



How to downgrade to Shimano motor firmware version 4.3.2 for a DU-E8000 based bike with the Windows based E-Tube-Project software 3.4.5 to be able to modify your bike perfectly with the *eMax* software

This document is solely intended for the **DU-E8000 drive unit of the Shimano STePS systems!**

All other types of drive units from the Shimano STePS system will NOT be covered by this document.

Please take care:

If already the new motor firmware version 4.9.5 which was [released 06.09.2023 from Shimano](#) or a newer motor firmware is installed on your DU-E8000 drive unit of your bike, then a downgrade like described in this document is **no more possible! In this case this document is no more valid and it makes no sense to read further!**

**Please only read this document if there is still an older motorfirmware installed on your bike currently.
For sure we try to find a solution for this situation as soon as possible!**

The situation at the moment is that the latest **eMax** version 3.9R is not perfectly compatible with the latest motor firmware for the DU-E8000 drive unit (motor) from Shimano.

With the latest Shimano motor firmware you can use **miniMax** to switch to the US version which allows a motor support up to 32km/h (20mph) with correct values for speed and distance on your bike's display. Additionally you can use **eMax** or **miniMax** to do a wheel circumference tuning which works very fine with a motor support of up to approx. 55km/h, but will result in non-correct values for speed and distance on your bike's display.

But if you want to get **motor support up to 60km/h and correct values for speed and distance on your bike's display**, you have to "downgrade" your bike to the last version which is fully compatible with the **eMax** software.

The motor firmware version from Shimano you have to downgrade is version 4.3.2.
This document will explain how you could achieve this downgrade with **eTube** software 3.4.5



For doing this downgrade you have to use Shimano **eTube** version **3.4.5** and you have to use the **PCE1** or **PCE02** interface, please do **not** attempt to downgrade with the **BCR2** interface!



The downgrade only works for STEPS8000 bikes with an **SC-E8000** or **SC-E6010** display! The display types **SC-E6100**, **SC-E7000** and the **EW-EN100** cockpit will not work with motor firmware 4.3.2. Downgrading currently is not possible with the new Shimano battery types BT-E8016 / BT-E8035(-L) / BT-E8036!



Please undo all previously made modifications (wheel circumference and destination changes) prior to the downgrade process.



Please follow exactly the described steps in the document.



Please take care if you want to do the downgrade, also be patient and take your time.
Be aware that there is no warranty and all you do is at your own risk.



If anything will not work like it should please consult this document:
[www.emax-tuning.com/How_to_recover_a_non_working_STEPS8000_system_\(eg_from_broken_bluetooth_update\).pdf](http://www.emax-tuning.com/How_to_recover_a_non_working_STEPS8000_system_(eg_from_broken_bluetooth_update).pdf)



You can update your bike with the **eTube** software to any newer firmware later on if you want.
If you maybe want to do this update process in the future, you should undo all **eMax** modification before.

1. Prerequisites

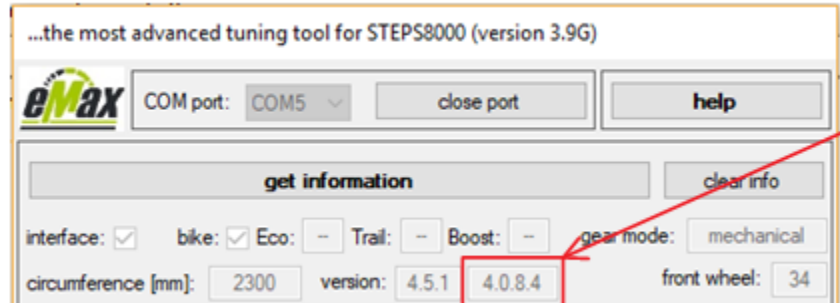
Please install **eTube** version 3.4.5 on your computer.

eTube version 3.4.5 could be downloaded here:

https://api.shimano.com/etube/public/data/upload/published/E-tube_Proj_V_3_4_5.zip

Please install the latest version of the **eMax** software (www.eMax-Tuning.com/eMax.zip) on your computer.

Connect your bike via the PCE1 / PCE02 interface to your computer (see www.eMax-Tuning.com/eMax_EN.pdf) and read the actual bike information with the **eMax** software from your bike:



Please check the version of the so called bootloader. If version 4.0.8.4 will be shown, the later described downgrade process should work without any issues.



Meanwhile the downgrade process is also possible with the new bootloader version 4.0.8.11!

Now download the downgrade - package from

www.eMax-Tuning.com/Downgrade_to_FW_4_3_2_with_eTube_3_4_5.zip

Extract the files which are included in this package to a newly created directory on your computer.

