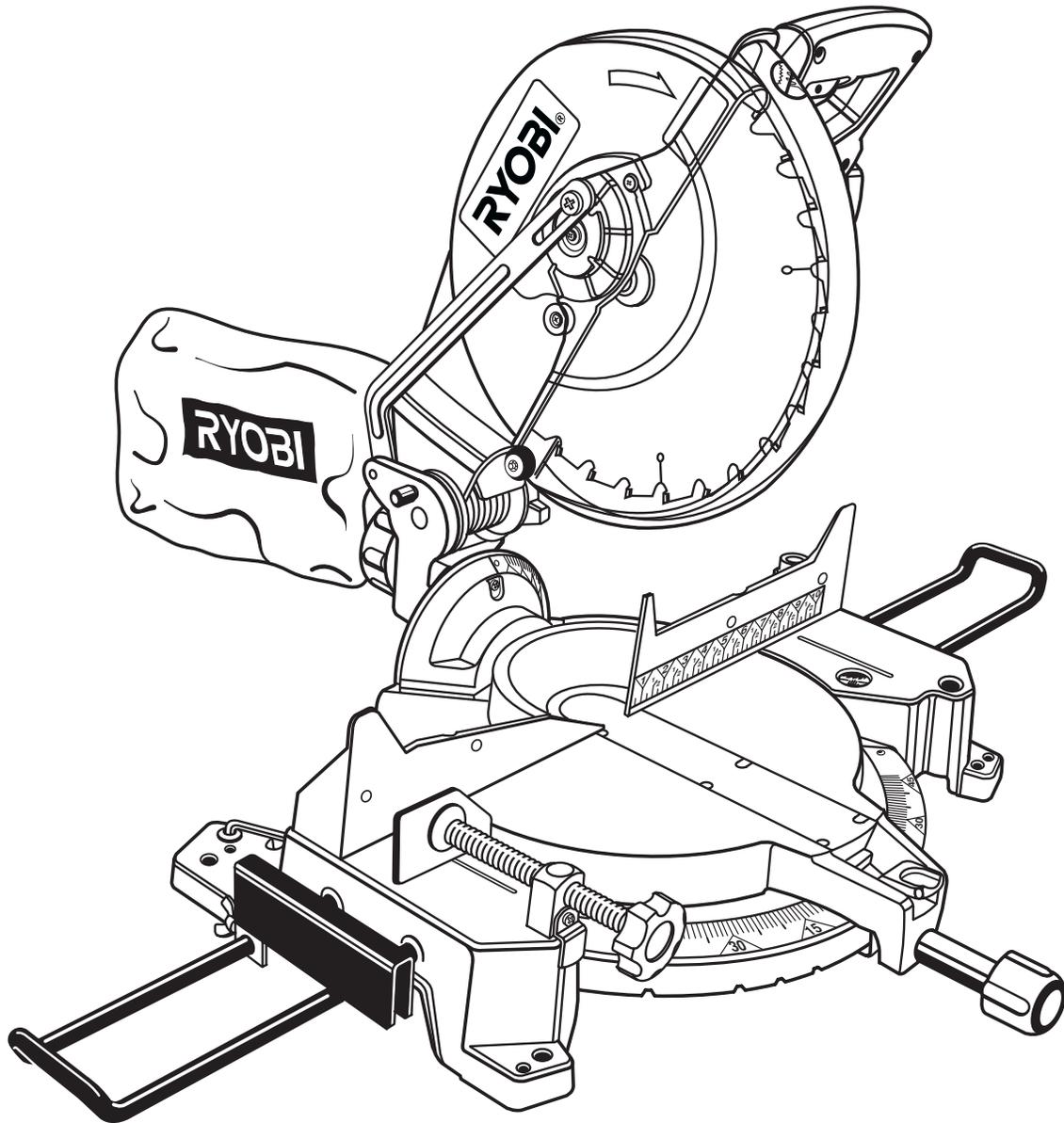


# RYOBI®

## OPERATOR'S MANUAL

### 12 in. (305 mm) Compound Miter Saw TS1550 - Double Insulated



Your new miter saw has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.



**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual.

Thank you for buying a Ryobi miter saw.

**SAVE THIS MANUAL FOR FUTURE REFERENCE**

# TABLE OF CONTENTS

■ Introduction .....	2
■ Rules for Safe Operation .....	3-5
■ Specifications .....	6
■ Glossary .....	6
■ Unpacking .....	7
■ Features .....	8-9
■ Assembly .....	10-12
■ Operation .....	13-19
■ Adjustments .....	20-22
■ Accessories .....	23-24
■ Maintenance .....	25
■ Parts, Ordering, and Service .....	26

## INTRODUCTION

Your miter saw has many features for making cutting operations more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this tool making it easy to maintain and operate.

### **WARNING:**

Do not attempt to use this tool until you have read thoroughly and understand completely the operator's manual. Pay close attention to the safety rules, including Dangers, Warnings, and Cautions. If you use your miter saw properly and only for what it is intended, you will enjoy years of safe, reliable service.

### **DOUBLE INSULATION**

Double insulation is a concept in safety in electric power tools, which eliminates the need for the usual three-wire grounded power cord. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded.

### **WARNING:**

The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal wiring. Observe all normal safety precautions to avoid electrical shock.

**Important:** Servicing of a tool with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service, we suggest you return the tool to your nearest authorized service center for repair. Always use original factory replacement parts when servicing.



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always wear eye protection which is marked to comply with ANSI Z87.1.



**Look for this symbol to point out important safety precautions. It means attention!!! Your safety is involved.**

# RULES FOR SAFE OPERATION

Safe operation of this power tool requires that you read and understand this operator's manual and all labels affixed to the tool. Safety is a combination of common sense, staying alert, and knowing how your tool works.

## READ ALL INSTRUCTIONS

- **KNOW YOUR POWER TOOL.** Read the operator's manual carefully. Learn the saw's applications and limitations as well as the specific potential hazards related to this tool.
- **GUARD AGAINST ELECTRICAL SHOCK** by preventing body contact with grounded surfaces such as pipes, radiators, ranges, refrigerator enclosures.
- **KEEP GUARDS IN PLACE** and in good working order.
- **REMOVE WRENCHES AND ADJUSTING KEYS.** Get in the habit of checking - before turning on tool - that hex keys and adjusting wrenches are removed from tool.
- **KEEP THE WORK AREA CLEAN.** Cluttered work areas and work benches invite accidents. **DO NOT** leave tools or pieces of wood on the saw while it is in operation.
- **DO NOT USE IN DANGEROUS ENVIRONMENTS.** Do not use power tools near gasoline or other flammable liquids, in damp or wet locations, or expose them to rain. Keep the work area well lit.
- **KEEP CHILDREN AND VISITORS AWAY.** All visitors should wear safety glasses and be kept a safe distance from work area. Do not let visitors contact tool or extension cord while operating.
- **MAKE WORKSHOP CHILDPROOF** with padlocks and master switches or by removing starter keys.
- **DO NOT FORCE THE TOOL** it will do the job better and more safely at the rate for which it was designed.
- **USE THE RIGHT TOOL FOR THE JOB.** Do not force the tool or attachment to do a job it was not designed for. Use it only the way it was intended.
- **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Use only a cord heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. A wire gage size (A.W.G.) of at least 14 is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
- **INSPECT TOOL CORDS AND EXTENSION CORDS PERIODICALLY** and, if damaged, have repaired by a qualified service technician at an authorized service center. Stay constantly aware of cord location and keep it well away from the moving blade.
- **DRESS PROPERLY.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that can get caught and draw you into moving parts.
- Nonslip footwear is recommended. Also wear protective hair covering to contain long hair.
- **ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS.** Everyday eyeglasses have only impact-resistant lenses, they are **NOT** safety glasses.
- **WEAR A DUST MASK** to keep from inhaling fine particles.
- **PROTECT YOUR HEARING.** Wear hearing protection during extended periods of operation.
- **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- **DO NOT OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories.
- **DISCONNECT ALL TOOLS.** When not in use, before servicing, or when changing attachments, all tools should be disconnected.
- **AVOID ACCIDENTAL STARTING.** Be sure switch is off when plugging in any tool.
- **USE RECOMMENDED ACCESSORIES.** Using improper accessories may risk injury.
- **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the blade is unintentionally contacted.
- **CHECK DAMAGED PARTS.** Before using the tool again, check any damaged parts, including guards, for proper operation and performance. Check alignment of moving parts, binding of moving parts, breakage of parts, saw stability, mounting and any other conditions that may affect its operation. A damaged part must be properly repaired or replaced by a qualified service technician at an authorized service center to avoid risk of personal injury.
- **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN THE POWER OFF.** Do not leave tool until it comes to a complete stop.
- **FIRMLY CLAMP OR BOLT** your miter saw to a workbench or table at approximately hip height.
- **USE ONLY CORRECT BLADES.** Use the right blade size, style and cutting speed for the material and the type of cut. Do not use blades with incorrect size holes. Never use blade washers or blade bolts that are defective or incorrect. The maximum blade capacity of your saw is 12 in. (305 mm).
- **KEEP BLADES CLEAN, SHARP, AND WITH SUFFICIENT SET.** Sharp blades minimize stalling and kickback.
- **DO NOT REMOVE THE SAW'S BLADE GUARDS.** Never operate the saw with any guard or cover removed. Make sure all guards are operating properly before each use.

# RULES FOR SAFE OPERATION

- **KEEP HANDS AWAY FROM CUTTING AREA.** Do not reach underneath work or in blade cutting path with your hands and fingers for any reason. Always turn the power off.
- **BLADE COASTS AFTER BEING TURNED OFF.**
- **DO NOT ABUSE CORD.** Never yank cord to disconnect it from receptacle. Keep cord from heat, oil, and sharp edges.
- **USE ONLY OUTDOOR EXTENSION CORDS.** Use only extension cords with the marking "Acceptable for use with outdoor appliances; store cords indoors while not in use". Use extension cords with an electrical rating not less than the saw's rating. Always disconnect the extension cord from the outlet before disconnecting the product from the extension cord.
- **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by a qualified service technician at an authorized service center.
- **KEEP TOOL DRY, CLEAN, AND FREE FROM OIL AND GREASE.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean tool.
- **ALWAYS SUPPORT LONG WORKPIECES** while cutting to minimize risk of blade pinching and kick-back. Saw may slip, walk or slide while cutting long or heavy boards.
- **BEFORE MAKING A CUT,** be sure all adjustments are secure.
- **BE SURE BLADE PATH IS FREE OF NAILS.** Inspect for and remove all nails from lumber before cutting.
- **ALWAYS USE A CLAMP** to secure the workpiece when possible.
- **NEVER TOUCH BLADE** or other moving parts during use for any reason.
- **BE SURE THE BLADE CLEARS THE WORKPIECE.** Never start the saw with the blade touching the workpiece. Allow motor to come up to full speed before starting cut.
- **MAKE SURE THE MITER TABLE AND SAW ARM (BEVEL FUNCTION) ARE LOCKED IN POSITION BEFORE OPERATING YOUR SAW.** Lock the miter table by securely tightening the miter lock handle. Lock the saw arm (bevel function) by securely tightening the bevel lock knob.
- **NEVER USE A LENGTH STOP ON THE FREE SCRAP END OF A CLAMPED WORKPIECE.** **NEVER** hold onto or bind the free scrap end of the workpiece in any operation. If a work clamp and length stop are used together, they must both be installed on the same side of the saw table to prevent the saw from catching the loose end and kicking up.
- **NEVER** cut more than one piece at a time. **DO NOT STACK** more than one workpiece on the saw table at a time.
- **NEVER PERFORM ANY OPERATION FREEHAND.** Always place the workpiece to be cut on the miter table and position it firmly against the fence as a backstop. Always use the fence.
- **NEVER** hand hold a workpiece that is too small to be clamped. Keep hands clear of the no hands zone.
- **NEVER** reach behind, under, or within three inches (76 mm) of the blade and its cutting path with your hands and fingers for any reason.
- **NEVER** reach to pick up a workpiece, a piece of scrap, or anything else that is in or near the cutting path of the blade.
- **AVOID AWKWARD OPERATIONS AND HAND POSITIONS** where a sudden slip could cause your hand to move into the blade. **ALWAYS** make sure you have good balance. **NEVER** operate your miter saw on the floor or in a crouched position.
- **NEVER** stand or have any part of your body in line with the path of the saw blade.
- **ALWAYS** release the power switch and allow the saw blade to stop rotating before raising it out of the workpiece.
- **DO NOT TURN THE MOTOR SWITCH ON AND OFF RAPIDLY.** This could cause the saw blade to loosen and could create a hazard. Should this ever occur, stand clear and allow the saw blade to come to a complete stop. Disconnect your saw from the power supply and securely retighten the blade bolt.
- **REPLACEMENT PARTS.** All repairs, whether electrical or mechanical, should be made at your nearest authorized service center.
- **WHEN SERVICING,** use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.
- **NEVER USE THIS TOOL IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.
- **POLARIZED PLUGS.** To reduce the risk of electric shock, this tool has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.
- **IF ANY PART OF THIS MITER SAW IS MISSING** or should break, bend, or fail in any way, or should any electrical component fail to perform properly, release the switch trigger, remove the miter saw plug from the power source and have damaged, missing, or failed parts replaced before resuming operation.
- **DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR ANY MEDICATION.**

# RULES FOR SAFE OPERATION

- **ALWAYS STAY ALERT!** Do not allow familiarity (gained from frequent use of your saw) to cause a careless mistake. **ALWAYS REMEMBER** that a careless fraction of a second is sufficient to inflict severe injury.
- **STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. **Do not operate tool when you are tired. Do not rush.**
- **MAKE SURE THE WORK AREA HAS AMPLE LIGHTING** to see the work and that no obstructions will interfere with safe operation **BEFORE** performing any work using your saw.
- **ALWAYS TURN OFF THE SAW** before disconnecting it to avoid accidental starting when reconnecting to power supply. **NEVER** leave the saw unattended while connected to a power source.
- **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use to instruct other users. If you loan someone this tool, loan them these instructions also.

