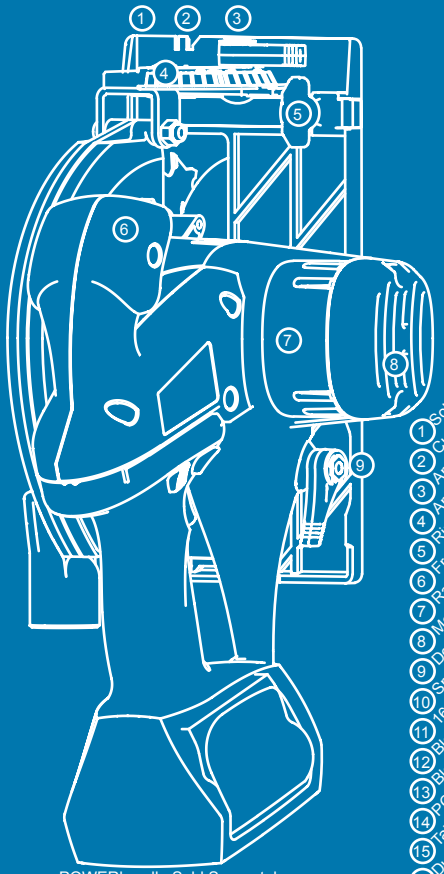
PROsaw

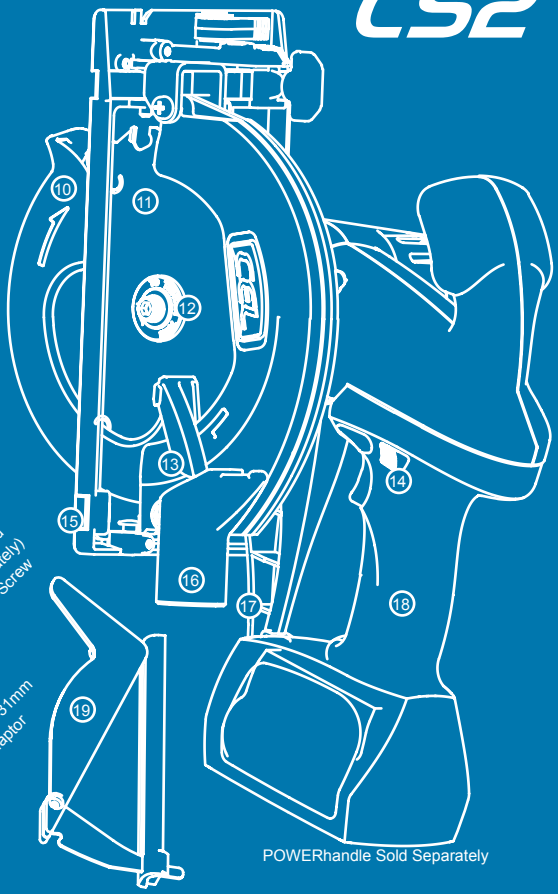
User Manual

CS2



POWERhandle Sold Separately

1. Sole Plate
2. Cut Guide
3. Angle Lock
4. Angle Scale
5. Rip Guide Lock
6. Front Handle
7. Rating Plate
8. Motor Vents
9. Depth Lock
10. Spring Loaded Blade Shield
11. 165mm Blade (Sold Separately)
12. Blade Locking Washer and Screw
13. Blade Shield Retractor
14. POWERhandle Release
15. Table Saw Shield Catch
16. Dust Extractor Fitting OD Ø31mm
17. 5mm Hex and 16-20mm Adaptor
18. Rear Handle
19. Table Saw Blade Shield



POWERhandle Sold Separately

18V POWERhandle

CELPRO

Thank you for investing in a CEL product.
The 18V Cordless PROsaw has been engineered and made to demanding high quality standards; ease of operation and safety have taken a major role in development.
Proper care of your product will give you years of trouble-free use.
Normal wear and tear, including accessory wear, is not covered under guarantee.
Following successful registration, the product is guaranteed for domestic use against manufacturing faults for a period of 24 months from the date of purchase.
This product is not guaranteed for hire purposes.
It is possible to download updated user manuals, view demonstration videos and find information about new products at:
www.cel-global.com
If you have any questions, please use the above website to find your nearest office.

