



7-1/4" COMPOUND MITER SAW

Operator's Manual

SAVE THIS MANUAL

You will need this manual for safety instructions, operating procedures and warranty.

Put it and the original sales receipt in a safe dry place for future reference.

For questions about this product, please call 1-866-915-8626

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric tools, machines or equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.



READ ALL INSTRUCTIONS BEFORE USING THIS TOOL

- KEEP WORK AREA CLEAN.** Cluttered areas can cause injuries.
- CONSIDER WORK AREA ENVIRONMENT.** Don't use power tools in damp, wet, or poorly lit locations. Don't expose tools to the rain. Keep the work area well lit. Don't use tools in the presence of flammable gases or liquids.
- KEEP CHILDREN AND BYSTANDERS AWAY.** All children should be kept away from the work area. Don't let them handle machines, tools or extension cords. Bystanders can be a distraction and can be injured.
- GROUNDING TOOLS** must be plugged into an outlet that is properly installed and grounded. Grounding provides a low-resistance path to carry electricity to the ground away from the operator, should the tool malfunction electrically. Do not remove the grounding prong from the plug or alter the plug in any way. If in doubt as to whether the outlet is properly grounded according to code, check with a qualified electrician.
- OBSERVE PROPER PRECAUTIONS REGARDING DOUBLE INSULATION.** This tool is double insulated. It is equipped with a polarized plug. One blade is wider than the other, so it will fit into a polarized outlet only one way. If you have difficulty inserting the plug, try reversing it. If it still doesn't fit, do not alter the plug; have a qualified electrician install a polarized outlet.
- GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures. When your body is grounded the risk of electric shock increases. When working wherever "live" electrical wires may be encountered, try to ascertain whether there is a danger of shock. **DO NOT TOUCH ANY METAL PARTS OF THE TOOL** while using it. Hold the tool only by the plastic grip to prevent electric shock if you contact a live wire.
- DO NOT MISUSE THE CORD.** Never carry your tools by the cord or pull on the cord to unplug it. Protect the cord from potential sources of damage: heat, oil & solvents, sharp edges, or moving parts. Replace damaged cords immediately.
- WHEN WORKING OUTDOORS, USE AN OUTDOOR-RATED EXTENSION CORD.** An extension cord rated for outdoor use must be marked "W-A" or "W".
- DO NOT EXPOSE ELECTRICAL POWER TOOLS TO MOISTURE.** Rain or wet conditions can cause water to enter the tool and lead to electric shock.
- ENSURE THE EXTENSION CORD YOU USE IS OF SUFFICIENT GAUGE FOR ITS LENGTH.**



Recommended Minimum Wire Gauge for Extension Cords

Amps from Tool Nameplate	25' length	50' length	75' length	100' length	150' length	200' length
0-5 amps	16 ga.	16 ga.	16 ga.	14 ga.	12 ga.	12 ga.
5.1-8 amps	16 ga.	16 ga.	14 ga.	12 ga.	10 ga.	Do Not Use
8.1-12 amps	14 ga.	14 ga.	12 ga.	10 ga.	Do Not Use	Do Not Use
12.1-15 amps	12 ga.	12 ga.	10 ga.	10 ga.	Do Not Use	Do Not Use
15.1-20 amps	10 ga.	10 ga.	10 ga.	Do Not Use	Do Not Use	Do Not Use

- STORE IDLE EQUIPMENT.** Store equipment in a dry area to inhibit rust. Equipment also should be in a high location or locked up to keep out of reach of children.
- DON'T FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended.
- USE THE RIGHT TOOL.** Don't force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool for a purpose for which it was not intended.
- DRESS PROPERLY.** Don't wear loose clothing or jewelry; they can be caught in moving parts. Protective, non-electrically conductive gloves, protective eyewear and non-skid footwear are recommended. Wear protective hair covering to contain long hair and keep yourself from harm.