The content then should look similar to this:

| _Downgrade_to_FW_4_3_2_with_eTube_3_4_3 | | | | |
|---|------------------|--------------------|--------|--|
| Name | Änderungsdatum | Typ | Größe | |
| 2DUE8000-D.5.8.8.dat | 26.06.2019 20:55 | DAT-Datei | 63 KB | |
| 2DUE8000-M.5.8.8.dat | 26.06.2019 20:55 | DAT-Datei | 105 KB | |
| DUE8000-D.5.8.8.dat | 26.06.2019 20:55 | DAT-Datei | 63 KB | |
| DUE8000-M.5.8.8.dat | 26.06.2019 20:55 | DAT-Datei | 105 KB | |
| Install-Downgrade-Files.bat | 26.06.2019 20:55 | Windows-Batchda... | 2 KB | |
| Remove-Downgrade-Files.bat | 26.06.2019 20:55 | Windows-Batchda... | 2 KB | |

If you have made any prior modifications to your bike with **eMax**, please undo them right now!

So reset the wheel circumference to its original value and also reset the max. motor support limits to the original values with the according buttons in the **eMax** software.



Now, you're done with step 1...

2. Updating your bike to the latest firmware

Connect your PCE1 / PCE02 interface with your computer.

Connect your bike with the PCE1 / PCE02 interface (best is to use one of the 4 display connectors)

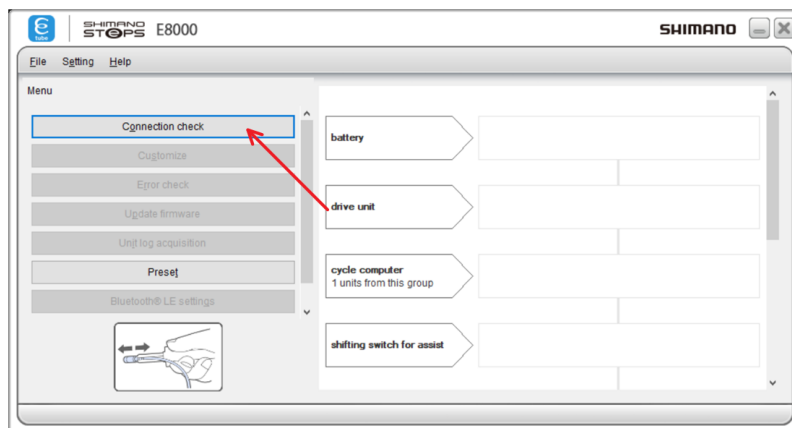
Take care that the cable is inserted tightly and snapped in the receptacle. Ideally use a TL-EW2 tool from Shimano to plug in and release STEPS cables.

Power on your bike!

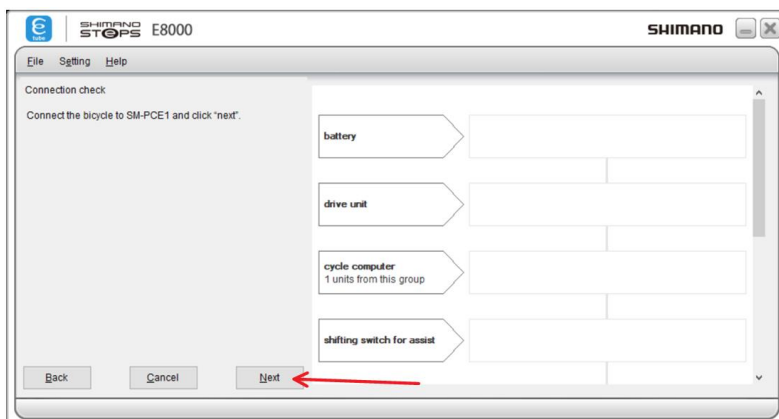
Start the *eTube* program:



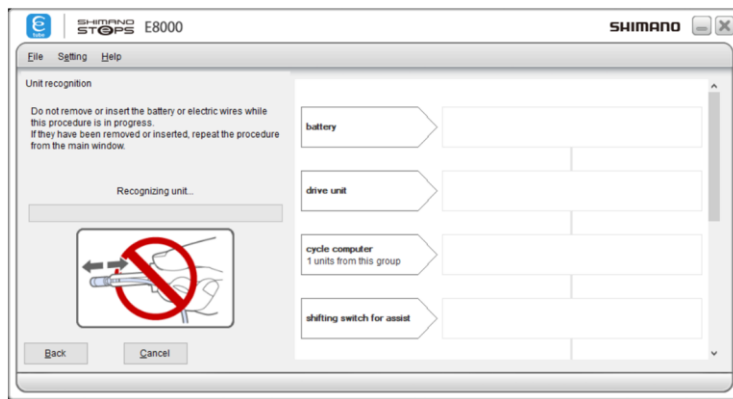
Jump straight to “E-BIKE” and press “Connection check”:



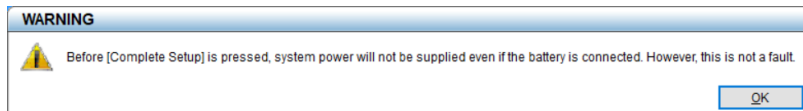
Press “Next”:



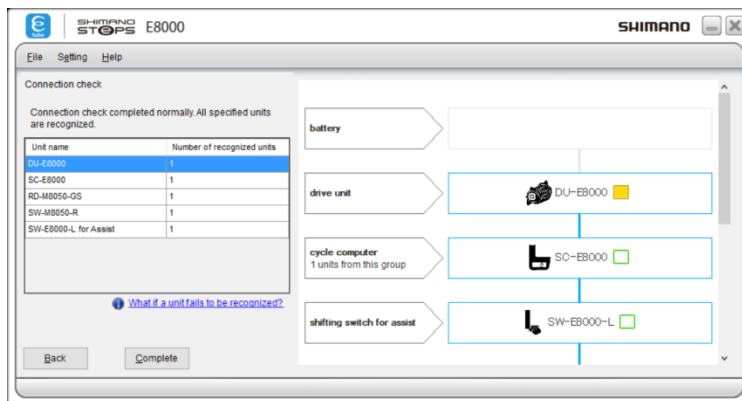
Wait until the connection was established:



Confirm messages:

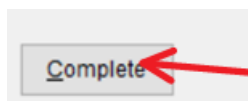


Orange boxes will show you if there is any unit to update:

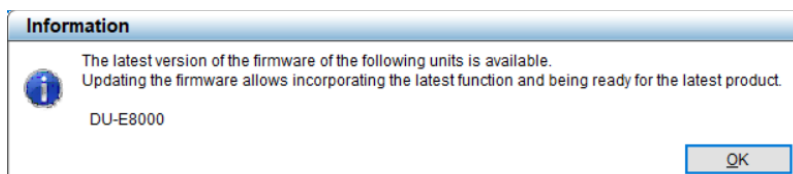


If there is no unit to update, you can exit **eTube** right now and go straight to step 3!

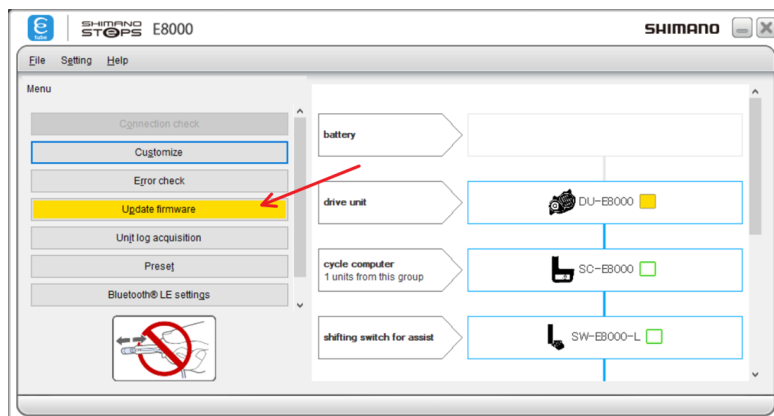
Press "Complete":



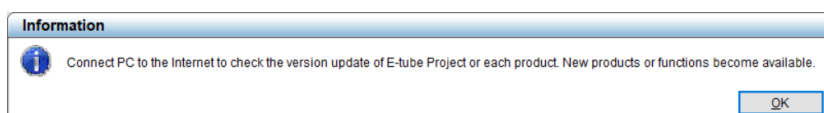
Confirm messages:



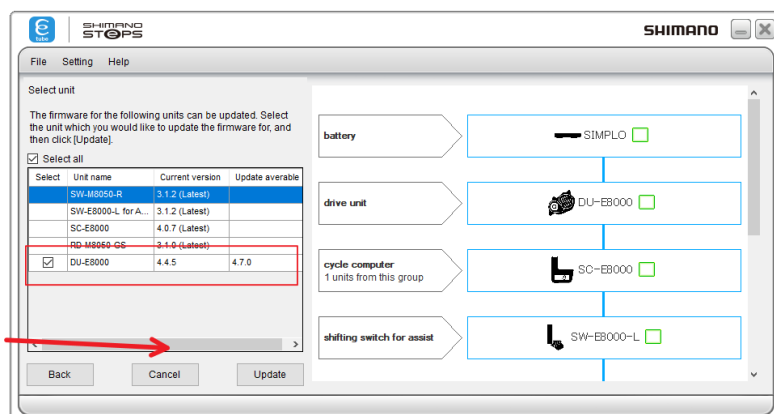
Press “Update firmware” if there is any unit to update:



Confirm messages:



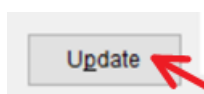
eTube now shows the actual and the available new firmware versions of all units:
(here the motor unit DU-E8000 could be updated from version 4.4.5 to 4.7.1,
in your case the latest version for the motor unit DU-E8000 should be 4.7.1)



