

# Brilliant

## USER MANUAL

### B100

#### INTRODUCTION

Make sure to read this user manual before using.  
This user manual is to assure proper installation and use.  
Pay attention to read this manual in order to making the best use of this product and to assure the prolonged lifespan before using.

Specially, pay attention the contents with marks such as , and .

#### <Classification of equipment>

- Type of protection against electric shock:
  - Control Box: Class II appliance
  - Handpiece: Class III construction
  - Foot Controller: Class III construction

- Not suitable product in the atmosphere that exist flammable anesthetic mixture with air or with oxygen.
- Classification according to mode of operation: Intermittent operation

**Design and specification of the product can be subject to be changed without notice for improving the quality.**

#### USER GUIDELINES

#### WARNING

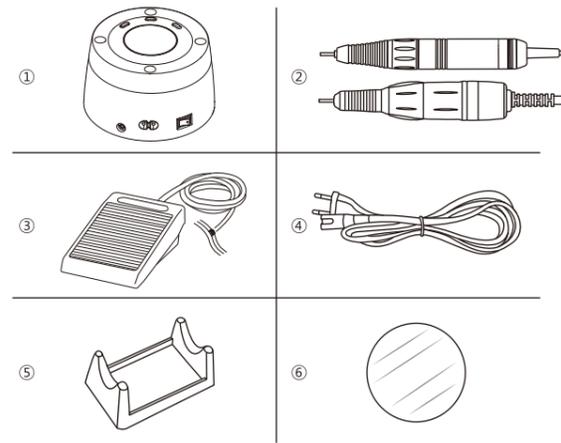
- Do not use as condition the collet chuck is opened. It causes product's malfunction.
- Do not open the collet chuck while the handpiece is operated.
- Check the power switch before connecting the power cord in order to decrease the danger by sudden operation of product.
- Circuit breaker is provided to protect the motor. It is actuated when an overload occurs which the motor cannot stand. Always use this product within allowable load range.
- Store the product as condition a bit is fixed at the collet chuck.
- Change the rotation direction after stopped the handpiece.
- Do not use the damaged bit. It causes product's malfunction and accident.
- Do not work in a dangerous place. Do not use the control box in a humid place.
- Do not disassemble or modify the product as one pleases. It causes accident.
- Use the compatible handpiece and foot controller with control box.
- Check the problems such as excessive vibration of bit, defective speed control and etc.
- Replace the bit after stopped the handpiece.
- Be careful not to drop the product as it may be damaged or broken. In case that it is dropped, check if the bit is bent or that any overheat is generated while carefully operating it.
- If any problem occurs in product, use after repairing.
- Do not put the handpiece down before it stops completely.
- Use the appropriate accessories for the product.
- Wear proper protective clothes and equipment, including a dust mask and safety goggles.
- Keep the workplace clean. Debris may cause an accident.
- Do not touch the power cord and handpiece cord with wet hand.
- Do not bend or press the power cord excessively. It causes fire or electric shock.
- Do not place the product nearby superheater, candle, lighter and etc. It causes fire.
- If use the extension cord, do not use many electric device at one time. It causes fire or electric shock.
- \*This appliance can be used by children aged from 8 years and above and person with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in safety way and understand the hazards involved.\*  
"Children shall not play with the appliance."  
"Cleaning and user maintenance shall not be made by children without supervision"
- \*If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.\*
- Follow the user manual by manufacturer of bit to use bit.
- Keep the recommended speed limit by manufacturer of bit to use bit. If exceed the speed limit, it might cause an accident.

#### PRODUCT FEATURES & ADVANTAGES

- Hand/Foot Control Type
- Max. 30,000 rpm
- Max. 3 N·cm
- Rotation Direction Select Function (Forward/Reverse)
- Use the standard Bit  $\phi 2.35\text{mm}$
- Collet Chuck Type
- Overload Protection Function

#### PRODUCT COMPONENTS

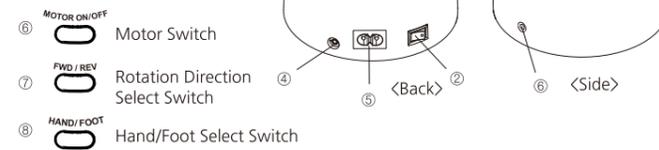
\* Please check all components are included.



