Dental Brushless Electric Motor(built-in) installation diagram
电 动 马 达 内 置 安 装 示 意 图

Unit chair Control module
牙椅控制模块

Allotter
分配器

Air in

C-PUMA^{INT}
Brushless Electric Motor System

Brightness

Light delay

Pneumatic

Electric

24Vac in

Rotation — Blue 蓝 / Yellow 黄 / Black 黑

Speed — White 白 / Red 红

LED + — Red 红 / Black 黑

LED − — Blue 蓝

Motor — Green 绿 / Yellow 黄

AC24 V

Direction switch
正反转切换

Speed adjustment
速度调节

Water Container
贮水器

Air compressor
空气压缩机

Pedal by Pneumatic
气动踏板

T-junction
三通接头

lucency 透明

Blue 蓝

Yellow 黄

Dental Brushless Electric Motor(built-in)
牙科无刷电动马达（内置）

C-PUMA^{INT} Installation instructions
安 装 说 明

Standard configuration 标准配置

Control box 控制盒	1
Motor cord 马达线	1
Seal ring 密封圈	3
Axial plug pump 马达轴塞	1
Control cord 控制线	1
Power cord 电源线	1
T-junction T型接头	1
Installation instructions 安装说明	1
Identifying label 标识标签	1
1 : 1 optic fiber inner channel handpiece(optional) 1:1内水道光纤手机(可选)	1
1 : 5 optic fiber handpiece(optional) 1:5光纤手机(可选)	1

Technical parameters 技术参数

1. Power : 150W
2. Control box, input voltage: AC 24V/4.8A
3. Range of speed: 2,000 - 40,000 rpm
4. Environment temperatures : -10~+70℃
5. Humidity : ≤95% RH
6. Atmospheric pressure : 70~106kPa
7. Protection against electrical shock : Type B

1. 功率 : 150W
2. 控制盒,输入电压 : AC 24V/4.8A
3. 转速范围 : 2,000 - 40,000 rpm
4. 环境温度 : -10~+70℃
5. 湿度 : ≤95% RH
6. 大气压力 : 70~106kPa
7. 防止电击 : B型

1

Installation 安装

1

2
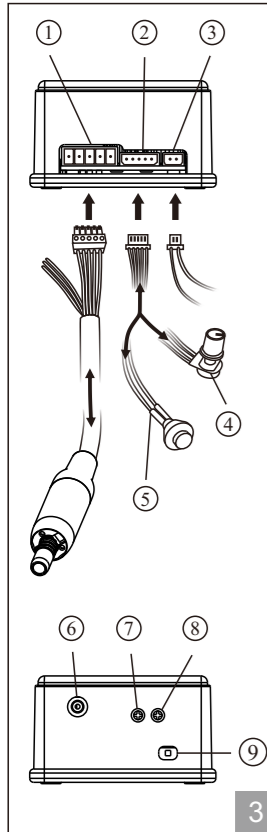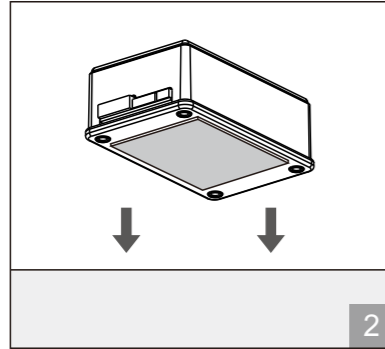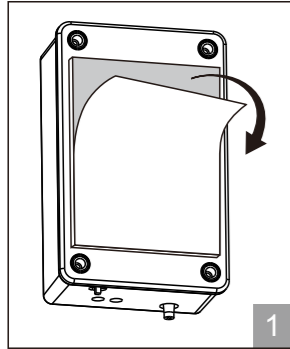
① Motor port
② Control cord port
③ Power cord port
④ Adjust the rotate speed of motor(Adjusting Range:
　2000-40000rpm)
⑤ Switch the rotate direction of motor
⑥ Pneumatic pressure control detection port
⑦ Brightness adjust
⑧ Light delay turn-off time adjust
　(Adjusting Range:0-5S)
⑨ Starting mode switch (the switch pull left to choose
　pneumatic, pull right to choose electric)

