



# MD CV-Programmer DCC Programming and Testing Unit User Manual

[Home](#) » [MD](#) » MD CV-Programmer DCC Programming and Testing Unit User Manual 



DCC programming and testing unit  
User manual



## Contents

- 1 Introduction
- 2 General information
- 3 Summary of Funktionen
- 4 Scope of supply
- 5 Connectors
- 6 Product description
- 7 Update functionality (Extension)
- 8 SPEEDY measurement system (Extens.)
- 9 Driver installation
- 10 Warranty, Service, Support
- 11 Hotline
- 12 Documents / Resources
  - 12.1 References
- 13 Related Posts

## Introduction

Dear customer, we strongly recommend that you read these manuals and the warning notes thoroughly before installing and operating your device.

**NOTE:** Make sure that the outputs are set to appropriate value before hooking up any other device. We can't be responsible for any damage if this is disregarded.

The fitting software for this product you find in our download area on <http://www.micron-dynamics.de/de/downloads.html>

## General information

We recommend studying this manual thoroughly before installing and operating your new device.

**NOTE:** Some functions are only available with the latest firmware.

Please make sure that your device is programmed with the latest firmware.

## Summary of Funktionen

### CV-Programmer module

Decoder-Test-Unit (Mini-Control-Unit)

DCC CV/Register read/write possible DCC update for mXion DCC modules USB programming module for mXion

Software updates for mXion with cable Software updates over track or SUSI SUSI testing area with SUSI plug

SUSI sound updates for all Dietz®/Uhlenbrock and mXion SX6 sound modules with SUSI.

Usable for all Decoder manufacturers Decoder templates XML available Decoder templates for mXion included

