

Sound Project Overview 11439-Roco-Rh20 6-

General project information				
Project-Name:		Version-No.:	Proi	ect-No.:
Roco Rh2016		5		11439
				11433
Item-No.:		Order-No.:		
Customer:	Contac	ct person:		
Roco Modelleisenbahn GmbH		nas Weißl		
Plainbachstrasse 4 A-5101 Bergheim	TelN	lo.:		
	Email:	<u>:</u>		
Project start:	Project status:	Date of appro		
April 2009	Active	09-04-07 (fir	rst approval)	
OEM-Manual required				
Sound recording documentatio	n			
Origin of the sound:			Recording da	ate:
Roco Recordings			unknown	
Comments:				

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Decoder information				
Decodertype:	Loudspeaker:	Configuration:		
LoksoundV3.5 16MB	installed by manufacturer	installed by manufacturer		
Firmware-Version:				
0.0.6088				
Decoder Setup				
Address: max.	speed: Protocols:	Break sections:		
3 55		Motorola ⊠ DCC ⊠		
3	——— AC ⊠	mfx \square Märklin \boxtimes		
	DCC 🗵	Selectrix		
Prime mover sound des	scription:			
diesel sound	range worth			
diesei sourid				
FO Light on/off				
FO Light on/off F1 Sound on/off				
FO Light on/off F1 Sound on/off F2 Airhorn 1				
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2				
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s	ignal			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod				
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's 9 F6 Shunting Mod F7 Valve	de			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange	de			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annotation	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annotes F10 Station Annotes	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoi F10 Station Annoi F11 Driver's Door	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoi F10 Station Annoi F11 Driver's Door F12 Start up F13	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoi F10 Station Annoi F11 Driver's Door F12 Start up F13 F14	de uncement 1			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F10 Driver's Door F12 Start up F13 F14 F15	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F11 Driver's Door F12 Start up F13 F14 F15 F16	de uncement 1			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F11 Driver's Door F12 Start up F13 F14 F15 F16 F17	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18	de uncement 1			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18 F19	de uncement 1			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoum F10 Station Annoum F10 Start up F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18 F19 F20	de uncement 1			
F0 Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoum F10 Station Annoum F10 Station Annoum F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18 F19 F20	de uncement 1			
F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annot F10 Station Annot F11 Driver's Door	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoum F10 Station Annoum F10 Start up F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18 F19 F20	de uncement 1			
FO Light on/off F1 Sound on/off F2 Airhorn 1 F3 Airhorn 2 F4 Coupler F5 Conductor's s F6 Shunting Mod F7 Valve F8 Wheel flange F9 Station Annoum F10 Station Annoum F10 Start up F11 Driver's Door F12 Start up F13 F14 F15 F16 F17 F18 F19 F20	de uncement 1			

