ORIGINAL INSTRUCTIONS

18V Wet / Dry Tile Saw

R18TS

Important!

It is essential that you read the instructions in this manual before assembling, operating and maintaining the product.

Subject to technical modification.

Safety, performance, and dependability have been given top priority in the design of your wet / dry tile saw.

INTENDED USE

The product is intended to be used only by adults who have read and understood the instructions and warnings in this manual, and can be considered responsible for their actions.

The product is intended for wet cross cutting, rip cutting, and bevel cutting of man-made tiles, pavers, and natural stone tile materials.

The product is intended for dry cutting of the above materials when equipped with a special cutting wheel.

Do not use the product in any way other than those stated for intended use.

GENERAL POWER TOOL SAFETY WARNINGS

⚠ 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

- **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.
- **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 or 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.
- **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 or hearing protection used for appropriate conditions will reduce personal injuries.
- **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 repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

TILE SAW SAFETY WARNINGS

⚠ WARNING

The product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the product.

- Use only diamond cut-off wheels for your power tool. Just because an accessory can be attached to your power tool, it does not assure safe operation.
- The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
- Wheels must be used only for recommended applications. For example, do not grind with the side of cut-off wheel. Abrasive cut-off wheels are intended for peripheral grinding. Side forces applied to these wheels may cause them to shatter.
- Always use undamaged wheel flanges that are of correct diameter for your selected wheel. Proper wheel flanges support the wheel, thus reducing the possibility of wheel breakage.
- The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.
- The arbour size of wheels and flanges must properly fit the spindle of the power tool. Wheels and flanges with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- Do not use damaged wheels. Before each use, inspect the wheels for chips and cracks. If power tool or wheel is dropped, inspect for damage or install an undamaged wheel. After inspecting and installing the wheel, position yourself and bystanders away from the plane of the rotating wheel and run the power tool at maximum no load speed for one minute. Damaged wheels will normally break apart during this test time.
- Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by the operation. Prolonged exposure to high intensity noise may cause hearing loss.

- Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken wheel may fly away and cause injury beyond immediate area of operation.
- Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
- Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning wheel.
- Never lay the power tool down until the accessory has come to a complete stop. The spinning wheel may grab the surface and pull the power tool out of your control.
- Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- Regularly clean the power tool’s air vents. The motor’s fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- Do not operate the power tool near flammable materials. Sparks could ignite these materials.

Kickback and related warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel. Pinching or snagging causes rapid stalling of the rotating wheel which in turn causes the uncontrolled power tool to be forced in the direction opposite of the wheel’s rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel’s movement at the point of pinching. Abrasive wheels may also break under these conditions.

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

- Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.
- Never place your hand near the rotating accessory. Accessory may kickback over your hand.
- Do not position your body in line with the rotating wheel. Kickback will propel the tool in direction opposite to the wheel’s movement at the point of snagging.
- Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- Do not attach a saw chain, woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade. Such blades create frequent kickback and loss of control.
- Do not “jam” the wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
- When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel binding.
- Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut. The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
- Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- Use extra caution when making a “pocket cut” into existing walls or other blind areas. The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

ADDITIONAL SAFETY WARNINGS

- When not in use, blades must be stored in a dry place and handled with care.

ASSEMBLY

ATTACHING GRAVITY FEED WATER BOTTLE

See figure 1.

The gravity feed water bottle has a built-in air vent that equalizes pressure and allows water to flow more freely.

1. Remove the battery.
2. Unscrew the nozzle assembly.
3. Fill water bottle to desired level. Do not overfill.
4. Replace nozzle assembly.
5. Hold water bottle so that nozzle faces down.
   NOTE: Water will not escape the bottle unless the tip of the nozzle is depressed.
6. Insert the water bottle as shown. Gently press down on the bottle until it clicks into place.
7. To remove water bottle, depress the water bottle release button.

NOTE: For dry cutting, leave water bottle installed to prevent dust and debris from clogging the water supply system.

