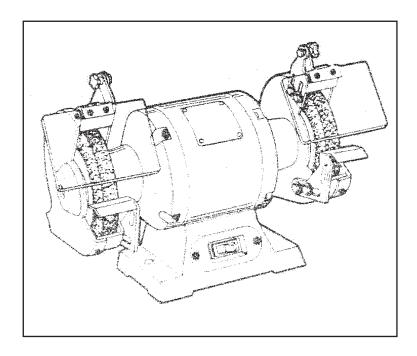


# OPERATOR'S MANUAL BGC SERIES BENCH GRINDERS





SPECIFICATIONS	BGC-6 (240153)	BGC-8 (240154)
Motor	1/3HP, 1 PH, 115V	1/2HP, 1 PH, 115V
Amperage	3.5, 60 Hz	5, 60 Hz
R.P.M.	3,450	3,600
Arbor Size	1/2"	5/8"
Wheel Size	6"x3/4"x1/2"	8"x1"x5/8"
Net Weight (lbs.)	26	39
Shipping Weight (lbs.)	28	42

### **MACHINERY WARRANTY**



JET offers a two year limited warranty on this product

### MACHINERY WARRANTY

JET makes every effort to assure that it's products meet high quality standards and warrants to the retail consumer/purchaser of our products that each product is free from defects in material and workmanship as follows: 2 YEAR LIMITED WARRANTY ON THIS JET PRODUCT. Warranty does not apply to defects due directly of indirectly to misuse, abuse, negligence or accidents, repairs or alterations performed outside our facilities or to a lack of maintenance. To take advantage of this warranty, the product or part must be returned freight prepaid to an authorized service station designated by our Vancouver office. Proof of purchase date and an explanation of the problem must accompany the merchandise. If our inspection discloses a warrantable defect JET will repair or replace the product at our option and return the product freight prepaid.

### **PROOF OF PURCHASE**

Please retain your dated sales receipt as proof of purchase to validate the warranty period.

### READ ALL INSTRUCTIONS BEFORE OPERATING GRINDER

### **WARNING**

- KEEP GUARDS IN PLACE and in working order.
- REMOVE LOOSE TOOLS AND WRENCHES. Always check to see that tools and adjusting wrenches are removed from tool before turning it on.
- 3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- 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.
- 5. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
- MAKE WORKSHOP CHILD PROOF with padlocks, master switches, or by removing starter keys.
- DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- 8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
- WEAR PROPER APPREL. 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.
- 10. ALWAYS USE SAFETY GLASSES. Must comply with ANSI Z87.1. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 11. **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.
- 12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
- 13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- DISCONNECT TOOLS before servicing and when changing accessories such as wheels.
- 15. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.
- 16. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- 17. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- 18. SAVE THESE INSTRUCTIONS.



- 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 wheels against the direction of rotation of the wheel only.
- 21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

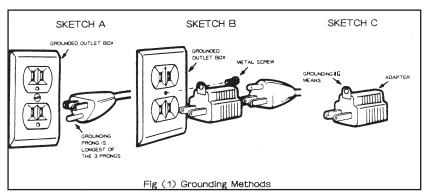
### **GROUNDING**

- 1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding lug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- 2. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- 3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow strip is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- 5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacle that accept the tool's plug.
- 6. Repair or replace damaged or worn cord immediately.
- 7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 1. The tool has a grounding plug that looks like the lug illustrated in Sketch A in Figure 1. A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualifed electrician. The green-colored rigid ear, lug, etc. extend-



ing from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

**CAUTION.** In Canada only the Grounding as shown on Fig. A will be acceptable. Also the extension cords shall be CSA certified SJT type or better.



