

# **Jefferson<sup>®</sup>**

**PROFESSIONAL TOOLS & EQUIPMENT**

**305mm**

## **SLIDING COMPOUND MITRE SAW**

2000W • GEAR DRIVEN MOTOR • LASER GUIDE • DOUBLE BEVEL



**JEF5WMIT12-110  
JEF5WMIT12-230**

### **User Manual**

v.1.2





## 1. Contents

1. Contents	<b>2</b>
2. Technical Specification & Cutting Capacity	<b>3</b>
3. Safety Information	<b>4</b>
4. Unpacking & assembly	<b>7</b>
5. Adjustments	<b>8</b>
6. Cutting Operations	<b>11</b>
7. Replacing / Installing a Blade	<b>13</b>
8. Maintenance	<b>14</b>
9. Parts Identification	<b>16</b>

## 2. Technical Specification

<b>RATED SUPPLY VOLTAGE:</b>	230V (13A) / 110V (16A)* - 50Hz
<b>OUTPUT:</b>	2000W (2.7HP)
<b>MOTOR TYPE:</b>	GEAR DRIVEN
<b>NO LOAD SPEED:</b>	4500RPM
<b>BLADE DIAMETER:</b>	12" / 305MM
<b>BLADE BORE:</b>	Ø 30MM
<b>MITRE RANGE:</b>	-45° / 0° / +45
<b>DUST EXTRACTION PORT:</b>	Ø 35MM
<b>PRESET MITRE LOCKS:</b>	0°, 15°, 22.5°, 30°, 45°
<b>NET WEIGHT:</b>	22KG

\*Rated Voltage as indicated on box & equipment specification plate

### 2.1 Cutting Capacity:

Please refer to the adjacent table for guidelines on the respective cutting capacities for this equipment.

Visit our website to see our full range of replacement Cutting Discs, TCT Blades, and other abrasives.

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

Mitre x Bevel	Width	Height
Straight Cut 0° x 0°	340mm	102mm
Mitre Cut 45° x 0°	240mm	102mm
Right Bevel Cut 0° x 45°	340mm	40mm
Left Bevel Cut 0° x 45°	340mm	55mm
Left Compound Mitre Cut 45° x 45°	240mm	40mm
Right Compound Mitre Cut 45° x 45°	240mm	55mm

### 3. Safety Information

#### 3.1 General Safety

##### 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. GROUND THE TOOL.

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

##### 3. KEEP GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned.

##### 4. REMOVE ADJUSTING KEYS AND WRENCHES.

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

##### 5. KEEP WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Do not leave tools or pieces of wood on the machine while operating.

##### 6. AVOID DANGEROUS ENVIRONMENT.

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.

##### 7. KEEP CHILDREN AND VISITORS AWAY.

All visitors should be kept a safe distance from work area.

##### 8. MAKE WORKSHOP CHILD-PROOF.

Use padlocks, master switches or remove starter keys.

##### 9. USE PROPER SPEED.

A tool will do a better and safer job when operated at the proper speed.

##### 10. USE RIGHT TOOL.

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

##### 11. 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.

##### 12. ALWAYS WEAR SAFETY GLASSES.

Always wear safety glasses (ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses. Also use a face or dust mask if cutting operation is dusty.

##### 13. DON'T OVERREACH.

Keep proper footing and balance at all times.

##### 14. MAINTAIN TOOL WITH CARE.

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

##### 15. DISCONNECT TOOLS.

Before servicing, when changing accessories or attachments.

##### 16. AVOID ACCIDENTAL STARTING.

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

##### 17. USE RECOMMENDED ACCESSORIES.

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

##### 18. NEVER STAND ON TOOL.

Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

##### 19. CHECK DAMAGED PARTS.

Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that 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 that are damaged should be properly repaired or replaced.

##### 20. NEVER LEAVE MACHINE RUNNING UNATTENDED.

Turn power "OFF". Don't leave any tool running until it comes to a complete stop.

### 3.2 Additional Safety Instructions for Sliding Compound Mitre Saw Blades

1. Use only cross-cutting saw blades. When using carbide tipped blades, do not use blades with deep guillets as they can deflect and contact guard.
2. Do not operate the miter saw until it is completely assembled and installed according to the instructions.
3. If you are not thoroughly familiar with the operation of compound miter saws, obtain advice from your supervisor, instructor or other qualified person.
4. Do not perform any operation freehand. Secure or clamp workpiece firmly against fence.
5. **Warning:** keep hands out of path of saw blade. If the workpiece you are cutting would cause your hand to be within 4" of the saw blade, the workpiece should be clamped in place before making cut.
6. Be sure blade is sharp, runs freely and is free of vibration.
7. Allow the motor to come up to full speed before starting cut.
8. Keep motor air slots clean and free of chips.
9. Always make sure all clamp handles are tight before cutting even if the table is positioned in one of the mitre stops.
10. Be sure blade and flanges are clean and that arbor bolt is tightened securely.
11. Only use blade flanges specified for your saw.
12. Never use blades larger or smaller in diameter than 10".
13. Never apply lubricants to the blade when it is running.
14. Always check the blade for cracks or damage before operating. Replace cracked or damaged blade immediately.
15. Never use blades recommended for operation at less than 6000 rpm.
16. Use the blade guard at all times.
17. Always keep the lower blade guard in place and operating properly.
18. Never reach around or behind saw blade.
19. Make sure blade is not contacting workpiece before switch is turned on.
20. Never lock the switch in the "on" position.
21. Important: after completing cut, release power switch and wait for coasting blade to stop before returning saw to raised position.
22. Turn off the tool and wait for saw blade to stop before moving workpiece or changing settings.
23. Do not remove jammed or cut-off pieces until blade has stopped.
24. Never cut ferrous metals or masonry.
25. Never re-cut small pieces.
26. Provide adequate support to the sides of the saw table for long workpieces.
27. Never use the miter saw in an area with flammable liquids or gases.
28. Never use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material. Only a soft damp cloth should be used to clean plastic parts.
29. Disconnect power by unplugging tool before changing blade or servicing.
30. Disconnect saw from power source before leaving it.
31. Make sure the work area is cleaned before leaving the machine.

