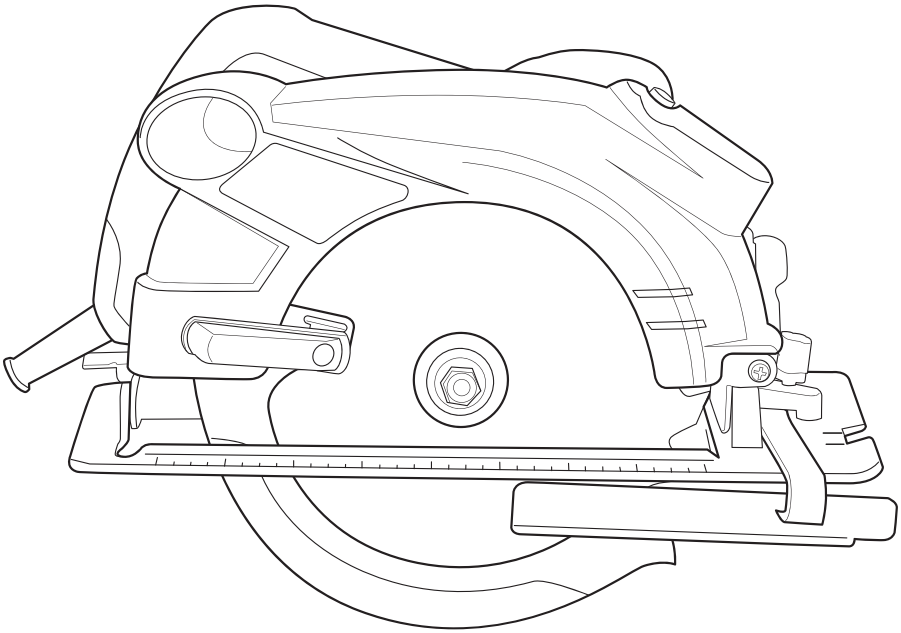
TITAN®



24 month Manufacturer's Warranty

SAFETY AND OPERATING MANUAL

Original instructions

CIRCULAR SAW 2000W TTB287CSW

Congratulations on your purchase of a TITAN. power tool from Titan Power Tools (UK) Ltd. We want you to continue getting the best performance from it so this handbook includes information on safety, handling and care. Please retain this handbook in case you need to refer to any of the information in the future.

Your TITAN. power tool comes with a 24-month guarantee, so should it develop a fault within this period contact your retailer.

GUARANTEE

This TITAN. product carries a guarantee of 24 months. If your product develops a fault within this period, you should, in the first instance contact the retailer where the item was purchased.

This guarantee specifically excludes losses caused due to:
- Fair wear and tear
- Misuse or abuse
- Lack of routine maintenance
- Failure of consumable items (such as batteries)
- Accidental dammage
- Cosmetic damage
- Failure to follow manufacturer's guidelines
- Loss of use of the goods

This guarantee does not affect your statutory rights. This guarantee is only valid in the UK.

For any enquiries relating to the guarantee please refer to your retailer.

GENERAL SAFETY INSTRUCTIONS

WARNING! Read all safety warnings designated by the symbol ⚠ and all instructions.

WARNING! Read all safety warnings and all 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. **Work area safety**
   - **a. Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
   - **b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
   - **c. Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2. **Electrical safety**
   - **a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce 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.

3. **Personal safety**
   - **a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
   - **b. Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
   - **c. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4. **Power tool use and care**
a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
c. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of 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. **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.

SAFETY INSTRUCTION FOR YOUR CIRCULAR SAW WITH INNER PENDULUM GUARD

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 with the retracting handle and make sure it moves freely and does not touch the blade or any other parts, 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 should 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 bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for blade to stop after switch is released.

DANGER!

a. **Keep hands away form cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.

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

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

d. **Never hold piece being cut in your hands or across your leg. Secure the work-piece to a stable platform.** It is important to support the work properly to minimise 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 reduce the chance of blade binding.

g. **Always use blades with correct size and shape 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.

FURTHER SAFETY INSTRUCTIONS FOR ALL SAWS

Causes and operator prevention of kickback:

- Kickback is a sudden reaction to pinched, bound or misalign saw blade, causing an uncontrolled saw to lift up and out of the work-piece toward the operator;
- When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- If the blade becomes twisted or misalign in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

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. When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur. Switch off and disconnect the power supply then investigate and take corrective actions to eliminate the cause of blade binding.

c. When restarting a saw in the work-piece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material. If saw blade is binding, it may walk up or kickback from the work-piece as the saw is restarted.

d. Support large panels to minimise the risk of blade pinching and kickback. Large 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. Do not use dull or damaged blades. Unsharpened or improperly set blades product narrow kerf causing excessive friction, blade binding and kickback.

f. Blade depth and bevel adjusting locking levers must be tight and secure befor making cut. If blade adjustment shifts while cutting, it may cause 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.

