



# DT-01

Firmware update manual

## INTRODUCTION

The DT-01 is equipped with bootloader functionality. This is a piece of software that can be used to update the software inside the DT-01. With this technology you are able to update your DT-01 to the latest firmware version.

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## Document revisions

Date	Version	Change
14-04-2019	R10	Initial document

# 1 Firmware Update

## What do you need

- A midi program like MIDI OX to send the new firmware file to the DT-01  
<http://www.midiox.com/>
- The DT-01 firmware file  
<http://www.dtronics.nl/pages/dt01.html>  
The DT-01 firmware CHECKSUM file  
<http://www.dtronics.nl/pages/dt01.html>
- MD5 & SHA Checksum Utility  
<https://raylin.wordpress.com/downloads/md5-sha-1-checksum-utility/>

## Current Firmware version DT-01

The firmware version of the DT-01 is shown while powering up the DT-01. When the power is connected the firmware version is shown on LEDs from buttons 1-4 and 5-8

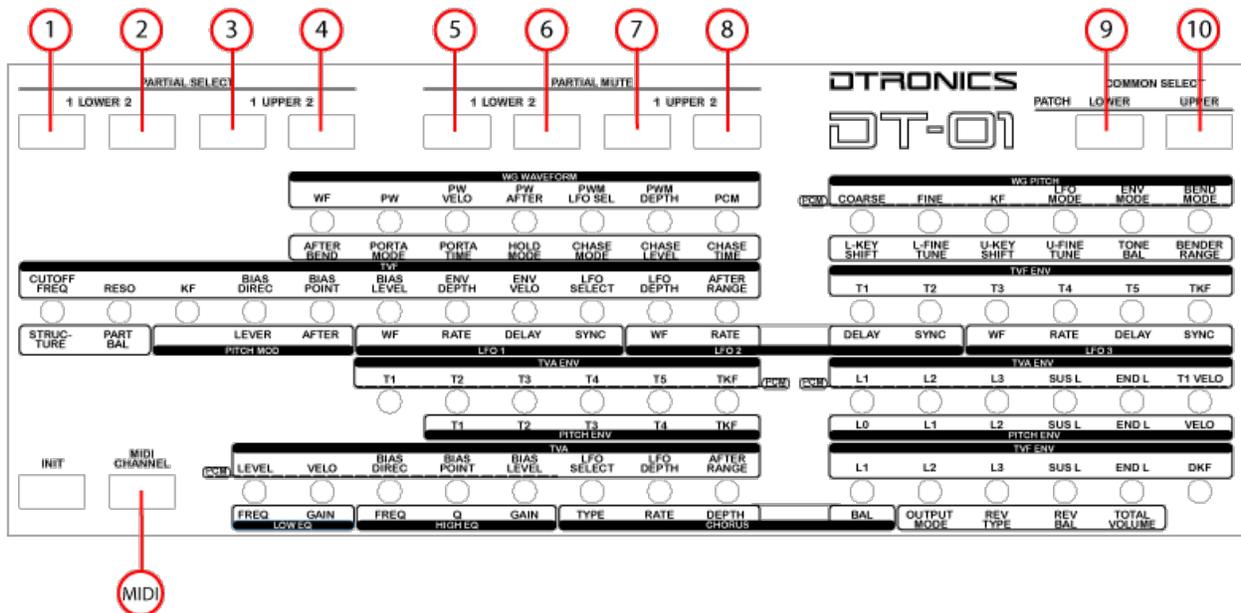


Figure 1: DT-01 front view

LED 1	LED 2	LED 3	LED 4	LED 5	LED 6	LED 7	LED 8	Firmware version
Value 8	Value 4	Value 2	Value 1	Value 8	Value 4	Value 2	Value 1	
								1.1
								1.2
								1.3
								1.4

You can calculate the value by adding up the values the LED's are indicating. You have to add the values binary. The most right LED has

value 1, than 2,4,8. So with LED 7 and 8 ON, we need to add value 2 and 1 = 3.

LED 1-4 indicate the first part of the firmware version number. LED 5-8 the second part.

