Emergency Update
GHL Doser 2 & 3

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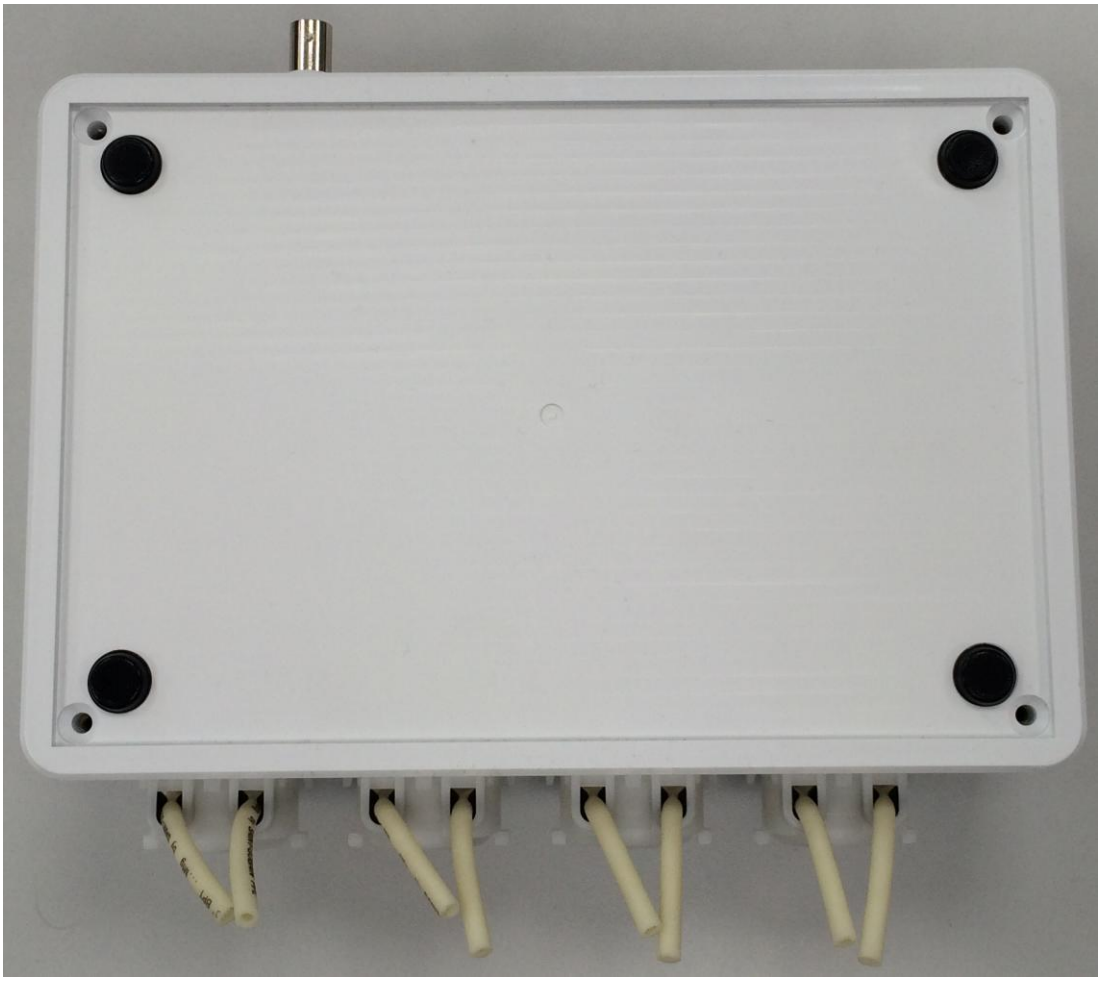
If your Doser 2 or Doser 3 update via GHL Control Center was interrupted and resulted in an unresponsive unit, it is still possible to perform the update by following the instructions below.

1 Tools Required for Emergency Update

Performing an emergency update will require you to open the GHL Doser. To do this, you will need a 3/32 Allen Wrench.

