



Device Firmware
Update Kit -
G7 and G7 Bridge
Technical User Manual

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OVERVIEW

The Blackline Safety Device Firmware Update Kit allows you to manually update firmware for G7 and G7 Bridge devices when firmware updates cannot be done over-the-air (OTA).

The Firmware Update Kit process includes installing the Firmware Update Tool onto a computer, connecting the G7 or G7 Bridge device to the computer, and then running the update to the device.

The Firmware Update can only be done on specific G7 and G7 Bridge models. This guide provides detailed steps for determining the model number of the device to ensure that it can be updated in this manner.

WHAT'S INCLUDED IN THIS KIT

- USB stick loaded with a file containing the Blackline Safety Device Firmware Update Tool.
- Firmware Upgrade cable for connecting G7 and G7 Bridge devices to your computer
- G7 charging clip

1 FIRMWARE UPDATE TOOL

The Firmware Update Kit installation process requires that you install a Firmware Update Tool onto your computer. Make sure that your computer meets the minimum requirements as specified in the following table.

COMPUTER REQUIREMENTS

Minimum Specifications		Recommended Specifications	
PROCESSOR (CPU)	Intel Core i7-8565U / AMD Ryzen 7 3700U	PROCESSOR (CPU)	Intel Core i7-1365U (10-Core, Turbo 5.2 GHz) or AMD Ryzen 7 7840U
MEMORY (RAM)	16GB LPDDR4x	MEMORY (RAM)	16GB LPDDR5 or DDR5
STORAGE	256GB SSD	STORAGE	512GB NVMe SSD (or higher)
GRAPHICS (GPU)	Intel Iris Plus Graphics	GRAPHICS (GPU)	Intel Iris Xe or AMD Radeon 780M
OPERATING SYSTEM	Windows 10 (64-bit)	OPERATING SYSTEM	Windows 11 Pro (64-bit)
DISPLAY RESOLUTION	1920x1080 (Full HD)	DISPLAY RESOLUTION	1920x1080 (Full HD)
DIRECTX VERSION	DirectX 12	DIRECTX VERSION	DirectX 12

TRANSFERRING THE UPDATE TOOL TO YOUR COMPUTER

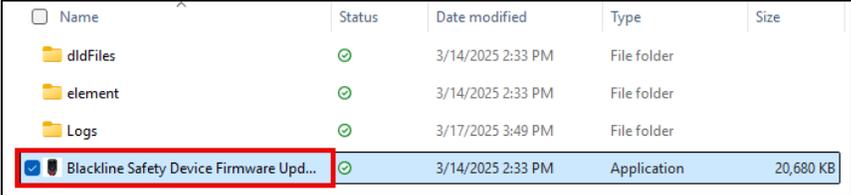
To install the Blackline Safety Device Firmware Update Tool to your computer:

1. Insert the USB stick into an available USB-A port on your computer.
2. Copy the folder titled **Blackline Safety Device Firmware Update Tool** from the USB drive to folder on your computer.

LAUNCHING THE UPDATE TOOL

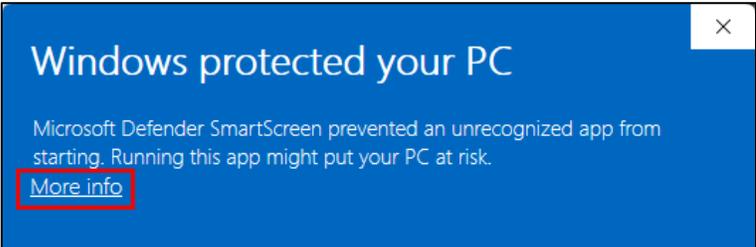
To launch the update tool:

1. Double-click the application **Blackline Safety Device Firmware Update Tool.exe** to launch it.

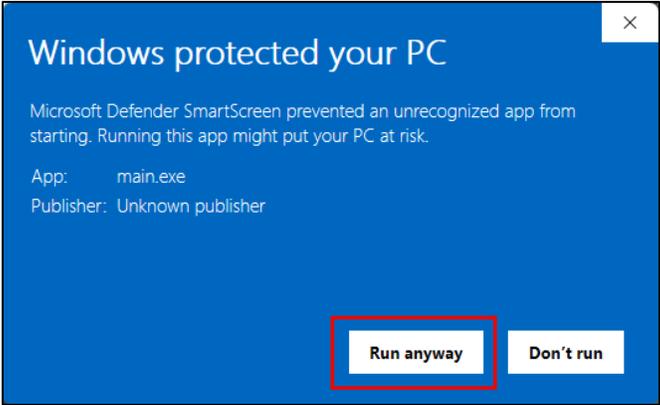


Name	Status	Date modified	Type	Size
dldFiles	✓	3/14/2025 2:33 PM	File folder	
element	✓	3/14/2025 2:33 PM	File folder	
Logs	✓	3/17/2025 3:49 PM	File folder	
Blackline Safety Device Firmware Upd...	✓	3/14/2025 2:33 PM	Application	20,680 KB

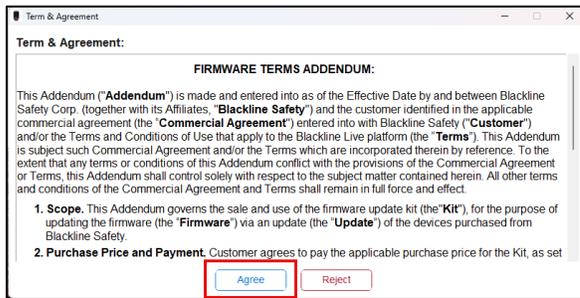
2. Select **More info** if the Microsoft Defender SmartScreen warning displays.



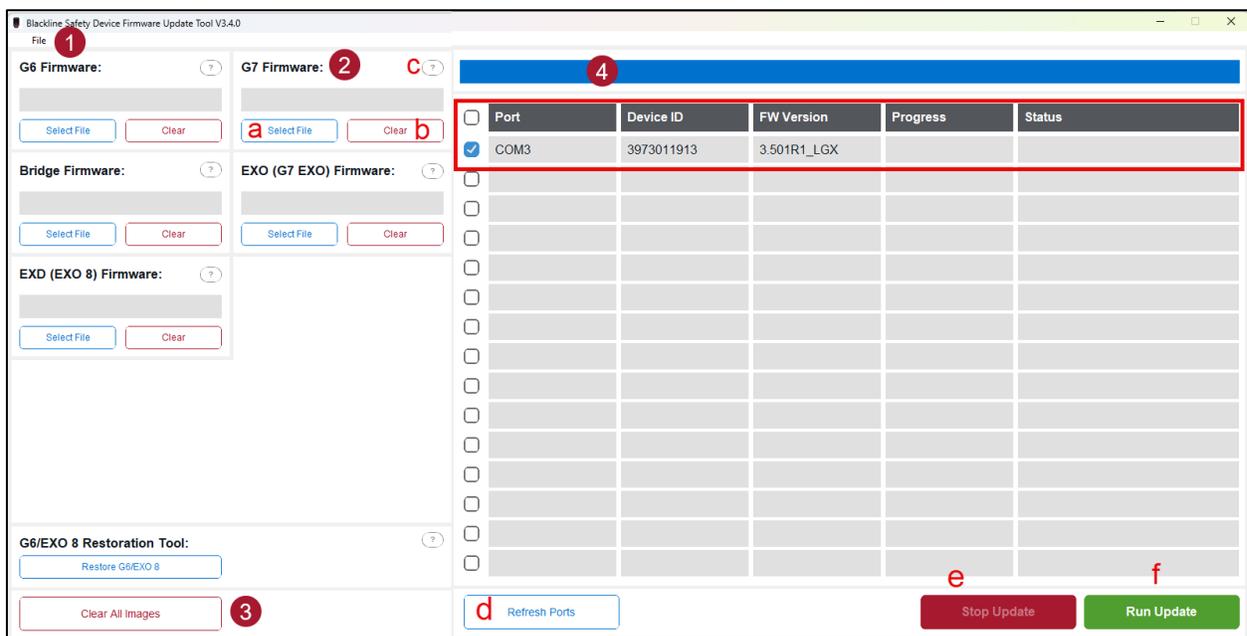
3. Select **Run anyway**. Depending on your organization’s Admin permission settings, you may need to contact your IT department to run the tool.



- Review the Terms and Agreement, then select **Agree** to launch the update tool.



UNDERSTANDING THE FIRMWARE UPDATE TOOL INTERFACE

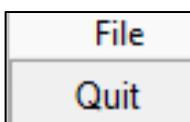


NOTE: This overview covers G7 and G7 Bridge devices only. It does not include UI elements related to G6, EXO, or EXO 8.

NOTE: The update tool automatically scales within a certain resolution range. Depending on your monitor resolution, you may need to adjust your display scale settings. For more information, refer to [Display issues \(UI is cut off or improperly scaled\)](#).

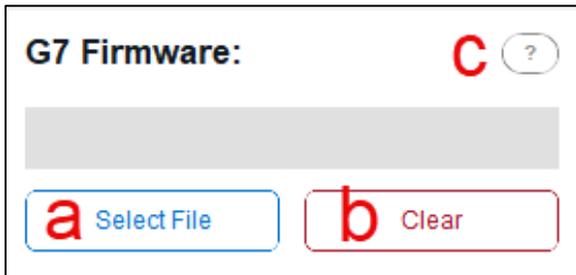
1 File

Quits the tool and closes the interface.



2 Device-Specific Firmware Selection

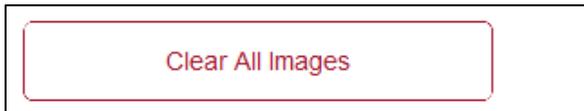
Allows you to select and clear firmware files for G7 and G7 Bridge devices.



- a) **Select File:** Opens firmware files compatible with the device type.
- b) **Clear:** Removes the selected firmware files.
- c) **?:** Displays firmware format tooltips for the selected device type.

3 Clear All Images

Removes selected firmware files at one time, instead of clearing them individually for each device type.

