Makita

Miter Saw

355mm(14") MODEL LS1400

INSTRUCTION MANUAL

DOUBLE INSULATIO

Specifications

Blade diameter	Hole diameter	Max. cutting capacities (H x W) at 90°	Max. cutting capacities (H x W) at 45°	AMPS (115 V)	No load speed	Dimensions (L x W x H)	Net weight
355 mm (14")	25 mm (31/32")	122 mm x 152 mm (4-3/4" x 18")	122 mm x 115 mm (4-3/4" x 14-1/2")	12 A	3,200 /min.	600 mm x 530 mm x 630 mm (23 5/8" x 20 7/8" x 24 3/4")	37 kg (70.5 lbs)

* Manufacturer reserves the right to change specifications of parts and accessories without notic
* Note : Specifications of parts and accessories may differ from country to country.

BEFORE CONNECTING YOUR TOOL TO A POWER SOURCE

Be sure you have read all

GENERAL POWER TOOL SAFETY RULES

GENERAL SAFETY PRECAUTIONS

For Your Own Safety Read Instruction Manual Before Operating Miter Saw

1. Wear eye protection.
2. Keep hands out of path of saw blade.
3. Do not operate saw without guards in place.
4. Do not perform any operation freehand.
5. Never reach around saw blade.
6. Shut off power and wait for saw blade to stop before servicing or adjusting tool.
7. This tool is intended for residential use only.
8. When servicing use only identical replacement parts.
9. KEEP GUARDS IN PLACE and in working order.
10. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
11. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
12. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
13. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
14. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
15. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
16. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
17. WEAR PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
18. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
19. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
20. DONT' OVERREACH. Keep proper footing and balance at all times.
21. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

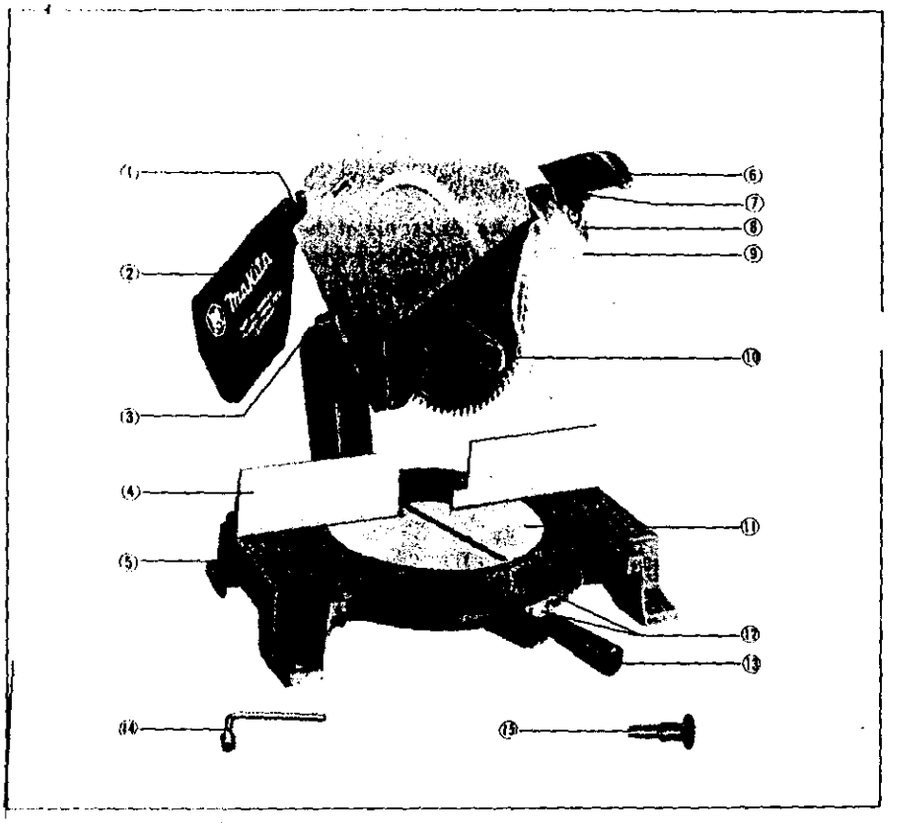
22. DISCONNECT TOOLS before servicing; when changing accessories such as blad bits, cutters, etc.
23. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in position before plugging in.
24. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommend accessories. The use of improper accessories may cause risk of injury to persons.
25. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if cutting tool is unintentionally contacted.
26. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part t is damaged should be carefully checked to determine that it will operate properly perform its intended function -- check for alignment of moving parts, binding of m ing parts, breakage of parts, mounting, and any other conditions that may affect operation. A guard or other part that is damaged should be properly repaired replaced.
27. DIRECTION OF FEED. Feed work into a blade or cutter against the directio rotation of the blade or cutter only.
28. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. D leave tool until it comes to a complete stop.