### 3.3 Electrical Safety Information

**All electrical connections must be done by a qualified electrician. Failure to comply may result in serious injury!**

- All adjustments or repairs must be done with the miter saw disconnected from the power source.

#### Power supply

- **Warning:** this equipment must be connected to the correct power supply as indicated on the packaging and machine spec plate (230V or 110V) , Failure to connect in this way can result in injury from shock or fire.

#### Grounding

- This machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Your machine must be properly grounded. Not all outlets are properly grounded. If you are not sure if your Outlet is properly grounded, have it checked by a qualified electrician.

**Warning:** to maintain proper grounding, do not remove or alter the grounding prong in any manner.

If not properly grounded, this machine can cause electrical shock, particularly when used in damp locations. To avoid shock or fire, if the power cord is worn or damaged in any way, have it replaced immediately.

#### Extension cords

The use of any extension cord will cause some loss of power. Use the following table to determine the minimum wire size (a.W.G-american wire gauge) extension cord. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the motor. Refer to fig.2 For wire length and size

### 3.4 Working Environment

- Keep the work area clean. Cluttered workbenches increase the risk of accidents and injuries.
- Do not expose the tool to water or any other liquid. Do not use power tools in damp or wet areas. Do not expose power tools to rain.
- Make sure the work area is well lit.
- Keep onlookers and children at a safe distance. Onlookers should wear safety glasses and be kept at a safe distance from the work area.
- Do not allow onlookers to touch the tool or extension cord.
- Put away tools that are not being used. When not in use, store the tool in a dry place out of the reach of children.
- Always unplug the power cord when the tool is not being used, and before carrying out service work or changing accessories, such as blades, bits or discs.
- Do not stand on the power tool. If the tool tips over or if you come in contact with the disc this can lead to serious injuries.
- Do not use power tools in explosive environments, for example, in the vicinity of flammable liquids, gases or dust.
- Cutting produces sparks. Do not use the tool near flammable materials – risk of fire and/or serious personal injury.
- If using the tool outdoors, only use an earthed extension cord approved for outdoor use.
  
- This appliance 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 use of the appliance by a person responsible for their safety.
- Do not use saw blades which are damaged or deformed;
  - replace the table insert when worn;
  - use only saw blades recommended by the manufacturer which conform to EN 847-1;
  - do not use saw blades manufactured from high speed steel;
- Wear suitable personal protective equipment when necessary, this could include:
  - hearing protection to reduce the risk of induced hearing loss
  - eye protection when using the tool
  - respiratory protection to reduce the risk of inhalation of harmful dust
  - gloves for handling saw blades (saw blades shall be carried in a holder wherever practicable) and rough material
  
- Connect the saw to a dust collecting device when sawing wood. In addition the operator shall be informed of factors that influence exposure of dust and the precautions mentioned e.g. type of material to be machined and the importance of local extraction (capture or source) and proper adjustment of hoods/baffles/chutes.
- Select the correct saw blade for the material to be cut;
- Do not use the saw to cut other materials than those recommended by the manufacturer.
- Lifting and transportation information: Information shall include where to lift and support the mitre saw and when necessary a warning not to use guards for this purpose.
- Do not use the saw without the guards in position, in good working order and properly maintained.
- Ensure that the arm is securely fixed when bevelling.
- Keep the floor area around the machine level, well maintained and free of loose materials e.g. chips and cut-offs.
- Provide adequate general or localised lighting.
- The operator is adequately trained in the use, adjustment and operation of the machine.
- Use correctly sharpened saw blades. Observe the maximum speed marked on the saw blade.
- Ensure that any spacers and spindle rings used are suitable for the purpose as stated by the manufacturer.
- Only use the laser fitted with the Mitre Saw.
- Repairs shall only be carried out by the laser manufacturer or an authorised agent.
- Blade replacement procedure including the method for repositioning and a warning that this must be carried out correctly.
- Refrain from removing any cut-offs or other parts of the workpiece from the cutting area whilst the machine is running and the saw head is not in the rest position.
  
- Ensure that the machine is always fixed to a bench, wherever possible.
- Replace table insert when worn.
- Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.



### 3.5 General Safety Warnings for your Laser

1. **WARNING** : Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in serious injury.
2. Save all warnings and instructions for future reference.
3. These lasers do not normally present an optical hazard although staring at the beam may cause flash blindness.
4. 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:
5. The laser shall be used and maintained in accordance with the manufacturer's instructions.
6. Never aim the beam at any person or an object other than the work piece.
7. The laser beam shall not be deliberately aimed at another person and shall be prevented from being directed towards the eye of a person for longer than 0.25 seconds area.
8. Always ensure the laser beam is aimed at a sturdy work piece without reflective surfaces, e.g. wood or rough-coated surfaces are acceptable. Bright shiny reflective sheet steel or similar is not suitable for laser applications as the reflective surface may direct the laser beam back at the operator.
9. Do not change the laser device with a different type. The manufacturer or an authorized agent must carry out repairs.
10. **CAUTION:** Use of controls or adjustments other than those specified herein may result in hazardous radiation exposure.