ADDITIONAL SAFETY RULES FOR YOUR CIRCULAR SAW

1. Always wear a dust mask, hearing protection and eye protection.
2. Only use saw blades recommended in the specification.
3. Always wear gloves when handling saw blades and rough material. Saw blades shall be carried in a holder whenever practicable.
4. Fully unwind cable drum extension to avoid potential overheating.
5. When an extension cable is required you must ensure it has the correct ampere rating for your power tool and is in a safe electrical condition.
6. Ensure your mains supply voltage is the same as indicated on the rating plate.
7. Your circular saw is a hand held tool, do not clamp your circular saw.
8. Before cutting, check the cutting line is free of nails, screws, etc.
9. Do not cut small workpieces with a circular saw.
10. Only make cuts with the blade direction downwards, never upwards or at the side.
11. Only Use blades that have a rated speed higher than the power tools no load speed.
12. Never remove the guard system. Never use the saw if the guard system does not function correctly. Never lock the moving guard open. The guard must move freely.
13. Never use saw blades made from high speed steel(HSS).
14. Always check walls, floors and ceilings to avoid hidden power cable and pipes.
15. After long working periods external metal parts and accessories could be hot.
16. Do not cut material containing asbestos.
17. Do not use metal or stone saw blades. Only use wood saw blades.
18. Do not use circular saw to cut tree limbs or logs.

19. Do not use any abrasive wheels.
20. Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

GENERAL SAFETY WARNINGS FOR LASER

The laser device fitted to this tool is class 2 with a maximum radiation of 1mW and 650nm wavelength. These lasers do not normally present an optical hazard although staring at the beam may cause flash blindness

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:

1. The laser shall be used and maintained in accordance with the manufacturer's instructions.
2. Never aim the beam at any person or an object other than the work piece.
3. 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.
4. 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.
5. Do not change the laser device with a different type. Repairs must be carried out by the manufacturer or an authorised agent.
6. CAUTION! Use of controls or adjustments other than those specified herein may result in hazardous radiation exposure.

HEALTH ADVICE

WARNING! Some dust particles created by power sanding, sawing, grinding, drilling and other construction jobs contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
Lead from lead-based paints.
Crystalline silica from bricks and cement and other masonry products.
Arsenic and chromium from chemically treated timber.
Your risk form these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:
Work in a well ventilated area.
Work with approved safety equipment, such as those dust masks that specially designed to filter out microscopic particles and use the dust extraction facility at all time.
- Wear ear protectors when using this tool. Exposure to noise can cause hearing loss.

VIBRATION

The European Physical Agents (Vibration) Directive has been brought in to help reduce hand arm vibration syndrome injuries to power tool users. The directive requires power tool manufacturers and suppliers to provide indicative vibration test results to enable users to make informed decisions as to the period of time a power tool can be used safely on a daily basis and the choice of tool.
Further Advice can be found at www.hse.gov.uk

Vibration total values (triax vector sum) determined according to EN 60745:	
Sawing	Vibration emission value ah = 2.992m/s²
	Uncertainty K = 1.5m/s²

The declared vibration emission value should be used as a minimum level and should be used with the current guidance on vibration.
Calculating the actual period of the actual period off use can be difficult and the HSE website has further information.

The declared vibration emission been measured in accordance with a standardised test stated above and may be used to compare one tool with another
The declared vibration emission value may also be used in a preliminary assessment of exposure.

Warning: The vibration emission value during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used dependant on the following examples and other variations on how the tool is used:-
How the tool is used and the materials being cut.
The tool being in good condition and well maintained.
The use the correct accessory for the tool and ensuring it is sharp and in good condition.
The tightness of the grip on the handles.
And the tool is being used as intended by its design and these instructions.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

Warning: identify safety measures to protect the operator that 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 when the tool is switched off and when it is running idle in addition to the trigger time).Note The use of other tools will reduce the users' total working period on this tool.

