

TECHNICAL SPECIFICATIONS

PRODUCT CODE • 144CS	• 144RS	• 144JS
MOTOR TYPE • Hongyang #775	• Hongyang #550	• Hongyang #550
RATED VOLTAGE • 14.4V	• 14.4V	• 14.4V
GEARBOX / RUNNING GEAR • METAL	• METAL	• METAL
NO LOAD SPEED • 2000RPM	• 0-2200RPM	• 0-2200RPM
CUT DEPTH / STROKE LENGTH • 38mm (1 1/2")	• 13mm (1/2")	• 19mm (3/4")
BLADE FITTING • 110mm, 20mm bore	• STANDARD 1/2"	• U or T
CUTTING CAPACITY:		
STEEL • 13mm (1/2")	• 13mm (1/2")	• 13mm (1/2")
WOOD • 38mm (1 1/2")	• 40mm (1 1/2")	• 40mm (1 1/2")
WEIGHT WITH 144BP15 • 1.70kg (3b 12oz)	• 1.29kg (2b 13oz)	• 1.52kg (3b 5oz)

This product is sold in several configurations. The Rating Label is fixed inside the battery compartment, check the codes on the Rating Label on your product match those in this user manual. The Rating Label will show basic warnings and specifications. 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.

No person should use this product without first reading and understanding all documentation and warning labels and those from accessories and attachments used. 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.

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.

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IMPORTANT SAFETY NOTES

Intended use of 144CS
With an appropriate blade fitted this saw is intended for short cuts in wood up to a depth of 38mm in straight lines at 90° to the sole plate.

Intended use of 144RS
This tool is intended for straight cuts in small diameter or thin walled materials with fitted accessories specifically designed for this tool which provide the appropriate design for sawing or cutting of wood, plastic, metal and similar composite materials.

Intended use of 144JS
This tool is intended for straight cuts or large radius curved cuts in soft materials up to 40mm thick or hard materials up to 15mm thick with fitted accessories specifically designed for this tool which provide the appropriate design for sawing or cutting of wood, plastic, metal and similar composite materials.

General Safety Rules for Power Tools
Read all 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.

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.

Additional Safety Warnings for Saws
• Check the workpiece for any protruding nails, screw heads or anything that could damage or obstruct the blade.
• Do not force the saw, let the saw and fitted blade do the work.
• Do not try and cut a curve with a tool and blade not designed for this purpose. Undue pressure on the blade may cause it to snap or jam.
• Never use the saw near flammable liquids or gases.
• Allow the saw to stop completely before removing it from the workpiece or removing cuttings or debris from around the blade.
• Keep hands away from cutting area and blade.
• Do not reach underneath the workpiece.
• If you are interrupted when operating the saw, complete the process and switch off before looking up.
• Always hold the saw on parts that are insulated. If you accidentally cut into hidden wiring or the saw's own cable, the metal parts of the saw will become "live".
• Ensure the blade is held tightly by the locking system but can run freely in the blade guides and shields. Adjust as necessary for each blade used.
• Always secure your work and hold the tool with both hands while it is running. Kickback can cause the tool or the workpiece to violently and unexpectedly react as the saw blade jams or grabs at the material.

Declaration of Conformity
We declare under our sole responsibility that the products described in "Technical Specifications" is in conformity with the following standards or standardisation documents:
144CS
EN 60745-1:2009+A11:2010
EN 60745-2-5:2010
ZEK 01.4-08, ISSUE 29-11-2011
EN 55014-1:2006+A1:2009+A2:2011
EN 55014-2:1997+A1:2001+A2:2008
144RS, 144JS
EN 60745-1:2009+A11:2010
EN 60745-2-11:2010
ZEK 01.4-08, ISSUE 29-11-2011
EN 55014-1:2006+A1:2009+A2:2011
EN 55014-2:1997+A1:2001+A2:2008
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Managing Director - 6th May, 2014
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Portsmouth, BS20 7BL, UK
Technical file can be provided by:
CEL-HK 912 Nan Fung Commercial Centre,
19 Lam Lok Street, Kowloon Bay, Hong Kong

If you experience any problems with the product please contact your supplier or find your regional office via the website:
www.cel-global.com

Guarantee
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. Proper care is required to maintain this product in working condition. This product is not guaranteed for hire purposes. If you have any questions, please contact us.