Self updateable

### Extensions available

- Updatecable for updates
- SPEEDY measurement system

## Scope of supply

Manual

CV-Programmer

USB cable

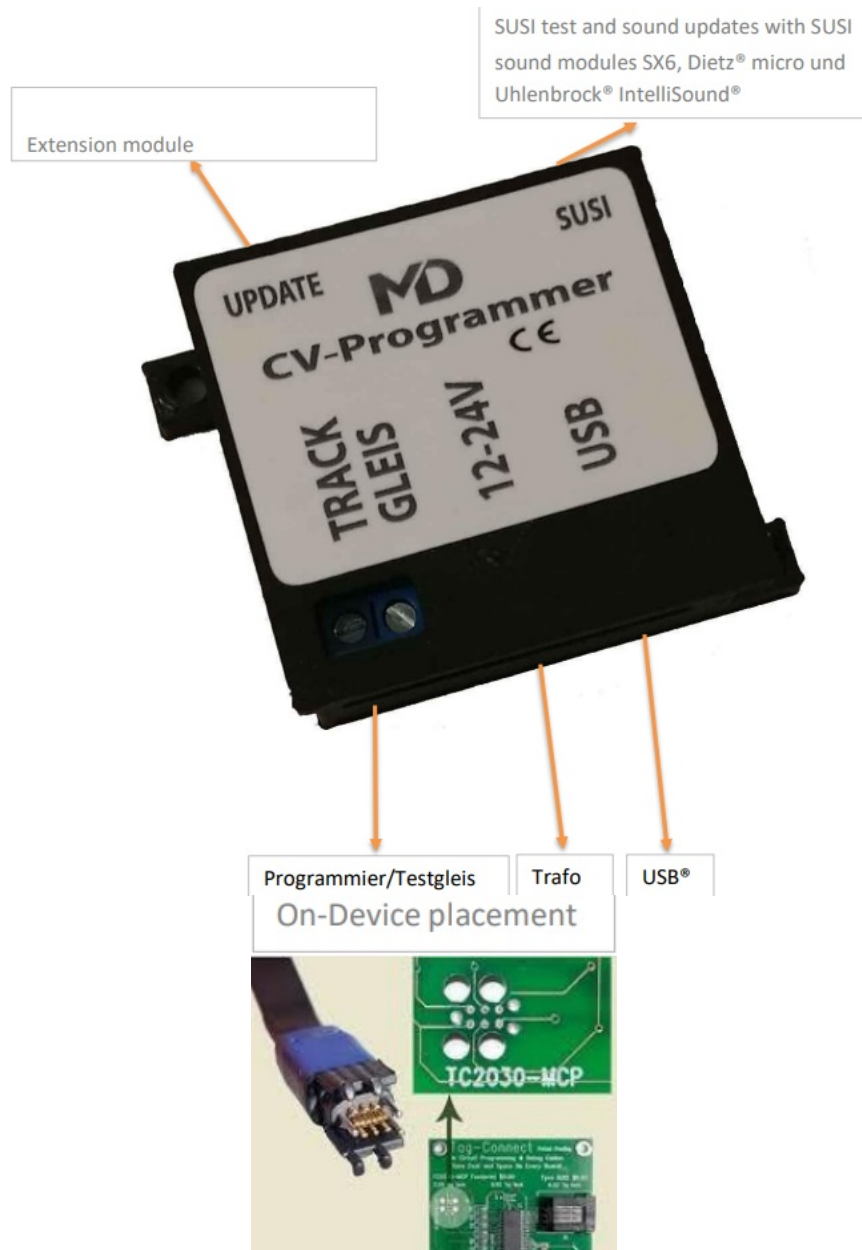
## Hook-Up

Install your device in compliance with the connecting diagrams in this manual.

The device is protected against shorts and excessive loads. However, in case of a connection error e.g. a short this safety feature can't work and the device will be destroyed subsequently.

Make sure that there is no short circuit caused by the mounting screws or metal.

## Connectors

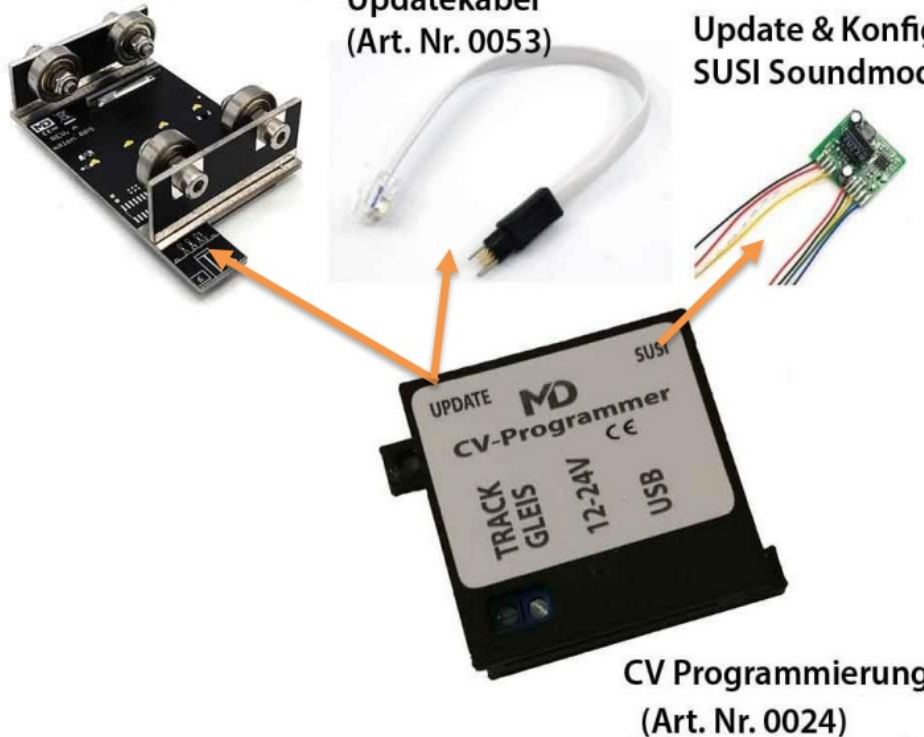


# unser CV-Programmer

Sensor (Art. Nr. 0053)

Updatekabel  
(Art. Nr. 0053)

Update & Konfig von SX6 + Intelli + micro  
SUSI Soundmodulen (Art. Nr. 8000)



CV Programmierung  
(Art. Nr. 0024)

## Product description

The CV programmer is the ideal device for everyone applications around the digital model railway world. In addition to classic CV and register programming as well as functions for easy programming like bit positions, long addresses and templates, the possibility that one can test programmed values immediately.