Helping to minimise your vibration exposure risk.
ALWAYS use sharp blades.
Maintain this tool in accordance with these instructions and keep well lubricated (where appropriate).
Avoid using tools in temperatures of 10ºC or less.
Plan your work schedule to spread any high vibration tool use across a number of days.
Health Surveillance
All employees should be part of an employer's health surveillance scheme to help identity any vibration related diseases at an early stage, prevent disease progression and help employees stay in work.

Double insulation:

The tool is double insulated. This means that all the external metal parts are electrically insulated from the mains power supply. This is done by placing insulation barriers between the electrical and mechanical components making it unnecessary for the tool to be earthed.

Important note:
Be sure the supply is the same as the voltage given on the rating plate. The tool is fitted with a two-core cable and plug.
Remove the mains plug from socket before carrying out any adjustment or servicing.

SYMBOLS

Read the manual

Warning

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.

Wear ear protection

Wear dust mask

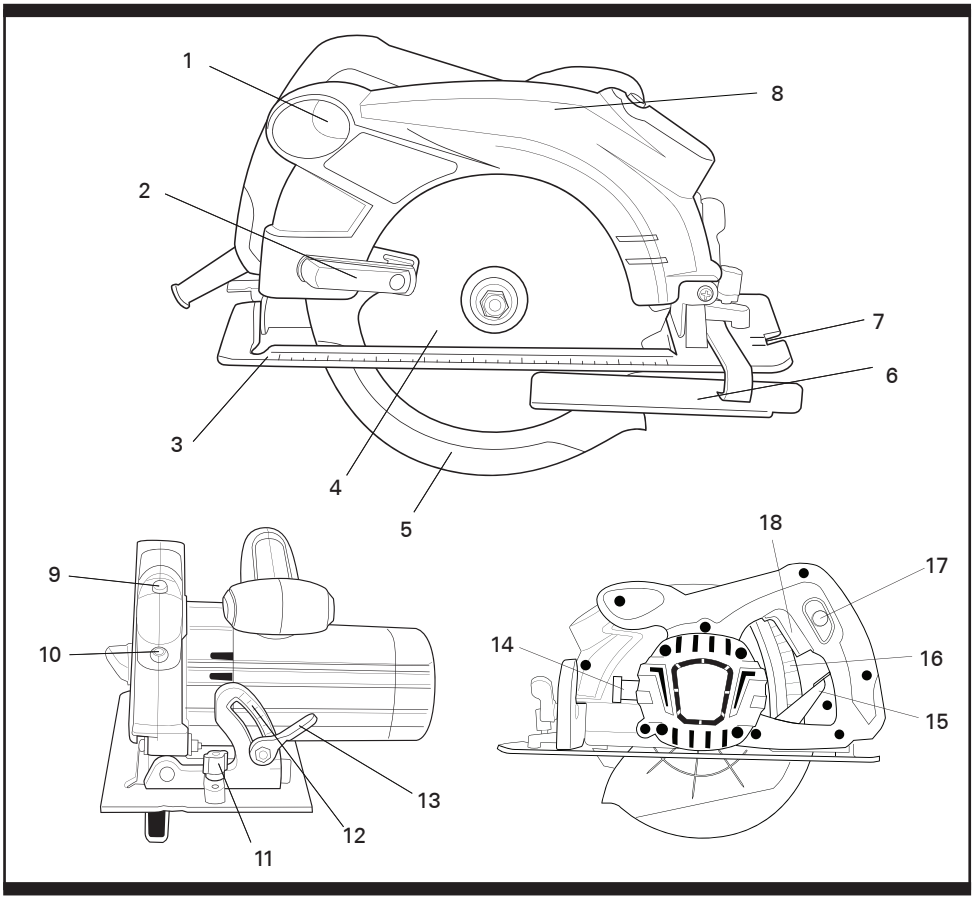
Wear eye protection

Double insulation

Laser radiation

Do not stare into beam

Conformity to CE directive



1 DUST EXTRACTION OUTLET

2 LOWER GUARD LEVER

3 BASE PLATE

4 SAW BLADE

5 LOWER BLADE GUARD

6 PARALLEL GUIDE

7 CUTTING GUIDE NOTCH

8 FIXED GUARD

9 LASER ON/OFF SWITCH
10 LASER
11 PARALLEL GUIDE LOCK
12 BASE PLATE ANGLE SCALE
13 BASE PLATE BEVEL LOCK
14 SPINDLE LOCK BUTTON
15 DEPTH OF CUT ADJUSTMENT LEVER
16 DEPTH OF CUT SCALE
17 LOCK OFF BUTTON
18 SAFETY ON/OFF SWITCH