⚠ CAUTION

The water bottle is designed for water only. Use of any other fluid may cause damage to the tool.

⚠ WARNING

A 105 mm wheel is the maximum wheel capacity of the saw. Also, never use a wheel that is too thick to allow outer wheel washer to engage with the flat on the spindle. Larger wheels will come in contact with the wheel guards, while thicker wheels will prevent wheel screw from securing wheel on spindle. Either of these situations could result in a serious accident.

⚠ WARNING

Do not use cutting wheels rated less than the no-load speed of this tool. Failure to heed this warning could result in personal injury. Do not use wheel with cracks, gaps, or teeth.

⚠ WARNING

Do not use toothed or segmented wheels. Use only continuous rimmed diamond wheels suited for masonry materials.

INSTALLING CUTTING WHEEL

See figure 2.

1. Remove the battery pack from the saw.
2. Take the wheel wrench (5 mm hex key) from the storage area.
3. Depress the spindle lock button and remove the wheel screw and outer wheel washer.

NOTE: Turn the wheel screw clockwise to remove.

⚠ CAUTION

To prevent damage to the spindle or spindle lock, always allow motor to come to a complete stop before engaging spindle lock.

NOTE: Do not run the saw with spindle lock engaged.

4. Wipe a drop of oil onto the inner wheel washer and outer wheel washer where they contact the wheel.

⚠ WARNING

If inner wheel washer has been removed, replace it before placing cutting wheel on spindle. Failure to do so could cause an accident since wheel will not tighten properly.

5. Replace the outer wheel washer.
6. Depress the spindle lock button, then replace the wheel screw. Tighten the wheel screw securely by turning it counterclockwise.
7. Return the wheel wrench to the storage area.

NOTE: Never use a cutting wheel that is too thick to allow the outer wheel washer to engage with the flats on the spindle.

OPERATION

⚠ WARNING

Always wear a dust mask when operating tile saws. Failure to do so could result in serious injury.

⚠ WARNING

Always wear safety goggles or safety glasses with side shields when operating products. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

⚠ WARNING

Do not use any attachments or accessories not recommended by the manufacturer of the product. The use of attachments or accessories not recommended can result in serious personal injury.

BATTERY PROTECTION FEATURES

RYOBI 18 V lithium-ion batteries are designed with features that protect the lithium-ion cells and maximize battery life. Under some operating conditions, these built-in features may cause the battery and the tool it is powering to act differently from nickel-cadmium batteries.

During some applications, the battery electronics may signal the battery to shut down, and cause the tool to stop running. To reset the battery and tool, release the trigger and resume normal operation.

NOTE: To prevent further shut down of the battery, avoid forcing the tool.

If releasing the trigger does not reset the battery and tool, the battery pack is depleted. If depleted, the battery pack will begin charging when placed on the lithium-ion charger.

INSTALLING THE BATTERY PACK

See figure 3.

1. Place the battery pack in the saw. Align the raised rib on the battery pack with the groove inside the saw, then slide the battery pack into the saw.
2. Make sure the latches on each side of your battery pack snap into place and the battery pack is secured in the saw before beginning operation.

⚠ WARNING

Always remove battery pack from your tool when you are assembling parts, making adjustments, cleaning, or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.

REMOVING THE BATTERY PACK

See figure 3.

1. Locate the latches on the side of the battery pack and depress them to release the battery pack from the saw.
2. Remove battery pack from the saw.

CUTTING WHEELS

The best of cutting wheels will not cut efficiently if they are dull or badly worn. Using a dull wheel will place a heavy load on the saw. Keep extra wheels on hand, so that sharp wheels are always available.

STARTING/STOPPING THE SAW

See figure 4.

To start the saw:

1. Depress the lock-off button.
2. Depress the switch trigger.

Always let the wheel reach full speed, then guide the saw into the workpiece.

