

The new MX33 cab ... finally an actual photo.



Unfortunately "not quite" according to the original schedule but soon, the new MX33 cabs will finally be ready.

There are currently a number of devices in use by beta testers that provide a lot of valuable input.

We still can't point to an exact start date for series production due to pending component deliveries, but it should be possible in the second quarter of 2023.

Right from the start the MX33, compared to the MX32, comes with the following new features:

- 1) "Separating" the stop functions by introducing a second button: **H** is now only responsible for individual stops, **S** causes a collective stop with the appearance of the "stop balls" and their familiar touch surfaces for full control over SSP (collective stop) and OFF on the two track outputs.
- 2) "Separating" the directional controls (Forward-Reverse and East-West) by introducing a dedicated Row (East-West) button that also incorporates the East and West LEDs already found on the MX32 (now with blue indicator for non-RailCom cases).

- 3) The top right button above the scroll wheel replaces the MX32's rocker switch, and is much more comfortable and reliable to use. **ATTENTION:** It is possible that not all tasks (and there are many) of the previous rocker switch have been fully implemented.

Of course there will be numerous new software versions coming in the months and years ahead, which will then make the full potential of the MX33 visible, all made possible thanks to the processor performance and the enormously increased memory capacity. For example, it will be possible to have all collections of loco images available in the device at the same time (thousands of images) - but an optimized filter tool will then also be needed.

Also coming soon: functions organized by "Topics"; see page 2: Function topics for MX33 and ZIMO app.

The MX33 will be built in three versions (the latter at a later date):

1. **MX33** - the tethered ZIMO cab (CAN-Bus with 6- or 8-pins).
2. **MX33FU** - the ZIMO radio cab (for radio or tethered mode) with MiWi-radio module, compatible with previous MX32FU.
3. **MX33WF** - the ZIMO radio cab with WLAN for WIFI or cable operation, particularly when used together with the ZIMO app (joint development of the WLAN protocol).

Editorial

The Nuremberg exhibition is over without actually having taken place (for the model railroad industry). A comment from my own experience: In 2009, after taking part 25 times, ZIMO was the first exhibitor to say goodbye after the trade fair management (Spielwarenmesse e.G.) consistently did everything to scare exhibitors away, from the pillar in the booth area, to the annual advancement of payment dates, to withhold parking deposits, etc. IT WAS NOT JUST THE HIGH COSTS...

On the other hand, there are plenty of exhibitors (including ZIMO) at the spring events in: Mannheim, Gießen, Dortmund, and Speyer. Everyone (including ZIMO...) is hoping for lots of visitors.

As for the current situation:

Lack of electronic components and other material still exists, but is visibly easing. Therefore, ZIMO may initially reduce the "chip replacement fee" for decoders introduced in 2022 (to half on average); in the course of the year, it may even abolish it.

There are no signs of easing in the labor shortage, which will continue to intensify according to economic research. An uninterrupted 24/7 operation, which should be the norm for investment-intensive electronics production, is currently hardly possible. Due to the backlog that resulted from this, ZIMO also has to think about alternatives...

To shorten the currently long repair times (ZIMO used to be exemplary in this regard) we want to introduce an "immediate exchange" option for the customer.

Due to a lack of time (but more so because of the many new developments and special projects for manufacturers), the popular video workshops took a back seat - of course they will come back again.

The 2023 price list can be viewed at www.zimo.at; not the most pleasant chapter, but unfortunately the most inevitable.

On **22 June**
there will be again a
ZIMO seminar at the
(www.zimo.at/events)



The ZIMO App

The ZIMO APP currently under development is NOT a ZIMO cab on the smartphone (that would be redundant), but is used as a template because many markings and structures are well known to ZIMO users: LoR, SSP, HLU...

The first free trial was released for testing in December 2022, with another following in March or April.

Go to www.zimo.at, System, ZIMO App - preliminary version.

An address can be activated from the list of available addresses or vehicles ► **APP DB (F)**, which opens the LOCO screen (FAHR).

