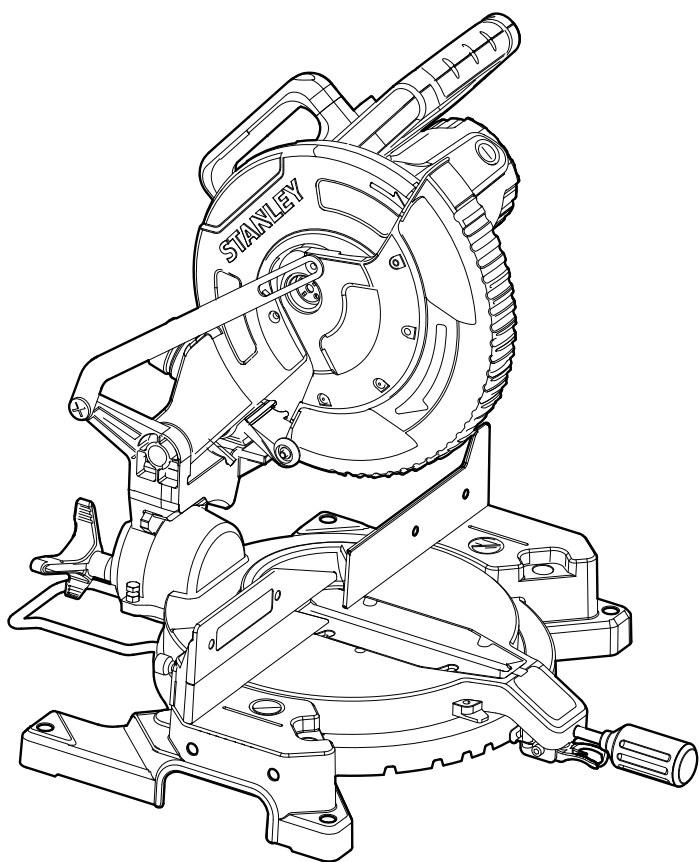
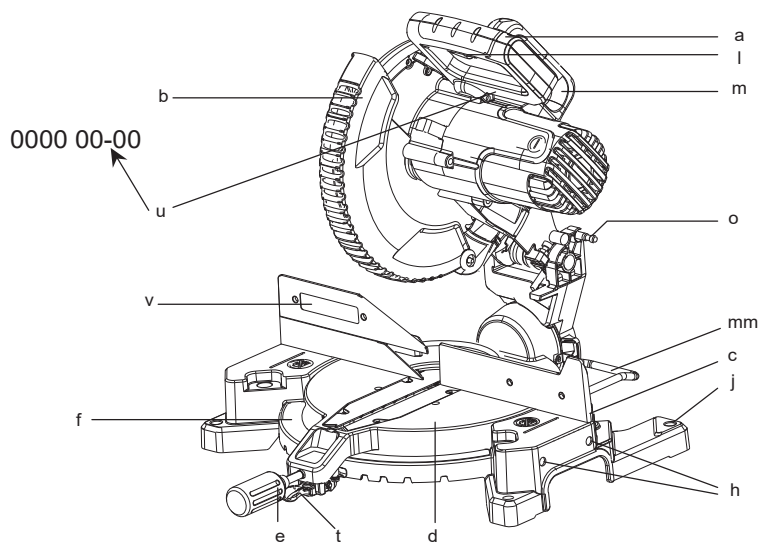


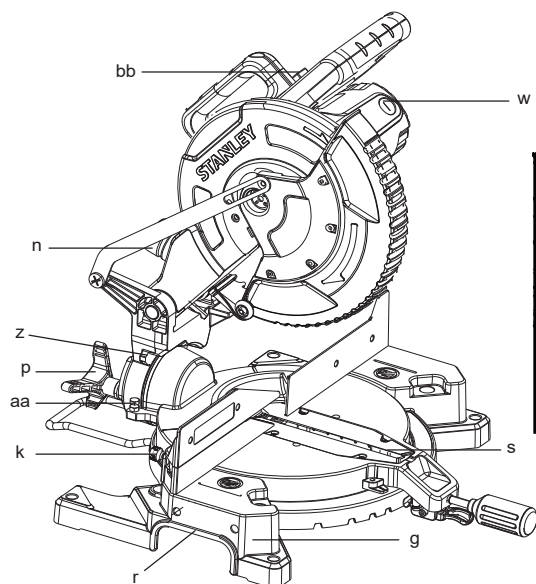
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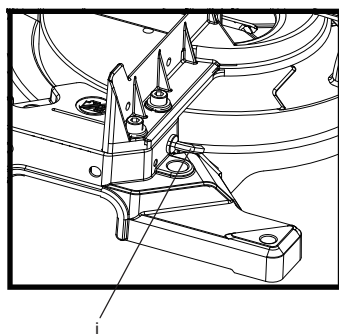
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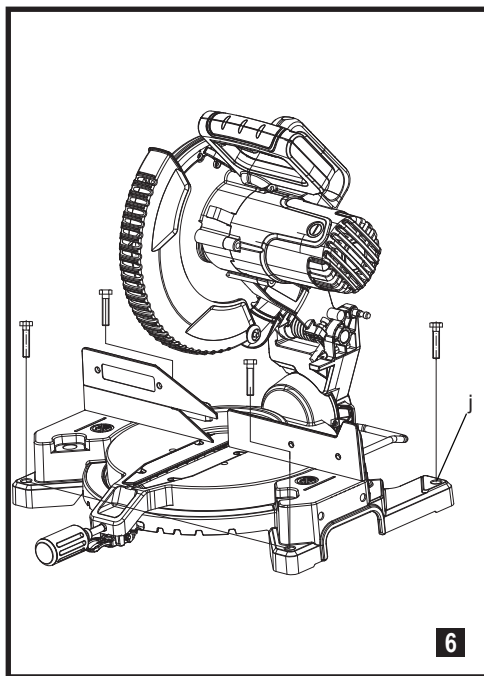
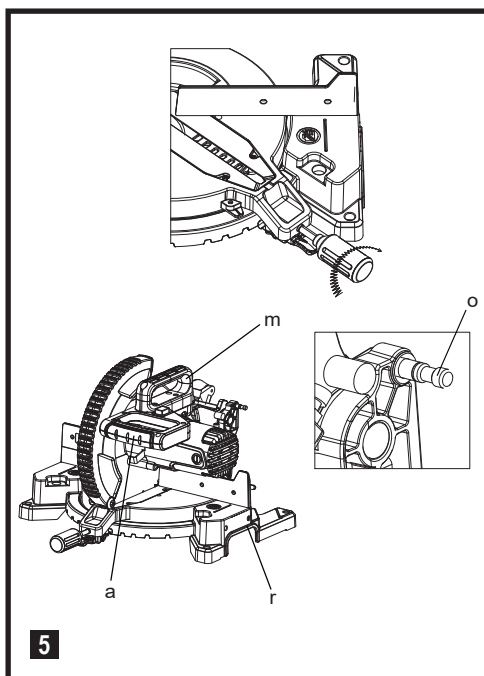
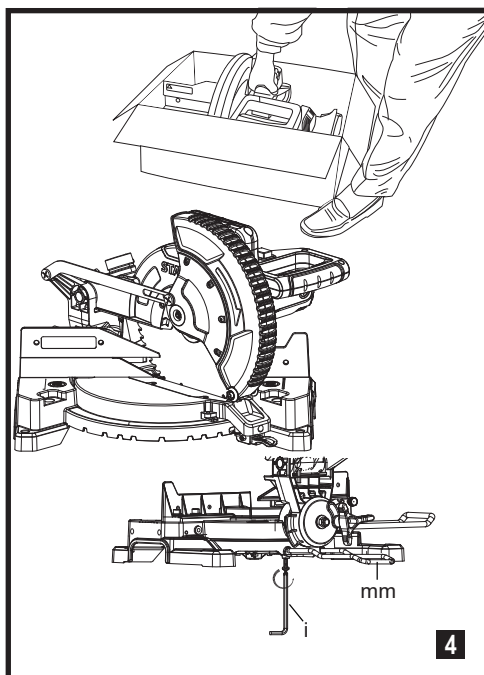
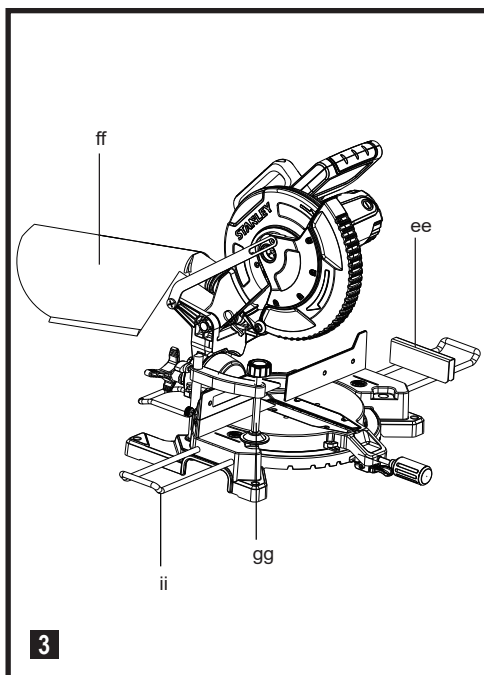
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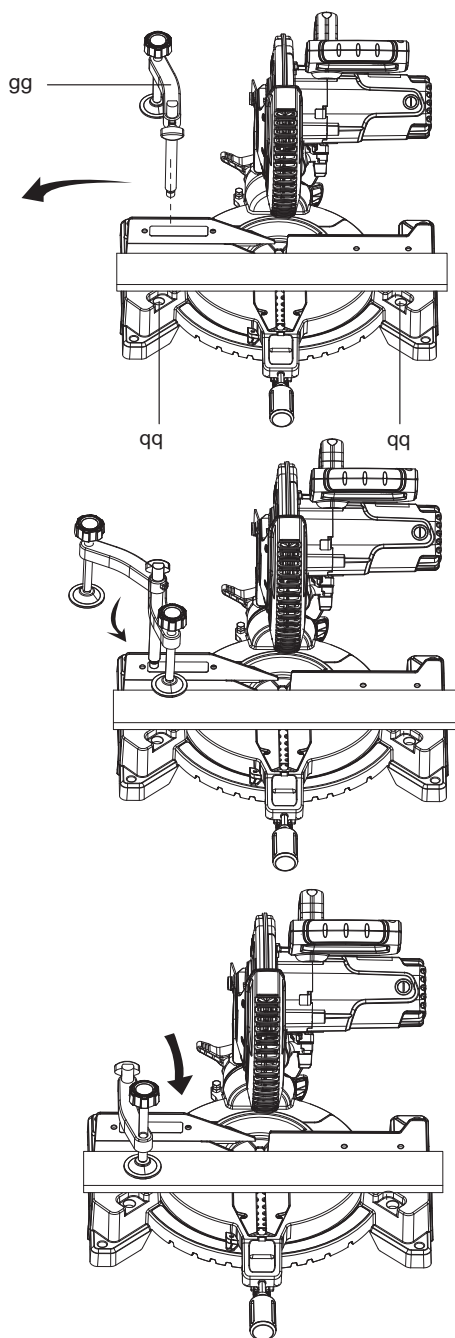


