

BRAVOPRODIGY

GM150

FLEXIBLE SHAFT GRINDER



Owner's Manual

For Your Own Safety

- Please read this manual before operate Bravoprodigy power tool.
- Always wear eye protection, gloves and work apron while using this tool.
- Longer hair must put in a bun and make sure no loosen hair while using this tool.

MADE IN TAIWAN

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GM150 Safety Instructions



Refer to
instruction
manual/booklet



Wear
eye protection



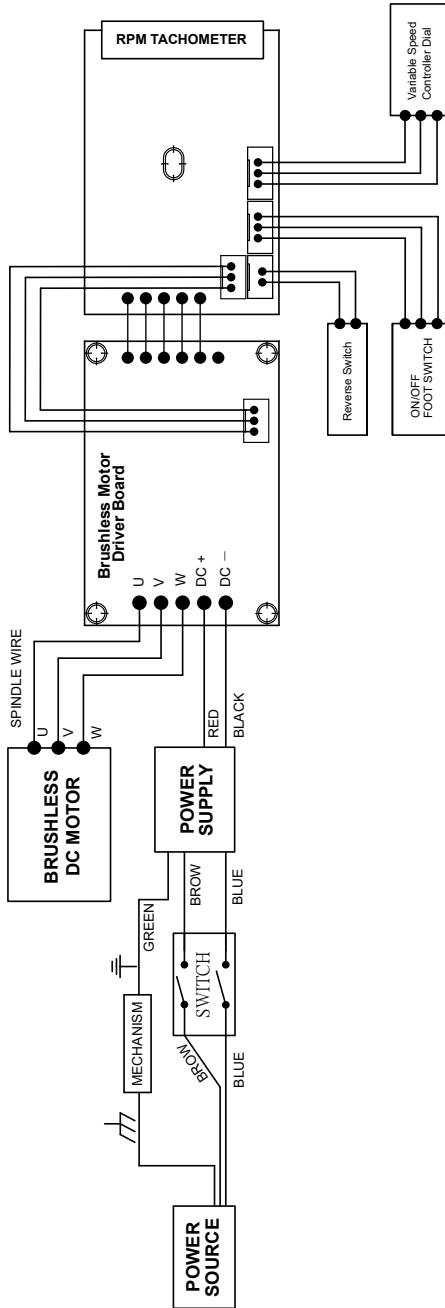
**Warning: For your own safety, please read the following safety warning and safety instruction thoroughly.
To understand the usage, restriction and possible dangers.**

1. Keep the workplace tidy and clean. A messy workplace will lead to work accidents.
2. Avoid operating in a dangerous environment, such as flammable liquids, gases, chemicals, or a dusty environment. Sparks may be generated during the polishing process which may ignite the dust or gas.
3. Keep a safe distance. When operate the tools, please keep children and bystanders in a safe distance. In order to avoid operator from distraction and influence the operation safety.
4. Keep in a dry place and out of reach of children. The tool must be properly stored and placed in a dry environment and out of reach of children when not in use.
5. Sufficient lighting. Operate the tool correctly, safely and attentively in a well-lit and bright working environment.
6. Stay vigilant and do not operate the tool when fatigued or under the influence of drugs, alcohol, or medical treatment.
7. Wear proper safety devices. Please wear goggles, masks, safety face masks, protective earmuffs, head-mounted protective overs (to avoid long hair getting involved.), non-slip safety shoes, and other safety equipment that can reduce personal injuries.
8. Always disconnect the power cord before moving the tools. Make sure the power switch is off and disconnect the power cord to avoid activating accidentally.
9. Always make sure the power is off when attaching or detaching the accessory and change the handpiece to avoid activating accidentally.
10. Always use proper extension power cord. Use non-compliance power cord may damage the motor.
11. Use proper grounding and matching plug and socket. Do not modify the plug. The tool needs to be rounded and cannot use with other conversion plugs in order to reduce electric shock.
12. Do not damage the wires and avoid wire, motor and plug contacting heat, sharp metal edges, oil stains, and moisture. Abnormal power cord pull will expose the wire and damage the circuit which will cause an electric shock.
13. To avoid electric shock, keep the body away from the grounded metal when operating. Tools must use proper grounding procedures and do not remove the grounding socket pin. Do not operate in rain or a humid environment. Avoid moisture getting into the motor.