Binary, counting from the left 0001.0011 = V1.3

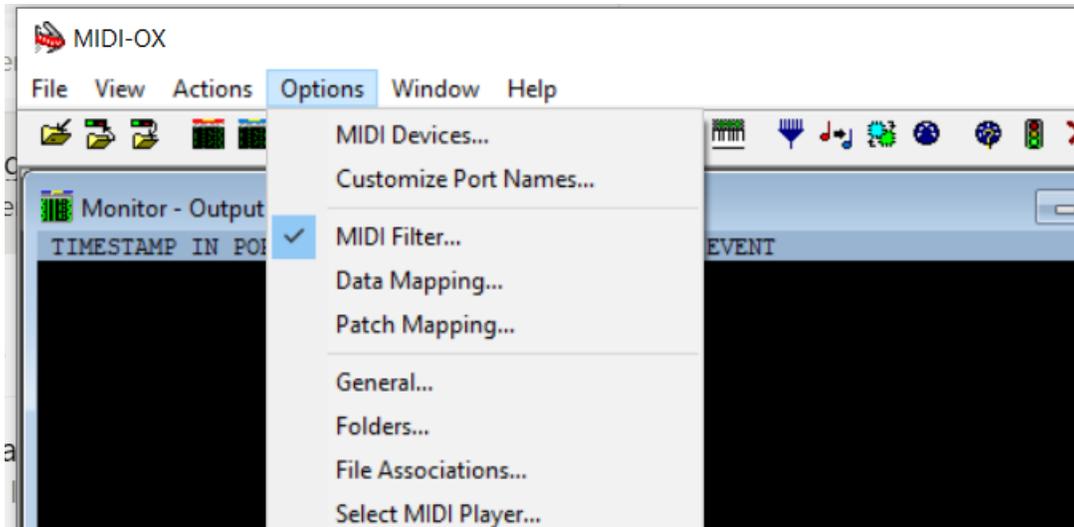
after succesful upgrade, led 1 and6 will be lit. 0001 0100 = V1.4

## How does it work.

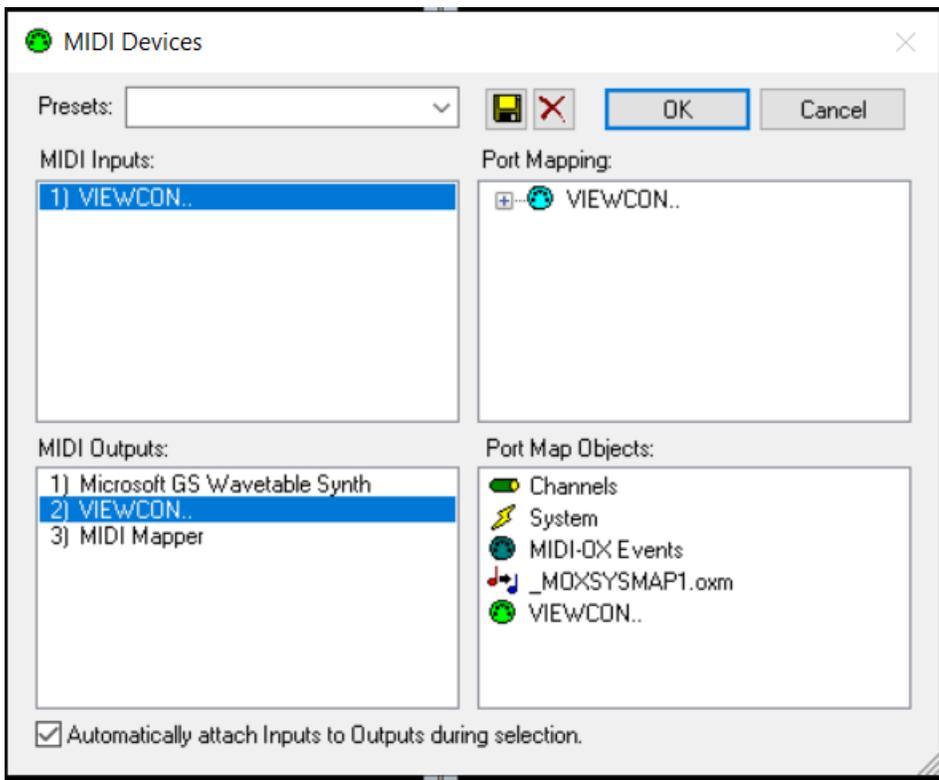
Updating the DT-01 is done by sending the new firmware file to the DT-01 in System Exclusive format (or simply SysEx).