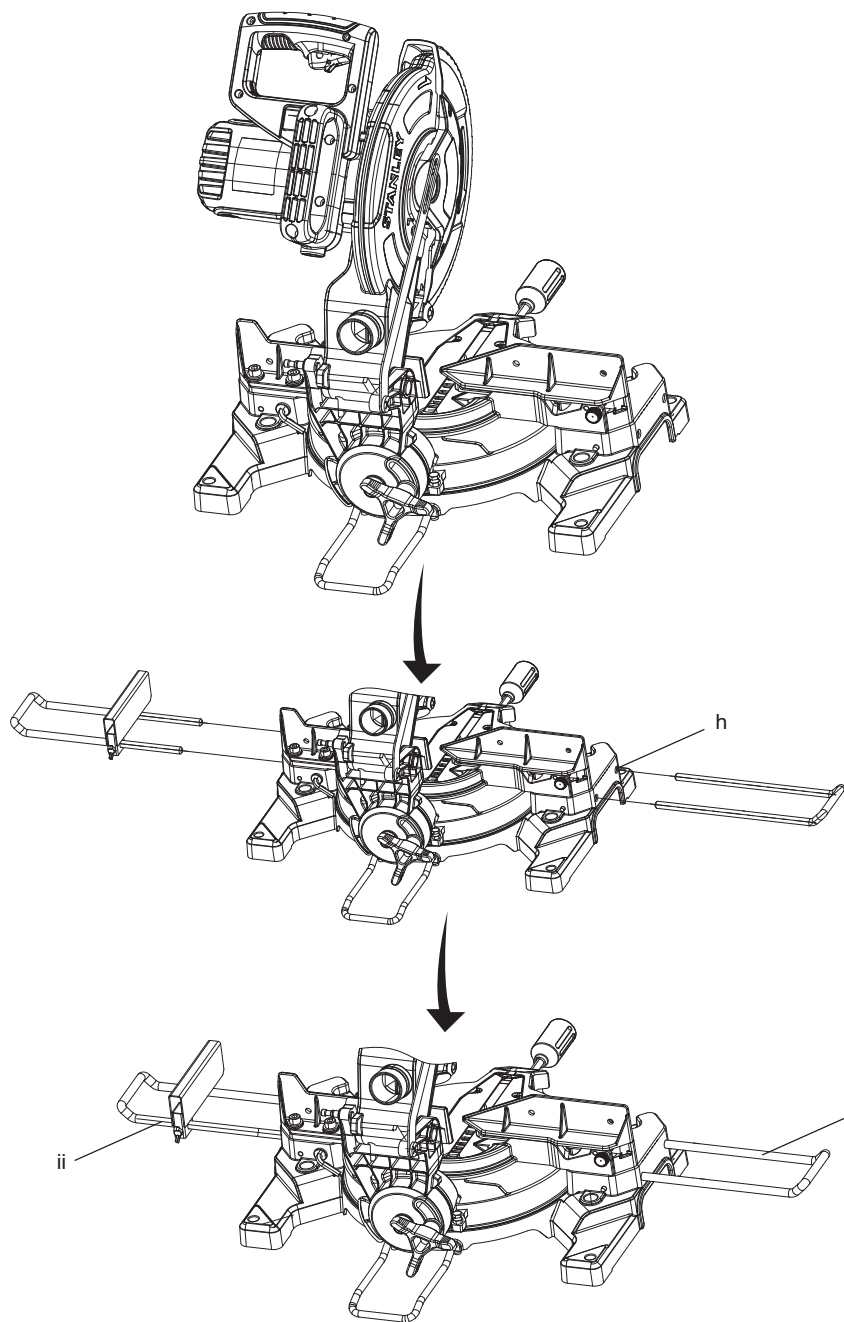
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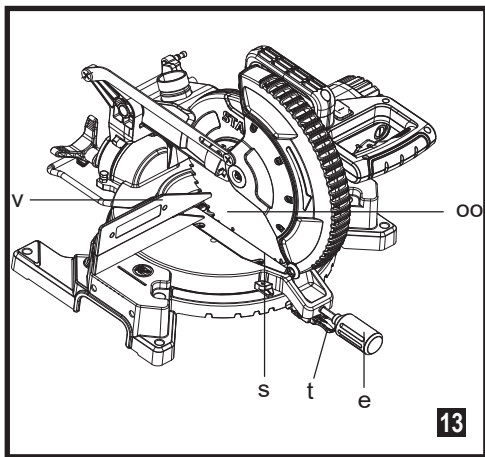
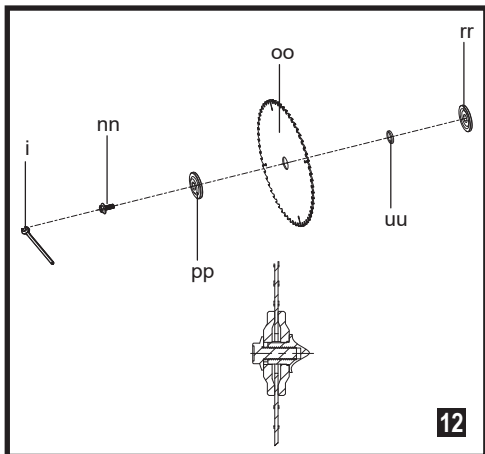
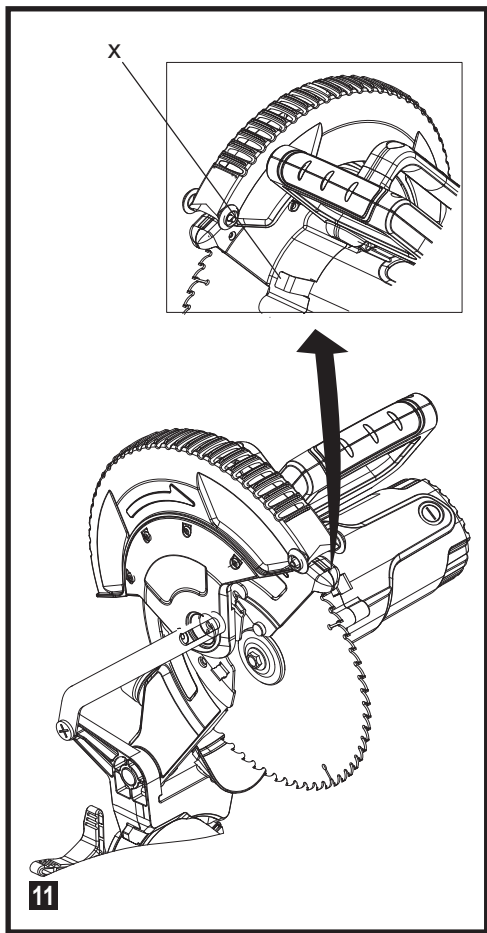
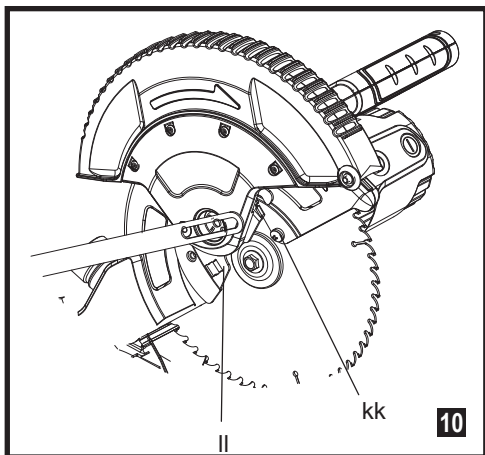
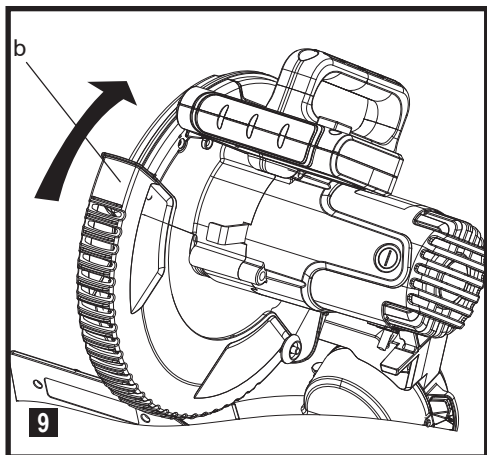