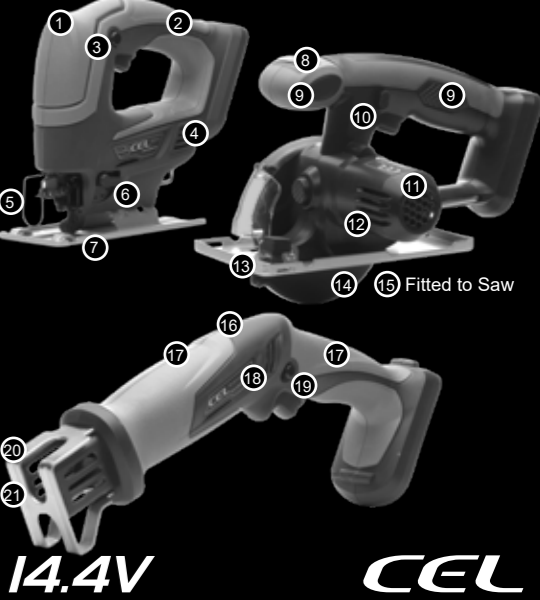
WARNING SYMBOLS

- GENERAL HAZARD
- READ INSTRUCTIONS
- PROTECT VISION, HEARING, RESPIRATION
- FLYING DEBRIS
- BE AWARE OF OTHERS
- KEEP DRY
- PROTECT FROM OVERHEATING
- WEAR APPROPRIATE CLOTHING
- SHARP BLADES

This user manual refers to the battery 144BP15 which is covered in another user manual. There are specific sections which are applicable only to the 144CS Circular Saw, the 144RS Reciprocating Saw and the 144JS Jigsaw.
Users must read and understand all warnings and documentation relevant to attachments, accessories and materials used. If absent, replacement user manuals can be found via www.cel-global.com

- 144JS Jigsaw**
 - ① Handle
 - ② Safety Lock Button
 - ③ Motor Vents
 - ④ Quick Release Blade Holder
 - ⑤ Pendulum Intensity Selector
 - ⑥ Sole Plate
- 144CS Circular Saw**
 - ⑧ Front and Rear Handles
 - ⑨ Safety Lock Button
 - ⑩ Motor Vents
 - ⑪ Blade Depth Locking Screw (behind)
 - ⑫ Width Guide (fitted) and Locking Screw
 - ⑬ Spring Loaded Blade Shield
 - ⑭ Blade Locking Screw and Washer
- 144RS Reciprocating Saw**
 - ⑮ Front and Rear Handles
 - ⑯ Motor Vents
 - ⑰ Safety Lock Button
 - ⑱ Sole Plate
 - ⑳ Blade Holder

User Manual Jigsaw Circular Saw Reciprocating Saw



PREPARATION

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.

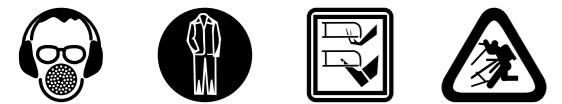
WARNING! For AC tools and devices; check that input voltages on the rating plates and the plug types match your local mains supply. If different, contact your supplier immediately and follow their advice. Do not modify the charger or plug in any way. For DC tools; only use batteries and chargers specifically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

Prepare your tools and work piece

- Charge your battery as described in the documents provided with the battery.
- Select the appropriate accessory for your work.
- Secure your work so it is safe and accessible. Carefully mark areas to be cut or aligned.
- Fit an appropriate accessory to your tool as described in the following sections. Check it is properly seated in the chuck / fixing and secured.
- Fit a charged battery as described in the documents provided with the battery, check it is secure, ensure the moving parts are free to turn without doing any harm and run the tool briefly to test both the battery and the alignment of the accessory. Adjust and retest as required.

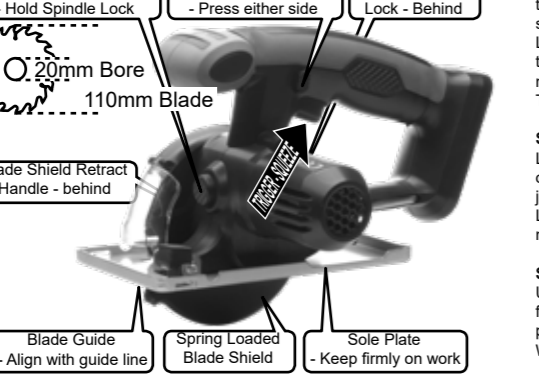
To start the tool

Press the Safety Lock into the tool, then squeeze the trigger. The 144CS Circular Saw will run at full speed, the 144RS Reciprocating Saw and the 144JS Jigsaw will gradually increase in speed as the trigger is pressed in further.



144CS Circular Saw

Ideal for repeatable straight cutting @ 90°



Always hold both handles when the tool is running.

Check the blade is in good condition and is correctly fitted

Remove all batteries and power supplies before doing any maintenance or cleaning.

To remove the blade, press and hold the spindle lock on the front of the 144CS to prevent the blade from turning, DO NOT HOLD THE BLADE.