2 Opening the GHL Doser

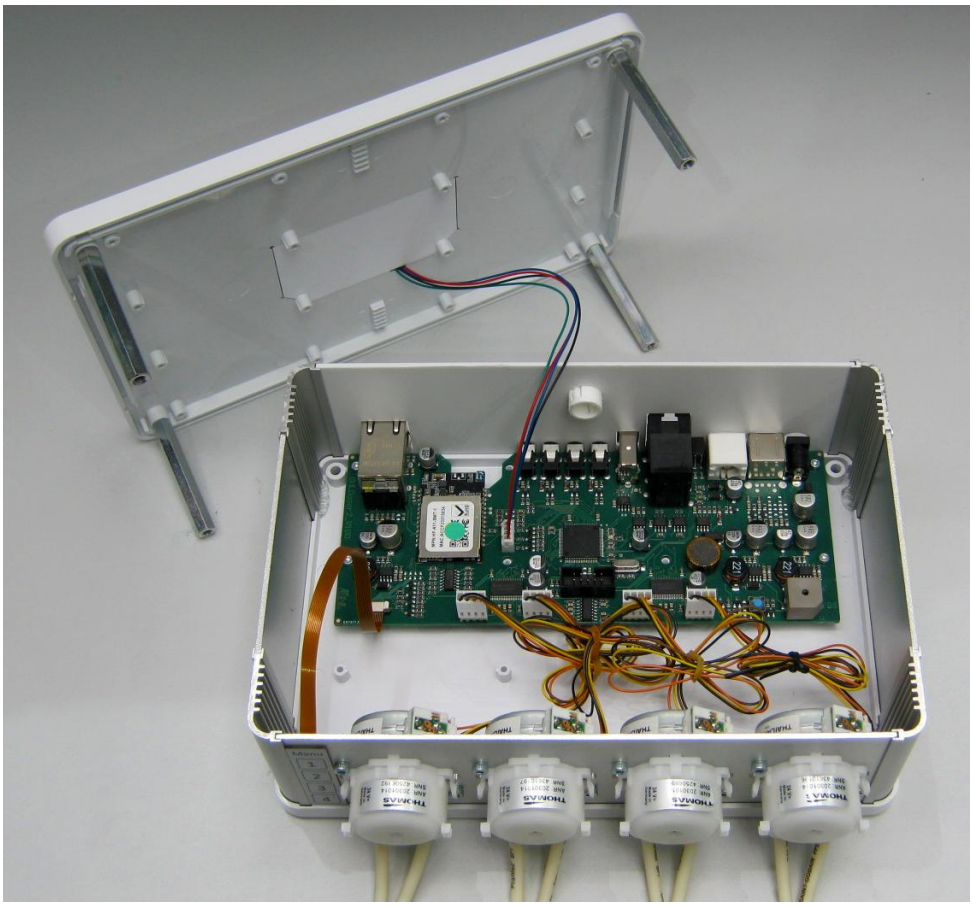
Before you open the device, please remove all the cables that are connected to the device. Once the cables have been removed, place the device upside down on a soft surface to avoid any scratches.



Looking at the doser, you will see that there are four screws that need to be removed. Remove them using the 3/32 Allen Wrench.

With the four screws removed, carefully place the device in the upright position by holding both halves of the casing together.

Before removing the cover, please note that there is a cable connecting the LED logo to the main board. Carefully lift the cover and place it upright as shown in the illustration below.



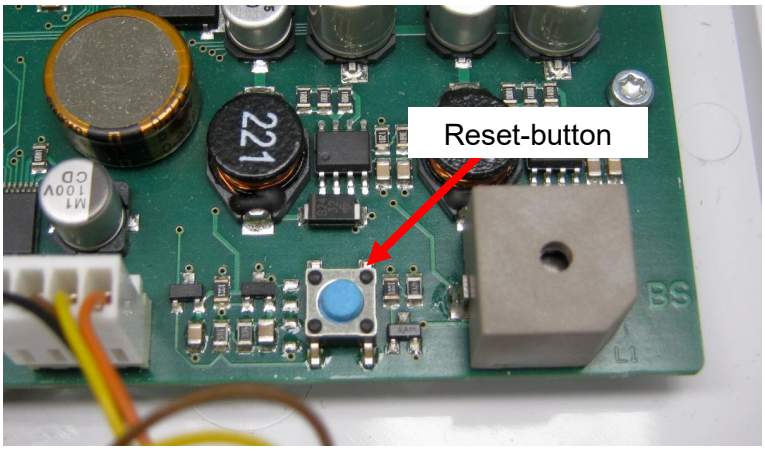
Connect the USB cable to an available port on your PC and to the USB port on the GHL Doser. With the USB cables connected, connect the power supply to the device.