IMPORTANT SAFETY INSTRUCTIONS



15. **USE EYE PROTECTION.** Use a full-face mask if the work you're doing produces metal filings, dust or wood chips. Goggles are acceptable in other situations. Wear a clean dust mask if the work involves creating a lot of fine or coarse dust.
16. **SECURE WORK.** Use clamps or a vise to hold the work, this frees both hands to operate the tool.
17. **DON'T OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across machines that are running.
18. **MAINTAIN TOOLS.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. For safe performance, keep handles dry, clean and free from oil and grease.
19. **AVOID UNINTENTIONAL STARTING.** Be sure the switch is in the **OFF** position before plugging in.
20. **ALWAYS CHECK AND MAKE SURE TO REMOVE ANY ADJUSTING KEYS OR WRENCHES** before turning the tool on. Left attached, these parts can fly off a moving part and result in injury.
21. **DO NOT USE THE TOOL IF IT CANNOT BE SWITCHED ON OR OFF.** Have your tool repaired before using it.
22. **DISCONNECT THE PLUG FROM THE POWER SOURCE BEFORE MAKING ANY ADJUSTMENTS.** Changing attachments or accessories can be dangerous if the tool could accidentally start.
23. **STAY ALERT.** Watch what you are doing & use common sense. Don't operate any tool when you are tired.
24. **CHECK FOR DAMAGED PARTS.** Before using this tool, any part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mountings, and other conditions that may affect its operation. Inspect screws and tighten any ones that are loose. Any part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in the instruction manual. Have defective switches replaced by an authorized service center. Don't use the tool if switch does not turn it on and off properly.
25. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.
26. **SERVICE AND REPAIRS** should be made by qualified repair technicians at an authorized repair center. Improperly repaired tools could cause serious shock or injury.

SAFETY PRECAUTIONS FOR COMPOUND MITER SAW

1. **WOOD ONLY.** The saw is designed for woodcutting only.
2. **DAMAGED OR WARPED SAW BLADES** should not be used. They are out of balance and could cause further damage to the saw and possible personal injury.
3. **USE ONLY WITH GUARD IN PLACE.** The guard protects the operator from cutting debris as well as from broken pieces of the blade, should it break in use.
4. **REPLACE THE TABLE INSERT WHEN WORN.** Excessive tear-out increases the likelihood of injury from flying debris. When setting the saw at a new angle, check that the blade does not cut into the table insert, rear fence, or another part of your saw.
5. **ALWAYS USE THE BLADE WRENCH** to tighten the saw blade onto the arbor.
6. **CONNECT YOUR MITER SAW TO A DUST COLLECTING DEVICE** if possible. If not, use the dust bag that comes with the tool and empty it regularly.
7. **USE A SAWBLADE SUITED TO THE CUTTING JOB AND MATERIAL TO BE CUT.**

