User Manual CV Programmer



Digital Controlled Digital Controlled voor Car-systemen

For CV Programmer RS 232 / USB and USB Plus

Function:

Programming CVs for DC-Car can be done in two ways:

1. Through a DCC Central station (with Programming on Main capability) hereby there is no overview of the programmed CVs and their set values and there is no possibility to read the CVs from the decoders or XT module.

A much better way is therefore:

2. Through the CV progammer and associated free software. It is much easier and clearer to program the car decoders or XT module. With the CV Programmer you can read the CVs and you have a comprehensive list of all settings, with over 150 CV's that is a good thing. With almost every CV there is indicated what is the used for and what values are allowed (unfortunately at present only in German). The CVs can be programmed individually and the whole CV list can also be stored on the PC as a backup. Saved CVs can of course also be opened and copied in the cars decoder.

The CV Programmer is primarily intended to set the CVs in the DC-Car decoders and XT Module using CV Programmer Software which is available for free from:

http://www.dc-car.de/cv-programmer.html

In addition, the USB Plus version is more practical to use and it can be used for both car decoder as XT module, this version also has various test functions on board.

Principal of operation:

The CV Programmer is connected to the USB or RS 232 port of the PC. The car is connected via the 8-wire cable. The CV programmer enables the translation of PC port to the DC-Car decoder. Power supply:

The USB version is powered from the PC.

The RS232 version, connect a voltage of approx. 12 - 16 volts (AC or equivalent) to the two terminals of the CV Programmer.

The USB Plus: the connected product can be powered by the programmer or an external power supply (car battery or XT module supply from the layout).

The versions of CV Programmer:

The CV Programmer is available in different versions:

a. CV Programmer USB



This is the basic version of the Programmer, designed for computers with USB connection. Power, for the product to be programmed, comes from the USB connection. This model is suitable for programming the car decoders and can be used for the programming of the XT module as long as no servo is connected.

Note: For the XT module, we recommend the USB Plus version.

b. CV Programmer RS232



This model is designed for computers with an RS232 port. It requires its own power supply 12 - 16Volt = / ~. It is suitable for programming the car decoders and can be used for the programming of the XT module. Note: For the XT module we recommend the USB Plus version.

c. CV Programmer USB Plus



This version of the Programmer is designed for computers with USB connection. The power supply for the programmable product comes from the USB connection, but may also come from external (car battery or XT module supply from the layout). This model is suitable for programming the car decoders and the XT module.

In addition, with this model, the terminals of the update connector and the sound and beacon button you can restart the decoder again and test the new CVsettings immediately.

Operation RS232 and USB version:

Set the ON / OFF switch of the car to OFF, the car gets its power from the Programmer! Connect the 8-pin connector cable to the 8-pin Update connector of the car or the 8-pin connector of the XT programmer. The update plug of the CV Programmer is marked with a white stripe and must be inserted in accordance with the update connector (pin 1, the black wire). If you accidentally plug in wrong the car will not enter the programming mode as described below.

To put the car in the programming mode, keep the "Prog" button pressed while setting the slide switch to ON. The green and red LEDs light up.

The headlights of the car (or the bleu LED on the XT module) will start blinking which indicates that the decoder is in programming mode. You can now release the "Prog" button. The red LED goes out.

Operation USB *Plus* version:

The Plus version has no ON / OFF switch but a push button for "Reset" instead. In addition, the Plus version has some extra LEDs. Allowing you to check the wiring of the update connector, in addition, the decoder output Sound, beacon light 3 and 4 can be tested.

In this version, it does not matter whether the vehicle is ON or OFF. If the car is OFF, it gets its power via USB, if it is ON the power comes from the battery of the car itself.

Connect the 8-wire cable to the 8-pin Update connector of the car or the 8-pin connector of the XT module. The update plug of the CV Programmer is marked with a white stripe and must be inserted in accordance with the update connector (pin 1, white spot). If you accidentally plug in wrong the car will not enter the programming mode as described below.

To put the car in the Programmer mode, simultaneously press the "RESET" and "PROG" button. After this release the "RESET" button. Now the headlights (or the bleu LED on the XT module) blink which indicates that the decoder is in programming mode. You can now release the "PROG" button.

Test functions of the USB Plus version:

With the Plus version, you can also test the connections of the update connector and the decoder outputs "Sound", "Beacon 3" and "Beacon 4 ".

The 8 connections are represented by 8 LEDs. The function of each LED is indicated on the label on the housing.

Disconnect the USB connection with the computer and connect the update plug to the connector of the car.

- Press the button "Prog" and switch ON the car. The car will start flashing the headlights: Connection 8 is OK. The "Power" LED lights up: Connection 1 and 2 are OK.
- Push the "Reset" button.
 Only while pressing the "Reset" LED lights on: Connection 6 is OK.
 The flashing stops. The decoder restarts (short blink of brake lights and / or turn signals).
 So connection 6 is tested and OK.
- 3. If CV 20 = 4 is set, the "SEROUT" LED is on: Connection 7 is OK.

- 4. By turning ON the emergency lights flashing LEDs "Beacon 3" and "4 Beacon": Connections 3 and 4 are OK.
- 5. By turning ON the front flashers, the LED "Sound" this lights on continuously: Connection 5 is OK.

Brief operation of the Software:

Download the software from: http://www.dc-car.de/cv-programmer.html Start the CV Programmer software on the PC. Now choose the correct COM port !!! This is done in the selection field "Serielle Schnittstelle" (Serial Port). If you do not have the number of the COM port then find that as follows: The used COM port can be found by going to " Control Panel " and clicking on "Device Manager". A list is displayed for all hardware, click the "+" sign for "Ports". All the ports are now displayed, here you also find the USB to RS 232 converter to. This COM port number is used to fill in at "Serielle Schnittstelle" (Serial Port). Then click in the CV Programmer software on the button: "Einlesen CVs" (Read CVs). After a short time all CVs are displayed. The software adjusts itself to the connected type of decoder and will display the relative CVs.

The rest is self-explanatory in the software. Alternatively, you can take the English CV table upon which can be found on the download page at <u>http://dc-car.de/wiki_en/index.php?title=Category:Download#CV-Listen_DC07_und_DC08</u>

The CV Programmer works with decoder software from: DC04 trailer June 09 DC04 June 09 DC05 June 09 (DC06 June 09 only for specialists).

We hope you enjoy using the CV progammer.

www.dccar.nl or www.dc-car.de/wiki_en



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