## **WARNING:**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL	MEANING
	<b>DANGER:</b> Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.
	<b>WARNING:</b> Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.
	<b>CAUTION:</b> Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.
	<b>NO HANDS:</b> Failure to keep your hands away from the blade will result in serious personal injury.
	<b>WET CONDITIONS ALERT:</b> Do not expose to rain or use in damp locations.
<b>NOTE:</b>	Advises you of information or instructions vital to the operation or maintenance of the equipment.



**DANGER:** Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



**WARNING:** Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



**CAUTION:** Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



**NO HANDS:** Failure to keep your hands away from the blade will result in serious personal injury.



**WET CONDITIONS ALERT:** Do not expose to rain or use in damp locations.

**NOTE:**

Advises you of information or instructions vital to the operation or maintenance of the equipment.

## SAVE THESE INSTRUCTIONS

# SPECIFICATIONS

Blade Diameter	12 in. (305 mm)
Blade Arbor	1 in. (25.4 mm)
No Load Speed	3600 RPM
Input	120 Volts, 60 Hz, AC only, 15 amps
Weight	41 lbs. (18.6 kg)

# GLOSSARY

## **Arbor**

The shaft on which a blade or cutting tool is mounted.

## **Bevel Cut**

A cutting operation made with the blade at any angle other than 90° to the miter table.

## **Crosscut**

A cutting or shaping operation made across the grain of the workpiece.

## **Compound Miter Cut**

A compound miter cut is a cut made using a miter angle and a bevel angle at the same time.

## **Freehand**

Performing a cut without using a fence, miter gage, fixture, work clamp, or other proper device to keep the workpiece from twisting or moving during the cut.

## **Gum**

A sticky, sap based residue from wood products.

## **Miter Cut**

A cutting operation made with the blade at any angle other than 90° to the fence.

## **No Hands Zone**

The area between the marked lines on the left and right side of the miter table base. This zone is identified by no hands zone labels placed inside the marked lines on the miter table base.

## **Resin**

A sticky, sap base substance that has hardened.

## **Revolutions Per Minute (RPM)**

The number of turns completed by a spinning object in one minute.

## **Saw Blade Path**

The area over, under, behind, or in front of the blade. As it applies to the workpiece, that area which will be, or has been, cut by the blade.

## **Set**

The distance that the tip of the sawblade tooth is bent (or set) outward from the face of the blade.

## **Throw-Back**

Throwing of a workpiece in a manner similar to a kickback. Usually associated with a cause other than the kerf closing, such as a workpiece not being against the fence, being dropped into the blade, or being placed inadvertently in contact with the blade.

## **Through Sawing**

Any cutting operation where the blade extends completely through the thickness of the workpiece.

## **Workpiece**

The item on which the cutting operation is being done. The surfaces of a workpiece are commonly referred to as faces, ends, and edges.

## **Zero Clearance Throat Plate**

A plastic throat plate inserted in the miter table that allows for blade clearance. When you make your first cut with your compound miter saw, the saw blade cuts a slot through the throat plate the exact width of the blade. This provides for a zero clearance kerf that minimizes workpiece tear-out.

# UNPACKING

## INFORMATION

We have shipped the miter saw completely assembled except for the blade, miter lock handle, dust guide/dust bag, table extensions, and stop block.

- Remove the loose parts from the box. Make sure that all items listed in the loose parts list are included.
- Remove the packing materials from around the saw.
- Lift the saw carefully from the box and place it on a level work surface.

**NOTE:** The saw is heavy. Ask for assistance if necessary.

- Do not discard the packing material until you have carefully inspected the tool, identified all loose parts, and satisfactorily operated the tool.
- The saw is shipped with the saw arm locked in the down position. To release the saw arm, push down on the top of the saw arm and pull out the lock pin. Apply hand pressure on the saw arm to prevent sudden rise upon release of the lock pin.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.
- Inspect all parts carefully to make sure no breakage or damage occurred during shipping.

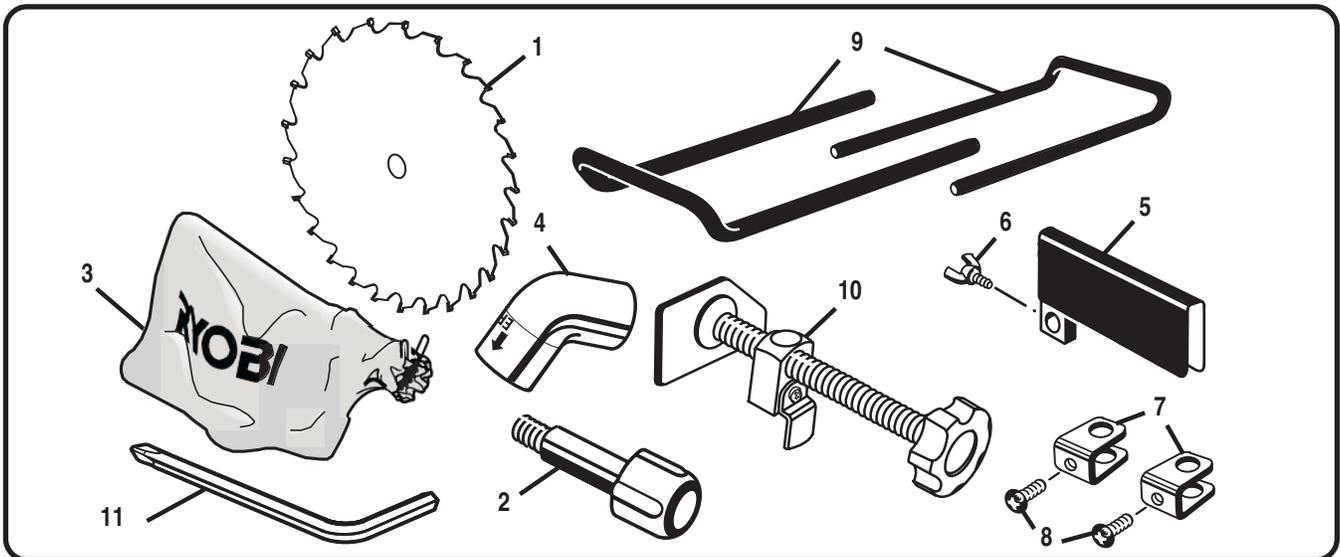
### **⚠ WARNING:**

If any parts are missing do not operate the tool until the missing parts are replaced. Failure to do so could result in serious personal injury.

**NOTE:** The compound miter saw has been adjusted at the factory for making very accurate cuts. However, some of the components might have been jarred out of alignment during shipping. Also, over a period of time, readjustment will probably become necessary due to wear. After unpacking your saw, check the saw adjustments before you begin using the saw. Make any readjustments that are necessary and periodically check the parts alignment to make sure that the saw is cutting accurately. Refer to ADJUSTMENTS later in this manual.

## LOOSE PARTS LIST

1. Saw blade
2. Miter lock handle
3. Dust bag
4. Dust guide
5. Stop block
6. Small wing screw
7. Clamp brackets (2)
8. Clamp bracket screws (2)
9. Table extensions (2)
10. Work clamp
11. Hex blade wrench



# FEATURES

Before using the miter saw, familiarize yourself with all operating features and safety requirements. However, do not let familiarity with the tool make you careless.

## **WARNING:**

Exercise caution when using the miter saw. Careless actions, for even a fraction of a second, can result in serious personal injury.

## **SWITCH**

The miter saw has a conveniently located trigger switch.

## **TRIGGER LOCK**

The trigger switch features a lockable latch that allows you to attach a padlock to prevent unauthorized use.

## **MOTOR**

Your saw has a powerful 15 amp motor with sufficient power to handle tough cutting jobs. It is made with all ball bearings.

## **BLADE**

A 12 in. (305 mm) saw blade is included with your compound miter saw. It will cut materials up to 7-7/8 in. (200 mm) wide, depending upon the thickness of the material and the settings at which the cut is being made. Refer to the table below for cutting capacity details.

<b>Miter Angle</b>	<b>Bevel Angle</b>	<b>Cutting Capacity</b>
0°	0°	7-7/8 in. x 2-1/2 in. (200 mm x 63.5 mm)
45°	0°	5-1/2 in. x 2-1/2 in. (140 mm x 63.5 mm)
0°	45°	7-7/8 in. x 1-3/4 in. (200 mm x 44.5 mm)
45°	45°	5 in. x 1-3/4 in. (127 mm x 44.5 mm)

## **CARRYING HANDLE**

The saw includes a handle on top of the saw arm that allows you to easily transport the miter saw.

## **MITER LOCK HANDLE**

The miter lock handle securely locks the saw at desired miter angles.

## **SPINDLE LOCK BUTTON**

The spindle lock button allows you to lock the spindle, which keeps the blade in the saw from rotating.

## **POSITIVE STOPS**

The saw contains positive stops at 0°, 15°, 22-1/2°, 30°, and 45° on both the left and right side of the miter table.

## **BEVEL LOCK KNOB**

The bevel lock knob securely locks your compound miter saw at desired bevel angles. Positive stop adjustment screws are included on each side of the saw arm, which allow you to make fine adjustments at 0° and 45°.

## **ELECTRIC BRAKE**

The electric brake allows you to quickly stop the blade rotation after you release the switch.

## **FENCE**

The fence secures the workpiece when making cuts. The fence contains a built-in measuring scale to assist you in making crosscuts.

## **LOWER BLADE GUARD**

The self-retracting lower blade guard is made of shock-resistant, clear plastic that provides protection from each side of the blade. It retracts over the upper blade guard as you lower the saw into the workpiece.

## **BLADE WRENCH STORAGE**

The saw has a convenient blade wrench storage in the base.

## **MOUNTING HOLES**

Four bolt holes are located in the saw base that allow you to permanently mount the saw to a firm supporting surface.

## **WARNING:**

Always make sure the compound miter saw is securely mounted to a workbench or an approved work stand. Failure to do so could result in an accident resulting in possible serious personal injury.