① 马达端口
② 控制线端口
③ 电源线端口
④ 马达转速调节(调节范围：2000-40000rpm)
⑤ 马达转向切换
⑥ 气动控制压力检测口
⑦ 亮度调节
⑧ 光延迟关闭时间调节(调节范围：0-5秒)
⑨ 启动方式切换（开关推向左气动，向右电动）

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1. Use the gum at the bottom of control box, to fixed control box inside the tool shelf of dental chair.（As shown in figure 1and figure 2）
2. Connect wiring on the corresponding port of the control box. (As shown in figure 3)
3. The function part of the motor cord and control line are fixed outside the tool shelf of dental chair.
1. 使用控制盒底部的胶纸,把控制盒固定于牙椅工具盘内部。（见图1与图2）
2. 把接线连上控制盒上对应的端口。(见图3)
3. 把马达线和控制线的功能部分固定于牙椅工具盘外部。

⚠ Notice 注意:

1.In pneumatic mode, when ⑥ detected the input pressure, and ④ is more than zero, the motor will start; in electric mode, when ④ is morethan zero, the motor will start.
2.The formal work way for system uses pneumatic control , electric methods generally use only for debugging or testing purposes.
3.If you want to use dental chair inside power supply for the unit, please ensure that the output power of dental chair is more than 250 w.

1. 气动模式下，当⑥检测到有压力输入时，且④大于零位，则马达启动；
　电动模式下，当④大于零位时，马达启动。
2. 此系统正式工作时使用气动方式控制,电动方式一般仅用于调试或测试之用。
3. 如需使用牙椅内部电源为本设备供电，请确保牙椅内部电源输出功率在250W以上。

Cleaning and sterilization 清洁和灭菌

High temperature and high pressure sterilization is recommended. Every time after treatment, please follow the following methods to start the high temperature and high pressure sterilization. Only the motor part is available under the high temperature and high pressure sterilization.
推荐高温高压灭菌方法。每次治疗后，请按照如下述方法进行高温高压灭菌。只有马达部分可进行高温高压灭菌。

⚠ **Note:** Apart from the parts that are available under the high temperature and high pressure sterilization, the other (main unit, power cord), please do not put into high temperature and high pressure sterilization.
注意：除了可进行高温高压灭菌的部件以外（控制主机，电源线）请勿进行高温高压灭菌。

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1. Please use the brush (not metal brush) to clean the attached dirt on the motor surface.
2. Please do not oil the motor. Install the axial plug pump to the motor.
3. Put into the bag and seal for the high temperature and high pressure sterilization.
4. Use the temperature which is not more than 135 ℃ to sterilize.
　(such as: 121 ℃ 20min, or 134 ℃ 15min).
1.请用刷子（请勿金属的刷子）对马达表面附着的脏物，擦去。
2.请勿向马达进行注油，在马达接口部安装轴塞。
3.放入高温高压灭菌袋，封口。
4.用不超过135℃的温度进行高温高压灭菌。（121℃ 20分钟，或134℃ 15分钟。）
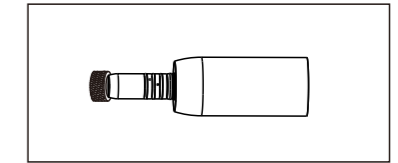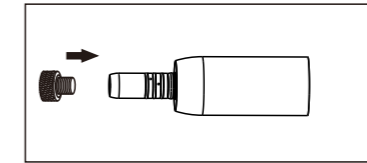
Attention for High temperature and high pressure sterilization
高温高压灭菌时的注意事项
1. Do not oil the motor inside.
2. Motor must be unload the motor cord before sterilization.
1. 请勿向马达内部进行注油润滑。
2. 马达必须卸下马达线。

After sales 售后服务

The main unit is guaranteed for 12 months from the date of purchase.
The guarantee is valid for normal usage conditions. Any modification or accidental damage will render the guarantee void.
本产品主机保修为自购买之日起12个月。
此保修仅在产品正常使用情况下有效,任何人为修改或意外损坏将不予以保修。

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