
Operation Notes for PL530E32 Laser Module

(Rev. 7-11-26)

1. Refer to the included **Panel Layout** drawing for the operation functions.
2. Connect a USB type-C power cable to USB Type-C power Connector, or connect a +5VDC power supply to power jack P1, as shown on the Panel Layout.
3. Slide the ON/OFF switch (S1) to the ON position to power on the module. When the TTGO board screen displays “**Temp = Good**” with a blue background, press the Laser Enable switch (S2) to activate the laser output.
4. Press the pushbutton (S3) to toggle the shutter **Open / Close**.
5. The green laser beam will emit from the small window. **Do not look directly into the window while the power is on.**
6. The laser power can reach to over **50 mW** when shipped, but it may decrease over time.
7. To adjust the laser power output beyond the default settings, users can modify the laser and heater potentiometers. **Heater current significantly affects the power output.** The default settings are: laser current preset to **450 mA** (limited to **480 mA**), and heater current to **66 mA** approximately.
8. Refer to the “**Operation Procedures for Green SLM PL530 Laser Source Model: PL530E32**“, for complete operation instructions, including **Standalone, Serial Port, Wi-Fi Access Point** and **Bluetooth Control**.
9. The drawing below shows the module four control modes.

Four Control Modes of PL530E32

1. Push Button Control



Power Adapter
and USB-C Cable



Power ON/OFF
Switch S1

Laser Enable/Disable
Switch S2

Laser Adjust POT1

Heater Adjust POT2

Shutter Open/Close
Switch S3

External Shutter Switch
Connection Holes J3 (J5)

2. Serial Port Control



A). Connect the supplied power adapter and USB-A to-C cable to the unit's **P0** power jack.

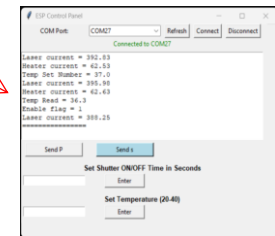
B). Turn the **SW1** power switch **ON**

C). Connect the USB connector on the **ESP32 Display Board** to the computer with a USB-A to USB-C cable (not supplied).

D). Download the PC application **Control_Panel_60307.exe** from:

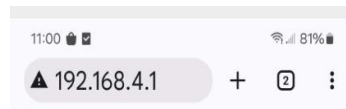
http://www.pdcontrol.com/Control_Panel_60307.zip

E). Run the downloaded application **Control_Panel_60307.exe**.



3. Wi-Fi Access Point Control

Network ID: TTGO_AP
Password: 12345678



ESP32 Control Panel

Toggle Enable (p)

Toggle Shutter (s)

Seconds

Enter



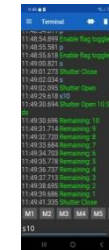
4. Bluetooth Control

Install a Bluetooth app

A). For Android Phones, install "Serial Bluetooth Terminal."

B). For iPhones install "nRF Connect."

C). Pair the phone with unit and open the installed app.



Android Phone

iPhone