## **ELECTRICAL CONNECTION**

Your tool has a precision built electric motor. **It should be connected to a power supply that is 120 volts, 60 Hz, AC only (normal household current).** Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

# FEATURES

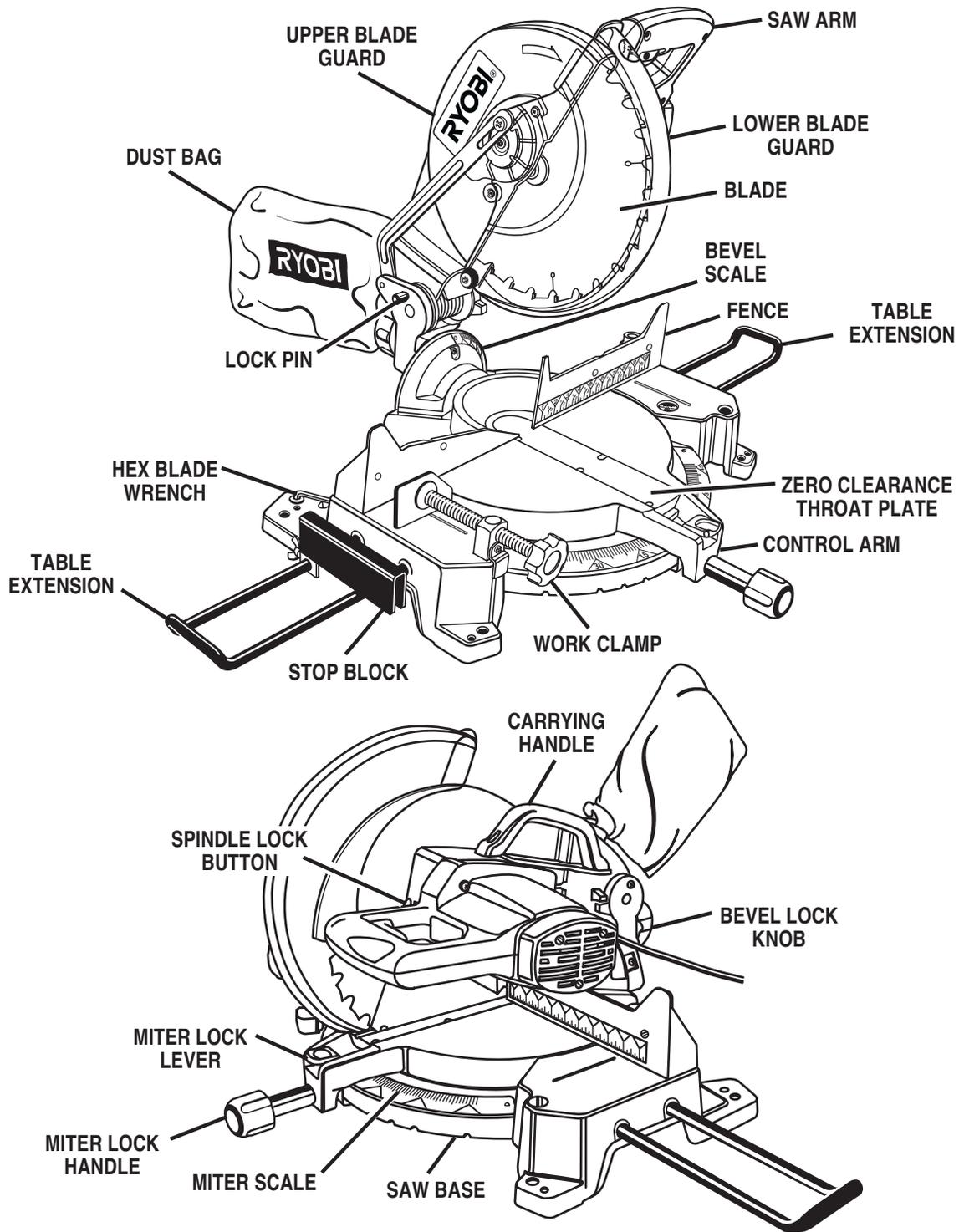


Fig. 1

## **⚠ WARNING:**

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

# ASSEMBLY

## **⚠ WARNING:**

The miter saw should never be connected to a power supply when you are assembling parts, making adjustments, installing or removing blades, cleaning, or when not in use. Disconnecting the miter saw will prevent accidental starting that could cause serious personal injury.

**NOTE:** For information on installing accessories, refer to ACCESSORIES later in this manual.

## INSTALLING THE MITER LOCK HANDLE

See Figure 2.

Follow these directions to install the miter lock handle.

- Place the threaded end of the miter lock handle into the threaded hole in the control arm.
- Tighten the miter lock handle by turning it clockwise.

## INSTALLING THE DUST GUIDE

See Figure 3.

Follow these directions to install the dust guide.

- Unplug the saw.

## **⚠ WARNING:**

Failure to unplug the tool could result in accidental starting causing serious injury.

- Place the end of the dust guide over the exhaust port in the upper blade guard.
- Turn the guide so that the open end is facing down or toward the rear of the saw.

## INSTALLING THE BLADE

See Figures 4, 5, and 6.

## **⚠ WARNING:**

The maximum blade capacity of this saw is 12 in. (305 mm). Never use a blade that is too thick to allow the outer blade washer to engage with the flats on the spindle. Larger blades will come in contact with the blade guards, while thicker blades will prevent the blade bolt from securing the blade on the spindle. Either of these situations could result in a serious accident and can cause serious personal injury.

Follow these directions to install the blade.

- Unplug the saw.

## **⚠ WARNING:**

Failure to unplug the tool could result in accidental starting causing serious injury.

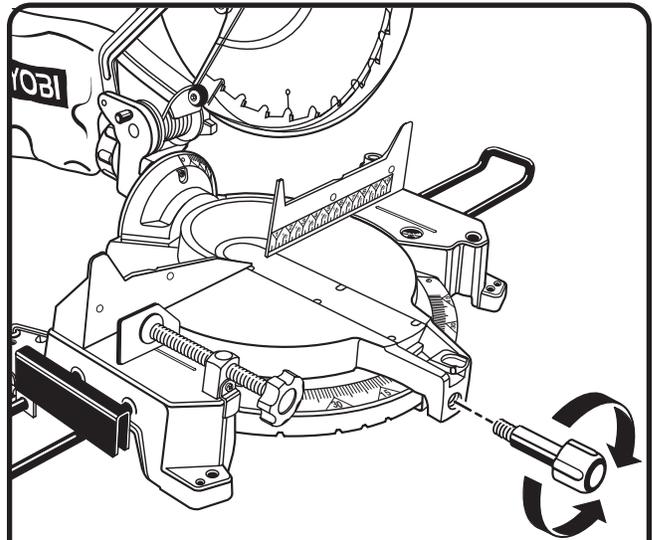


Fig. 2

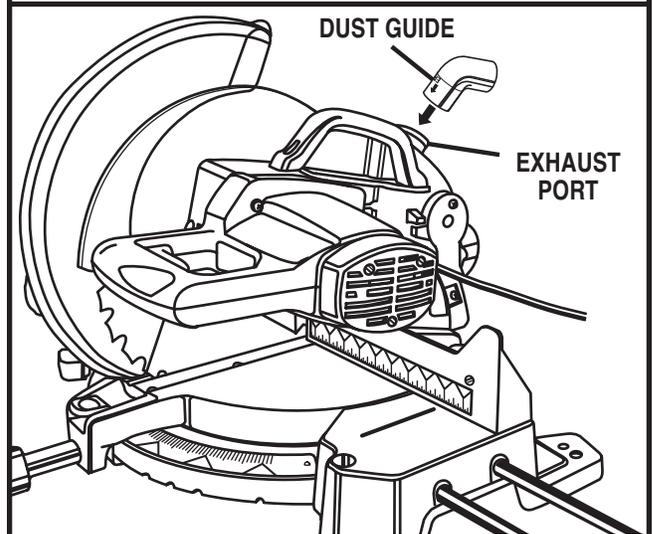


Fig. 3

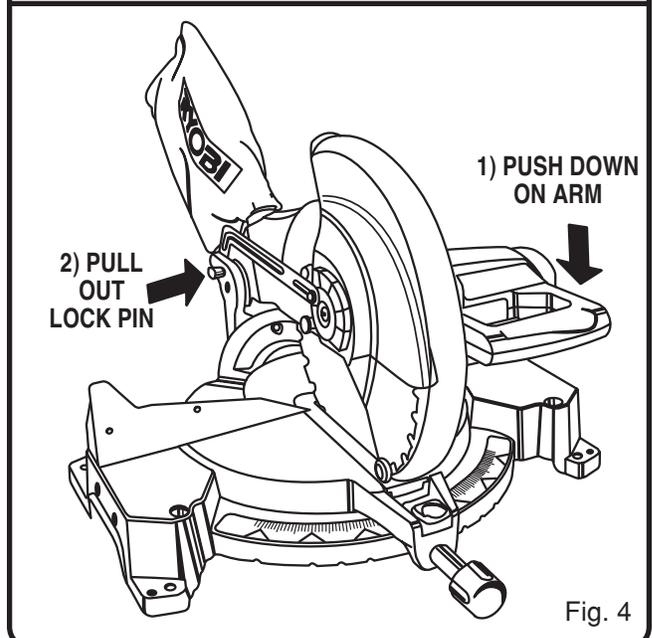


Fig. 4

# ASSEMBLY

- Push down on the saw arm.
- Pull out the lock pin to release saw arm.
- Raise the saw arm to its full raised position.

**NOTE:** Be cautious; the saw arm is spring loaded.

- Raise the lower blade guard to expose the screws on the blade bolt cover.
- Loosen the screws on the blade bolt cover using the phillips end of the blade wrench.
- Rotate the lower blade guard and blade bolt cover up and back to expose the blade bolt.
- Depress the spindle lock button and rotate the blade bolt until the spindle locks.

**NOTE:** The blade bolt has left hand threads. Turn the blade bolt clockwise to loosen.

- Loosen and remove the blade bolt using the blade wrench provided.
- Remove the flat washer.
- Remove the outer blade washer. **Do not** remove the inner blade washer.
- Wipe a drop of oil on the inner blade washer and outer blade washer where they contact the blade.

## ⚠ WARNING:

If the inner blade washer has been removed, replace it before placing the blade on the spindle. Failure to do so could cause the blade not to tighten properly, which could result in serious injury.

- Fit the saw blade inside the lower blade guard and onto the spindle, with the blade teeth pointing downward at the front of saw.

## ⚠ WARNING:

Always install the blade with the blade teeth and the arrow printed on the side of the blade pointing down at the front of the saw. The direction of blade rotation is also stamped with an arrow on the upper blade guard. Failure to heed this warning can result in serious personal injury.

- Replace the outer blade washer.
- Replace the flat washer.

**NOTE:** The double “D” flats on the blade washers align with the flats on the spindle.

- Replace the blade bolt.

**NOTE:** The blade bolt has left hand threads. Turn the blade bolt counterclockwise to tighten.

- Depress the spindle lock button.
- Tighten the blade bolt securely.

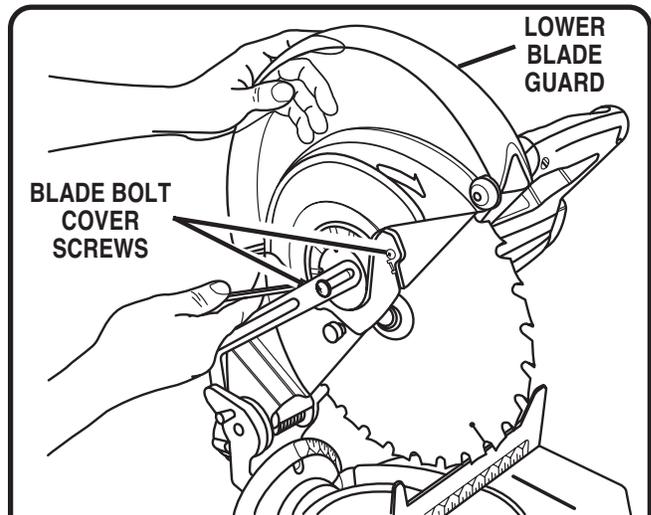


Fig. 5

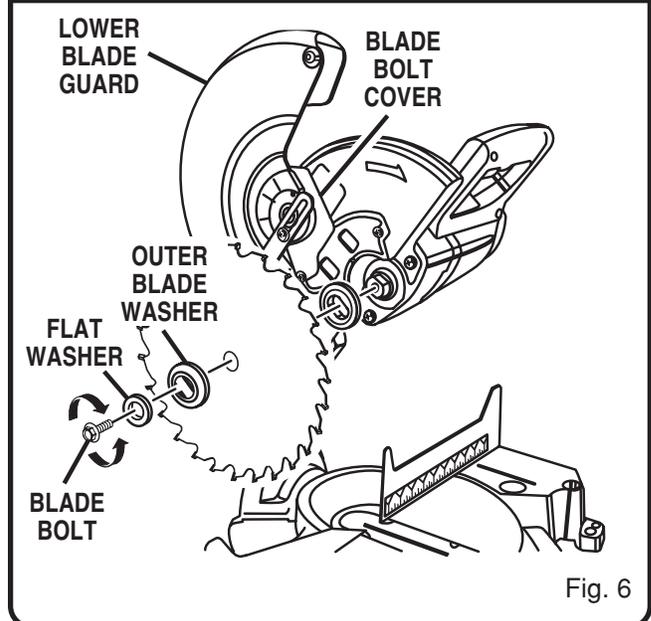


Fig. 6

- Remove the blade wrench.
- Restore the lower blade guard and the blade bolt cover.
- Retighten the screws using the phillips end of the blade wrench securing the blade bolt cover.
- Return the blade wrench to the wrench storage area.
- Make the first cut with the miter saw. Refer to CUTTING THE THROAT PLATE later in this manual.

