

System 2024

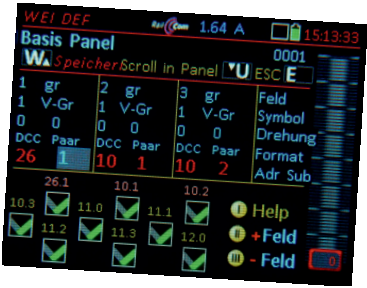
october, unchanged issue



Cabs MX33 (tethered only), MX33FU (2.4 GHz radio or tethered)

The shape of the ZIMO cabs (introduced in 1995 with the MX2) allows them to be used as either a table-top device or a walk-around cab.

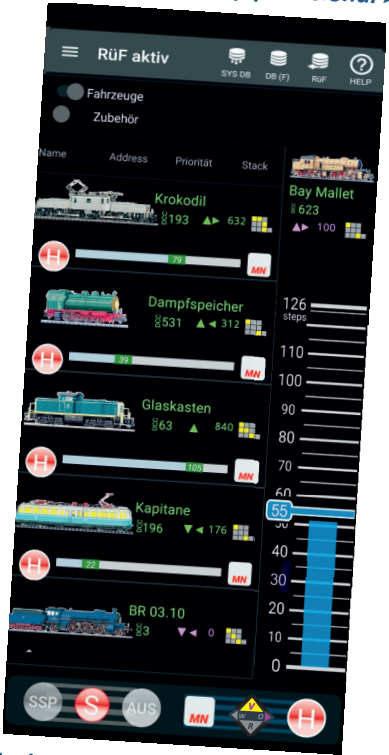
The MX33 not only comes with a design and ergonomic upgrade over the predecessor MX32 but also with a lot of potential (multiple processor performance, internal SD) for future extensions through software updates. Also: a new 2.8 inch screen, capacitive multi-touch display, additional buttons for stop and east-west (direction) handling, RGB LED's (all colors) in the keyboard, background LEDs and an optimized scroll wheel.



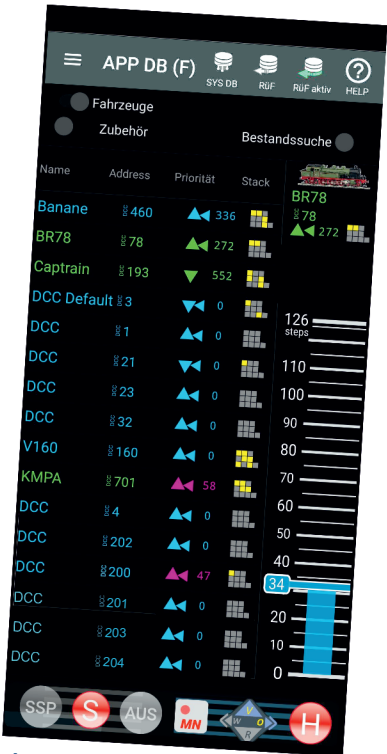
Left: Typical LOCO screen picture, speedo, functions...
Center: other displays (small selection of 3 from @ 80)
CV-Programming and read-outs in operation mode; switch panel in the set-up mode; "Stop Balls" after short circuit (UES) on track output 1.



Graphic design of the app provisional



"Active loco recall" = Favorites
Simultaneous control of up to 5 vehicles with their own (smaller) controls, "magnifying glass" for function keys.



Vehicle Database
List of directly accessible addresses (vehicles) in the app - a subset from the command station - with information about direction, speed step or actual speed and state of functions

LOCO screen – Main display

Control and display of an active vehicle; with speed bar including HLU markings, ETCS speedometer, topic buttons and additional function keys; below the display: broadcast stop, MAN -, directional and single stop buttons.

The ZIMO App (in development)

Displays and controls are related to the ZIMO MX32 or MX33 cabs, but with the advantage of the large screen of smartphones or tablets. Two of the many special features of the upcoming ZIMO app are shown on the screenshots: "LoR active" (traditional ZIMO term LoR = loco recall) allows simultaneous control of up to 5 vehicles (trains); "Loco" contains a speedometer in the ETCS design (ETCS = European Train Control system), prepared for future ETCS-compliant use.