Updating steps:

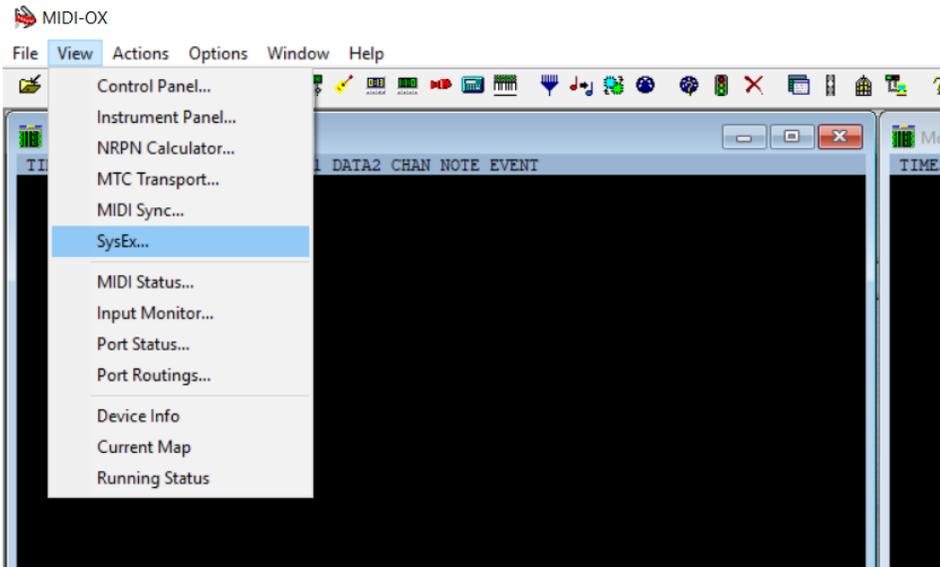
- Download the latest firmware version from our website.
- Check the file checksum with the [MD5 & SHA Checksum Utility](#) It has all the features you need in the free version. Once you download it, simply run the EXE file to open the program and compare the checksum.
- Install a midi program that has SysEx support in this manual we are using MIDI-OX
- Connect the MIDI IN from the DT-01 with the MIDI OUT from the computer running the MIDI software
- **HOLD PARTIAL MUTE, 1 LOWER** switch (button 5, see figure 1) while turning on the DT-01. Nothing will happen, no lights will go on. Now you can release the button.
- Open MIDI-OX and select the right midi output device that you are using. Menu Options -> MIDI Devices



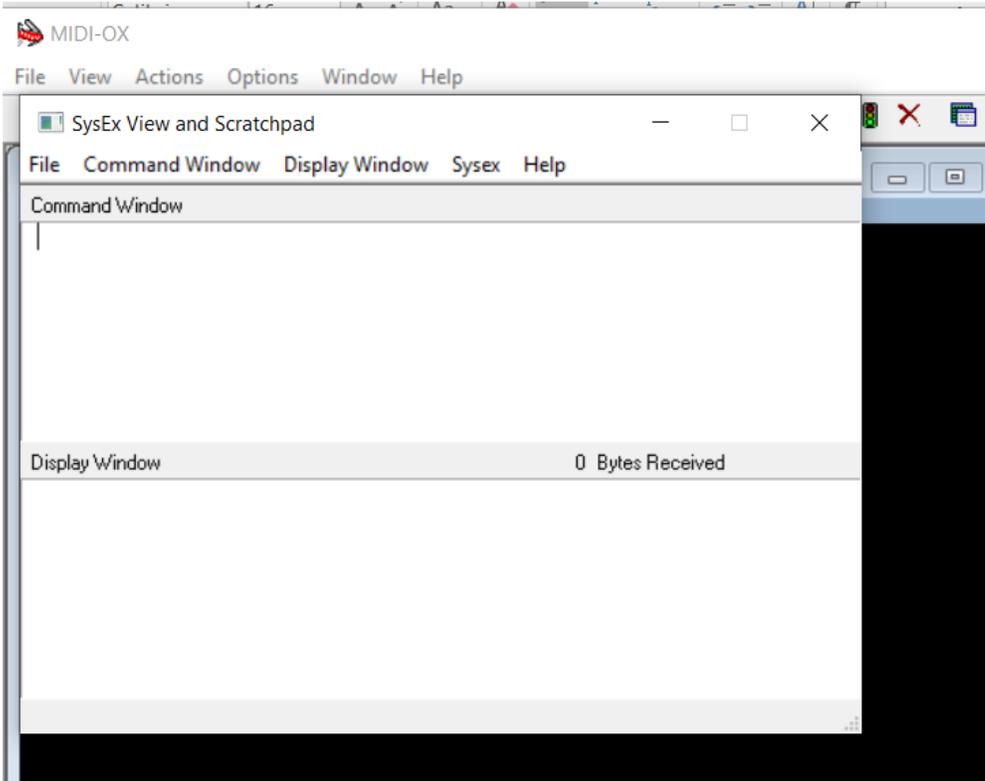
- In the MIDI Devices menu check if the MIDI output device is right