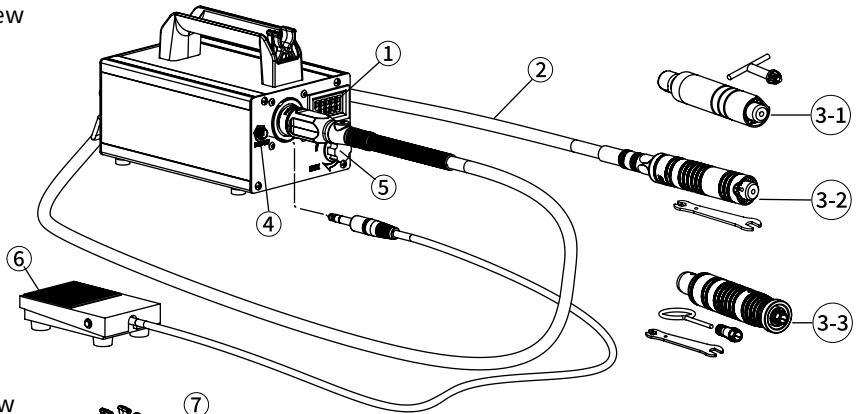
**Note: To ensure the safety of motor, please send it to professional maintenance engineers from the manufacture or dealer if the motor needs to be repaired.
DO NOT disassemble the motor and repair by yourself.**

Wiring Diagram

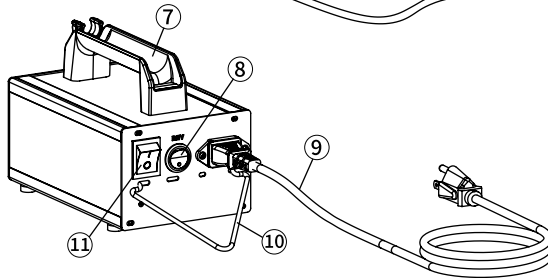


GM250 Accessories and Function Description

Front View




Rear View



No.	Function Description
1	Displays the current rpm.
2	Flexible Shaft: Used for transmitting the handpiece's motion.
3-1	HC-110 Chuck Style Handpiece Set -optional: Using tools clamped by a drill chuck.
3-2	HC-120 Chisel Style Handpiece Set -optional: Engraving with a chisel in a reciprocating motion.
3-3	HC-130 Collet Style Handpiece Set -optional: Using tools clamped by a collet.
4	Foot Switch Slot: Can be used to connect a foot switch for operation.
5	Variable Speed Controller Dial: Adjusts the motor's speed.
6	ON/OFF Foot Switch: After connecting to the machine, it can be used as a start and brake switch.
7	Handle: Facilitates moving the machine and provides a place to store the handpiece.
8	Reverse Switch: Switches the direction of rotation between forward and reverse.
9	Power Cord: Please install with the correct voltage according to the product specifications.
10	Hanger: The motor can be hung for use.
11	Power Switch: Turns on/off of the machine.

Handpiece Assembly Installation Steps

 Before installing, make sure the machine is powered off to prevent accidental startup.

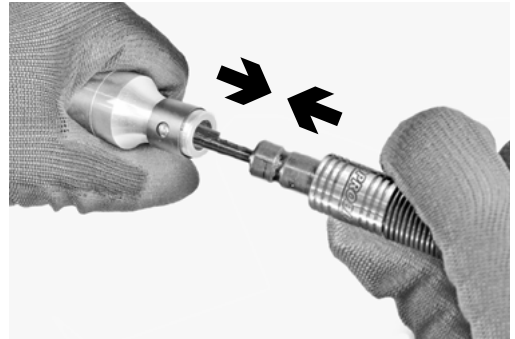
1. _____

Please align the key tip of the flexible shaft with the keyway slot inside the Handpiece, as shown by the arrow.



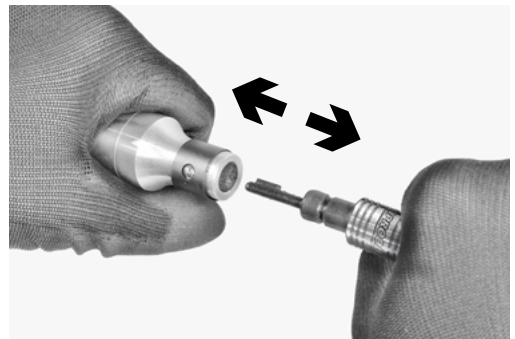
2. _____

Assembly- Simply grip the handpiece and the metal sheath tip firmly, then push it all the way in the direction pointed by the arrow in the right image.