The laser device fitted to this tool is **CLASS 2** with a maximum radiation of **<1mW** and **650nm** wavelength. Do not stare into the beam

## 4. Unpacking & Assembly

Due to modern mass production techniques, it is unlikely that your Power tool is faulty or that a part is missing. If you find anything wrong, donot operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

1. Remove all loose parts from the carton.
2. Remove the packing materials from around the saw.
3. Carefully lift the saw from the carton and place it on a level work surface.
4. The saw has been shipped with the saw head locked in the down position.

To release the saw head, push down on the top of the saw arm, pull then turn the the saw head release knob (A) **Fig.1**

**WARNING:** Do not lift the saw while holding on to the guards. Use the top mounted carrying handle.

### Mitre Angle Lock Handle

The saw is supplied almost fully assembled, you should assemble the mitre lock handle (A) **Fig.2** first. Attach the mitre handle by screwing it into position as shown. This handle is used to lock or unlock the table at the desired mitre angle. Once the mitre angle is set, use the mitre lock handle to lock the table.



**Fig.1**



**Fig.2**

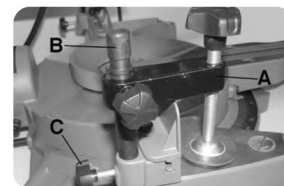
**WARNING!** Before making any cut, make sure the mitre lock handle is fully tightened.

### Preset Mitre Locks

There are preset mitre stops at 0°, 15°, 22.5°, 30° and 45° to the left and right. While the table is being rotated, the table will stop at the next positive stop. Once the desired angle is obtained, use the mitre lock handle to lock the table.

### Vise Assembly (Vertical)

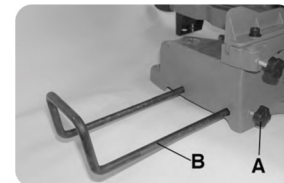
The vertical vise (A) **Fig.3** can be installed in two positions on either the left or right side of the guide fence. Insert the vise rod (B) into the hole in the guide fence and tighten the vise lock knob (C) to secure the vise rod.



**Fig.3**

### Retractable Extension Wings

Before using this mitre saw, it is recommended to use the extension wings to support your workpiece. Simply loosen extension wing lock knob (A) **Fig.5**, pull out the extension wing (B) **Fig.5** and secure it in place by tightening the extension wing lock knob (A). Repeat for the other extension wing.



**Fig.4**

### Dust Bag

The dust bag (A) **Fig.5** fits into the dust bag adaptor (B) at the rear of the saw head. For more efficient operation, empty the dust bag when it is no more than half full. This allows better air flow through the bag.



**Fig.5**

## 5. Adjustments

### Bench Mounting

The saw base has holes to facilitate bench mounting.

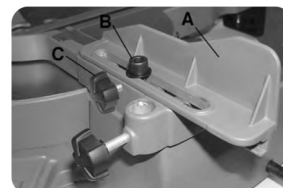
1. Fix the saw to a bench using 4 hex. bolts and hex. nuts.
2. If desired, you can mount the saw to a piece of 13mm or thicker plywood which can then be clamped to your work support or moved to other job sites and reclamped.

**CAUTION:** Make sure that the mounting surface is not warped as an uneven surface can cause binding and inaccurate sawing.

### Adjusting Fence Extensions

This mitre saw comes with a back fence with fence extensions (A) **Fig.6** at both ends which slide outwards for additional back support for those long workpieces. Please note that during steep bevel cut operations, these fence extensions must be fully extended to not interfere with the motor housing or blade guard. To adjust the position of each fence extension;

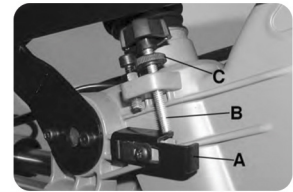
1. Loosen the fence extension cap screw (B) using supplied hex. key.
2. Loosen the fence extension rear lock knob (C).
3. Slide the fence extension outwards to the desired position and retighten the cap screw and rear lock knob.



**Fig.6**

### Depth Of Cut Stop Adjustment

In its normal position, the depth of cut stop **Fig.7** permits the saw blade to cut right through a workpiece. When the saw arm is lifted, the depth of cut stop (A) **Fig.7** can be slid over towards the front of the saw so that the depth adjustment screw (B) contacts the stop as the saw head is lowered. This restricts the cut to a “adjusted depth” in the workpiece. The depth of cut can be adjusted with the adjustment screw and locked in position with the lock nut (C) **Fig8**.



**Fig.7**

### Adjusting Bevel Angle

This mitre saw is capable of dual bevel angles which means the saw head can be inclined or tilted towards the right or the left. To adjust the saw head to any bevel angle;

Loosen the bevel lock knob (A) **Fig.9** and pull the positive stop adjustment knob (B) outwards as shown. At this point, the saw head can be inclined to any angle you desire. If you require a predetermined bevel angle of 0°, push the adjustment knob inwards and pivot the saw head until it stops at 0°. Once the desired bevel angle is obtained, it is very important that you retighten the bevel lock knob (A).



