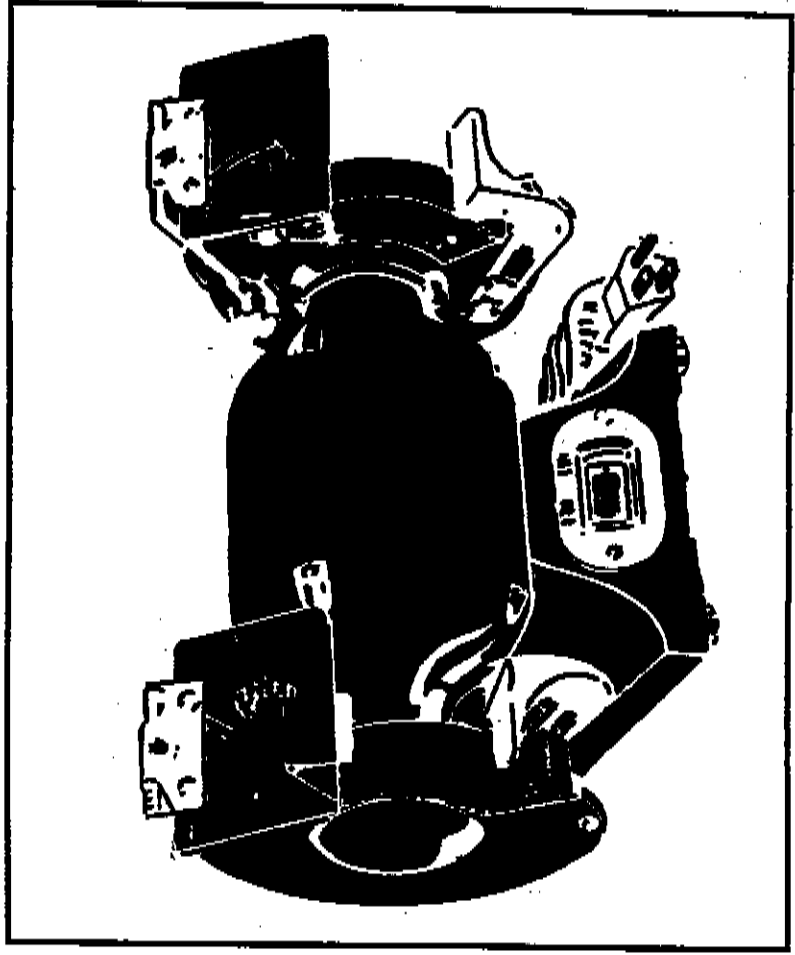


# Makita

## Bench Grinder

### INSTRUCTION MANUAL



Key No.	Part No.	Description	Key No.	Part No.	Description
1	6001	Screw	33	6033	Capacitor
2	6002	Cover	34	6034	Screw
3	6003	Nut (R&L)	35	6035	Washer
4	6004	Flange	36	6036	Pad
* 5	6005	Grinder wheel (R&L)	37	6037	Star washer
6	6006	Screw	38	6038	Nut
7	6007	Wheel guard	39	6039	Lock washer
8	6008	Screw	40	6040	Screw
9	6009	Motor end bell	41	6041	Base
10	6010	Ball bearing	42	6042	Switch
11	6011	Fan	• 43	6043	Bolt
△ 12	6012A	Motor stator	44	6044	Bush
13	6013	Motor case	45	6045	Adjustable rest
△ 14	6014A	Motor rotor	• 46	6046	Spark breaker
15	6015	Centrifugal starting sheet	• 47	6047	Eyeshield clamp bracket
16	6016	Star washer	• 48	6048	Eyeshield rod
17	6017	Screw	• 49	6049	Carnage bolt
18	6018	Centrifugal start switch	• 50	6050	Eyeshield
19	6019	Screw	• 51	6051	Eyeshield holder
20	6020	Spark breakers	• 52	6052	Screw
• 21	6021	Washer	• 53	6053	Nut
• 22	6022	Bolt	• 54	6054	Washer
23	6023	Adjustable rest	• 55	6055	Bolt
24	6024	Wire	• 56	6056	Nut
25	6025	Strain relief	• 57	6057	Washer
• 26	6026	Washer	58	6058	Screw
27	6027	Plate	59	6059	Screw
28	6028	Terminals	60	6060	Screw
29	6029	Wheel guard	61	6061	Capacitor holder
30	6030	Cover	62	6062	Power switch mounting plate
31	6031	Base plate	63	6063	Owners manual
32	6032	Capacitor cover	64	6064	Quench tray

\* BG601-Part No:6005A 6"x1"x1/2" Grinder wheel

△ Key No:12 & 14 must be together

• Key No.50, It is a spare parts which including the parts of no. 21,22,26,43,46,47,48,49,50,51,52,53,54,55,56,57.