3 Determining the COM port number for the update

In this step, you will manually activate the doser's programming mode. To do this, you must first open up Windows Device Manager. There are several ways to do this. You can find it by typing "Device Manager" into the windows search feature or right-clicking on the windows start button (Win8/8.1) and selecting "Device Manager".

With Windows device manager opened, you will see an arrow pointing to "Ports (COM & LPT)", click on that arrow and you will see a variety of communication ports.

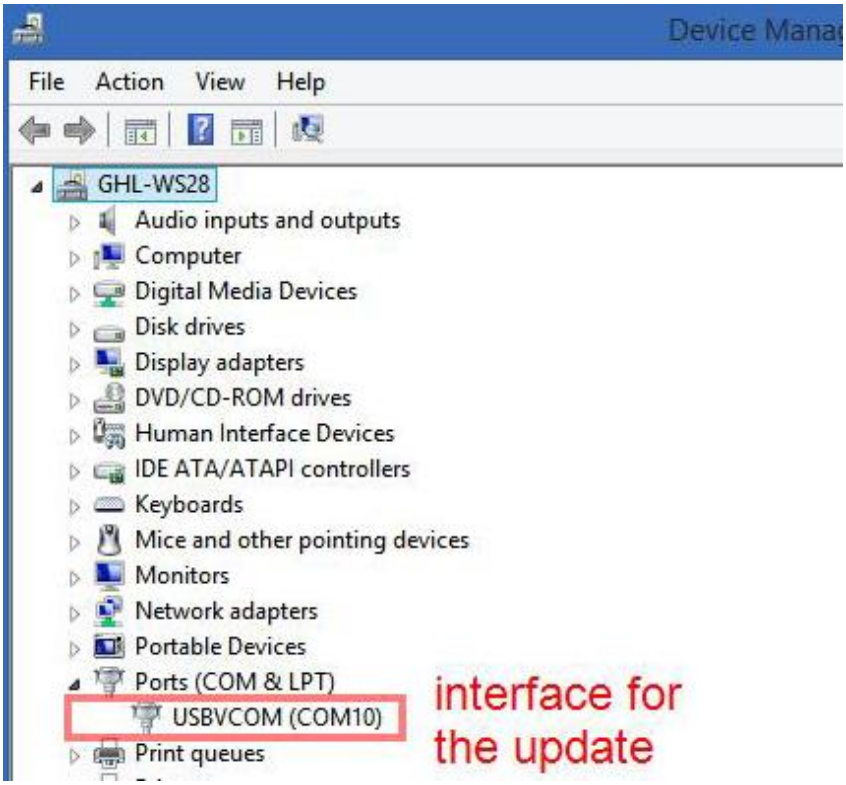
Press and hold the reset button for at least 5 seconds then release the button. This will put the GHL Doser into programming mode.



Take a look at "Device Manager" and you will see a new entry in "Ports (COM & LPT). This new entry will be listed as "USB port" or "USBVCOM" – this is the GHL Doser interface for the update. There will be a number beside "USB port" or "USBVCOM, this is the COM port number you will need in the next step.

If you do not see "USB port" or "USBVCOM" then it is possible that the driver must be manually installed.

