(R) Uhlenbrock Elektronik

Sound-Director 38 000

Description

The Sound-Director is like an MP3-Player setup to play MP3 files (Samples) successively. It serves to produce original appropriate background noise in the model railway. It differentiates between continuous loops, time-controlled sounds, random sounds and sounds that are triggered by certain events.

One's own sound files can be prepared with any sound processing software or combined (free sound processing software can be found on the InterNet. See Link on the USB stick). The controller configuration and background sounds can be setup as desired with the administration software.

The Sound-Director kit contains one controller, 2 loudspeakers, a USB stick and the appropriate cables. The USB stick contains the administration software and a sound library with a selection of MP3 files. The Sound-Director can be used in analogue and digital model railways layouts.

Connections

Kontakt 1-10 – connecting of keys, Reed switches, Switching tracks etc.

Masse – common return for contacts 1-10

USB-Stick – socket for the USB-Stick

Loudspeaker left/right
Connection for the enclosed loudspeakers

Loudspeaker – 3.5 mm jack for connecting 8 Ohm external loudspeakers

Note: Only one of the two options for connecting the loudspeaker may be used at any time!

Trafo – connection of a separate 16V~ transformer

Attention: This transformer must power only the Sound-Director and must not have any connection with the Digital system or to any other module.

LocoNet – LocoNet-socket on the back of the controller for connection to the LocoNet

Control-LED – When switching Sound-Director on or when inserting the USB stick, the LED flickers for a short moment.

During operation the LED briefly lights up whenever an MP3-File is started.

Uhlenbrock Elektronik
Sound-Director
Kontakt 1
Kontakt 2
Kontakt 3
Kontakt 4
Kontakt 5
Kontakt 6
Kontakt 7
Kontakt 8
Kontakt 9
Kontakt 10
Masse
USB-Stick
links
rechts
oder
Trafo 16 V ~
Trafo 16 V ~
38 000

Start-up

- Either connect the loudspeakers provided to the Sound-Director's loudspeaker sockets or attach your external 8 ohms loudspeakers, with a 3.5 mm plug, (e.g. PC loudspeakers) to the Sound-Director's jack.
- Insert the USB stick into the Sound-Director's USB port.
- Connect the Sound-Director's 'Trafo' terminals of the separate 16V~ transformer.
- A short flickering of the control LED indicates ready status.

Immediately playable sounds (factory programming)

As soon as the USB stick is connected to the controller, the first continuous loop (Station ambience 1) from the factory-programmed background sounds, plays. At random intervals (between 2 and 510 seconds) the pre-programmed random events (e.g. Dog barking) are called up. As a time controlled event every 3 minutes a church bell rings.

The factory default sound table

File Name	Contents	Event Solenoid Addr.
MGO1-0211-00000	Arrival Track 1	211 green
MGO1-0212-00000	Departure Track 1	212 green
MGO1-0213-00000	Arrival Track 2	213 green
MGO1-0214-00000	Announcement Track 2	214 green
MGO1-0215-00000	Conductor Whistle	215 green
MGO1-0216-00000	Passing Train	216 green
MGM1-0217-00000	Fire truck	217 green
MGM1-0217-00000	Barking Dog	218 green

File Name	Contents	Event Solenoid Addr.
MGM1-0219-00000	On the Land	219 green
MGM1-0220-00000	Church bells	220 green
MGM1-0221-00000	Crying baby	221 green
MGM1-0222-00000	Rail crossing, bell	222 green
MGO1-0223-00000	Arrival Regional Express	223 green
MGO1-0224-00000	Depart. Regional Exp.Trk1	224 green
MGO1-0225-00000	Depart. Regional Exp.Trk2	225 green
MGO1-0226-00000	Arrival Suburban -Siegburg	226 green
MGO1-0227-00000	Depart. Suburban -Si Trk1	227 green
MGO1-0228-00000	Depart. Suburban -Si Trk2	228 green
MGM1-0229-00000	Waves gulls	229 green
MGM1-0230-00000	Coffee is ready	230 green