PRELIMINARY INSTRUCTIONS

Your electric tool is precision built and manufactured to satisfy the highest standards. For maxin performance, long tool life, and your safety, follow these instructions carefully.

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc sure the voltage supplied is the same as that specified on the nameplate of the tool. A power so with voltage greater than that specified for the tool can result in SERIOUS INJURY to the user well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power source voltage less than the nameplate rating is harmful to the motor.

Miter Saw & Standard Equipment



(1) Elbow (Dust spout)
(2) Dust bag
(3) Locking stopper
(4) Fence guide
(5) Base
(6) Operating handle (Switch)
(7) Lock-off switch button
(8) Motor housing
(9) Safety cover
(10) Saw blade
(11) Turn base
(12) Pointer & Miter scale
(13) Miter clamp grip
(14) Socket wrench
(15) Lock-off switch button (2 pcs)

Precautions before use

A. Before plugging in the miter saw, use this checklist:

Check Item	Checkpoin
* Is the saw blade installed correctly?	Fig. 1, 2
* Is the saw blade tip contacting the turn base when the blade is fully lowered?	Fig.
* Does the safety cover operate smoothly when you raise and lower the head with the operating handle?	Fig.
* Is the miter clamp grip tightened firmly?	Fig.

B. Set the miter saw on a level bench, sturdy stand or table. If you intend to use the to in just one spot, fasten it securely by means of bolts in the four mounting feet. Always obtain a steady base for safe, sure cutting action.

C. This miter saw is equipped with a locking stopper which is used to keep the head the lowered position. To release from the hold-down position, lower the operati handle to the release position. To lock the head in the hold-down position, lower t operation handle fully and turn the lever on the stopper to the hold position.

HOW TO USE YOUR MAKITA MITER SAW

1. Installing saw blade

To replace the saw, raise the center cover. Press the shaft lock and use the socket wrench provided to loosen the hex bolt which serves to hold the saw blade in place. Then remove the outer flange and install the saw blade on the arbor shaft inside the safety cover.

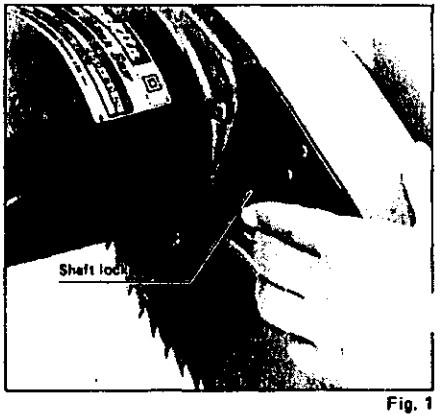


Fig. 1

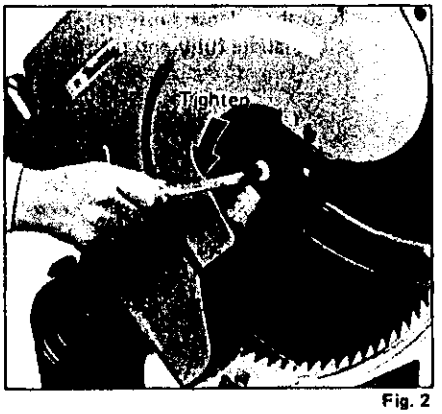


Fig. 2

2. Switch action

There is a lock-off switch button on the handle. To start the tool, first depress the lock-off switch button and then pull the trigger. Release the trigger to stop. The trigger will not work before the lock-off switch button is depressed. Form habit of taking off the lock-off switch button, when not in use.

