

S300 Brushless Micromotor

User Manual



Safety Instructions

A micromotor handpiece is a high speed rotary power tool which can be dangerous and cause injury if it is not used properly. **NEVER** operate it without wearing eye protection.

- **Always wear proper eye and face protection.**
- **Only use accessories rated for 50 000 rpm**
- **Always** insert the shank or mandrel into the collet or chuck of the handpiece as far as possible in order to provide proper support and close the collet or chuck securely.
- **Do not** stall the motor by jamming or using excessive pressure on the mounted point, buff, wheel or accessory. This can result in damage to the motor.
- **Use** a dust collector (vacuum system) to pull grinding dust, or other debris away from the work area and the micromotor intake vents.
- **Never turn on or start the handpiece while chuck is in open (unlocked) position.** This can damage the handpiece. Make sure that a bur is installed and secured in the collet, that the spindle is not locked and that the bur can spin freely.

System parameters

Model	S300
Rated power	200 W
Input voltage	a.c. 110 V / 60 Hz
Speed	0-50000 rpm
Torque	7.8 N / cm
Bur	P 2.35 mm (ISO07785-2 Type 2)
Protection	Motor stall protection. Output overload protection. High temperature protection
Prompt buzzer	Key-touch beep. Protection voice
Environment temperature	0 – 40 °C
Environment humidity	35 – 70 %
Size	226 x 165 x 183 mm

Indicator light description

Indicator light	Status	Describe
LED display	00 - 50	Digital speed rpmx1000
	E1	Error code display
POWER	Red light	Standby
	Green light	Working
DC/BLDC	C1/C2	Calibration
FWD/REV	Red light	FWD - Forward
	Green light	REV - Reverse
HAND/FOOT	Red light	Foot control mode
	Green light	Hand control mode

Power On/Off

1. The product factory defaults the hand piece at FWD and HAND control mode.
2. Press the POWER switch on, the display should indicate 00. If not, set the speed to 0 with the control knob.

Hand Mode Operation

1. Press the Hand/Foot Selector to **Hand** (Hand/Foot Selector turns green).
2. Press the Power On/off Switch run the motor. (On indicator light turns green).
3. Set the Speed Control Knob to desired speed.
4. Use the Motor On/Off Switch to stop the motor.

Foot Mode Operation

1. Press the Hand/Foot Selector to **Foot** (Hand/Foot Selector turns red. Motor ON/Off indicator turns green).
2. Set the Speed Control Knob to desired speed.
In Foot Pedal Mode the micromotor will not exceed the preset dial speed.
3. Press the Foot Pedal to run the motor from start to a maximum speed (set by the speed control knob).
4. To increase the maximum speed setting, release foot pedal and allow motor to stop, dial in new maximum speed and proceed.

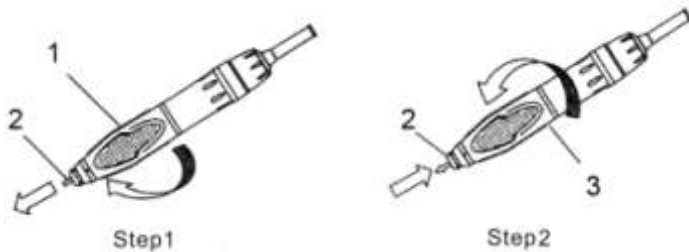
Changing from FWD/REV or HAND/FOOT

1. Press Power On/Off at **Off**
2. Press the button FWD/REV, hand piece reverse.
3. Press the button HAND/FOOT, control mode changing between hand and foot.

Foot control pedal calibration

1. Power on the machine.
2. Connect the foot pedal.
3. Continuously press the DC/BLDC button until screen show C1, then continuously press the foot pedal until the screen show C2, release the foot pedal, press the DC/BLDC button.
4. The machine will quit the calibration automatically.
5. Power off the machine and restart it, calibration is finished.

Changing a bur



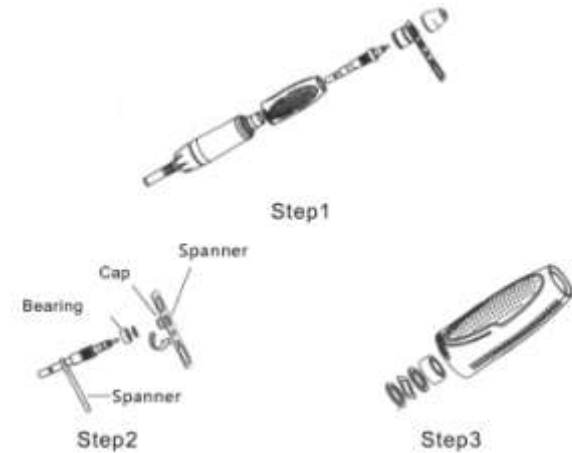
1. Turn left the handle to unlock the chuck.
2. Remove old bur and insert new bur.
3. Turn right the handle to lock the chuck.

Changing a chuck



1. Disassemble Nose cap cover & Nose cap by a wrench.
2. With holding the spindle assembly a spanner, disassemble collet chuck by a tool in the package.

Changing a bearing



1. Disassemble Nose cap cover & Nose cap & rotor by a wrench.
2. Changing the bearings.
3. You can only use alcohol cotton balls to clean.

Malfunction and solutions

Problem	Check point	Solution
LED display isn't lighten when turn on the power switch	Is the power cord plug connected well?	Insert the power plug correctly.
	Isn't the fuse broken?	Replace to new fuse.
	Trouble of power switch?	Please ask repair.
The motor does not work (Display code E1 & buzzer sound)	Is the handpiece connected well?	Insert the handpiece correctly.
	Motor abnormality	Restart the power Replace a new motor.
	It is error on heat sink over 80 °C	Turn off the power, restart after 10 minutes later.
	Is the foot pedal connected well?	Connect the pedal plug into a correct jack.
	Overload protection	Reduce workload.
Foot pedal does not work	Is the foot pedal connected well?	Connect the pedal plug into a correct jack.
	Is foot control mode select?	Press the button H/F, and LED light up.
The handpiece makes noise	Isn't foreign substance in the collect chuck?	Please remove it by asking repair to our agent in your area.
	Don't you use it at abnormal speed or is not the bur curved?	Replace the curved bur and use under permitted rmp for bur size.