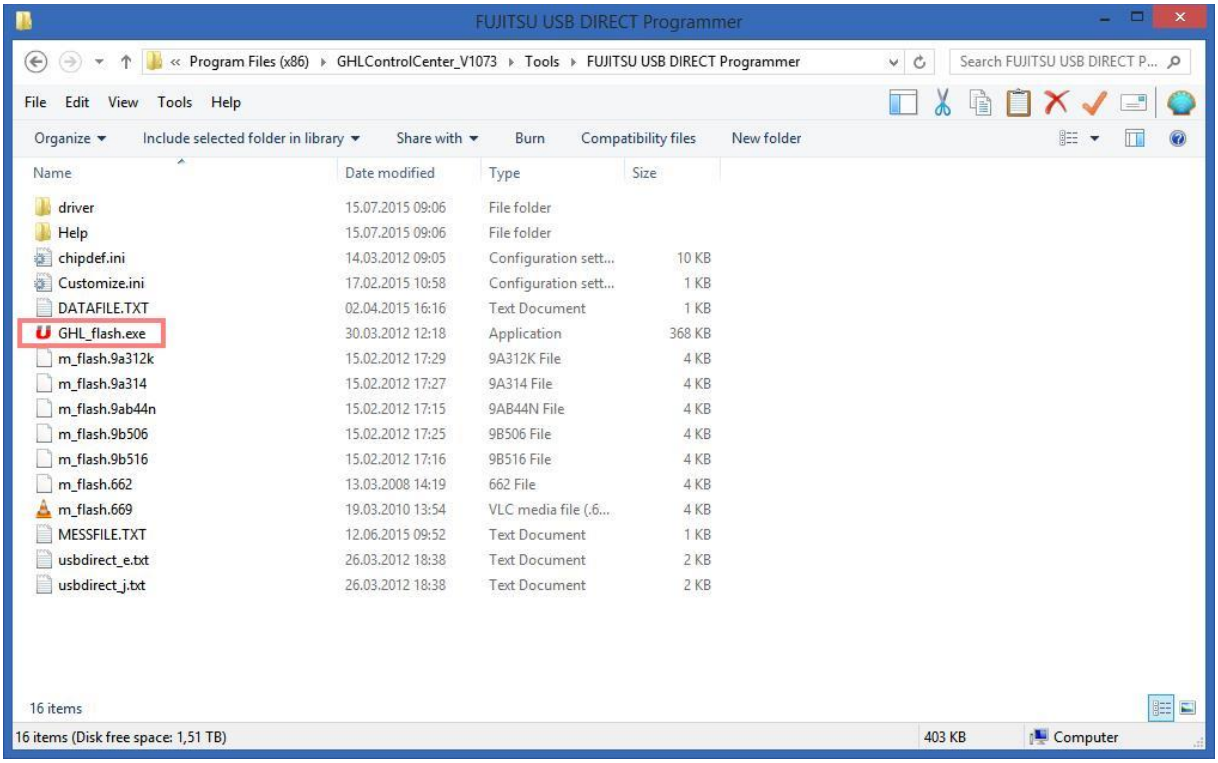
The driver can be found in the program directory of the GHL Control Center folder under "Tools\FUJITSU USB DIRECT Programmer\driver".



4 Performing the Emergency update

In this step, you will be using the flasher tool to do the emergency update. This tool can be found in the GHL Control Center program directory. Go to “This PC” on your computer, then:

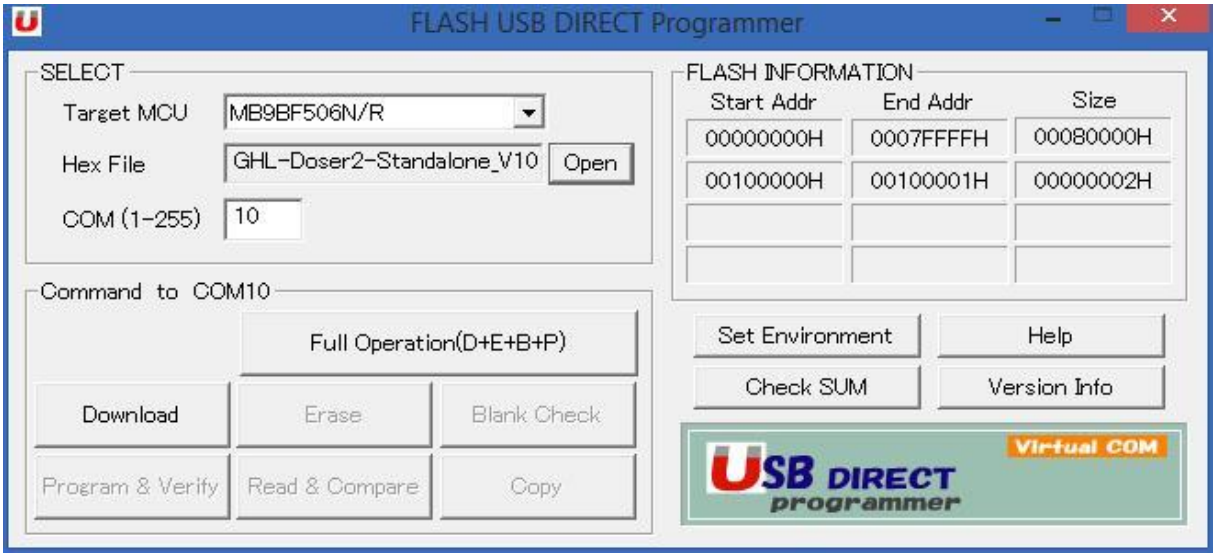
C:\ProgramFiles\GHLControlCenter_V1xxx\Tools\FUJITSU USB DIRECT Programmer\GHL_Flash.exe



Start the flasher tool by double-clicking on “GHL_flash.exe”.