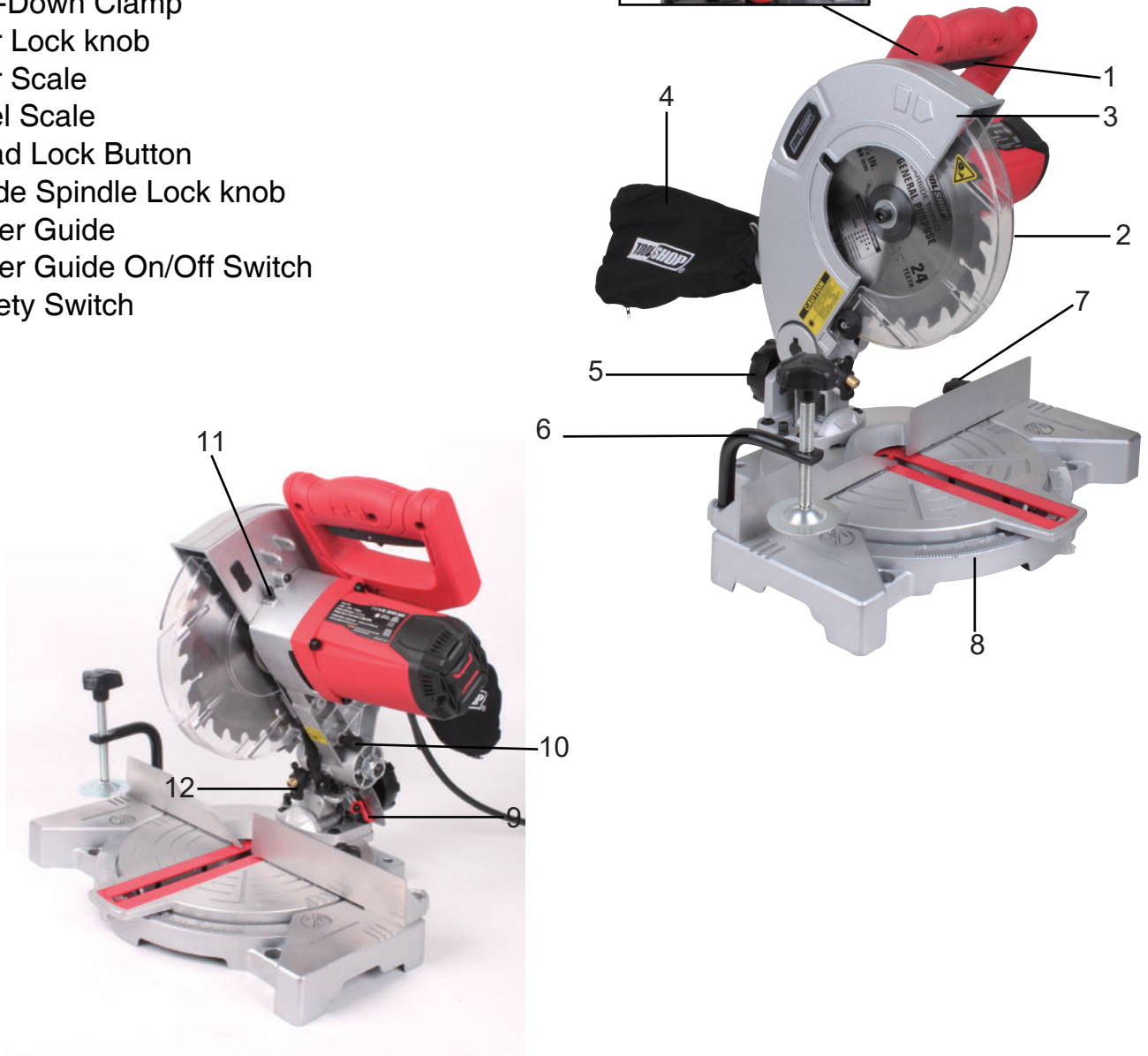
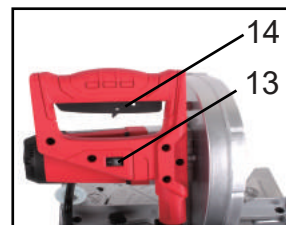
SAFETY PRECAUTIONS FOR COMPOUND MITER SAW

8. **ALWAYS USE TABLE EXTENSIONS AND CLAMPS** to support the material when sawing long work pieces.
9. **THE MATERIAL SHOULD BE PLACED FIRMLY AGAINST THE FENCE AND TABLE.** The turning of the saw blade should force it down against the table and rearward against the fence during the cut. Movement of the workpiece during the cut may cause the blade to jam and create a kick back. When this happens, the cutting head may jump out of your hand or the workpiece may fly loose and cause serious injury.
10. **DO NOT START THE SAW WITH THE BLADE IN CONTACT WITH ANY SURFACE.** This may cause the saw to bounce or kick back violently and could cause injury.
11. **IF MAKING A CUT USING ONE HAND TO HOLD THE SAW,** ensure the free hand is clear of the cutting area.



FUNCTIONAL DESCRIPTION

1. Trigger Switch
2. Lower Blade Guard
3. Upper Blade Guard
4. Dust Bag
5. Bevel Lock knob
6. Hold-Down Clamp
7. Miter Lock knob
8. Miter Scale
9. Bevel Scale
10. Head Lock Button
11. Blade Spindle Lock knob
12. Laser Guide
13. Laser Guide On/Off Switch
14. Safety Switch



SPECIFICATIONS

- Voltage: 120 volts AC, 60Hz.
- Current rating: 7.5 Amps
- No load speed 5,500 RPM
- Blade Size: 7-1/4"
- 5/8" arbor size
- Bevel cuts up to 45° left
- Miter cuts up to 45° left & 45° right with detents at 0°, 15°, 22.5°, 30°, & 45° left and right
- Cutting Capacity 90° Cross cut: 2" x 4"
45° Miter cut: 2" x 2-1/4"
45° Bevel cut: 3/4" x 4"
45° Miter/Bevel cut: 3/4" x 2-1/4"

Laser class: 2 Wave length of Laser: 650nm Laser output: ≤1mW
Contents: Miter Saw, (1)7-1/4"x24 Tooth Carbide Blade, Blade Wrench,
(1) Hold-Down Clamp, Dust Collection Bag & Product Manual

OPERATING PROCEDURES



CAUTION! Be sure the saw is disconnected from its power source before making any repairs or performing maintenance!



CLAMPING WORKPIECE:

WARNING: For safe and accurate cuts, affix workpiece firmly into cutting position with hold-down clamp, otherwise the tool and workpiece may be damaged.

1. Mount the hold-down clamp on left or right side of the blade by inserting shaft of the hold-down clamp into the mounting hole behind the fence.
2. Adjust position of the hold-down clamp bracket according to the workpiece thickness and shape. Tighten the knob to affix the bracket in place.
3. Make sure that when the handle is lowered, beveled or angled in any position, no part of the tool makes contact with the hold-down clamp.

CAUTION

LASER RADIATION. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS



Wavelength: 650nm
Maximum Output: ≤1mW
Class II Laser Product Complies with 21 CFR parts 1040.10 and 1040.11

LASER GUIDE ON/OFF SWITCH

To turn the laser ON, turn the laser guide switch(#13 on page 4) to "ON".
To turn the laser OFF, turn the laser guide switch(#13 on page 4) to "OFF".

WARNING: Never stare directly at the laser beam.
It can severely damage your eyes.



START UP

USING YOUR SAW

After unpacking, reading the instructions, attaching the machine to the workbench, and checking that all attachments are correctly installed, you can use your saw. Be sure to wear the appropriate protective equipment.

1. Check to ensure everything is correctly attached, screws are fastened, and all adjusting keys and wrenches are removed.
2. Unlock the saw from its storage and/or shipping position.
3. Connect the saw to power.
4. Push forward the safety switch.(#14 on page 4). Pressing the trigger(#1 on page 4) switch will start the saw.

NOTE: The cutting head should be in the raised position and the blade fully enclosed in the guard before starting the miter saw.

5. To begin cutting, lower the cutting head. The lower blade guard opens automatically.
6. After cutting, allow the head to come back up. The guard will close automatically.
7. The saw will stop when you release the trigger switch in the handle.



WARNING: Before plugging in, confirm that the trigger is working correctly.

OPERATING PROCEDURES



REMEMBER:

- Before use, release the head lock button(#10 on page 4) and raise the handle.
- Before turning on, confirm that the saw blade does not touch the work piece or the hold-down clamp at any position.
- When cutting, press the handle down slowly. DO NOT force the handle, as this may cause damage to your saw.
- Before starting to cut, confirm that the saw blade has attained full speed. After cutting is complete wait until the rotation of the blade STOPS completely before lifting the handle to its top position.
- For your safety, remove chips, small pieces, etc. from the table top before operation.
- For best performance, ALWAYS keep saw blade clean and sharp.



MODES OF USE

Crosscut:

The head is locked in the upright position. The table rotation is locked at 0°. This is a good setting for simple 90° crosscuts.

Miter cut:

The head is locked in the upright position. To unlock the table rotation, unscrew the miter lock knob(# 7 on page 4).

Move the table rotation to the left or right, up to 45°, either way.

Quickly locate 0°, 15°, 22.5°, 30° and 45° left or right by the detent clicks at these angle settings.

Tighten the miter lock knob at the desired angle.

Bevel cut:

To unlock the head angle (bevel) adjustment, loosen the bevel lock handle at rear of the saw. Lock it when the blade is tilted at the desired angle.

The table rotation is locked at 0°.

Compound cut:

Unlock and move the table rotation to the left or right as in miter cuts above. Using the lever at the back of the saw, unlock the head and bevel it to any position from 0° – 45° left, then lock it in place.

NOTE: At extreme positions, the hold-down clamp should be moved to the right side of the table to prevent interference from the movement of the cutting head. Always check, before making the cut, if there is any potential interference from the clamp or any other part of the machine.



MAINTENANCE

NOTE: Even though the angles are marked on the machine, it is always a good idea to check them by making a trial cut. See Aligning Miter and Bevel, below.

- Inspect the cord regularly and have it replaced by an authorized repair facility if it is damaged.
- Check the brushes occasionally (after about 50 hours of use) and replace if worn. The brushes can be replaced by removing the motor back cap. The brushes and their springs could jump out of the holders- be careful not to lose them. Inspect the brushes. If the contact surface is not smooth, or it is worn or heavily used, replace both brushes. Insert the new brushes and springs in their holders and re-fasten the cap.
- The plastic kerf plate table insert should be replaced if damaged to reduce the risk of chips lodging in the slot and catching in the blade.
- Keep the vents clear of dust and debris. This will help prevent possible electrical shorts and ensure proper cooling.
- Keep the tool housing and handle clean and free of oil and grease by using mild soap and a damp (not wet) cloth.



ALIGNING MITER AND BEVEL

Miters and bevels have been set at the factory. However, use may affect settings. Please use the following procedures when your tool needs adjustments.

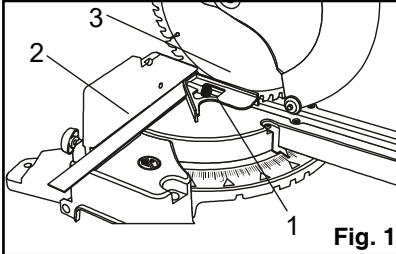


Fig. 1

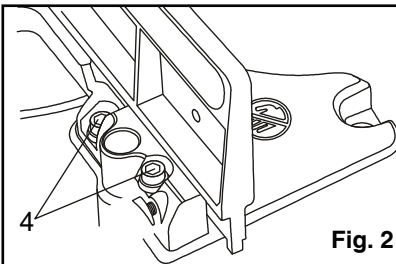


Fig. 2

Aligning Miter Angle

1. Lower the head assembly and push in the lock pin to lock in the lower position. Make sure table is in 0° detent and tighten miter lock knob. Place a combination square (1) against the fence (2) and next to the blade (3) as illustrated. Locate the square properly so it does not contact the tooth of saw blade. The saw blade should contact the full length of the square. (Figure 1)

2. If blade does not fully contact the square, follow the fence alignment procedure.

Fence Alignment

- The head assembly should remain in lowered position.
- Use a 3/16" hex wrench, loosen the hex cap screws (4) (Figure 2) behind fence (2). (Figure 1)
- Adjust fence until blade and the fence have full contact with the square.
- Tighten hex cap screws.
- Adjust the miter indicator (9 Figure 4). Loosen screw and align indicator to the 0° mark. (Fig. 1)

NOTE: The 3/16" hex wrench and combination square are not included.

Aligning Bevel Angle

0° Blade Aligning

- Rotate table to 0° position and lock in place.
- Lower the blade and engage the lock pin.
- Use a combination square to check blade squareness to table. Place the square on the table and press it against the blade. If the blade does not contact the full length of the square follow the alignment procedure.
 - Loosen bevel lock handle.
 - Using an 11/32" open-end wrench to loosen the hex lock nut (5) and then using a 3/16" hex wrench to adjust the hex screw (6) up or down. (Figure 3)
 - When you have established the vertical stop correctly, tighten the hex lock nut (5) down to hold the setting.
 - Adjust bevel indicator (7). Loosen screw (8) and align indicator (7) to the 0° mark. Tighten screw (Figure 3)

NOTE: The 11/32" open-end wrench and 3/16" hex wrench are not included.