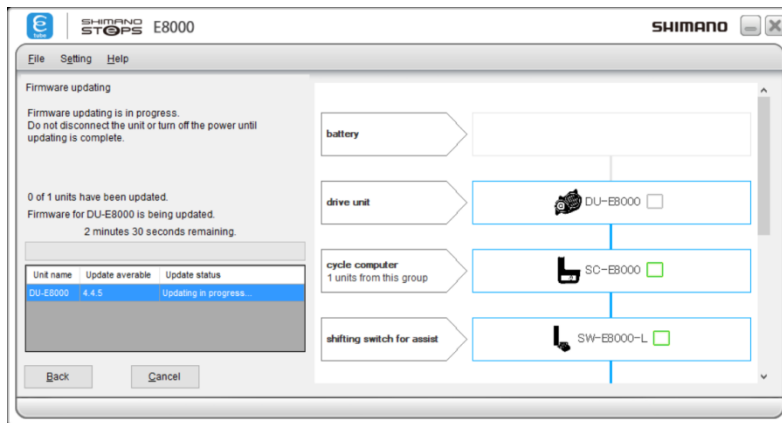
TAKE CARE:

If in this chart there is a motorfirmwareversion for the DU-E8000 drive unit shown which is equal or higher than 4.9.5, then please deactivate the update of this new firmware by unchecking the checkbox close to the DU-E8000 drive unit in the “Select” column. Otherwise the following downgrade process which is described in the next steps will not work because starting with DU-E8000 motorfirmware 4.9.5 downgrading will not work any more.

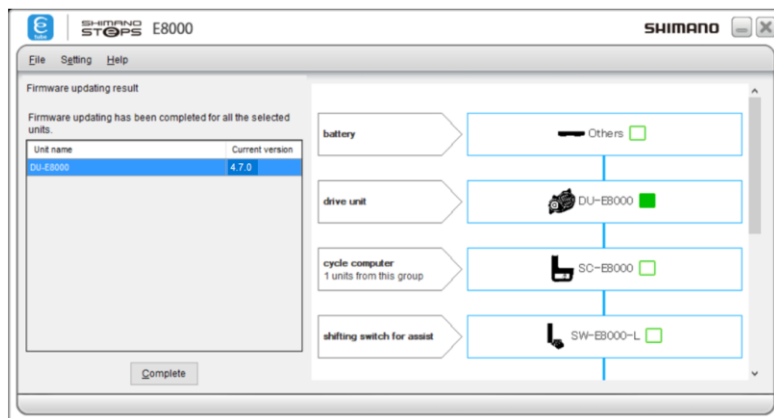
Press “Update” to start the process:



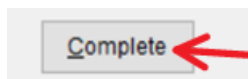
eTube is processing the update process now:



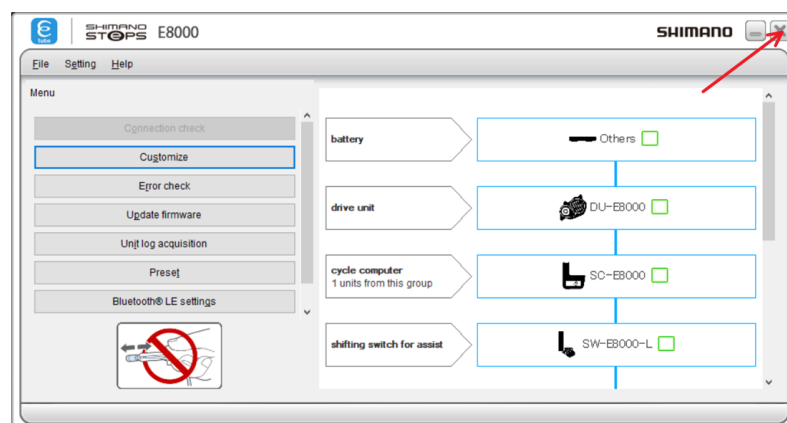
After successful update, **eTube** is showing the new version of the updated unit:
(In your case the version for the motor unit DU-E8000 now should be 4.7.1)



Press "Complete":



Press "X" to exit **eTube**:









Disconnect the bike from the computer, repower the bike and maybe do a short test ride to check if everything is fine with the bike.









Now, you're done with step 2...

