

## Sound Project Overview 11422-Roco-VT98 So

| General project information                        |                 |                     |                    |  |
|--|-----------------|---------------------|--------------------|--|
| Project-Name:                                      | Ve              | rsion-No.:          | Project-No.:       |  |
| VT98   | 6               |                     | 11422              |  |
|  |                 |                     | 11722              |  |
| Item-No.:  | Or              | der-No.:            |                    |  |
|  |                 |                     |                    |  |
| Customer:  | Contact pe      | rson:               |                    |  |
| Roco Modelleisenbahn GmbH<br>Plainbachstrasse 4    | Christian       | Bauer               |                    |  |
| A-5101 Bergheim                                    | TelNo.:         | TelNo.:             |                    |  |
|  | Email:          |                     |                    |  |
|  | Email.          |                     |                    |  |
|  |                 |                     |                    |  |
| Project start:                                     | Project status: | Date of approval:   |                    |  |
| 07-05-16   | Active          | 07-09-14 - reactiva | ated on March 2008 |  |
| OEM-Manual required                                |                 |                     |                    |  |
|  |                 |                     |                    |  |
|  |                 |                     |                    |  |
| Sound recording documentation                      | n               |                     |                    |  |
| Sound recording documentation Origin of the sound: | n               | F                   | Recording date:    |  |
|  | n               | F                   | Recording date:    |  |
| Origin of the sound:                               | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |
| Origin of the sound: VT98 Recording Ulm            | n               | F                   | Recording date:    |  |

ESU

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| Deco              | coder information                      |                          |  |  |
|-------------------|--|--------------------------|--|--|
| Decode            | odertype: Loudspeaker: Configura       | ation:                   |  |  |
| Loksou            | soundV3.5 16MBit                       |                          |  |  |
|                   |  |                          |  |  |
|                   | ware-Version:                          |                          |  |  |
| 0.0.59            | 5969                                   |                          |  |  |
| Docor             | coder Setup                            |                          |  |  |
|                   |  |                          |  |  |
| Addres            |  | Break sections:<br>DCC ⊠ |  |  |
| 3                 | AC Mfx                                 | DCC 🗵<br>Märklin 🗵       |  |  |
|                   | DCC Selectrix                          |                          |  |  |
| Prime r           | ne mover sound description:            |                          |  |  |
| diesel            | sel mechenical sound, switches audible |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
| Functio           | ction keys:                            |                          |  |  |
| FO                | Light on/off                           |                          |  |  |
| F1                | Sound on/off                           |                          |  |  |
| F2<br>F3          | Airhorn Door                           |                          |  |  |
| F4                | Conductor's Signal                     |                          |  |  |
| F5<br>F6          | Announcement Shunting Mode             |                          |  |  |
| F7                | Brake Release                          |                          |  |  |
| F8                | Diesel Notch Up                        |                          |  |  |
| F9                | Diesel Notch Down                      |                          |  |  |
| F10<br>F11        | Airhorn short                          |                          |  |  |
| F12               |  |                          |  |  |
| F13               |  |                          |  |  |
| F14               |  |                          |  |  |
| F15<br>F16        |  |                          |  |  |
| F17               |  |                          |  |  |
| F18               |  |                          |  |  |
| F19               |  |                          |  |  |
| F20               |  |                          |  |  |
| Special features: |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |
|                   |  |                          |  |  |