They have with the mXionTool the pos.

to decoder completely to test. This turns the programmer in a mini-control center, with all functions/decoders can test. Turnouts can also be permanent back/forth (toggle test).

Also the Roco mode is supported. For driving steps are selected and tested.

Furthermore, all mXion decoders can use the module (and with the software MDTerm) updated become. There are 2 basic options

1. The decoder is self-updatable

Then the update goes over the programming track.

2. The decoder is not self-updatable, then does the update work via the „Update“ connection and the optional special cable this will be in the slot with the 3 holes inserted. The process works via mXionTool. Besides, with the help of the programmer all SUSI enabled modules are tested and programmed be either plugged in the decoder or directly to the SUSI jack of the programmer.

Of particular note is the function SUSI sound modules like our mXion SX6 but also the company Dietz® and Uhlenbrock® with sounds to be able to play. Just plug it in for that the sound module into the SUSI socket of the programmer. About mXionTool under SUSI you will find the sound library in the right part. You can download these.

you want to create your own sounds, take please to contact us.

MD CV-Programmer (MD-Programmer )

192.168.0.111  **HILFE** **OK** **Nicht verbunden**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen**

☐ NACHRICHTEN ABSCHALTEN

☐ FAST-MODE

☐ COMP-MODE

Protokoll: **DCC** **DEUTSCH**

Test-Limit 500mA

CV TEST SUSI VORLAGE/TEMPLATE

CV Wert

CV-Liste lesen (Format: Zeilenweise Kommentar;CV,Wert):

Kategorie Soundtyp

Soundbibliothek ist aktuell.

**Hardware 3 is required for this tab!**

the programmer will also be used to use for any decoder and for any read/write CVs, so as a CV programmer with a programming track. The programmer done with our mXionTool and is easy.

The connection to the terminal is automatic, as also the recognition of the programmer.

Then you can read CVs, write program registers and much more. It is also possible to use bits show and long calculate points.

Such as locomotive addresses.

The terminal is constantly being expanded, too the software of the programmer always more features and facilitated ensure programming too can.

MD decoders can work with one button pressure detected and identified become.

The XML templates have that peculiarity that you graphically all CVs of one decoders, also with simple displays like the function key, drive-key and much more. The templates can be simple be activated at the push of a button.

The following pictures show the procedure with ours mXionTool (06/2020).

The implementation for templates are still not available yet. Here can you load XML templates directly in the future.

MD CV-Programmer (MD-Programmer unterstützt Programmiervorlagen)

192.168.0.111  **HILFE** **OK** **Nicht verbunden**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen**

☐ NACHRICHTEN ABSCHALTEN

☐ FAST-MODE

☐ COMP-MODE

Protokoll: **DCC** **DEUTSCH**

Test-Limit 500mA

CV TEST SUSI VORLAGE/TEMPLATE

**Bitstellung (bspw. CV29, CV49)**

☐ Bit 7 ☐ Bit 6 ☐ Bit 5 ☐ Bit 4 ☐ Bit 3 ☐ Bit 2 ☐ Bit 1 ☐ Bit 0

Hersteller:

Version:

Decodertyp 1:

Decodertyp 2:

CV Wert

Register Wert

Lange Lokadresse berechnen

CV17 =

CV18 =

Weichenadresse berechnen

CV hoch =

CV tief =

CV-Liste lesen/schreiben (Format: Zeilenweise Kommentar;CV,Wert):

With "TEST" you can drive locomotives, switch functions and let trains commute.