## ⚠ CAUTION:

To prevent damage to the spindle lock, always allow the motor to come to a complete stop before engaging the spindle lock. Make sure the spindle lock button is not engaged before reconnecting the saw to a power source.

# ASSEMBLY

## CARRYING THE SAW

See Figure 7.

Follow these directions to carry the saw.

- Unplug the saw.

### **⚠ WARNING:**

Failure to unplug the tool could result in accidental starting causing serious injury.

- Pull the saw arm all the way down.
- Engage the lock pin to hold the saw arm in the transport position.
- Stand behind the saw.
- Lift the saw by the carrying handle.

**NOTE:** The saw is heavy. Ask for assistance if necessary.

## MOUNTING THE SAW TO A WORK SURFACE

See Figure 8.

Follow these directions to mount the saw to a work surface.

- Place the saw on a sturdy work surface, e.g., work stand, workbench, countertop.
- Mark the holes in the saw base with a pencil.
- Remove the saw from the work surface.
- Drill four holes through the work surface.
- Place the saw back on the work surface, aligning the holes in the saw base with the holes in the work surface.
- Insert four bolts (not included, 3/8 in. (9.5 mm) machine bolts recommended) and tighten securely with lock washers and hex nuts (not included).
- Check the work surface carefully after you mount the saw to make sure that no movement can occur during use. If any tipping, sliding, or walking is noted, secure the work surface to the floor before operating the saw.

**NOTE:** If you plan to transport the saw to different locations, we recommend that you attach it permanently to a mounting board that you can easily clamp to a work surface.

## SECURING THE SAW

See Figure 9.

Follow these directions to secure the saw.

- Unplug the saw.

### **⚠ WARNING:**

Failure to unplug the tool could result in accidental starting causing serious injury.

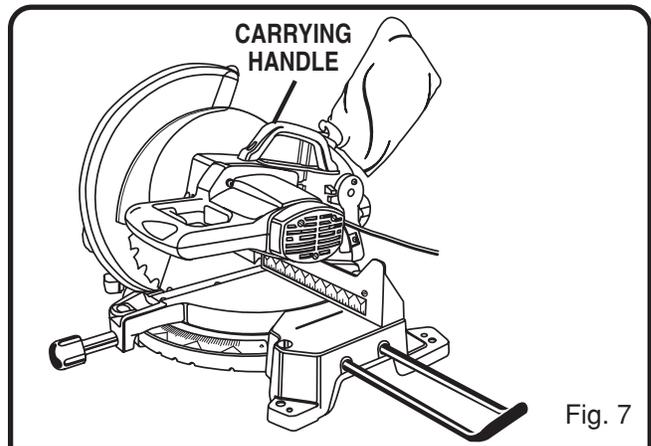


Fig. 7

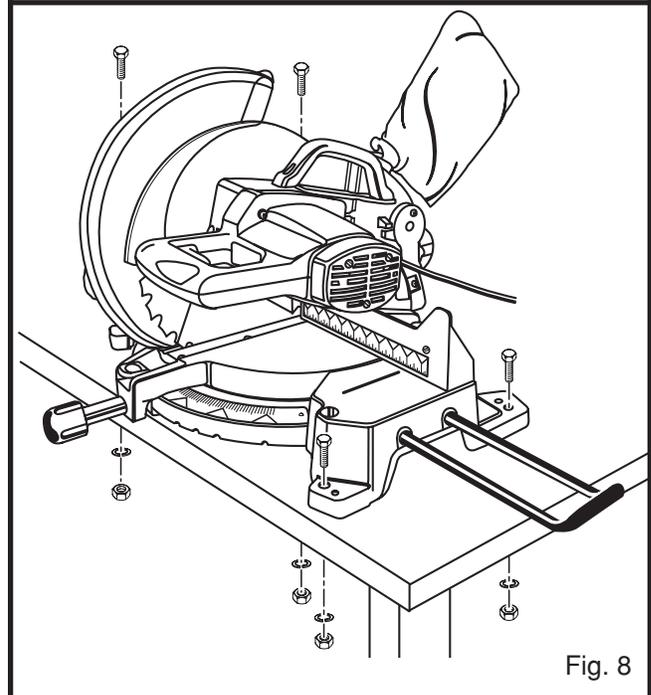


Fig. 8

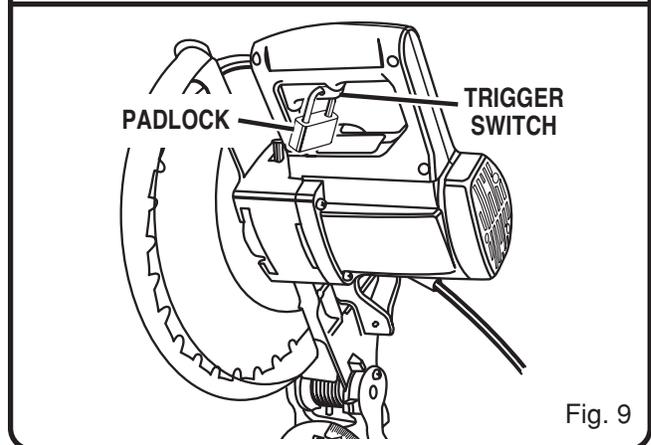


Fig. 9

- Install a padlock through the hole in the trigger switch.

**NOTE:** You may use a padlock with a long shackle up to 9/32 in. (7 mm) in diameter.

- Store the padlock key in another location.

# OPERATION

## **⚠ WARNING:**

Before starting any cutting operation, clamp or bolt the compound miter saw to a workbench at approximately waist height. Never operate your miter saw on the floor or in a crouched position. Failure to heed this warning can result in serious personal injury.

## **CUTTING THE THROAT PLATE**

See Figure 10.

In order to use the compound miter saw, you must cut a slot through the zero clearance throat plate to allow for blade clearance.

Follow these directions to cut the throat plate.

- Set the saw at 0° miter.
- Turn on the saw and allow the blade to reach full speed.
- Make a straight cut as far as it will go through the throat plate.
- Turn off the saw and allow the blade to come to a complete stop before raising the saw arm.
- Adjust the bevel angle to 45°.
- Turn on the saw and allow the blade to reach full speed.
- Make another cut through the throat plate.

**NOTE:** The slot in the throat plate is now wide enough to allow the blade to pass through it at any angle from 0 to 45 degrees.

## **CUTTING WITH THE MITER SAW**

## **⚠ WARNING:**

When using the work clamp or a C-clamp to secure the workpiece, clamp the workpiece on one side of the blade only. The workpiece must remain free on one side of the blade to prevent the blade from binding in the workpiece. Binding the blade causes the motor to stall and kickback, which could cause an accident resulting in serious personal injury.

## **CROSSCUT**

See Figure 11.

A crosscut is made by cutting across the grain of the workpiece. A straight crosscut is made with the miter table set at the zero degree position. Miter crosscuts are made with the miter table set at some angle other than zero.

Follow these directions to make a crosscut.

- Push down on the saw arm.
- Pull out the lock pin to release the saw arm.

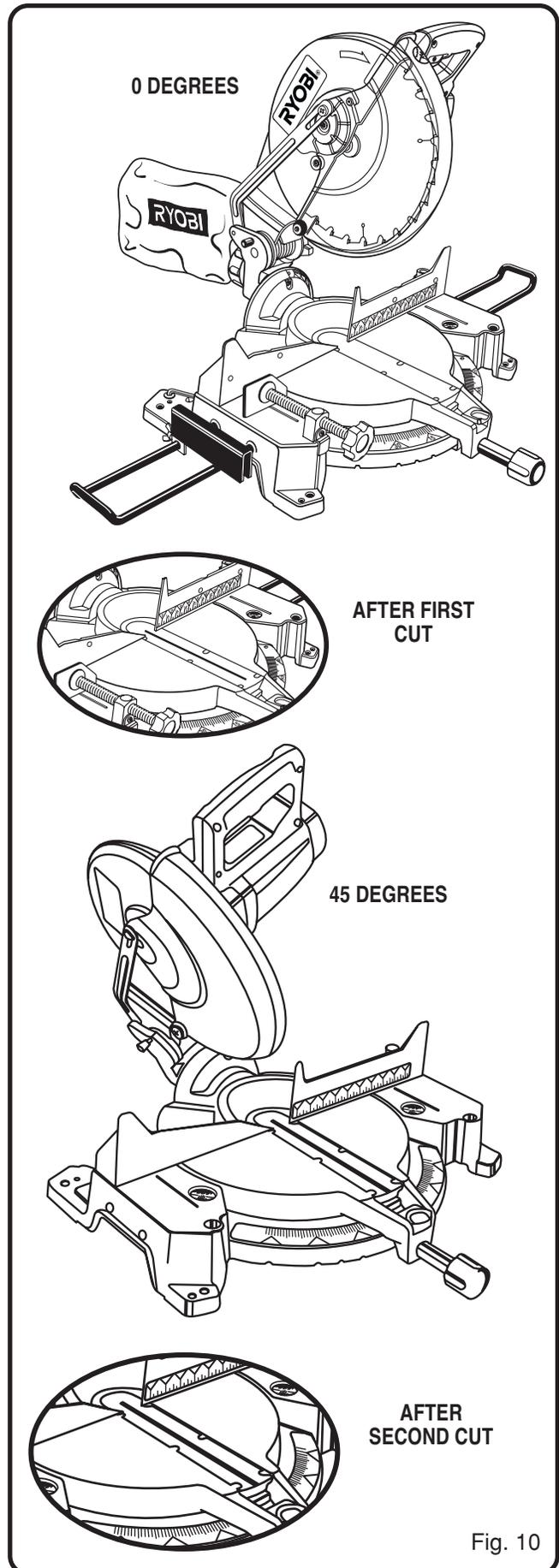


Fig. 10

# OPERATION

- Raise the saw arm to its full raised position.
- Loosen the miter lock handle by rotating it approximately one-half turn.
- Depress the miter lock lever.
- Rotate the control arm until the pointer aligns with the desired angle on the miter scale.
- Release the miter lock lever.

**NOTE:** You can quickly locate 0°, 15°, 22-1/2°, 30°, and 45° left or right by releasing the miter lock lever as you rotate the control arm. The miter lock lever will seat itself in one of the positive stop notches, located in miter table frame.

- Tighten the miter lock handle securely.

## **⚠ WARNING:**

To avoid serious personal injury, always tighten the miter lock handle securely before making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

- Place the workpiece flat on the miter table with one edge securely against the fence. Refer to CUTTING WARPED MATERIAL and SUPPORTING LONG AND WIDE WORKPIECES later in this manual.

**NOTE:** Use the built-in measuring scale to make quick crosscuts.

- Align the cutting line on the workpiece with the edge of saw blade.
- Grip the workpiece firmly with one hand to secure it against the fence.

**NOTE:** Use the work clamp or a C-clamp to secure the workpiece when possible.

## **⚠ WARNING:**

To avoid serious personal injury, keep your hands outside the no hands zone; at least 3 in. (76 mm) from the blade. Never perform any cutting operation freehand (without holding the workpiece against the fence). The blade could grab the workpiece if it slips or twists.

- Perform a dry run of the cutting operation (before turning on the saw) just to make sure that no problems will occur when you make the cut.
- Grasp the saw handle firmly.
- Squeeze the switch trigger.