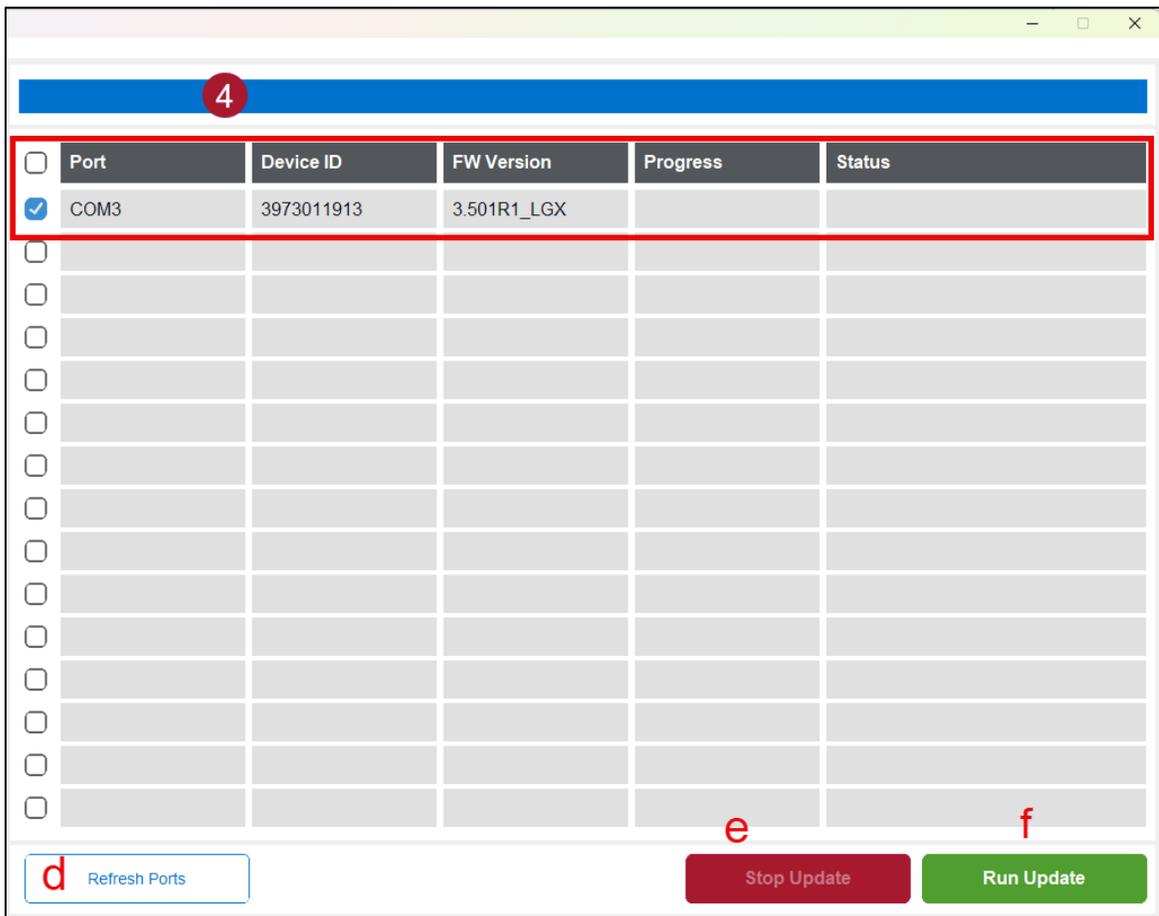


4 Connected Devices and Update Controls

Displays connected devices and controls for managing firmware updates.

Each row in this section shows the **Port**, **Device ID**, **FW (firmware) Version** and update **Progress** and **Status** for connected devices.

You can select up to 15 rows to update up to 15 devices at a time.



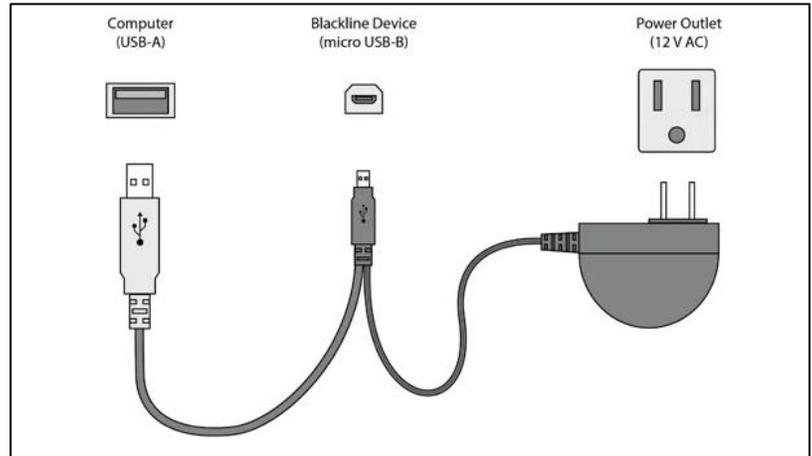
- d) **Refresh Ports:** Refreshes the list of connected devices.
- e) **Stop Update:** Cancels the update in progress for the selected device(s).
- f) **Run Update:** Starts the firmware update process for the selected device(s).

CONNECTING A DEVICE TO YOUR COMPUTER

To update your device's firmware, connect it to your computer using the data cable supplied with your update kit.