File Name	Contents	Feedback Event
RBO1-0211-00000	Arrival track 1	211 occupied
RBO1-0212-00000	Departure track 1	212 occupied
RBO1-0213-00000	Arrival track 2	213 occupied
RBO1-0214-00000	Announcement track 2	214 occupied
RBO1-0215-00000	Conductor whistle	215 occupied
RBO1-0216-00000	Passing train	216occupied
RBM1-0217-00000	Fire truck	217 occupied
RBM1-0218-00000	Barking dog	218 occupied

File Name	Contents	Feedback Event
RBM1-0219-00000	On the Land	219 occupied
RBM1-0220-00000	Church bells	220 occupied
RBM1-0221-00000	Crying baby	221 occupied
RBM1-0222-00000	Rail crossing, bell	222 occupied
RBM1-0223-00000	Arrival Regional Express	223 occupied
RBM1-0224-00000	Depart. Regional Exp.Trk1	224 occupied
RBM1-0225-00000	Depart. Regional Exp.Trk2	225 occupied
RBM1-0226-00000	Arrival Suburban -Siegburg	226 occupied
RBM1-0227-00000	Depart. Suburban -Si Trk1	227 occupied
RBM1-0228-00000	Depart. Suburban -Si Trk2	228 occupied
RBM1-0229-00000	Waves gulls	229 occupied
RBM1-0230-00000	Coffee is ready	230 occupied

File Name	Contents	Contact Event
KSM1-0001-00000	Arrival track 1	1 closed
KSM1-0002-00000	Departure track 1	2 closed
KSM1-0003-00000	Arrival track 2	3 closed
KSM1-0004-00000	Announcement track 2	4 closed
KSM1-0005-00000	Conductor whistle	5 closed
KSM1-0006-00000	Passing train	6 closed
KSM1-0007-00000	Fire truck	7 closed
KSM1-0008-00000	Barking dog	8 closed
KSM1-0009-00000	On the Land	9 closed
KSM1-0010-00000	Church bells	10 closed

File Name	Contents	LISSY Event
L1M1-0002-20000	Church bells	LE2 all locomotives

Operating without LocoNet center

When using centers without LocoNet interface or in the analog system the MP3 files can run in continuous loops or start by contacts (keys, reed switches or switching tracks), by an integrated random number generator or by the internal model clock.

Operating with a LocoNet center

Together with a LocoNet center it is possible to call up sounds with the events specified above, or by switching of solenoid addresses or feedback events and also by reporting of locomotive addresses by the LISSY system. Connect the Sound-Director's LocoNet socket to the LocoNet-T socket on the Intellibox. In the sound table (starting on page 3) you will find the standard allocation of the sounds to the relevant events.

Calling sounds via the terminals

Sounds can call up sound via contacts (keys, reed contacts, switching tracks etc.). These are connected to the Sound-Director in such a way that one side of the contact is connected to the ground terminal and the other side is attached to the respective contact input 1-10.

Administration software

All changes to the sound files and module configuration must be made with the Sound-Director administration software. You will find Setup for the program in the software folder on the USB stick.

Important: Please read the file "Administration software Guide.pdf" (which is on the USB stick), before you install this program on your computer. Only then, start the Setup.

The administration software ensures that all sound files to be used are copied directly to the main folder (ROOT) of the USB stick. Otherwise the Sound-Director cannot find and play them.

Please Note: do not delete original files from the sound library. Otherwise important file information may be lost.

Directory structure of the USB stick

All sound files assigned to events are in the main directory (ROOT directory). Further the module settings (SET) and also an administration file (snddir.usd).

The sound files available ex-factory are in the "Soundbibliothek" (Sound Library) subfolder. The "Setup" for "SoundDirector" administration software is in the "Software" subfolder, with the operating instructions for the administration software in pdf format, as well as an InterNet link to sound manipulation software (Audioeditor).

Note: The Audioeditor from Audacity (www.audacity.de) needs the LAME MP3 Encoder for the production of the MP3 files. You can find this for Downloading from Audacity.

Module configuration

The Sound-Director is configured by six programmable parameters. These are setup with the administration software.