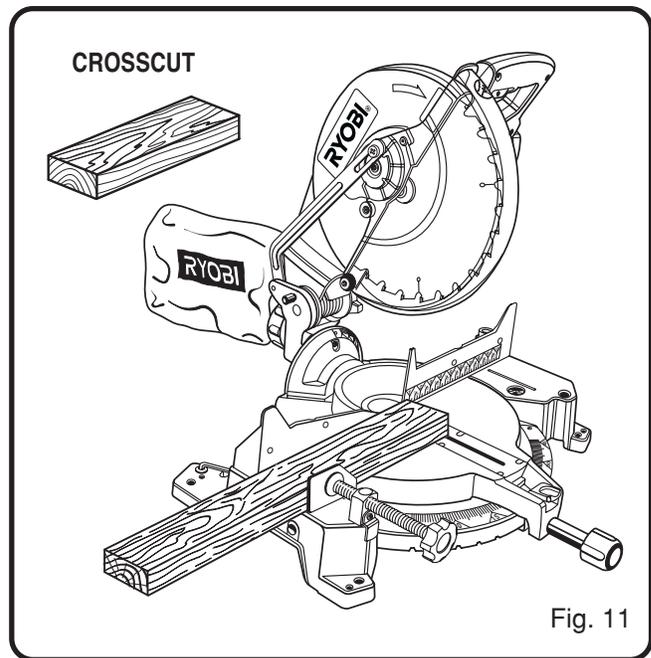


Fig. 11

- Allow several seconds for the blade to reach maximum speed.
- Lower the blade into and through the workpiece.
- Release the switch trigger.
- Wait for the blade to stop before raising the saw arm or moving the workpiece.

## **BEVEL CUT**

See Figure 12.

A bevel cut is made by cutting across the grain of the workpiece with the blade angled to the workpiece. A straight bevel cut is made with the miter table set at the zero degree position and the blade set at an angle between 0° and 45°.

Follow these directions to make a bevel cut.

- Push down on the saw arm.
- Pull out the lock pin to release the saw arm.
- Raise the saw arm to its full raised position.
- Loosen the miter lock handle by rotating it approximately one-half turn.
- Depress the miter lock lever.
- Rotate the control arm until the pointer aligns with zero on the miter scale.

# OPERATION

- Release the miter lock lever.

**NOTE:** You can quickly locate 0° by releasing the miter lock lever as you rotate the control arm. The miter lock lever will seat itself in one of the positive stop notches, located in miter table frame.

- Tighten the miter lock handle securely.

## **⚠ WARNING:**

To avoid serious personal injury, always tighten the miter lock handle securely before making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

- Loosen the bevel lock knob.
- Move the saw arm to the left to the desired bevel angle.

**NOTE:** You can set bevel angles from 0° to 45°. Align the indicator point to the desired angle.

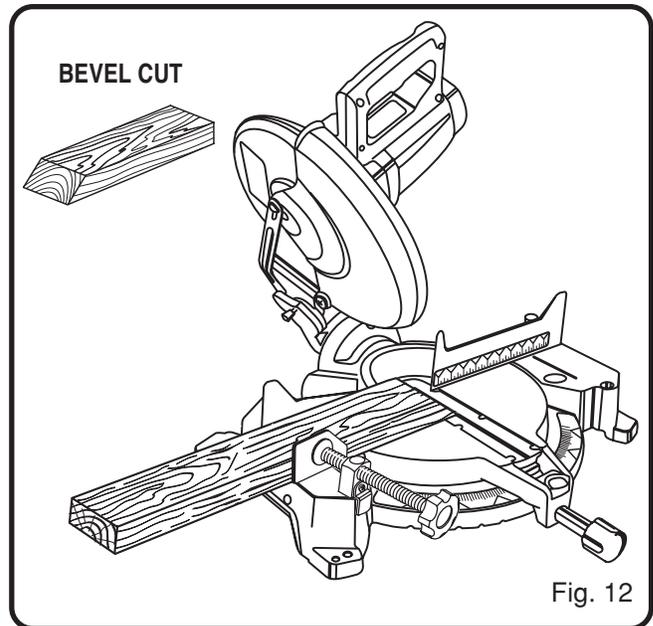
- Tighten the bevel lock knob securely.
  - Place the workpiece flat on the miter table with one edge securely against the fence.
- NOTE:** Refer to CUTTING WARPED MATERIAL and SUPPORTING LONG AND WIDE WORKPIECES later in this manual.
- Align the cutting line on the workpiece with the edge of saw blade.
  - Clamp the workpiece firmly against the fence using the work clamp or a C-clamp.

## **⚠ WARNING:**

If not held securely in place, the workpiece is pulled toward the blade in a bevel crosscut. This action can result in the workpiece kicking back. Always securely clamp the workpiece when bevel cutting. Keep your hands out of the cutting area to avoid serious personal injury.

## **⚠ WARNING:**

To avoid serious personal injury, keep your hands outside the no hands zone; at least 3 in. (76 mm) from the blade. Never perform any cutting operation freehand (without holding workpiece against the fence). The blade could grab the workpiece if it slips or twists.



- Perform a dry run of the cutting operation (before turning on the saw) just to make sure that no problems will occur when you make the cut.
- Grasp the saw handle firmly.
- Squeeze the switch trigger.
- Allow several seconds for the blade to reach maximum speed.
- Lower the blade into and through the workpiece.
- Release the switch trigger.
- Wait for the blade to stop before raising the saw arm or moving the workpiece.

## **COMPOUND MITER CUT**

See Figure 13.

A compound miter cut is a cut made using a miter angle and a bevel angle at the same time. This type of cut is used to make picture frames, cut molding, make boxes with sloping sides, and for certain roof framing cuts.

To make this type of cut, you must rotate the control arm on the miter table to the correct angle and tilt the saw arm to the correct bevel angle. Take care when making compound miter setups due to the interaction of the two angle settings.

Adjustments of miter and bevel settings are interdependent with one another. Each time you adjust the miter setting, you change the effect of the bevel setting. Also, each time you adjust the bevel setting, you change the effect of the miter setting.

# OPERATION

It may take several settings to obtain the desired cut. Always check the first angle setting after setting the second angle, since adjusting the second angle affects the first.

Once you have obtained the two correct settings for a particular cut, always make a test cut in scrap material before making a finish cut in good material.

Follow these directions to make a compound miter cut.

- Push down on the saw arm.
- Pull out the lock pin to release the saw arm.
- Raise the saw arm to its full raised position.
- Loosen the miter lock handle by rotating it approximately one-half turn.
- Depress the miter lock lever.
- Rotate the control arm until the pointer aligns with the desired angle on the miter scale.
- Release the miter lock lever.

**NOTE:** You can quickly locate 0°, 15°, 22-1/2°, 30°, and 45° left or right by releasing the miter lock lever as you rotate the control arm. The miter lock lever will seat itself in one of the positive stop notches, located in miter table frame.

- Tighten the miter lock handle securely.

## **⚠ WARNING:**

To avoid serious personal injury, always tighten the miter lock handle securely before making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

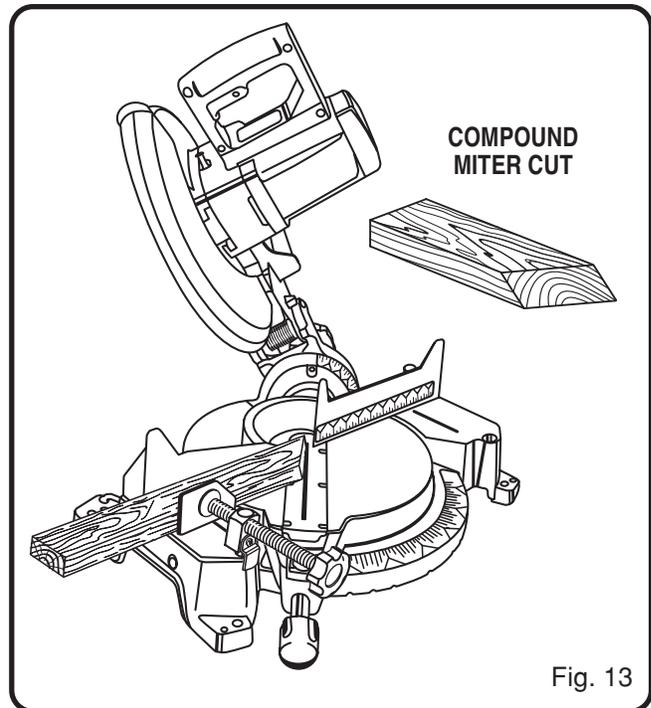
- Loosen the bevel lock knob.
- Move the saw arm to the left to the desired bevel angle.

**NOTE:** You can set bevel angles from 0° to 45°. Align the indicator point to the desired angle.

- Tighten the bevel lock knob securely.
- Recheck the miter angle setting.
- Make a test cut in scrap material.
- Place the workpiece flat on the miter table with one edge securely against the fence.

**NOTE:** Refer to CUTTING WARPED MATERIAL and SUPPORTING LONG AND WIDE WORKPIECES later in this manual.

- Align the cutting line on the workpiece with the edge of saw blade.
- Clamp the workpiece firmly against the fence using the work clamp or a C-clamp.



## **⚠ WARNING:**

To avoid serious personal injury, keep your hands outside the no hands zone; at least 3 in. (76 mm) from the blade. Never perform any cutting operation freehand (without holding workpiece against the fence). The blade could grab the workpiece if it slips or twists.

- Perform a dry run of the cutting operation (before turning on the saw) just to make sure that no problems will occur when you make the cut.
- Grasp the saw handle firmly.
- Squeeze the switch trigger.
- Allow several seconds for the blade to reach maximum speed.
- Lower the blade into and through the workpiece.
- Release the switch trigger.
- Wait for the blade to stop before raising the saw arm or moving the workpiece.

# OPERATION

The compound angle setting chart below is provided to help you make correct settings for compound miter cuts. Since compound miter cuts are the most difficult to accurately obtain, carefully plan the cut and make trial cuts in scrap material prior to making the required cut.