G7 and G7 Bridge use the Firmware Upgrade cable. This is a Y-cable that includes a:

- **Micro USB connector** that plugs into the device.
- **USB-A connector** that connects to your computer to transfer data.
- **Separate power cable** that can be plugged into an outlet to charge the device while updating its firmware.



G7 requires a charging clip attachment to connect the cable. This adapter attaches to the device's port. The Firmware Upgrade cable plugs into it.



G7 Bridge does not require a charging clip. You can plug the Firmware Upgrade cable directly into the port on the side of the device.



POWER AND DEVICE DETECTION

Before updating G7 and G7 bridge firmware:

- Charge your device before upgrading. If your device is not fully charged, plug in the power cable attached to the Firmware Upgrade cable before starting the update.
- Connect the upgrade cable to your computer and the charger to a power outlet.
- If the device powers off while charging, ignore it—the upgrade continues. Some devices are configured to turn off when charging—this does not affect the update process.

Device detection requirements

- A device must have its screen on to be detected by the update tool.
 - If a device is powered on, the screen is on.
 - If a device is powered off but charging, the screen displays a charging icon and can still be detected.
- If a device is powered off and not charging, it cannot be detected by the update tool.

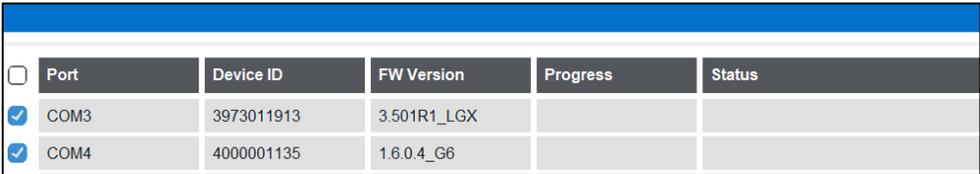
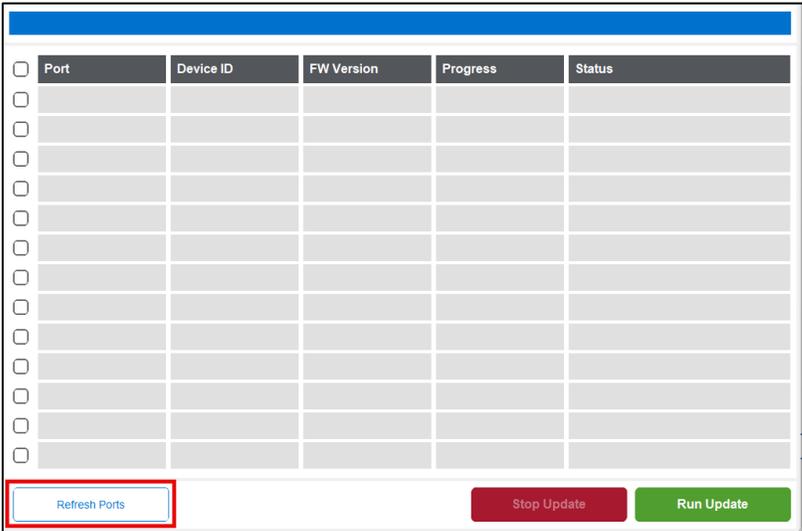
UPDATING DEVICE FIRMWARE

To update your device’s firmware, ensure it is detected by the update tool, then select the correct firmware version before running the update.

To verify and select connected devices to update:

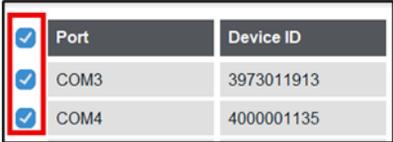
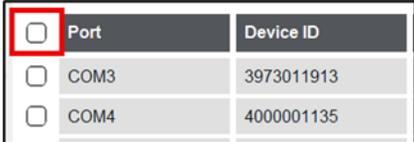
- 1. Click **Refresh Ports** to detect any connected device(s).

The device list updates automatically, showing detected devices.

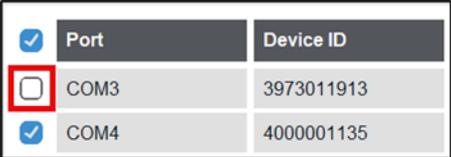


Connected devices are automatically selected with a checkbox after refreshing.

The top checkbox selects or deselects connected devices at the same time.