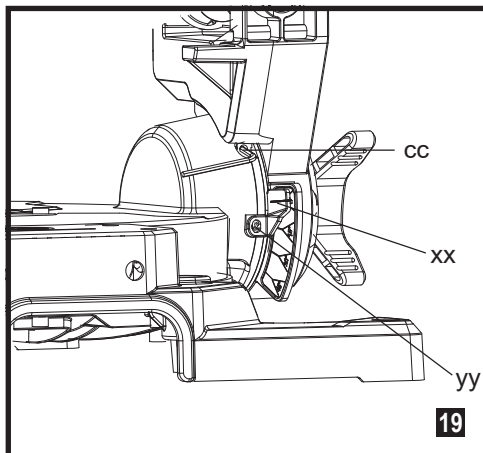
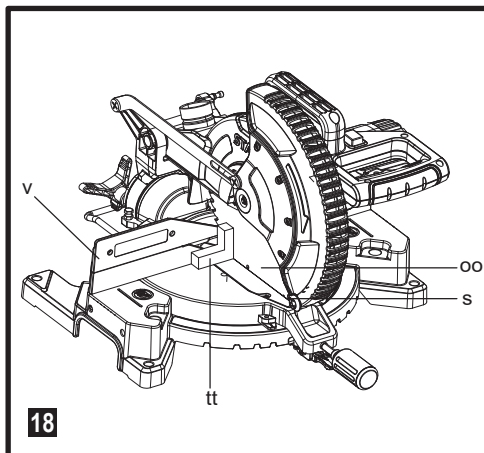
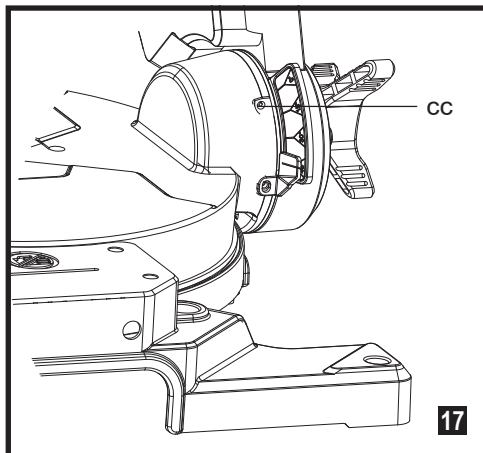
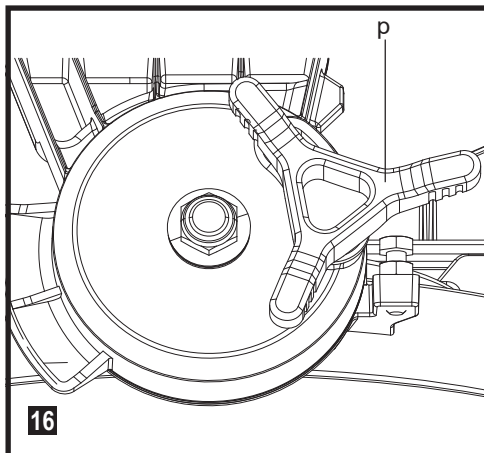
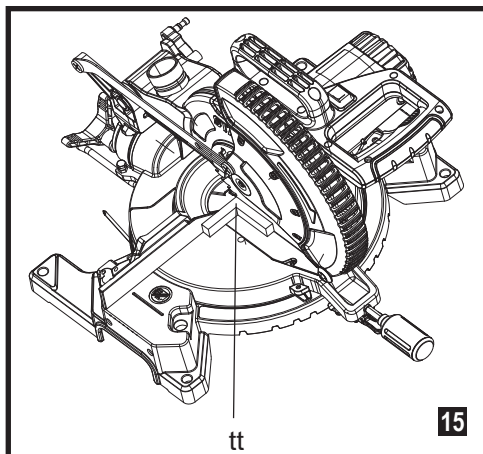
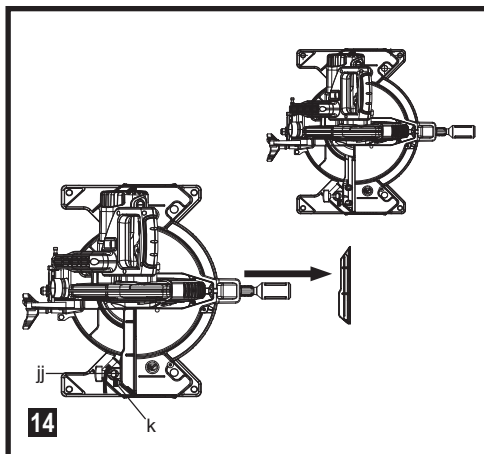
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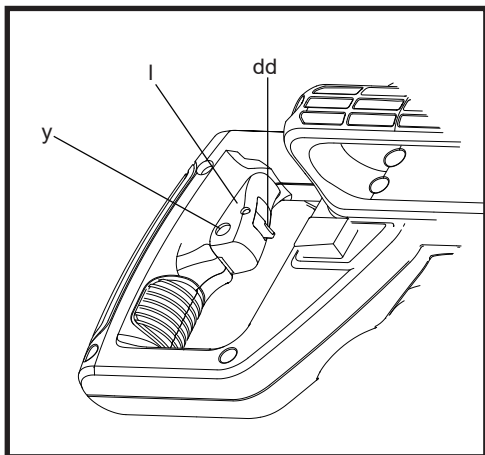
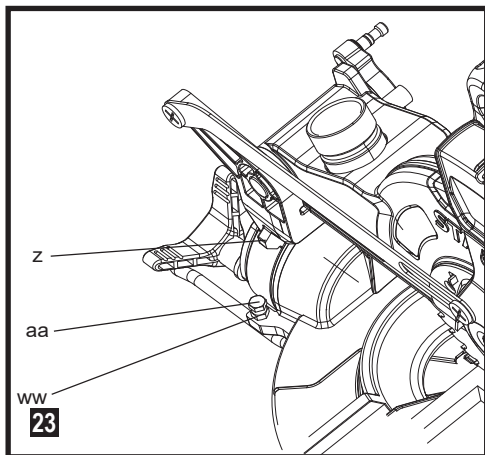
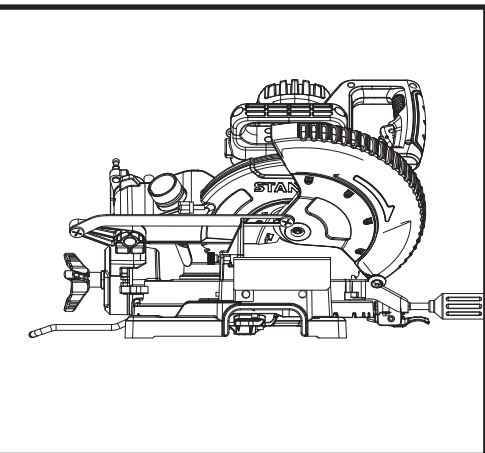
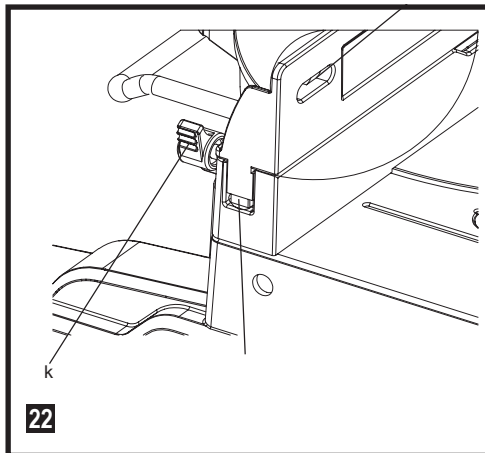
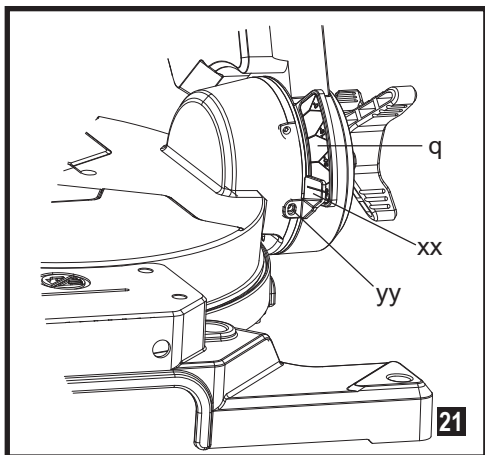
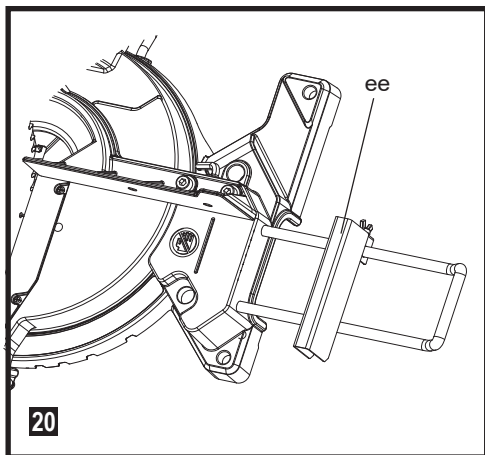