CV-Programmer (MD-Programmer)

192.168.0.111  **HILFE** **OK** **Nicht verbunden**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen**

☒ CV ☒ **TEST** ☒ **SUSI** ☐ VORLAGE/TEMPLATE

☐ **NACHRICHTEN ABSCHALTEN**

☐ **FAST-MODE**

☐ **COMP-MODE**

Test-Limit 500mA

Protokoll:

**Lokfahrpult**

Adresse:  ☐ F0 (Licht) CV  Wert

☐ F1 ☐ F2 ☐ F3 ☐ F4 ☐ F5 ☐ F6 ☐ F7 ☐ F8 ☐ F9 ☐ F10 ☐ F11 ☐ F12 ☐ F13 ☐ F14 ☐ F15 ☐ F16 ☐ F17 ☐ F18 ☐ F19 ☐ F20 ☐ F21 ☐ F22 ☐ F23 ☐ F24 ☐ F25 ☐ F26 ☐ F27 ☐ F28

Fahrstufen:    0

**Weichen**

Adresse:  ☐ Roco-Modus ☐ Toggle-Test

CV  Wert

**Pendelsteuerung**

Fahrzeit (sek.)

Haltezeit (sek.)

Geschwindigkeit (1 - 128)

CV-Programmer (MD Programmer unterstützt Programmiervorlagen) [Geräte-Version: 1.3.5, Hardware-Version: 3]

192.168.0.111  **HILFE** **OK** **Verbunden (COM4)**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen**

GLEIS CV ☒ **TEST/FAHREN** ☒ **SUSI** ☐ VORLAGE/TEMPLATE ☐ FEEDBACK ☐ UPDATE

☐ **NACHRICHTEN ABSCHALTEN**

☐ **FAST-MODE**

☐ **COMP-MODE**

Test-Limit 500mA

Protokoll:

**CV**  **Wert**

CV-Liste lesen/schreiben (Format: Zeilenweise Kommentar;CV,Wert):

**Xclusiv, Uhlenbrock IntelliSound**

Kategorie  Soundtyp  ☐ Nur DS6

☒ **UPDATEN** ☒ TURBO ☐ REAKTIVIEREN

Soundbibliothek ist aktuell.

The following pictures show the template management. These templates are available for each of our decoders and can be loaded directly. In this example, this is for DRIVE-S.



192.168.0.111 Verbinden WLAN **HILFE** **OK** **Verbunden (COM4)**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen** ändern

☐ **NACHRICHTEN ABSCHALTEN**

☐ **FAST-MODE**

☐ **COMP-MODE**

Test-Limit 500mA

Protokoll: **DCC**

GLEIS CV TEST/FAHREN **SUSI** **VORLAGE/TEMPLATE** **FEEDBACK** **UPDATE**

Decodervorlage XML öffnen Decodervorlage XML speichern Decodertyp: **DRIVE-S** Vorlage: MD mXion DRIVE-S Hersteller: MD Electronics

Alle CV  Einzel CV Nr.:  Wert  **DRIVE-S** Einfügen Fahrzeugname:

**Allgemein** Fahreigenschaften Schaltausgänge 1 Sonderfunktionen 1 CV Liste

Adresse  Analogbetrieb  Kupplungswalzer

Fahrrichtung normal  Herstellerkennung  Kupplungswalzer

28/128 Fahrstufen  Geräteidentifizierung  Kupplungswalzer

Digital + Analog  Gerätetyp Untergruppe  Puffernachlaufzeit

Interne Fahrkurve  Geräteversion/Reset  Mehrfachtraktionsadresse

Multifunktionsdecoder  LV Schaltbefehl Licht  LH Schaltbefehl Licht

Lichttaste (F0)  Lichttaste (F0)

LV Dimmwert  LV Bedingung  LV Sonderfunktion  LV Zeitwert

192.168.0.111 Verbinden WLAN **HILFE** **OK** **Verbunden (COM4)**

Reset-Pakete (Standard: 12)

Daten-Pakete (Standard 15)

**MD Website öffnen** ändern

☐ **NACHRICHTEN ABSCHALTEN**

☐ **FAST-MODE**

☐ **COMP-MODE**

Test-Limit 500mA

Protokoll: **DCC**

GLEIS CV TEST/FAHREN **SUSI** **VORLAGE/TEMPLATE** **FEEDBACK** **UPDATE**

Decodervorlage XML öffnen Decodervorlage XML speichern Decodertyp: **DRIVE-S** Vorlage: MD mXion DRIVE-S Hersteller: MD Electronics

Alle CV  Einzel CV Nr.:  Wert  **DRIVE-S** Einfügen Fahrzeugname:

**Allgemein** Fahreigenschaften **Schaltausgänge 1** Sonderfunktionen 1 CV Liste

Anfahrspannung  Anfahrverzögerung  Lastregelung

Mittlere Geschwindigkeit  Bremsverzögerung  Lastregelung Verzögerung

Maximale Geschwindigkeit  Motorfrequenz  Lastregelung Begrenzung

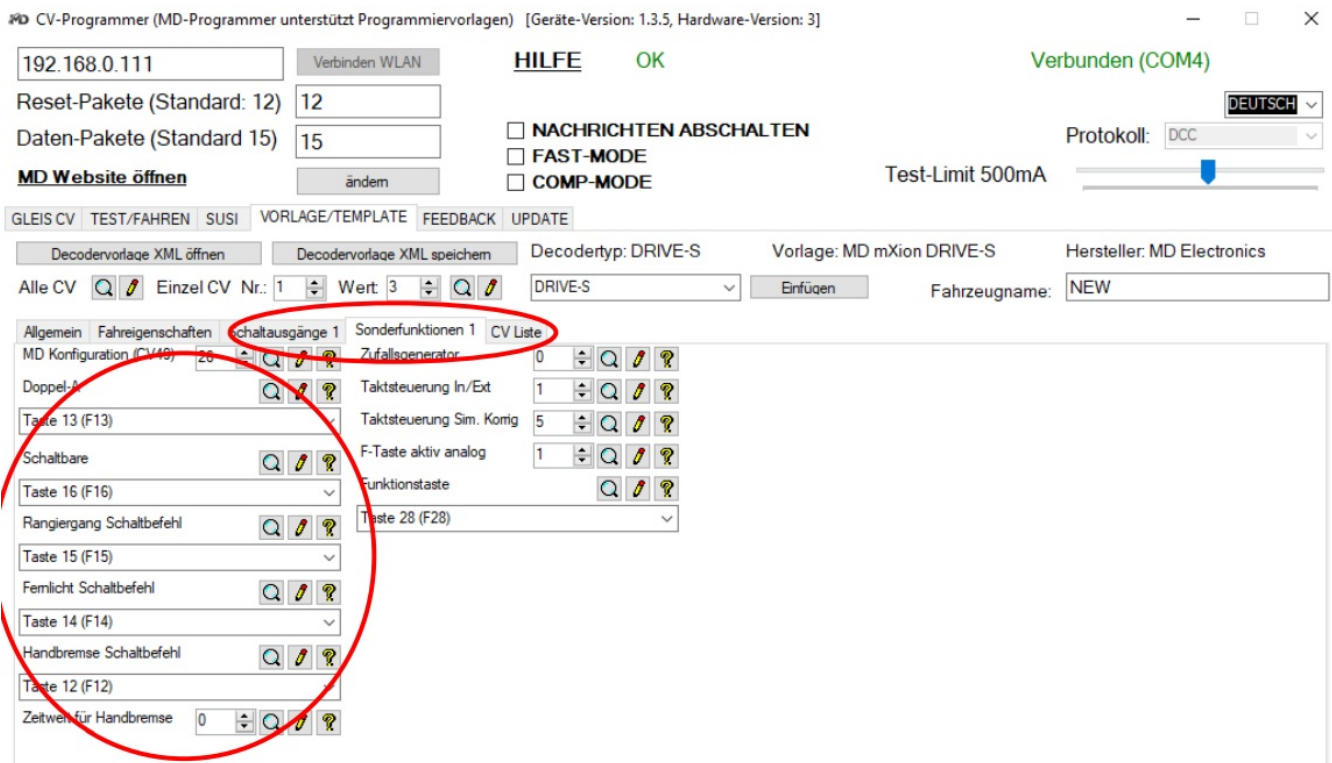
Pendelbetrieb Fahrdauer  Pendelbetrieb Haltezeit  Pendelbetrieb Fahrstufe

Wartezeit bei  Vorwärts-Trimm  Rückwärts-Trimm

Prog. Fahrkurve

F-Kurve

Time (s)	Speed (km/h)
1	0
3	10
5	20
7	30
9	40
11	50
13	60
15	70
17	80
19	90
21	100
23	110
25	120
27	130
29	140