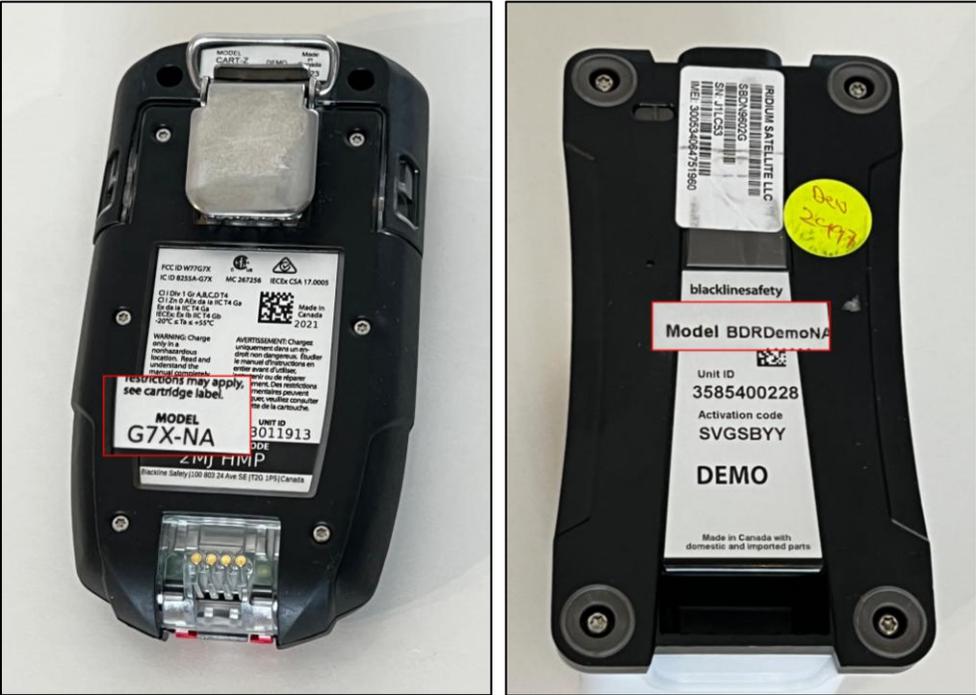
- 2. Deselect the checkbox for any devices you do not want to update.



CHECKING DEVICE MODEL, ID, AND FIRMWARE

There are three things you must check to ensure you select the correct firmware for your device: Device Model, Device ID, and Current Firmware Version.

Device Model (depending on device type): G7 and G7 Bridge have multiple model variations. The model information is listed on a sticker found on the back or underside of the device:

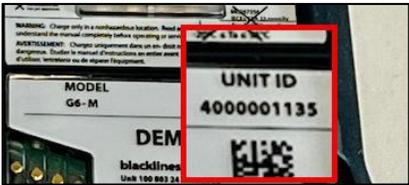


Device ID (also known as the Unit ID): You can find the device ID in two places:

- In the second column of the device list in the update tool.

<input type="checkbox"/>	Port	Device ID	FW Version
<input checked="" type="checkbox"/>	COM4	4000001135	1.6.0.4_G6

- On the back of the device (labeled as UNIT ID).



Firmware version currently installed on your device: The current firmware version installed displays in the third column of the device list.

<input type="checkbox"/>	Port	Device ID	FW Version
<input checked="" type="checkbox"/>	COM3	3973011913	3.501R1_LGX

SELECTING FIRMWARE—ALL DEVICES

Before running an update, you must first select the correct firmware file for your device.

Firmware files include a version number and model reference. If multiple versions display, choose the latest version (highest number) for your model.

Before updating your device, check three key details in the firmware file name:

1. **Version Number**—identifies the firmware release and includes both a number and a letter (e.g., 3.501R1).
2. **Model Reference**—indicates which device model the firmware applies to (e.g., LGX).
3. **File Type**—defines how the firmware is packaged:
 - G7 and G7 EXO use **.dld** firmware files.
 - G7 Bridge firmware ends in **_BDR.dld**.

UNDERSTANDING A FIRMWARE FILENAME

Let's break down a firmware filename.

Example: 3.501R1_LGX.dld

- **3.501R1** is the version number (includes both the numeric release and lettered revision)
- **LGX** is the model reference (applies to G7 LGX devices)
- **.dld** is the file type (standard G7 and G7 Bridge firmware update file format)

CHOOSING THE LATEST FIRMWARE FILE

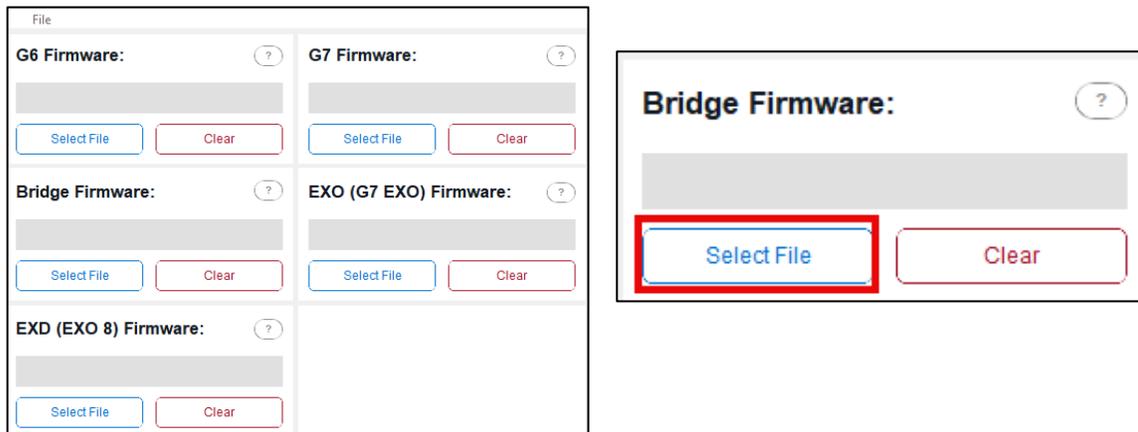
- If multiple versions display, select the highest version number that matches your model (e.g., 3.52R1 > 3.51R1).
- If the numbers and letters are the same, select the highest numbered letter (e.g., 3.52R2 > 3.52R1).
- Verify the model reference to ensure compatibility.

NOTE: Never modify firmware filenames.

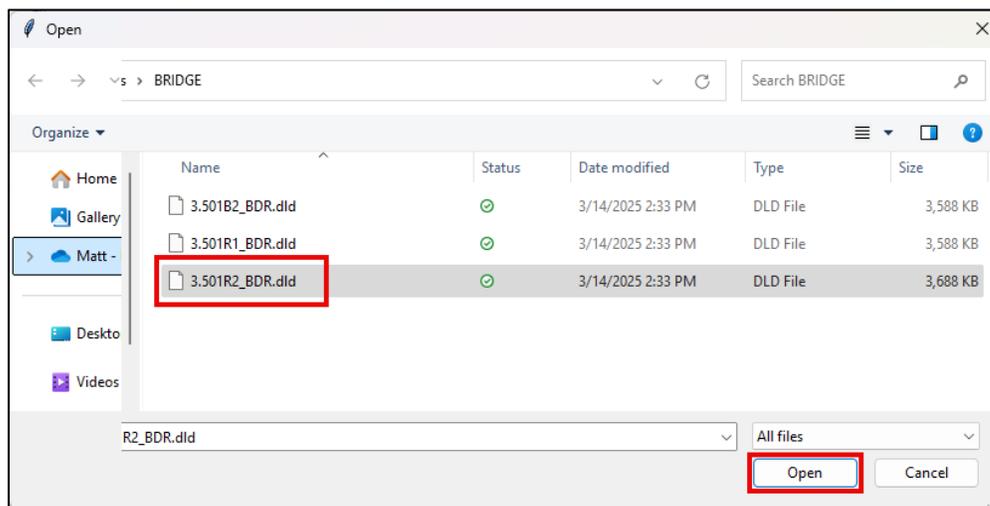
SELECTING A FIRMWARE FILE

To select and load the correct firmware file for your device:

1. Under the Bridge Firmware heading, select **Select File** to open the firmware selection window.



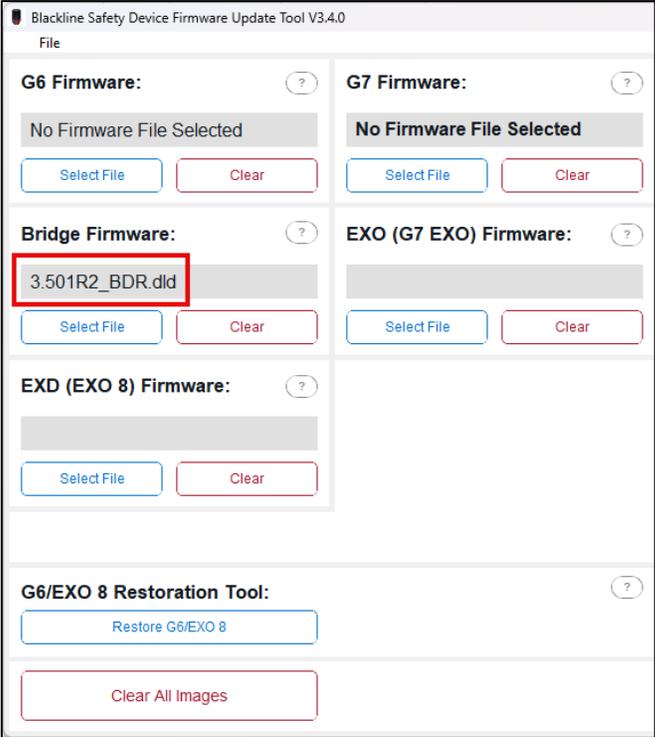
2. Select the correct firmware file for your device (see [Firmware Selection by Device Type](#) below), then select **Open**.



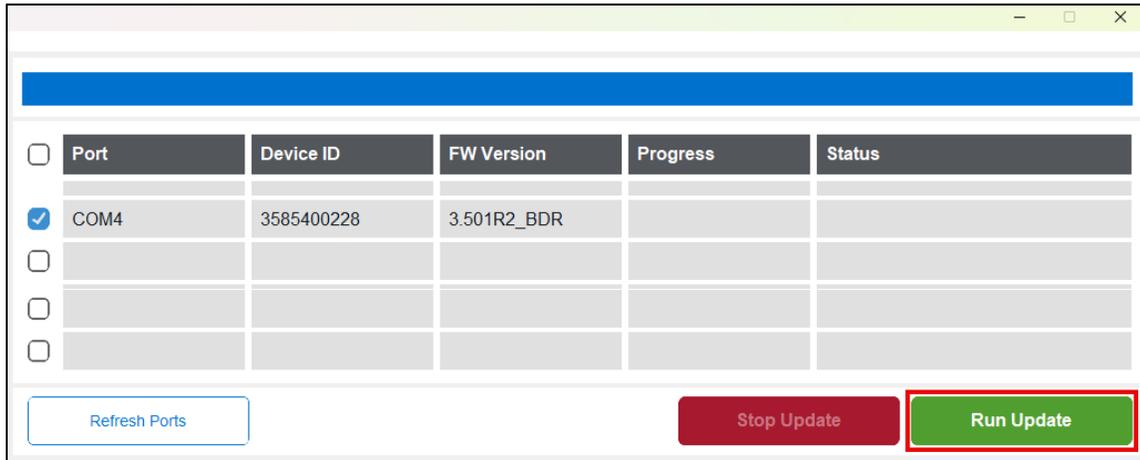
NOTE: Select the ? icon to display help for choosing the correct firmware version.