PITCH OF SIDE	NUMBER OF SIDES						
	4	5	6	7	8	9	10
0°	M- 45.00° B- 0.00°	M- 36.00° B- 0.00°	M- 30.00° B- 0.00°	M- 25.71° B- 0.00°	M- 22.50° B- 0.00°	M- 20.00° B- 0.00°	M- 18.00° B- 0.00°
5°	M- 44.89° B- 3.53°	M- 35.90° B- 2.94°	M- 29.91° B- 2.50°	M- 25.63° B- 2.17°	M- 22.42° B- 1.91°	M- 19.93° B- 1.71°	M- 17.94° B- 1.54°
10°	M- 44.56° B- 7.05°	M- 35.58° B- 5.86°	M- 29.62° B- 4.98°	M- 25.37° B- 4.32°	M- 22.19° B- 3.81°	M- 19.72° B- 3.40°	M- 17.74° B- 3.08°
15°	M- 44.01° B- 10.55°	M- 35.06° B- 8.75°	M- 29.15° B- 7.44°	M- 24.95° B- 6.45°	M- 21.81° B- 5.68°	M- 19.37° B- 5.08°	M- 17.42° B- 4.59°
20°	M- 43.22° B- 14.00°	M- 34.32° B- 11.60°	M- 28.48° B- 9.85°	M- 24.35° B- 8.53°	M- 21.27° B- 7.52°	M- 18.88° B- 6.72°	M- 16.98° B- 6.07°
25°	M- 42.19° B- 17.39°	M- 33.36° B- 14.38°	M- 27.62° B- 12.20°	M- 23.56° B- 10.57°	M- 20.58° B- 9.31°	M- 18.26° B- 8.31°	M- 16.41° B- 7.50°
30°	M- 40.89° B- 20.70°	M- 32.18° B- 17.09°	M- 26.57° B- 14.48°	M- 22.64° B- 12.53°	M- 19.73° B- 11.03°	M- 17.50° B- 9.85°	M- 15.72° B- 8.89°
35°	M- 39.32° B- 23.93°	M- 30.76° B- 19.70°	M- 25.31° B- 16.67°	M- 21.53° B- 14.41°	M- 18.74° B- 12.68°	M- 16.60° B- 11.31°	M- 14.90° B- 10.21°
40°	M- 37.45° B- 27.03°	M- 29.10° B- 22.20°	M- 23.86° B- 18.75°	M- 20.25° B- 16.19°	M- 17.60° B- 14.24°	M- 15.58° B- 12.70°	M- 13.98° B- 11.46°
45°	M- 35.26° B- 30.00°	M- 27.19° B- 24.56°	M- 22.21° B- 20.70°	M- 18.80° B- 17.87°	M- 16.32° B- 15.70°	M- 14.43° B- 14.00°	M- 12.94° B- 12.62°
50°	M- 32.73° B- 32.80°	M- 25.03° B- 26.76°	M- 20.36° B- 22.52°	M- 17.20° B- 19.41°	M- 14.91° B- 17.05°	M- 13.17° B- 15.19°	M- 11.80° B- 13.69°
55°	M- 29.84° B- 35.40°	M- 22.62° B- 28.78°	M- 18.32° B- 24.18°	M- 15.44° B- 20.82°	M- 13.36° B- 18.27°	M- 11.79° B- 16.27°	M- 10.56° B- 14.66°
60°	M- 26.57° B- 37.76°	M- 19.96° B- 30.60°	M- 16.10° B- 25.66°	M- 13.54° B- 22.07°	M- 11.70° B- 19.35°	M- 10.31° B- 17.23°	M- 9.23° B- 15.52°
65°	M- 22.91° B- 39.86°	M- 17.07° B- 32.19°	M- 13.71° B- 26.95°	M- 11.50° B- 23.16°	M- 9.93° B- 20.29°	M- 8.74° B- 18.06°	M- 7.82° B- 16.26°
70°	M- 18.88° B- 41.64°	M- 13.95° B- 33.53°	M- 11.17° B- 28.02°	M- 9.35° B- 24.06°	M- 8.06° B- 21.08°	M- 7.10° B- 18.75°	M- 6.34° B- 16.88°
75°	M- 14.51° B- 43.08°	M- 10.65° B- 34.59°	M- 8.50° B- 28.88°	M- 7.10° B- 24.78°	M- 6.12° B- 21.69°	M- 5.38° B- 19.29°	M- 4.81° B- 17.37°
80°	M- 9.85° B- 44.14°	M- 7.19° B- 35.37°	M- 5.73° B- 29.50°	M- 4.78° B- 25.30°	M- 4.11° B- 22.14°	M- 3.62° B- 19.68°	M- 3.23° B- 17.72°
85°	M- 4.98° B- 44.78°	M- 3.62° B- 35.84°	M- 2.88° B- 29.87°	M- 2.40° B- 25.61°	M- 2.07° B- 22.41°	M- 1.82° B- 19.92°	M- 1.62° B- 17.93°
90°	M- 0.00° B- 45.00°	M- 0.00° B- 36.00°	M- 0.00° B- 30.00°	M- 0.00° B- 25.71°	M- 0.00° B- 22.50°	M- 0.00° B- 20.00°	M- 0.00° B- 18.00°

Each B (Bevel) and M (Miter) Setting is Given to the Closest 0.005°.  
**COMPOUND-ANGLE SETTINGS FOR POPULAR STRUCTURES**

# OPERATION

## CUTTING CROWN MOLDING

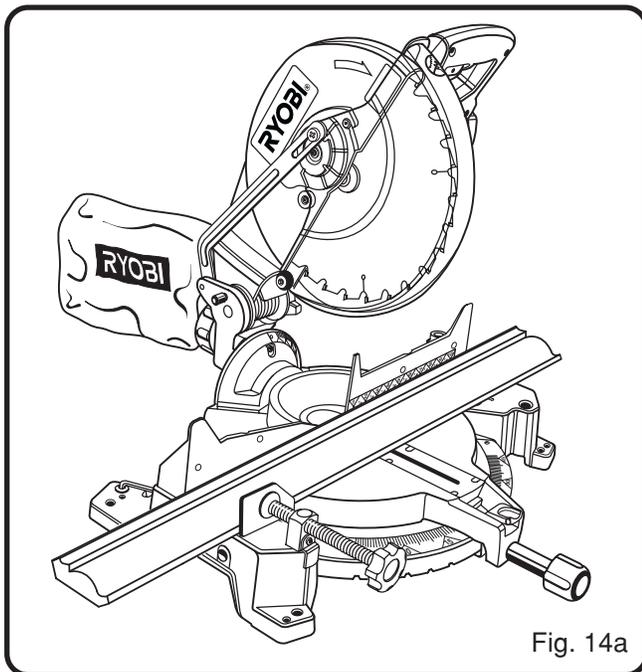
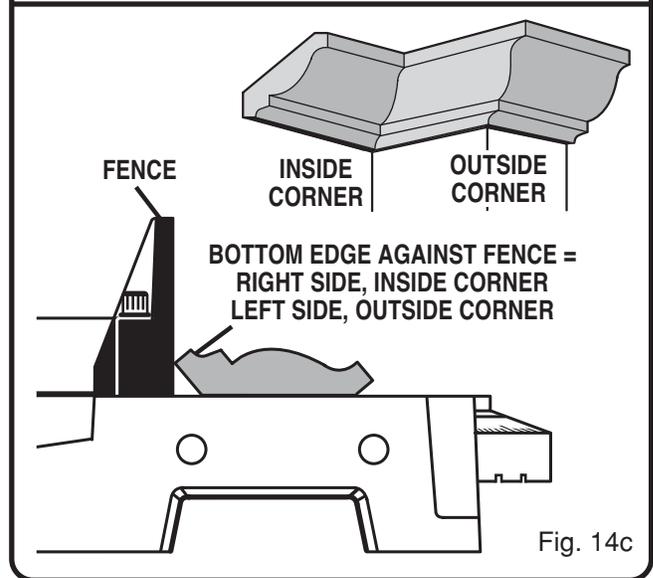
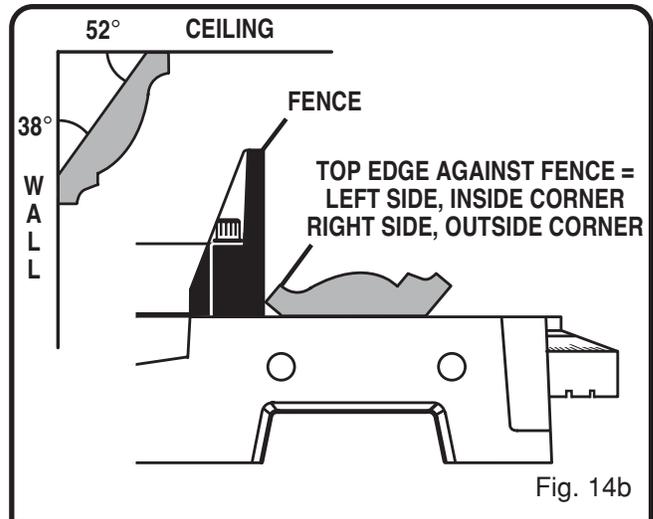
See Figures 14a, 14b, and 14c.

The compound miter saw is an excellent tool choice for cutting crown molding. In order to fit properly, crown molding must be compound mitered with extreme accuracy.

The two contact surfaces on a piece of crown molding that fit flat against the ceiling and the wall of a room are at angles that, when added together, equal exactly 90°. Most crown molding has a top rear angle (the section that fits flat against the ceiling) of 52° and a bottom rear angle (the section that fits flat against the wall) of 38°.

Follow these tips when cutting crown molding.

- Lay the molding with its broad back surface flat on the miter table and against the fence.
- When setting the bevel and miter angles for compound miters, remember that the settings are interdependent; changing one angle changes the other angle as well.
- Keep in mind that the angles for crown moldings are very precise and difficult to set. Since it is very easy for these angles to shift, you should first test all settings on scrap molding.
- Most walls do not have angles of exactly 90°; therefore, you will need to fine tune your settings.
- The bevel angle should be set at 33.85° and the miter angle should be set at 31.62° either right or left, depending on the desired cut for the application. See the chart below for correct angle settings and correct positioning of crown molding on miter table.
- The settings in the chart below can be used for cutting All Standard (U.S.) crown molding with 52° and 38° angles. The crown molding is placed flat on the miter table using the compound features of your miter saw.



Bevel Angle Setting	Type of Cut
33.85°	<b>Left side, inside corner</b> 1. Top edge of molding against fence 2. Miter table set right 31.62° 3. Save left end of cut
33.85°	<b>Right side, inside corner</b> 1. Bottom edge of molding against fence 2. Miter table set left 31.62° 3. Save left end of cut
33.85°	<b>Left side, outside corner</b> 1. Bottom edge of molding against fence 2. Miter table set left 31.62° 3. Save right end of cut
33.85°	<b>Right side, outside corner</b> 1. Top edge of molding against fence 2. Miter table set right 31.62° 3. Save right end of cut

# OPERATION

## CUTTING WARPED MATERIAL

See Figure 15.

When cutting warped material, always make sure it is positioned on the miter table with the convex side against the fence. If the warped material is positioned the wrong way, it will pinch the blade near the completion of the cut.

### **⚠ WARNING:**

To avoid a kickback and to avoid serious personal injury, never position the concave edge of bowed or warped material against the fence.

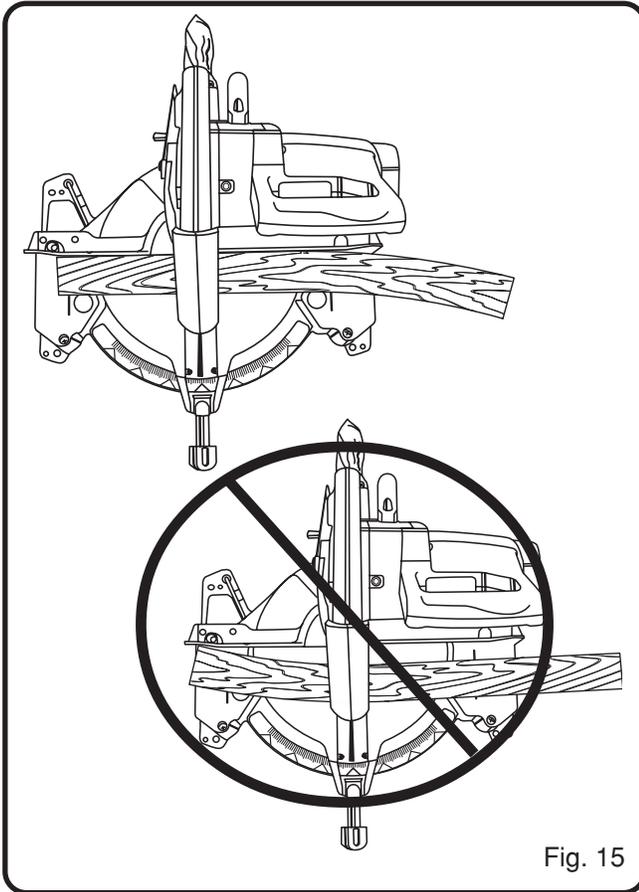


Fig. 15

## SUPPORTING LONG AND WIDE WORKPIECES

### LONG WORKPIECES

See Figure 16.

Long workpieces need extra supports. Supports should be placed along the workpiece so it does not sag. The support should let the workpiece lay flat on the base of the saw during the cutting operation. Use the work clamp or a C-clamp to secure the workpiece.