To stop the saw:

1. Release the switch trigger.

After you release the switch trigger, allow the wheel to come to a complete stop. Do not remove the saw from the workpiece while the wheel is moving.

LOCK-OFF BUTTON

See Figure 5.

The lock-off button reduces the possibility of accidental starting. The lock-off button is located on the handle above the switch trigger. The lock-off button must be depressed before you pull the switch trigger. The lock resets each time the trigger is released.

NOTE: You can depress the lock-off button from either the left or right side.

ADJUSTING WHEEL DEPTH

See figure 6.

Always keep correct wheel depth setting. The correct wheel depth setting for all cuts should not exceed 6.35 mm below the material being cut. More wheel depth will increase the chance of kickback and cause the cut to be rough. For more depth of cut accuracy, a scale is located on the rear bracket.

1. Loosen the depth adjustment knob.
2. Determine the desired depth of cut.
3. Locate the depth of cut scale on the rear bracket.
4. Hold the base flat against the workpiece and raise or lower the saw until the indicator mark on bracket aligns with the notch on the wheel guard.
5. Tighten the depth adjustment knob securely.

OPERATING THE SAW

See figure 7 - 8.

It is important to understand the correct method for operating the saw. Refer to the figures in this section to learn the correct and incorrect ways for handling the saw.

⚠ WARNING

When lifting the saw from the workpiece, the wheel is exposed on the underside of the saw.

To make the best possible cut:

1. Hold the saw firmly with both hands.
2. Avoid placing your hand on the workpiece while making a cut.
3. Support the workpiece so that the cut (kerf) is always to your side.
4. Support the workpiece near the cut.
5. Clamp the workpiece securely so that the workpiece will not move during the cut.
6. Always place the saw on the workpiece that is supported, not the “cut off” piece.
7. Place the workpiece with the “good” side down.
8. Draw a guideline along the desired line of cut before beginning your cut.

MAKING CUTS

Always draw the line to be cut on the tile using a marker or grease pencil. If the tile is shiny and hard to mark, place masking tape on the tile and mark the tape.

A common problem when cutting tile is straying from the marked line. Once you have strayed from the mark, you can not force the wheel back to the line by twisting the tile. Instead, back up and recut the tile slicing off a small amount of tile until the wheel is back on track.

To avoid this problem, use a straight edge guide whenever possible for making cross cuts and mitre cuts. If wet cutting is desired, it should be performed outside.

USING THE EDGE GUIDE

See figure 9.

Use the edge guide when making long or wide rip cuts with the saw.

1. Remove the battery pack from the tool.

2. Place the edge guide through the slots in the saw base.
3. Adjust the edge guide to the width needed.
4. Tighten the wing screw securely.

When using an edge guide, position the face of the edge guide firmly against the edge of workpiece. This makes for a true cut without pinching the blade. The guiding edge of the workpiece must be straight for your cut to be straight. Use caution to prevent the blade from binding in the cut.

MAINTENANCE

⚠ WARNING

Always remove the battery pack from the product and disconnect from the power supply when you are assembling parts, cleaning, or when not in use. Removing battery pack or unplugging extension cord will prevent accidental starting that could cause serious personal injury.

- Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and can be damaged by their use. Use dry cloths to remove dirt, dust, oil, grease, etc.

⚠ WARNING

Do not, at any time, let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

- When servicing, use only original manufacturer's replacement parts. Use of any other part could create a hazard or cause product damage.
- Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.
- For greater safety and reliability, all repairs should be performed by an authorised service centre.

LUBRICATION

All of the bearings in the product are lubricated with a sufficient amount of high grade lubricant for the life span of the product under normal operating conditions. Therefore, no further lubrication is required.

ENVIRONMENTAL PROTECTION

Recycle raw materials instead of disposing of as waste. The machine, accessories and packaging should be sorted for environmental-friendly recycling.

SYMBOLS

Safety alert

Regulatory Compliance Mark (RCM). Product meets applicable regulatory requirements.