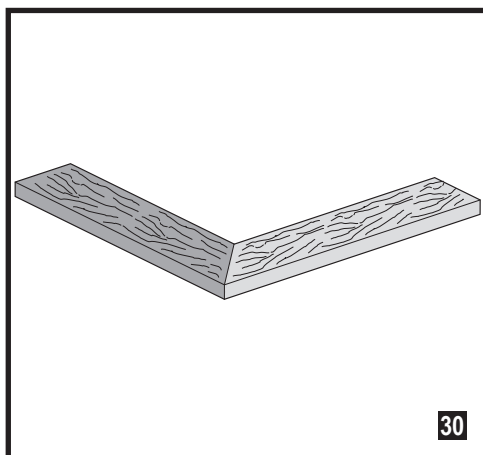
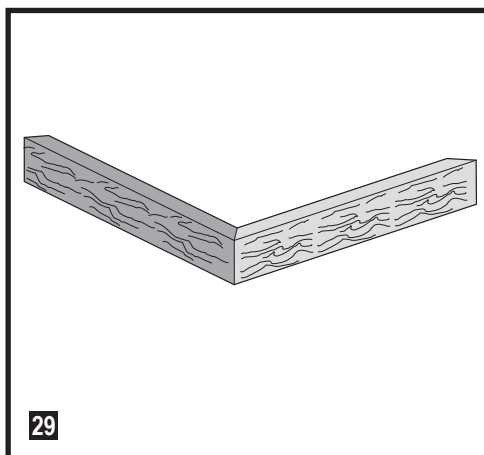
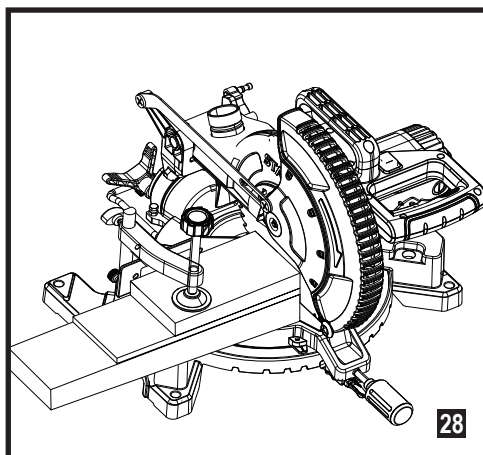
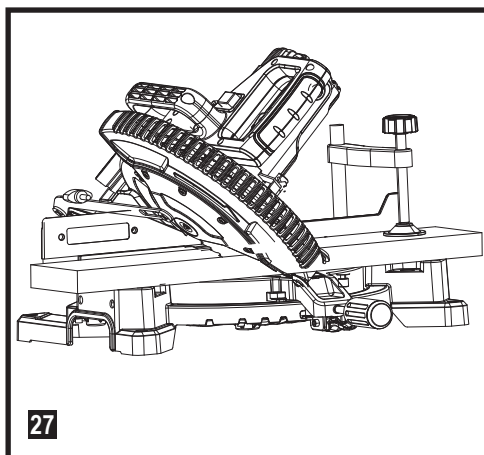
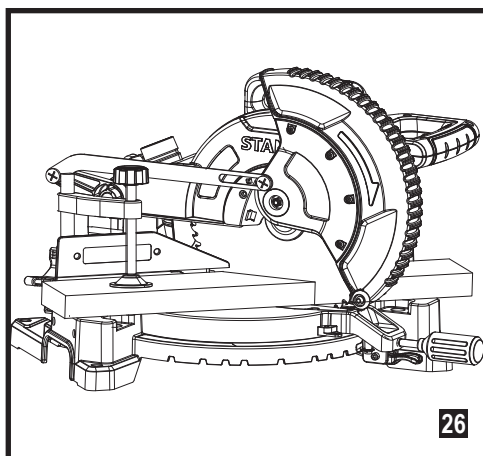
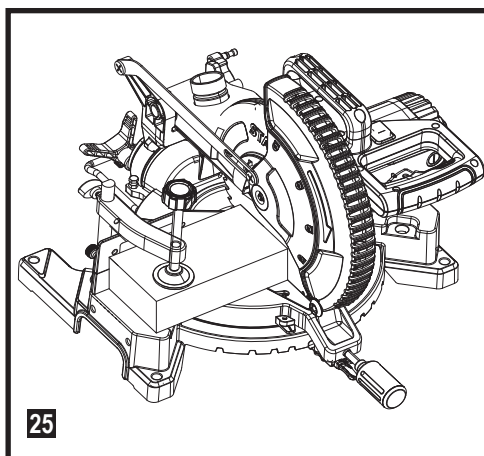


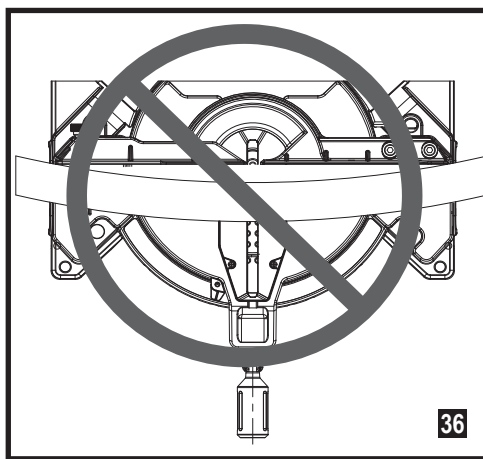
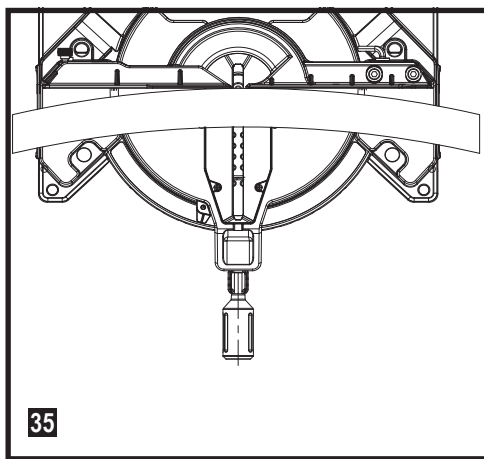
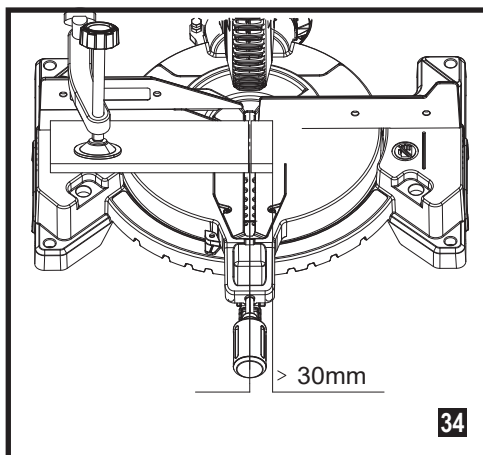
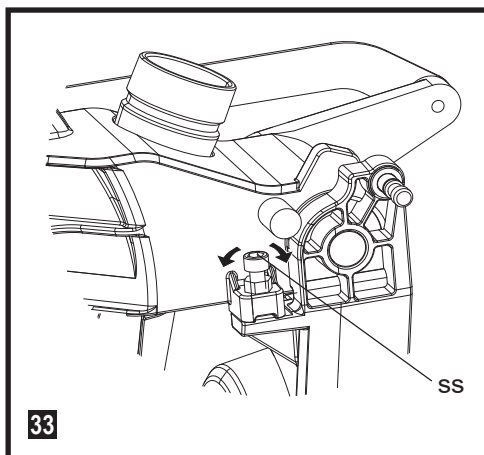
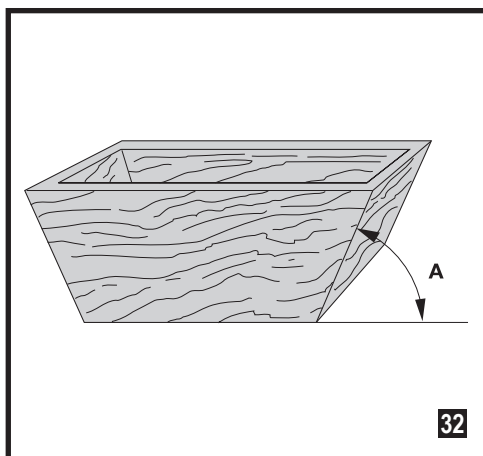
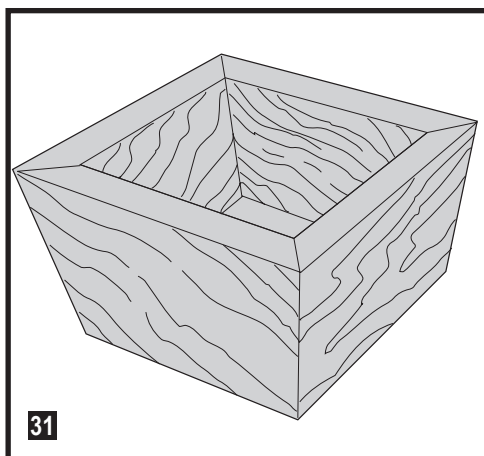