3. _____

Disassemble- Simply grip the Handpiece and the metal sheath tip firmly, and then remove it in the direction indicated in the right image.



HC-110 Chuck Style Handpiece Installation Instructions



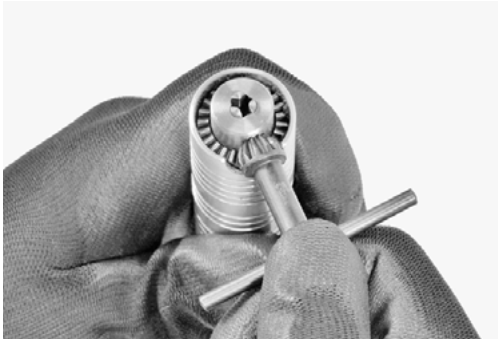
Before installing, make sure the machine is powered off to prevent accidental startup.



VIDEO

1. _____

Use the provided chuck key to insert it into the pilot hole and rotate the wrench counterclockwise to loosen the 3-jaw chuck.





2. _____

After inserting the tools fully into the chuck, use the chuck key and rotate it clockwise to secure and center it.



HC-120 Chisel Style Handpiece Installation Instructions

-  Before installing, make sure the machine is powered off to prevent accidental startup.
-  Be cautious of the blade, and it is advisable to wear work gloves to prevent cutting injuries.



1. _____

When attaching the chisel, first loosen the locking nut.



2. _____

Gently insert the chisel into the handpiece, and push the chisel all the way to the bottom to ensure it is fully installed.



3. _____

Tighten the locking nut to secure the chisel by using an 10mm open-end wrench.

Do not over tighten.

Must be operated in the forward rotation mode at **5,000 ~ 8,000RPM.**



HC-130 Collet Style Handpiece Installation Instructions



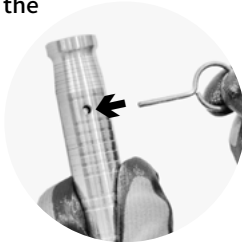
Before installing, make sure the machine is powered off to prevent accidental startup.



VIDEO

1.

To install collet, insert pin provided into the pilot hole and through the spindle hole (turn the spindle to align the holes) and put collet onto the handpiece.



2.

Then, place the accessory inside the collet.



3.

Use a collet wrench and rotate it clockwise to fasten the accessory securely. Remove pin after installation.



Steps for Replacing the Flexible Shaft

 Before installing, make sure the machine is powered off and remove the Handpiece to prevent accidental startup.

1. _____

First, remove the handpiece. Then, rotate the motor connector slightly in a clockwise direction to loosen it.



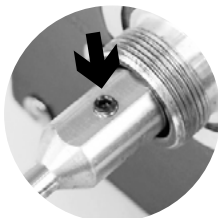
2. _____

Grip the motor connector with one hand and the tail end of the flexible shaft with the other hand. Rotate them in a clockwise direction together to remove the motor connector.



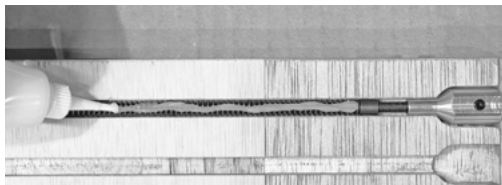
3. _____

Use a 2mm Allen key to loosen the set screw on the coupling. Once loosened, you can easily detach the flexible shaft assembly.



4. _____

Apply a very light coating of lubrication to the new inner shaft before sliding into outer sheath.



5. _____

After removing old shaft, loosen set screw on the new shaft motor coupling and slide coupling onto motor shaft. Then, use a 2mm Allen key to tighten the set screw on the coupling and secure it in place.



Please follow the reverse steps of disassembly to complete the assembly.

⚠ Attention! When replacing the new flexible shaft assembly, it is necessary to adjust the tail end protrusion length. Please refer to the following steps.

⚠ The flexible shaft needs to be assembled with the machine before proceeding with the following steps.

Place the flexible shaft assembly on a flat surface and keep it fully extended and straight during operating.