TECHNICAL DATA

Voltage:	230-240V~ 50Hz
Input power:	2000W
No-load speed:	4800rpm
Blade diameter:	235mm
Blade bore:	30mm
Protection class:	II
Max. depth of cut:	
90 degree:	85mm
45 degree:	60mm
Machine weight:	6.4kg

LASER INFORMATION

Laser class:	Class 2
Wavelength:	650nm
Output power:	≤ 1mW
Energy source:	built in transformer

ACCESSORIES

Hex Key	**1pc**
Parallel guide	**1pc**
Blade	**1pc**

NOISE AND VIBRATION DATA

A weighted sound pressure	99.8dB(A) / KpA: 3dB(A)
A weighted sound power	110.8dB(A) / KwA: 3dB(A)
Wear ear protection when sound pressure is over	80dB

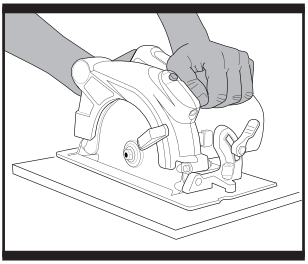


Fig. 1

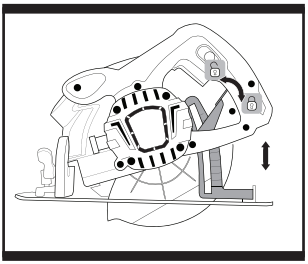


Fig. 2

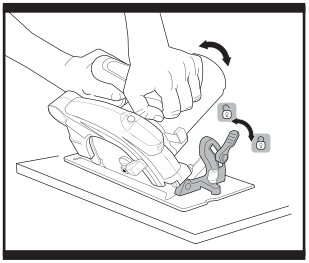


Fig. 3

OPERATIONS INSTRUCTIONS

Note: Before using the tool, read the instruction book carefully.

INTENDED USE

This circular saw shall be used for cutting wood or similar materials.Other uses for the tool will lead to the damage of the tool and a series of dangers to the operator. This tool is intended for DIY home use or occasional professional use.

1. SAFETY ON/OFF SWITCH

Your switch is locked off to prevent accidental starting. Depress lock off button (17) then pull the on/off switch (18) and release lock off button (17). Your switch is now on. To switch off just release the on/off switch.

2. HAND GRIP POSITION (Fig. 1)

Always hold your saw firmly with both hands when operating.

3. DEPTH OF CUT ADJUSTMENT (Fig. 2)

Hold the circular saw with the rear part facing against you. Lift up the depth adjustment lever(15) to loose it. Hold the base plate at the rear position and lift up the saw body until the blade is at the right depth. Use the depth scale (16) to determine the cutting depth. Push the depth locking lever (15) down to lock it securely.

NOTE: Always use the correct blade depth setting. The correct blade depth setting for all cuts should not be more than a full tooth of the blade teeth below the material being cut. Allowing more depth will increase the chance of kickback and result in a rough cut.

4. BASE PLATE ANGLE ADJUSTMENT

(Fig. 3)

Adjusting the angle of the base plate enables bevel cutting. Loosen the base plate bevel lock button (13) and rotate the base plate to set the bevel angle using the angle scale (12). Then clamp the base plate position using the bevel lock (13). Finally, check the angle and ensure the base plate is firmly clamped. Do not use the depth of cut scale when making bevel cuts due to possible inaccuracy.

5. PARALLEL GUIDE ADJUSTMENT (Fig. 4)

Parallel guide can be used for making cuts parallel to a work piece edge at a chosen distance. Slide the parallel guide arm through the slot and tighten the screw (11) to lock it into position.

This guide can be used from both sides of the base plate.

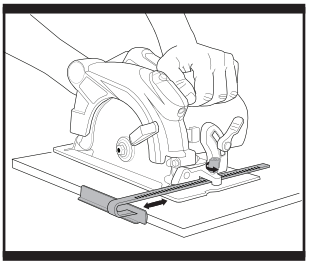


Fig. 4

6. LASER GUIDE (Fig. 5)

Mark the line of the cut on the workpiece first. Adjust the depth of cut and bevel angle as required and rest the front edge of the base on the workpiece. Only turn the laser on when your are ready to start cutting. Switch on the laser beam by pressing the laser switch button(9). Align the laser beam with the line on the workpiece. Start your cut carefully, keep the laser beam aligning with the marked cut line.

Always turn the laser off when not cutting.

Warning: Before proceeding to use the laser line system, ensure that the Additional Safety Rules for Laser Lights section is read and fully understood.

