



EWLaserMaster User Manual

Contact: support@edge-wave.com

User Manual (v1.0.0.0)

1. Introduction

EWLaserMaster is a control and monitoring application for EdgeWave laser systems. It allows the user to connect via serial port, configure operating parameters, monitor real-time status, and save system parameters.

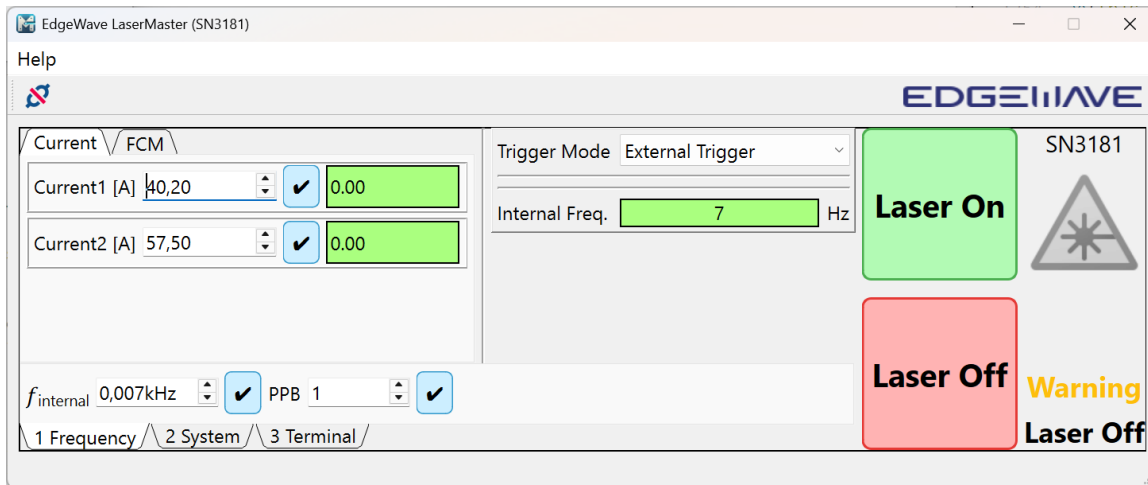
2. Starting the Application



1. Launch the program.
2. Select the correct Serial Port from the drop-down menu.
3. Press Connect.
 - The laser controller will initialize.
 - The UI will switch to the main control interface.
 - On success, the window title shows the connected laser's serial number.

To disconnect, press Disconnect.

3. Main Interface Layout



The application uses a tabbed interface (Frequency, System, Terminal) and pages (Laser Control, Terminal).

- Laser On / Off: Switch the laser on or off.
- Current: Up to four current channels (Current1...Current4).
- Ovens: Temperature setpoints for up to three oven modules.
- Modulator: Adjust modulator setpoint.
- Trigger Configuration: Select trigger mode (Internal, External, CW, HV on, etc.).

3.1 Frequency Tab

- Repetition Frequency: Set internal frequency or configure PPB / SFD modes.

3.2 System Tab

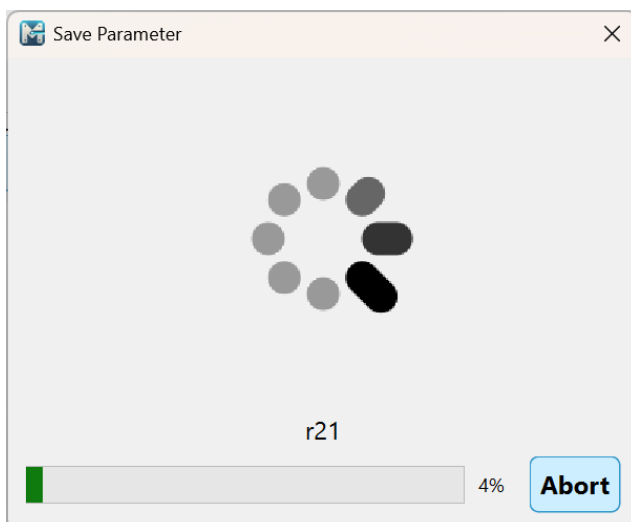
- Displays system serial numbers and status.
- Shows laser ON/OFF state, errors and warnings.
- Provides controls for:
 - Reset (w99 101)
 - Save Settings (w98 101)
 - Clear Errors (w97 101)
 - Read Errors/Warnings (opens a dialog).

3.3 Terminal Tab



- Manual command line for sending laser commands.
- History: Sent and received messages are shown in a text browser.
- Supports double-click resend of past commands.

4. Saving Parameters



- Save r Parameters: Opens the Save r Parameter Dialog.
- The dialog queries parameters (r1 ... r500) and saves them to a timestamped text file in Documents.
- Progress is shown with a progress bar and current command.
- An Abort button cancels the process.

5. Shortcuts and Special Actions

Shortcut	Action
F1	Open Shortcut Help window
Alt+1	Switch to Frequency tab
Alt+2	Switch to System tab
Alt+3	Switch to Terminal tab
Alt+C	Switch to Current tab
Alt+F	Switch to FCM tab
Ctrl+B	From Terminal page → switch back to Laser Control page

6. About Dialog

Available via Help → About:

- Shows logo, software version, copyright.
- Contact: support@edge-wave.com

7. Error and Warning Handling

- Error/Warning icons appear when reported by the controller.
- Read Errors: Opens a dialog showing detailed error/warning information.
- Clear Error: Sends reset command (w97 101).