

operation manual



(D)

- D
- 1. Intended Use
- 2. Requirements for application
- 3. applications
- 4. Setting / changing the sound parameters

# 1. Intended Use

2

2

2

7

Providing and managing CV and sound for transmission by the programmer 60971 or the Central Station(60213/60214/60215).

### 2. Requirements for application:

- PC with internet connection and 30 MB of free space for the program
- · 1GB free disk space for Sound Library
- · Windows XP or higher
- Sound Library (Download from German Märklin web page, Service, -> Downloads -> Soundbibliothek für mSD3)
- Marklin decoder mSD/3 60975-60979, 60985-60987 and CV management in mLD/3 decoder 60972 and 60,982th

#### 2.1 Preparation:

Now load the decoder tool from the Märklin website (Service -> Downloads-> NEU: Nachrüst-Decoder mLD3/mSD3 or

www.maerklin.de/de/service/downloads/neunachruest-decoder-mld3msd3/mdecodertool-mdt3/) Save this program on your PC, Now call it the stored setup file: mDecoderTool-v3xx-Setup.exe to begin the installation. Follow the installation instructions. After installation you can find it on drive C in the following folder: C: \ ProgramFiles \ Maerklin \ mDecoderTool3 \* ( Applications folder), it contains the program files and templates for the Decoder mLD/3 and mSD/3 system. Under C: \ Documents and Settings \ username \ My Documents \ Maerklin \* are the subfolders mDecoderTool and sound library.

### 3. Applications

After installation, you can start the program. Then you will see this start screen.



\* Path structure u. Folder name depends on the

operating system

Below we will explain the operation of the programmer with examples. Click on "Create a new Project".



Select the desired type of decoder, eg retrofit decoder Third Generation (mSD / 3) and confirm the selection.



Before you start, update the "sound library" under the sound (about 500 MB)



On the displayed dashboard you will find: Decoder, motor functions and programming paths. There are pre-set basic settings displayed. Click on the tool icon *I* to change decoder settings. The other two windows allow you direct access when editing an existing project. Enter the Decoders Name (locomotive name), its User Data and MM or DCC address. By clicking on the Locomotive Type icon you will get a selection with various Locomotive icons (MS1, MS2, CS1), select the appropriate.

Info	other Addresses •
Locomotive Type	
Decoder Name 01 519 EFZ	other Format Settings •
UserData	
Speed Display 130 🗧	other Decoder Settings •
Addresses	
MM Main Address 15 ≑	
DCC Primary Address 3	

Press the arrows on right to open more settings. Here you will find additional settings for your decoder.

Make the desired settings.



Once all settings have been made, switch to the "Motor" tab. Here you select the motor type, you can keep the other basic settings for the time being. In the case of the calibration run to be carried out at the end, these are automatically determined and set.

Decoder	Motor	Sound	Functions	Sound selection	Programming Pa
	ed 4 🗘				
	eo 155 🗯		Slow Limit 115	a 🗠	and the second second
	ay 15 (3.750		Slow K 0	:	
	15 (3.750		Singl D		
	Standard expe	mential	City D 0		
	5 engine DC s	eoft -	000 000		
	1 Analog cont	rolied •	Povidi Start 200		
	ye 1 Auto PI con	troller ·	EMK Max 3110		
	ce 255 🗘		PWM Offset 90		
	ce 50 🗘		Direction Mot	or/Light	
	48 🛢				
	35 0			128	
	0 0			128	
			Braking Mode 🗹 3L/3	21> 21.<-	
			AC Minimum Speed 50	9	
			AC Maximum	•	

By pressing the arrow you can open more Motor settings. Here additional settings are enabled for driving.



You can find the settings in the decoder manuals or under -- www.maerklin.de/de/service/technischeinformationen/--

When all desired settings registered, go to the tab Sound.

				8
Motor	Sound	Functions	Sound selection	Programming Pat
Volume 255	0			
aking Threshhold 35	•			
abstand bel FS 1 29	•			
end grösser PS 1 108	-			
ufalisinterval Min 30	-			T-5 -
S Ctr	*			
i antouncements E Ke E Dir So	hre ection of the locomo quence			
	Motor Volume 255 aking Threshtied 35 liestand bei FS 1 23 dataset FS 1 23 dataset FS 1 33 dataset FS 1 33 dataset FS 1 33 S Sta announcements 6 5 S Sta announcements 6 5 S Sta	Motor         Sound           Value         255         3           Alting Toronality         3         3	Motor         Sound         Functions           Water         25.5         Image: Comparison of the science of the s	Motor         Sound         Functions         Sound solvection           Value         255         I         Interview         Sound solvection           Match The Park of the Sound solvection         Interview         Interview         Sound solvection           Match of the Park of the Sound solvection         Interview         Interview         Interview         Interview           Match of the Sound solvection         Interview         Interview         Interview         Interview

If no changes are made, go directly to the tab sound selection.

Here you can set your sound list together. Click "new sound".

