

# Gyrfalcon Firmware Update Tool – User Manual

## 1. Overview

The Gyrfalcon Firmware Update Tool is a PC utility designed for Enova Gyrfalcon series devices, running on Windows. After connecting the device via a serial port, you can:

- Check the device model and firmware version
- Send SCPI commands (such as \*IDN?) to interact with the device
- Burn new firmware files (.bin) onto the device
- View operation logs and manage command history

## 2. System Requirements

- Operating system: Windows 7 / 8 / 10 / 11 (32-bit or 64-bit)
- Interface: USB-to-serial adapter (standard COM port)
- No additional runtime installation required; simply extract and run

### 3. Window Overview

The main window is divided into four sections:

The diagram illustrates the layout of a serial port interface, divided into several functional sections:

- Serial Port Section:** Contains a "COM port selection" field and a "[Connect]" button.
- Firmware Update Section:** Includes a ".bin file path" field with a "[Browse]" button, a "Start (full width button)" button, and a progress bar showing "45%". A note indicates the progress bar is shown during the update.
- Log & Command Section:**
  - A "Colored log area" containing:
    - A sent command: ">> \*IDN?" (dark blue).
    - A device response: "ENOVA TECHNOLOGY,..." (dark green).
  - A "[Clear]" button to clear the log.
  - A command input row with "[v]" (Enter), a field for the command (e.g., "\*IDN?"), and a "[Send]" button.
- Status Bar:** Located at the bottom, it displays "Status text" and the current "Baud" rate.

Section	Function
Serial Port	Select COM port, connect/disconnect device; LED indicator shows connection status
Firmware Update	Select .bin file, start update, view progress
Log & Command	Upper area: colored log (dark blue = sent command, dark green = device response, black = informational); lower area: command line (supports history browsing and auto-completion)
Status Bar	Displays current state and baud rate

## 4. Quick Start

### 4.1 Connecting the Device

1. Connect the device to your PC with a serial cable.
2. Launch the tool, and select the correct COM port (e.g., COM4) from the **Serial Port** dropdown.
3. Click the **Connect** button. Once connected, the LED indicator turns green and the status bar shows "Connected".

### 4.2 Querying Device Information

Type `*IDN?` in the command input field and press Enter; the log window will display the device model and version, for example:

text

```
>> *IDN?
ENOVA TECHNOLOGY,GYRFALCON S8000,0000,3.0.66
```

### 4.3 Firmware Update

1. In the **Firmware Update** section, click **Browse** to select a .bin firmware file (you may also drag and drop the file onto the input field).
2. Click the **Start** button, then click **Continue** in the confirmation dialog that appears.
3. The progress bar shows the update progress and speed. **Do not disconnect the device or turn off power during the update.**
4. On success, the log displays "Firmware update successful"; if an error occurs, the progress bar turns red and an error message is shown.

## 5. Advanced Features

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### 5.1 Command History & Auto-Completion

- Use the ↑ and ↓ arrow keys to browse through previously sent commands
- Click the ▼ button to open a scrollable history menu
- As you type, matching history entries are suggested; press Tab or Enter to accept

### 5.2 Log Operations

- Right-click the log area to show a context menu: Select All, Copy, Copy All, Clear All, Delete Selected
- You can also click the **Clear** button at the bottom of the log frame to clear all entries

### 5.3 Drag & Drop

You can drag a .bin file directly from File Explorer onto the firmware path input field; visual feedback is provided while hovering.

### 5.4 Automatic Version Adaptation

When starting an update, the tool automatically sends `*IDN?` to the device and selects the appropriate initialization command based on the returned version, ensuring compatibility with both newer and older hardware.

## 6. Frequently Asked Questions

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**Q: The tool reports “Cannot open COMx” or “Access denied”?**

A: Check that the COM port number is correct, that it is not already in use by another program, and that the serial port driver is properly installed.

**Q: After sending a command, “(no response)” appears?**

A: Make sure the device is powered on and properly connected. Some commands may only be valid in specific modes.

**Q: An update fails and the progress bar turns red?**

A: Confirm that the selected file is a valid .bin firmware file and does not exceed the maximum file size. Try reconnecting the device and retrying. If the problem persists, keep the log and contact technical support.

**Q: Can the serial port parameters (baud rate, etc.) be changed?**

A: The current version uses fixed settings: 115200 baud, 8N1. If you need different parameters, please contact the developer.

## 7. Technical Support

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For any issues or suggestions, please contact your device supplier or the development team.

# Version History

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Version	Date	Notes
2.0.0	2026-05-05	Initial stable release with firmware update, custom commands, IDN query, automatic version adaptation, colored log, command history & auto-completion, drag-drop support

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This document may be updated as new features are added. Please refer to the latest version shipped with the software.