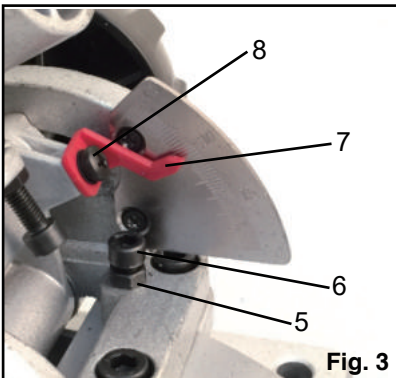


Fig. 3

45° Left or Right Blade Aligning

- Rotate table to 0° position and lock in place.
- Lower the blade and engage the lock pin.
- Loosen bevel lock handle and tilt the head assembly to 45° bevel. The bevel indicator should be on the 45° mark, the 45° bevel stop should be in full contact with the 45° bevel stop screw, and the blade should contact the full length of the combination square.
- If the blade is not 45° with the table, adjust 45° bevel stop.
 - Loosen bevel lock handle.
 - Use an 11/32" open-end wrench to loosen the hex lock nut (9) and then use a 3/16" hex wrench to adjust the hex screw (10) up or down. (Figure 4)
 - When you have established the 45° stop correctly, tighten the hex lock nut down to hold the setting.
 - Check that bevel indicator (7) is pointing to the 45° mark on the bevel scale. If not, first recheck the blade squareness to the table and 0° bevel indicator alignment. Then, repeat the 45° blade alignment and make appropriate adjustments.

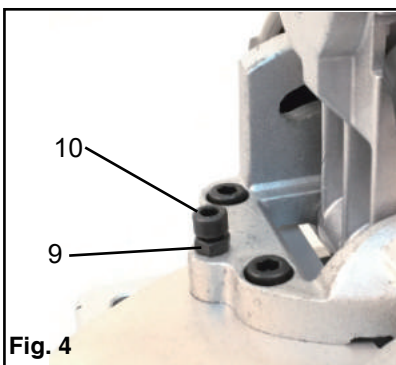


Fig. 4

MAINTENANCE

REPLACING SAW BLADE



WARNING! Prior to performing any assembly and/or adjustment procedures, make sure the power cord of the miter saw is unplugged from its electrical outlet. Make sure the unit has completely cooled, and wear heavy-duty work gloves.



1. When replacing the saw blade, make sure the new saw blade has a diameter of 7-1/4", RPM rating of at least 5,500 and arbor hole of 5/8" diameter.
2. When mounting the new saw blade, the direction arrows on the blade correspond with the arrow on the upper guard. (See Figure. 5)

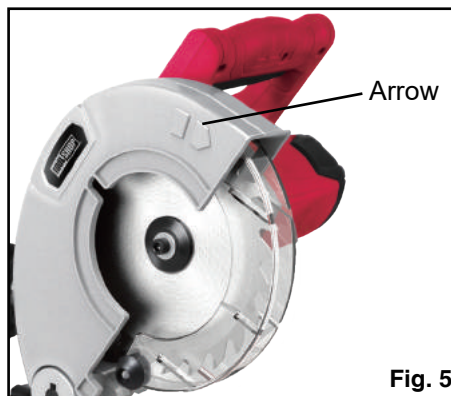


Fig. 5

3. Put the saw in its upper position.
4. Press and hold the spindle-lock button, and rotate the blade at the same time until it locks into position. Use supplied allen wrench to remove the blade bolt. (See Figure. 6)

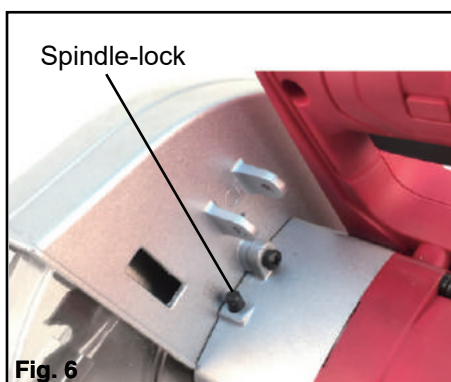


Fig. 6

Caution: This is a reverse threaded screw. If you turn the screw clockwise, it will loosen; turn counter clockwise it will tighten.

5. Rotate the lower blade guard out of the way and take out the blade (See figure. 7)
6. Install a new 7-1/4" TCT blade. Assembly is reverse order of disassembly, reattach and tighten all hardware. (See Figure. 8)