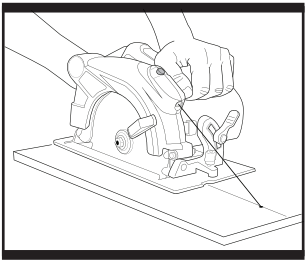


Fig. 5

7. CHANGING A SAW BLADE (Fig. 6)

Switch Off and unplug from power supply. Press the spindle lock button (14), and use the Hex key provided to remove the blade bolt and outer flange. Rotate lower blade guard (5) clockwise and hold open using the lower blade guard lever (2) whilst changing the saw blade.

Ensure the blade bore is located on the inner flange and the blade direction arrow points in the same direction as the fix guard arrow. Check the blade surface and flanges are clean. Press the spindle lock (14) again and re-fit the outer flange over spindle flats, and tighten bolt.

Check the blade is securely clamped.

WARNING: blade teeth are very sharp and wear gloves. For best cutting results ensure you use a saw blade suited to the material and cut quality you need.

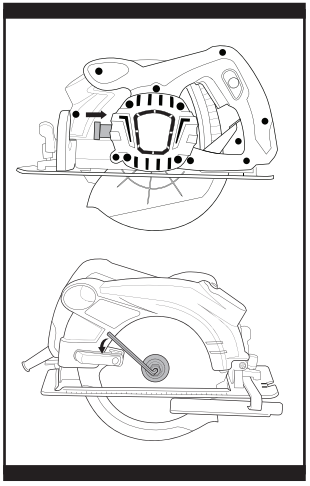


Fig. 6

WORKING HINTS FOR YOUR CIRCULAR SAW

If your power tool becomes too hot, run no load for 2-3 minutes to cool the motor. Avoid prolonged usage at very low speeds. Always use a blade suited to the material and material thickness to be cut. The quality of cut will improve as the number of blade teeth increases. Always ensure that the work-piece is firmly held or clamped to prevent movement. Support large panels close to the cut line. Any movement of the material may affect the quality of the cut. The blade cuts on the upward stroke and may chip the uppermost surface or edges of your work piece. When cutting, ensure your uppermost surface is a non- visible surface when your work is finished.

MAINTENANCE

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.
Your power tool requires no additional lubrication or maintenance. There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust. Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

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. For further information visit www.recyclemore.co.uk

UK PLUG REPLACEMENT

The fuse in the main plug of your power tool should always be replaced with one of identical rating.

Check the voltage given on your power tool matches the supply voltage.

The power tool is supplied with a fitted plug, however if you should need to fit a new plug follows the instruction below.

IMPORTANT

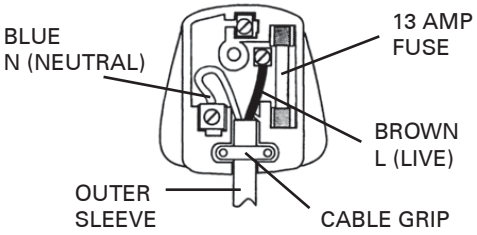
The wire in the mains lead are coloured in accordance with the following code:

Blue ---Neutral

Brown ---Live

The wire that is coloured **blue** must be connected to the terminal that is marked with the letter **N.** The wire that is coloured **brown** must be connected to the terminal that is marked with the letter **L.**

A 13AMP (BS1363 or BS1363/A) plug must be used and a 13 AMP fuse must be fitted.



TITAN®

Declaration of Conformity

We, Importer
Titan Power Tools (UK) Ltd
Trade house, Mead Avenue, BA22 8RT

Declare that the product:
Designation: CIRCULAR SAW 2000W
Model: TTB287CSW
Complies with the following Directives:
2004/108/EC Electromagnetic Compatibility Directive.
2006/95/EC Low Voltage Directive.
2006/42/EC Machinery Directive.
2002/95/EC Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
2002/96/EC and 2003/108/EC Waste Electrical and Electronic Equipment (WEEE)

Standards and technical specifications referred to:
EN 60745-1: 2009
EN 61745-2-5: 2007+A11: 2009
EN 55014-1: 2006+A1: 2009
EN 55014-2:1997+A1: 2001+A2: 2008
EN 61000-3-2: 2006
EN 61000-3-3: 2008

Authorised Signatory and technical file holder

Date: 07/07/2010

Signature: P.C.Harries

Name / title: Peter Harries / Quality Manager

Titan Power Tools (UK)Ltd. Trade House , Mead Avenue ,BA22 8RT

CE