

## General project information

Project-Name:

Roco X2800

Version-No.:

2

Project-No.:

11402

Item-No.:

Order-No.:

Customer:

Roco Modellspielwaren GmbH  
Rifer Hauptstrasse 21  
A-5400 Hallein

Contact person:

Detlef Bräuniger

Tel.-No.:

Email:

d.braeuniger@roco.cc

Project start:

06-04-28

Project status:

Active

Date of approval:

OEM-Manual required ☐

## Sound recording documentation

Origin of the sound:

ESU X2800 Recording, Besancon

Recording date:

06-04-28

Comments:

## Decoder information

Decodertype:

LokSound V3.5 8MBit

Loudspeaker:

40mm x 20mm

Configuration:

1 Speaker

Firmware-Version:

0.0.5968

## Decoder Setup

Address:

3

max. speed:

32

Protocols:

DC ☒  
AC ☒  
DCC ☒Motorola ☒  
mfx ☐  
Selectrix ☐

Break sections:

DCC ☒  
Märklin ☒

Prime mover sound description:

idle + 6 drivesteps; diesel sound

## Function keys:

F0	Light on/off
F1	Sound on/off
F2	Horn Signal 2
F3	Conductor's Signal
F4	Compressor
F5	Brake set
F6	Brake release
F7	Tachograph
F8	Shunting Mode
F9	Horn-Signal 1
F10	Airhorn 1 (high pitched)
F11	Airhorn 2 (low pitched)
F12	Airhorn 1 Short
F13	Airhorn 2 Short
F14	Diesel Notch Up
F15	Diesel Notch Down
F16	
F17	
F18	
F19	
F20	