- Navigate to menu **View -> SysEx**

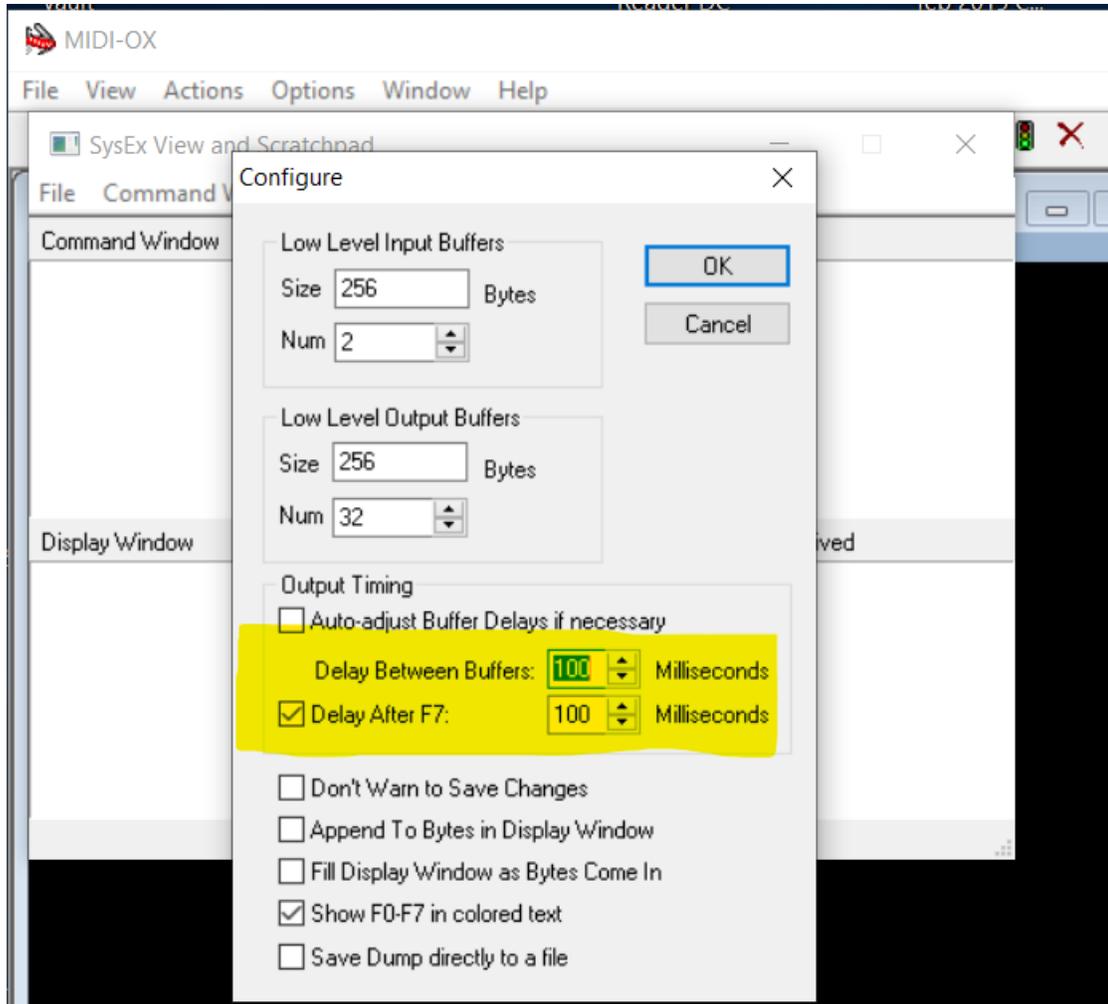


- The SysEx menu will open.

