



s88-ClockMaster

from the *Digital-Professional-Series* !

s88-ClockMaster-G Part-No.: 090023

>> finished module in a case <<

To be used as timing generator for the s88-feedback bus to operate the switch board light decoder GBS-DEC-s88 without the connection to a digital control unit or to a PC with model railway software.

This product is not a toy! Not suitable for children under 14 years of age!
The kit contains small parts, which should be kept away from children under 3!
Improper use will imply danger of injuring due to sharp edges and tips! Please store this instruction carefully.



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Introduction / Safety Instruction:

You have purchased the **s88-ClockMaster** for your model railway supplied within the assortment of Littfinski DatenTechnik (LDT).

We are wishing you having a good time using this product.

- Please read the following instructions carefully. Warranty will expire due to damages caused by disregarding the operating instructions. LDT will also be not liable for any consequential damages caused by improper use or installation.

The finished module in a case comes with a **24 month warranty**.

Connecting the s88-ClockMaster with the switch board light decoder GBS-DEC-s88 and eventually with the Service-Module:

- **Attention:** Before starting the installation switch off the drive voltage by pushing the stop button or disconnect the main supply to all transformers.

Each switch-board light decoder GBS-DEC-s88 will be supplied together with a 2 Meter s88-Bus Cable.

Connect the one side of the bus cable onto the 6-poles pin bar of the switch-board light decoder GBS-DEC-s88 marked with "s88-Out". Connect the other side of the cable to the 6-poles pin bar of the s88-ClockMaster marked with "s88-Bus" in a way that the direction of the cable shows away from the PC-board. Additionally attend to the **white marking at one end of the pin bar**. This mark has to correspond to the white single wire of the respective cable.

For adjusting the quantity of feedback modules which the s88-ClockMaster has to consider additionally the Service Module GBS-Service is required.

Connect the 15-poles pin bar of the Service-Module GBS-Service to the 15-poles socket bar of the s88-ClockMaster. The inserted pin bar shall have **no offset** to the socket bar.

The s88-ClockMaster receives the voltage supply via the 2-poles clamp KL1.

If the switch-board light decoder GBS-DEC-s88 and the s88-ClockMaster receives the power supply from a common transformer you have to attend to the correct polarity of the supply voltage. Important is the identification "yellow" and "brown" at the clamps. The sample connection on the rear side of this instruction shows the correct wiring.

Getting started:

If the s88-ClockMaster receives power supply the green LED will glow after a short time and indicates the mode **ready-to-operate**. The bus-clock timing will be created. The bus-clock can be switched-on or -off with the keys **Stop** and **Go**. The red LED will glow if the bus-clock has been switched-off.

A total of 32 16-fold Feedback Modules can be controlled by one s88-ClockMaster. The factory setting is on 6 units.

As the processing- respectively response-time of the feedback system depends on the quantity of Feedback Modules is it important to make a correct setting of the actual connected feedback modules. For this adjustment you have to switch-off the s88-ClockMaster and connect the Service Module GBS-Service.

Adjusting the quantity of Feedback-Modules:

After switching-on the s88-ClockMaster the display of the Service-Module indicates **s88-CM Vx.yy**. If the display of the service module shows no correct image after first switching into operation please turn **careful** the Trim-Pot R1 with a small screw driver a half turn left and right until you can read the display information optimal.

On the Service-Module you can find 4 push buttons which are indicated within the following instruction with >links< (>left<), >rechts< (>right<), >oben< (>top<) and >unten< (>bottom<)

