

TECHNICAL SPECIFICATIONS

PRODUCT CODE • 144MT	• 144RT	• 144CH	• 144DS
MOTOR TYPE • Hongyang #550	• Hongyang #390	• Hongyang #390	• Hongyang #550
RATED VOLTAGE • 14.4V	• 14.4V	• 14.4V	• 14.4V
RUNNING GEAR • METAL	• METAL	• METAL	• METAL
NO LOAD SPEED • 14500RPM	• 0-26000RPM	• 11500RPM	• 1100RPM
STROKE/OSCILLATION • 2.8°	• N/A	• 3mm (1/8")	• 1.6mm (1/16")
ACCESSORY FITTING • CEL OIS	• 3.2mm	• Common 1/4"	• 97x140mm
WEIGHT WITH 144BP15 • 1.02kg (2b 4oz)	• 0.56kg (1b 3oz)	• 0.84kg (1b 14oz)	• 1.07kg (2b 6oz)

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

IMPORTANT SAFETY NOTES

Intended use of 144MT

This product is intended for use with accessories specifically designed for this tool which provide the appropriate mechanism for sawing, cutting, grinding or sanding of wood, plastic, mortar, non-hardened metal and other similar materials. The offset of the Output Shaft and design of some blades allows cutting flush to surfaces.

Intended use of 144RT

This tool is intended for cutting, grinding and shaping most materials with an appropriate accessory fitted. The high speed output has low torque, if the motor slows the tool cannot function as intended, light or no pressure must be used so the speed it maintained.

Intended use of 144CH

This tool is intended for light carving and shaping of wood or plastics using an appropriate accessory.

Intended use of 144DS

This tool is intended for use with sanding sheets designed specifically for this machine. With the appropriate hook and loop sheet the machine is intended for gradual removal of surface imperfections and light surface coatings.

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

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.

- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

- 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.
- 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 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.
- 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.
- 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

- 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.
- 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.
- 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.

- 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.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 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.
- 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

- 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.
- 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.
- 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.
- 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.
- 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.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 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

- 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.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- 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.
- 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 Cutting, Grinding and Sanding Tools

- Check the workpiece for any protruding nails, screw heads or anything that could damage or obstruct the accessory.
- Do not force the tool, let the tool and fitted accessory do the work.
- Do not try and cut a curve with a tool and accessory 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 tool 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".

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.

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:

144MT
EN 60745-1:2009+A11:2010
EN 60745-2-4:2009+A11:2011
ZEK 01 4-08, ISSUE 29-11-2011
EN 55014-1:2009+A1:2009+A2:2011
EN 55014-2:1997+A1:2001+A2:2008

144RT
EN 60745-1:2009+A11:2010
EN 60745-2-3:2007+A11:2009
EN 55014-1:2009
EN 55014-2:1997+A1:2001

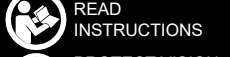
144CH, 144DS
2006/42/EC
Chris Elsworth
Chris Elsworth
Managing Director - 6th May, 2014
C Enterprise (UK) LTD
Unit 4 Harbour Road Trading Estate
Portsmouth, BS20 7BL, UK

Technical file can be provided by:
CEL-HK 912 Nan Fung Commercial Centre,
19 Lam Lok Street, Kowloon Bay, Hong Kong

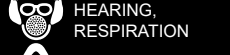
WARNING SYMBOLS



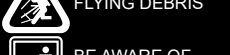
GENERAL HAZARD



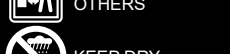
READ INSTRUCTIONS



PROTECT VISION, HEARING, RESPIRATION



FLYING DEBRIS



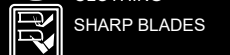
BE AWARE OF OTHERS



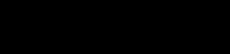
KEEP DRY



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 144MT Oscillating Multi-tool, the 144RT Rotary Tool, the 144CH Motorised Chisel and the 144DS Delta Palm Sander. 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

- 144MT Oscillating Multi-tool
 - 1 Output Shaft
 - 2 Motor Vents
 - 3 On/Off Switch
 - 4 Battery Fitting
- 144RT Rotary Tool
 - 6 Locking Collar and Collet
 - 7 Spindle Lock
 - 8 On/Off Switch and Speed Control
 - 9 Battery Fitting
- 144CH Power Chisel
 - 11 Blade Holder and Locking Collar
 - 12 On/Off Switch
 - 13 Battery Fitting
- 144DS Delta Palm Sander
 - 14 Dust Bag and Bag Holder
 - 15 On/Off Switch
 - 16 Battery Fitting
 - 17 Sanding Pad
 - 18

User Manual

Oscillating Multi-tool

Rotary Tool

Power Chisel

Delta Palm Sander



14.4V CEL

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

1. Charge your battery as described in the documents provided with the battery.
2. Select the appropriate accessory for your work.
3. Secure your work so it is safe and accessible. Carefully mark areas to be cut or aligned.
4. Fit an appropriate accessory to your tool as described in the following sections. Check it is properly seated in the chuck / fixing and secured.
5. 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 or move 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

The switch is marked with symbols to show OFF  and ON . Switch to the  position to start the tool, when using the 144RT Rotary Tool the speed starts at the 00 position, press the  to start rotation and again to increase the speed. The 144CH Power Chisel is started by pressing the blade against a workpiece.