**Fig.8**

### Setting The Blade Square With The Table

1. Make sure that the electrical plug is removed from the main power supply.
2. Push the saw head down to its lowest position, then pull and turn the head release knob to hold the saw head in the transport position.
3. Loosen the mitre lock handle.
4. Rotate the table until the pointer is positioned at 0°.
5. Retighten the mitre lock handle.
6. Loosen the bevel lock knob at the rear of the machine and set the saw arm at 0° bevel (the blade at 90° to the mitre table). Tighten the bevel lock knob.
7. Place a square (A) **Fig.10** against the table and the flat part of the blade body.



**Fig.9**

**NOTE:** Make sure that the square contacts the flat part of the saw blade body, not the teeth.

8. Rotate the blade by hand and check the blade-to-table alignment at several points.
9. The edge of the square and the saw blade should be parallel.
10. If the saw blade angles away from the square, adjust as follows;
11. Make sure the positive stop adjustment knob (A) **Fig.11** is pushed in all the way and the bevel lock knob (B) is fully tightened. Loosen the two hex. screws (C & D) inside the pivot bracket using a hex. key.
12. Loosen bevel lock knob (B) and adjust the head of the saw in or out to bring the saw blade into alignment with the square.
13. Once perfectly aligned, retighten the bevel lock knob (B) and the two hex. screws (C & D) inside the pivot bracket. Recheck the alignment.
14. Readjust bevel pointer (B) **Fig.11** to line up with the 0° on the bevel scale.

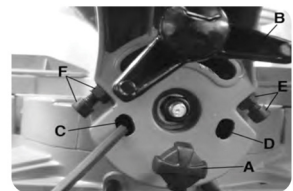


**Fig.10**

### Adjusting The 45° Stop Bolts

After setting the blade square with the table, the left and right side 45° stop bolts will need to be adjusted.

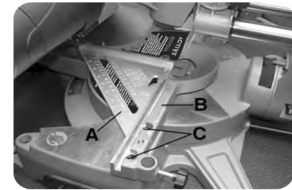
1. Loosen the hex. nut and cap screw (F) **Fig.11**.
2. Tilt the head completely to the left side.
3. Place a 45° combination square against the table and the flat part of the blade body.
4. Once the head is at a perfect 45° angle, tighten bevel lock knob (B), then tighten the cap screw (F) against the bevel lock knob (B) shaft and tighten hex. nut (F).
5. Repeat the above steps for the right side 45° stop bolt using the hex. nut and cap screw (E).



**Fig.11**

### Setting The Fence Square With The Blade

1. Make sure that the electrical plug is removed from the main power supply.
2. Push the saw head down to its lowest position, then pull and turn the head release knob to hold the saw head in the transport position.
3. Loosen the mitre lock handle.
4. Rotate the table until the pointer is positioned at 0°.
5. Retighten the mitre lock handle.
6. Loosen the bevel lock knob at the rear of the machine and set the saw arm at 0° bevel (the blade at 90° to the mitre table). Tighten the bevel lock knob.
7. Place a square (A) **Fig.13** against the fence (B) and the flat part of the blade.



**Fig.13**

**NOTE:** Make sure that the square contacts the flat part of the saw blade, not the teeth.

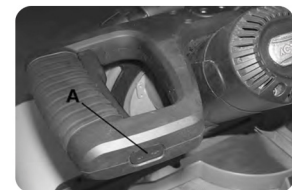
8. The edge of the square and the fence should be parallel.
9. If the fence angles away from the square, adjust as follows;
10. Remove the fence extension cap screws, loosen the rear fence extension lock knobs and remove fence extensions by sliding them off the fence. Loosen the now exposed fence cap screws (C) **Fig.13** on both sides and position the fence (B) against the square and retighten all cap screws.
11. Reinstall fence extensions.

### Using The Twin Laser Guide System

The twin laser guide system is controlled by the laser guide push button switch (A) **Fig.14** and will only turn on when the mitre saw is plugged into a power source.

**Warning!** Do not stare directly into the laser beams.

1. Mark the line of the cut on the workpiece.
2. Adjust the mitre and/or bevel angles as required.
3. Before clamping the workpiece in position using the vertical vise, align the line of cut on the workpiece with the laser guide beam on either side of the blade kerf.
4. Start the motor.
5. When the blade reaches its maximum speed (approx. 2 sec.), lower the blade through the workpiece

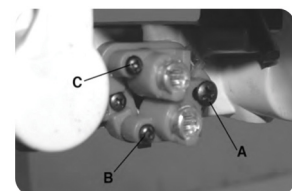


**Fig.14**

### Adjusting Twin Laser Guide System

If your laser guide does not seem to be aligned with both sides of the blade kerf, small adjustments can be made.

1. Place a scrap piece of wood on the table and clamp it. Turn on mitre saw and make a partial cut to indicate both sides of the blade kerf.
2. Turn laser guide On, then remove the laser guide protective plastic cover.
3. To move the entire laser guide assembly towards the right or left, loosen pan head screw (A) **Fig.15**, move laser guide assembly to desired position and retighten pan head screw (A).
4. To adjust only one laser, loosen or tighten either the bottom pan head screw (B) to adjust the bottom laser or the top pan head screw (C) to adjust the top laser. Adjust until the laser beams are perfectly aligned with both sides of the blade kerf.
5. Reinstall the laser guide protective plastic cover.



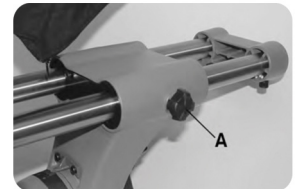
**Fig.15**

## 6. Cutting Operations

### Crosscutting

When cutting a piece of wood it is not always necessary to use the slide mechanism. In these cases make sure that the slide lock knob (A) **Fig.16** is locked to prevent the saw arm from sliding. A crosscut is made by cutting across the grain of the workpiece. A 90° crosscut is made with the mitre and the bevel angles are set at 0°.