The displayed GUI elements (name, image) and data (direction arrows, speed, and mini tableau for functions) of the individual addresses are synchronized with the system (ObjDB in the MX10).

◀ The LOCO screen is for driving, of course... (same as in the MX32/MX33); there will be variants and options in the future: see, for example, the column "ZIMO Topic Tableaus" on the next page!

The new speed slider bar is designed in a similar way as in the cab display; it is not only necessary for the speed display, but above all for driving by touch: by a sliding gesture or tipping on the desired speed. The bar (when in full-screen display) also displays the HLU speed limits and allows the values to be programmed from there; if a limit is currently active, the bar will be cut off (as shown with "L" in the example on the left), even though the actual slider position is higher. This will probably also work for the slower working ABC.

Right from the start, the ZIMO app uses a replica of an ETCS speedometer (ETCS = European Train Control System) instead of the differently colored speedometer discs of the MX32/MX33 cabs. However, it is initially a "fake" because the gray and yellow circular arcs, which show the speed progression up to the target speed, are initially based on the speed slider inputs or from the HLU limits. The speed profile specifications are to be transmitted later by the route or by the ETCS "Movement Authority".

The lower buttons remains the same across all screens: on the left, valid for all vehicles, are the system functions "SSP" (collective stop) and "OFF", which are each protected against accidental touching by advancing the S button, next for the currently active vehicle only: the MAN, direction and single stop buttons.



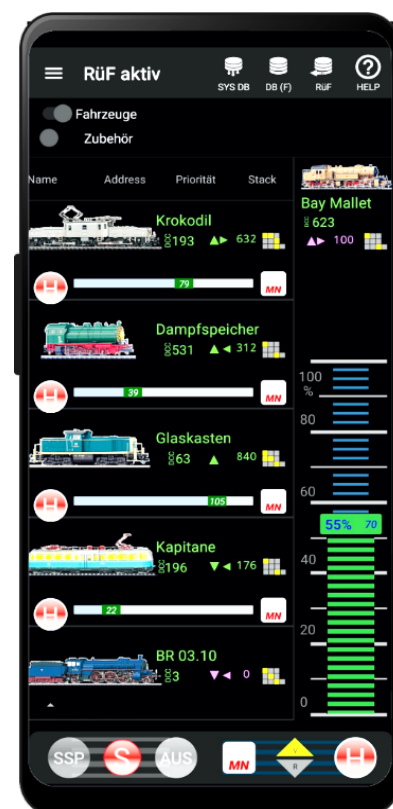
The already "traditional" LoR (loco recall memory) known from the ► ZIMO cabs for 20 years (i.e. even before the MX32...) is experiencing a new dimension in the ZIMO app in the form of the **LoR active** variant.

The content of LoR and "LoR active" is identical - the presentation is different: Up to 5 addresses (vehicles, trains) can be displayed and controlled simultaneously on the "LoR active" screen. Each of the 5 display blocks is basically a small cab (or a small LOCO screen): with a picture, name and address, small speed bar, direction and MAN buttons, a button to display the functions panel. Although there is no speedometer in graphic form, there is a numeric display of the reported speed.

In the LoR - and thus also in the "LoR active" - addresses (vehicles) get here either through activation (from APP DB) or by moving a displayed address using the DB sidebar; they remain there permanently (even after deactivation) until they are manually deleted. The LoR is a kind of favorites list.

"LoR active" is especially useful in shunting operations, later also for creating and adjusting consists, and even later for creating and managing complete trains, as long as they are equipped accordingly... See upcoming ZIMO information on this topic!

Individual addresses can be activated from the LoR (LoR active) as well as from the DB APP (F) (which also opens the LOCO screen), by touching the relevant line in the Name/Address area.



The future use of functions:

ZIMO Topic Tableaus

The functions (F0, F1, F2...) and their number is a never-ending story... It started with a single one: light on/off, which later became F0. Then gradually 4, 8, 12, 20, 28 and finally 68 were added.