## Special features:

Doppler effect on F10 and F11

### CV-Values

CV	DEC	BIN	HEX	CV	DEC	BIN	HEX	CV	DEC	BIN	HEX
CV 001 = 003	00000011	0x03		CV 116 = 015	00001111	0x0F		CV 182 = 011	00001011	0x0B	
CV 002 = 003	00000011	0x03		CV 117 = 015	00001111	0x0F		CV 183 = 000	00000000	0x00	
CV 003 = 007	00000111	0x07		CV 118 = 015	00001111	0x0F		CV 184 = 000	00000000	0x00	
CV 004 = 008	00001000	0x08		CV 121 = 064	01000000	0x40		CV 185 = 009	00001001	0x09	
CV 005 = 024	00011000	0x18		CV 122 = 064	01000000	0x40		CV 186 = 000	00000000	0x00	
CV 006 = 012	00001100	0x0C		CV 123 = 050	00110010	0x32		CV 187 = 000	00000000	0x00	
CV 013 = 001	00000001	0x01		CV 124 = 006	00000110	0x06		CV 188 = 009	00001001	0x09	
CV 014 = 003	00000011	0x03		CV 125 = 020	00010100	0x14		CV 189 = 000	00000000	0x00	
CV 017 = 192	11000000	0xC0		CV 126 = 060	00111100	0x3C		CV 190 = 003	00000011	0x03	
CV 018 = 128	10000000	0x80		CV 127 = 030	00011110	0x1E		CV 191 = 000	00000000	0x00	
CV 019 = 000	00000000	0x00		CV 128 = 080	01010000	0x50		CV 192 = 000	00000000	0x00	
CV 021 = 000	00000000	0x00		CV 129 = 000	00000000	0x00		CV 193 = 003	00000011	0x03	
CV 022 = 000	00000000	0x00		CV 130 = 000	00000000	0x00		CV 194 = 000	00000000	0x00	
CV 029 = 004	00000100	0x04		CV 131 = 000	00000000	0x00		CV 195 = 000	00000000	0x00	
CV 049 = 019	00010011	0x13		CV 132 = 000	00000000	0x00		CV 196 = 000	00000000	0x00	
CV 050 = 003	00000011	0x03		CV 133 = 000	00000000	0x00		CV 197 = 007	00000111	0x07	
CV 051 = 003	00000011	0x03		CV 134 = 012	00001100	0x0C		CV 198 = 000	00000000	0x00	
CV 052 = 000	00000000	0x00		CV 135 = 000	00000000	0x00		CV 199 = 000	00000000	0x00	
CV 053 = 056	00111000	0x38		CV 136 = 000	00000000	0x00		CV 200 = 007	00000111	0x07	
CV 054 = 032	00100000	0x20		CV 137 = 012	00001100	0x0C		CV 201 = 000	00000000	0x00	
CV 055 = 024	00011000	0x18		CV 138 = 000	00000000	0x00		CV 202 = 032	00100000	0x20	
CV 056 = 064	01000000	0x40		CV 139 = 000	00000000	0x00		CV 203 = 001	00000001	0x01	
CV 057 = 001	00000001	0x01		CV 140 = 000	00000000	0x00		CV 204 = 000	00000000	0x00	
CV 058 = 041	00101001	0x29		CV 141 = 001	00000001	0x01		CV 205 = 032	00100000	0x20	
CV 059 = 032	00100000	0x20		CV 142 = 000	00000000	0x00		CV 206 = 001	00000001	0x01	
CV 060 = 037	00100101	0x25		CV 143 = 000	00000000	0x00		CV 207 = 000	00000000	0x00	
CV 061 = 020	00010100	0x14		CV 144 = 002	00000010	0x02		CV 208 = 032	00100000	0x20	
CV 062 = 040	00101000	0x28		CV 145 = 000	00000000	0x00		CV 209 = 002	00000010	0x02	
CV 063 = 064	01000000	0x40		CV 146 = 000	00000000	0x00		CV 210 = 000	00000000	0x00	
CV 064 = 008	00001000	0x08		CV 147 = 000	00000000	0x00		CV 211 = 032	00100000	0x20	
CV 066 = 000	00000000	0x00		CV 148 = 004	00000100	0x04		CV 212 = 002	00000010	0x02	
CV 067 = 009	00001001	0x09		CV 149 = 000	00000000	0x00		CV 213 = 000	00000000	0x00	
CV 068 = 018	00010010	0x12		CV 150 = 000	00000000	0x00		CV 214 = 000	00000000	0x00	
CV 069 = 027	00011011	0x1B		CV 151 = 004	00000100	0x04		CV 215 = 003	00000011	0x03	
CV 070 = 036	00100100	0x24		CV 152 = 000	00000000	0x00		CV 216 = 000	00000000	0x00	
CV 071 = 045	00101101	0x2D		CV 153 = 000	00000000	0x00		CV 217 = 000	00000000	0x00	
CV 072 = 054	00110110	0x36		CV 154 = 000	00000000	0x00		CV 218 = 003	00000011	0x03	
CV 073 = 063	00111111	0x3F		CV 155 = 008	00001000	0x08		CV 219 = 000	00000000	0x00	
CV 074 = 072	01001000	0x48		CV 156 = 000	00000000	0x00		CV 220 = 000	00000000	0x00	
CV 075 = 081	01010001	0x51		CV 157 = 000	00000000	0x00		CV 221 = 004	00000100	0x04	
CV 076 = 091	01011011	0x5B		CV 158 = 008	00001000	0x08		CV 222 = 000	00000000	0x00	
CV 077 = 100	01100100	0x64		CV 159 = 000	00000000	0x00		CV 223 = 000	00000000	0x00	
CV 078 = 109	01101101	0x6D		CV 160 = 000	00000000	0x00		CV 224 = 004	00000100	0x04	
CV 079 = 118	01110110	0x76		CV 161 = 013	00001101	0x0D		CV 225 = 064	01000000	0x40	
CV 080 = 127	01111111	0x7F		CV 162 = 000	00000000	0x00		CV 226 = 000	00000000	0x00	
CV 081 = 136	10001000	0x88		CV 163 = 000	00000000	0x00		CV 227 = 000	00000000	0x00	
CV 082 = 145	10010001	0x91		CV 164 = 013	00001101	0x0D		CV 228 = 064	01000000	0x40	
CV 083 = 154	10011010	0x9A		CV 165 = 000	00000000	0x00		CV 229 = 000	00000000	0x00	
CV 084 = 163	10100011	0xA3		CV 166 = 000	00000000	0x00		CV 230 = 000	00000000	0x00	
CV 085 = 173	10101101	0xAD		CV 167 = 005	00000101	0x05		CV 231 = 128	10000000	0x80	
CV 086 = 182	10110110	0xB6		CV 168 = 000	00000000	0x00		CV 232 = 000	00000000	0x00	
CV 087 = 191	10111111	0xBF		CV 169 = 000	00000000	0x00		CV 233 = 000	00000000	0x00	
CV 088 = 200	11001000	0xC8		CV 170 = 005	00000101	0x05		CV 234 = 128	10000000	0x80	
CV 089 = 209	11010001	0xD1		CV 171 = 000	00000000	0x00		CV 235 = 000	00000000	0x00	
CV 090 = 218	11011010	0xDA		CV 172 = 000	00000000	0x00		CV 236 = 000	00000000	0x00	
CV 091 = 227	11100011	0xE3		CV 173 = 010	00001010	0x0A		CV 249 = 000	00000000	0x00	
CV 092 = 236	11101100	0xEC		CV 174 = 000	00000000	0x00		CV 250 = 000	00000000	0x00	
CV 093 = 245	11110101	0xF5		CV 175 = 000	00000000	0x00		CV 251 = 000	00000000	0x00	
CV 094 = 255	11111111	0xFF		CV 176 = 010	00001010	0x0A		CV 252 = 000	00000000	0x00	
CV 095 = 000	00000000	0x00		CV 177 = 000	00000000	0x00		CV 253 = 000	00000000	0x00	
CV 112 = 033	00100001	0x21		CV 178 = 000	00000000	0x00		CV 254 = 000	00000000	0x00	
CV 113 = 015	00001111	0x0F		CV 179 = 011	00001011	0x0B		CV 255 = 000	00000000	0x00	
CV 114 = 015	00001111	0x0F		CV 180 = 000	00000000	0x00					
CV 115 = 015	00001111	0x0F		CV 181 = 000	00000000	0x00					

## Revision

Date issued:

Sent by:

Customer's feedback date:

06-08-02

email

06-07-28

## Customer's feedback (change requests):

- make gearing audible
- change function key mapping

## Changes in comparison to the former version:

according to the feedback

Approval note added ☐

Production file generated by:

Date of generating:

Manual generated by:

Manual generated from: