

UP500C Series Controller

INSTRUCTION MANUAL

- We thank you for your purchasing our products.
- Please read this instruction before practical operation.
- Please keep this instruction close to the people who are going to use the appliance.

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1. APPLICATIONS

- * To control the Motor Handpiece only.
Do not use the unit for the other applications.

2. PRECAUTIONS

- * The following precautionary articles show how you operate our products safe and right, which prevents you from any danger or damage before happened.
- * **Never fail obeying to any article, in which crucial and important matters are shown concerning safety.**

 WARNING	This symbol indicates the possibility of being dead or wounded seriously for men if our products are operated by mistake regardless of this instruction.
 CAUTION	This symbol indicates the possibility of being hurt for men or generating material damages if our products are operated by mistake regardless of this instruction.

2.1 Clothes while at work

WARNING

- * Please work in due order. Knitted gloves, clothes with open cuffs and long hairs are in danger of being caught in a machine.

CAUTION

- * Please put goggles on not to enter dusts and grits into eyes. In addition, please put a protection mask on not to inhale dusts and grits.

2.2 Safety operation

WARNING

- * Please use appliances in a place where the temperature is from 0 to 40 °C and the relative humidity is from 20 to 80% (no dew condensation).
Please never use them, in humid, wet places and outdoors in the rain.
It may invite electric shock or fire, weaken insulation and cause rust and bad operation.
- * Do not use absolutely in any place where there are flammable or explosive materials such as lacquer, paints, thinner, gasoline, gas and adhesives.

- * Also, ensure that there is no flammable and no corrosive gas area.
- * Please do not damage the AC cord and Motor unit cord to prevent electric leakage and shock or fire.

△CAUTION

- * Please work in a clean and full space and use appliances in well orderly areas not to stumble over cords.
- * Please do not place a cloth or anything else on the ventilation slits of appliance. Also, please avoid using while any dust is attached around the ventilation outlet.
- * Please take care not to allow any alien substances such as water, oil, and dust into appliances.
- * Please do not blow something like compressed air into ventilation inlet of appliance.
- * Please pull the AC plug out from the receptacle when not operated.
- * Please keep appliances in well dried areas.
- * Please keep appliances in a place not to be reached by children.
- * Please never make any modification, which may damage original performance and safety.
- * Please keep you from breaking down and adjusting the appliance by yourselves.
- * Never fail operating for any application not appointed.

2.3 Precautions while at work

△WARNING

- * Please never fail using controller under the voltage indicated in the panel.

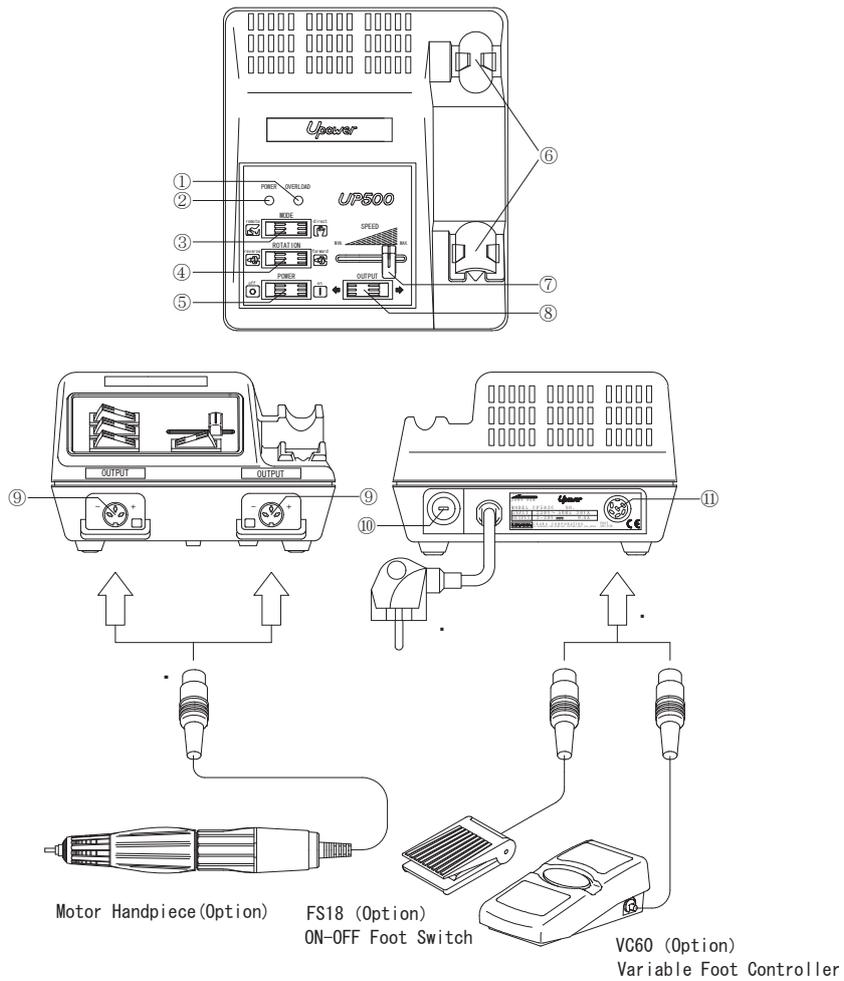
△CAUTION

- * Please stop the operation if any bad rotation or other abnormal movement is found out while at work.
- * Please ensure that any tool should be well chucked and after adjusting the speed control knob on the controller to the left 「MIN」. After then, please switch on the power and increase rotation speed gradually.
- * Please take care not to drop Controller especially.