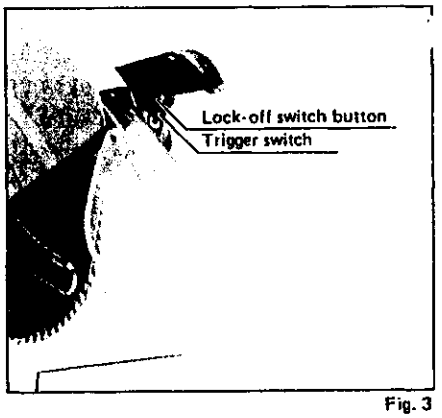


Fig. 3

3. Adjusting vertical position of blade

The miter saw is factory-adjusted with a standard blade cutting depth for a 355 mm (14") saw blade. Thus, IF YOU ARE NOT USING A STANDARD SAW BLADE, loosen the hex nut on the end of the gear housing and use a minus (-) screwdriver to turn the cutting depth adjustment bolt to the right. Adjust so that when the operating handle is in the fully lowered position there willl be a distance of about 152 mm 3") from the front face of the guide fence (guide rule) to the point where the front edge of the blade enters the kerf. (See photo at below.) This will produce the correct depth adjustment. Then tighten the hex nut.

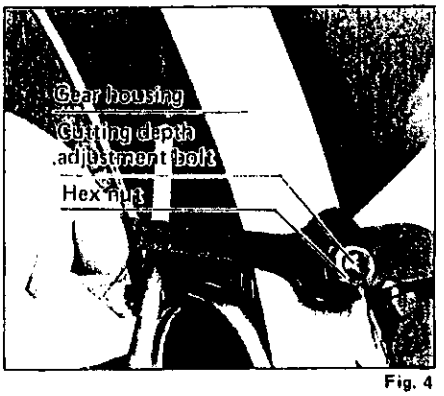


Fig. 4

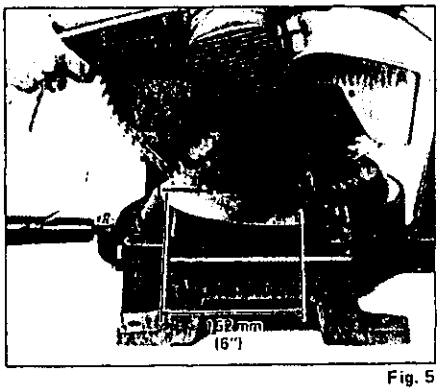


Fig. 5

4. Safety cover

(Prevents contact with blade)

The see-through safety cover (lower blade guard) raises as the work is contacted and cutting begins, and it returns to its original position when cutting is completed. Never lock the guard at a fixed position. Always use the guard in the freely telescoping condition for your personal safety. Any irregular operation of the safety guard should be corrected promptly. Never use the miter saw with a faulty guard.

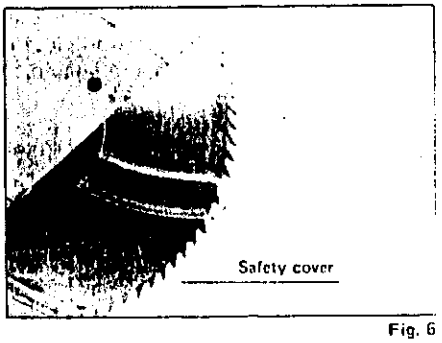


Fig. 6

* If the see-through guard becomes dirty or sawdust adheres in such a way that the blade and/or work may not be easily visible, clean it off carefully with a damp cloth. ALWAYS UNPLUG THE TOOL before you perform any cleaning.

5. Positioning for miter angle

1. Loosen the grip by turning leftward one half a turn.
2. Press down with your thumb on the knock spring as shown in Fig. 7. This releases the knock pin and allows the turn base (table) to turn freely.
3. When you have moved the grip to the position where the arrow (pointer) indicates the desired angle on the miter gauge indication plate, release your thumb from the knock spring and twist the grip to the right to fasten securely.
4. The following settings are possible: 0, 15, 22.5, 30 and 45 degrees.

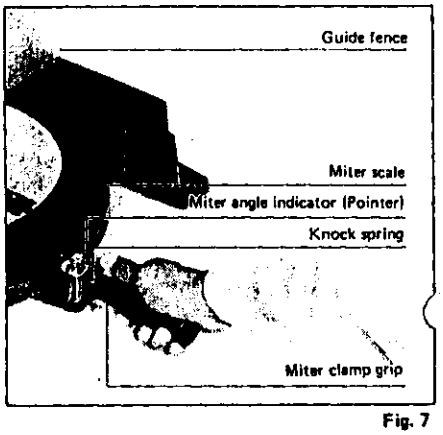


Fig. 7

6. Alignment

This Makita Miter Saw was carefully adjusted and aligned at the factory but, rough handling during shipment may have affected the alignment. If your miter saw is not aligned properly, perform the following.

