

Storm4 True Track® Plus

en Firmware patch Service Manual

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I Patching firmware

Requirements

- A Storm4 True Track® Plus 10 km/h or 13 km/h version, production date before September, 19th 2016
- A Windows PC (administration rights required)
- A programming cable (same as for Wizard software)
- Software tools for firmware upgrade (all files in these folders needed)
- Wizard software
- Latest wheelchair drive program (version 71 or higher)

Short instructions


1. Install "MK6GBboost.msi".
2. Open "EEpatch.exe".
3. Choose COM port.
4. Patch wheelchair.
5. Write drive program with Wizard software.
6. Check values.

Installation

You need to install important files including some DLL's. The installation folder for the firmware update is located where the Storm4 True Track® Plus drive programs usually are.

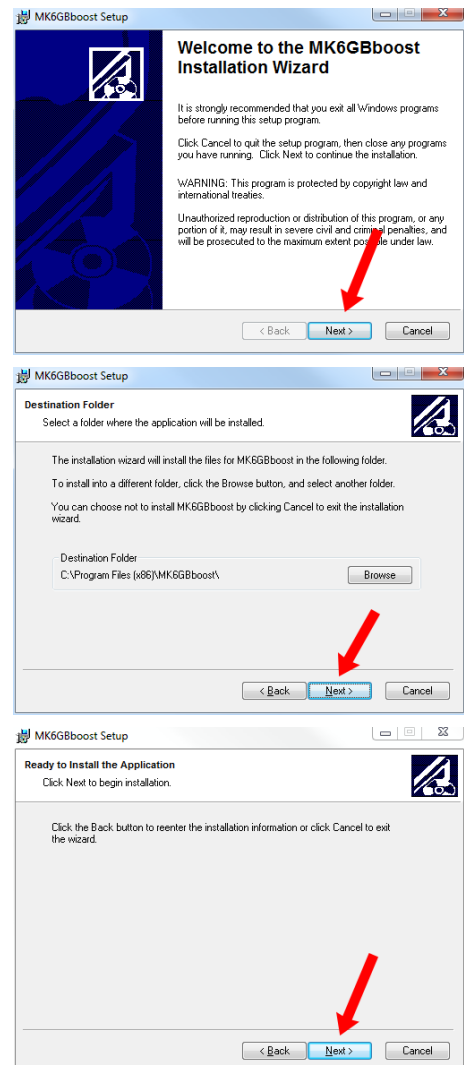
Check the following path

N:\C_RD_Documentation\Extern\Driving_programs\
WIZARD_Version_71\Storm\Storm4\Storm4 TT+\Firmware
Update Storm 4 TT+\.

 The drive path can differ according to your PC configuration.

1. Open installation folder, start "MK6GBboost.msi" and follow the instructions, which means click "Next" 3 times.

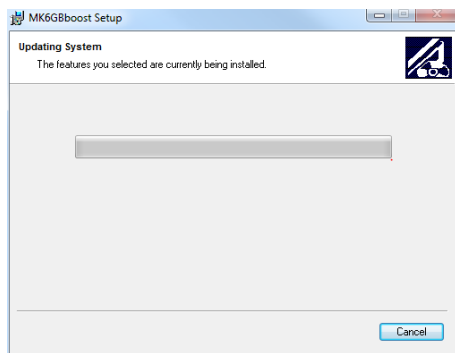
 This installation requires administration rights.



DEALER: Keep this manual.
The procedures in this manual MUST be performed by a qualified technician.



Yes, you can.®

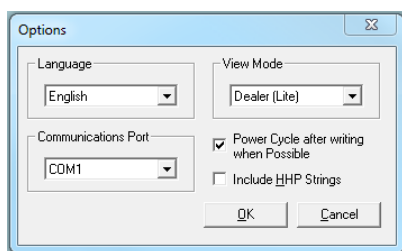


2. Click “Finish” after installation is complete.


Preparing Patch Tool

You need to set the communication port (COM port) from the DYNAMIC EEPROM PATCH TOOL to the port of the programming cable. The COM port setting is specific for each PC. It should be the same as in the Wizard software.


1. To look for the right COM port, open Wizard software, click on “Tools” and then “Options”.



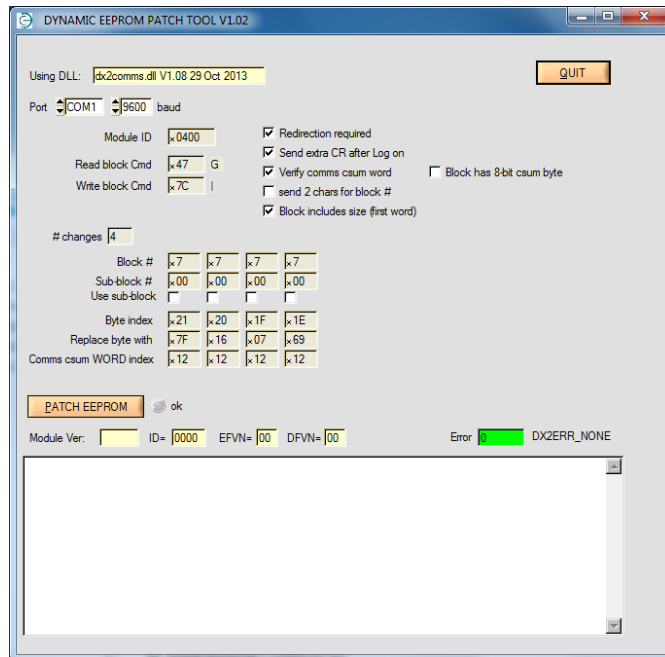
2. Note the right COM port and close Wizard software.