Warning: All users must read and understand all instructions and warning labels and be fully aware of statutory safety directives before using the product to reduce the risk of injury. Failure to follow all instructions may result in electric shock, fire and/or serious personal injury. The product must be used only for its prescribed purpose. Any use other than those mentioned in this manual will be considered a case of misuse. The manufacturer shall NOT be liable for any damage or injury resulting from such cases of misuse, use of force, partially or completely dismantled appliances.

Declaration of Conformity

We declare under our sole responsibility that the product described in “Technical Specifications” is in conformity with the following standards or standardisation documents:
EN 60745-1:2009+A11:2010, EN 607452-5:2010 according to the provisions of
The Machinery Directive: 2006/42/EC
Technical file can be provided by:
CEL-HK 912 Nan Fung Commercial Centre, 19 Lam Lok Street, Kowloon Bay, Hong Kong

C Enterprise (UK) LTD
Unit 4 Harbour Road Trading Estate
Portishead, BS20 7BL, UK

Chris Elsworthy
Managing Director
26 March, 2013

This product contains materials that should be recycled but can not be disposed of with regular household waste. For disposal options contact your local recycling centre, council offices or your place of purchase.

CONTENTS

WARNING! For AC tools and appliances; check that input voltages on the rating plates and the plug types match your local mains supply. If it is different contact your supplier immediately and follow their advice. Do not modify the charger or plug in any way. For DC tools; only use batteries supplied or manufacturer recommended replacements.

This product is sold in several configurations. The images and descriptions in this user manual may differ from your product. For features or accessories not covered by this manual or if you are unsure about a feature or function contact your supplier or visit www.cel-global.com where you can find updated user manuals and compatible parts.

I.0 IMPORTANT NOTES


GENERAL HAZARD


READ INSTRUCTIONS


PROTECT VISION, HEARING, RESPIRATION


KEEP DRY


BE AWARE OF BYSTANDERS


FLYING DEBRIS


SHARP BLADES


WEAR APPROPRIATE CLOTHING

General Power Tool Safety Warnings

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 tools plus compatible chargers and accessories.
POWERhandle refers to an assembly containing a battery of cells, a trigger mechanism and other controls. A POWERhandle contains no user serviceable parts.

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. Always fully uncoil cables to avoid heat buildup.
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 and 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. Fully uncoil all cords in use.
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, and/or hearing protection used for appropriate conditions will reduce personal injuries. Be aware of dangerous conditions that can occur while working on certain materials. Take appropriate measures to reduce risk. For example; Oak and Beech can give off harmful dust. Use dust extraction and respiratory protection along with other safety precautions.
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) Battery tool use and care

a) Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
b) Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
c) When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
d) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

6) Service

Have your power tool serviced by a qualified and approved repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Safety Warnings for Circular Saw

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.

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

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.

Never hold the workpiece 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.

Hold power tool by the insulated gripping surfaces, when performing an operation where the cutting tool may run into hidden wiring. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

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

Always use blades which match those specified, never modify a blade or fitting. Blades that do not match the mounting hardware of the saw may run eccentrically, causing loss of control or other damage.

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.

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.
– When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator.
– If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

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

Maintain a firm grip 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.
When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.
Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
When restarting a saw in the workpiece, 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 workpiece as the saw is restarted.
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.

Do not use dull or damaged blades. Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

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

Use extra caution when making a "plunge cut" into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback.

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, the lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.

