



Newsletter - OCTOBER 2009

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"Last call" MX31FU and MX31ZL!

(Before the replacement by MX32)

The end of production of cabs MX31, the radio cabs MX31FU and the "Central Cabs" MX32ZL has already been announced. Now, some material remains (in terms of sourcing critical components) and there is a demand, so we will build a limited number of radio-cabs (MX31FU) and Central Cabs (MX31ZL). The number, however, is really very small (together 50 to 70), a part of this production is already pre-sold, some are still available. Construction and delivery is scheduled for late October, when the necessary MXFU radio base modules can be delivered. The prices are unchanged, that is the same as recent deliveries.

Note: The standard MX31 is no longer available (of course the MX31FU can be used instead).

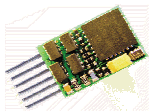
MX64D sold out.

(Replace by MX631D and MX632D, by end of November)

A little earlier than planned - even before the replacement is available - the MX64D (with the 21-pin interface) has sold out. This short supply gap has emerged. For information about the successor MX631D and MX632D, see below!

ZIMO Loco Decoders - Overview:

Family **MX620** (Miniature) ...



MX620: 13.5 x 8,8 x 2.5 mm, 0.8 A, 4 Function Outputs, 7 wires

MX620N: as above, 6-pin Plug direct (NEM 651)

MX620R: as above, 8-pin Plug on wires (NEM 652)

MX620F: as above, 6-pin Plug on wires (NEM 651)

Family **MX630** (00/H0) ...



MX630: 20.5 x 11 x 3.5 mm, 1.2 A, 6 Function Outputs, 11 wires

MX630R: as above, 8-pin Plug on wires (NEM 652)

MX630F: as above, 6-pin Plug on wires (NEM 651)

MX630P: as above, PluX-16 Direct connection

Family **MX631** (00/H0) - increased output, 21-pin version, C-Sinus, From around December 2009) ...



Shortly!

MX631: 20.5 x 15.5 x 4.5 mm, 1.4 A, 6 Function Outputs, 11 wires

MX631D: as above, 21-pin direct connection (MTC)

MX631C: as above, Special design for C-Sinus, Softdrive-Sinus, 21-pin direct connection (MTC)

Family **MX632** (00/H0) - high output, 21-pin version, Low voltage, From around November 2009) ...



Shortly!

MX632: 26.5 x 15.5 x 4.5 mm, 1.8 A, 6 Function Outputs, 11 wires

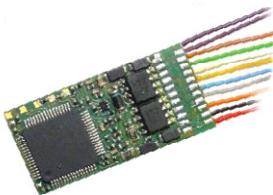
MX632D: as above, but 21-pin direct connection (MTC)

MX632H: 26.5 x 15.5 x 4.5 mm, 1.4 A, 8 Function Outputs, Energy store connection, 11 wires

MX632V: 26.5 x 15.5 x 4.5 mm, 1.4 A, with 1.2 V Low voltage for Functions, 12 wires

MX632W: 26.5 x 15.5 x 4.5 mm, 1.4 A, with 5 V Low voltage for Functions, 12 wires

Family **MX640** (SOUND) ...



MX640: 32 x 16 x 5 mm, 1.2 A, 6 Function Outputs, 11 wires

MX640R: as above, 8-pin Plug on wires (NEM 652)

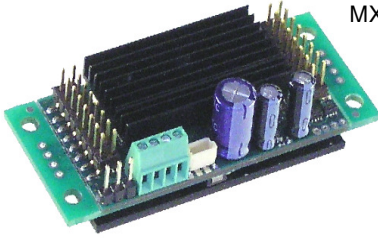
MX640F: as above, 8-pin Plug on wires (NEM 652)

MX640D: as above, 21-pin direct connection (MTC)

MX640C: Special design for C-Sinus, Softdrive-Sinus, 21-pin direct connection (MTC)

Family **MX69** (Large Scales) . . .

MX69L: 55 x 29 x 10 mm, 2 A, 8 Function Outputs
MX69S: 55 x 29 x 18 mm, 3 A 8 Function Outputs
MX69V: 5 A, 14 Function Outputs with adjustable low voltage for Functions



Family **MX690** (Large Scales with SOUND) –

MX690S: 55 x 29 x 18 mm, 3 A, 8 Function Outputs
MX690V: 5 A, 14 Function Outputs with adjustable low voltage for Functions

In addition: 12 special types for Large Scales with add-on circuit boards (10 W Audio, u.a.)

For all ZIMO "N and 00/H0" decoders (MX620, MX630, MX631, MX632, MX640), here are the common features:

All current loco decoders (including the large scale decoders) are part of one large family as the loaded software is identical. Therefore ZIMO decoders behave in the same way (homogeneous) with the same driving features, CV and function setting.