•When Seriously Misaligned (Adjusting Fence)

After zeroing the miter pointer (as shown above) and carefully tightening the miter clamp grip, loosen the four hex bolts holding the guide fence and reposition the fence so that it will be square in relation to the saw blade. This can be done by placing a square or triangular rule against the saw blade and adjusting the fence so that the side contacting the work is absolutely flush with the square or rule. Then, carefully replace the hex bolts and fasten the fence securely. Failure to fasten securely will cause the guide fence to move when a workpiece is pressed up against it by powerful vise action, and thus accuracy will be compromised.

•When Slightly Misaligned (Adjusting Pointer)

Loosen the miter clamp grip and place a square or triangular rule against the side of the guide fence and saw blade so as to square the blade to the fence. When this is done and you notice that the pointer on the miter angle indicator is not at zero on the miter scale, gently tighten the miter clamp grip and then loosen the two pan head screws holding the miter angle indicator plate. Adjust so that the pointer will be at zero; then retighten the two screws to fasten the plate in place.

7. Attaching dust bag

Although sawdust ejection can be directed at will be means of the elbow, the use of the dust bag provided makes collection complete and cutting operations sanitary.

To attach the dust bag, fit it onto the elbow and turn to the left to lock in place; it releases to the right.

When the bag is about half full, just unzip the fastener below and empty it, slapping it lightly so as to remove particles adhering to the insides which might hamper collection.

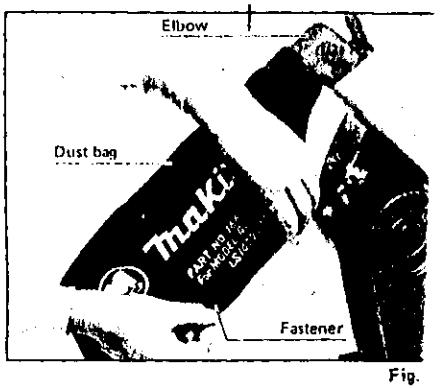


Fig.

8. Tips on cutting

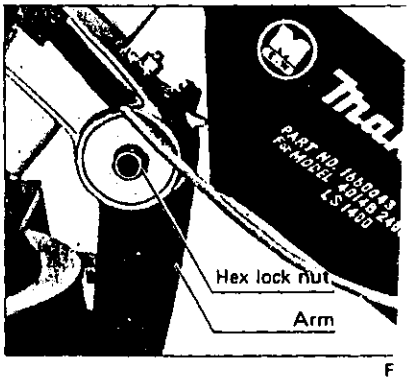
This tool is equipped with an electric safety brake which stops the saw blade within thr seconds from the moment you release the switch in the operating handle. This safe feature can also be used to advantage, for example, in cutting certain materials like lig aluminum or plastics where special shapes are required, or in edge cuts in wood wh only a little stock is cut off. In this case, the saw blade is retracted after the blade sto and the cut end will not be contacted by a spinning blade as in a regular saw. Thus cleaner – as well as safer – cut is possible.

- Always keep the table top clear of chips, small pieces and so on in order to maintai safe, clean surface.

9. Factory-adjusted lock nut

The hex lock nut holding together the gear housing and arm has been factory-adjusted to assure smooth arm action up and down and to guarantee precise cutting. Do not tamper with it.

Should looseness develop at the housing and arm connection, perform the following adjustment. Work the arm vertically while tightening the hex lock nut: the best position to fasten the nut is just before the motor body weight is obvious.



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If the nut is too loose, the cutting accuracy will be affected; if it is too tight, it wi hard to work the arm up and down easily. Note that this is a self locking nut; it special type that does not remove in the usual manner, and so it should not be tightened or replaced with other types.

10. Installing holders and set plate (Optional accessories)

They can be installed on either side to serve as convenient means to hold long work or work to be cut continuously into fixed lengths. Fit the set plate on the holder so that the flat side of the plate is on the inside. With the curved portion pointing up, then slip the holder rods into the holes for them on the base (side). Fasten securely with the wing bolt.