To stop the tool

Switch to the  position to stop the tool. Remove the battery when changing the accessory, making adjustments to the tool or cleaning debris from it.

WARNING!

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.

144MT Oscillating Multi-tool

Excellent all rounder, perfect for flush cuts and awkward jobs



Fit or remove a blade

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

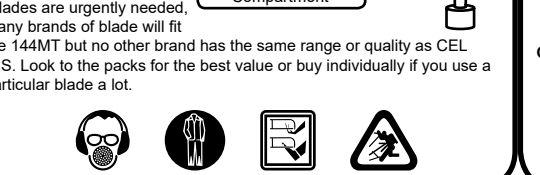
Using the Included 5mm HEX key, loosen and remove the Locking Screw and washer. Choose an appropriate blade and place it on the Output Shaft so that all the lugs protrude through the holes on the attachment. Hold the attachment in place while fitting and securing the Locking Washer and Screw, tighten firmly with the 5mm HEX.

Some attachments have an offset to allow flush cutting, these blades should be fitted as in the image on the right so the Locking Screw does not protrude. It is possible to fit the blade so it points in nearly any direction for difficult to reach areas.

If blades are urgently needed, many brands of blade will fit the 144MT but no other brand has the same range or quality as CEL OIS. Look to the packs for the best value or buy individually if you use a particular blade a lot.

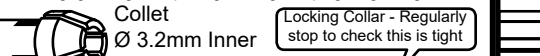


Rotatable Battery Compartment



144RT Rotary Tool

Detailing, grinding, sharpening, cutting, shaping, engraving



Fit or remove an accessory



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

Hold the tool firmly, press the spindle lock, loosen the Locking Collar but do not remove it. Remove previous accessory and store safely.

Select the appropriate accessory for the job. Seat the accessory fully into the Collet and tighten the Locking Collar firmly.

The supplied collet can hold a tool spindle up to 3.2mm, smaller collets are available. To change the collet, completely remove the locking collar, the collet can then be replaced and then secured with the same locking collar.

Starting work - Always wear safety gear, particularly eye protection!

Mark the work to be done, use stencils to help mark up lettering if needed. Use a mask or guide to prevent damage to surrounding areas in case of a slip. Hold the grinder firmly and switch on then press the  or  buttons to set the speed. Test the tool against the surface of some scrap to check the action before beginning work.

Grinding

The 144RT is perfect for modelling and detailing. Clamp the workpiece securely, hold the grinder firmly, supporting your wrist and gradually work the area. Don't attempt to do the job in one pass. When you need to remove more material begin with the cutting tools and finish with the grinding tools. For large jobs use a larger tool.

144CH Power Chisel

Safe and precise handling for easy, controlled carving and lettering



Fit or remove a blade

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

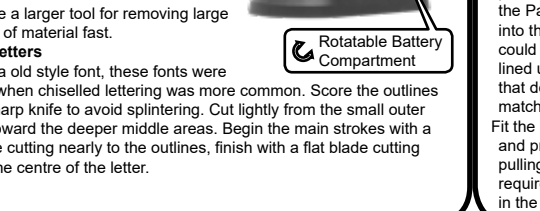
Loosen but do not remove the Locking Collar using the supplied narrow 10mm Spanner. Remove blades and debris as required then insert a sharp and appropriate tool all the way into the Blade Holder, at least 15mm of the Shank should be within the holder. Tighten the Locking Collar firmly with the 10mm Spanner.

To operate the tool

Switch the tool on the motor will begin to run but the Chisel Action is not activated until you press the chisel point against your work. Test by pressing the fitted chisel blade lightly against some scrap timber. Take your time to familiarise yourself with the cutting action of each fitted blade. The same blade will perform differently in various materials. The blades can be very sharp so care should be taken when using or handling them but the most common injury is from slipping. Never press so hard that you could lose your balance if the material or blade breaks or slips unexpectedly. Take small amounts of material with each pass, use a larger tool for removing large amounts of material fast.

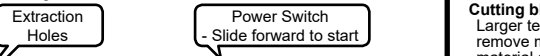
Carving letters

Choose a old style font, these fonts were created when chiselled lettering was more common. Score the outlines with a sharp knife to avoid splintering. Cut lightly from the small outer details toward the deeper middle areas. Begin the main strokes with a "V" blade cutting nearly to the outlines, finish with a flat blade cutting toward the centre of the letter.