- Motor- and Function current from 1.2 to 1.8 A (MX630 and others) or 0.8 A (MX620),
 - Current overload protection (with tolerance for spikes up to 2A or 3A) and overheating protection,
 - 6 Function Outputs (MX630), 8 (MX632H) or 4 Functions Outputs (MX620), each output up to 0.5A load,
 - depending on type, 2 to 5 logic outputs (which can be amplified externally) or LED Outputs, in addition to the function outputs,
 - depending in type, 2 or 4 connections for servo control, in addition to the function outputs,
 - suitable for all types of DC motor, including „Glockenanker“ motors,
 - ZIMO Motor control with selectable parameters for optimization,
 - ZIMO Acceleration settings ("standard" as in NMRA, or "adaptive" exponentially),
 - Shunting Function (Half speed, reduction of momentum and braking effects, either using F3, F4 or MAN),
 - Time delayed coupling control with "coupling dance" (automatic on/off),
 - Full NMRA function mapping, and ZIMO extensions (directional assignments, Swiss lighting system, etc.),
 - Blinking, dimming, American and other lighting effects (including soft start, brake lights, flickering, automatic timeout, ..)
 - SUSI Interface, depending on type, on solder pads, on PluX Plug (MX630P) or on 21-pin Plug (MX64D, MX640D),
 - Braking on DC, ABC, "Märklin",
 - ZIMO signal dependant braking (HLU),
 - ZIMO train number reporting,
 - km/h (or mph) speed control (per speed step 1/2 km/h, 1 km/h or 2 km/h) as alternative to conventional speed step control,
 - Constant braking distance in 2 different versions,
 - Analogue control, regulated or unregulated (MX630 also AC Analogue),
 - Further features under development (e.g. CV-Sets, ..)
- **RailCom:** km/h speed feedback, CV "on-the-main" read out and confirmed programming, RailCom address feedback, many more RailCom applications are planned in future software versions.
- **Update capable Software:** New software versions are loaded without dismantling loco, with the help of the ZIMO Decoder Update Device - MXDECUP or the Central CAB - MX31ZL; from the computer using the Decoder Update Program or (especially easy to use with the MX31ZL) direct from a USB flash drive.

**ZIMO Sound Decoder with Special Sound Projects "Heinz Däppen" -
for Rhätische Bahn and American Locos**



The most expensively produced original recordings by Heinz Däppen (Rhaetian Railway and American steam engines) are now available in a convenient and flexible way, not just "Preloaded" (that is already installed into the newly purchased decoders), but also as a "Coded" Provider Projects for download.

"Coded" - Projects can be downloaded from the **ZIMO Sound Database** (just like "Free Download" Projects), but only into a "Load-Code" equipped Sound Decoder ("Load-Code" stored in CV #260 to CV #263). The "Load-Code", which can be used for all Sound Projects in one Bundle (e.g. all projects from "Heinz Däppen"), is assigned to each decoder individually, i.e. applies

For an extra fee on purchasing a ZIMO Sound Decoder (EUR 15 or 25), the sound decoder will be pre-loaded (in the workshop) with a "Load-Code"; and these can be loaded with any Sound Project from the Bundle associated with this "Load-Code".

Fee for factory installed "Load Code": EUR 15 for 00/H0 (MX640) or EUR 25 for Large Scale (MX690).

Since ZIMO Sound Decoders are very inexpensive compared with the competition (especially considering the increased functionality), even with the additional cost of the "Load-Code", the total cost is still below other manufacturers.

For "normal" (un-coded) Decoders, the "Load-Code" can be purchased and installed later, so long as the software in the decoder has been updated to Version 26.0 or later.

- Each decoder has a unique Decoder ID (4 numbers, each 0 to 255, read from CV's # 250 to 253, read-only). By informal communication by e-mail of this ID to ZIMO or to authorized partners (e.g. including the Sound Providers), the user is notified of the "Load-Code" which is valid for a certain Bundle of sound-projects (for example, "RhB and America Heinz Däppen"), and this "Load-Code" is valid in only this decoder (with the specific Decoder ID).

- Payment of the fee for the "Load-Code" (EUR 15 for 00/H0 and EUR 25 for large scale decoders) which is the same as the workshop fee for the code) by credit card or advance payment or by individual agreement must be made, later a "Load-Code Online-Shop" is planned.

- The "Load-Code" is written into the decoder, either directly into the CV's # 260 to 263, or via the "ZIMO Rail Centre" - ZIRC. Thereafter, the decoder is able to use any of the Sound Projects in one "Bundle", so all RhB and American sound projects from Heinz Däppen can be downloaded and used. The loading of new versions of the sound projects, or other projects from the same "Bundle" is always possible at no extra cost.