## **BEFORE CONNECTING YOUR TOOL TO A POWER SOURCE**

**Be sure you have read all**

### **GENERAL POWER TOOL SAFETY RULES GENERAL SAFETY PRECAUTIONS**

- 1. KNOW YOUR POWER TOOL.** Read the owner's manual carefully. Learn the tools applications and limitations, as well as the specific potential hazards peculiar to it.
- 2. KEEP GUARDS IN PLACE** and in working order.
- 3. REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 4. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 5. 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.
- 6. KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
- 7. MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
- 8. DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
- 9. USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
- 10. WEAR PROPER APPAREL.** Wear no loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. 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.
- 13. DON'T OVERREACH.** Keep proper footing and balance at all times.
- 14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS** before servicing, when changing accessories such as blades, bits, cutters, and the like.
- 16. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.

## Special Safety Rules for Bench Grinders

### WARNING



The operation of any grinder can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before commencing power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Weld Vision Safety Mask for use over spectacles or standard safety glasses with side shields, available at Retail Stores.

17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other 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, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. **NEVER LEAVE TOOL RUNNING UNATTENDED.** TURN POWER OFF. Don't leave tool until it comes to a complete stop.
22. **PROPER GROUNDING.** This tool should be grounded while in use to protect the operator from electric shock.
23. **EXTENSION CORDS.** Use only three-wire extension cords which have three-prong grounding-type plugs and three-pole receptacles which accept the tool's plug. Replace or repair damaged or worn cord immediately.

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

1. Always use the eyeshields, and also wear goggles or other eye protection. Keep your thumbs and fingers away from wheel.

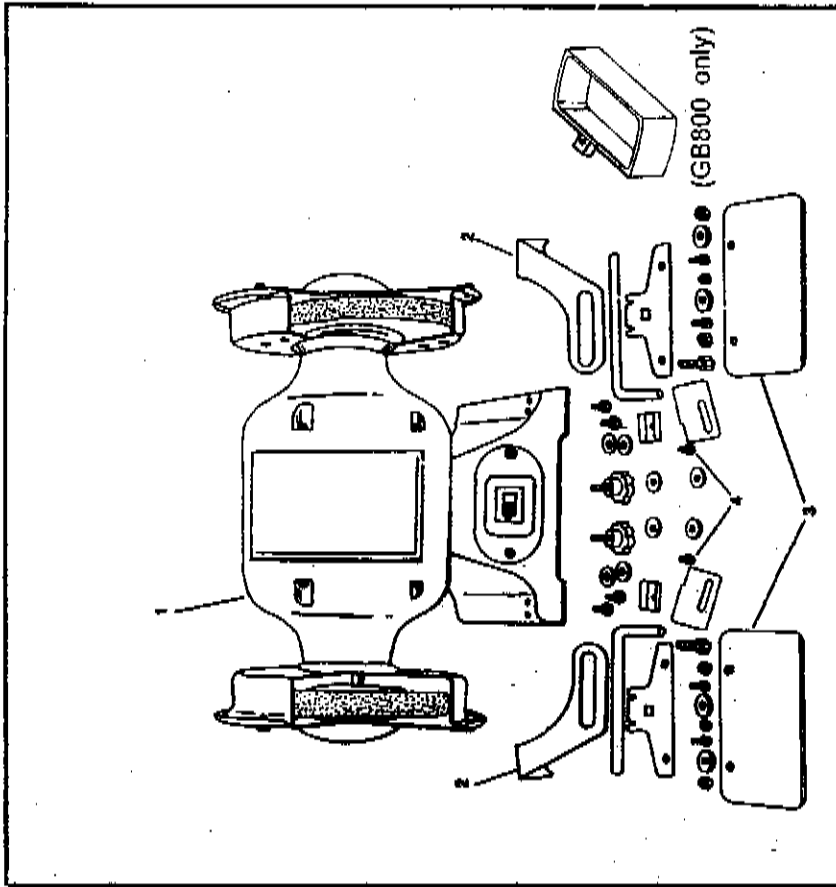
### WARNING

2. Replace a cracked grinding wheel immediately. Handle wheels carefully, before replacing a wheel, check it for cracks. Tighten the spindle nut just enough to hold the wheel firmly; if the nut is tightened too much, the clamping strain can damage the wheel. When selecting a replacement wheel, ensure that the grinder will not exceed the manufacturer's recommended speed for the wheel.

3. As the diameter of the grinding wheel decreases with use, adjust the tool rests to maintain a distance of 1/16-inch or less from the wheel. Also keep the distance between the spark breaker and the grinding wheel 1/16 of an inch or less.