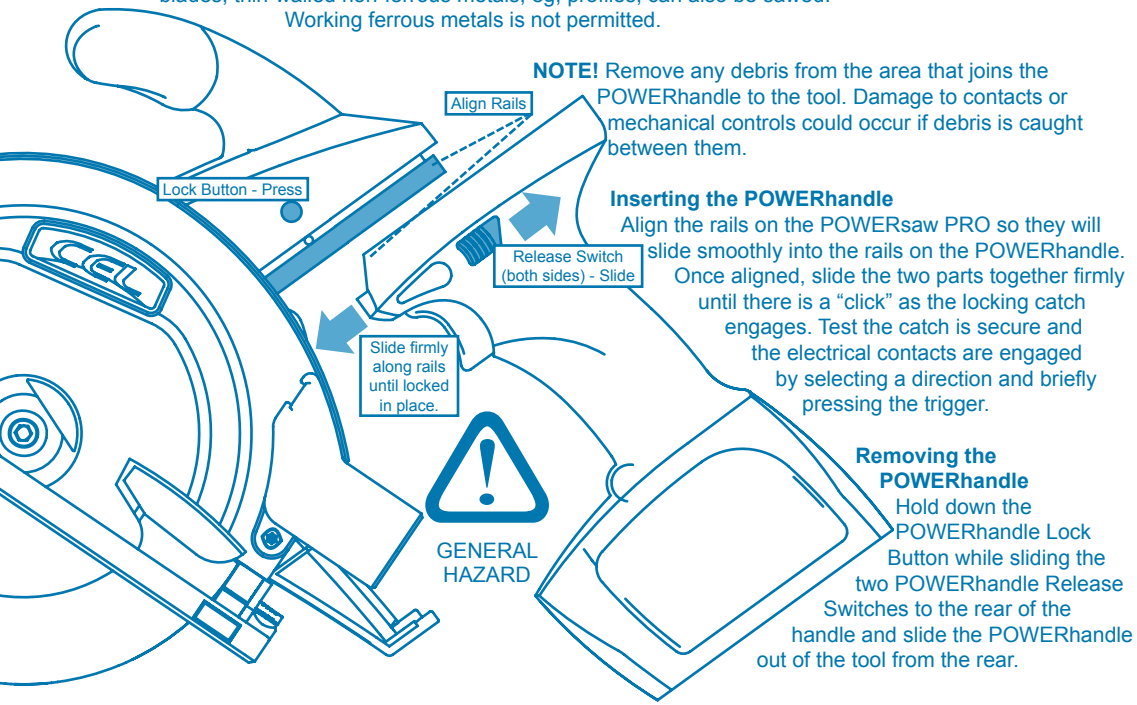
2.0 FITTING A POWERhandle

NOTE! These pages refer to the PH12 POWERhandle (sold separately).
If your POWERhandle is different please refer to the instructions provided with that product.

WARNING! When changing battery, blade or whenever the tool is not in immediate use the direction switch must be in its central locked position to prevent accidental starting. Ensure the tool will not be accidentally started by pressing the trigger.

Read and understand all safety warnings and all instructions before operating this product.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Intended Use
The machine is intended for lengthways and crossways cutting of wood with straight cutting lines as well as mitre cuts in wood while resting firmly on the work piece or correctly mounted in the POWER8 case. With suitable saw blades, thin-walled non-ferrous metals, eg, profiles, can also be sawed.
Working ferrous metals is not permitted.

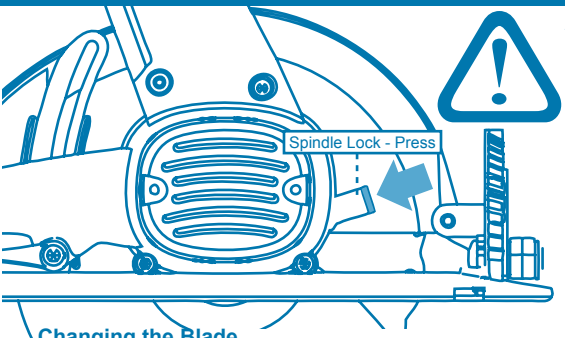


NOTE! Remove any debris from the area that joins the POWERhandle to the tool. Damage to contacts or mechanical controls could occur if debris is caught between them.