The selected firmware displays in the Device window.

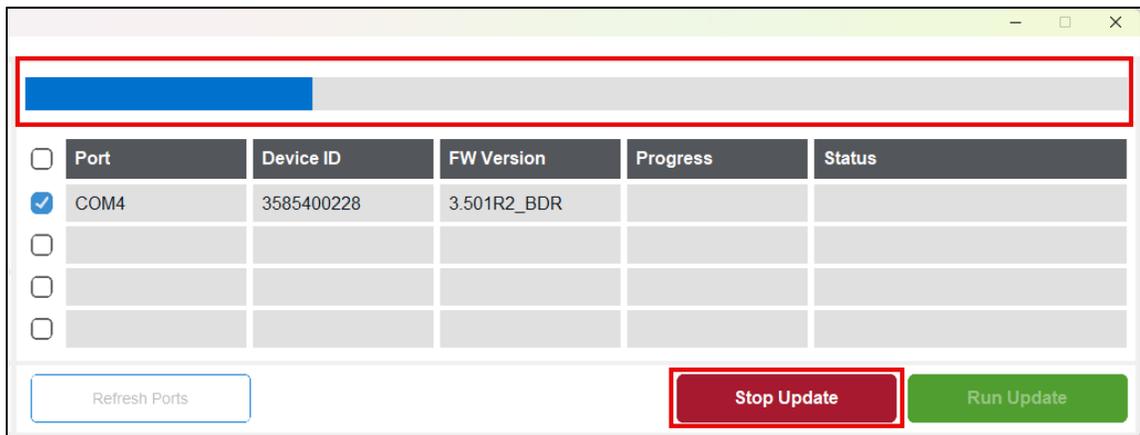


3. Select Run Update.

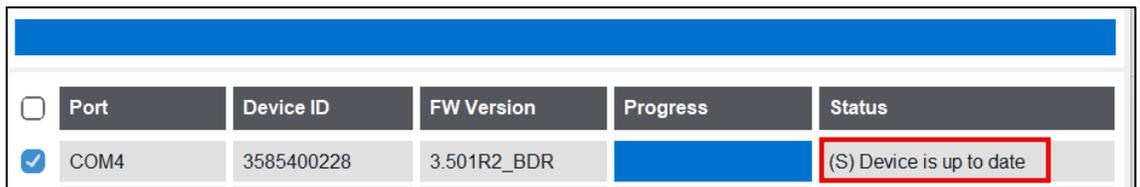


Once the update begins, the **Stop Update** button becomes active, allowing you to cancel if needed. A blue bar at the top indicates that the tool has completed its internal setup and is ready to perform the upgrade.

A message displays indicating that the current firmware is being erased.



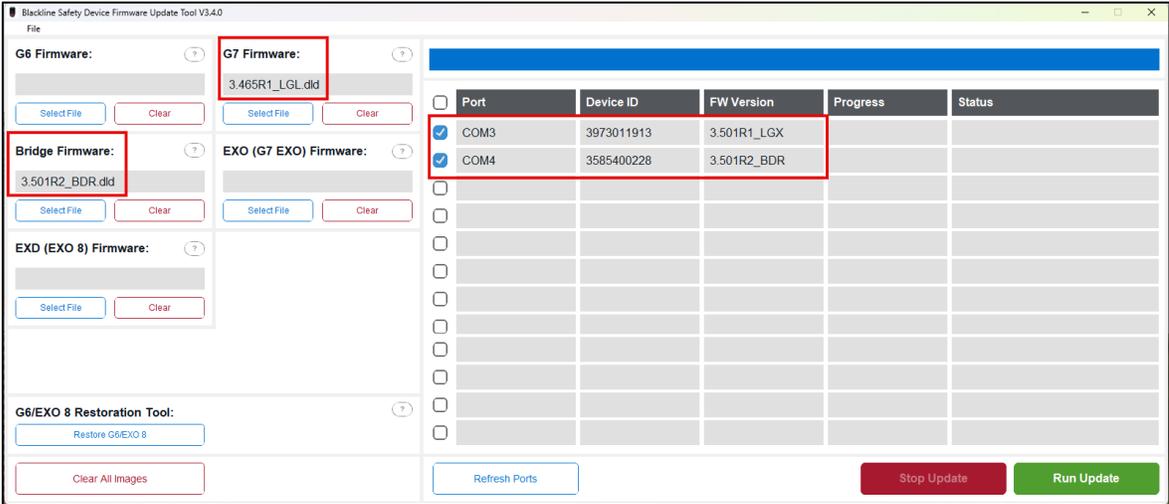
When the update is complete, a message confirms that the device's firmware is updated.