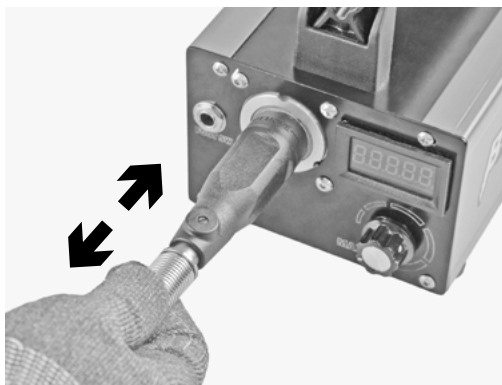
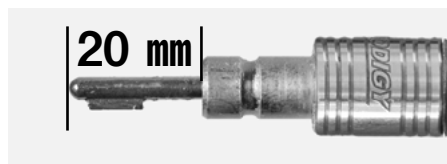
1. _____

Use a flat head screwdriver to loosen the set screw on the motor connector.





2. _____

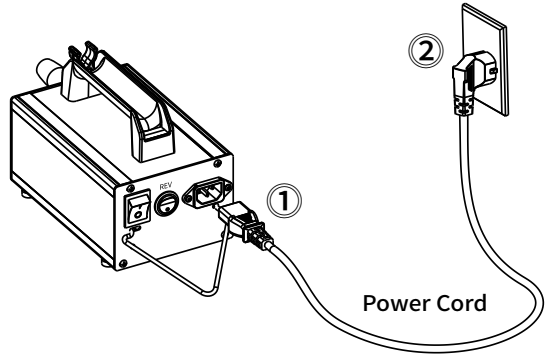
Adjust the position of outer sheath to allow the handpiece end of inner shaft exposed 20mm(4/5") out of the outer sheath. Then, use a flat head screwdriver to tighten the set screw on the motor connector.



The startup steps for GM150

-  Properly grounded to ensure the grounding function. Avoid modifying or removing the grounding plug.
-  Make sure the machine's power requirements are correct and provide the proper voltage for its operation. Incorrect voltage can cause the machine to burn out.

- 1.** Plug the female end of the power cord into the power socket on the back of the machine.
- 2.** Plug the male end of the power cord into an AC power outlet.



- 3.** _____

When turning on the power of the machine, if the speed controller dial is in the ON speed setting, a warning symbol "00000" will appear, indicating the need to reset the control knob to zero before operation.




- 4.** _____

After powering on, the tachometer will light up and reset to zero. You can choose whether to use it with the foot switch.



Other precautions

 Following good usage habits will make the machine and flexible shaft components last longer and less susceptible to damage.

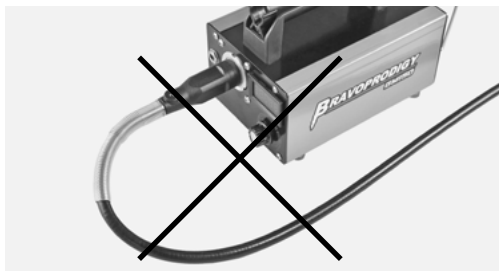
1. _____

When hanging the machine, ensure that the hanging frame is stable and equipped with a safety clamp to prevent any pulling or twisting of the hook during operation. This helps to avoid injuries to the user or damage to the machine.



2. _____

During usage, keep the flexible shaft moving smoothly, avoiding operating at excessively tight angles or sharp bends. Such actions can cause overheating and wear inside the flexible shaft, eventually leading to breakage and the need for replacement.



3. After use, switch the speed controller dial to the "off" position, and store the foot pedal switch and the machine in a safe place to prevent children from accessing them.

4. Do not use non-original parts, modules, or flexible shaft assemblies provided by the manufacturer. This can cause product damage or compromise safety.