4. **WARNING**  
When starting the grinder, turn it on and stand to one side until the machine comes up to full speed. There is always the possibility that a piece from a damaged grinding wheel may be thrown off when coming to full speed.
5. Never force work against a grinding wheel, especially if the wheel is cold. Apply the work gradually to give the wheel an opportunity to warm. This will minimize the chance of wheel breakage.
6. Keep all wheel guards in place. Do not remove the wheel guard for normal operation.
7. Do not try to cut anything with the grinding wheel.
8. Use a wheel dresser to resurface the grinding wheel.

## Unpacking



Carefully unpack the Bench Grinder and all related items. Check carefully to make certain all items are present. Above are illustrated the contents of the carton. Do not discard any packing material until after the grinder is fully assembled and operational. If you find any parts missing or damaged, contact MAKITA for exchange or replacement.

1. Main body (switch and electrical cord are included).
2. Left and right tool rests, including four 5/16-inch hex head mounting bolts and four large washers.
3. Left and right eyeshields, including two eyeshield holders, two 1/4-inch round head bolts, two large hex nuts, four 3/16-inch screws, four small washers, four small hex nuts, two eyeshield mounting brackets, and two bracket clamps.
4. Left and right spark breakers, including two 1/4-inch hex head mounting bolts and two medium washers.

## Assembly

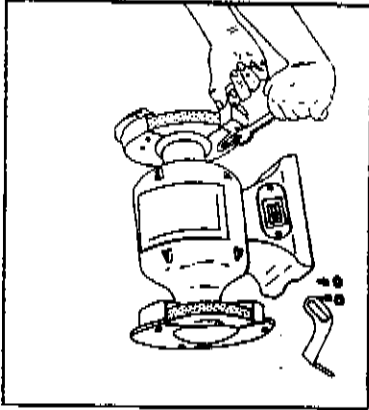


Fig. 2

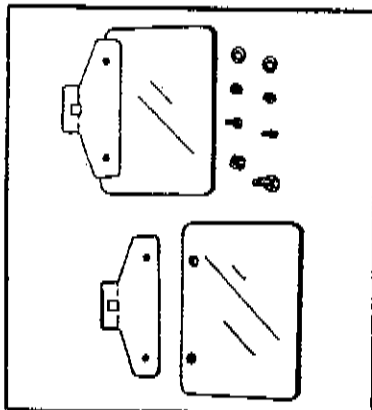


Fig. 4

**Tool Rests**  
Attach the left and right tool rests with the four 5/16-inch bolts and large washers as shown in Figure 2. Adjust the rests for a distance of 1/16-inch from the surface of the grinding wheel.

**Spark Breakers**  
Attach the spark breakers with the two 1/4-inch bolts and medium washers as shown in Figure 3. Adjust the spark breakers for a distance of 1/16-inch from the surface of the grinding wheel.

**Eyeshields**  
Assemble the left and right eyeshields. Attach the eyeshield onto the eyeshield bracket by first inserting two 3/16-inch screws through the bracket and the eyeshield as shown in Figure 4. Then slip one of the small washers over each screw, and tighten a small hex nut onto the screw. Do not tighten too lightly or the eyeshield may crack. Insert one of the round-head bolts through the square hole on one side of the eyeshield bracket, and tighten one of the large hex nuts onto the bolt. Tighten the nut to finger tightness.

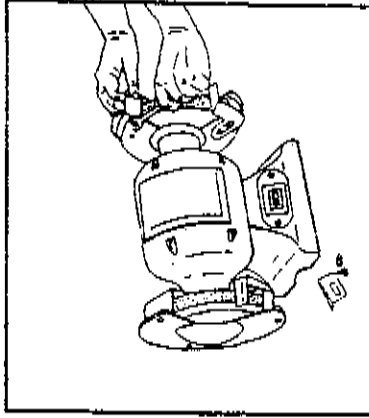


Fig. 3

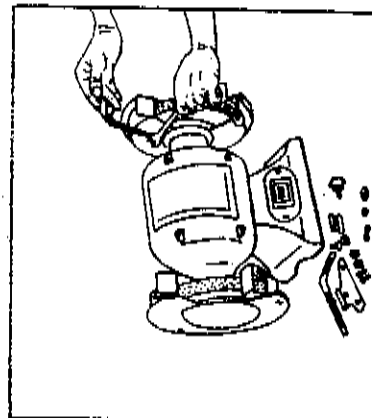


Fig. 5

Select one of the eyeshield mounting brackets, eyeshield bracket clamps, and Palat type screws. Attach the bracket to the wheel guard as shown in Figure 5. Hand the eyeshield assembly onto the bracket and tighten the large hex nut for a firm fit. The eyeshield must move freely, yet stay in place once it is positioned.