UPDATING MULTIPLE DEVICES

You can update multiple device types at the same time.

1. Select the correct firmware file for each device type.



2. Select or deselect the devices you want to update using the checkboxes.

<input type="checkbox"/>	Port	Device ID	FW Version	Progress	Status
<input checked="" type="checkbox"/>	COM3	3973011913	3.501R1_LGX		
<input checked="" type="checkbox"/>	COM4	3585400228	3.501R2_BDR		

<input type="checkbox"/>	Port	Device ID	FW Version	Progress	Status
<input checked="" type="checkbox"/>	COM3	3973011913	3.501R1_LGX		
<input type="checkbox"/>	COM4	3585400228	3.501R2_BDR		

3. Select Run Update to start updating the selected devices.



NOTE: If you have different models of the same device, you must update each model in a separate session. E.g., If you have G7 LGX and G7 LGR models connected, you must first update all LGX models, *then* update LGR models in a separate session.

SELECTING FIRMWARE BY DEVICE TYPE

You must select the correct firmware file for your specific **device type** and **model**. If you select the wrong firmware file for your device, an error message displays in the **Status** column.

<input type="checkbox"/>	Port	Device ID	FW Version	Progress	Status
<input checked="" type="checkbox"/>	COM3	3973011913	3.501R1_LGX		ERR: Wrong DLD File Loaded

Device-specific firmware selection is based on the device type, Device ID (Unit ID), and model (in some cases), so ensure you have this information when updating.

G7 FIRMWARE

To select G7 firmware, you must identify the device model and Unit ID, then select the correct firmware file for your specific G7 model. Each G7 device model has a unique Unit ID range and requires a specific firmware file.

G7 models and unit ID ranges

G7 Model	Unit ID Range
LGX	3973xxxxxx 3974xxxxxx
LGP	3567xxxxxx 3569xxxxxx
LGU	3975xxxxxx 3976xxxxxx
LGL	35700xxxxx 35702xxxxx 35704xxxxx 35706xxxxx
LGR	35710xxxxx 35712xxxxx 35714xxxxx 35716xxxxx 357180xxxx 357182xxxx 357184xxxx

Examples

- **Example 1:** If your G7 device has a Unit ID of **3973xxxxxx**, it is an **LGX** model. You must select a firmware file ending in **LGX.dld**.
- **Example 2:** If your G7 device has a Unit ID of **35710xxxxx**, it is an **LGR** model. You must select a firmware file ending in **LGR.dld**.

Key considerations

- Verify your Unit ID and model reference before selecting a firmware file.

- If you select the wrong firmware file, the tool displays an error message and prevents the update.
- You can only update one G7 model at a time. If you have multiple models (e.g., LGL and LGR), update each model separately.

G7 BRIDGE

Non-G7 Bridge R models (e.g., Bridge BDL) are not compatible with this tool. Only G7 Bridge R models (BDR) are supported.

- The Unit ID range for Bridge R is: **35854#####**
- Select the latest firmware version ending in **BDR.dld**.

TROUBLESHOOTING

Use this section to identify and resolve common issues with installation or firmware updates.

DEVICE NOT RECOGNIZED

- The device must be powered on or powered off and charging to be detected.
- Check the battery level. If the battery is low, charge the device before trying again.
- Verify that the cable is securely connected. Try disconnecting and reconnecting.
- Use a different USB port or cable if the device is still not detected.
- For G7 devices, ensure you've selected the correct model before updating.

FIRMWARE UPDATE FAILS

- Make sure you've selected the correct firmware file for your device.
- Try quitting the tool, restarting it, then running the update again.
- If the update repeatedly fails, contact Blackline Support.

STOP UPDATE BUTTON IS GRAYED OUT

The **Stop Update** button is inactive until the update begins. Once started, it becomes active.

ERROR MESSAGE IN THE STATUS COLUMN

An error message means you've selected an incompatible firmware file for your device. Check your unit ID and model, then select the correct firmware version.

DISPLAY ISSUES (UI IS CUT OFF OR IMPROPERLY SCALED)

The tool automatically rescales within a certain range. If you experience any display issues, ensure that your display scale is correctly configured for your monitor resolution.

To configure the display scale:

- **1080p monitors:** Set your display scale to **100%**.
- **2K (1440p) or higher resolution monitors:** Set your display scale to **125% or 150%** as needed.

To adjust the display scale:

- Windows 11: Settings > System > Display > Scale, then select the appropriate scale.
- Windows 10: Settings > Display > Scale and layout > Scale, then select the appropriate scale.

SUPPORT

TECHNICAL SUPPORT

Contact our Technical Support team for assistance.

North America (24 hours)

Toll Free: 1-877-869-7212 | support@blacklinesafety.com

United Kingdom (8am-5pm GMT)

+44 1787 222684 | eusupport@blacklinesafety.com

International (24 hours)

+1-403-451-0327 | support@blacklinesafety.com