Fig. 7

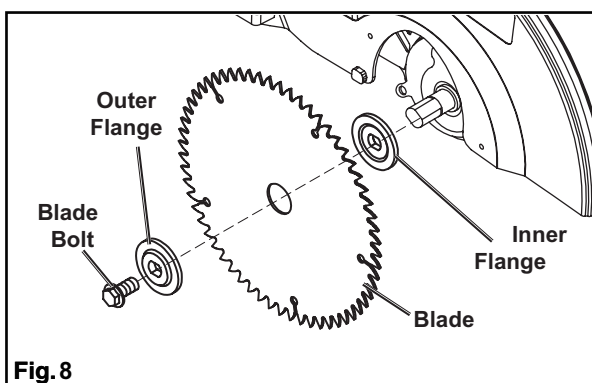


Fig. 8

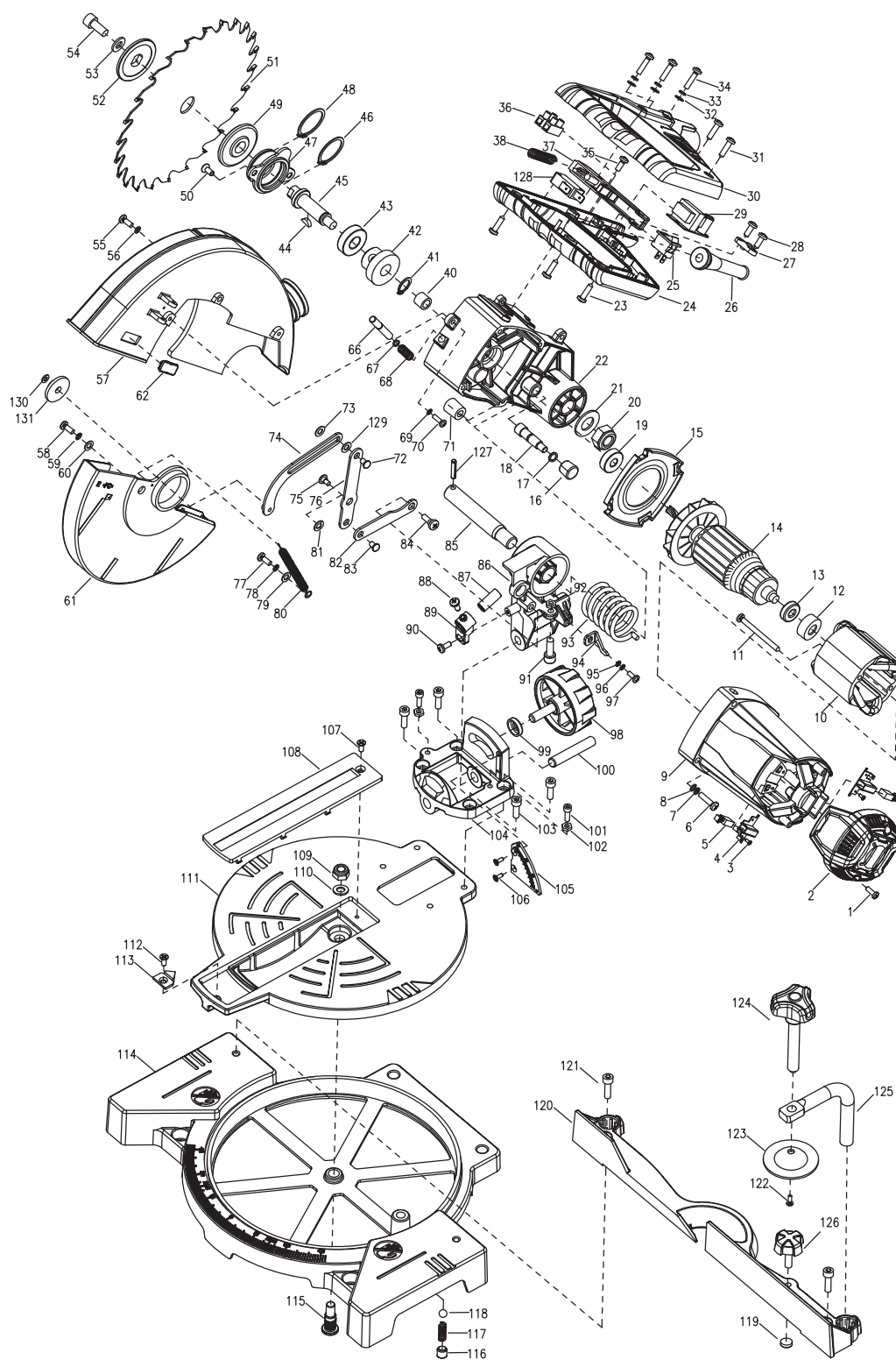
PARTS LIST



Please refer to the schematic drawing on page 10.

