Mobile Phone Bluetooth APP
User Manual

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1. Introduction

Mobile phone Bluetooth APP can show laser status (including laser beam output, alarm, etc) and important information (including SN, product ID, set power, frequency, duty cycle, etc), as well as alarm message when there is some alarm. It will also remind the operator about password expiration and how to unlock it.

The APP described in this manual can be used for single module fiber laser with model code of BFL-CW-XX or BDL-CW-XX.

2. APP Installation

Download the APP through scanning the QR code on the laser, and then click the “install” as in Figure 1. After successful installation, the operator can run this APP in iOS system or Android 10 or above system.



Figure 1 APP installation

3. APP Operation

3.1. Mobile Phone Functions Enable

Before running the APP, please enable the “Bluetooth” and “Location” functions on mobile phone, and enable these functions for the APP.

3.2. Laser Connection

Click the BWTLaser icon on the desktop, as shown in Figure 2. The message may show on the screen when the operator starts the APP for the first time. It has not any impact on APP running, so just click “OK”. When the operator enters the home screen, click the Bluetooth icon in Figure 4, a list of lasers that can connected will shown, as in Figure 5. Click the laser SN to connect the laser you want to. After successful connection, the operator can check the laser status.



Figure 2 APP icon



Figure 3 Compatibility message



Figure 4 Bluetooth icon

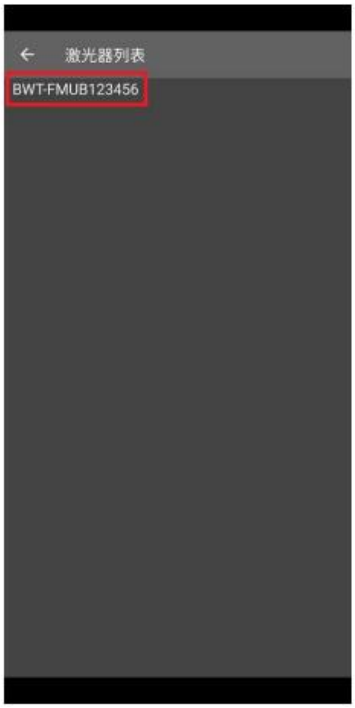


Figure 5 Laser list

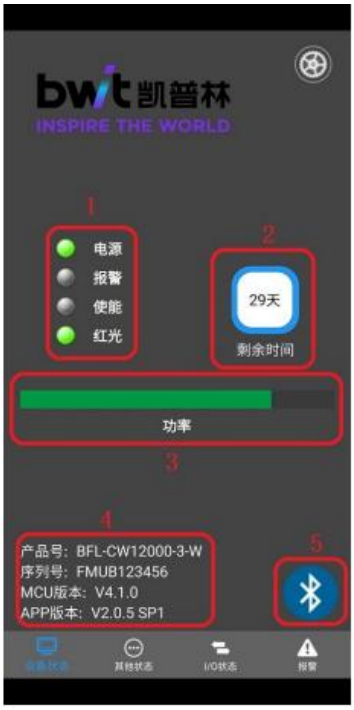


Figure 6 Laser status screen

3.3. APP Screens

Laser status screen is shown in Figure 6, including the information below

1) Frame 1: laser status indicator. Power indicator is on when the laser is power on, while off when the laser is power off. Alarm indicator is on when there is some fault, while off means the laser haven't detected any fault. Enable indicator is on when outputting the laser beam, while off means no laser beam is output. Red beam indicator is on when enabling the red LD, off means the red LD is off.

2) Frame 2: remaining time. The remaining time shows how long the laser can be used for. If the operator needs a password to unlock the laser, click the remaining time and then the screen in Figure 7 is shown. Please send the screenshot to BWT representative.

3) Frame 3: set power display bar. It shows the laser power set in percentage.

4) Frame: display the model code, SN, MCU version and APP version.

5) Frame: connect/disconnect the laser button. Click it to connect or disconnect the laser.

Other status screen is shown in Figure 8, including the information below

1) Power mode icon: display the laser power control mode (internal or external) in real time

2) Modulation mode icon: display the laser modulation control mode (internal or external) in real time

3) Enable mode icon: display the laser enable control mode (internal or external) in real time

4) Set power icon: display the laser power value set in real time

5) MOD frequency icon: display the laser MOD frequency value in real time

6) Duty cycle icon: display the laser duty cycle value in real time

7) Power curve icon: display the power curve number in real time

8) Water-out temperature icon: display the water temperature at water-out port in real time

9) Humidity icon: display the humidity inside the laser in real time. (Note: icon background color will change from white to light yellow when the humidity exceed the limits, and the alarm message is over humidity. Please introduce CDA to the laser to lower the humidity.)

I/O status screen is shown in Figure 9, including the information below

PWM icon: display the external PWM signal in real time

EN icon: display the external enable signal or in real time

Analog icon: display the external analog signal amplitude in real time

Fault output status icon: display the fault output status (NO or NC) in real time

Red beam control icon: display the red beam control mode when clicking the icon



Figure 7 Password expiration

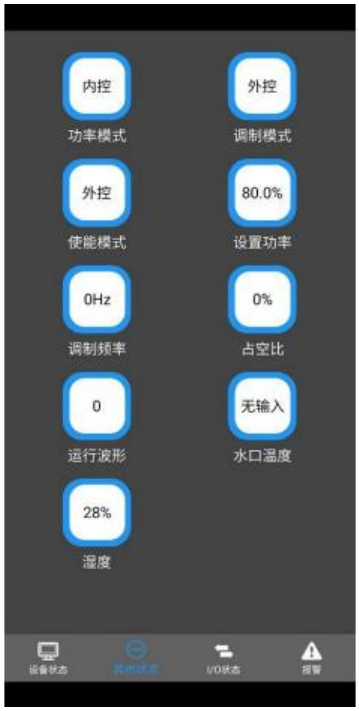


Figure 8 Other status screen



Figure 9 I/O status screen

Alarm screen is shown in Figure 10. Click the “refresh” button to show the current alarm message of the laser. Click the “sending command” button, and the command-response screen is

show, as in Figure 11. In this screen, the operator can adjust the laser with guidance from BWT service engineer.



Figure 10 Alarm message screen



Figure 11 Command-response screen

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