1. Pull and turn the saw head release knob (A) **Fig.17** and lift the saw head to its full height.
2. Loosen the mitre lock handle.
3. Rotate the mitre table using mitre handle until the pointer aligns with the 0°.
4. Retighten the mitre lock handle.



**Fig.16**

**WARNING:** Be sure to tighten the mitre lock handle before making a cut. Failure to do so could result in the table moving during the cut and cause serious personal injury.

5. Place the workpiece flat on the table with one edge securely against the fence. If the board is warped, place the convex side against the fence. If the concave side is placed against the fence, the board could break and jam the blade.
6. When cutting long pieces of timber, support the opposite end of the timber with the extension wing or an additional roller stand or a work surface that is level with the saw table.
7. Use a vise or clamp to secure the workpiece whenever possible.
8. Before turning on the saw, perform a dry run of the cutting operation to check that there are no problems.
9. Hold the handle firmly and squeeze the trigger. Allow the blade to reach maximum speed.
10. Slowly lower the blade into and through the workpiece.
11. Release the switch trigger and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before removing the workpiece.



### Cutting Wide Workpieces

When cutting wide workpieces, you should use the sliding action, unlock the slide lock knob (A)

#### Fig.16

1. Raise the saw head to its highest position and slide the blade towards you.
2. Hold the handle firmly and squeeze the trigger. Allow the blade to reach maximum speed.
3. Slowly lower the blade into the workpiece and slide it away from you at the same time until the workpiece is cut.
4. Release the switch trigger and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before removing the workpiece.

### Bevel Cut

A bevel cut is made by cutting across the grain of the workpiece with the blade angled to the fence and mitre table. The mitre table is set at the 0° position and the saw head is set at an angle between 0° and 45° to the right or to the left.

1. Pull and turn the saw head release knob (A) **Fig.17** and lift the saw head to its full height.
2. Loosen the mitre lock handle.
3. Rotate the mitre table until the pointer aligns with zero on mitre scale.
4. Retighten the mitre lock handle.

**WARNING:** Be sure to tighten the mitre lock handle before making a cut. Failure to do so could result in the table moving during the cut and serious personal injury.



## Bevel Cut

A bevel cut is made by cutting across the grain of the workpiece with the blade angled to the fence and mitre table. The mitre table is set at the 0° position and the saw head is set at an angle between 0° and 45° to the right or to the left.

1. Pull and turn the saw head release knob (A) **Fig.17** and lift the saw head to its full height.
2. Loosen the mitre lock handle.
3. Rotate the mitre table until the pointer aligns with zero on mitre scale.
4. Retighten the mitre lock handle.

**WARNING:** Be sure to tighten the mitre lock handle before making a cut. Failure to do so could result in the table moving during the cut and serious personal injury.

5. Loosen the bevel lock knob (B) **Fig.18** and move the saw arm to the desired bevel angle (between 0° and 45° to the right or left). Retighten the bevel lock knob.
6. Place the workpiece flat on the table with one edge securely against the fence. If the board is warped, place the convex side against the fence. If the concave side is placed against the fence, the board could break and jam the blade.
7. When cutting long pieces of timber, support the opposite end of the timber with the extension wings.
8. Use the vise to secure the workpiece whenever possible.
9. Before turning on the saw, perform a dry run of the cutting operation to check that there are no problems.
10. Hold the handle firmly and squeeze the trigger. Allow the blade to reach maximum speed.
11. Slowly lower the blade into and through the workpiece.
12. Release the switch trigger and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before removing the workpiece.

## Compound Cut

A compound cut involves using a mitre angle and a bevel angle at the same time. It is used in making picture frames, to cut mouldings, making boxes with sloping sides and for roof framing. Always make a test cut on a piece of scrap wood before cutting into good material. Use the slide action when cutting wide workpieces, unlock slide by loosening lock knob (A) **Fig.19**

1. Pull and turn the saw head release knob (A) **Fig.20** and lift the saw head to its full height.
2. Loosen the mitre lock handle.
3. Rotate the mitre table until the pointer aligns with the desired angle on the mitre scale.
4. Tighten the mitre lock handle.

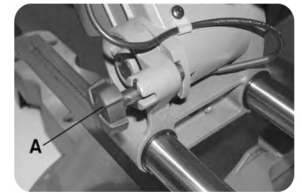
**Warning:** Be sure to tighten the mitre lock knob before making a cut. Failure to do so could result in the table moving during the cut and serious personal injury.

5. Loosen the bevel lock knob (B) **Fig.21** and move the saw arm to the desired bevel angle (between 0° and 45° to the right or left). Tighten the bevel lock knob.

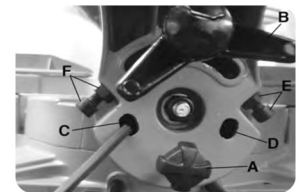
6. Place the workpiece flat on the table with one edge securely against the fence. If the board is warped, place the convex side against the fence.