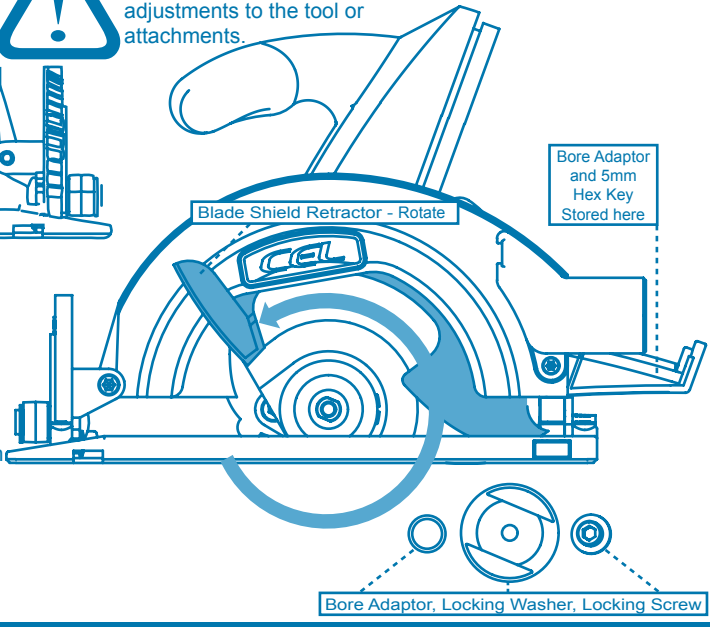
Inserting the POWERhandle
Align the rails on the POWERsaw PRO so they will slide smoothly into the rails on the POWERhandle. Once aligned, slide the two parts together firmly until there is a “click” as the locking catch engages. Test the catch is secure and the electrical contacts are engaged by selecting a direction and briefly pressing the trigger.

Removing the POWERhandle
Hold down the POWERhandle Lock Button while sliding the two POWERhandle Release Switches to the rear of the handle and slide the POWERhandle out of the tool from the rear.

FITTING AND REMOVING THE BLADE 3.0



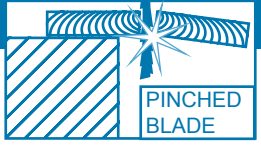
Always remove the battery before cleaning or making adjustments to the tool or attachments.

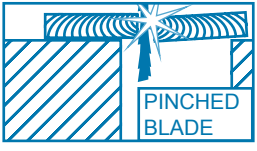


Changing the Blade

Remove battery.
Press and hold Spindle Lock.
Remove Locking Screw (reverse thread)
Remove washers.
Retract Blade Shield.
Remove Blade.
Fit replacement blade (use the 16 to 20mm Bore Adaptor if required).
Place Locking Washer.
Lock in place with Locking Screw and tighten firmly using a 5mm hex key, hold the Spindle Lock to prevent the blade from turning.

Prepare Your Work 4.0



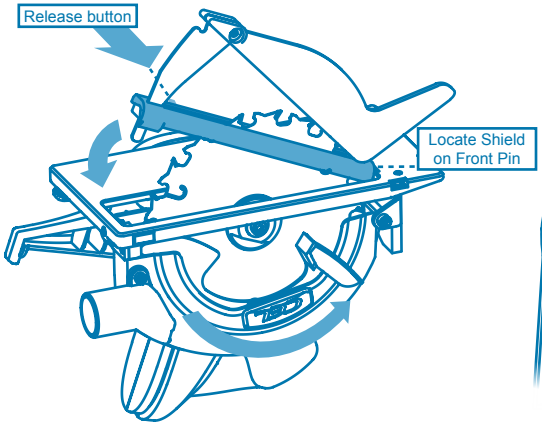


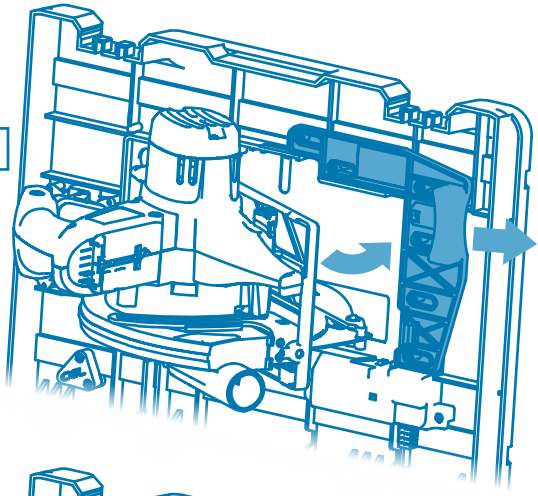
By preparing your work and work area you will be able to perform your cuts more accurately, efficiently and safely. Supporting your work will prevent blade pinch allowing the blade to pass more freely through the work, this will greatly improve battery life and appearance of cut as well as reducing dangerous kickback.