Using the 4mm HEX key provided in the lower handle, loosen the blade locking screw by turning it anti-clockwise. Remove the screw, the locking washer and then rotate the spring loaded blade shield to remove the blade. Under the blade is a shaped spindle washer which should be removed before cleaning the saw. Clear any debris from the area in preparation for fitting a blade.

Inspect the blade, particularly the hardened tips, if any are damaged or missing the blade must be replaced.

Fit the shaped spindle washer first, then rotate the blade shield out of the way to fit the blade over the shaped spindle washer, the bottom of the blade will rotate toward the front of the saw, the direction of the

arrows on the blade must match those on the saw. Check that the blade is sitting correctly on the spindle and washer. Fit the locking washer over the central spindle so its edges press against the blade. Fit the locking screw and tighten in a clockwise direction. Press and hold the Spindle Lock to stop the blade from rotating and use the 4mm HEX key to tighten the locking screw very firmly. Check the blade is sitting correctly on its mounting and is secure. Test by running the saw briefly before cutting anything.

Set the depth

Loosen the Blade Depth Lock and rotate the Sole Plate so that the part of the blade protruding through the sole plate will cut deep enough to just pass through the thickness of your material. Tighten the Blade Depth Lock securely. Setting the blade in this way will result in a safer cut and more efficient use of the battery.

Set the cut width

Use the included Width Guide to cut along a length at a regular distance from a straight edge. Insert the Width Guide into either side of the sole plate, set the required distance from the blade and lock in place with the Width Locking Screw.

WARNING!

Always secure your work and hold the tool with both hands while it is running. Kickback can cause the tool or the workpiece to violently and unexpectedly react as the saw blade jams or grabs at the material.

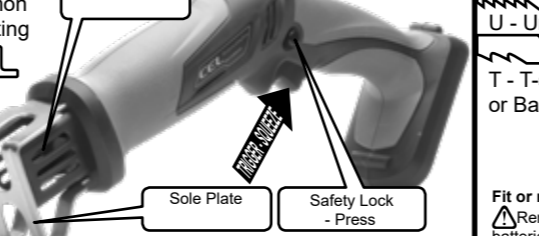
Blades and cuttings can become extremely hot.

Sharp blades, heat buildup, harmful dust and flying debris are a danger to user and bystanders. Use of suitable protective clothing, gloves, footwear, lung, eye and ear protection as well as safe working practices can reduce these risks. Always switch a tool off prior to any adjustment or when fitting or removing a battery.

If the battery is hot, damaged or emitting smoke or strong smells it should not be used. Contact your seller or CEL to replace faulty items.

144RS Reciprocating Saw

Great for demolition, awkward and quick cuts



Fit or remove a blade

Remove all batteries and power supplies before doing any maintenance or cleaning.

Using the supplied 4mm HEX key, loosen the Locking Screw but do not remove it completely. Insert a suitable blade so the hole in the blade hooks over the lug inside the Blade Holder, the blade can be fitted so it cuts upward or downward. Tighten the Locking Screw gradually, checking the blade is correctly aligned as the Blade Holder closes. Finally, tighten the Locking Screw firmly, check the blade is properly seated and secure and run the tool briefly before cutting anything. To remove the blade, loosen the Locking Screw and remove the blade, tighten the Locking Screw so it cannot fall out.

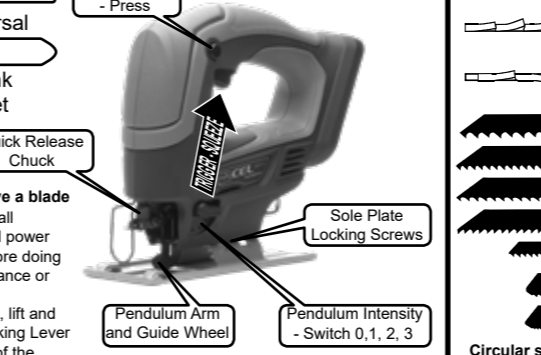
Using the Reciprocating Saw

Reciprocating saws can vibrate a lot in use, less vibration will be transferred to the user if the sole plate is firmly pressed against the work piece.

If using to prune branches from a tree, cut a small wedge from the underside of a branch to stop splintering then always perform the final cut from above a branch so the cut opens up as the branch falls. This will prevent the blade from jamming. This method may be reversed if the branch is under tension from another direction, eg when it is underneath and supporting the weight of a fallen tree.

144JS Jigsaw with Pendulum

Great for curves, angles and fast cuts



Fit or remove a blade

Remove all batteries and power supplies before doing any maintenance or cleaning.

To fit a blade, lift and hold the Locking Lever on the front of the Blade Holder and insert a suitable blade. The rear of the blade must be inside the groove of the Guide Wheel on the Pendulum Arm. The top straight part of the Universal blade or the "T" parts of a T-shank blade will be completely within the chuck. Release the Locking Lever, and pull on the blade to check it is firmly held in place. Test the blade is secure by briefly running the tool before cutting.

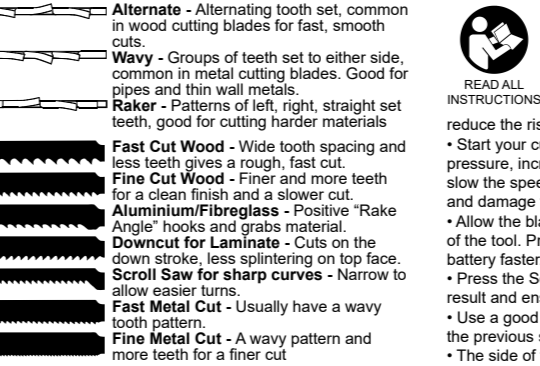
Pendulum Action

This action pushes the blade forward during the upstroke, this increases the cutting rate significantly but will reduce control around curves. For fine work or cutting metals or hardwood it is best to leave this feature off.

Cutting curves or angling the sole plate

Use the included 3mm HEX key to loosen the Sole Plate Locking Screws. Rotate to the desired angle and slide the plate all the way forward to engage the locking teeth with the locking pins, tighten the locking screws.

COMMON BLADE TYPES



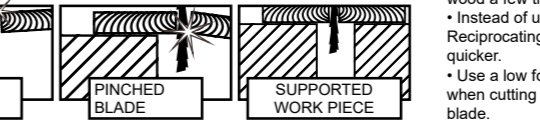
Circular saw blades

Choose blades with TCT (Tungsten Carbide Tips) for most woodworking, these tips are hard wearing and can be re sharpened. More teeth give a finer cut and are good for harder materials, less teeth will cut faster and more efficiently but leave a rough finish with more splintering at the exit of the cut. Blade size and bore must match original, "kerf" is the cut width.



Supporting your work

Support your work close to both sides of the cut to prevent blade "pinch" as the work is cut. Clamp both sides in a way that does not allow the cut to close up on the saw blade.



OPERATION TIPS

Mark your work carefully, allow for the thickness "kerf" of the blade in your measurements. Secure your work in such a way that the blade does not cause it to shake or vibrate and so that the blade is not pinched as the work is cut. By securing the work the blade will cut faster and the cut will be more controlled. This will reduce the risks of kickback and items moving or dropping unexpectedly.

Start your cut slowly, use a low speed where available and a light pressure, increase the speed and pressure as the cut progresses then slow the speed a lower the pressure at the end of the cut to prevent slips and damage to the work from splintering.

Allow the blade to cut the material at a rate that does not slow the motor of the tool. Pressing so hard that the motor slows will only drain the battery faster. Press the Sole Plate firmly against the workpiece, this will give a better result and ensure the tool is operating in a safe and efficient way. Use a good quality sharp blade with the correct profile as described in the previous section.

The side of the work where the blade exits will be more prone to splintering than the entry side. For less splintering on the good surface of the workpiece place it facing down away from the sole plate. Most jigsaw blade teeth cut on the upstroke pulling the work toward the soleplate, blades are available that have teeth facing the other way, these are used when splintering on the top surface is to be avoided, be aware that the handling of the tool when using these blades is more difficult. Do not use pendulum action with a downward cutting blade.

Use the 144CS to create a quick lap joint. Set the blade depth so it cuts to the bottom line of your lap joint, carefully cut each edge then cut at 2-4mm intervals across the whole area to be removed. Snap out the remaining timber and test the fit of the mating part of the joint. Clean up as required with a chisel or just run the saw blade over the remaining wood a few times. Instead of using a hacksaw, fit a metal cutting blade to the 144RS Reciprocating saw or the 144JS Jigsaw to make cutting metal a lot quicker. Use a low forward pressure and slow speed for both curves and angles when cutting with the 144JS Jigsaw this will help prevent bending of the blade.

CARE AND ENVIRONMENT

General inspection

Regularly check that all the fixing screws are present and tight, they may vibrate loose over time. Keep the device's air vents unclogged and clean at all times. Remove dust and dirt regularly, before it can build up. 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 device. After each use, remove the battery and carefully clean the tool and battery with a brush or rag. Clear any debris from around the battery mount, moving parts and clips.

Storage

Store all tools, instruction manuals 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% charge between 10°C and 20°C (50°F and 68°F).

WARNING! Always test and charge Li-ion batteries before storage and at least every 3 months to prevent permanent damage. Using the battery for a short period then charging it will allow the charger to balance the voltage between the 4 cells.

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.

Contact 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.

Maintenance

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