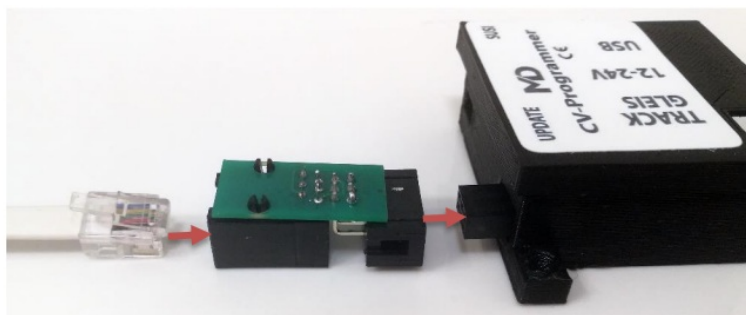


## Update functionality (Extension)

The self-update function works in general directly over the track. Connect the decoder to the track connection, select „UPDATE“ and select the corresponding device under „Decoder update track (DCC)“. The list shows the possible supported decoders.

All other decoders that cannot be updated by themselves are selected in the „Decoder update rear side“ tab. To do this, plug the „Tag Connect“ cable into the corresponding socket (depending on the decoder different to find), hold this firmly in the socket pressed during the process and start the update.

Depending on the decoder (e.g. FSD) the 3 silver rods can be shortened a little. The programmer itself requires at least V. 1.3.6 and mXionTool at least 1.0.4.6. Next is XL Next to the SUSI socket is the interface for the cable and is plugged into the programmer.



The update for the 30B is done in a similar way. Here, however, it is important that you use pliers the 2 pads are short-circuited during the operation. You can find the round holes below of the 4 black chips behind the XpressNet master connection. If you have any questions, please contact us.

## SPEEDY measurement system (Extens.)

You need to know your train speed?

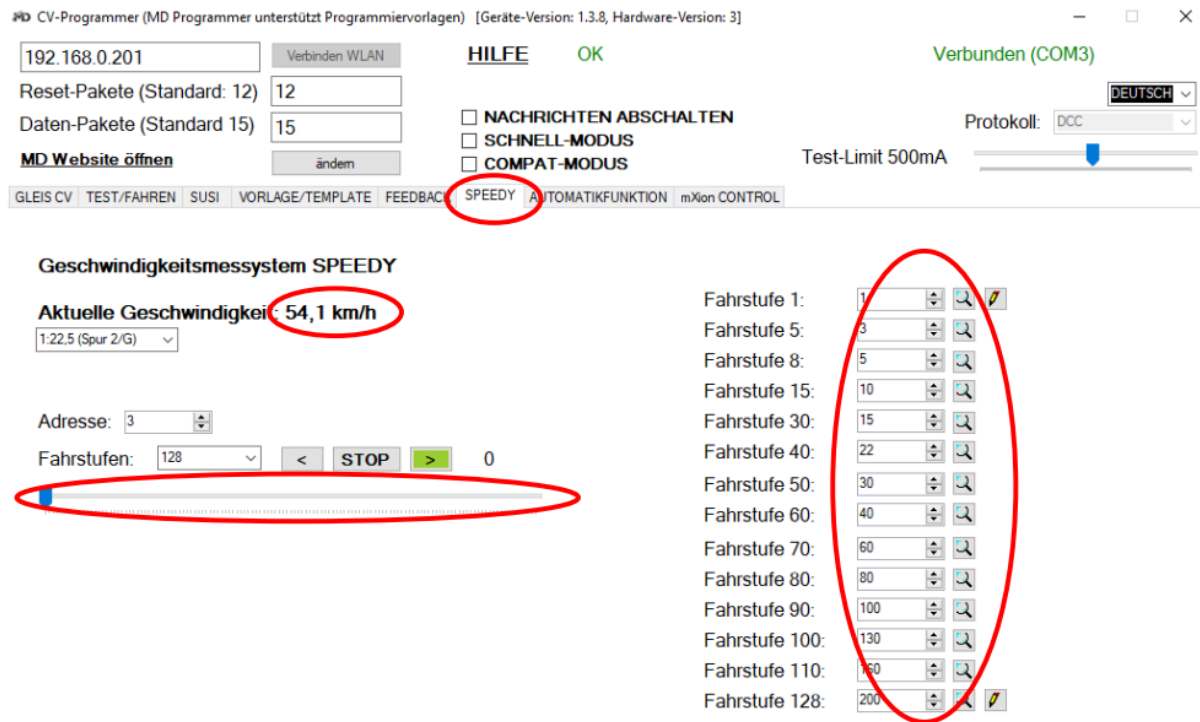
As a further expansion option there is the SPEEDY especially for our CV programmer. The SPEEDY is simply attached to the interface at the back plugged in and autom.