Command stations: the "big" MX10, the "Economy" MX10EC

Both versions are **high-performance digital centres**:
MX10 has two track outputs: **12 A** and **8 A**;
MX10EC ("Economy") has „only“ one **12 A** output.

The "full version" MX10 also has a built-in sound generator, more power for auxiliary voltages, more ABA pins, a USB client connector (both MX10 and MX10EC have Ethernet), and a Loconet connection (which, however, is not yet operational at the time of going to press).

Most features of MX10 and MX10EC are however identical:
Finely adjustable driving voltages, overcurrent thresholds and shut-off times; short circuit spark suppression; RailCom oversampling detectors for measurement of weak signals.

The command station is using a powerful CAN bus to communicate with other system components, MIWI radio with ZIMO radio cabs, LAN (WLAN) with PC and Apps (ZIMO App, Roco App) and XpressNet for third-party products.

The ZIMO command stations are prepared for the implementation of the mfx data format. (planned, if there is enough interest)

The ZIMO Starter sets with MX33 or MX33FU

Each starter set contains a command station, a cab, power supply and accessories (cable..):

START, -FU, -G, -GFU, -EC, -ECFU
the respective suffixes mean ...

FU = Startset comes with a radio cab **MX33FU** (otherwise **MX33**); the command station is always equipped with radio.

G.. = This starter set is intended primarily for **G-scale**; power supply with **600 W** power (otherwise 320 W).

EC.. = This starter set comes with an economy command station **MX10EC** (all aother sets with an MX10).

The Starter set with the Mouse a good start, sometimes as an alternative

A **START(EC)WM** is a ZIMO starter set that comes with a Z21 (Roco) WLANmouse instead of a ZIMO cab. A ZIMO cab (MX33) can be added later while the mouse can be used as a useful cab at half the cost of a ZIMO cab.

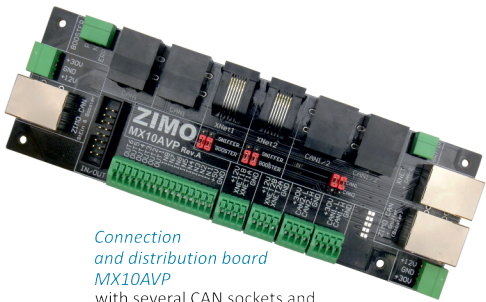


170 x 200 x 40 mm

MX10 „big“ version



MX10 Rear view



Connection and distribution board MX10AVP with several CAN sockets and terminals to expand the MX10.



WiFi router for the operation of apps on smart phone or tablet.



StEin expansion boards on top sockets

for 8 additional turnouts (coils, motor, servos), and 16 inputs.

Stationary Equipment module One StEin is more than many small units

"All-in-one" INSTEAD of a collection of occupancy detectors, RailCom detectors, accessory decoders, etc.

StEin = TRACK SECTION MODULE

Fully functional track sections with **occupancy** and **train number** detection, **RailCom** local/global, **overcurrent** (short circuit) handling and ZIMO "HLU"for route-dependent speed limits.

The combination of **LZB** (section control system) and **PZB** (milepost control) allows for exact stopping point accuracy, wich means cost savings and puts the ZIMO system on the way to ETCS (European Train Control System).

StEin = TURNOUT MODULE

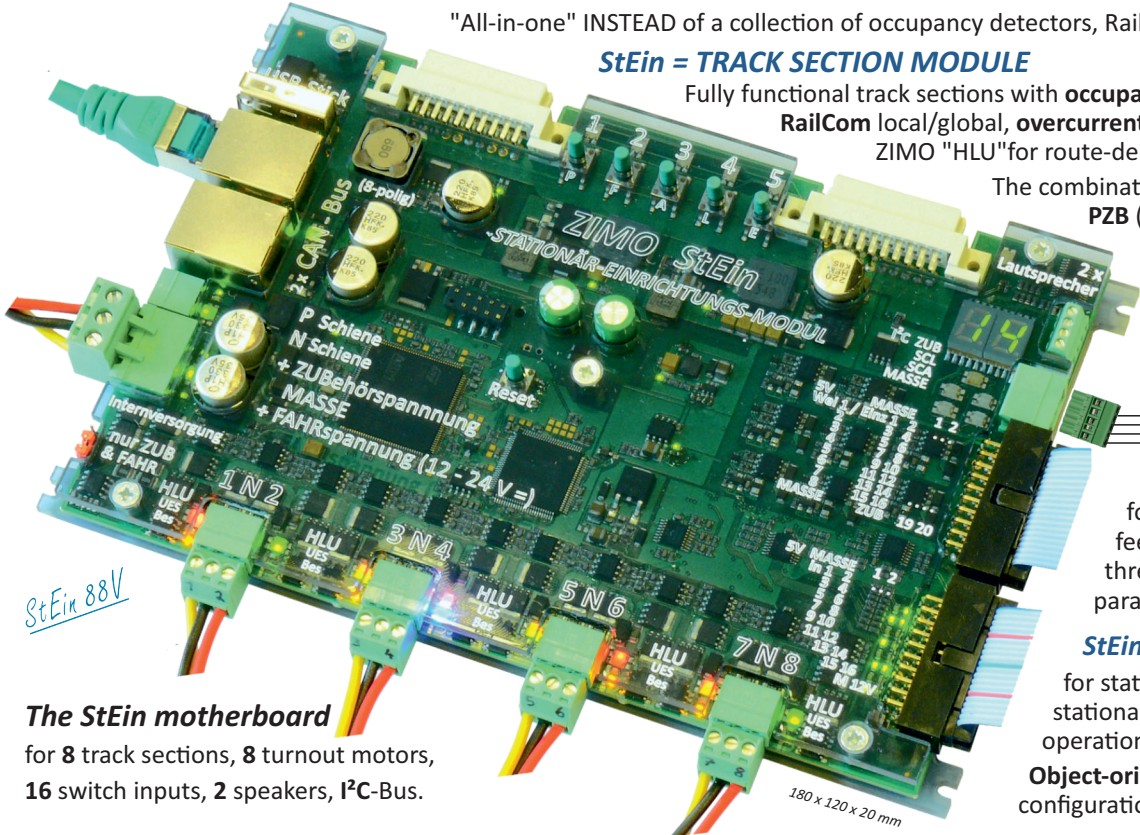
for all types of turnout drives and feedback systems, two-way and three-way turnouts; comprehensive parametrisation.

StEin = SOUND MODUL

for station announcements and all stationary railway sounds. Note: not operational at the time of going to print.
Object-orientated approach and tabular configuration recording

StEin = SIGNAL MODULE

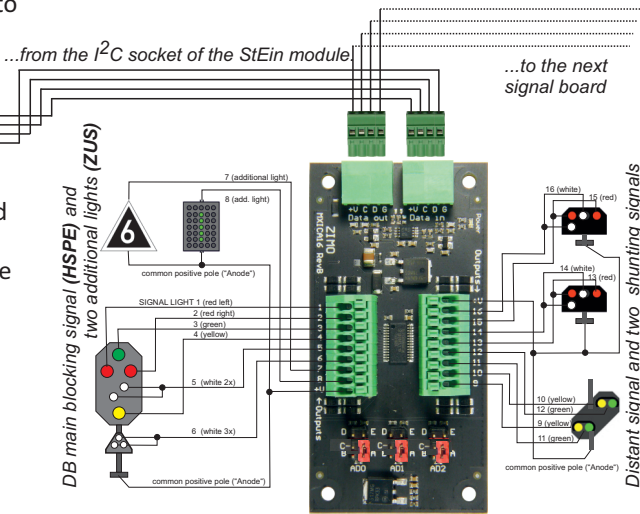
Signals are not connected directly, but via external **"ICA boards"** that are installed in the immediate vicinity of the respective signals. Up to 12 boards are powered and controlled through the I2C bus socket of each StEin: each ICA board has 16 outputs for signal LEDs.



StEin 88V

The StEin motherboard

for 8 track sections, 8 turnout motors, 16 switch inputs, 2 speakers, I²C-Bus.



ICA signal board with I²C address 1