Please read the instructions carefully before starting the machine.

Wear dust mask.

Wear eye protection.

Wear ear protection.

Do not expose to rain.

Do not touch blade.

Ø Diameter

V Volts

Direct current

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.

The following signal words and meanings are intended to explain the levels of risk associated with this product:

⚠ DANGER

Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

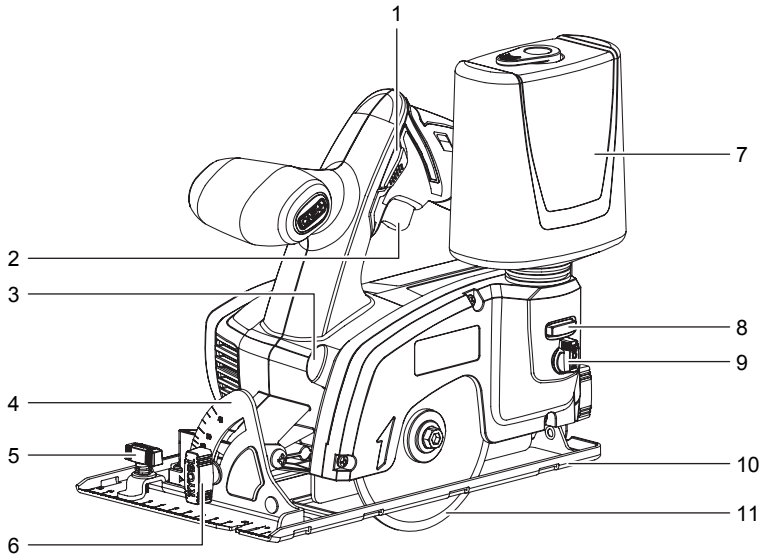
⚠ CAUTION

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

CAUTION

(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

1. Lock-off button
2. Switch trigger
3. Spindle lock
4. Bevel scale
5. Edge guide lock knob
6. Bevel lock knob
7. Water bottle
8. Water bottle release button
9. Flow adjustment knob
10. Base
11. Cutting wheel
12. Wheel wrench storage
13. Depth lock knob
14. Inner wheel washer
15. Wheel
16. Outer wheel washer
17. Wheel screw
18. Battery pack
19. Incorrect method of support
20. Correct method of support
21. Edge guide