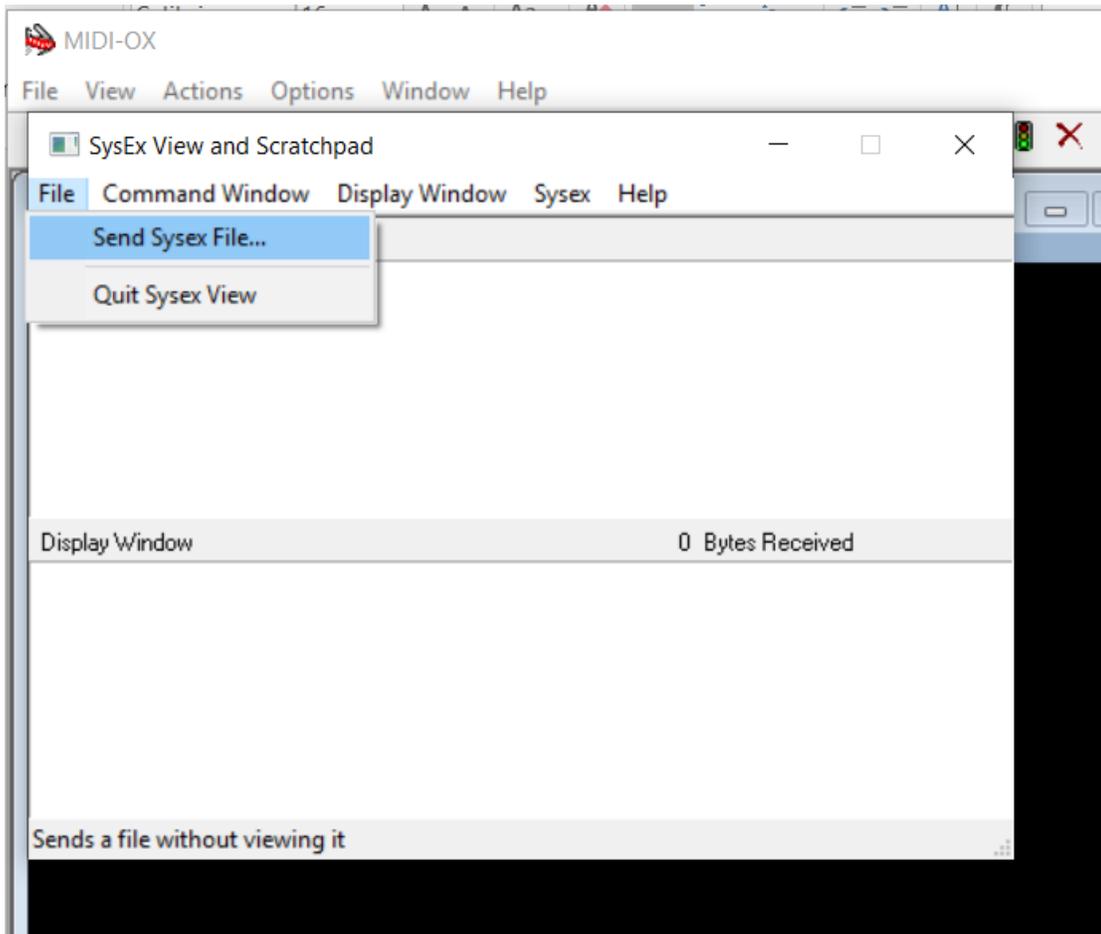


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- Navigate to Sysex > Configure  
Set delay between buffers and delay after f7 to 100  
make sure the box before "delay after F7" is checked.



- Click on **File** and select the option Send Sysex File.



- Select the downloaded firmware file and press OK. Uploading the file will take a few minutes.
- After completion, the dt01 will reset and start up and the LED's will shown the new firmware version.

Any questions please let us know.s