2.4 Maintenance and inspection

- * When dirt is shown eminently, remove it with a cloth dipped in a detergent solved by water and well wrung. After then, wipe with a dry duster.
- * Periodical inspection is recommended every 1 or 2 years to use the appliance safely and efficiently. Please consult your supplier for the service.

3. PARTS IDENTIFICATION/CONNECTION



- | | | |
|-----------------------------|---------------------------|-------------------------|
| ① Overload Lamp | ② Pilot Lamp | ③ Mode Selection Switch |
| ④ Rotation Selection Switch | ⑤ Power Switch | ⑥ Motor Cradle |
| ⑦ Speed Control Knob | ⑧ Output Selection Switch | ⑨ Output Jack |
| ⑩ Fuse/Fuse Holder | ⑪ Foot Switch Jack | |

- * Make it sure that each switch or knob on controller should be on the following positions:

POWER 「off」
SPEED CONTROL 「MIN」
MODE 「direct」

- Connect the Motor Handpiece to ⑨Output Jack.
- Ensure that the ⑤Power Switch is turned off before connecting the AC plug to the power supply.
- If required, connect the ON-OFF Foot Switch (FS18) or Variable Foot Controller (VC60).

4. OPERATION

Manual Operation

- (1) Turn the ③Mode Selection Switch to direct position (“Hand” mark).
- (2) Turn the ④Rotation Selection Switch to either forward or reverse position.
- (3) Turn the ⑧Output Selection Switch to either ◀ (Left) output or ▶ (Right) output.
- (4) When the ⑤Power Switch is turned on, the ②Pilot Lamp will light up.
- (5) Then, Motor Handpiece will rotate.

The speed is controlled by adjusting the ⑦Speed Control Knob.

Operation with Foot Switch or Foot Controller

- (1) Turn the ③Mode Selection Switch to the remote position (“Foot” mark).
- (2) Turn the ④Rotation Selection Switch to either forward or reverse position.
- (3) Turn the ⑧Output Selection Switch to either ◀ (Left) output or ▶ (Right) output.
- (4) When the ⑤Power Switch is turned on, the ②Pilot Lamp will light up.
- (5) To use the ON-OFF Foot Switch : When pedaled on, Motor Handpiece starts to rotate and when released, it stops. The speed is controlled by adjusting the ⑦Speed Control Knob.

When using the Variable Foot Controller: vary the speed of the Motor Handpiece by adjusting the pressure applied to the Variable Foot Controller.

※When the Motor Handpiece is operating do not turn the ③Mode Selection Switch, ④Rotation Selection Switch or the ⑧Output Selection Switch.

5. SAFETY SYSTEM

5.1 Circuit Breaker

The Circuit Breaker will cut off the power to the Motor Handpiece temporarily and the ①Overload Lamp will light up yellow under the following unusual operating conditions:

- * Motor Handpiece is operated under overloaded condition.
- * Motor Handpiece is locked and is stopped.
- * Set Ring is turned by mistake during operation.

To resume operation of the Motor Handpiece, it is possible to be resumed by the ⑤Power Switch as the following orders:

- 1 Slide the ⑦Speed Control Knob to the left 「MIN」 position.
- 2 Turn the ⑤Power Switch 「off」 and make it sure that the ①Overload Lamp lighted yellow has gone out completely.
- 3 Turn the ⑤Power Switch 「on」 and resume the rotation speed gradually to the best speed for your application.

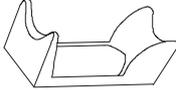
※When using the ON-OFF Foot Switch or Variable Foot Controller, the Motor Handpiece will also be resumed operating by stepping again.

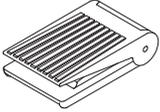
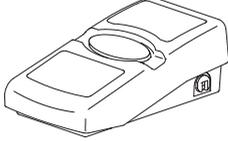
5.2 Thermal Sensor

Thermal Sensor will cut off the power to the Motor Handpiece temporarily and the ①Overload Lamp will light up yellow under the following unusual operating conditions:

- * Motor Handpiece has been used continuously at its maximum capacity.
- * Output circuit is overheated.
- * To resume operation of the Motor Handpiece, it can be realized the same way as the above 5.1 but it will cut off the power again immediately until the temperature in controller falls down to safety level even if the above 5.1 ways are proceeded. Turn the ⑤Power Switch 「off」, not operating for a few minutes and the current flow will automatically switch back on.

6. SPECIFICATIONS

Model	UP501C	UP503C
Input	AC120V 50/60Hz 30VA	AC230V 50/60Hz 30VA
Output	DC 3-30V 0.4A	
Dimensions	W170mm × D195mm × H105mm	
Weight	2.4 kg	
Standard Accessories	 Spare Fuse (FUUSE-2A)	 Spare Small Fuse (FUUSE-1A-S)
	 Motor Stand (KP91-108)	

Optional Accessories	
 FS18 ON-OFF Foot Switch	 VC60 Variable Foot Controller



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