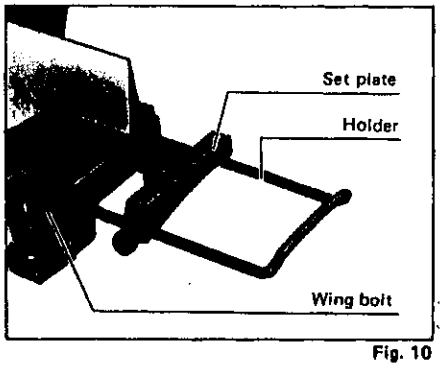


Fig. 10

11. Positioning workpiece

To cut fixed lengths of anywhere from 250 mm (approx. 10") to 400 mm (15.7"), align the cutting line on your workpiece with the saw blade and position the set plate on the holder so that its flank is flush with the workpiece, using the knob to release and fasten the set plate. Thus, the set plate makes continuous cutting of specified lengths both quick and convenient. If the set plate is not required, simply loosen the knob and draw it out of the way.

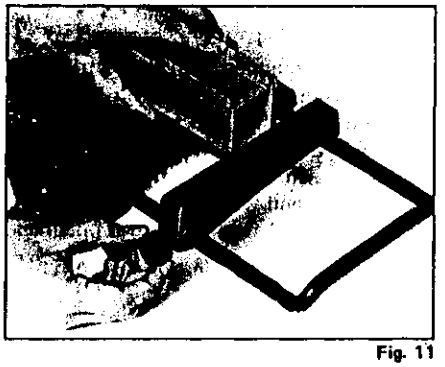


Fig. 11

12. Fastening workpiece

A workpiece should be grip only with a vise (Optional accessory). Stock may be used to prevent bending of thin aluminum extrusions when intricate cuts are done under gripping by the vise. The vise can be attached on either side of the base. Use the socket wrench provided to tighten its hex bolt securely.

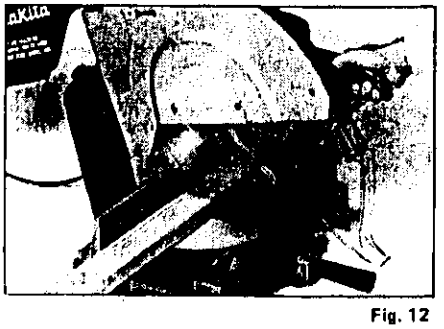


Fig. 12

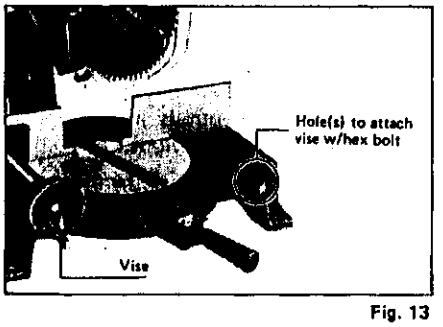
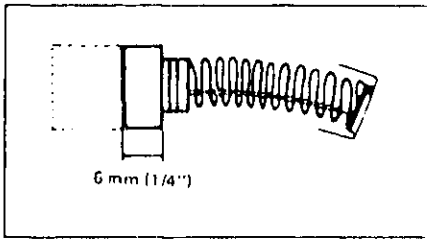


Fig. 13

13. Maintenance

- Carbon brushes

  Replace carbon brushes when they wear down to about 6 mm (1/4") or sparking will occur. Both brushes should be changed at the same time.



- Oiling

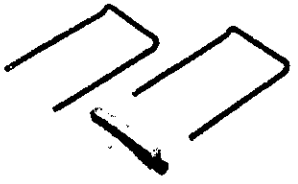
  Clean the tool thoroughly after use.

  Apply oil to all sliding surfaces, the base and saw blade as a rust inhibitor.

Optional accessories

CAUTION: The use of any other accessories not specified in this manual might be hazardous.

- **Holder set (with wing bolts)**
  (Part No. 191239-7)



- **Vise assembly**
  (Part No. 133101-0)

Saw blades

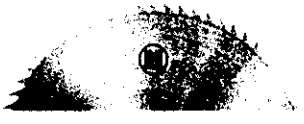
- **Carbide-tipped saw blade**

Faster, smoother longer sawing without blade sharpening cuts wood, drywall, plastics, hard wood, etc.

NO.	Diameter (mm)	Hole dia. (mm)	No. teeth	Part No.
355 – 11	355 (14")	25 (31/32")	100	721611-5

For aluminum cutting

- **Combination saw blade**



For rip and cross-cut work.
Has fewer teeth than cross-cut for faster cutting.

NO.	Diameter (mm)	Hole dia. (mm)	No. teeth	Part No.
355 – 1	355 (14")	25 (31/32")	80	721610-7