

Firmware Update via USB

Quick Update – Experienced Users

1. Download and unzip the firmware package:
<https://downloads.vdveer-engineering.nl/products/haldex-controller/firmware/VE-Haldex-Controller-USB-fw.zip>
2. Disconnect the controller from the vehicle and open the housing.
3. Connect the controller to a Windows PC using a Micro-USB data cable.
4. If not detected, hold the ERASE button while connecting USB.
5. Install USB drivers if prompted by Windows.
6. Start Flash Tool.exe.
7. Select the firmware file, refresh COM port, and start the update.
8. Wait until flashing completes. Do not disconnect USB.
9. Reconnect USB and confirm the orange LED is blinking.
10. Reinstall the controller in the vehicle.

Full Firmware Update Procedure via USB

Requirements

- Windows PC (Windows only)
 - Free USB port
 - Micro-USB data cable (charge-only cables will not work)
 - Controller powered off and disconnected from the vehicle
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Firmware Package

Download the firmware update package from:

<https://downloads.vdveer-engineering.nl/products/haldex-controller/firmware/VE-Haldex-Controller-USB-fw.zip>

The ZIP file contains:

- Firmware update file(s)
- Flash Tool
- Release notes

Extract (unzip) all files to a local folder before continuing.

Important Notes

- Do not disconnect USB or interrupt power during the update process.
 - Use only firmware intended for your controller type.
 - Interrupting a firmware update may require recovery using bootloader mode.
 - Avoid static discharge when the controller housing is open.
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LED Status Reference

LED Color / Behavior	Meaning
Orange blinking	Firmware running normally
Green solid	Power supply OK
Red solid	Bootloader mode
Blue fast blinking	Wireless ready for connection
Blue slow blinking	Wireless connected

Step-by-Step Update Instructions

1. Prepare the Controller

- Ensure the controller is not connected to the vehicle.
- Open the controller housing.
- If firmware is not running, the orange LED will not blink.

2. Connect to PC

- Connect the controller to the Windows PC using a Micro-USB cable.
- If the PC does not detect the device:
 - Press and hold the ERASE button.
 - While holding the button, connect the USB cable.
 - Release the button after connection.

3. USB Detection Troubleshooting

If the controller is still not detected:

- Confirm the USB cable supports data transfer.
- Try a different USB cable or USB port.
- Install USB drivers if Windows requests them.

4. Flash the Firmware

1. Start Flash Tool.exe.
2. Select the firmware update file.
3. Click Refresh COM Port and select the detected device.
4. Click Start Update.
5. Wait until the update completes.
6. Do not disconnect the USB cable during flashing.

5. Verify Successful Update

- Disconnect and reconnect the USB cable.
- The controller should now be detected normally.
- The orange LED should be blinking, indicating firmware is running.

Firmware version can be verified via:

- The mobile app
- The web interface

Detailed changes are listed in the release notes included in the ZIP file.

6. Reinstallation

- Close the controller housing.
- Reinstall the controller in the vehicle.
- Power on the vehicle and verify normal operation.

Recovery Notes

If the update fails or the controller does not boot:

- Repeat the procedure using ERASE + USB to force bootloader mode.
- Ensure correct firmware file selection.
- Contact support if recovery is unsuccessful.