5. When the security warning "00000" appears, it indicates:

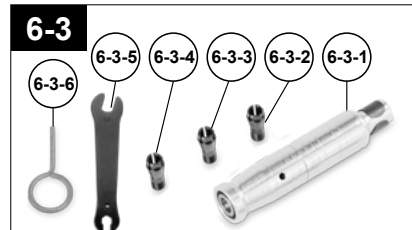
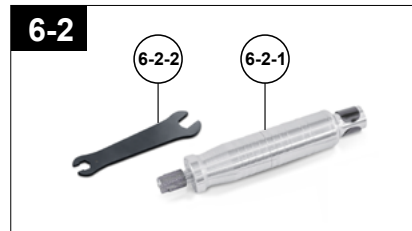
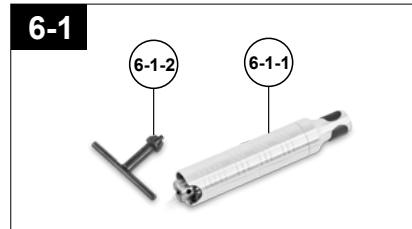
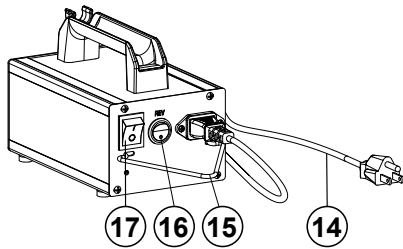
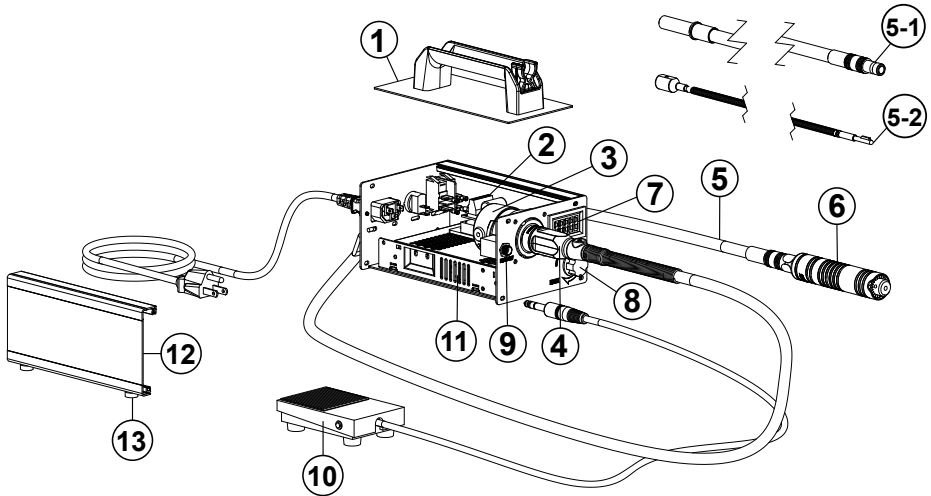


1. Turn on the machine power when the speed controller dial is activated.
2. Operate inserting and removing the foot switch while the speed controller dial is activated during flexible shaft rotation.

Troubleshooting: Rotate the speed controller dial to zero to restore normal operation.

6. Allow the maximum outer diameter of the grinding head to be 53mm.
Rated capacity (the maximum allowable outer diameter of the grinder head to be used): 53mm max.

Exploded Diagram



Parts List

No.	Description	Q' ty
1	Handle	1
2	Brushless Motor Driver Board	1
3	Brushless DC Motor	1
4	Motor Connector	1
5	Flexible Shaft	1
5-1	Outer Sheath	1
5-2	Inner Shaft	1
6	Handpiece Set	-
6-1	HC-110 Chuck Style Handpiece Set - optional	1
6-1-1	Chuck Style, Handpiece	1
6-1-2	Chuck Key	1
6-2	HC-120 Chisel Style Handpiece Set - optional	1
6-2-1	Chisel Style, Handpiece	1
6-2-2	Wrench	1
6-3	HC-130 Collet Style Handpiece Set - optional	1
6-3-1	Collect Style, Handpiece	1
6-3-2	Collet -1	1
6-3-3	Collet -2	1
6-3-4	Collet -3	1
6-3-5	Wrench	1
6-3-6	Pin	1
6-4	Chisel	-
6-5	Carbide Rotary File	-
7	GM Control Circuit Board	1
8	Variable Speed Controller Dial	1
9	6.35 mm Jack Adapter	1
10	ON/OFF Foot Switch	1
11	Power Supplier Set	1
12	Aluminum Extrusion Panel	1
13	Foot Pad	1
14	Power Cord	1
15	Hanger	1
16	Reverse Switch	1
17	Power Switch	1

Product specifications

Model	GM150
Dimensions	120×215×150 mm (excluding flexible shaft)
Weight	2.2 KG
Spindle motor	DC Brushless Motor, Rated 24V DC, 150W
n_0	22000/min
Voltage	100-240V / 2.5A~1.3A, 50-60Hz
Compatible material for carving	Wood, glass, various metals, shells, leather, jade, emerald, gemstones, plastics, ceramics, silverware, steel, etc.

*Rated no load speed (n_0)=22000 RPM



Product Video

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