3. Preparing the downgrade

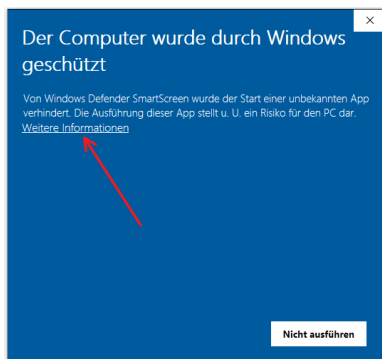
Jump to the directory with the downloaded and extracted files (see step 1):

| _Downgrade_to_FW_4_3_2_with_eTube_3_4_3 | |
|---|------------------|
| Name | Änderungsdatum |
|  2DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  2DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  Install-Downgrade-Files.bat | 27.06.2019 10:00 |
|  Remove-Downgrade-Files.bat | 27.06.2019 10:00 |

Double-click on the file "Install-Downgrade-Files.bat"

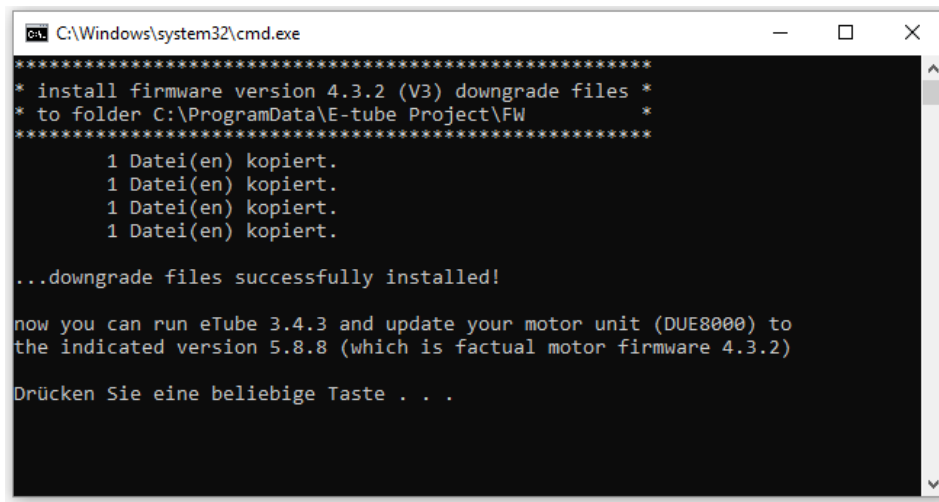
| _Downgrade_to_FW_4_3_2_with_eTube_3_4_3 | |
|--|------------------|
| Name | Änderungsdatum |
|  2DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  2DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  Install-Downgrade-Files.bat | 27.06.2019 10:00 |
|  Remove-Downgrade-Files.bat | 27.06.2019 10:00 |

If there will be any computer warnings, just accept them:



Now a black box should open and you should see message like this ones:

(depending on the settings of your Windows system, some message will be shown in your language)



```
cmd C:\Windows\system32\cmd.exe
*****
* install firmware version 4.3.2 (V3) downgrade files *
* to folder C:\ProgramData\E-tube Project\FW *
*****
1 Datei(en) kopiert.
1 Datei(en) kopiert.
1 Datei(en) kopiert.
1 Datei(en) kopiert.

...downgrade files successfully installed!

now you can run eTube 3.4.3 and update your motor unit (DUE8000) to
the indicated version 5.8.8 (which is factual motor firmware 4.3.2)

Drücken Sie eine beliebige Taste . . .
```



Now, you're done with step 3...

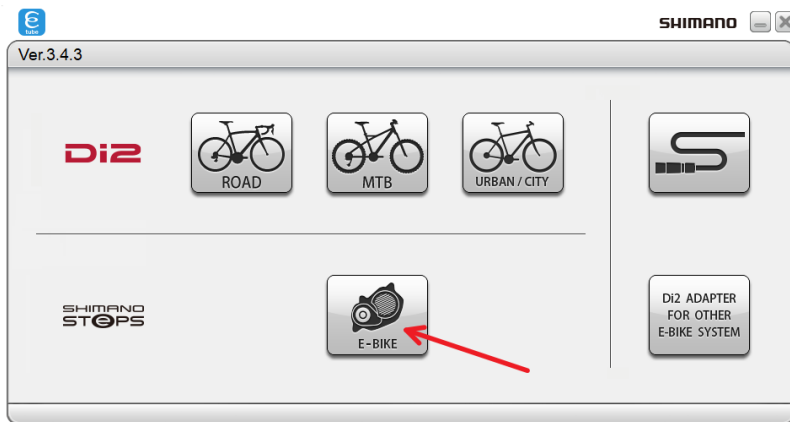
4. Downgrading your bike to motor firmware 4.3.2

Connect your PCE1 / PCE02 interface with your computer.