**CAUTION:** If the concave side is placed against the fence, the board should break and jam the blade.

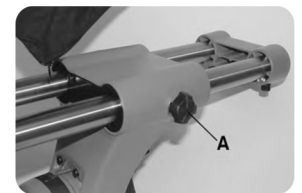
7. When cutting long pieces of wood, support the long pieces using the extension wings.
8. Use the vertical vise to secure the workpiece whenever possible.
9. Before turning on the saw, perform a dry run of the cutting operation to check that there are no problems.
10. Hold the handle firmly and squeeze the trigger. Allow the blade to reach maximum speed.
11. Slowly lower the blade into and through the workpiece.
12. Release the trigger and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before moving the workpiece.



**Fig.17**



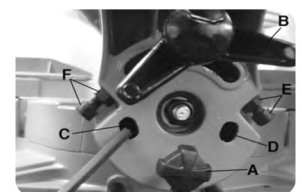
**Fig.18**



**Fig.19**



**Fig.20**



**Fig.21**

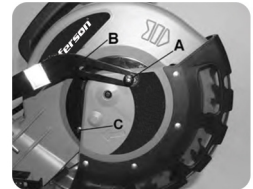
## 7. Replacing / installing a Blade

- **WARNING:** Never attempt to use a blade larger than the stated capacity of the saw (10"). It will come into contact with the blade guards and housing.
- Never use a blade that is too thick to allow the outer blade flange to engage with the flats on the spindle. It will prevent the blade bolt from properly securing the blade on the spindle.
- Do not use this saw to cut metal or masonry.

1. Make sure that the power cord is removed from the main power supply.
2. Push down on the saw arm and pull and turn the saw head release knob to disengage the saw head.
3. Raise the saw head to its highest position.
4. Unscrew and remove large screw (A) **Fig.22**, and move the blade guard pivot link arm (B) out of the way. Unscrew and remove pan head screw (C) which fixes the guard plate and lower blade guard to the upper blade guard.
5. Once pan head screw (C) is removed, swing the guard plate and lower blade guard upwards to allow access to the blade bolt as shown in **Fig.23**.
6. Completely depress the spindle lock button (A) **Fig. 24** using one hand. Rotate the blade by hand until the spindle locks.
7. Use the blade wrench (A) **Fig.25** supplied to remove the blade bolt (B), loosen in a clockwise direction as the blade bolt has a left hand thread.
8. Remove the outer blade flange (C) and the blade.
9. Wipe a drop of oil onto the inner and outer blade flanges.
10. Fit the new blade onto the spindle, make sure that the blade has the appropriate arbor size (5/8") and that the inner blade flange sits properly behind the blade.

**CAUTION:** Always install the blade with the blade teeth pointing downwards towards the fence. The direction of the blade rotation is also stamped with an arrow on the upper blade guard.

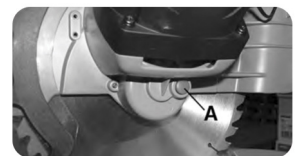
11. Reposition the outer blade flange.
12. Depress the spindle lock, reposition and secure the blade bolt using the blade wrench. Tighten the blade bolt in a counterclockwise direction as the blade bolt has a left hand thread.
13. Reposition the lower blade guard and guard plate and secure the guard plate with pan head screw and large screw removed in step 4.



**Fig.22**



**Fig.23**



**Fig.24**



**Fig.25**

## 8. Maintenance

**Note:** All the ball bearings are sealed and lubricated for life and will require no maintenance.

### Cleaning

- After each use, wipe off chips and dust adhering to the tool with a cloth.
- Keep the blade guards and covers clean .
- Lubricate the sliding portions with machine oil to prevent rust.

To maintain product **safety** and **reliability**, repairs, any other maintenance or adjustment should be performed by your nearest authorized service center.

### Replacing Carbon Brushes

Remove and check the carbon brushes regularly (normally after 50 hours of use). The carbon brushes are installed inside the motor housing. Using a screwdriver, remove the 2 pan head screws (B) **Fig.26** that hold the motor housing cap (A) in place.



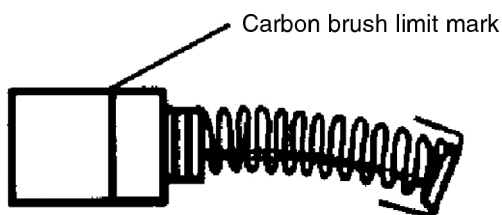
**Fig.26**

Once the motor housing cap is removed, to release the carbon brush (B) **Fig.27** from the holder, lower the retaining spring (A). Disconnect the carbon brush wire (C) from the terminal, remove the carbon brush from the motor housing and inspect it. Repeat this step for the second carbon brush.



**Fig.27**

Carbon brushes need to be replaced once they wear down to the limit mark, see **Fig.28**. Keep the carbon brushes clean and free to slip in the holders. If they have worn down to the limit mark, purchase a set of identical replacement carbon brushes (both carbon brushes should be replaced at the same time). Insert new carbon brushes into the holders, connect them to the terminals, reposition the retaining spring and reinstall the motor housing cap using the 2 pan head screws.



**Fig.28**



This is a detailed exploded view diagram of a mechanical device, possibly a lawnmower or a trimmer. The diagram illustrates the assembly of various components, each labeled with a numerical part number. The components are arranged in a way that shows their relative positions and how they fit together. Key parts include a large circular blade (19), a motor housing (15), a gear assembly (16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218). The diagram uses dashed lines to indicate the assembly path and the relationship between different parts. The components are shown in a disassembled state, allowing for a clear view of the internal mechanism and the external housing.