Nevertheless, it is becoming increasingly obvious that simply increasing the number does not do justice to the ever-increasing equipment in vehicles: 16 LEDs, 3 pantos and couplers, and an almost infinite number of sound functions.

The growth in function symbols (icons, images...), which are used in high-quality cabs and apps, is even greater. For example, the logic for setting the many locomotive lighting variations cannot be standardized across epochs and loco types.

That's why ZIMO is just now beginning to establish a new concept for comprehensive function control: **the topic panels**. Here is an example what the function switching display might look like:



First, a block of important buttons (on/off, acoustic warning signal) with direct access; then the new **topic buttons** (identification color light blue), which have no direct effect, but call up an associated **topic tableau**, where the actual functions are then activated. In the above example, these are the light statuses (driving a single engine, a train, shunting, etc.) for the forward and reverse side of an electric, steam or diesel engine.

Shown above is the planned arrangement for the ZIMO app; a variant for the MX33 controller already exists. It is not yet certain in which of these products the implementation will take place first.

MN Non-Sound-Decoder

current types and SW versions

The production of the H0 and miniature types will begin in March 2023: MN330, MN340, MN300, MN170, MN180N18, each in their variants, i.e. with interface or wired (incl. NEM652 and possibly NEM-651).

The **SW version 4.229** (for MS and MN decoders) coming in March will primarily contain improvements to the motor control for "difficult cases" (a 3-pole motor served as the basis for development), as well as securing the function output settings of the SUSI pins during power failures (e.g. FO9, FO10 on Plux22 decoders MS450P22, MN330P22).

NOTE: NO subminiature types can be manufactured in MN technology yet, so the MX615 and MX616 will remain in the program.

STACO3 instead of STACO1

and STACO2 together with Next18-Decoder

Due to the unavailability of a certain voltage regulator IC, we have been unable to produce the popular **STACO1** stay-alive controllers for some time. As an alternative, the new type **STACO3** is being built and offered. Although it has less effective storage capacity than the STACO1, it has hardly any negative effects according to consistent user reports.

The (not so) new type **STACO2** can be used together with Next18 decoders: plugged together they form a wired (!) decoder with integrated energy storage.

"Construction site" MS & MN decoder used with MX1 and MX9

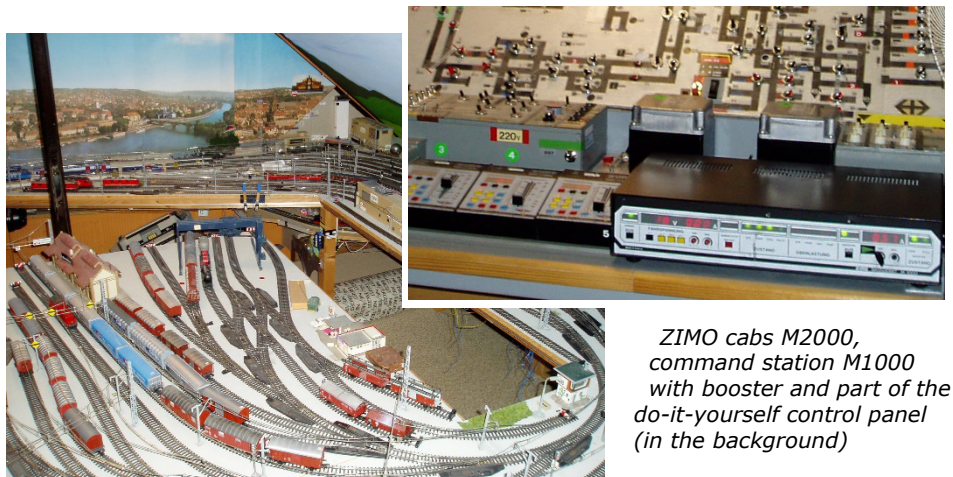
Currently (starting in 2022) there are problems on layouts that are equipped with the system generation MX1-MX9 (from the "pre-StEin era") when modern MS (with sound) and MN (without sound) decoders are used: stopping by HLU and/or the effect of the MAN button does not work or does not work reliably. This has to do with the flank timing of the DCC signal, which has changed slightly (according to the current standard). ZIMO is working to resolve this discrepancy between past and present products; currently changing the DCC timing in the MX1 to 58 µs is useful but doesn't seem to be the complete solution.