by the programmer recognized. The „Update“ menu changes to SPEEDY. The current speed can be seen here as well as for each speed step explicitly the speed can be determined or set. It is also possible to use the conversion factors adjust – truth (1:1) which the locomotive also has speed in kind as it is converted in model (e.g.



1:22,5).

After plugging in the SPEEDY, flashes after approx. 2 sec. the red LED briefly on. This is the SPEEDY ready to use. At the roller bearing of the electronics there is a magnet which serves as a sensor. This must turn cleanly. With every revolution the LED changes its status (on / off) as sign whether the revolution has been recognized. The SPEEDY is of course just as illuminated as our normal roller dynamometers too.



## Driver installation

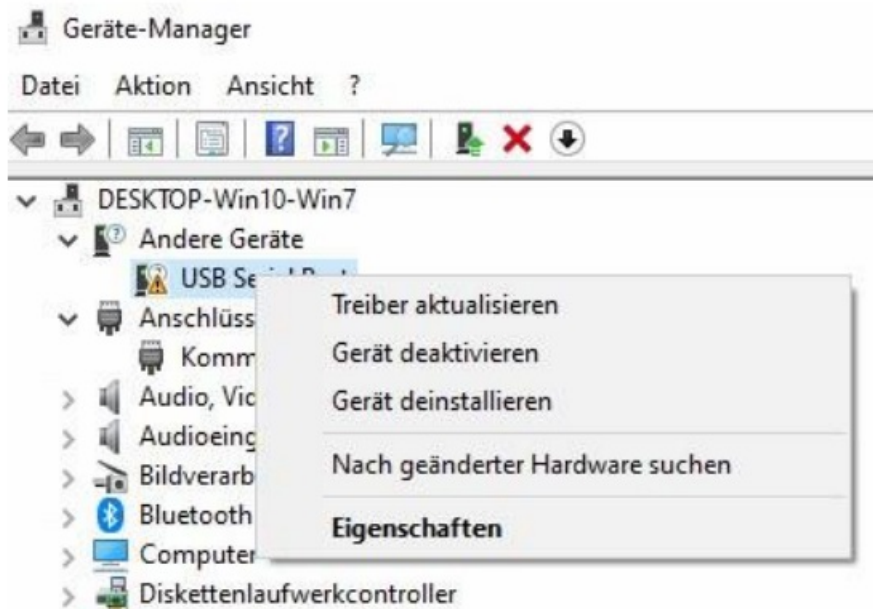
From Windows® 8 onwards, the appropriate drivers for our programmer installed. Here you have to do nothing more. However, if there is no connection to the device can be produced and also no COM-PORT is displayed, it may be possible that the drivers absence. To do this, please follow the steps below instructions.

You can find the drivers on our website in the download area as .rar.