No.	Component
1	Control Box (B100)
2	Handpiece (Option)
3	Foot Controller
4	Power Cord
5	Handpiece Stand (Option)
6	Protective Film

#### PART NAME OF CONTROL BOX

- Speed Control Dial
- Power Switch
- Foot Controller Connector
- Power Socket
- Handpiece Connector



#### BUTTONS ON THE OPERATION PANEL

##### Power Switch

This switch is used to turn on the power or off.  
- I : Power On  
- O : Power Off

##### Speed Control Dial

This dial is used to control RPM. Turn the clockwise, RPM is increased. Turn the reverse, RPM is decreased.

##### Motor Switch

This switch is used to operate the motor when selecting hand as operation method.

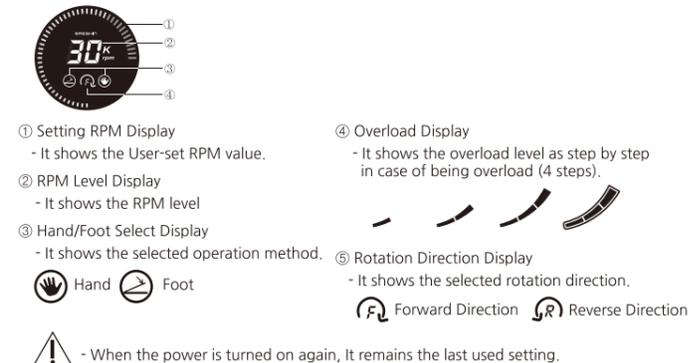
##### Rotation Direction Select Switch

This switch is used to select rotation direction to the clockwise or reverse.

##### Hand/Foot Select Switch

This switch is used to select the handpiece operation method.  
- Hand: Handpiece is operated by motor switch.  
- Foot: Handpiece is operated by foot controller.

#### LCD SCREEN



- When the power is turned on again, It remains the last used setting.

#### CONNECTION OF EACH PART

##### Attaching Protective Film

Attach the protective film in order to prevent foreign substance inflow.

##### Control Box Connection

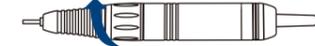
- Connect the power cord to the power socket.  
 - Before connect the power cord, make sure to check the power off.
- Connect the foot controller cord.
- Connect the handpiece cord.

##### Bit Insertion

- Turn the handle to open the handpiece chuck



- Insert the bit in the front of handpiece.
- Lock the handpiece chuck by turning the handle.



- Be sure to lock the chuck before use. It may cause damage to the handpiece.
- Make sure that the bit is not damaged.
- Check the Bit dimension. (Bit Dimension:  $\phi 2.35\text{mm}$ )

#### OPERATION PROCESS

- Put up the handpiece and turn on the control box.  
I : Power on    O : Power off
- Select the operation method by pressing the Hand/Foot Select Switch. It can be checked on LCD screen.  
 : Hand    : Foot
- Select the rotation direction by pressing the Rotation Direction Select Switch. It can be checked on LCD screen.  
 : Forward Direction    : Reverse Direction
- Control the desired speed by turning the speed control dial.

##### How to use when select the hand

- Operate the handpiece by pushing the motor switch.
- Motor switch is pushed once again, handpiece is stopped.

##### How to use when select the foot

- Operate the handpiece by pushing the foot controller.
- Foot controller is released, handpiece is stopped.

- Each time the speed control dial is turned, the RPM changes by 500 rpm and the LCD displays the change in 1,000 rpm increments.
- Do not remove the handpiece cord with the motor switch turned on. It may cause malfunction.
- Do not open the handpiece chuck when motor operation. It may cause malfunction.

##### Overload Protective Function

If handpiece is overloaded, the handpiece is slow or stop.  
For using handpiece again, turn it off and rest 5 minutes.

##### Error Code

Error Code	Cause	Remedy
E1	Handpiece Overload	Hand: Push the Motor Switch once. Foot: Release the foot controller.
		Operate after cooling off for 10 minutes in a cool place.
		If the error doesn't get solved out, contact the manufacturer.