WARNING! Ensure there is nothing under the work piece that will touch the blade.

5.0 CONVERTING TO A TABLE SAW

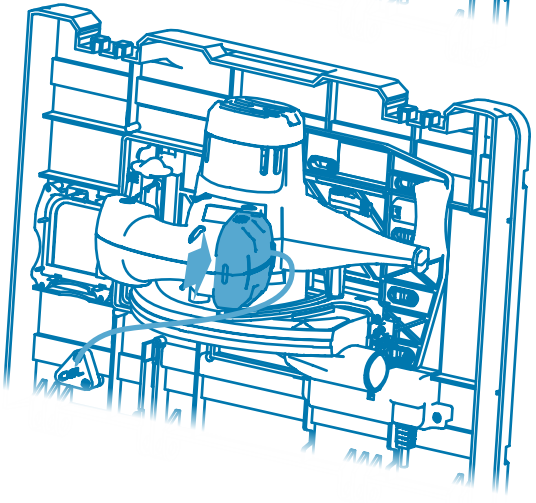
NOTE! These pages refer to the POWER8case (sold separately).
If your Case is different please refer to the instructions provided with that product.





Fit the Table Saw Blade Shield (required)
Rotate and hold the Spring Loaded Blade Shield out of the way. Fit the slot on the front of the Table Saw Blade Shield onto the Front Pin on the Sole Plate just in front of the blade. Rotate the Table Saw Blade Shield down so the blade goes through the slot then press it down until it is securely held in place by the clip on the sole plate at the rear of the blade.

Fit the saw to the Case Lid
Open the case lid and remove any fitted tools.
Slide the Locking Slider out of the way. Fit the nose of the Sole Plate into the recess on the case lid and the blade through the slot in the case lid. Rotate the saw into place and release the Locking Slider, ensure it slides back to hold the saw in place securely.
Fit the Internal Power Coupling onto the Rails on the saw in where the POWERhandle connects for handheld use. Set Blade Depth and Blade Angle as normal then close and latch the lid.
Fit a POWERhandle into the dock on the case. Use the Green and Red On/Off buttons to start and stop the saw.