Configuration parameter	Value Range	Default
Volume	1-31	31
Number of seconds for 15 minutes Model time	1-900	180
Start time of the Model time the Sound-Director is switched on e.g. 1 = 00:15, 28 = 07:00, 64 = 16:00	1-96	28
Stretch factor for random time in seconds e.g. with a **Stretch factor** of 10 the random time is 10 - 2550 sec	1-255	2
LocoNet clock synchronization (only with LocoNet operation) If a system that already has a model clock, e.g. the model train clock from the LocoNet-Display 63 450 (master), it can synchronize the Sound-Director's internal clock (Slave).	0 = ein 1 = aus	0
Solenoid address to switch continuous loops on and off (only in LocoNet operation)	1-2048	0

Assign of events to sound files

In factory setting some sound files are called by certain events (see sound table). With the administration software the current sound background can be changed at any time. Sounds can be deleted or added from the sound library. The assignment of the events to the sound files can be changed.

Termination of sound files by other sound files

The sound files can be configured by the administration software, so that other sound files can terminate them or the sounds are played to the end. With background noises, e.g. barking dog, it makes sense that it can be sound file terminated by a station announcement. Conversely it makes little sense to terminate a station announcement by a barking dog.

Playing priority

If several sound files are to be played sequentially by an event the sequence can be specified with the administration software.

e.g. when all exit signals with solenoid address in range 11-15, are to play the respective track announcement "departure from track 1", "departure from track 2" etc. with the respective solenoid address in "green" state. The event solenoid address 11-15 "green" can play after the conductor's whistle. i.e., one of the addresses 11-15 is set to "green", then first the respective track announcement plays (playing priority 1) and afterwards the conductor's whistle. (playing priority 2).

Examples of calling sound files
Contact event

Contact input 7 is to call the "barking dog" sound file. Attach e.g. a push button to the 'Masse' and contact 7 terminals. If the key is closed sound file KSM1-0007-00000 "fire-brigade" is played.

The administration software can assign a sound file to several contacts. For this an address range must be indicated for the playing event. The conductor whistle can be played, for example, whenever one of the contacts 1-5 is closed.

Solenoid event

Sound file "Arrival track 1" is to be called by solenoid address 211 "green".

If the Sound-Director is connected to the Intellibox LocoNet, switch the solenoid address 211 to "green" and sound file MGO1-0211-00000 "Arrival track 1" is played.

The administration software can assign several solenoid addresses to play a sound file. For this an address range must be assigned for the playing event. For example, the conductor's whistle can be played whenever one of the solenoid addresses 1-10 is switched to "green".

Feedback event (only in LocoNet operation)

Sound file "Departure track 1" is to be called by feedback address 212 "occupied".

If the Sound-Director is connected to the Intellibox LocoNet, and a feedback module reports feedback address 212 "occupied", then sound file RBO1-0212-00000 "Departure track 1" is played.

The administration software can assign a sound file so that it is played by a range of addresses. For example the conductor's whistle can be setup so that it is played by feedback addresses 1-10 ("occupied").

The administration software can assign several feedback addresses to play a sound file. For this an address range must be entered for the playing event. For example the conductor's whistle can be played whenever one of the feedback addresses 1-10 reports occupied.

LISSY event (only in LocoNet operation)

All locomotives which pass the LISSY receiver 2 from S1 to S2 are to play sound file "church-bells".

If the Sound-Director is connected to the Intellibox LocoNet and LISSY receiver 2 is passed by a locomotive from S1 to S2 sound file L1M1-0002-20000 "Church-bells" is played.

Stopping continuous loops (only in LocoNet operation)

In order to be able to switch the continuous loops off a solenoid, an address must be entered in the menu "Module settings" of the administration software. If this address is switched "red" the Sound-Director terminates the current continuous loop. If this address is switched "green" the Sound-Director starts the next programmed continuous loop.

Technical Data

Power Output: 1.5 Watt with 8 Ohm
Loudspeaker impedance: min. 8 Ohm
USB-Stick: USB 2.0
Supply voltage: 16 V ~

Maximum Sample administration of the controller

Altogether 668 Samples for different events can be administered by the Sound-Director's controller:

255 Samples for solenoids, feedbacks and LISSY
127 Samples for random events
127 Samples for continuous loops
 63 Samples for contact events
 96 Samples for time events

Buffer times of a USB stick

A sample rate of 128 Kbit/s results in the stored MP3 sample playing time of:

Buffer size	Time in seconds	Converted time
64 Mbyte	4096	68 Min.
256 Mbyte	16384	4,55 Std.
1 Gbyte	65536	18,20 Std.

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