16. ZIMO Decoder Software Update

… and Sound Installation

All current ZIMO decoders can be updated with new firmware by the end user with the help of the update module MXDECUP or MXDECUPU (with USB converter), the MX31ZL or with the new MX10 command station.
New software versions can be downloaded at no charge from ZIMO's web site: www.zimo.at (under "UPDATE") and add new features, improvements and corrections to the decoder firmware.

First download a so-called **"Decoder Software Collection File"** from the UPDATE pages at the zimo web site: www.zimo.at. , usually the one marked ***aktuell*** (the last line in the update list). It contains the latest firmware **for all ZIMO decoders.** The correct file for the decoder at hand will be automatically selected during the update process.

The update itself can be done in different ways:

⇨ With the **decoder update module MXDECUP** via a **computer,**
using the serial port with the MXDECUP or
the USB-serial convertor with the MXDECUPU.

The MXDECUP(U) is connected with the computer, power supply and a section of track. Set the engine onto this "update" track**.** Start the program **"ZIMO Rail Center" (ZIRC)** on the computer. ZIRC selects the proper software from the "decoder software collection file" and installs it in to the decoder when prompted to do so.

The **"ZIMO Sound Program" (ZSP)** can also be used instead of ZIRC. As the name implies, this program is used for editing and installing sound files to ZIMO sound decoders but can also be used to update decoder firmware in all ZIMO decoders (sound, non-sound and accessory decoders).

The programs **ZIRC** and **ZSP** can also be downloaded at no charge from www.zimo.at

⇨ With the **system cab MX31ZL** and **a computer**
using the USB interface of the MX31ZL.

The MX31ZL is used in this case just like an MXDECUP (see above) and the procedure is also controlled by the PC with **ZIRC** or **ZSP.**

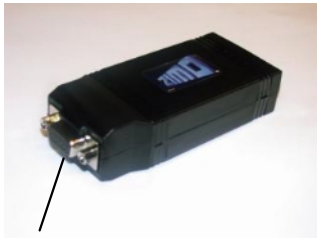
This is of advantage especially to the ZIMO system user, since the cost of a MX31ZL is about the same as a MX31 with MXDECUPU. The MX31ZL can also be used for updates without a computer (see below) and most of all; it is also a complete DCC system.

⇨ From the **USB stick** using a **MX31ZL,**

In this case, the "decoder software collection file" is first loaded onto the USB stick**.** Plug the stick to the MX31ZL (with the help of the adapter that comes with the MX31ZL) and use the MX31ZL to proceed with updating as many decoders as desired (but of course, only ZIMO decoders). This process doesn't require a computer and no direct connection to one (see MX31ZL instruction manual).

⇨ From the **USB stick** using a **MX10 command station,**

similar procedure as with MX31ZL; more information will follow when the MX10 becomes available.



RS-232 – SUBD-9-socket

To "update track", to power supply
control-LED's behind socket

MX31ZL with USB stick

The update module MXDECUP(U) is shipped with a power supply, a RS-232 cable and a USB converter (with MXDECUPU).

Implementation and operation:

A **section of track** is used as "update track" and connected to the 2-pin screw terminal of the MXDECUP(U). Set the engine with the decoder that is to be updated on the track. The decoder can of course be connected with its red and black wires directly to the track connector of the module instead.

In contrast to the CV-programming procedure, the update procedure with the corresponding acknowledgment does not depend on the load connected to the decoder (such loads are neither necessary nor hindering).

Please note...

Electrical loads in the loco that are not connected to the decoder may potentially present a problem (since the decoder cannot turn the load off), because of the 150mA power limit of the MXDECUP. The update process may fail in such cases and the relevant loads must first be removed or remove the decoder from the locomotive.

Make sure the choke coil recommended in chapter 17 is actually installed, if **external buffer circuits** (capacitors) are used to maintain power to the decoder on dirty track sections. Acknowledgments from the decoder to the MXDECUP are otherwise not possible.
Although there is a "blind update option" available in ZSP that operates without acknowledgements, its use is not really recommended.

Now, plug-in the ***power supply*** at the MXDECUP. The green LED, visible in the connector recess, should now be lit. Next, connect the MXDECUP with the ***computer*** using either the RS-232 cable or the RS-232 cable with USB converter. The green LED now turns off again (both LED's are dark).

The actual update process is started and controlled with the ***"ZIMO Sound Programmer"*** (***ZSP***, always use the latest version:

We can't offer a detailed description here regarding the update process; since ZST will often be modified and expanded (this software performs a number of other tasks within the ZIMO system). In any case, there is a button on the original ZST main page named: "start with MXDECUP online". English speaking users should start the ZST extension, which opens the COM PORT selection page. All further steps, such as selecting the right COM port, the update software file (one file contains all current software versions for all ZIMO decoders), starting, control and terminating the update process are self-explanatory on screen or can be obtained from the help file.

The two LED's at the MXDECUP are flickering very rapidly during the update process (red and green). This indicates that data packets are sent to and acknowledgments received from the decoder. The LED's remain dark once the update process is finished.

If for any reason the update is unsuccessful (indicated by ZST), another update can be started after a waiting period of 5 seconds!