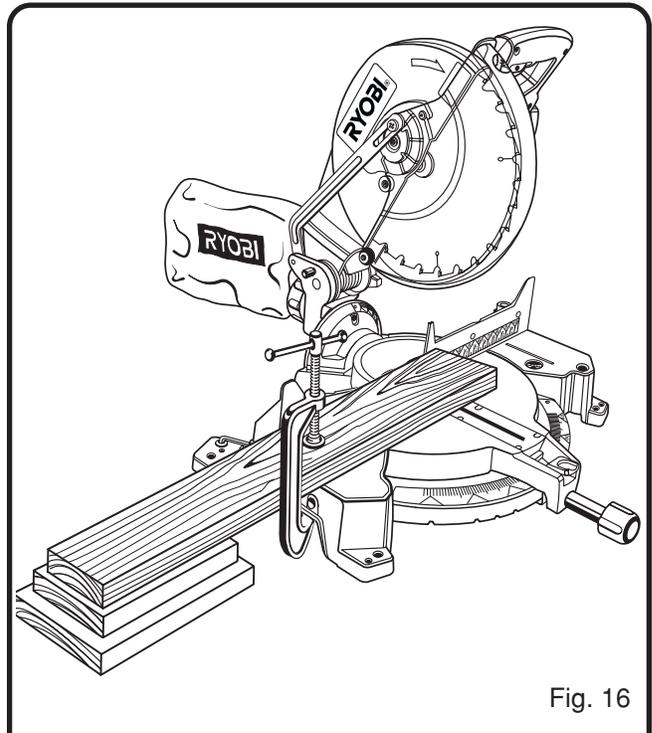


Fig. 16

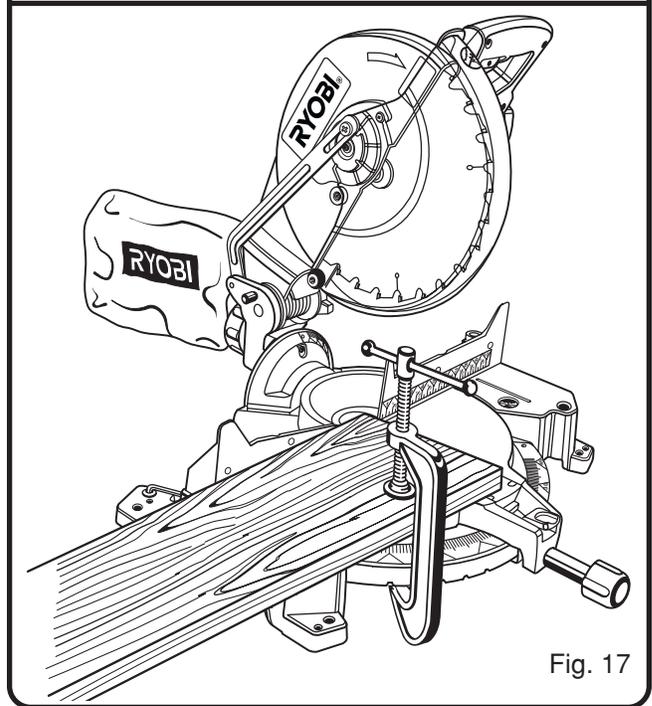


Fig. 17

### WIDE WORKPIECES

See Figure 17.

When cutting workpieces that are too wide to clamp with the work clamp, e.g., 2 in. x 6 in. (50.8 mm x 152.4 mm), use a C-clamp. Always clamp wide workpieces.

# ADJUSTMENTS

## SQUARING THE MITER TABLE TO THE FENCE

See Figures 18 through 22.

Follow these directions to square the miter table to the fence.

- Unplug the saw.

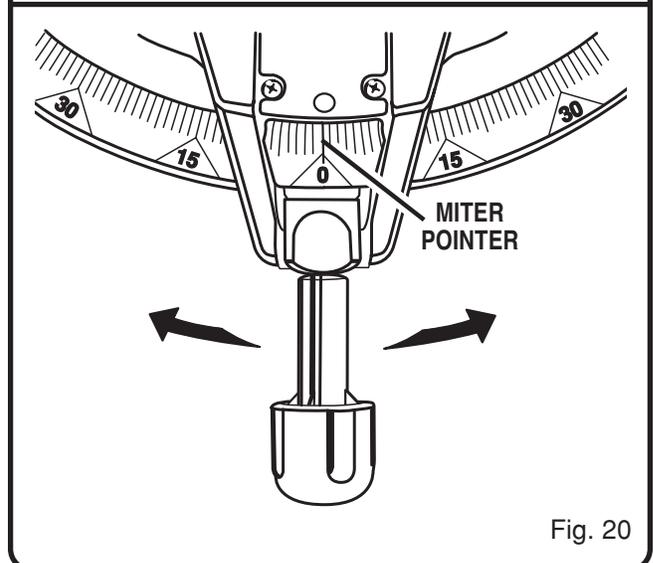
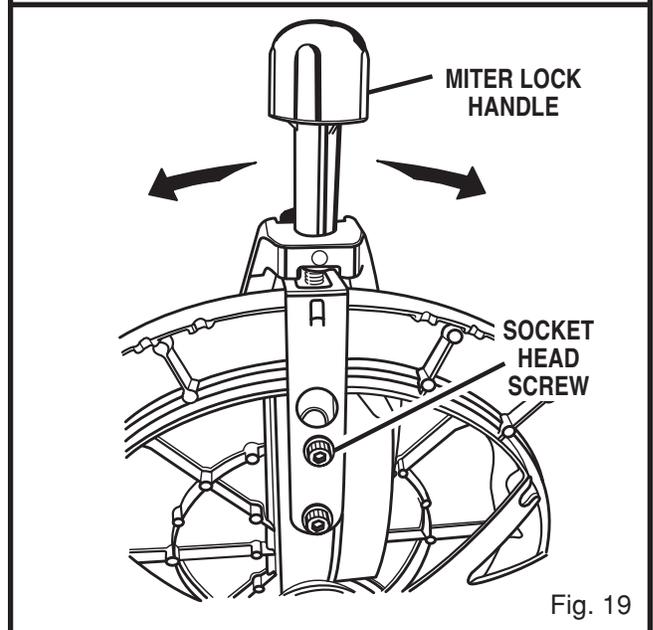
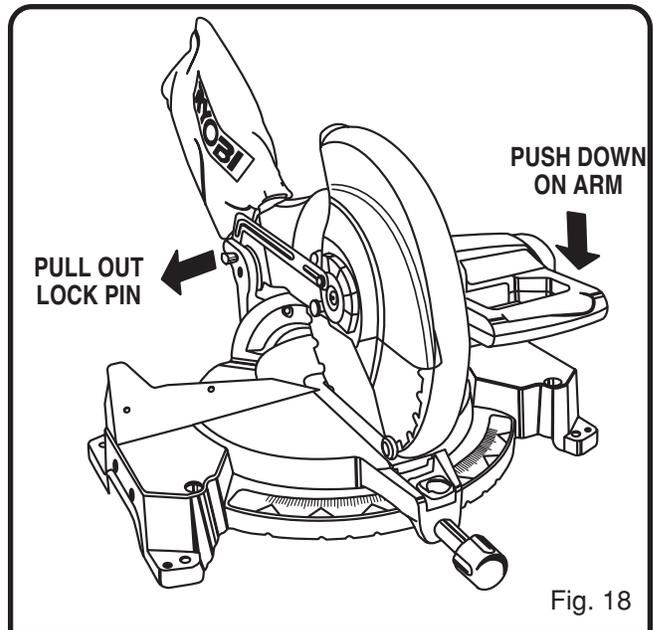
### **⚠ WARNING:**

Failure to unplug the tool could result in accidental starting causing possible serious personal injury.

- Push down on the saw arm.
- Pull out the lock pin to release the saw arm.
- Raise the saw arm to its full raised position.
- Loosen the miter lock handle by rotating it approximately one-half turn.
- Loosen the socket head screws securing the miter lock lever.
- Grasp the miter lock handle and rotate the miter table until the miter pointer is positioned at 0°.
- Tighten the miter lock handle securely.
- Tighten the socket head screws to secure the miter lock lever.
- Lay a framing square flat on the miter table.
- Place one leg of the square against the fence.
- Place the other leg of the square beside the zero clearance throat plate in the miter table.

**NOTE:** The edge of the square and the zero clearance throat plate in the miter table should be parallel. If the edge of the framing square and the zero clearance throat plate in the miter table are not parallel, adjustments are needed. Continue as follows.

- Loosen the socket head screws securing the fence.
- Adjust the fence until the framing square and zero clearance throat plate are parallel.
- Retighten the screws securely and recheck the fence-to-table alignment.



# ADJUSTMENTS

## SQUARING THE BLADE TO THE MITER TABLE

See Figures 23 and 24.

Follow these directions to square the blade to the miter table.

- Unplug the saw.

### **WARNING:**

Failure to unplug the tool could result in accidental starting causing possible serious personal injury.

- Pull the saw arm all the way down.
- Engage the lock pin to secure the saw arm.
- Loosen the miter lock handle by rotating it approximately one-half turn.
- Depress the miter lock lever.
- Rotate the miter table until the pointer on the control arm is positioned at 0°.
- Release the miter lock lever.
- Tighten the miter lock handle securely.
- Loosen the bevel lock knob.
- Set the saw arm at 0° bevel (blade set 90° to miter table).
- Tighten the bevel lock knob.
- Place a combination square against the miter table and the flat part of saw blade.
- Make sure that the square contacts the flat part of the saw blade, not the blade teeth.
- Rotate the blade by hand and check the blade-to-table alignment at several points.

**NOTE:** The edge of the square and the saw blade should be parallel. If the top or bottom of the saw blade angles away from the square, adjustments are needed. Continue as follows.

- Loosen the lock nut securing the positive stop adjustment screw.
- Loosen the bevel lock knob.
- Adjust the positive stop adjustment screw to bring the saw blade into alignment with the square.
- Retighten the bevel lock knob.
- Retighten lock nut securing the positive stop adjustment screw.
- Recheck blade-to-table alignment.

**NOTE:** You can also follow these procedures to check blade squareness of the saw blade to the miter table at both 0° and 45° angles.

The saw has two scale indicators, one on one side of the bevel scale and one on the miter scale. After you have made squaring adjustments, you may need to loosen the indicators' screws and reset the scale indicators to zero.

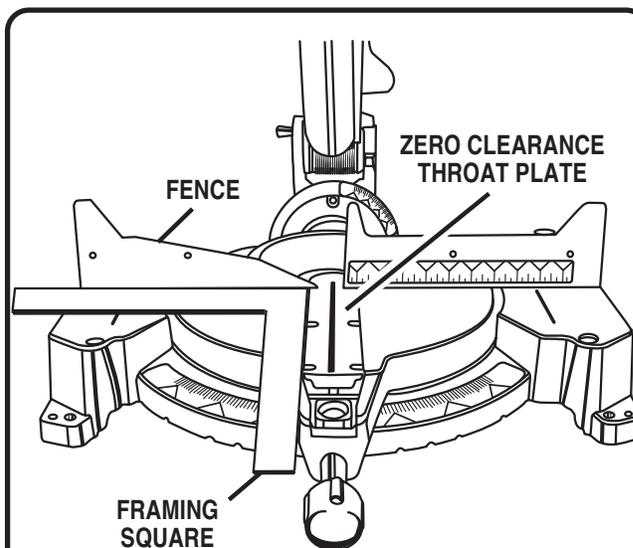


Fig. 21

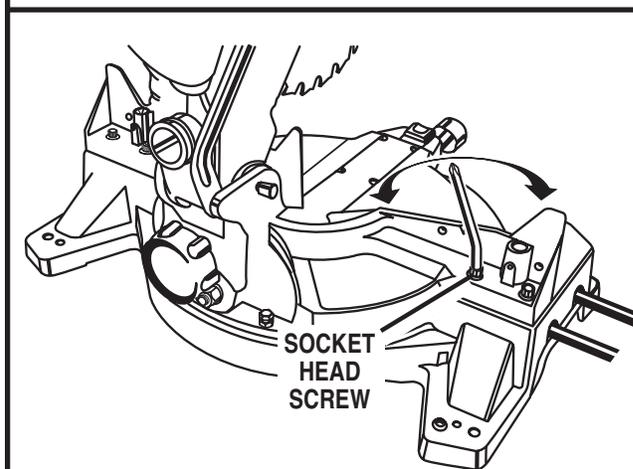


Fig. 22

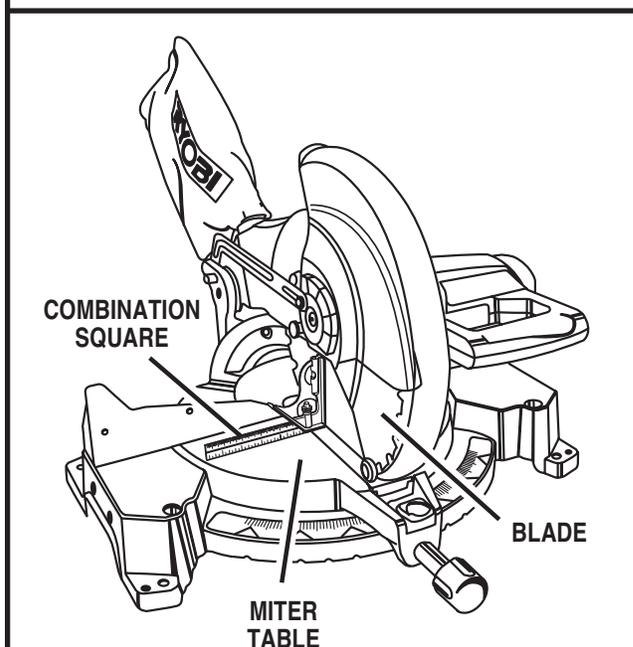


Fig. 23

# ADJUSTMENTS

## PIVOT POINTS

The following adjustments are made at the factory and normally do not require readjustment.