Decoder	Motor	Sound	Functions	Sound selection	Programming Pa
Soundbiblioth > Ablauf > Anfahrt > Brensen > eigeneBibli > Fahren > mBibliothek	d Source rek iothek	50	und	Play back	
<ul> <li>Motor</li> <li>Multitext</li> <li>Schalten</li> <li>Sounds</li> <li>Stand</li> <li>Zufall</li> </ul>					
				ų.	

In the following window, select for example "running noise". These and the following selections for the time being used as a placeholder until the selection of the sounds you want. Next, select "new sound" another sound as: "Sound without Output".

Output Sound 17	
Sound 17	
oound 17	^
Sound 18	
Sound 19	
Sound 20	
Sound 21	
Sound 22	
Sound 23	
Sound 24	
Sound 25	
Sound 26	
Sound 27	
Sound 28	
Sound without Output	
	Sound 19 Sound 19 Sound 20 Sound 21 Sound 22 Sound 23 Sound 24 Sound 25 Sound 25 Sound 27 Sound 28 Sound 28

This selection is important for sounds that depend on the driving sound, including sounds of the categories: Driving, braking and shifting.

You can add more sounds by clicking the "new sound". The numbering the sounds, serves later the functions settings and the function mapping. When you have selected your functions (max.16 incl. Headlight), fill in the individual sounds with the desired sounds. To do this, select from the sound source, e.g. "Engine".



Then select your desired locomotive sound (V200) with the left mouse button and drag the selected sound into the field driving sound with the mouse button held down. let go of the mouse button.

Decoder	Motor	Sound	Functions	Sound selection	Programming Pat
Sound S	Source	S	ound	Play back	
✓ Motor > Dampf	^	Running Sounds Diesel/V200		- <b>-</b>	
V Diesel		Sound 1		40	
BR217 BR218		Sound 2			The second se
BR220		Sound without Outpu	t		Comp 18
BR648(L F7 G2000 Hercules, Koef2 Lolo_V1I MaK6400 MTU400 MTU400 Nohab RS1 Schienen Schienen Schienen	_Oe8B201 30_BR218 0 - Motor traktor zeppelin chieuder	Add sound	Sound Parameter	Configure sounds	

In the "Sound without Output" need a sound from the categories Anfahrt (arrival), Bremsen (brakes) (eg "Bachen / V200") or Schalten (switching). It is possible with more than one field "Sound without Output" to create and fill with sounds from the above categories. Sound without output is not among the maximum of 16 functions.

Decoder	Motor	Sound	Functions		Sound	selectio
Soun	d Source	Sou	ind		Play	back
<ul> <li>Soundbiblioth</li> <li>Ablauf</li> </ul>	ek	Running Sounds Diesel/V200			49	-
> Anfahrt > Bremsen		Sound 1 Horn/Kurz V200, V300			40	
> eigeneBibli > Fahren	othek	Sound 2 Schaffner/Triller			40	
icons > mBibliothek		Backen/V200	Type Bremsen,	Slot Numb	er 247,	Size 36
> Motor > Multitext						
> Schalten > Sounds						
Stand						

If all sounds you want are occupied with sounds, go to the "Functions" tab. With the "+" symbols in the right column "Actions" you can add an action to the selected function key. With the tool symbol it is possible to configure the corresponding action.

The function F0, F1, F2 and F4 are pre-assigned with examples, these can be skipped or adapted.

Configurat	tion					
Decoder		Motor	Ĩ	Sound	Functions	Sound selection
	Trigger					
Function	Buttons			02	Outputs	0.0
F0	F1	► F2	(A) F3		Front Light	2
F4	F5	F6			Rear Light	23
F8	F9	F10		10	Logical functions	<b>H</b> 2
F12	F13	F.14	E1	5	Sounds	0.0
Outputs				● 21	Bus	11 12
Logical fu	unctions			0.2	Timer	0.0
Sounds				<b>B</b> 22		
Bus				00		
Timer				02		
Special F	unctions			00		

Clicking on the function, and right-click in the field you can reset it, so that it can be used for your own functions. By right-clicking, actions can be deleted individually.

### Assignment of the sound actions.

Highlight the desired sound trigger (F3), select the desired action for F3 by pressing + (Sounds)

Decode	F		Mo	tor		Sound	Functions	Sound selection			
Function Trigger											
Functio	n Bu	ttons				1 C C	Outputs	12			
FO	۲	F1	2	F2	090	3	Logical functions	0.0			
F4				E8	E	7	Sounds	1 I I I I I I I I I I I I I I I I I I I			
FB				F10	F	11	Bus	(H 💋			
F12		F13		F14	E	15	Timer	0.2			
Outputs	5					0.0					
Logical	func	tions				<b>E</b> 12					
Sounds						0.0					
Bus						0.6					
Timer OZ						012					
Specia	Fun	ctions				0.0					

And then select the desired sound (Sound 2). If required, you can adjust the volume by clicking on the sounds tool icon. (configure sounds)

Output	
Running Sounds Diesel/V200	
Sound 1 Horn/Kurz V200_V300	
Sound 2 Schaffner/Triller	

Double click on the highlighted F3 field to configure the icon for this function.