**Final Assembly**  
Fasten the grinder to the workbench, stand, or cabinet as shown in Figure 6. Two holes are provided in the base of the bench grinder so that suitable length bolts can be inserted to attach the grinder securely and prevent it from moving during operation.

**CAUTION**  
When starting the grinder, turn it on and stand to one side until the grinder has come up to speed. There is always the possibility that a piece from a damaged grinding wheel may be thrown off when coming to full speed.

## Operation

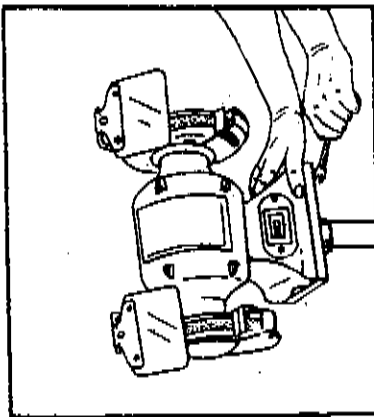


Fig. 6

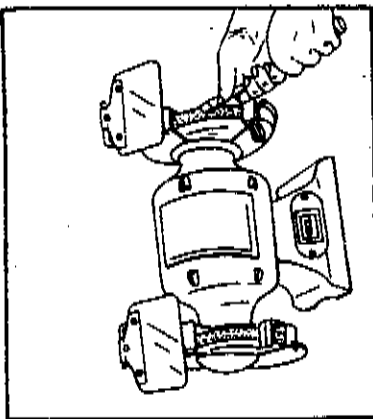


Fig. 7

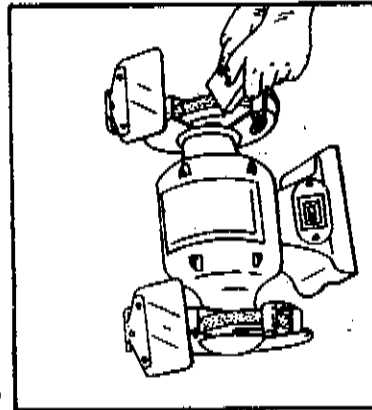


Fig. 8

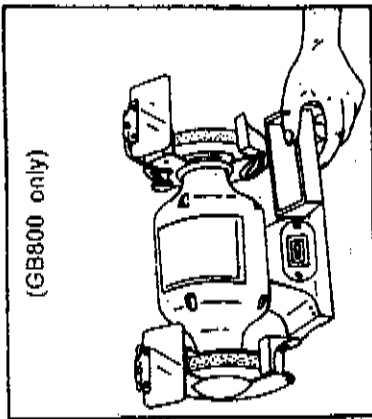


Fig. 9

A bench grinder is designed for hand grinding operations such as sharpening chisels or screwdrivers, grinding drills, removing excess metal from work, and smoothing metal surfaces. A medium grain abrasive grinding wheel is suitable for rough grinding where a considerable amount of metal has to be removed or where a smooth finish is not important. For sharpening tools or grinding to close limits of size, a fine grain wheel should be used as it removes metal slower, gives the work a smooth finish, and does not generate enough heat to anneal the cutting edges.

1. Check for a 1/16-inch clearance between the tool rest and the grinding wheel, and between the spark breakers and the grinding wheels. Adjust as needed. Always keep the tool rest adjusted so that it just clears the wheel and is just below the center line of the wheel to prevent accidental jamming of work between the tool rest and the wheel.

2. Stand to one side, then turn the grinder on and let it come up to speed.

3. When grinding, always keep the work moving across the face of the wheel. Grinding against the same spot on the wheel will cause grooves to be worn into the face of the wheel. For grinding large or odd-shaped workpieces, the tool rests can be removed if needed.

4. When it is necessary to reshape the grinding wheel, use the proper tools as shown in Figures 7 and 8. After reshaping, adjust the tool rests and spark breakers as needed to maintain the 1/16-inch clearance from the wheel.

## ACCESSORIES

### CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.



- Grinding wheel (part No. 6005)



- Adjustable rest (part No. 6045)



- Nut (part No. 6003)



- Eyeshield (part No. 6050)

## SPECIFICATIONS

MODEL NO	wheel size	HZ	No load speed	overall length	Net weight
GB 600	50mm X 19mm X 12.7mm (6" X 3/4" X 1/2")	50	2850 R/Min	340MM	10.11kg (24.25lbs)
		60	3450 R/Min	(13 - 3/8)"	
GB 601	50mm X 25mm X 12.7mm (6" X 1" X 1/2")	50	2850 R/Min	340MM	10.11kg (24.25lbs)
		60	3450 R/Min	(13 - 3/8)"	
GB 800	205mm X 25mm X 19mm (8" X 1" X 5/8)	50	2850 R/Min	408MM	16.19 (41.88lbs)
		60	3450 R/Min	(16)"	