#### PROBLEM & REMEDY

##### Control Box

Problem	Cause	Remedy
The control box doesn't be turned on.	Power cord is not connected properly.	Reconnect the power cord properly.
	Power cord became damaged.	Please contact the manufacturer
	A problem occurred in the control box.	Please contact the manufacturer
Speed cannot be controlled.	A problem occurred in the control box.	Please contact the manufacturer

##### Handpiece

Problem	Cause	Remedy
Motor does not work.	Handpiece cord is not connected properly.	Reconnect the handpiece cord properly.
	Handpiece cord became damaged.	Please contact the manufacturer
	Motor became damaged.	Please contact the manufacturer
	A problem occurred in the control box.	Please contact the manufacturer
Abnormal overheating occurs during operation.	Bearings in the handpiece became damaged.	Please contact the manufacturer.
	Bearings or chuck in the handpiece became damaged	Please contact the manufacturer.
Abnormal vibration and noise occur.	Bearings or chuck in the handpiece became damaged	Please contact the manufacturer.
Bit is not fixed or pulled out.	Bit became damaged.	Change the bit.
	Chuck became damaged.	Please contact the manufacturer.

#### MAINTENANCE OF THE PRODUCT

- Keep the place around in handpiece clean from dust and grindings.
- Remove dust on handpiece with alcohol and avoid humidity around.  
 - Do not apply the oil and water to the product.  
 - The grease inside of the bearing could melt away due to the oil.
- Air cleaning is acceptable but air pressure may affect the handpiece or motor.
- Store the product as condition a bit is fixed at the collet chuck.

#### PRODUCT SPECIFICATION

##### Control Box

	Model Name	B100 WHW24S1	B100 BLW32S1
	Input	AC 100 - 240 V, 50/60 Hz, 10 W	
	Output	DC 0 - 24 V	DC 0 - 32 V

##### Handpiece

- B100 WHW24S1 only

	Model Name	H100	H324
	Max. RPM	30,000 rpm	30,000 rpm
	Bit Replacement Type	Collet Chuck Type	Collet Chuck Type
	Bit Dimension	$\phi 2.35\text{ mm}$	$\phi 2.35\text{ mm}$

- B100 BLW32S1 only

	Model Name	H120
	Max. RPM	30,000 rpm
	Bit Replacement Type	Collet Chuck Type
	Bit Dimension	$\phi 2.35\text{ mm}$

#### WARRANTY

SAESHIN guarantees out product for 1 year from invoice date, and product warranty means that SAESHIN has responsibility of defective material or operation failure. The product warranty does not cover user's misuse, wrong installation, inappropriate maintenance and repair, and normal wear of consumables such as bearings, spindle, gear, and motor.  
To check the warranty requires the operating condition, environment information, serial number of the product and stamped invoice. The warranty will be performed as repairs or exchanges by manufacturer's judgement and analysis of product.

##### Exception of warranty

User's misuse or improper use and treatment  
Drop the device during setting, moving, using  
Use the not recommended consumables or accessories  
Malfunction after repairing the product at the not recommended repair shop  
Normal wear of the consumables such as ball bearing, gear, chuck, spindle case ass'y, motor  
Faulty by Act of God  
Attempt to disassemble or modify product.

Operating condition	Temperature (°C)	10~30
	Relative humidity (%)	10~80
	Atmospheric pressure (hPa)	700~1,060
Transport and Storage condition	Temperature (°C)	-20~60
	Relative humidity (%)	10~90
	Atmospheric pressure (hPa)	500~1,060

#### SYMBOL

	On (Power)		Off (Power)
	Consult Instruction For Use		General Warning Sign
	Serial Number		Class II appliance
	Fuse		Alternating Current
	This product should not be mixed with other commercial waste for disposal.		CE Marking

#### SAESHIN SAESHIN PRECISION CO., LTD.

52, Secheon-ro 1-gil, Dasa-eup,  
Dalseong-gun, Daegu, Korea  
Tel. 82-53-587-2341 / Fax. 82-53-580-0999  
대구광역시 달성군 다사읍 세천로 1길 52성서5차산업단지  
Tel. 053-587-2345 / Fax. 053-580-0918

www.saeshin.com / traus@saeshin.com

SOM-N1615-KE [Rev.3] 2022-04-11