Decoder	I	Mot	or		Sound		Functions	Sound se	election
	gger								
Function Bu	ittons				07	Output	5		88
F0 🔶	F1	٦.	F2	04x F3		Logica	I functions		00
F4 🔺				Configure	e functio	n button			00
F8	F9			-			_	and the second	
F12				Button	Icon	Mode of O	perationAnalog activ	veDCC M.U.	5.0
Outputs				F3		Switching	Function ·		0
Logical func	tions								00
Sounds									
Bus					_				
Timer			_						
Special Fun	ctions		-						
1.1									

Configure function button

Button	lcon	Mode of OperationAnalog activeDCC M.U
F3	-	Switching Function -
	<u> </u>	
	-	
	Ē	
	壶	8.2

In the same way, you can assign logical functions such as brake squeal AND/OR to a function key.



Decoder Motor			Sound		Functions	Sound selection				
Function Trigger										
Function Buttons							Outputs	02		
F0 🌒	F1	2	F2	040	F3	÷94	Logical functions	0.0		
F4 🔺	F5	° 👶	F6		F7/		Switching Range	83		
F8	F9		F10		FIL		Sounds	02		
F12	E13		E14		F15		Bus	÷ 😒		
Outputs Of						00	Timer	02		
Logical functions						00				
Sounds						0.62				
Bus						04				
Timer						00				
Special Functions					00					
Always										
Sensor 1										
Random										

Once you have made all the settings, you can program the decoder. Use this button to initiate the transfer to the selected device. When no devices are connected the arrow will be grey. Answer the question that appears.



After a successful transfer, you can close the program.



To transfer the file through the CS 2, a stick with a CS 2 folder and at least 10 MB of free space must be attached to it. Close the configuration window and go to the home page. Now press the arrow above the CS 2 and follow the instructions.



Install the decoder in the locomotive and start the calibration test. Follow the instructions in the decoder manual.

Once the calibration test has been completed, you have the option to read in the decoder and save the data in the project. This function is only available with decoder programmer 60971.

Open the existing project and connect the decoder back into the programmer. Go to decoder, in the window that's opens, click Read out decoder (mLD3 / mSD3).



Answer subsequent question and subsequently save the project again.

# Sound and function types

- Sounds: Individual sounds such. B. whistle, horn.
- Ablauf: Sounds that are played in a certain frequency when turning on or off or switched on or off. The playing frequency is determined by the set parameters (see above).
- **Zufall:** Includes several different sounds to be randomly selected when playing, for example, different platform announcements.

- **Stand:** This sound is only played when the vehicle is stationary for at least 256 seconds. The sound is cancelled when the vehicle continues its journey.
- Logik/Sound Mute: This field can only be assigned with a sound number (1-15), further selection is not possible. This sound numbers causes a soft fade in/out of the active sounds.
- Schalten: Sound for switching sounds depending on the driving sound "Sound without Output".
- Fahren: These sounds are sounds that include driving, e.g. track impact's and are speed-dependent played.
- Anfahrt: Sound that is played before the start of the journey, e.g. Brake release (Bremsen\_auf) "Sound without output".
- Bremsen: Selecting the Selection of the brake sound, e.g. discs, a sound number can not be assigned "Sound without output".
- Multitext: Sound with successive announce e.g. announcement of the next stop of an influx. May require up to 3 sound numbers. A condition is the correct configuration of the decoder (CV 60)
- Logik/ Bremsen aus: With this function, the brake squeal can be switched off when the operating sound is switched on.
- Motor: This sound is always the typical local operating noise for Steam, Electric and Diesel locomotives.

# 4. Setting / changing the sound parameters



With "Settings" you can change or adjust individual sound parameters. These settings are transmitted with the sounds through the sound programmer.

# **Random Sound**

A random generator determines the time when the sound is played. The sound slot is played. The sound slot number can be found under sound by holding the mouse pointer on it.

Sound 2 Schaffner/Triller	49)
Sound 3 Luftpresser/V200	•
Sound withou Type Sounds, Slot Numb Backen/V200	ber 3, Size 56 KB

You must enter this slot number in the settings. The example shows: 75(sec) = switch-off time, 60(sec) = switch-on time, 15(sec) = playback time (results from switch-off time and switch-on time) and sound\_slotno. 3 (Sound 3)

Name	Address	Size	Values	
Ext. Eingang 2		1	U	_^
Ext. Eingang 3	78	1	0	
Zufallssounds (Start Ende Soundnr. Prio)	128	128		
Zufallssound 1	128	4	75 60 15 3	
Zufallssound 2	132	4	0000	
Zufallssound 3	136	4	0000	
Zufallssound 4	140	4	0000	
Zufallssound 5	144	4	0000	
Zufallssound 6	148	4	0000	

# Parameters Ablauf (run) sounds

Changeable: Here you can set the number of sounds to be played and it can be set to switching on and/or off, e.g. bell switching off after 12 times.

Gebr. Märklin & Cie. GmbH Stuttgarter Str. 55 - 57 73033 Göppingen Germany

MDT / 3/0915 / Ha1 Subject to change by Gebr. Märklin & Cie. GmbH

www.maerklin.com