### TRAVEL PIVOT

The saw arm should rise completely to the up position by itself. If the saw arm does not raise by itself or if there is play in the pivot joints, have saw repaired by a qualified service technician to avoid risk of personal injury.

### BEVEL PIVOT

The compound miter saw should bevel easily by loosening the bevel lock knob and tilting the saw arm to the left. If movement is tight or if there is play in the pivot, have saw repaired by a qualified service technician.

## DEPTH STOP

The depth stop limits the blade's downward travel. It allows the blade to go below the miter table enough to maintain full cutting capacities. The depth stop positions the blade 1/4 in. (6.4 mm) from the miter table support.

**NOTE:** The miter table support is located inside the miter table.

The depth stop is factory set to provide maximum cutting capacity for the 12 in. (305 mm) saw blade provided with the saw. Therefore, the depth stop should not need an adjustment for the saw blade provided.

### **⚠ WARNING:**

If any part fails to function properly, do not operate this tool until you have it repaired by a qualified service technician. Failure to heed this warning can result in serious personal injury.

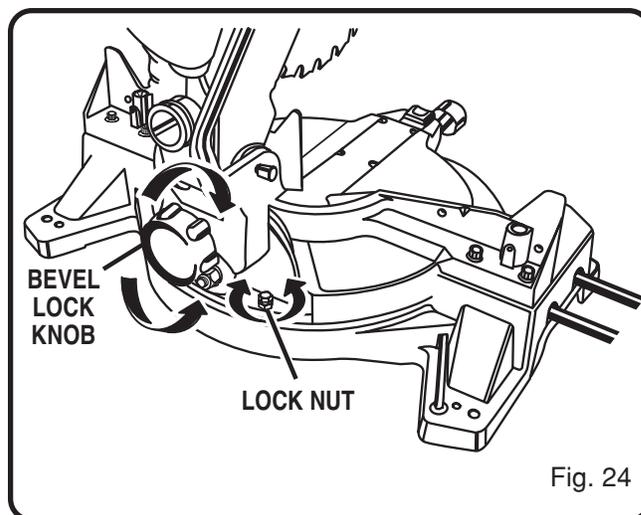


Fig. 24

# ACCESSORIES

## **⚠ WARNING:**

To prevent accidental starting that could cause possible serious personal injury, assemble all accessories for the saw before connecting it to a power supply. Disconnecting the miter saw will prevent accidental starting that could cause serious personal injury.

## **INSTALLING THE DUST BAG**

See Figure 25.

The dust bag fits over the exhaust port on the upper blade guard.

Follow these directions to install the dust bag.

- Remove the dust guide from the exhaust port.
- Squeeze the two metal clips to open the mouth of the bag.
- Slide the bag onto the exhaust port.
- Release the clips.

The metal ring in the bag should lock in between the grooves on the exhaust port.

For more efficient operation, empty dust bag when no more than half full. This will permit better air flow through the bag.

## **INSTALLING THE TABLE EXTENSIONS**

See Figure 26.

Follow these directions to install the table extensions.

- Insert the ends of the extensions into the two holes in each side of the base.
- Position a clamp bracket under each table extension beneath the miter table.
- Secure each clamp bracket with a clamp bracket screw by threading the screw through the clamp bracket and tightening it against the bottom of the miter table.

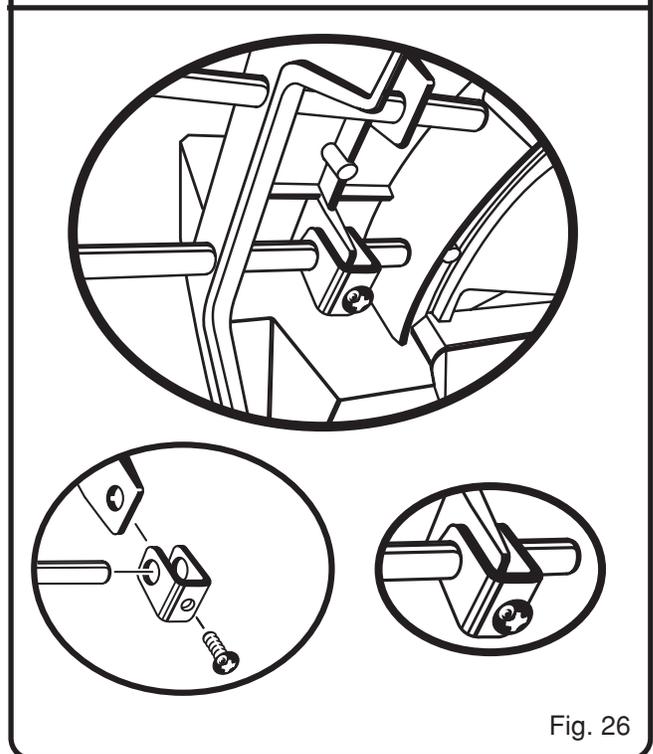
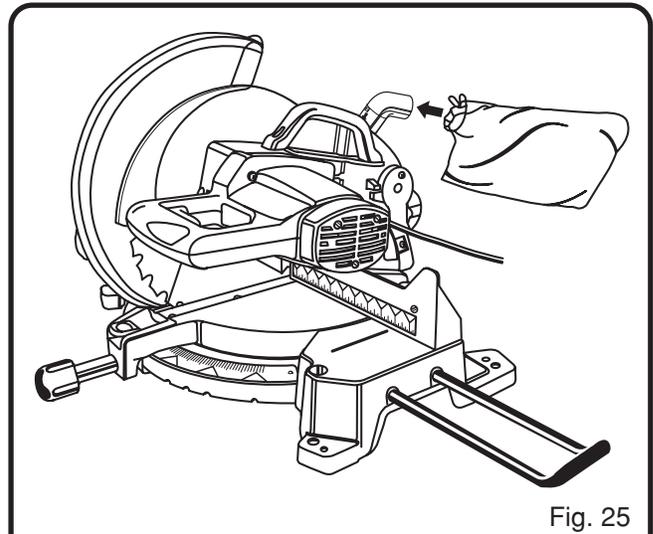
## **INSTALLING THE STOP BLOCK**

See Figure 27.

The stop block is useful as a stop for cutting multiple pieces the same length. You can install it on either table extension on either side of the saw base.

Follow these directions to install the stop block.

- Slide the stop block on the back arm of either table extension.
- Insert the table extension into the saw base.
- Adjust the stop block the desired distance from the blade for the cut to be made.



## ACCESSORIES

- Tighten the wing screw to secure the stop block to the table extension.
- Make a test cut in scrap material and measure the length of the workpiece.
- Unplug the saw and make any necessary adjustments.

### INSTALLING THE WORK CLAMP

See Figure 28.

The work clamp provides greater control by clamping the workpiece to the fence or the saw table. It also prevents the workpiece from creeping toward the saw blade. This is very helpful when cutting compound miters.

Depending on the cutting operation and the size of the workpiece, it may be necessary to use a C-clamp instead of the work clamp to secure the workpiece prior to making the cut.

#### **⚠ WARNING:**

In some operations, the work clamp assembly may interfere with the operation of the blade guard assembly. Always make sure there is no interference with the blade guard prior to beginning any cutting operation to reduce the risk of serious personal injury.

Follow these direction to install the work clamp.

- Place the shaft of the work clamp in either hole on the saw table base.
- Rotate the knob on the work clamp to move it in or out as needed.

#### **⚠ WARNING:**

When using any clamp with the stop block, install the clamp on the same side as the stop block. This will eliminate the possibility of trapping the workpiece, resulting in the saw blade and workpiece kicking up. Failure to heed this warning can result in serious personal injury.

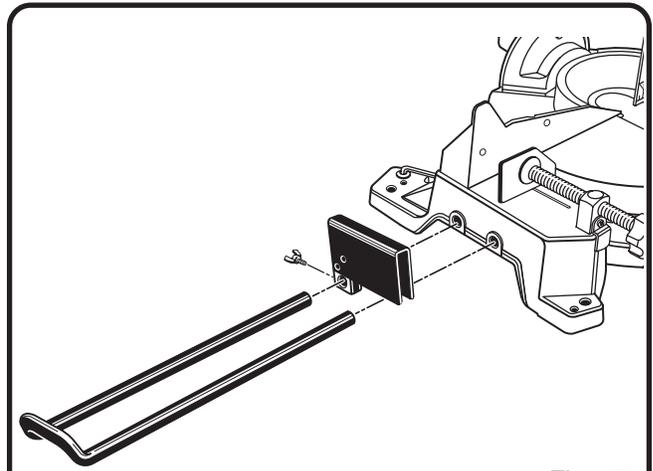


Fig. 27

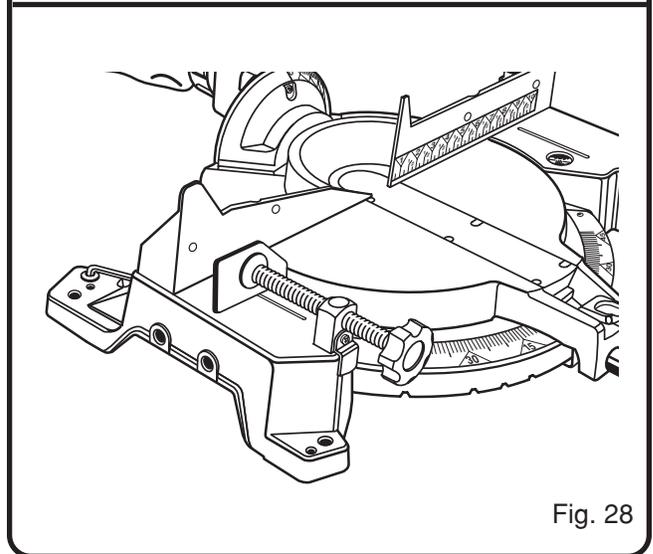


Fig. 28

# MAINTENANCE

## **WARNING:**

When servicing use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.

## **GENERAL**

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, carbon dust, 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.

Electric tools used on fiberglass material, wallboard, spackling compounds, or plaster are subject to accelerated wear and possible premature failure, as the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, we do not recommend that this tool be used for extended work on these types of materials. If, however, you do work with any of these materials, it is extremely important that you clean the tool frequently by blowing it with an air jet.

## **WARNING:**

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.



# OPERATOR'S MANUAL

## 12 in. (305 mm) Compound Miter Saw TS1550 - Double Insulated

### EXTENSION CORD CAUTION

When using a power tool at a considerable distance from a power source, be sure to use an extension cord that has the capacity to handle the current the tool will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords should be used.

When working with a tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.

Before using any extension cord, inspect it for loose or exposed wires and cut or worn insulation.

\*\*Ampere rating  
(on tool faceplate) 0-2.0 2.1-3.4 3.5-5.0 5.1-7.0 7.1-12.0 12.1-16.0

Cord Length	Wire Size (A.W.G.)					
25'	16	16	16	16	14	14
50'	16	16	16	14	14	12

**CAUTION:** Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool.

*\*\*Used on 12 gauge - 20 amp circuit.*

### • SERVICE

Now that you have purchased your tool, should a need ever exist for repair parts or service, simply contact your nearest Ryobi Authorized Service Center. Be sure to provide all pertinent facts when you call or visit. Please call 1-800-525-2579 for your nearest Ryobi Authorized Service Center. You can also check our Web site at [www.ryobitools.com](http://www.ryobitools.com) for a complete list of Authorized Service Centers.

### • MODEL NO. AND SERIAL NO.

The model number and serial number of this product are found on the label attached to the motor housing. Please record the serial number in the space provided below.

### • HOW TO ORDER REPAIR PARTS

WHEN ORDERING REPAIR PARTS,  
ALWAYS GIVE THE FOLLOWING INFORMATION:

- MODEL NUMBER TS1550
- SERIAL NUMBER \_\_\_\_\_

### RYOBI TECHNOLOGIES INC.

1428 Pearman Dairy Road Anderson, SC 29625  
Post Office Box 1207 Anderson, SC 29622  
[www.ryobitools.com](http://www.ryobitools.com)  
Phone 1-800-525-2579