### FOR YOUR OWN SAFETY READ INSTRUCTION MANUAL BEFORE OPERATING GRINDER

- 1. Wear eye protection that complies with ANSI Z87.1 specifications.
- 2. Use grinding wheel suitable for speed of grinder.
- Stand beside the bench grinder during start-up, not facing directly in front.
- One minute idle rotation is necessary for the new grinder wheel.
   Should the new grinder wheel break, it will happen within the first one minute of operation.
- 5. Don't remove the wheel guard.
- 6. Don't use the grinder wheel to cut anything.
- 7. Don't use anything to stress the grinder wheel.
- 8. Use a grinding wheel dressing tool to shape or remove glaze from grinding wheels.
- Adjust distance between wheel and work rest to maintain 1/8 inch or less separation as the diameter of the wheel decreases with use.
- Connect to a supply circuit protected by a circuit breaker or timedelay fuse.
- 11. Secure the bench grinder to its supporting surface to prevent the grinder from tipping over, sliding, or walking on its supporting surface.
- A. Replace cracked wheel immediately.
- B. Always use guards and eye shield.
- C. Do not overtighten wheel nut.
- D. Use only flanges furnished with this grinder.



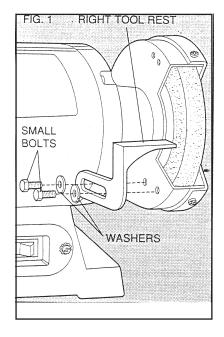
### **SWITCH**

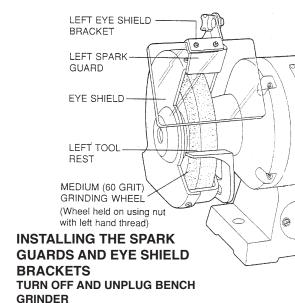
The switch is located on the front of the grinder near the bottom. To turn the tool "ON" depress the rocker switch at the left side near the word "ON". To turn the tool "OFF" depress the right side portion of the rocker switch, near the word "OFF".

### INSTALLING TOOL RESTS TURN OFF AND UNPLUG THE BENCH GRINDER

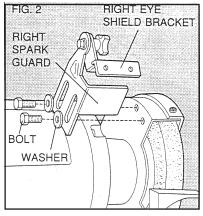
Remove the tool rests from the top portion of the poly-foam carton liner and install them to the wheel guards as shown in the figure. Use the bolts and washers from the plastic bag to secure them in place, as shown in Figure 1. NOTE: There is a left and a right tool rest. Reger to Figure 1 to ensure that you install them correctly.

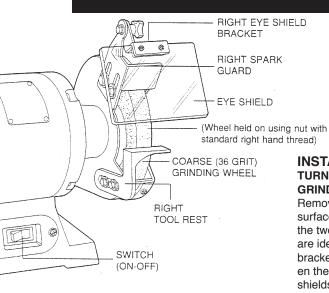
When in actual use, the tool rests should be adjusted to within 1/8" of the grinding wheel or other accessory being used.





The combination Spark Guard and Eye Shield Brackets are assembled and in a plastic bag. They are identified L-for left and R-for right. Refer to Figure 2 to install them to the Bench Grinder using the two screws in the wheel guard (In some cases these screws will be in the plastic bag). Adjust the edge of the spark guard





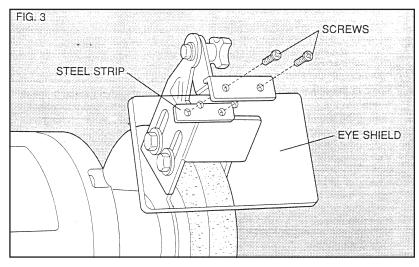
to within 1/16" of the grinding wheel or other accessory as shown in the figure. Tighten the two screws securely.

## INSTALLING THE EYE SHIELDS TURN OFF AND UNPLUG BENCH GRINDER.

Remove the steel strip from the top surface of each Eye Shield by removing the two screws. Install the shields, (they are identical and will fit either side) to the brackets, as shown in Figure 3. Tighten the screws securely. Adjust the eye shields so they are between the wheels and your eyes.

### THE EYE SHIELDS ARE NOT DESIGNED TO REPLACE SAFETY GLASSES.

Tighten the shields in place by tightening the plastic knob in the bracket assembly. Remove protective paper covering.