When the GHL Flasher tool opens, change the settings on the tool to the following — make sure to select the correct designation for your specific Doser model from the options listed below:

Target MCU for Doser 2: **MB9BF506N/R**
Target MCU for Doser 3: **MB9BF516N/R**
COM (1-255): **Interface for the update** (This is the COM number listed beside “USBVCOM”. Also as shown in the Step 3 example illustration, COM10)



Load the firmware file by clicking “Open”, then navigate to the firmware file and select it. You can find the firmware in the program directory of GHL Control Center. When you click “Open”, select, “This PC”, then:

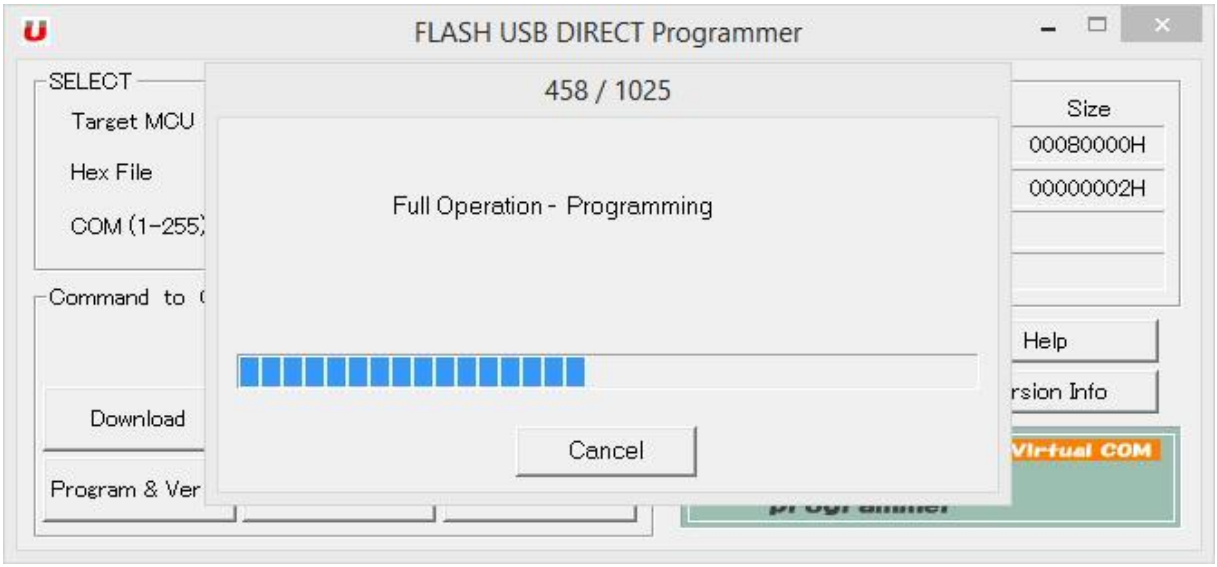
C:\ProgramFiles\GHLControlCenter_V1xxx\Firmware\GHL Doser Standalone *(for Doser 2)*
C:\ProgramFiles\GHLControlCenter_V1xxx\Firmware\GHL Doser3 Standalone *(for Doser 3*

In the “GHL Doser Standalone” or “GHL Doser3 Standalone” folder, you will see the firmware file, listed as "GHL-Doser-Standalone_" / "GHL-Doser3-Standalone_" and has the extension ".mhx", For example, "GHL-Doser2-Standalone_V107_rom.mhx".

Now click on “Full Operation” and the download window appears.

Now press and hold the reset button for at least 5 seconds, then release. Click “OK” on the above message and the download should start.

Should this not be the case, most likely the wrong interface was chosen or the GHL Doser did not go into download mode. In this case, check your settings and click on “Full Operation” again and press the reset button on the GHL Doser for at least 5 seconds and click “OK”.



If the download was successful, click “OK” and exit the flasher tool (close program).

Briefly press the reset button and the GHL Doser should restart.

After completing the update, disconnect the GHL Doser from the power supply and USB. Reassemble the device and please make sure that the cables going into the LED Logo do not get jammed.