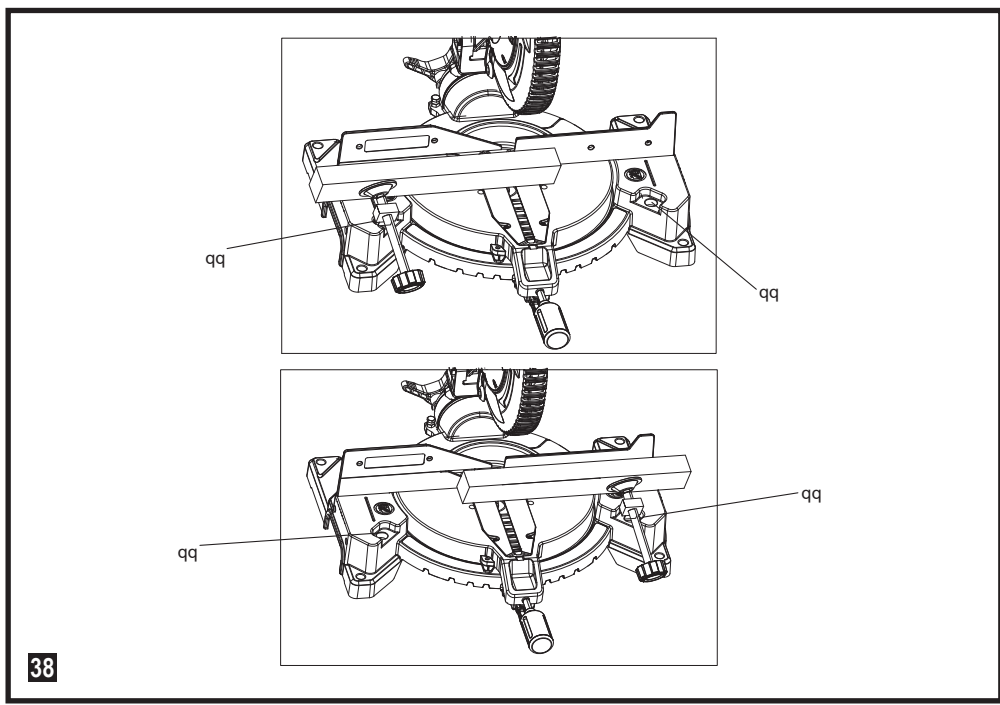
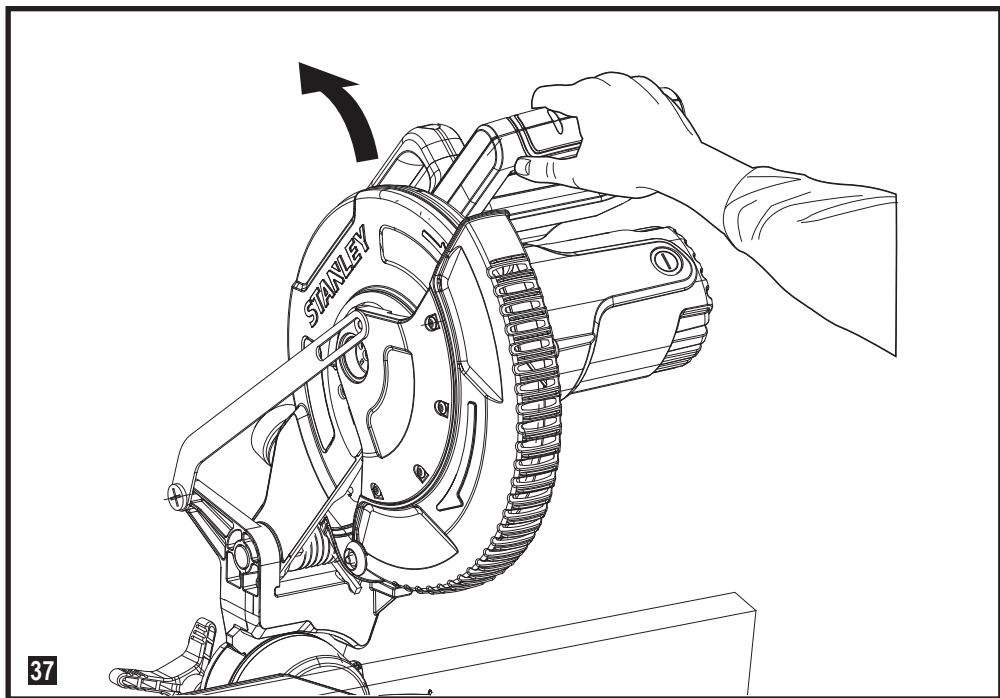












Intended use

Your STANLEY Mitre Saw SM1650 has been designed for cutting wood and aluminium, wood products, aluminium products and plastics. It performs the sawing operations of cross-cutting, bevelling and mitring easily, accurately and safely. This tool is intended for professional use.

Safety instructions

General power tool safety warnings



WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow the warnings and instructions listed below may result in electric shock, fire and/or serious injury..

Save all warnings and instructions for future reference.

The term "power tool" in all of the warnings refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

1. Work area safety

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

2. Electrical safety

- a. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

- f. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3. Personal safety

- a. **Stay alert, watch what you are doing and use common sense when operating a power tool.**
Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing 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.
- h. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

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 remove the battery pack, if detachable, 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 and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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.
- h. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. Service

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

Safety instructions for mitre saws

- ◆ **Mitre saws are intended to cut wood or wood-like products, they cannot be used with abrasive cutoff wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.
- ◆ **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.

- ◆ **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut "freehand" in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.
- ◆ **Push the saw through the workpiece. Do not pull the saw through the workpiece.** To make a cut, raise the saw head and pull it out over the workpiece without cutting, start the motor, press the saw head down and push the saw through the workpiece. Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.
- ◆ **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.
- ◆ **Do not reach behind the fence with either hand closer than 100mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
- ◆ **Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.
- ◆ **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.
- ◆ **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
- ◆ **Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.
- ◆ **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.**

Without turning the tool "ON" and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.

- ◆ **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
- ◆ **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
- ◆ **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
- ◆ **Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** Rods have a tendency to roll while being cut, causing the blade to "bite" and pull the work with your hand into the blade.
- ◆ **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
- ◆ **If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/ or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the mitre saw.
- ◆ **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
- ◆ **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.
- ◆ **Avoid uncontrolled release of the saw unit from the fully down position.**

Additional Safety instructions for mitre saws

- ◆ The machine is provided with a special configured power supply cord which can only be replaced by the manufacturer or its authorised service agent.
- ◆ Do not use the saw to cut other materials than those recommended by the manufacturer.

- ◆ Cutting plastics, sap coated wood, and other materials may cause melted material to accumulate on the blade tips and the body of the saw blade, increasing the risk of blade overheating and binding while cutting.
- ◆ Do not operate the machine without guards in position, or if guards do not function or are not maintained properly.
- ◆ Ensure that the arm is securely fixed when performing bevel cuts.
- ◆ Keep the floor area around the machine level, well-maintained and free of loose materials, e.g., chips and cut-offs.
- ◆ Use correctly sharpened saw blades. Observe the maximum speed mark on the saw blade.
- ◆ Make sure all locking knobs and clamp handles are tight before starting any operation.
- ◆ Never place either hand in the blade area when the saw is connected to the electrical power source.
- ◆ Never attempt to stop a machine in motion rapidly by jamming a tool or other means against the blade; serious accidents can occur.
- ◆ Before using any accessory consult the instruction manual. The improper use of an accessory can cause damage.
- ◆ Use a holder or wear gloves when handling a saw blade.
- ◆ Ensure that the saw blade is mounted correctly before use.
- ◆ Make sure that the blade rotates in the correct direction.
- ◆ Take care when slotting.
- ◆ Do not use blades of larger or smaller diameter than recommended. For the proper blade rating refer to the technical data. Use only the blades specified in this manual, complying with EN 847-1.
- ◆ Consider applying specially designed noise-reduction blades.
- ◆ Do not use HSS blades.
- ◆ Do not use cracked or damaged saw blades.
- ◆ Do not use any abrasive or diamond discs.
- ◆ Never use your saw without the kerf plate.
- ◆ Raise the blade from the kerf in the workpiece prior to releasing the switch.
- ◆ Do not wedge anything against the fan to hold the motor shaft.
- ◆ The blade guard on your saw will automatically raise when the arm is brought down; it will lower over the blade when head lock up release lever (cc) is pushed.
- ◆ Never raise the blade guard manually unless the saw is switched off. The guard can be raised by hand when installing or removing saw blades or for inspection of the saw.

- ◆ Check periodically that the motor air slots are clean and free of chips.
- ◆ Replace the kerf plate when worn. Refer to service parts list included.
- ◆ Disconnect the machine from the mains before carrying out any maintenance work or when changing the blade.
- ◆ Never perform any cleaning or maintenance work when the machine is still running and the head is not in the rest position.
- ◆ When possible, always mount the machine to a bench.
- ◆ The front section of the guard is louvered for visibility while cutting. Although the louvers dramatically reduce flying debris, they are openings in the guard and safety glasses should be worn at all times when viewing through the louvers.
- ◆ Connect the saw to a dust collection device when sawing wood. Always consider factors which influence exposure of dust such as:
 - type of material to be machined (chip board produces more dust than wood);
 - sharpness of the saw blade;
 - correct adjustment of the saw blade,
 - dust extractor with air velocity not less than 20m/s.
 Ensure that the local extraction as well as hoods, baffles and chutes are properly adjusted.
- ◆ Please be aware of the following factors influencing exposure to noise:
 - use saw blades designed to reduce the emitted noise;
 - use only well sharpened saw blades;
- ◆ Machine maintenance shall be conducted periodically;
- ◆ Machine faults, including guards or saw blade, shall be reported as soon as they are discovered;
- ◆ Provide adequate general or localized lighting;
- ◆ Ensure the operator is adequately trained in the use, adjustment and operation of the machine;
- ◆ Ensure that any spacers and spindle rings are suitable for the purpose as stated in this manual.
- ◆ Refrain from removing any cut-offs or other parts of the workpiece from the cutting area while the machine is running and the saw head is not in the rest position
- ◆ Never cut workpieces shorter than 30mm(Figure 34).
- ◆ Without additional support the machine is designed to accept the maximum workpiece size of:
 - Height 75mm by width 140mm by length 460mm
 - Longer workpieces need to be supported by suitable additional table(work support). Always clamp the workpiece safely.
- ◆ In case of an accident or machine failure, immediately turn the machine off and disconnect machine from the power source.

- ◆ Report the failure and mark the machine in suitable form to prevent other people from using the defective machine.
- ◆ When the saw blade is blocked due to abnormal feed force during cutting, turn the machine off and disconnect it from power supply. Remove the workpiece and ensure that the saw blade runs free. Turn the machine on and start new cutting operation with reduced feed force.
- ◆ Never cut light alloy, especially magnesium.
- ◆ Whenever the situation allows, mount the machine to a bench using bolts.