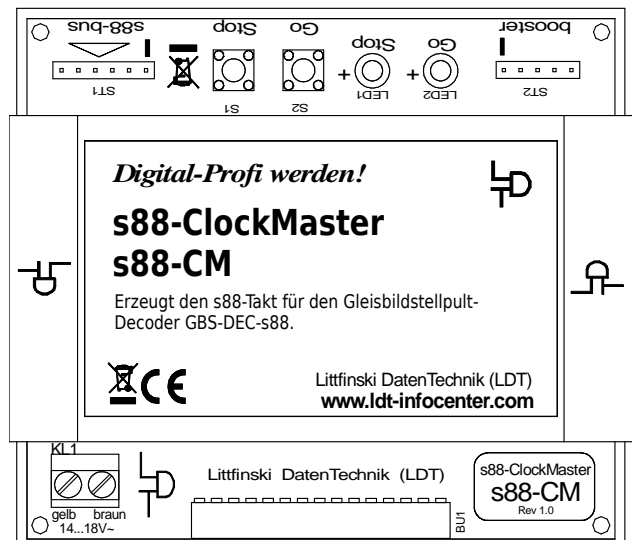
At first push the key >rechts< (>right<). By first operation the display will indicate the text **Anzahl (qty) RM:06**. With the key >oben< (>top<) or >unten< (>bottom<) you can now adjust the number of feedback modules between 1 and 32.

Now activate the key >links< (>left<) or >rechts< (>right<).

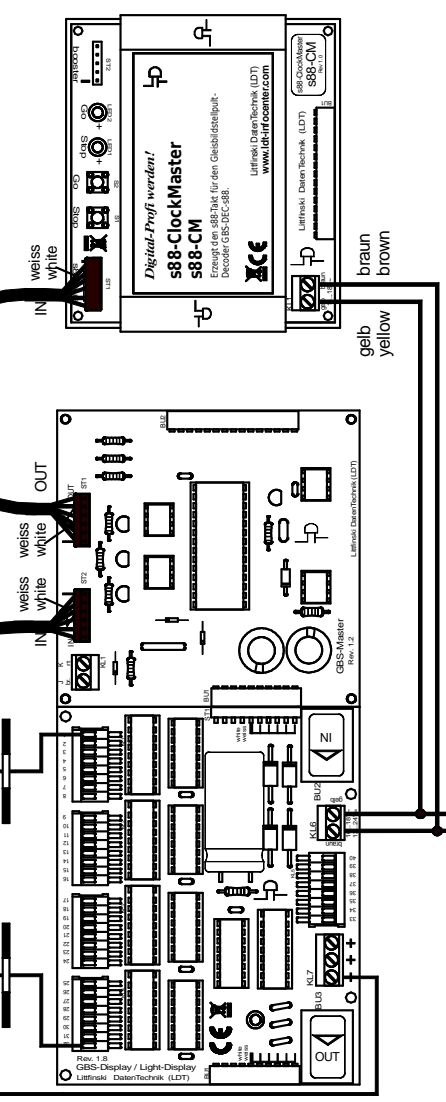
The s88-ClockMaster will leave the setting mode and after a short period the display of the service module indicates **s88-CM Vx.yy**.

Now is the s88-ClockMaster in operation mode.