144DS Delta Palm Sander

Essential finishing tool with excellent removal rate and dust collection



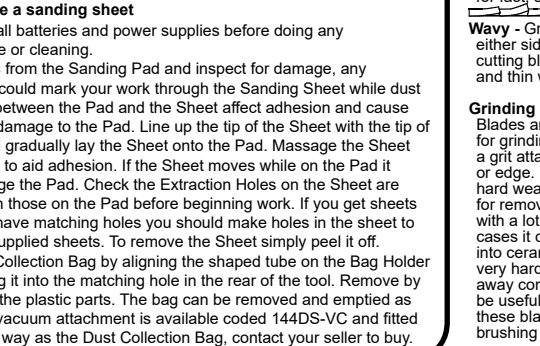
Fit or remove a sanding sheet

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

Clear debris from the Sanding Pad and inspect for damage, any protrusions could mark your work through the Sanding Sheet while dust and debris between the Pad and the Sheet affect adhesion and cause permanent damage to the Pad. Line up the tip of the Sheet with the tip of the Pad and gradually lay the Sheet onto the Pad. Massage the Sheet into the Pad to aid adhesion. If the Sheet moves while on the Pad it could damage the Pad. Check the Extraction Holes on the Sheet are lined up with those on the Pad before beginning work. If you get sheets that do not have matching holes you should make holes in the sheet to match the supplied sheets. To remove the Sheet simply peel it off.

Fit the Dust Collection Bag

Fit the Dust Collection Bag by aligning the shaped tube on the Bag Holder and pressing it into the matching hole in the rear of the tool. Remove by pulling it by the plastic parts. The bag can be removed and emptied as required. A vacuum attachment is available coded 144DS-VC and fitted in the same way as the Dust Collection Bag, contact your seller to buy.



ACCESSORIES

Cutting blades

Larger teeth remove more material and give a rough finish, other factors such as the angle of the cutting face greatly effect the rate of cut and the resulting finish. Soft metals such as aluminium and copper can usually be cut with a blade designed for wood. Harder metals require a specialised blade profile and generally have a "Wavy Set". Wood blades are typically thinner than metal blades.

Alternate - Alternating tooth set

common in wood cutting blades for fast, smooth cuts.

Wavy - Groups of teeth set to either side, common in metal cutting blades.

Good for pipes and thin wall metals.

Grinding blades

Blades and accessories used for grinding will generally have a grit attached to their surface or edge. Diamond Grit is a very hard wearing material and good for removing grout and mortar with a lot of sand in it, in some cases it can be used for cutting into ceramics. Carbide Grit is a very hard material that will grind away concrete or brick and still be useful afterwards. Clean these blades by soaking then brushing with a wire brush.

Sanding

Common grits are 40, 80, 120, 180, 220, 300. Lower numbers indicate a coarser grit for faster material removal. It is advised to skip grits as you work your way toward a smooth finish. eg Start with 80, skip to 180 then 300. Most of your time should be spent using the coarse grit. If the sanding sheet is damaged or worn out, do not use it. Damage to the sanding pad is not covered by the warranty. The supplied sheets are for sanding wood, select sheets designed for your application.

Rotary Tools

HSS cutter

For detail engraving, carving and routing in wood, fibreglass, plastic and soft metals.

Diamond grinding points

For fine detail work, cutting, engraving, carving, touch-up and finish.

Grinding point

Use on metals, welded joints, rivets and rust. Ideal for sharpening, de-burring, rust removal and general purpose on most materials.

Sanding sleeve

For rough shaping and smoothing wood, metal and fibreglass; Sanding bands are easily replaceable on drums by loosening the compression screw.

Grinding discs

For removing burrs, narrow cuts in plastics, wood, fibreglass and soft metals. Fit the disc between the 2 rubber washers and tighten with the locking screw.

OPERATION TIPS

READ ALL INSTRUCTIONS

reduce the risks of kickback and items moving or dropping unexpectedly.

- Hold the tool firmly, any vibration of the tool or workpiece is lost cutting efficiency.
- When cutting with the 144MT Oscillating Multi-tool, use a constant side to side motion. This allows the cuttings to clear the blade teeth, spreads wear and distributes heat across the whole blade.
- When sanding with either the 144MT or the 144DS take care not to press too hard, this will reduce the lifetime of the sanding sheet and results in uneven wear and reduced battery life.
- Keep a crisp edge while sanding by supporting the sander with timber of matching thickness, this prevents it from tipping over the edges.
- Use light pencil marks across uneven joints between surfaces. While sanding the pencil marks will disappear as soon as the surfaces are level.
- Vacuum extraction from the sanding area will make sanding much faster and keep the sanding sheets in better condition for longer.
- Shine a light (144FL) across the surface from a low angle to show up minor flaws and scratches while sanding, also great to see lost items.
- Do as much as you can with the coarse grit (low numbers) sandpaper. The finer grits are just to remove the grooves from the coarse grit.
- 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.
- On the 144MT and the 144CH the battery compartment can be rotated to provide easier control or access at a better angle.
- Pivot the blade on the bevel at the rear of the blades when using 144CH Power Chisel to better control the depth of the cut.
- When engraving with the 144RT Rotary Tool. Hold so that it is close to vertical and move at an even pace with a steady pressure. Pauses and alterations in pressure will be noticeable. Use a straight edge where possible. Try printing a sticky label with your lettering on it. Stick onto the item to be engraved and trace the outline.

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

On the 144DS the lower part of the sanding pad may be removed and cleaned with water if it becomes clogged or the motor is running slowly.

Dry completely before use. The battery or motor must never become wet.

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.