No	Descripti	Qty	No	Descripti	Qty	No	Descripti	Qty
1	Screw	2	62	Cover plate	1	125	Support	1
2	Motor	1	66	Gear lock	1	126	Knob	1
3	Screw	4	67	E clip	1	127	Roled pin	1
4	Brush hold	2	68	Gear lock	1	128	Switch	1
5	Brush	2	69	Spring	1	129	Washer	1
6	Screw	4	70	Screw	2	130	Retaining ring	1
7	Spring	4	71	Rubber	1	131	Guard roller	1
8	Washer	4	72	Rivet	1			
9	Motor	1	73	Washer	1			
10	Stator	1	74	Linkage C	1			
11	Screw	2	75	Shoulder	1			
12	Rubber	1	76	Linkage B	1			
13	Bearing	1	77	Screw	1			
14	Armature	1	78	Spring	1			
15	Fan baffle	1	79	Washer	1			
16	Lock pin	1	80	Moving	1			
17	O ring	1	81	Spring	1			
18	Lock pin	1	82	Linkage A	1			
19	Bearing	1	83	Rivet	1			
20	Locknut	1	84	Shoulder	1			
21	Washer	1	85	Pivot shaft	1			
22	Rocker	1	86	Pivot block	1			
23	Screw	3	87	Laser	1			
24	Lower	1	88	Screw	1			
25	Laser	1	89	Laser	1			
26	Cord	1	90	Screw	1			
27	Cold clamp	1	91	Socket	1			
28	Screw	2	92	Nut	1			
29	Transforme	1	93	Big torsion	1			
30	Upper	1	94	Bever	1			
31	Screw	2	95	Washer	1			
32	Washer	3	96	Spring	1			
33	Spring	3	97	Screw	1			
34	Screw	3	98	Bevel knob	1			
35	Screw	1	99	Bevel knob	1			
36	Binding	1	100	Bevel pivot	1			
37	Trigger	1	101	Socket	2			
38	Trigger	1	102	Nut	2			
40	PM sleeve	1	103	Socket	4			
41	C clip	1	104	Bevel block	1			
42	Gear	1	105	Bevel scale	1			
43	Bearing	1	106	Sunk	7			
44	Key	1	107	Sunk	1			
45	Spindle	1	108	Cutting	1			
46	C clip	1	109	Locknut	1			
47	Gear case	1	110	Washer	1			
48	C clip	1	111	Turntable	1			
49	Blade	1	112	Sunk	1			
50	Sunk	2	113	Miter	1			
51	Blade	1	114	Base	1			
52	Blade	1	115	Bolt	1			
53	Washer	1	116	Hex gurb	1			
54	Blade bolt	1	117	Detent	1			
55	Screw	1	118	Detent roll	1			
56	Spring	1	119	Nylon	1			
57	Fixed	1	120	Fence	1			
58	Screw	1	121	Socket	2			
59	Spring	1	122	Screw	1			
60	Washer	1	123	Clamp	1			
61	Moving	1	124	Workpiece	1			

SCHEMATIC DRAWING



WARNING Repairs should be made by an authorized repair center. Do not open or disassemble this power tool. Please contact 1-866-915-8626 for questions regarding this power tool.

TOOL SHOP® 7-1/4" 7.5 AMP COMPOUND MITER SAW WARRANTY

1-YEAR LIMITED WARRANTY:

This TOOL SHOP® brand power tool carries a 1-Year Limited Warranty to the original purchaser. If the tool fails within one (1) year from the date of purchase, simply bring this tool with your original sales receipt back to your nearest MENARDS® retail store. At its discretion, TOOL SHOP® agrees to have the tool replaced with the same or similar TOOL SHOP® product free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Notwithstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the merchandise. This warranty: (1) excludes expendable parts including but not limited to blades, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes, seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts –
Please call toll free at: 1-866-915-8626 (M-F 9 am to 5 pm EST)

SAVE YOUR RECEIPTS. THIS WARRANTY IS VOID WITHOUT THEM.