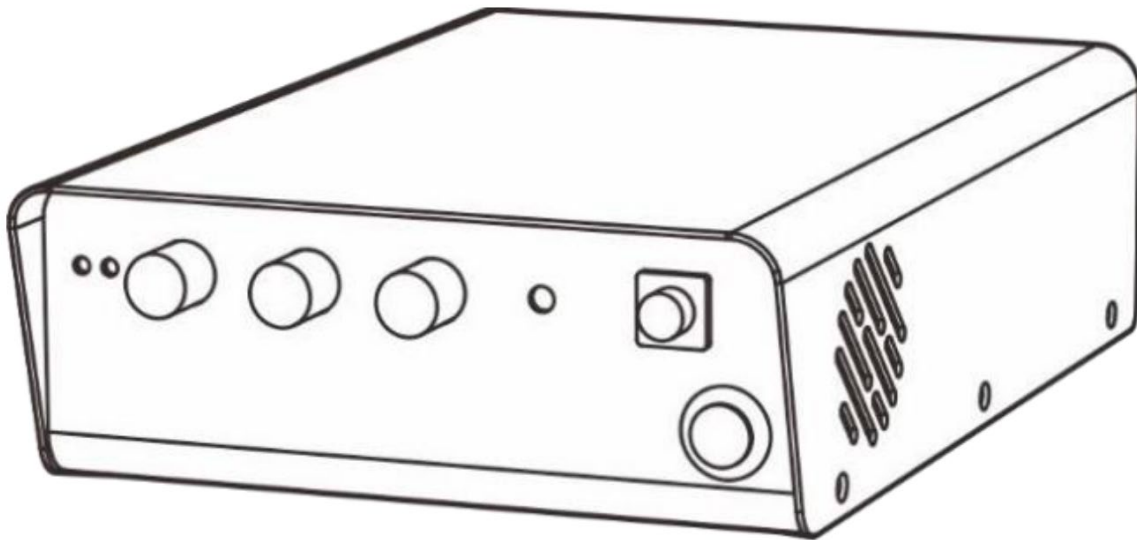


TDLAS Laser Gas Detection Controller



Operation Manual

Version 1.00

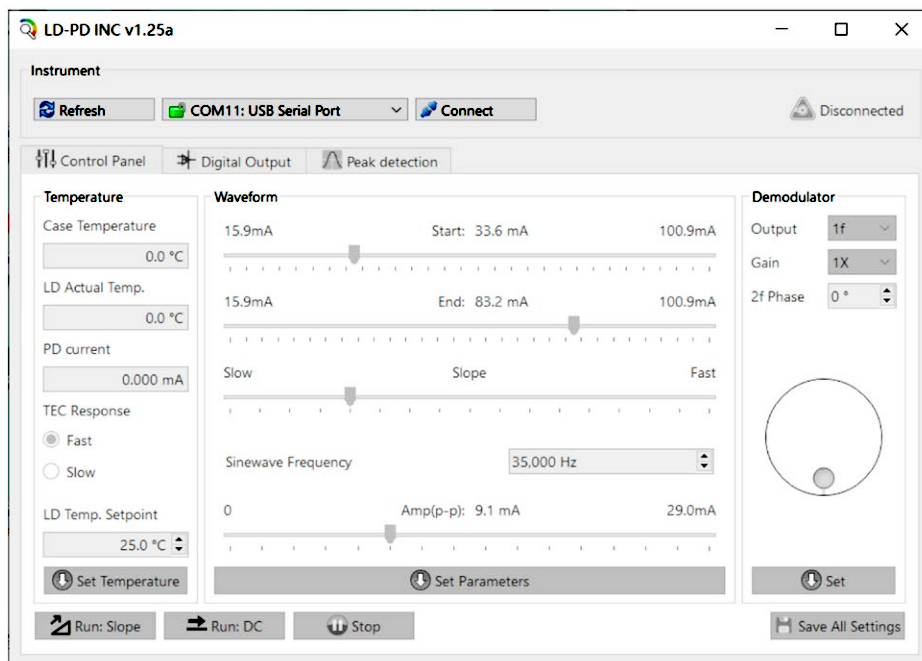
Preparation: Install the software, connect the Laser driver and computer with USB cable, connect the power cord of the Laser driver, press the button on the front panel, open the switch, at this time the Laser driver power indicator green LED is on.