No	Name	Quantity	No	Name	Quantity	No	Name	Quantity
1	Screw	4	51	Rubber boot	4	101	Pivot shaft	1
2	Spring washer	29	52	Motor housing	2	102	Steel wire baffle ring	2
3	Washer	13	53	Screw	2	103	Bracket	1
4	Belt cover	1	54	Brush hold	2	104	Linear bearing	2
5	Socket head screw	1	55	Brush spring	4	105	Bearing cover	1
6	Washer	1	56	Brush	1	106	Screw	2
7	Belt	1	57	Screw	1	107	Linear bearing	2
8	Gear lock pin	1	58	Motor cover	1	108	Spring loop	1
9	Gear lock pin spring	1	59	Logo cap	1	109	Knob(long)	1
10	E clip	1	60	Blade bolt	1	110	Socket head screw	1
11	Belt pulley(big)	1	61	Blade flange outer	1	111	Lock pin	1
12	Belt pulley(small)	1	62	Blade	4	112	Rolled pin	1
13	Screw	6	63	Gear case cover	1	113	Lock pin spring	1
14	Hex grub screw	1	64	Bearing	1	114	Lock pin cap	2
15	Exhaust port	1	65	Shaft gear	1	115	Bearing cover	1
16	Washer	5	66	Flat key	1	116	Laser fixed plate	1
17	Spring washer	10	67	Bearing	1	117	Screw	2
18	Screw	2	68	Key	1	118	Dual laser carrier	1
19	Screw	7	69	Spindle	1	119	Screw	1
20	Laser switch	1	70	C clip	1	120	Laser	2
21	Laser switch cap	1	71	Bearing	1	121	Screw	2
22	Cable plug	1	72	Gear	1	122	Laser case	1
23	Cord protector	1	73	Bearing	1	123	Laser window	1
24	Cold clamp	1	74	Fixed guard	1	124	Hex grub screw	4
25	Screw	5	75	Dust pipe run	1	125	Arm	1
26	Cold clamp	1	76	Sunk screw	3	126	Rubber ring	4
27	Screw	1	77	Nut	1	127	Slide	2
28	Transformer	1	78	Plate guarding(big)	1	128	Bevel lock handle	1
29	Trigger	1	79	Plate guarding(small)	1	129	Washer	1
30	Screw	2	80	Moving guard plate	1	130	Locknut	1
31	Carry handle	1	81	Big washer	1	131	Washer	1
32	Screw	1	82	Screw	1	132	Nut	3
33	Upper handle	1	83	Spring	1	133	Socket head screw	2
34	Binding post	1	84	Cast centre	1	134	Bevel pointer	1
35	Switch	1	85	Screw	1	135	Screw	2
36	Lower handle	1	86	Rivet	4	136	Bevel scale	1
37	Depth of cut adjust knob	1	87	Screw	1	137	Straight cut setting pin	1
38	Socket head screw	1	88	Moving guard	1	138	Stud	1
39	Nut	1	89	Moving guard cover	1	139	Stud	1
40	Knurled thin nut	1	90	Shoulder Screw	1	140	Locknut	1
41	Motor support	1	91	Linkage(A)	1	141	Washer	1
42	Screw	2	92	Rivet	1	142	Socket head screw	1
43	Bearing	1	93	Socket head screw	2	143	Screw	2
44	Fan baffle	1	94	Linkage(B)	1	144	Orientation board	1
45	Stator	1	95	Torsion spring	1	145	Screw	4
46	Armature	1	96	Spring bushing	1	146	Cutting insert	1
47	Bearing	1	97	Trench depth bracket	1	147	Screw	2
48	Wave washer	1	98	Spring piece	1	148	Turntable	1
49	Rubber boot	1	99	Wave washer	1	149	Miter pointer	1
50	Motor housing	1	100	Screw	2	150	Screw	1

No	Name	Quantity	No	Name	Quantity
151	Turntable bolt	1	187	Lock handle cap	1
152	Turntable bolt cover	1	188	Screw	1
153	Screw	2	189	Lock handle	1
154	Knob(long)	2	190	Fixture	1
155	Safety foot	1	191	Locked nut	1
156	Lock boot	1	192	Pin	1
157			193	Roled pin	1
158	Lock bolt	1	194	Lock bolt	1
159	Support bar	2	195	Pressure plate	1
160	Lock handle	1	196	Washer	1
161	Screw	1	197	Screw	1
162	Lock handle cap	1	198	Lock washer	2
163	Base	1	199	Head sunk screw	2
164	Rubber foot	4	200	Orientation board(small)	1
165	Mitre scale	1	201	Spring washer	2
166	Detent Roll	1	202	Socket head screw	2
167	Detent Spring	1	203	Spring	1
168	Hex grub screw	1	204	Capacitor	1
169	Bolt knurled	1	205	Screw	1
170	Screw	1	206	Washer	1
171	Support bar	1	207	Shield lock piece	1
172	Fence	1	208	Shield lock sheet	1
173	Socket head screw	4	209	Spring	1
174	Left attach fence	1	210	Washer	1
175	Screw	1	211	Locknut	1
176	Clamp	1	212	Washer	2
177	Support arm	1	213	Spring washer	2
178	Knob(short)	1	214	Screw	2
179	Workpiece knob	1	215	Spring washer	1
180	Support pole	1	216	Wave washer	1
181	Socket head screw	1	217	Nut	1
182	Knob(short)	1	218	Dust bag	1
183	Knob(long)	1			
184	Right attach fence	1			
185	Socket head screw	1			
186	Slide stopper	4			

## LIMITED WARRANTY STATEMENT

Jefferson Professional Tools & Equipment, or hereafter "Jefferson" warrants its customers that its products will be free of defects in workmanship or material. Jefferson shall, upon suitable notification, correct any defects, by repair or replacement, of any parts or components of this product that are determined by Jefferson to be faulty or defective.