### **CHANGING ACCESSORIES**

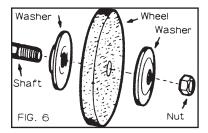
TURN OFF AND UNPLUG THE BENCH GRINDER. USE ONLY GRINDING WHEELS THAT MEASURE 6 INCHES IN DIAMETER FOR MODE BGC-6 AND 8 INCHES IN DIAMETER FOR MODEL BGC-8. MODEL BGC-6 HAS 1/2 INCH ARBORS ON BOTH SIDES. MODEL BGC-8 HAS 5/8 INCH ARBORS ON BOTH SIDES.

Follow the steps presented below to remove and replace an accessory:

- 1. Raise the eye shield up, out of the way.
- 2. Loosen and pull the tool rest out as far as possible. Do not remove it.
- 3. Loosen and pull the spark guard out as far as possible. Do not remove it.
- 4. Remove the five screws from the left side wheel cover and remove the cover.
- 5. Insert a flat bladed screwdriver into the slot in the left end of the grinder rotor shaft. Hold the screwdriver firmly to keep the shaft from turning as you loosen and remove the hex nut in the center of the grinding wheel or other accessory.

  NOTE: If you are changing only the right side accessory, you still need to remove the left wheel cover. It may be necessary to strike the wrench sharply in the loosening direction with the heel of your hand to loosen the nut.

  NOTE: The nut on the right side of the grinder has a standard right hand thread turn counter-clockwise to loosen). The one on the left side has a left hand thread (turn clockwise to loosen).
- 6. Remove the wheel washer and the wheel.
- Inspect the wheel for cracks, chips or any other visible damage (other than normal wear) and discard if such damage is found. Inspect the blotter for damage. If the blotter is missing or severely damaged, replace it with a piece of thin cardboard or blotter paper cut in the same shape. NEVER USE A GRIND-ING WHEEL WITHOUT A BLOTTER.
- 8. Install the new wheel or other accessory. Be sure that both wheel washers are in place (concave sides toward wheel). See Figure 6.
- Hold as before and tighten the nut firmly but do not overtighten.
   OVERTIGHTENING CAN CRACK A GRINDING WHEEL.
- 10. Replace the wheel cover and its five screws.
- 11. Adjust the tool rest to 1/8" from the accessory and tighten securely.
- 12. Adjust the eye shield to a point between your eyes and the accessory.





### OPERATING INSTRUCTIONS

As you face your bench grinder, the wheel on the left is a medium (60 grit) wheel for medium material removal and general purpose grinding.

The wheel on your right is a coarse (36 grit) wheel for fast material removal.

To operate the bench grinder, put on safety glasses and turn the tool on. Allow it to reach full speed (3450 RPM for BGC-6 and 3600 RPM for BGC-8) before grinding. Hold the workpiece firmly and against the tool rest. Hold very small pieces with pliers or other suitable clamps. Feed the work smoothly and evenly into the grinding wheel. Move the work slowly and avoid jamming the work against the wheel. As the wheel tends to slow down you should occasionally release the pressure to let the wheel return to full speed.

Grind only on the face of the grinding wheel and never the side of it. (Some wheels are designed for side grinding and will say so on their blotters.)

**CAUTION:** Prolonged grinding will cause most materials to become hot. Use care when handling them.

### **ACCESSORIES**

The accessories listed in this manual are available at extra cost from your local dealer, and have not been evaluated by Underwriters Laboratories Inc.

Recommended accessories for your grinder are shown in this manual.

GRINDING WHEELS: BGC-6 - 6" Diam. x 3/4" Width x 1/2" Arbor Hole

BGC-8 - 8" Diam. x 1" Width x 5/8" Arbor Hole



### DESCRIPTION

### MAXIMUM SAFE SPEED

### **GRINDING WHEELS**

1/2" Face, 6" dia. 60 Grit Medium Grinding Wheel3,825RPM5/8" Face, 6" dia. 60 Grit Medium and 36 Grit Coarse Grinding Wheel4,136RPM3/4" Face, 6" dia. 60 Grit Medium Grinding Wheel4,136RPM3/4" Face, 8" dia. 60 Grit Medium and 36 Grit Coarse Grinding Wheel3,600RPM1" Face, 8" dia. 60 Grit Medium and 36 Grit Coarse Wheel3,600RPMWhen using electrical tools please follow basic safety requirements for your own safety and also to reduce risk of fire and electric shock.