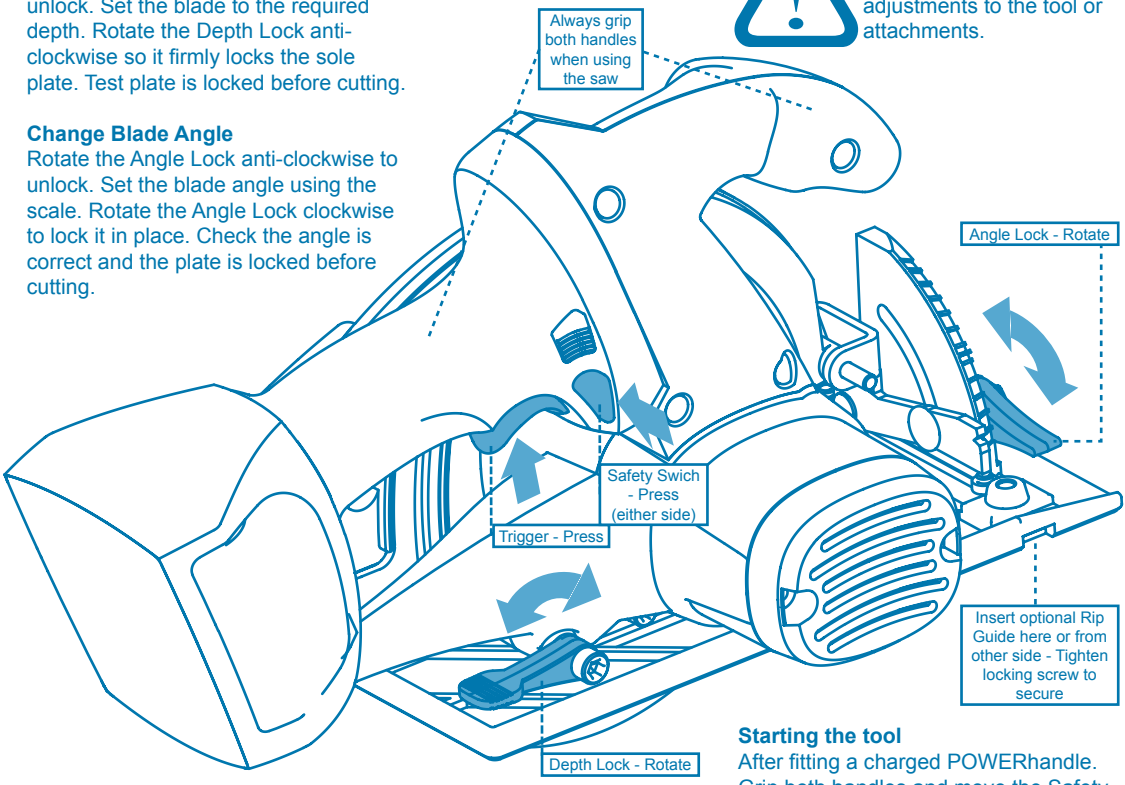


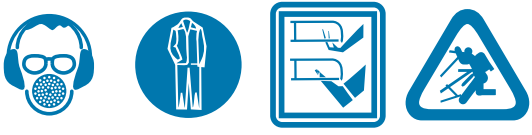
OPERATING THE TOOL 6.0

Change Blade Depth
Rotate the Depth Lock clockwise to unlock. Set the blade to the required depth. Rotate the Depth Lock anti-clockwise so it firmly locks the sole plate. Test plate is locked before cutting.

Change Blade Angle
Rotate the Angle Lock anti-clockwise to unlock. Set the blade angle using the scale. Rotate the Angle Lock clockwise to lock it in place. Check the angle is correct and the plate is locked before cutting.

Always remove the battery before cleaning or making adjustments to the tool or attachments.





Starting the tool
After fitting a charged POWERhandle. Grip both handles and move the Safety Switch from the central position to either side to allow the trigger to be pressed. Be prepared for sudden kickback then squeeze the trigger to start the saw.

7.0 OPERATION TIPS

READ ALL INSTRUCTIONS

• Mark your cut and use the notch at the front of the Sole Plate to guide the blade.
• Set the depth of cut so it just clears the timber. 2-5mm is enough. This will help prevent blade binding, help prevent splintering and improve efficiency.
• Start the saw and allow it to reach full speed before starting the cut. Maintain a steady, even pressure and speed that does not slow the rotation speed. Ease off slightly if the blade slows but continue the cut in one pass when possible and safe to do so to ensure a clean cut.
• Use a guide. A rail system is best, a straight edge clamped to the work piece is a good alternative. Fit the adjustable rip guide onto the saw to use the edge of the work piece as a guide. For short rips, a single clamp can be positioned on the work piece so the edge of the sole plate runs against it -see the sole plate measurements at the bottom of this page.
• A smoother finish can be achieved by using a blade with more teeth.
A blade with less teeth will make a faster, rougher cut that uses less energy.
• The teeth of the blade can cause cracks and splintering as they exit whereas the entry side will have a smoother finish. When cutting a finishing piece -eg a worktop or skirting board. Face the finished side downward and run the saw along the back. Scoring timber can also help prevent splintering.
• Splintering can be reduced when cutting diagonally across grain by cutting with, rather than against the grain.
• Slow down slightly but follow through at the end of a cut to prevent scuffing the cut with the back of the blade or leaving snags or chips. Ensure the blade has cleared the cut before allowing the saw to leave the guide.
• When cutting thick timber or performing compound or angled cuts it may be necessary to rotate the blade shield to prevent it stopping the cut as it hooks on the edge of the work piece. Use the Blade Shield Retractor to rotate the shield into the saw. As the rear of the blade enters the work piece, release the Blade Shield so it rests on the surface of the work and will safely cover the blade when it exits the cut.
• When doing big jobs that require constant charging of the batteries remember that you can swap Li-Ion batteries at any time during a charge/discharge cycle. A 2.6Ah POWERhandle will be charged to 80% of its full capacity in the first 30 minutes on the fast charger, the final 20% capacity charges at a lower current.
• The maximum capacity of a Li-Ion battery drops faster in warm conditions permanently reducing its working lifetime. Storing the batteries at a stable temperature below 20°C (68°F) and above freezing will allow them to retain a higher capacity throughout their life, avoid keeping them in hot vehicles or storage areas. This is different to other types of battery such as NiCD, NiMh and Pb which last longest in a warmer environment 10ºC - 24ºC (50ºF -75ºF).
• Never store a Li-Ion battery for a long period with a low charge, maintain 40 to 80% charge in general use and storage to avoid premature failure. Once every 10 charge cycles it is advised to fully discharge, then fully charge the battery, this will help maintain maximum capacity.