StEin currently

In recent months work on the MXULFA (because of the MS & MN decoders) has held up StEin development; problems have been identified in the cfg configuration ..; the fix is being worked on.

Even after 30 years...

... ZIMO products still perform their service (no warranty coverage is this long). The layout by Paul Hirt (Switzerland) with 6 driving levels and 200 track sections is such a case. The "old ZIMO data format" is used here, including the forerunner of today's HLU technology.



ZIMO cabs M2000, command station M1000 with booster and part of the do-it-yourself control panel (in the background)

The ZIMO Sound Database – What's New?

A lot has happened in the Sound Database since ZIMO started delivering the new generation of MS sound decoders in 2020, the year of its 40th anniversary; see: www.zimo.at > [Update&Sound](#) > [ZIMO Sound Database](#). After we issued the slogan "New 16-bit sound is what the world needs!" we have today more than **200 16-bit sound projects**, all of high quality and noise-free. **Approximately 50% of them are freely accessible** (marked **free** in the database); the others are subject to a small surcharge – for the "load code". The load code is valid for all sound projects of the relevant (external) author for the one decoder to be loaded - ZIMO calls them "sound providers" as they are independent from ZIMO.

Exactly because of these external sound providers ZIMO is able to offer so many new and partly international projects in the very short time of two years. ZIMO would not be able to do this on its own, with just two internal sound designers.

ZIMO has always strived to create sound projects that sound just like the original. Not only is attention paid to the smallest recording details, but also the functions of the model are set exactly as found on the prototype. This is now even better: thanks to the larger memory capacity of the MS decoders (compared to the "old" MX sound decoders) and thanks to the new script functionalities. These are pre-stored command sequences that are executed autonomously by the decoder.

ZIMO MS decoders also operate in the mfx data format (Märklin). These decoders (equipped with a suitable sound project, in the future also non-sound decoders with a "decoder project") can register themselves with mfx DCC command stations, which then show the correct icons, names and images in the cab display.

In the near future, (almost) all common ÖBB and DB locomotives will be available in the best 16-bit quality and mfx capability on the ZIMO Sound Database. There are also Czech/Slovak sounds and those of SNCF vehicles. Some exotic sounds from Australia will also be added soon.

The many positive comments from our customers support us in our efforts to offer prototypical and complex sound projects, so ZIMO sounds are always a guarantee for lots of fun.



A small section of the ZIMO Sound Database, where the sound projects for ZIMO decoders can be downloaded. These projects contain all sounds and CV's so that the decoder can be brought to life acoustically and is able to perform many driving and lighting effects.

New in the ZIMO Team (since last newsletter in August 2022)



Marjan Roudgar

Hand soldering, finishing,
Decoder rapid tests



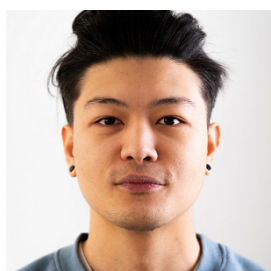
Gorana Vukman

Hand soldering
finishing



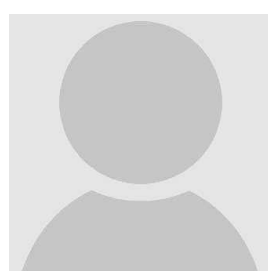
Farzaneh Zarrini

Hand soldering



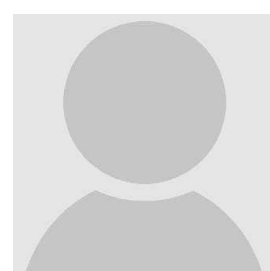
Kevin Hütter

SMD assembly



Jennifer Reed

Optical control, AOI



Katarina Mitrovic

housekeeping