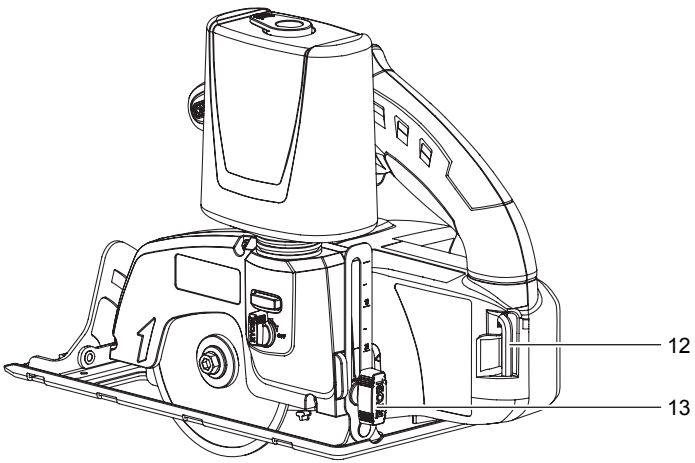


Fig.1

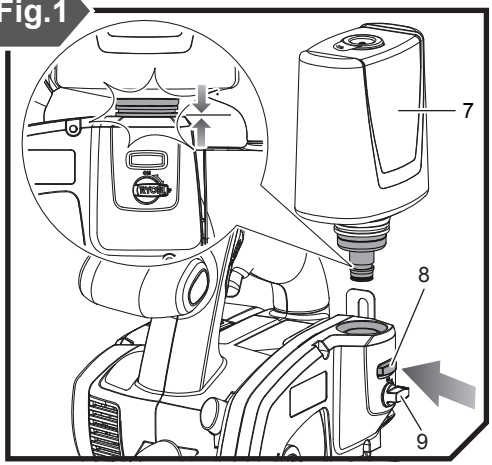


Fig.2

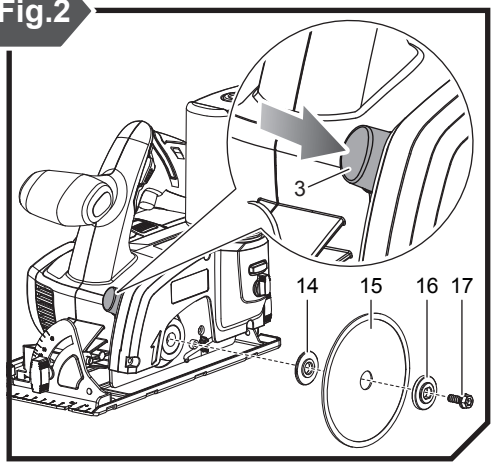


Fig.3

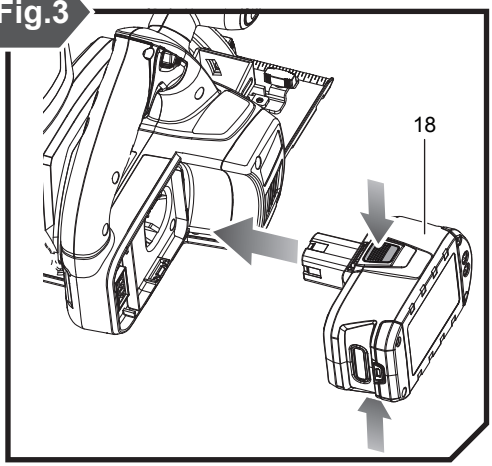


Fig.4

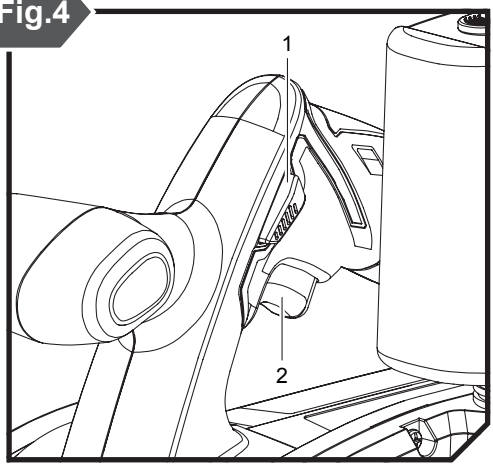


Fig.5

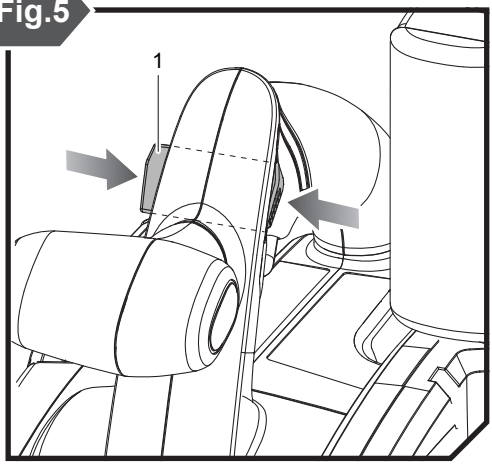


Fig.6

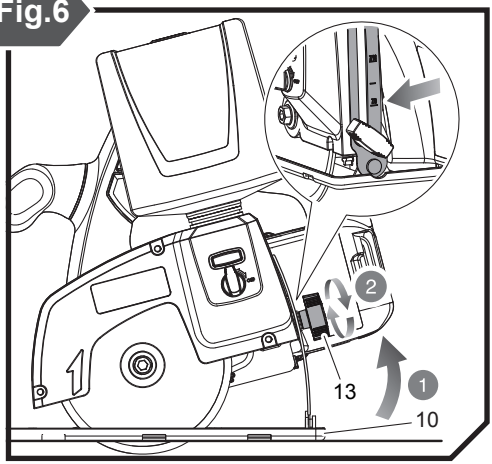


Fig.7

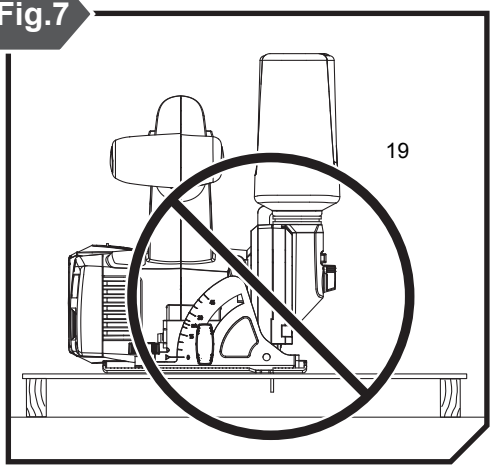


Fig.8

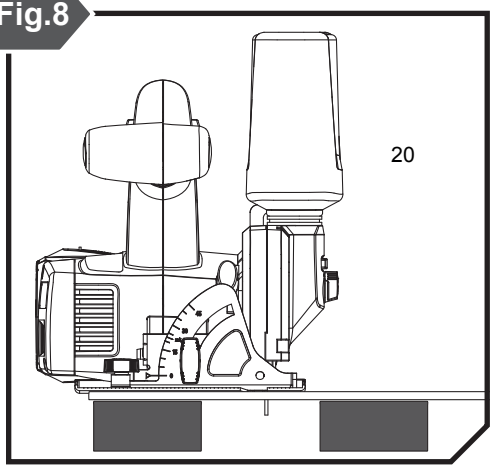
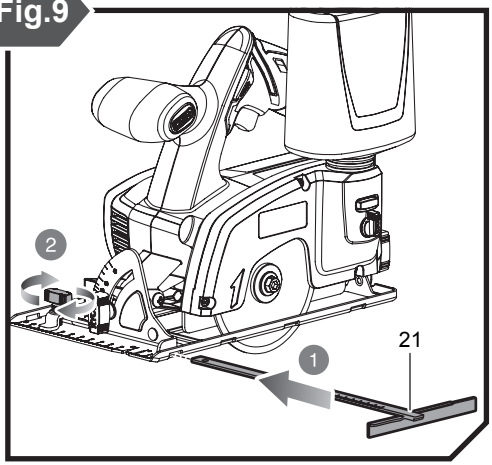


Fig.9



PRODUCT SPECIFICATIONS

18V wet / dry tile saw

Model	R18TS
Voltage	18 V ⎓
Wheel Diameter	105 mm (4”)
Wheel Arbor	16 mm (5/8”)
Cutting Depth at 0º	22 mm (7/8”)
Cutting Depth at 45º	16 mm (5/8”)
No Load Speed	5000 min^{-1}
Wheel Type	Continuous rim diamond wheel (1pc included)
Thickness of blade	1.6 mm (1/16”)

Choose proper cutting wheels for wet or dry cuttings in different applications

BATTERY AND CHARGER

Model	Compatible battery pack (not included)	Compatible charger (not included)
Lithium-Ion	RB18L13 RB18L15 RB18L20 RB18L25 RB18L26 RB18L40 RB18L50	BCS618G BCL14181H BCL14183H BCL1418IV* RC18150U RC18627U

* for vehicles with 12V DC outlets

Imported by:

Techtronic Industries (Australia) Pty. Ltd.
31 Gilby Road,
Mount Waverley VIC 3149,
Australia

Techtronic Industries New Zealand Ltd.
2 Landing Drive, Mangere,
Auckland, New Zealand 2022

961075389-02