-  Windows allows only one program to open a COM port at the same time. This means that no other program which occupies COM ports (for example, Wizard software) must be open while writing the firmware.

3. Open “EEpatch.exe” file in application folder under N:\C_RD_Documentation\Extern\Driving_programs\WIZARD_Version_71\Storm\Storm4\Storm4 TT+\Firmware Update Storm 4 TT+\application\EEpatch.exe.

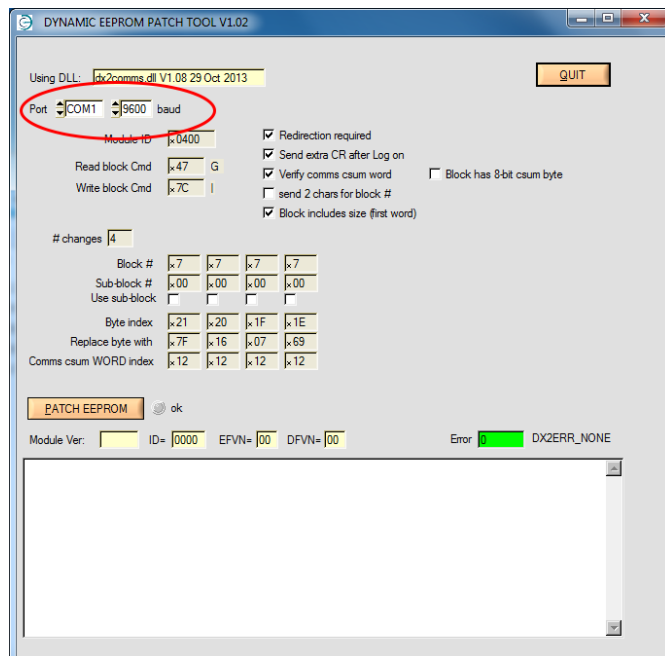
-  The drive path can differ according to your PC configuration.

The following dialog opens:



-  If errors appear after opening this file, for example, a missing “cvtire.dll” file, make sure that the “MK6GBboost.msi” installation was successful. If not, try to reinstall it.

4. Choose same COM port in DYNAMIC EEPROM PATCH TOOL as in Wizard software.

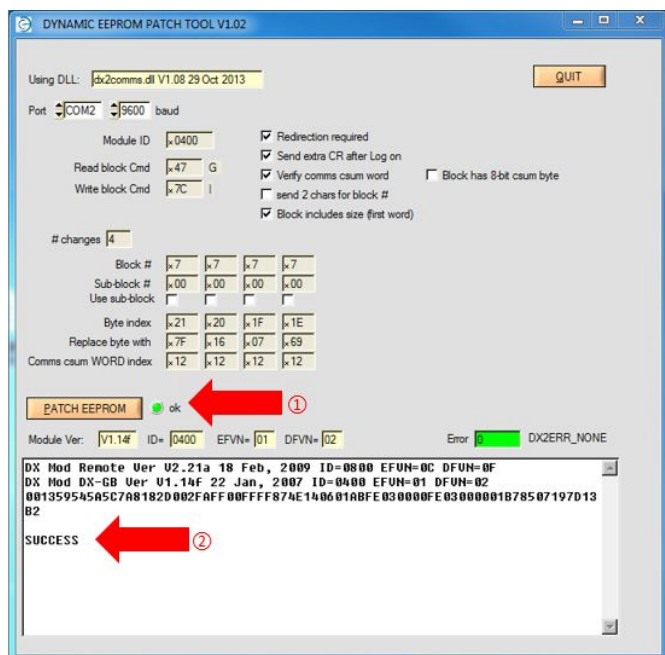


The baud rate needs to be 9600.

If you have problems finding the right COM port, try each given port or ask your system administrator.

Writing firmware

1. Make sure the wheelchair is powered up, connected to the PC, and the battery is fully charged.
- 2.



Click "Patch EEPROM" (1).

After "SUCCESS" displays in the Edit field, the writing process is complete (2).

3. Power cycle the wheelchair by powering it down, waiting 10 seconds and powering it up again.
This makes sure the new firmware becomes active.

Writing drive program

1. Make sure the DYNAMIC EEPROM PATCH TOOL is closed and the wheelchair is power cycled.
2. Open Wizard software and write the latest wheelchair drive program as usual.
3. Power cycle the wheelchair again so the new drive program becomes active.

Checking values

- 1.



Readout the drive program from the power cycled wheelchair with the Wizard software.

2. Scroll down to the "Motors" section.

- If the "Boost Current Limit" and the "Regenerative Current Limit" are 125 A, the new firmware and drive program have been successfully written.

Motors	
Invert Speed	No
Boost Current Limit (Amps)	125
No-Boost Current Limit (Amps)	75
Min Battery Current Limit (Amps)	75
Regenerative Current Limit (Amps)	125
I2T Max Battery (-)	6
I2T Cool Battery (-)	174

- If the "Boost Current Limit" and the "Regenerative Current Limit" are 110 A, make sure the new firmware is written correctly and the latest drive program is written to the chair properly. If not, repeat **Installation** and **Preparing Patch Tool**.

Motors	
Invert Speed	No
Boost Current Limit (Amps)	110
No-Boost Current Limit (Amps)	75
Min Battery Current Limit (Amps)	75
Regenerative Current Limit (Amps)	110
I2T Max Battery (-)	6
I2T Cool Battery (-)	174



6 km/h wheelchairs only have a maximum current of 110 A, thus the firmware update does not have an effect.

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