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## ESU

| CV-Values  |  |  |
|--|--|--|
| CV DEC BIN HEX   | CV DEC BIN HEX   | CV DEC BIN HEX   |
| CV 001 = 003 00000011 0x03                               | CV 114 = 015 00001111 0x0F                               | CV 180 = 000 00000000 0x00                               |
| CV 002 = 002 00000010 0x02                               | CV 115 = 015 00001111 0x0F                               | CV 181 = 003 00000011 0x03                               |
| CV 003 = 010 00001010 0x0A                               | CV 116 = 015 00001111 0x0F                               | CV 182 = 000 00000000 0x00                               |
| CV 004 = 006 00000110 0x06<br>CV 005 = 030 00011110 0x1E | CV 117 = 000 00000000 0x00<br>CV 118 = 000 00000000 0x00 | CV 183 = 000 00000000 0x00<br>CV 184 = 000 00000000 0x00 |
| CV 003 = 030 00011110 0x1E<br>CV 006 = 013 00001101 0x0D | CV 178 = 000 00000000 0x00<br>CV 121 = 064 01000000 0x40 | CV 184 = 000 00000000 0x00<br>CV 185 = 006 00000110 0x06 |
| CV 013 = 001 00000001 0x01                               | CV 122 = 064 01000000 0x40                               | CV 186 = 000 00000000 0x00                               |
| CV 014 = 003 00000011 0x03                               | CV 123 = 064 01000000 0x40                               | CV 187 = 000 00000000 0x00                               |
| CV 017 = 192 11000000 0xC0                               | CV 124 = 015 00001111 0x0F                               | CV 188 = 006 00000110 0x06                               |
| CV 018 = 000 00000000 0x00                               | CV 125 = 020 00010100 0x14                               | CV 189 = 064 01000000 0x40                               |
| CV 019 = 000 00000000 0x00<br>CV 021 = 000 00000000 0x00 | CV 126 = 035 00100011 0x23<br>CV 127 = 030 00011110 0x1E | CV 190 = 000 00000000 0x00<br>CV 191 = 000 00000000 0x00 |
| CV 021 = 000 00000000 0x00<br>CV 022 = 003 00000011 0x03 | CV 127 = 030 00011110 0x1E<br>CV 128 = 070 01000110 0x46 | CV 191 = 000 00000000 0x00<br>CV 192 = 064 01000000 0x40 |
| CV 022 = 003 00000011 0x05<br>CV 029 = 022 00010110 0x16 | CV 129 = 000 00000000 0x00                               | CV 193 = 000 00000000 0x00                               |
| CV 049 = 019 00010011 0x13                               | CV 130 = 000 00000000 0x00                               | CV 194 = 000 00000000 0x00                               |
| CV 050 = 003 00000011 0x03                               | CV 131 = 000 00000000 0x00                               | CV 195 = 128 10000000 0x80                               |
| CV 051 = 007 00000111 0x07                               | CV 132 = 000 00000000 0x00                               | CV 196 = 000 00000000 0x00                               |
| CV 052 = 000 00000000 0x00                               | CV 133 = 000 00000000 0x00                               | CV 197 = 000 00000000 0x00                               |
| CV 053 = 030 00011110 0x1E<br>CV 054 = 025 00011001 0x19 | CV 134 = 000 00000000 0x00<br>CV 135 = 000 00000000 0x00 | CV 198 = 128 10000000 0x80<br>CV 199 = 000 00000000 0x00 |
| CV 054 = 025 00011001 0x19<br>CV 055 = 020 00010100 0x14 | CV 135 = 000 00000000 0x00<br>CV 136 = 000 00000000 0x00 | CV 200 = 000 00000000 0x00                               |
| CV 056 = 064 01000000 0x40                               | CV 137 = 000 00000000 0x00                               | CV 201 = 000 00000000 0x00                               |
| CV 057 = 001 00000001 0x01                               | CV 138 = 000 00000000 0x00                               | CV 202 = 000 00000000 0x00                               |
| CV 058 = 000 00000000 0x00                               | CV 139 = 000 00000000 0x00                               | CV 203 = 005 00000101 0x05                               |
| CV 059 = 032 00100000 0x20                               | CV 140 = 000 00000000 0x00                               | CV 204 = 000 00000000 0x00                               |
| CV 060 = 040 00101000 0x28                               | CV 141 = 001 00000001 0x01                               | CV 205 = 000 00000000 0x00                               |
| CV 061 = 040 00101000 0x28<br>CV 062 = 064 01000000 0x40 | CV 142 = 000 00000000 0x00<br>CV 143 = 000 00000000 0x00 | CV 206 = 005 00000101 0x05<br>CV 207 = 000 00000000 0x00 |
| CV 062 = 064 01000000 0x40                               | CV 144 = 002 00000010 0x02                               | CV 207 = 000 00000000 0x00                               |
| CV 064 = 004 00000100 0x04                               | CV 145 = 000 00000000 0x00                               | CV 209 = 000 00000000 0x00                               |
| CV 066 = 000 00000000 0x00                               | CV 146 = 000 00000000 0x00                               | CV 210 = 000 00000000 0x00                               |
| CV 067 = 009 00001001 0x09                               | CV 147 = 000 00000000 0x00                               | CV 211 = 000 00000000 0x00                               |
| CV 068 = 018 00010010 0x12                               | CV 148 = 004 00000100 0x04                               | CV 212 = 000 00000000 0x00                               |
| CV 069 = 027 00011011 0x1B<br>CV 070 = 036 00100100 0x24 | CV 149 = 000 00000000 0x00<br>CV 150 = 000 00000000 0x00 | CV 213 = 000 00000000 0x00<br>CV 214 = 000 00000000 0x00 |
| CV 070 = 036 00100100 0x24<br>CV 071 = 045 00101101 0x2D | CV 151 = 004 00000000 0x00                               | CV 214 = 000 00000000 0x00<br>CV 215 = 000 00000000 0x00 |
| CV 072 = 054 00110110 0x36                               | CV 152 = 000 00000000 0x00                               | CV 216 = 000 00000000 0x00                               |
| CV 073 = 063 00111111 0x3F                               | CV 153 = 000 00000000 0x00                               | CV 217 = 000 00000000 0x00                               |
| CV 074 = 072 01001000 0x48                               | CV 154 = 032 00100000 0x20                               | CV 218 = 000 00000000 0x00                               |
| CV 075 = 081 01010001 0x51                               | CV 155 = 001 00000001 0x01                               | CV 219 = 000 00000000 0x00                               |
| CV 076 = 091 01011011 0x5B                               | CV 156 = 000 00000000 0x00                               | CV 220 = 000 00000000 0x00                               |
| CV 077 = 100 01100100 0x64<br>CV 078 = 109 01101101 0x6D | CV 157 = 032 00100000 0x20<br>CV 158 = 001 00000001 0x01 | CV 221 = 000 00000000 0x00<br>CV 222 = 000 00000000 0x00 |
| CV 078 = 109 01101101 0x0D                               | CV 158 = 001 00000001 0x01<br>CV 159 = 000 00000000 0x00 | CV 223 = 000 00000000 0x00                               |
| CV 080 = 127 01111111 0x7F                               | CV 160 = 000 00000000 0x00                               | CV 224 = 000 00000000 0x00                               |
| CV 081 = 136 10001000 0x88                               | CV 161 = 002 00000010 0x02                               | CV 225 = 000 00000000 0x00                               |
| CV 082 = 145 10010001 0x91                               | CV 162 = 000 00000000 0x00                               | CV 226 = 000 00000000 0x00                               |
| CV 083 = 154 10011010 0x9A                               | CV 163 = 000 00000000 0x00<br>CV 164 = 002 00000010 0x02 | CV 227 = 000 00000000 0x00                               |
| CV 084 = 163 10100011 0xA3<br>CV 085 = 173 10101101 0xAD | CV 164 = 002 00000010 0x02<br>CV 165 = 000 00000000 0x00 | CV 228 = 000 00000000 0x00<br>CV 229 = 000 00000000 0x00 |
| CV 085 = 173 10101101 0xAD                               | CV 165 = 000 00000000 0x00                               | CV 230 = 000 00000000 0x00                               |
| CV 087 = 191 10111111 0xBF                               | CV 167 = 003 00000011 0x03                               | CV 231 = 000 00000000 0x00                               |
| CV 088 = 200 11001000 0xC8                               | CV 168 = 000 00000000 0x00                               | CV 232 = 000 00000000 0x00                               |
| CV 089 = 209 11010001 0xD1                               | CV 169 = 000 00000000 0x00                               | CV 233 = 000 00000000 0x00                               |
| CV 090 = 218 11011010 0xDA                               | CV 170 = 003 00000011 0x03                               | CV 234 = 000 00000000 0x00                               |
| CV 091 = 227 11100011 0xE3<br>CV 092 = 236 11101100 0xEC | CV 171 = 000 00000000 0x00<br>CV 172 = 000 00000000 0x00 | CV 235 = 000 00000000 0x00<br>CV 236 = 000 00000000 0x00 |
| CV 092 = 236 11101100 0xEC<br>CV 093 = 245 11110101 0xF5 | CV 172 = 000 00000000 0x00<br>CV 173 = 004 00000100 0x04 | CV 249 = 000 00000000 0x00                               |
| CV 094 = 255 11111111 0xFF                               | CV 174 = 000 00000000 0x00                               | CV 250 = 000 00000000 0x00                               |
| CV 095 = 000 00000000 0x00                               | CV 175 = 000 00000000 0x00                               | CV 251 = 000 00000000 0x00                               |
| CV 105 = 000 00000000 0x00                               | CV 176 = 004 00000100 0x04                               | CV 252 = 000 00000000 0x00                               |
| CV 106 = 000 00000000 0x00                               | CV 177 = 000 00000000 0x00                               | CV 253 = 000 00000000 0x00                               |
| CV 112 = 033 00100001 0x21                               | CV 178 = 003 00000011 0x03                               | CV 254 = 000 00000000 0x00                               |
| CV 113 = 015 00001111 0x0F                               | CV 179 = 000 00000000 0x00                               | CV 255 = 000 00000000 0x00                               |