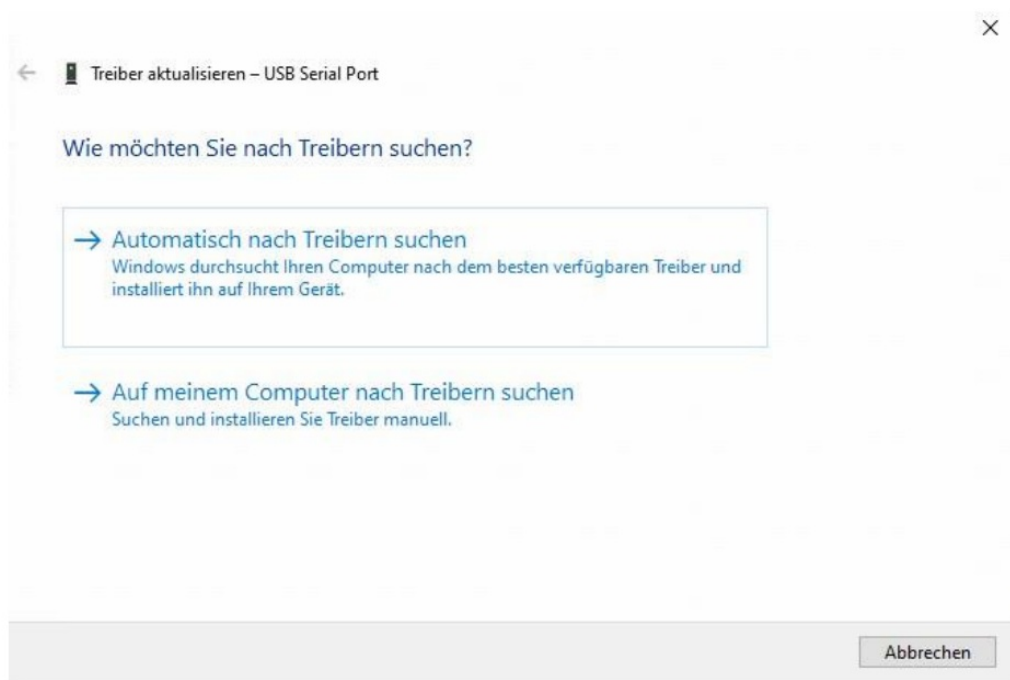
First, open the device manager. If no driver are installed, see one „USB Serial Port“ device under „Other Devices“. Recognizable by the yellow triangle, driver is missing here.



Right click on the „USB Serial Port“ and a windows with options opens. Click then on „Update Driver Software“.



A new window will now open. You can try „Search for drivers automatically“ to choose. If that works you are done and can now use the device. If not to success, download the drivers our website in the download area. These have to be unpacked. Subsequently select „on my computer after search for drivers“ and select the folder. After the installation the device is under “Connections (COM & LPT)” to be found.



## Warranty, Service, Support

micron-dynamics warrants this product against defects in materials and workmanship for one year from the original date of purchase. Other countries might have different legal warranty situations. Normal wear and tear, consumer modifications as well as improper use or installation are not covered.

Peripheral component damage is not covered by this warranty. Valid warranty claims will be serviced without charge within the warranty period. For warranty service please return the product to the manufacturer. Return shipping charges are not covered by micron-dynamics. Please include your proof of purchase with the returned good. Please check our website for up to date brochures, product information, documentation and software updates. Software updates you can do with our updater or you can send us the product, we update for you free. Errors and changes excepted.

## Hotline

For technical support and schematics for application examples contact:

**micron-dynamics**

[info@micron-dynamics.de](mailto:info@micron-dynamics.de)


[service@micron-dynamics.de](mailto:service@micron-dynamics.de)

[www.micron-dynamics.de](http://www.micron-dynamics.de)

<https://www.youtube.com/@micron-dynamics>



## Documents / Resources

 <p>DCC Programmierer/Tester Bedienungsanleitung DCC programming and testing unit User manual</p>	<p><a href="#"><b>MD CV-Programmer DCC Programming and Testing Unit</b></a> [pdf] User Manual CV-Programmer DCC Programming and Testing Unit, CV-Programmer, CV-Programmer Testing Unit, DCC Programming and Testing Unit, DCC Programming, Testing Unit</p>
--	--

## References

- [!\[\]\(d27edc55493507da2f9b8c7a52b3b96f\_img.jpg\) \*\*Top Fahrradbekleidung für Damen & Herren - Ride your Style\*\*](#)
- [!\[\]\(9bf7a72a60a57323fa980b9b0338593f\_img.jpg\) \*\*micron-dynamics\*\*](#)
- [!\[\]\(4b60241e906ef61007ada3e521a0c6a3\_img.jpg\) \*\*micron-dynamics\*\*](#)

Manuals+