- Download and store a "Coded" Sound Project (in the ZIMO Sound Database marked as "Coded" with the name of the provider, for example, "Heinz Däppen") into the decoder, just like for all "Ready-to-Use" Sound Projects using ZIRC and MXDECUP, MX31ZL, MX10, .. Or with USB-Stick and MX31ZL, MX10, It is however an encrypted form of data transmission. The loading of new versions of the Sound Project, or other projects from the same Bundle is always possible.

... more info on www.zimo.at, look for UPDATE, ZIMO Sound Database, or <http://www.zimo.at/web2007/content/sound/soundprojectprice.htm>

ZIMO relies on a network of external "Sound Providers", that create sound projects (with great expertise and great personal commitment), and enrich the ZIMO Sound Database with these projects..

With ZIMO the best fidelity . . .

....for Sounds of the Rhätischen Bahn, direct from Switzerland,
Italian Vehicles recorded and created in Italy,
etc. . . .



The new era – MX10 and MX32

The development of the new ZIMO system is making progress – key components like the Controller (CAB) and Base Station should be available by the end of 2009 or first quarter next year.

Base Station MX10 – DCC/MM central unit in a small and inexpensive housing, with great performance and fully equipped for use with CAN-bus, ZIMO Cabs and modules of past and present design, as well as with computer control:

Output current 8 A (short to medium term overload tolerated), with adjustable absolute and differential current limit to tolerate short circuits of short duration, operating voltage from 12 to 24 V adjustable and fully stabilized, USB Interface for computer connection (software update, layout control), integrated RailCom detector, USB host interface for Memory Stick (alternative method – without computer - for software update, keyboard and mouse access), Ethernet Interface for future applications, integrated ZigBee radio module (optional, ZigBee =standardized highly efficient radio protocol in the 2,4 GHz Band with more range than Bluetooth and better network capability than W-LAN).

MX10 – the parallel connection of two devices is possible, as well as booster arrangements for applications with very high power requirement (e.g. large scale and garden layouts).

Hand-held controller (CAB) MX32 – Operator control panel with the latest OLED touch screen (320 x 240 pixel), in familiar ZIMO design, including well-known key arrangements, for use with CAN-bus and ZIMO base stations of past and present design.

The powerful inside consists of a 32-bit microcontroller of the latest type, with more RAM and 1 GB of flash memory, easy to implement operating and programming procedures to reflect the speedometer and display realistic images of vehicles, and meaningful icons for functions. For future software versions, the establishment and operation of the signalling (with zoom and scrolling) will be provided on the hand-held controller.

The USB host interface on the MX32 allows the inserting of a Memory Stick (alternate method - without a computer - for software update!) and the connection of a standard computer keyboard, in order to comfortably enter the loco name (for example).

In the radio version of the controller (MX32FU), a ZigBee radio module and a battery are integrated; the range (depending on the environment) is expected to be 20 to 100 m, although the ZigBee network is capable of expansion (with special repeaters as relay stations for more remote locations).

The feedback system RailCom (RailCom - trademark of Lenz GmbH) and its integration into the components of the new system is a considerable advancement over previous devices. The "Global Detector" in the base unit (MX10) receives the messages from the decoders (where RailCom features exist), and returns the information to the MX32 cabs - and - when they are capable of being displayed - even on "old" MX31 and the computer. On the MX32 there will be the RailCom Speedometer, ammeter, the fuel gauge etc, displayed with real values. Already, in the MX31ZL, the procedures for RailCom were established, so the programming and readout of the CV's is well-known, the MX32 provides significantly enhanced capabilities in terms of graphical processing and usability.

PREDICTED PRICES for the new ZIMO SYSTEMS:

Base station **MX10** - concrete information not yet available, but in any case significantly less expensive than previous ZIMO base stations, the basic configuration with the base unit and controller is about EUR 700; radio version, around EUR 800.

Controller **MX32** - around EUR 360, **MX32FU** (with radio equipment) - around EUR 440.

TrainProgrammer now fully compatible with ZIMO Base Station

Railroad & Co. (Freiwald) announced that the latest version of TrainProgrammer is fully compatible with the ZIMO base stations (MX1, MX1HS, and MX1EC). It uses the so-called "binary" protocol.

Note: with the MX31ZL, TrainProgrammer is not compatible! The reason for this is that (in MX31ZL), the protocol for the serial interface (USB) is not fully implemented, due to lack of space.

(Note: See the German version of this Newsletter for some additional information about Exhibitions in the next few months where ZIMO will be present)