Residual risks

The following risks are inherent to the use of saws:

– injuries caused by touching the rotating parts

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- ◆ Impairment of hearing.
- ◆ Risk of accidents caused by the uncovered parts of the rotating saw blade.
- ◆ Risk of injury when changing the blade.
- ◆ Risk of squeezing fingers when opening the guards.
- ◆ Health hazards caused by breathing dust developed when sawing wood, especially oak, beech and MDF.

The following factors increase the risk of breathing problems:

- ◆ No dust extractor connected when sawing wood.
- ◆ Insufficient dust extraction caused by uncleaned exhaust filters.

Noise

The declared noise emission values stated in the technical data and the declaration of conformity have been measured in accordance with a standard test method provided by EN62841 and may be used for comparing one tool with another.

The declared noise emission values may also be used in a preliminary assessment of exposure.

Warning! The noise emission values during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used.

The noise level may increase above the level stated.

When assessing vibration exposure to determine safety measures required by 2002/44/EC to protect persons regularly using power tools in employment, an estimation of noise exposure should consider, the actual conditions of use and the way the tool is used, including taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time.

Labels on tool

The following pictograms are shown on the tool, along with the date code which also includes the year of manufacture, and is printed into the housing.

Example: **2019 XX XX**
Year of Manufacture



Warning! To reduce the risk of injury, the user must read the instruction manual.



Wear safety glasses or goggles.



Wear ear protection.



Wear a dust mask.



No Hands Zone - Keep fingers and arms away from rotational saw blades.



Keep hands away from blade



Wear gloves when handling saw blades.



Do not stare at operating lamp

Electrical safety



This tool is double insulated; therefore no earth wire is required. Always check that the power supply corresponds to the voltage on the rating plate.

- ◆ If the supply cord is damaged, it must be replaced by the manufacturer or an authorised STANLEY Service Centre in order to avoid a hazard.

Using an extension cable

If an extension cable is required, use an approved 3-core extension cable suitable for the power input of this tool (see Technical Data). The minimum conductor size is 1.5mm²; the maximum length is 30m. When using a cable reel, always unwind the cable completely.

Cable cross-sectional area (mm ²)	Cable rated current(Ampere)
0.75	6
1.00	10
1.50	15
2.50	20
4.00	25

Cable length (m)						
	7.5	15	25	30	45	60

Features

This tool includes some or all of the following features.

- Operating handle
- Lower guard
- Right side, fence
- Table
- Mitre lock knob
- Mitre scale
- Base
- Holes for work support
- Wrench
- Bench mounting holes
- Fence clamping knob
- Trigger switch
- Carrying handle
- Dust spout
- Lock down pin
- Bevel clamp knob
- Bevel scale
- Hand indentation
- Kerf plate
- Mitre detent
- Date code
- Left side, fence
- Brush cap
- Spindle lock
- Hole for padlock
- Angle position stop
- Bevel position adjustment stop
- LED switch
- Vertical position adjustment stop
- Lock-off lever
- Repeat cut plate
- Dust bag
- Vertical clamp
- Work support
- Fence stop screw
- Rear support

Assembly and adjustment

Warning! To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

Unpacking (Fig. 1, 2, 4, 5)

- ◆ Remove the saw from the packing material carefully using the carrying handle (m).
- ◆ Use the supplied blade wrench(i) to mount the rear support (mm) to the back of base (g).
- ◆ Mounting the mitre lock knob(e) to the mitre saw arm.
- ◆ Press down the operating handle (a) and pull out the lock down pin (o), as shown.
- ◆ Gently release the downward pressure and allow the arm to rise to its full height.

Bench Mounting (Fig. 6)

- ◆ Holes (j) are provided in all four feet to facilitate bench mounting. Always mount your saw firmly to prevent movement. To enhance the portability, the tool can be mounted to a piece of 15mm or thinner plywood which can then be clamped to your work support or moved to other job sites and reclamped.
- ◆ When mounting your saw to a piece of plywood, make sure that the mounting screws do not protrude from the bottom of the wood. The plywood must sit flush on the work support. When clamping the saw to any work surface, clamp only on the clamping bosses where the mounting screw holes are located. Clamping at any other point will interfere with the proper operation of the saw.
- ◆ To prevent binding and inaccuracy, be sure the mounting surface is not warped or otherwise uneven. If the saw rocks on the surface, place a thin piece of material under one saw foot until the saw is firm on the mounting surface.

Mounting the Saw Blade (Fig. 9, 10, 11, 12)

Warning! To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

- ◆ Never depress the spindle lock button while the blade is under power or coasting.
- ◆ Do not cut light alloy and ferrous metal (containing iron or steel) or masonry or fibre cement product with this mitre saw.
- ◆ Should use the corresponding blade cutting different materials.
- ◆ With the lower guard held in the raised position loosen the guard bracket screw (kk) until the guard bracket (ll) raises far enough to access the blade locking screw (nn).
- ◆ Depress the spindle lock button (x) with one hand and with the other hand use the wrench (i) provided to loosen the left-hand threaded blade locking screw (nn) by turning clockwise.

Warning! To use the spindle lock, press the button as shown and rotate the spindle by hand until you feel the lock engage. Continue to hold the lock button in to keep the spindle from turning.

- ◆ Remove the blade locking screw (nn) and the outside arbor collar (pp).
- ◆ Install the saw blade (oo) onto the blade adaptor seated directly against the inside arbor collar (rr), making sure that the teeth at the bottom edge of the blade are pointing toward the back of the saw (away from the operator).
- ◆ Replace the outer arbor collar (pp).

- ◆ Tighten the blade locking screw (nn) carefully by turning counter-clockwise while holding the spindle lock engaged with your other hand.
- ◆ Return the guard bracket (ll) to its original position and firmly tighten the guard bracket screw (kk) to hold bracket in place.

Warning! Be aware the saw blade shall be replaced in the described way only. Only use saw blades as specified under Technical Data.

Warning! The guard bracket(ll) must be returned to its original position and the guard bracket screw(kk) tightened before activating the saw.

Warning! Failure to do so may allow the guard to contact the spinning saw blade resulting in damage to the saw and severe personal injury.

Your mitre saw was accurately adjusted at the factory. If readjustment due to shipping and handling or any other reason is required, follow the steps below to adjust your saw. Once made, these adjustments should remain accurate.

Checking and Adjusting the Mitre Scale (Fig. 13, 14, 15)

- ◆ Loosen the mitre lock knob (e), depress the mitre detent (t) to release the mitre arm. Swing the mitre arm until the latch locates it at the 0° mitre position. Do not lock mitre lock knob (e).
- ◆ Pull down the head until the blade just enters the saw kerf (s).
- ◆ Place a square (tt) against the left side fence (v) and blade (oo) (Fig. 13).

Warning! Do not touch the tips of the blade teeth with the square.

If adjustment is required, proceed as follows:

- ◆ Loosen the mitre lock knob (e), depress the mitre detent (t) to release the mitre arm. Swing the mitre arm until the pointer points to 0° on the mitre scale. Tighten the mitre lock knob (e).
- ◆ Loosen the plastic knob (k) and use the wrench (i) to loosen the fence stop screw (jj). Remove the left side fence (v).
- ◆ Pull down the head and lock it in the lowered position by pushing in the lock down pin. Replace the left side fence and place a square against the left side fence and the blade. With the left side fence against the square use the wrench (i) to tighten the hex bolts on the fence in the order from the right side.

Checking and Adjusting the Blade to the Table (Fig. 16–19)

- ◆ Loosen the bevel clamp knob (p).

- ◆ Press the mitre arm to the right to ensure it is fully vertical with the angle position stop located against the vertical position adjustment stop (cc) and tighten the bevel clamp knob.
- ◆ Pull down the head until the blade just enters the saw kerf (s).
- ◆ Place a set square (tt) on the table and up against the blade (oo) (Fig. 18).

Warning! Do not touch the tips of the blade teeth with the square.

If adjustment is required, proceed as follows:

- ◆ Turn the vertical position adjustment stop screw (bb) in or out until the blade is at 90° to the table as measured with the square.
- ◆ If the bevel pointer (xx) does not indicate zero on the bevel scale (q), loosen the screw (yy) that secures the pointer and move the pointer as necessary.

Adjusting the Fence (Fig. 22)

The upper part of the fence can be adjusted to provide clearance, allowing the saw to bevel to 45° left and 0° right.

To adjust the left fence (v):

- ◆ Loosen the plastic knob (k) and slide the fence to the left.
- ◆ Make a dry run with the saw switched off and check for clearance. Adjust the fence to be as close to the blade as practical to provide maximum workpiece support, without interfering with the up and down movement of the arm.
- ◆ Tighten the knob securely.

Warning! The guide grooves (zz) can become clogged with sawdust. Use a stick or some low pressure air to clear the guide grooves.

Checking and Adjusting the Bevel Angle (Fig. 21, 22, 23)

- ◆ Loosen the left side fence clamping knob (k) and slide the upper part of the left side fence to the left as far as it will go.
- ◆ Loosen the bevel clamp knob (p) and move the saw arm to the left until the angle position stop (z) rests on the bevel position adjustment stop (aa). This is the 45° bevel position.

If adjustment is required, proceed as follows:

- ◆ Loosen the locknut (ww) a few turns and turn the bevel position adjustment stop screw (aa) in or out until the pointer (xx) indicates 45° with the angle position stop (z) resting on the bevel position adjustment stop.
- ◆ Firmly tighten the lock nut (ww) while holding the stop screw (aa) stationary.
- ◆ To achieve a 0° right bevel or a 45° left bevel, the two adjustment stop screws must be adjusted to allow the saw arm to move as necessary.

Adjusting the Depth Stop (Sawing Grooves) (Fig. 33)

The adjusting screw(ss) of the depth stop has to be turned clockwise if you want to saw a groove.