This warranty is void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, service or repair.

### Warranty Period

Jefferson will assume both the parts and labour expense of correcting defects during the stated warranty periods below.

All warranty periods start from the date of purchase from an authorised Jefferson dealer. If proof of purchase is unavailable from the end user, then the date of purchase will be deemed to be 3 months after the initial sale to the distributor.

#### 1 Year

- 305mm SLIDING COMPOUND MITRE SAW: JEFSWMIT12-110 • JEFSWMIT12-230

#### 90 Days

- All replacement parts purchased outside of the warranty period

Important: All parts used in the repair or replacement of warranty covered equipment will be subject to a minimum of 90 days cover or the remaining duration of the warranty period from the original date of purchase.

### Warranty Registration / Activation

You can register and activate your warranty by visiting the Jefferson Tools website using the following address:  
[www.jeffersonstools.com/warranty](http://www.jeffersonstools.com/warranty) and completing the online form. Online warranty registration is recommended as it eliminates the need to provide proof of purchase should a warranty claim be necessary.

### Warranty Repair

Should Jefferson confirm the existence of any defect covered by this warranty the defect will be corrected by repair or replacement at an authorized Jefferson dealer or repair centre.

### Packaging & Freight Costs

The customer is responsible for the packaging of the equipment and making it ready for collection. Jefferson will arrange collection and transportation of any equipment returned under warranty. Upon inspection of the equipment, if no defect can be found or the equipment is not covered under the terms of the Jefferson warranty, the customer will be liable for any labour and return transportation costs incurred.

These costs will be agreed with the customer before the machine is returned.

\* Jefferson reserve the right to void any warranty for damages identified as being caused through misuse

### Warranty Limitations

Jefferson will not accept responsibility or liability for repairs made by unauthorised technicians or engineers. Jefferson's liability under this warranty will not exceed the cost of correcting the defect of the Jefferson products.

Jefferson will not be liable for incidental or consequential damages (such as loss of business or hire of substitute equipment etc.) caused by the defect or the time involved to correct the defect. This written warranty is the only express warranty provided by Jefferson with respect to its products.

Any warranties of merchantability are limited to the duration of this limited warranty for the equipment involved.

Jefferson is not responsible for cable wear due to flexing and abrasion. The end user is responsible for routine inspection of cables for possible wear and to correct any issues prior to cable failure.

## Claiming Warranty Coverage

The end user must contact Jefferson Professional Tools & Equipment (Tel: +44 (0) 1244 646 048) or their nearest authorised Jefferson dealer where final determination of the warranty coverage can be ascertained.

### Step 1 - Reporting the Defect

Online Method:

- Visit our website [www.jeffersonstools.com/warranty](http://www.jeffersonstools.com/warranty) and complete the Warranty Returns form. You can complete the form online and submit it to us directly or download the form to print out and return by post.

Telephone Method:

Contact your Jefferson dealer or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

A Warranty Returns form will be sent to you for completion and return by post or fax, together with details of your nearest authorised Jefferson repair centre. On receipt of this form Jefferson will arrange to collect the equipment from you at the earliest convenience.

### Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is appropriately and securely packaged for collection, together with a copy of the original proof of purchase. Please note that Jefferson cannot assume any responsibility for any damage incurred to equipment during transit. Any claims against a third party courier will be dealt with under the terms & conditions of their road haulage association directives.

Please note: Jefferson will be unable to collect or process any warranty requests without a copy of the original proof of purchase.

### Step 3 - Assessment and Repair

On receipt, the equipment will be assessed by an authorised Jefferson engineer and it will be determined if the equipment is defective and in need of repair and any repairs needed are covered by the warranty policy. In order to qualify for warranty cover all equipment presented must have been used, serviced and maintained as instructed in the user manual.

Where repair is not covered by the warranty a quotation for repair, labour costs and return delivery will be sent to the customer (normally within 7 working days).

Note: If the repair quotation is not accepted Jefferson Professional Tools & Equipment will invoice 1 hour labour time at £30 per hour plus return carriage costs (plus VAT).

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at £30 per hour plus carriage costs will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised Jefferson Repair centre (subject to part availability). Where parts are not immediately available Jefferson will contact you with a revised date for completion of the repair.

### General Warranty Enquiries

For any further information relating to Jefferson warranty cover please call +44 (0) 1244 646 048 or send your enquiry via email to [warranty@jeffersonstools.com](mailto:warranty@jeffersonstools.com)

### Disclaimer:

*The information in this document is to the best of our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since the conditions of use are beyond their control, Jefferson Tools® disclaim any liability for loss or damage suffered from the use of this data or suggestions. Furthermore, no liability is accepted if use of any product in accordance with this data or suggestions infringes any patent. Jefferson Tools® reserve the right to change product specifications and warranty statements without further notification. All images are for illustration purposes only.*



**NOTES**



## **IMPORTANT! SAFETY FIRST!**

Before attempting to use this product please read all the safety precautions and operating instructions outlined in this manual to reduce the risk of fire, electric shock or personal injury.

Jefferson Tools,  
Herons Way,  
Chester Business Park,  
Chester,  
United Kingdom,  
CH4 9QR

**Tel.** +44 (0)1244 646 048  
**Email:** [sales@jeffersonstools.com](mailto:sales@jeffersonstools.com)

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