## Sound Project Overview 11422-Roco-VT98 So

|   | Revision          |  |                           |  |  |  |
|---|-------------------|--|---------------------------|--|--|--|
| Customer's feedback (change requests):  Changes in comparison to the former version:  Fahrsound der ersten Version wieder eingefügt.  Approval note added □  Production file generated by:  Date of generating: | Date issued:      | Sent by:                               | Customer's feedback date: |  |  |  |
| Changes in comparison to the former version: Fahrsound der ersten Version wieder eingefügt.  Approval note added  Production file generated by:  Date of generating:  | 07-09-12          | email                                  | 07-09-11                  |  |  |  |
| Changes in comparison to the former version: Fahrsound der ersten Version wieder eingefügt.  Approval note added  Production file generated by:  Date of generating:  | Customer's feed   | Customer's feedback (change requests): |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Approval note added □ Production file generated by:  Date of generating:  | Changes in comm   | parison to the former version:         |                           |  |  |  |
| Production file generated by:  Date of generating:  | Fahrsound der     | ersten Version wieder eingefügt.       |                           |  |  |  |
| Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
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| Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Production file generated by:  Date of generating:  |                   |  |                           |  |  |  |
| Production file generated by:  Date of generating:  | Approval note ac  | dded □                                 |                           |  |  |  |
|   |                   |  | Date of generating:       |  |  |  |
| Manual generated by:  Manual generated from:  |                   | •                                      |                           |  |  |  |
| vianuai generateu by.   | Manual generate   | ad hv                                  | Manual generated from:    |  |  |  |
|   | ivianuai generate | ы оу.                                  | Manda generated nom.      |  |  |  |
|   |                   |  |                           |  |  |  |