- ◆ Tilt the tool head by the handle to the position at which the requested groove depth is reached.
- ◆ Turn the adjusting screw(ss) clockwise until the end of the screw touches the housing stop.
- ◆ Guide the tool arm slowly upward.

Return the depth stop to its original position once sawing grooves done.

Ensure that saw blades do not touch any part of the base or kerf plate.

Guard Actuation and Visibility

The blade guard on your saw has been designed to automatically raise when the arm is brought down and to lower over the blade when the arm is raised.

The guard can be raised by hand when installing or removing saw blades or for inspection of the saw. NEVER RAISE THE BLADE GUARD MANUALLY UNLESS THE SAW IS TURNED OFF.

Note: Certain special cuts will require that you manually raise the guard. The front section of the guard is louvered for visibility while cutting. Although the louvers dramatically reduce flying debris, they are openings in the guard and safety glasses should be worn at all times when viewing through the louvers.

Automatic Electric Brake

Your saw is equipped with an automatic electric blade brake which stops the saw blade within 10 seconds of trigger release. This is not adjustable.

On occasion, there may be a delay after trigger release to brake engagement. On rare occasions, the brake may not engage at all and the blade will coast to a stop.

If a delay or "skipping" occurs, turn the saw on and off 4 or 5 times. If the condition persists, have the tool serviced by an authorized STANLEY service center.

Always be sure the blade has stopped before removing it from the kerf. The brake is not a substitute for guards or for ensuring your own safety by giving the saw your complete attention.

Brushes (Fig. 1)

Warning! To reduce the risk of serious personal injury, turn off the tool and disconnect it from the power source before attempting to move it, change accessories or make any adjustments.

Inspect carbon brushes regularly by unplugging the tool, removing the Brush holder cap (W) that holds the spring-loaded brush assembly. Keep brushes clean and sliding freely in their guides.

Always replace a used brush in the same orientation in the holder as it was prior to its removal.

Use only identical STANLEY brushes. Use of the correct grade of brush is essential for proper operation of electric brake. New brush essential for proper operation of electric brake. New brush assemblies are available at STANLEY service centers. The tool should be allowed to "run in" (run at no load) for 10 minutes before use to seat new brushes. The electric brake may be erratic in operation until the brushes are properly seated (worn in). Always replace the brush inspection cap after inspection or servicing the brushes.

While "running in" do not tie, tape, or otherwise lock the trigger switch on. Hold by hand only.

Use

Warning! Always observe the safety instructions and applicable regulations.

Warning! To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/ installing attachments or accessories.

Ensure the machine is placed to satisfy your ergonomic conditions in terms of table height and stability. The machine site shall be chosen so that the operator has a good overview and enough free surrounding space around the machine that allows handling of the workpiece without any restrictions.

To reduce effects of vibration make sure the environment temperature is not too cold, machine and accessory is well maintained and the workpiece size is suitable for this machine.

Prior to Operation

- ◆ Install the appropriate saw blade. Do not use excessively worn blades. The maximum rotation speed of the tool must not exceed that of the saw blade.
- ◆ Do not attempt to cut excessively small pieces.
- ◆ Allow the blade to cut freely. Do not force.
- ◆ Allow the motor to reach full speed before cutting.
- ◆ Make sure all locking knobs and clamp handles are tight.
- ◆ Secure the workpiece.
- ◆ Although this saw will cut wood and many nonferrous materials, these operating instructions refer to the cutting of wood only. The same guidelines apply to the other materials. Do not cut ferrous (iron and steel) materials or masonry with this saw! Do not use any abrasive discs!
- ◆ Make sure to use the kerf plate. Do not operate the machine if the kerf slot is wider than 12mm.

Switching On and Off (Fig.24)

To turn the saw on, push the lock-off lever (dd) to the left, then depress the trigger switch (l). The saw will run while the switch is depressed. Allow the blade to spin up to full operating speed before making the cut. To turn the saw off, release the switch. Allow the blade to stop before raising the saw head. There is no provision for locking the switch on. A hole (y) is provided in the trigger for insertion of a padlock to lock the switch off.

Use of LED Work light System (Fig. 1, 2)

Note: The mitre saw must be connected to a power source. The LED Work light System is equipped with an on/off switch (bb). The LED Work light System is independent of the mitre saw's trigger switch. The light does not need to be on in order to operate the saw.

To cut through an existing pencil line on a piece of wood:

- ◆ Turn on the system, then pull down on the operating handle (a) to bring the saw blade close to the wood. The shadow of the blade will appear on the wood.
- ◆ Align the pencil line with the edge of the blade's shadow. You may have to adjust the mitre or bevel angles in order to match the pencil line exactly.

Body and Hand Position

Proper positioning of your body and hands when operating the mitre saw will make cutting easier, more accurate and safer.

- ◆ Never place your hands near the cutting area.
- ◆ Place your hands no closer than 150mm from the blade.
- ◆ Hold the workpiece tightly to the table and the fence when cutting.
Keep your hands in position until the switch has been released and the blade has completely stopped.
- ◆ Always make dry runs (without power) before finish cuts so that you can check the path of the blade.
- ◆ Do not cross your hands.
- ◆ Keep both feet firmly on the floor and maintain proper balance.
- ◆ As you move the saw arm left and right, follow it and stand slightly to the side of the saw blade.
- ◆ View through the guard louvres when following a pencil line.

Basic Saw Cuts

Vertical Straight Cross Cut (Fig. 1, 2, 25)

Note: Always use 254mm saw blades with 30mm arbor holes to obtain the desired cutting capacities.

- ◆ Loosen the mitre lock knob (e) and depress the mitre detent (t) to release the mitre arm.
- ◆ Engage the mitre latch at the 0° position and tighten the mitre lock knob (e).

- ◆ Place the wood to be cut against the fence (c, v).
- ◆ Take hold of the operating handle (a) and push the lock-off lever (dd) to the left.
- ◆ Press the trigger switch (l) to start the motor.
- ◆ Depress the head to allow the blade to cut through the timber and enter the plastic kerf plate (s).
- ◆ After completing the cut, release the switch and wait for the saw blade to come to a complete standstill before returning the head to its upper rest position.

Vertical Mitre Cross-cuts (Fig. 1, 2, 26)

- ◆ Loosen the mitre lock knob (e) and depress the mitre detent (t). Move the head left or right to the required angle.
- ◆ The mitre detent will automatically locate at 0°, 15°, 22.5°, 31.6° and 45°. If any intermediate angle or 52° is required hold the head firmly and lock by tightening the mitre lock knob (e).
- ◆ Always ensure that the mitre lock lever is locked tightly before cutting.
- ◆ Proceed as for a vertical straight cross-cut.

Warning! When mitring the end of a piece of wood with a small off-cut, position the wood to ensure that the off-cut is to the side of the blade with the greater angle to the fence; i.e. left mitre, off-cut to the right - right mitre, off-cut to the left.

Bevel Cuts (Fig. 1, 2, 27)

Bevel angles can be set from 0° right to 45° left and can be cut with the mitre arm set between zero and a maximum of 45° mitre position right or left.

- ◆ Loosen the left side fence clamping knob (k) and slide the upper part of the left side fence (v) to the left as far as it will go.
Loosen the bevel clamp knob (p) and set the bevel as desired.
- ◆ Tighten the bevel clamp knob (p) firmly.
- ◆ Proceed as for a vertical straight cross-cut.

Quality of Cuts

The smoothness of any cut depends on a number of variables, e.g. the material being cut. When smoothest cuts are desired for moulding and other precision work, a sharp (60 tooth carbide) blade and a slower for wood, a sharp (80-120 tooth carbide) blade and a slower for aluminium, even cutting rate will produce the desired results.

Warning! Ensure that the material does not creep while cutting; clamp it securely in place. Always let the blade come to a full stop before raising the arm. If small fibres of wood still split out at the rear of the workpiece, stick a piece of masking tape on the wood where the cut will be made. Saw through the tape and carefully remove tape when finished.

Cutting Repetitive Lengths (Fig.20)

When cutting several pieces of stock to the same length, ranging from 230mm to 400mm, use the set plate (ee).

Install the set plate on the holder (ee) as shown in the figure 20.

Align the cutting line on your workpiece with either the left or right side of the groove in the kerf board, and while holding the workpiece, move the set plate flush against the end of the workpiece.

Then secure the set plate with the screw.

When the set plate is not used, loosen the screw and turn the set plate out of the way.

Clamping the Workpiece (Fig. 3, 7, 38)

- ◆ Whenever possible, clamp the wood/ aluminium to the saw.
- ◆ For best results use the clamp (gg) made for use with your saw. Clamp the workpiece to the fence whenever possible. You can clamp to either side of the saw blade; remember to position your clamp against a solid, flat surface of fence.
- ◆ Mounting the clamp: Inserting the vertical clamp to the holes(mm) as shown in Figure 7, then rotate to the right position. If horizontal clamp is needed, please mounting the horizontal clamp to the holes(qq) as shown in Figure 38.

Warning! Always use a material clamp when cutting non-ferrous metals.V

Warning! Always use both of vertical clamp and horizontal clamp when cutting small pieces.

Support for Long Pieces (Fig. 3, 8)

- ◆ Always support long pieces.
- ◆ For best results, use the extension work support (ii) to extend the table width of your saw.
Support long workpieces using any convenient means such as saw-horses or similar devices to keep the ends from dropping.
- ◆ Mounting the work support(Fig. 8):
Use the supplied blade wrench(i) to loosen the screws.
Insert the work support to the holes(h).
Tighten the screws.

Cutting Aluminium Extrusion

Warning! Never attempt to cut thick or round aluminium extrusions. Thick aluminium extrusions may come loose during operation and round aluminium extrusions cannot be secured firmly with this tool.