Hardware Connection Procedure:

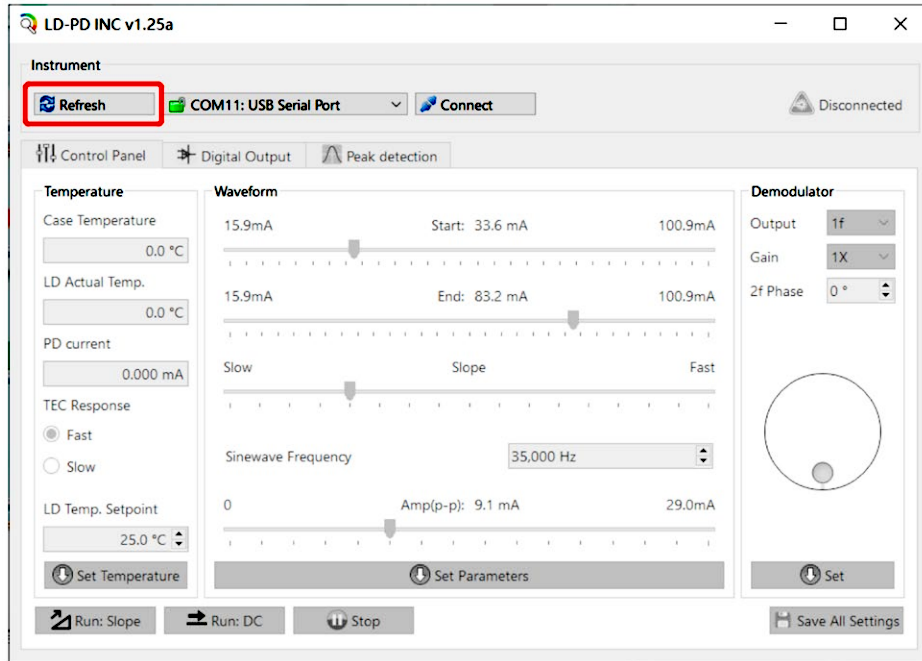
1. Connect the LASER OUT port with a optical fiber.
2. Connect the TRIG OUT port to the oscilloscope with a BNC-BNC cable.
3. Input the detector output signal to the PREAMP port with a BNC-BNC cable.
4. Connect the DAC OUT port to the oscilloscope with a BNC-BNC cable.
5. The instrument is ready to start the software.

Software Operation Procedure:

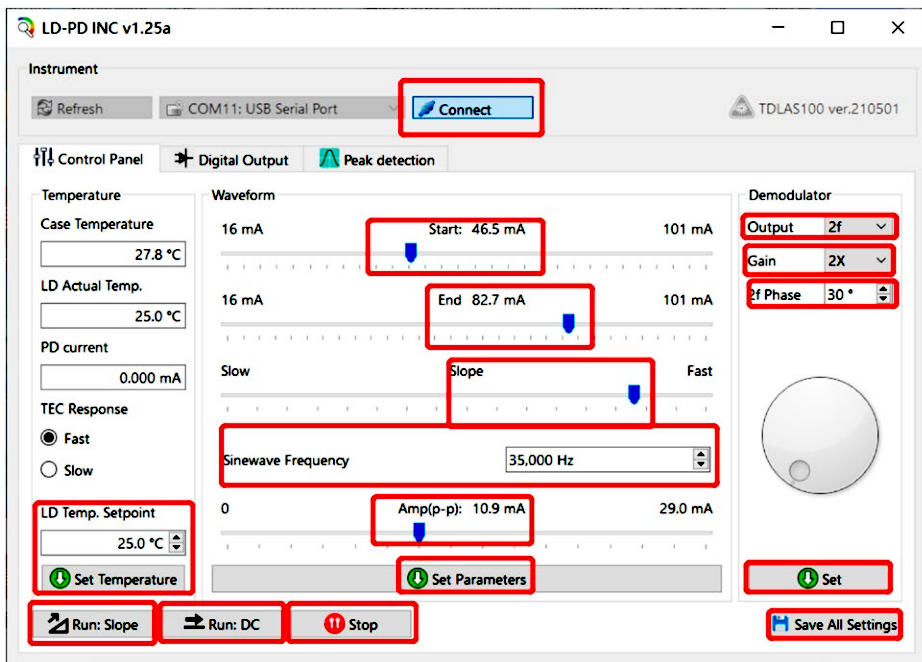
1. software interface is as follows:



2. Click **Refresh**, find the corresponding port:



3. Click **Connect**, the interface is as follows



4. Set the Laser temperature in the box below LD Temp.Setpoint in the lower left corner and click **Set Temperature** to complete set.
5. Set the minimum operating current in the Start slider and the maximum operating current in the End slider. Pay attention to the maximum operating current of the Laser diode. Set the speed of scanning in the Slope slider. Sinewave Frequency setting range from 20KHz to 50KHz. Set the sinewave amplitude on Amp(p-p) slider. Click **Set Parameters** to complete set.
6. Select 1F/2F signal in the box to the right of Output. Select magnification in the box to the right of Gain. 2F Phase setting range from 0°to 359°, click **Set** below to complete set.
7. Click **Run:Slope** to start the Laser, current value set from Start slider to End slider scan round. At this time the Laser indicator red LED is on.
8. Click **Run:DC** to start the Laser, current value set for Start slider. At this time the Laser indicator red LED is on.
9. Click **Stop** to stop the Laser.
10. Click **Save All Settings** to save all parameters in the instrument.

Before starting the Laser, please carefully check whether the parameters are within the allowed operating range of the Laser!