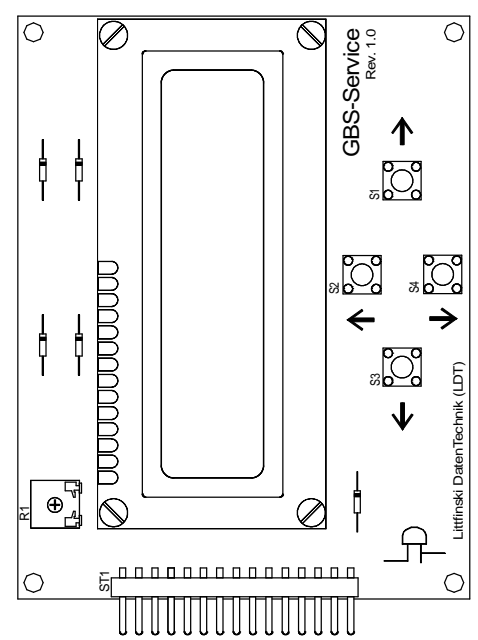
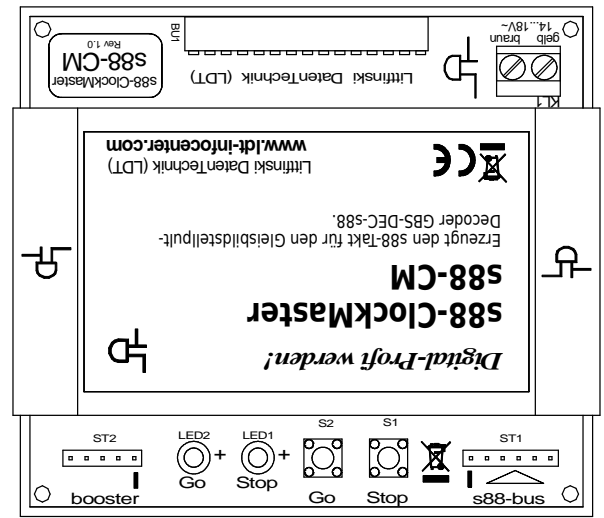
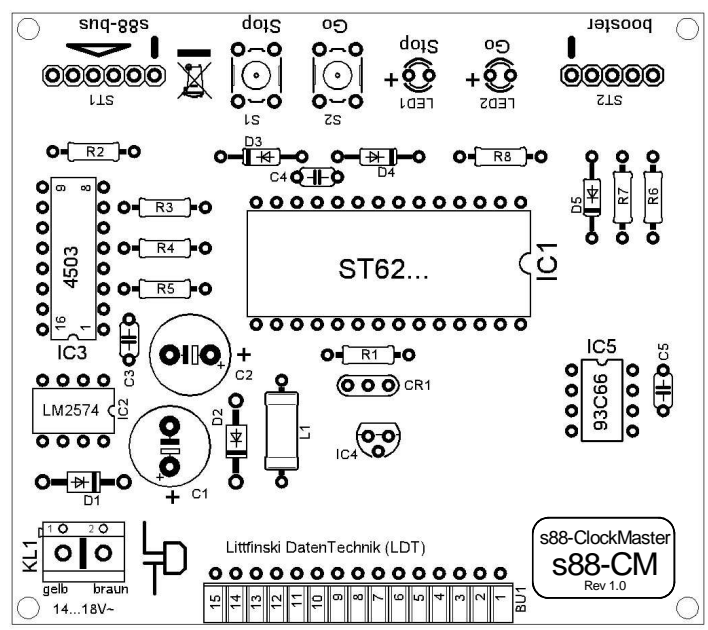
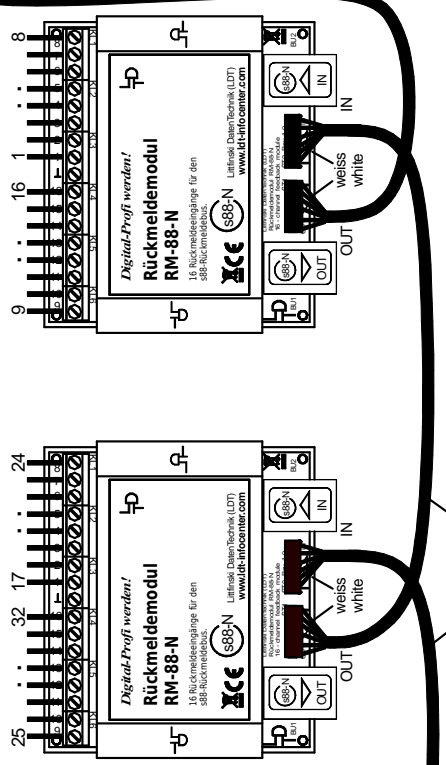
For the further operation is the Service-Module not necessarily required. Eventually you can detach it from the s88-ClockMaster provided that the supply voltage has been switched-off and the display is blank.



Bestellbezeichnung / Order code:
Kabel s88 0.5m; Kabel s88 1m
oder / or Kabel s88 2m



Bestellbezeichnung / Order code:
Kabel s88 0.5m; Kabel s88 1m
oder / or Kabel s88 2m



Service Modul aufstecken
connect Service Module

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