CARE AND ENVIRONMENT 8.0

General inspection
Regularly check that all the fixing screws are present and tight, they may vibrate loose over time.
Keep the tool's air vents unclogged and clean at all times.
Remove dust and dirt regularly.
Cleaning is best done with compressed air or a rag.

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

After each use, carefully clean the tool with a brush or rag.
Clear any debris from around the battery mount, moving parts and clips.

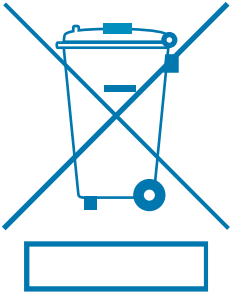
Lubrication
No internal lubrication is necessary, the bearing area is sealed.
A coating of machine oil on the blade will help prevent corrosion but must be cleaned off before cutting wood.

Storage
Store the tool, instruction manual and accessories in a secure, dry place. In this way you will always have all the information and parts ready to hand.
Lithium ion batteries should ideally be stored with 40 to 80% capacity between 10ºC and 20ºC (50ºF and 68ºF). Other parts should be stored between 10ºC and 24ºC (50ºF and 75ºF).

WARNING! Always charge Li-ion batteries before storage and at least every 3 months to prevent permanent damage.

KEEP DRY

BE AWARE OF BYSTANDERS



Environment
When the time comes to dispose of this product please consider the environment and take it to a recognised recycling facility instead of disposing with general household waste.
Call your local council, civic amenity site, or recycling centre for information on the recycling and disposal of electrical products and batteries. If you do not have access to suitable disposal facilities in your area please contact your place of purchase, they will advise you on the best way to dispose of your product.

More information
www.cel-global.com or from your supplier.

Maintenance
All electrical parts should be regularly serviced by an approved engineer.

9.0 TECHNICAL SPECIFICATIONS

General Hazard

Wear Eye, Ear and Respiratory protection

Wear appropriate clothing

Be aware of surroundings at all times

PRODUCT CODE	CS2
SAW BLADE DIAMETER MAX	165mm
SAW BLADE THICKNESS MIN/MAX	1.0mm / 1.2mm
KERF MIN/MAX	1.0mm / 1.5mm
CUTTING DEPTH MAX	57mm
CUTTING DEPTH MAX @45°	35mm
BLADE MOUNTING BORE	16mm (20mm with adaptor washer)
NO LOAD SPEED	4000rpm
MOTOR TYPE/RATED VOLTAGE	MABUCHI RZ-8BAWA / 18V DC
COMPATIBLE POWERhandles	PH01, PH02, PH03, PH04, PH11, PH12

SUPPLIED BLADE	SB03 General Purpose Wood (Optional)
SIZE	165mm
BORE	16mm
KERF	1.5mm
TEETH	18T

No person should use this product without first reading and understanding all documentation and warning labels. Keep these instructions safe and provide them to all users.
For use only as outlined in this document, any other use will be considered as misuse.

If you experience any problems with the product please contact
email: service@cel-global.com
phone UK: +44 8453 889769
phone US: +1 800 233 7592
www.cel-global.com

This product contains materials that should be recycled but can not be disposed of with regular household waste. For disposal options contact your local recycling centre, council offices or your place of purchase.

RoHS COMPLIANT 2002/95/EC

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UK • HK • USA • China • Europe • Australia • Japan

Designed in UK Printed in China
Manual Version: 120326

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