Signed:  Print: Steven Bulloss: Operations Director.

Signed:  Print: Lettie Lui: Product Manager.

Date: 01/02/2014



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