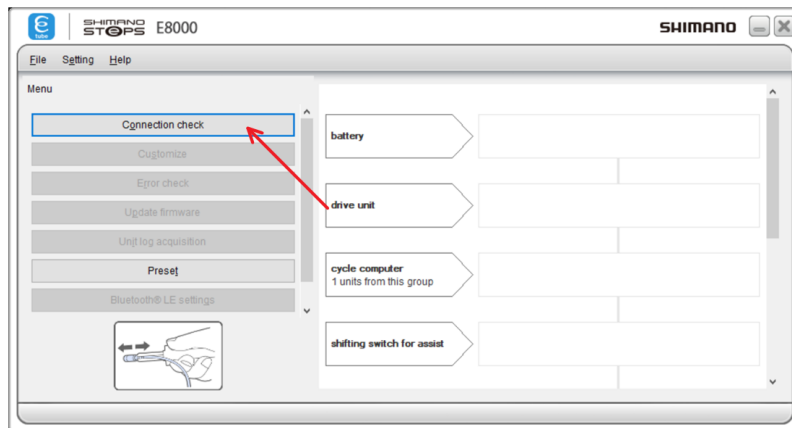
Connect your bike with the PCE1 / PCE02 interface (best is to use one of the 4 display connectors)

Power on your bike!

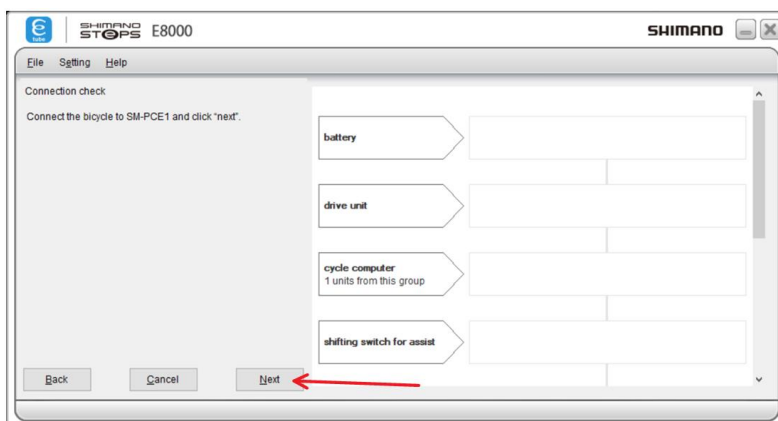
Start the *eTube* program:



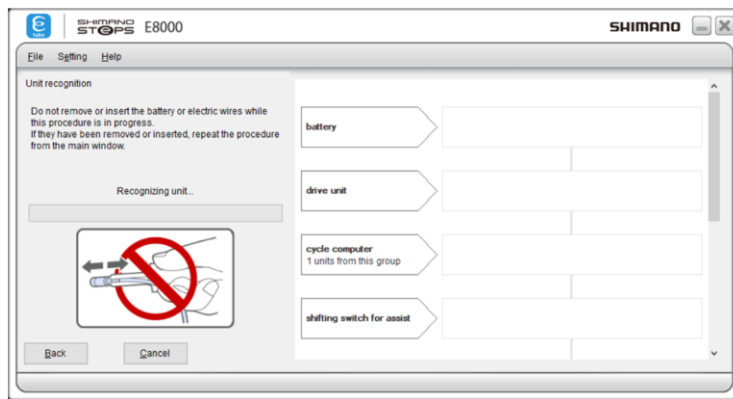
Jump straight to “E8000” and press “Connection check”:



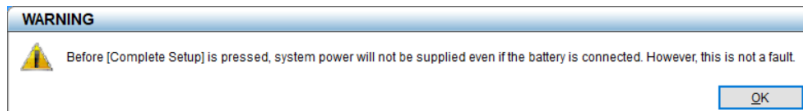
Press “Next”:



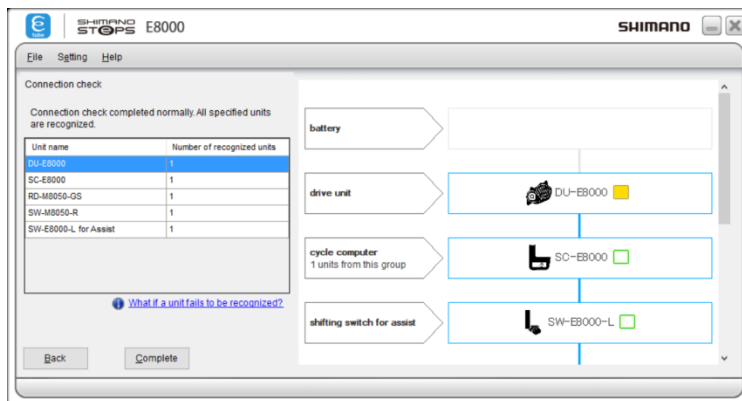
Wait until the connection was established:



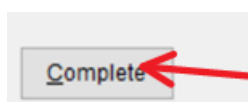
Confirm messages:



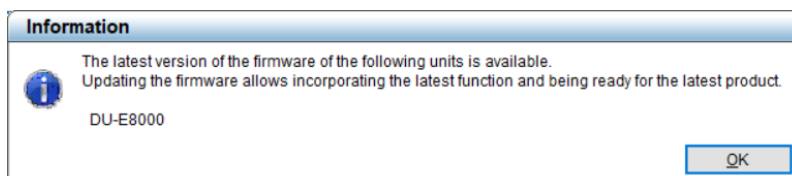
Orange boxes will show you if there is any unit to update:



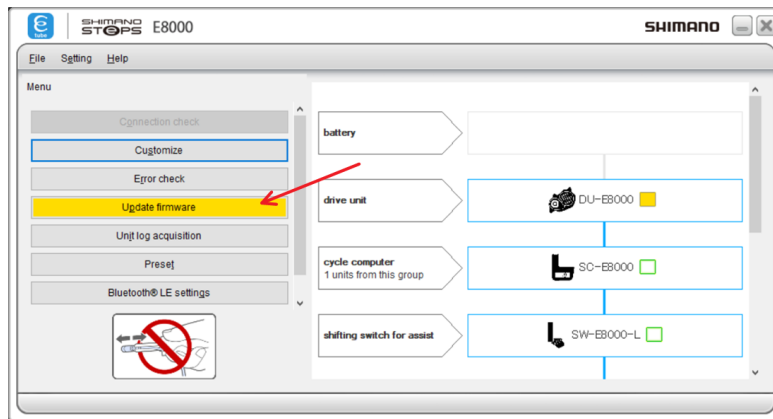
Press "Complete":



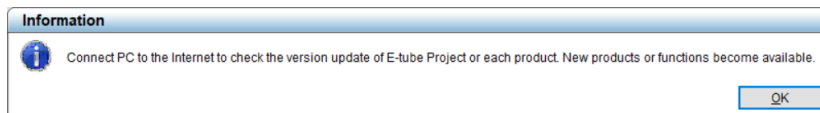
Confirm messages:



Press “Update firmware” if there is any unit to update:

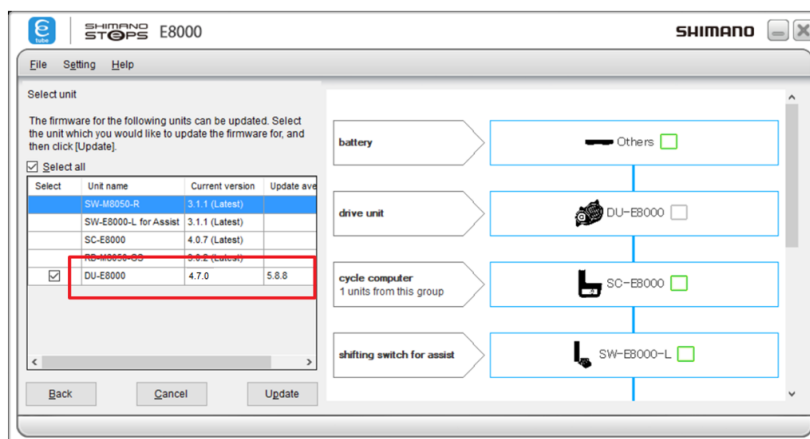


Confirm messages:

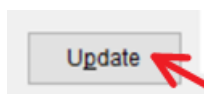


eTube now shows the actual and the available new firmware versions of all units:
(here the motor unit DU-E8000 could be updated from 4.7.0 to 5.8.8)

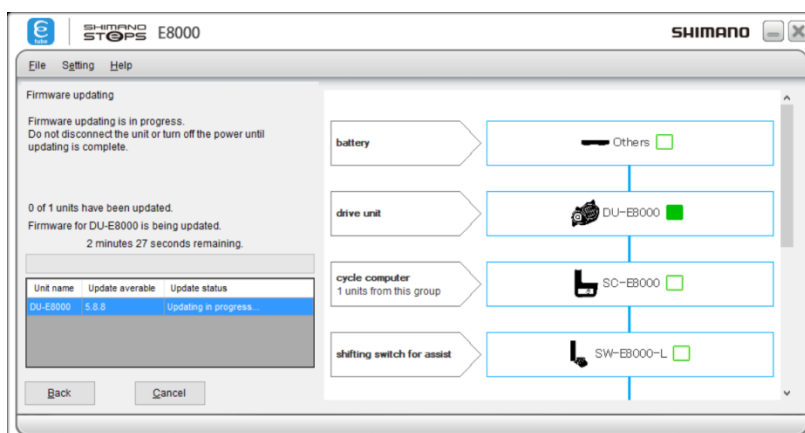
*** The shown new version 5.8.8 in reality is the favored version 4.3.2 ***



Press “Update” to start the process:

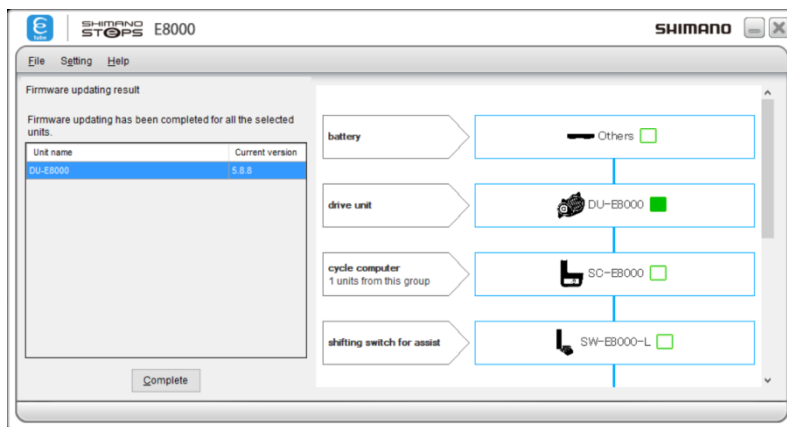


eTube is processing the update process now:

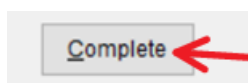


After successful update, **eTube** is showing the new version (5.5.8) of the updated unit:

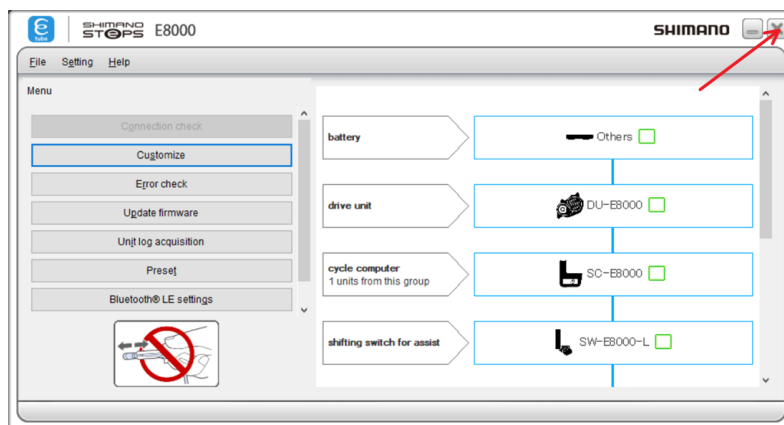
*** The shown new version 5.8.8 in reality is the favored version 4.3.2 ***



Press "Complete":



Press "X" to exit **eTube**:









Disconnect the bike from the computer, repower the bike and maybe do a short test ride to check if everything is fine with the bike.









Now, you're done with step 4...

5. Clean up the *eTube* system

Jump to the directory with the downloaded and extracted files (see step 1):

| _Downgrade_to_FW_4_3_2_with_eTube_3_4_3 | |
|---|------------------|
| Name | Änderungsdatum |
|  2DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  2DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  Install-Downgrade-Files.bat | 27.06.2019 10:00 |
|  Remove-Downgrade-Files.bat | 27.06.2019 10:00 |

Double-click on the file "[Remove-Downgrade-Files.bat](#)"

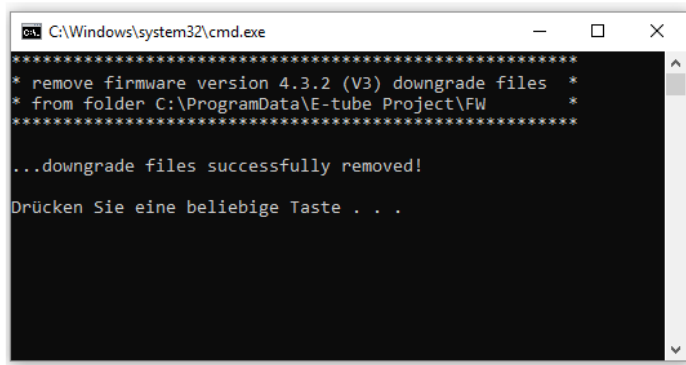
| _Downgrade_to_FW_4_3_2_with_eTube_3_4_3 | |
|---|------------------|
| Name | Änderungsdatum |
|  2DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  2DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-D.5.8.8.dat | 27.06.2019 10:00 |
|  DUE8000-M.5.8.8.dat | 27.06.2019 10:00 |
|  Install-Downgrade-Files.bat | 27.06.2019 10:00 |
|  Remove-Downgrade-Files.bat | 27.06.2019 10:00 |

If there will be any computer warnings, just accept them:



Now a black box should open and you should see message like this ones:

(depending on the settings of your Windows system, some message will be shown in your language)



```
C:\Windows\system32\cmd.exe

*****
* remove firmware version 4.3.2 (V3) downgrade files *
* from folder C:\ProgramData\E-tube Project\FW      *
*****

...downgrade files successfully removed!

Drücken Sie eine beliebige Taste . . .
```



Congratulations, you're done with step 5 and ready to use the **eMax** software with full functionality now...