When securing aluminium extrusions, use spacer blocks or pieces of scrap as shown in the Fig.28 to prevent deformation of the aluminium. Use a cutting lubricant when cutting the aluminium extrusion to prevent build-up of the aluminium material on the blade.

Cutting Picture Frames, Shadow Boxes and Other Four-sided Projects (Fig. 29, 30)

Trim Moulding And Other Frames

Try a few simple projects using scrap wood until you develop a "feel" for your saw. Your saw is the perfect tool for mitring corners like the one shown in figure 30. The joint shown has been made using either bevel adjustment.

Using Bevel Adjustment

The bevel for the two boards is adjusted to 45° each, producing a 90° corner. The mitre arm is locked in the zero position. The wood is positioned with the broad flat side against the table and the narrow edge against the fence.

Using Mitre Adjustment

The same cut can be made by mitring right and left with the broad surface against the fence.

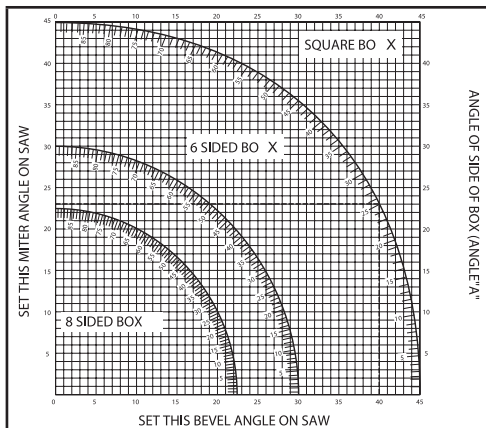
The two sketches (Fig. 29, 30) are for four side objects only. As the number of sides changes, so do the mitre and bevel angles. The chart below gives the proper angles for a variety of shapes, assuming that all sides are of equal length. For a shape that is not shown in the chart, divide 180° by the number of sides to determine the mitre or bevel angle.

No. of sides	Angle mitre or bevel
4	45°
5	36°
6	30°
7	25.7°
8	22.5°
9	20°
10	18°

Compound Mitre (Fig. 29–32)

A compound mitre is a cut made using a mitre angle (Fig. 30) and a bevel angle (Fig. 29) at the same time. This is the type of cut used to make frames or boxes with slanting sides like the one shown in figure 31.

Warning! If the cutting angle varies from cut to cut, check that the bevel clamp knob and the mitre lock knob are securely tightened. These knobs must be tightened after making any changes in bevel or mitre.



- ◆ This chart will assist you in selecting the proper bevel and mitre settings for common compound mitre cuts. To use the chart, select the desired angle "A" (Fig. 32) of your project and locate that angle on the appropriate arc in the chart. From that point follow the chart straight down to find the correct bevel angle and straight across to find the correct mitre angle.
- ◆ Set your saw to the prescribed angles and make a few trial cuts.
- ◆ Practice fitting the cut pieces together.
- ◆ Example: To make a 4 sided box with 25° exterior angles (angle "A") (Fig. 32), use the upper right arc. Find 25° on the arc scale. Follow the horizontal intersecting line to either side to get the mitre angle setting on the saw (23°). Likewise follow the vertical intersecting line to the top or bottom to get the bevel angle setting on the saw (40°). Always try cuts on a few scrap pieces of wood to verify the settings on the saw.

Cutting Base Mouldings

The cutting of base moulding is performed at a 45° bevel angle.

- ◆ Always make a dry run without power before making any cuts.
- ◆ All cuts are made with the back of the moulding laying flat on the saw.

Inside Corner

Left Side

- ◆ Position the moulding with top of the moulding against the fence.
- ◆ Save the left side of the cut.

Right Side

- ◆ Position the moulding with the bottom of the moulding against the fence.

- ◆ Save the left side of the cut.

Outside Corner

Left Side

- ◆ Position the moulding with the bottom of the moulding against the fence.
- ◆ Save the right side of the cut.

Right Side

- ◆ Position the moulding with top of the moulding against the fence.
- ◆ Save the right side of the cut.

Cutting Crown Mouldings

The cutting of crown moulding is performed in a compound mitre.

In order to achieve extreme accuracy, your saw has pre-set angle positions at 31.6° mitre and there is also a mark on the Bevel scale at 33.9°. These settings are for standard crown mouldings with 52° angles at the top and 38° angles at the bottom.

- ◆ Make test cuts using scrap material before doing the final cuts.
- ◆ All cuts are made in a left bevel and with the back of the moulding against the base.

Inside Corner

Left Side

- ◆ Top of the moulding against the fence.
- ◆ Mitre right.
- ◆ Save the left side of the cut.

Right Side

- ◆ Bottom of the moulding against the fence.
- ◆ Mitre left.
- ◆ Save the left side of the cut.

Outside Corner

Left Side

- ◆ Bottom of the moulding against the fence.
- ◆ Mitre left.
- ◆ Save the left side of the cut.

Right Side

- ◆ Top of the moulding against the fence.
- ◆ Mitre right.
- ◆ Save the right side of the cut.

Special Cuts

- ◆ All cuts are made with the material secured to the table and against the fence. Be sure to properly secure workpiece.

Bowed Material (Fig. 35, 36)

When cutting bowed material always position it as shown in Figure 35 and never like that shown in Figure 36.

Positioning the material incorrectly will cause it to pinch the blade near the completion of the cut.

Cutting Large Material (Fig. 37)

Occasionally a piece of wood will be too large to fit beneath the blade guard. A little extra height can be gained by rolling the guard up out of the way, as shown in Figure 37. Avoid doing this as much as possible, but if need be, the saw will operate properly and make the bigger cut. NEVER TIE, TAPE, OR OTHERWISE HOLD THE GUARD OPEN WHEN OPERATING THIS SAW.

Dust Extraction (Fig. 2, 3)

Fit the dust bag (ff) onto the dust spout (n).

Warning! Whenever possible, connect a dust extraction device designed in accordance with the relevant regulations regarding dust emission. Connect a dust collection device designed in accordance with the relevant regulations. The air velocity of externally connected systems shall be 20 m/s $\pm$ 2 m/s. Velocity to be measured in the connection tube at the point of connection, with the tool connected but not running.

Transporting (Fig. 4, 5)

In order to conveniently carry the mitre saw, a carrying handle (m) has been included on the top of the saw arm.

- ◆ To transport the saw, lower the head and depress the lock down pin (o).
- ◆ Always use the carrying handle (m) or the hand indentations (r) shown in figure 5 to transport the saw.

Accessories

The performance of your tool depends on the accessory used. STANLEY accessories are engineered to high quality standards and designed to enhance the performance of your tool. By using these accessories you will get the very best from your tool.

Maintenance

Your STANLEY corded/cordless appliance/tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.

Warning! Before performing any maintenance on corded/cordless power tools:

- ◆ Switch off and unplug the appliance/tool.
- ◆ Or switch off and remove the battery from the appliance/tool if the appliance/tool has a separate battery pack.
- ◆ Or run the battery down completely if it is integral and then switch off.
- ◆ Unplug the charger before cleaning it. Your charger does not require any maintenance apart from regular cleaning.

- ◆ Regularly clean the ventilation slots in your appliance/tool/charger using a soft brush or dry cloth.
- ◆ Regularly clean the motor housing using a damp cloth. Do not use any abrasive or solvent-based cleaner.
- ◆ Regularly open the chuck and tap it to remove any dust from the interior (when fitted).

Protecting the environment



Separate collection. Products and batteries marked with this symbol must not be disposed of with normal household waste.

Products and batteries contain materials that can be recovered or recycled reducing the demand for raw materials. Please recycle electrical products and batteries according to local provisions. Further information is available at www.2helpU.com

Technical data

		SM1650
Voltage	V _{ac}	220 - 240
Frequency	Hz	50/60
Power input	W	1650
Blade diameter	mm	254
Blade kerf thickness	mm	2.8
Bore diameter	mm	30
Max. blade speed	min ⁻¹	6.3
Mitre (max. positions)	left right	47° 0°
0°mitre,0°bevel		75mmx140mm
45°mitre,0°bevel		75mmx95mm
0°mitre,45°bevel		48mmx140mm
45°mitre,45°bevel		48mmx95mm
Automatic blade brake time	s	<10.0
Weight	kg	10.5

Level of sound pressure according to EN62841:		
Sound pressure (L _{PA})	dB(A)	98.5
Sound pressure uncertainty (K _{PA})	dB(A)	3
Sound power (L _{WA})	dB(A)	109
Sound power uncertainty (K _{WA})	dB(A)	3

EC declaration of conformity

MACHINERY DIRECTIVE



SM1650 - Mitre Saw

STANLEY declares that these products described under "technical data" are in compliance with: 2006/42/EC, EN 62841-1:2015+A11:2022, EN IEC 62841-3- 9:2020+A11:2020.

These products also comply with Directive 2014/30/EU and 2011/65/EU. For more information, please contact STANLEY at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of STANLEY.

Patrick Diepenbach

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Germany
7/18/2023

Guarantee

If your STANLEY product becomes defective due to faulty materials or workmanship within 24 months from the date of purchase, STANLEY guarantees to replace all defective parts free of charge or – at our discretion – replace the unit free of charge provided that:

- The product has not been misused and has been used in accordance with the instruction manual;
- The product has been subject to fair wear and tear;
- Repairs have not been attempted by unauthorized persons;
- Proof of purchase is produced;
- The STANLEY product is returned complete with all original components;
- The product hasn't been used for hire purposes.

If you wish to make a claim, contact your seller or check the location of your nearest authorised STANLEY repair agent in the STANLEY catalogue or contact your local STANLEY office at the address indicated in this manual. A list of authorised STANLEY repair agents and full details of our after sales service is available on the internet at: www.2helpU.com

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