PLEASE READ YOUR INSTRUCTION MANUAL CAREFULLY BEFORE BEGINNING OPERATION.

#### **EXTENSION CORDS:**

**USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your products will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table noted below, shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

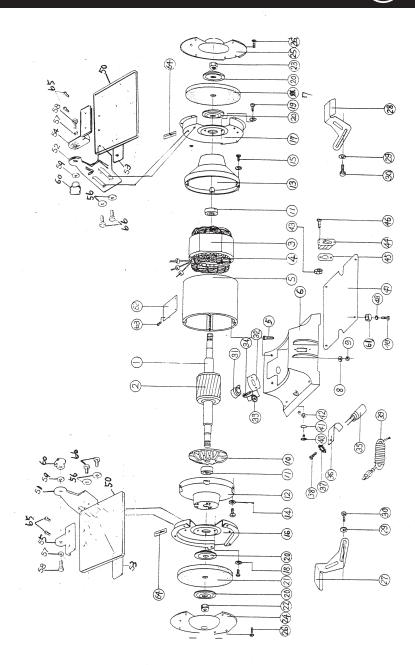
Minimum gauge for cord

		Volts Total length of cord in fee		cord in feet		
		120V	25 ft.	50 ft.	100 ft.	150 ft.
Ampere F	Rating					
	Not					
More	More					
Than	Than			AWG		
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Re	ecommended

**OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

**STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.

**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 by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn tool on and off.





**BGC-6 (240153)**, **BGC-8 (240154) PARTS LIST**Please state the model number of your grinder when ordering parts.

NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY
01	ASSEMBLY OF SHAFT	1	36	CONDENSOR FIXER	1
02	ROTOR	1	37	TOOTH WASHER	1
03	STATOR	1	38	SCREW	1
04	COPPER WIRE	1	39	ELECTRIC CORD	1
05	STATOR HOUSING	1	40	SCREW	1
06	BASE	1	41	TOOTH WASHER	1
07	GRINDING WHEEL (FINE)	1	42	CLIP	1
80	WASHER	4	43	HEX. NUT	2
09	HEX. NUT	4	44	SWITCH	1
10	FAN	1	45	SWITCH PLATE	1
11	BEARING	2	46	SCREW	2
12	AL. COVER (LH)	1	47	BASE PLATE	1
13	AL. COVER (RH)	1	48	WASHER	4
14	SPRING WASHER	8	49	SCREW	4
15	SCREW	8	50	EYESHIELD PLATE	2
16	LH WHEEL GUARD (INNER)	1	51	SPARK GUARD, LH	1
17	RH WHEELGUARD (INNER)	1	52	SPARK GUARD, RH	1
18	SPRING WASHER	6	53	STEEL PLATE	2
19	SCREW	6	54	EYESHIELD BKT, RH	1
20	WHEEL WASHER	4	55	EYESHIELD BKT, LH	1
21	GRINDING WHEEL(COARSE)	1	56	WASHER	4
22	LH NUT	1	57	WASHER	2
23	RH NUT	1	58	SCREW	2
24	LH WHEEL GUARD (OUTER)	1	59	WASHER	2
25	RH WHEEL GUARD (OUTER)	1	60	KNOB	2
26	SCREW	10	61	RUBBER FOOT	4
27	LH TOOL REST	1	62	NAMEPLATE	1
28	RH TOOL REST	1	63	RIVET	4
29	WASHER	2	64	ROTATION GUIDE	2
30	HEX. SCREW	2	65	SCREW	4
31	RUBBER GUIDE	1	66	SCREW	4
32	RUBBER GUIDE PLATE	1			
33	TOOTH WASHER	2			
34	SCREW	2			
35	CONDENSOR	1			