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CV-Values CV DEC BIN DEC BIN HEX CV DEC BIN CV 001 = 003 00000011 0x03 CV 114 = 015 00001111 0x0F CV 178 = 003 00000011 0x03 CV 002 = 002 00000010 0x02CV 115 = 000 00000000 0x00 CV 179 = 000 00000000 0x00 CV 180 = 000 00000000 0x00 CV 116 = 000 00000000 0x00 CV 003 = 020 00010100 0x14CV 004 = 008 00001000 0x08 CV 117 = 015 00001111 0x0F CV 181 = 003 00000011 0x03 CV 181 = 003 00000011 0x03 CV 182 = 000 00000000 0x00 CV 183 = 000 00000000 0x00 CV 184 = 000 00000000 0x00 CV 185 = 002 00000010 0x02 CV 186 = 000 00000000 0x00 CV 187 = 000 00000000 0x00 CV 188 = 002 0000010 0x02 CV 189 = 000 00000000 0x00 CV 190 = 000 00000000 0x00 CV 191 = 005 00000101 0x05 CV 192 = 000 00000000 0x00 CV 118 = 015 00001111 0x0F CV 119 = 000 00000000 0x00 CV 005 = 038 00100110 0x26 CV 006 = 015 00001111 0x0FCV 120 = 000 00000000 0x00 CV 013 = 001 00000001 0x01 CV 121 = 025 00011001 0x19 CV 014 = 003 00000011 0x03 CV 122 = 038 00100110 0x26 CV 123 = 032 00100000 0x20 CV 017 = 192 11000000 0xC0CV 018 = 128 10000000 0x80 CV 124 = 006 00000110 0x06 CV 019 = 000 00000000 0x00 CV 125 = 030 000011110 0x1E CV 126 = 070 01000110 0x46 CV 127 = 030 00011110 0x1E CV 021 = 000 00000000 0x00 CV 022 = 000 00000000 0x00 CV 029 = 022 00010110 0x16 CV 049 = 017 00010001 0x11CV 128 = 080 01010000 0x50 CV 192 = 000 00000000 0x00 CV 050 = 003 00000011 0x03 CV 051 = 003 00000011 0x03 CV 129 = 000 00000000 0x00 CV 130 = 000 00000000 0x00 CV 193 = 000 00000000 0x00 CV 194 = 005 00000101 0x05 CV 195 = 000 00000000 0x00 CV 052 = 000 00000000 0x00 CV 131 = 000 00000000 0x00 CV 196 = 000 00000000 0x00 CV 197 = 007 00000111 0x07 CV 198 = 000 00000000 0x00 CV 132 = 000 00000000 0x00 CV 053 = 056 00111000 0x38 CV 133 = 000 00000000 0x00 CV 134 = 000 00000000 0x00 CV 054 = 032 00100000 0x20 CV 055 = 024 00011000 0x18 CV 135 = 000 00000000 0x00 CV 199 = 000 00000000 0x00 CV 056 = 064 01000000 0x40 CV 057 = 000 00000000 0x00 CV 136 = 000 00000000 0x00 CV 200 = 007 00000111 0x07 CV 058 = 001 00000001 0x01 CV 137 = 000 00000000 0x00 CV 201 = 000 00000000 0x00 CV 202 = 000 00000000 0x00 CV 059 = 032 00100000 0x20 CV 138 = 000 00000000 0x00 CV 060 = 045 00101101 0x2D CV 139 = 000 00000000 0x00 CV 203 = 008 00001000 0x08 CV 061 = 048 00110000 0x30 CV 140 = 000 00000000 0x00 CV 204 = 000 00000000 0x00 CV 205 = 000 00000000 0x00 CV 141 = 001 00000001 0x01 CV 062 = 064 01000000 0x40CV 142 = 000 00000000 0x00 CV 206 = 008 00001000 0x08 CV 063 = 059 00111011 0x3B CV 064 = 024 00011000 0x18 CV 143 = 000 00000000 0x00 CV 207 = 000 00000000 0x00 CV 066 = 000 00000000 0x00 CV 067 = 001 00000001 0x01 CV 144 = 002 00000010 0x02 CV 208 = 000 00000000 0x00 CV 145 = 000 00000000 0x00 CV 209 = 009 00001001 0x09 CV 146 = 000 00000000 0x00 CV 210 = 000 00000000 0x00 CV 068 = 001 00000001 0x01 CV 211 = 000 00000000 0x00 CV 069 = 002 00000010 0x02 CV 147 = 000 00000000 0x00CV 148 = 020 00010100 0x14 CV 149 = 000 00000000 0x00 CV 212 = 009 00001001 0x09 CV 070 = 003 00000011 0x03 CV 213 = 000 00000000 0x00 CV 071 = 005 00000101 0x05 CV 150 = 000 00000000 0x00 CV 214 = 000 00000000 0x00 CV 072 = 009 00001001 0x09 CV 073 = 013 00001101 0x0D CV 151 = 020 00010100 0x14 CV 215 = 010 00001010 0x0A CV 152 = 000 00000000 0x00 CV 074 = 019 00010011 0x13CV 216 = 000 00000000 0x00 CV 153 = 000 00000000 0x00 CV 075 = 025 00011001 0x19 CV 217 = 000 00000000 0x00 CV 218 = 010 00001010 0x0A CV 219 = 000 00000000 0x00 CV 076 = 033 00100001 0x21 CV 154 = 032 00100000 0x20CV 077 = 040 00101000 0x28 CV 155 = 001 00000001 0x01 CV 220 = 000 00000000 0x00 CV 156 = 000 00000000 0x00 CV 078 = 048 00110000 0x30 CV 157 = 032 00100000 0x20 CV 221 = 000 00000000 0x00 CV 079 = 058 00111010 0x3A CV 158 = 001 00000001 0x01 CV 080 = 068 01000100 0x44 CV 222 = 000 00000000 0x00 CV 081 = 076 01001100 0x4C CV 082 = 083 01010011 0x53 CV 159 = 000 00000000 0x00 CV 223 = 000 00000000 0x00 CV 224 = 000 00000000 0x00 CV 160 = 032 00100000 0x20 CV 225 = 000 00000000 0x00 CV 083 = 091 01011011 0x5B CV 161 = 004 00000100 0x04CV 162 = 000 00000000 0x00 CV 226 = 000 00000000 0x00 CV 084 = 097 01100001 0x61 CV 085 = 103 01100111 0x67 CV 163 = 032 00100000 0x20 CV 227 = 000 00000000 0x00 CV 086 = 109 01101101 0x6D CV 164 = 004 00000100 0x04 CV 228 = 000 00000000 0x00 CV 087 = 114 01110010 0x72 CV 165 = 000 00000000 0x00 CV 229 = 000 00000000 0x00 CV 088 = 117 01110101 0x75CV 166 = 000 00000000 0x00 CV 230 = 000 00000000 0x00 CV 089 = 120 01111000 0x78 CV 167 = 006 00000110 0x06 CV 231 = 000 00000000 0x00 CV 168 = 000 00000000 0x00 CV 090 = 123 01111011 0x7B CV 232 = 000 00000000 0x00 CV 091 = 125 011111101 0x7DCV 169 = 000 00000000 0x00 CV 233 = 000 00000000 0x00 CV 170 = 006 00000110 0x06 CV 234 = 000 00000000 0x00 CV 092 = 126 01111110 0x7E CV 171 = 000 00000000 0x00 CV 235 = 000 00000000 0x00 CV 093 = 128 10000000 0x80 CV 094 = 128 10000000 0x80 CV 172 = 000 00000000 0x00 CV 236 = 000 00000000 0x00 CV 095 = 000 00000000 0x00 CV 105 = 000 00000000 0x00 CV 173 = 003 00000011 0x03 CV 249 = 000 00000000 0x00CV 174 = 000 00000000 0x00 CV 250 = 000 00000000 0x00 CV 106 = 000 00000000 0x00 CV 175 = 000 00000000 0x00 CV 251 = 000 00000000 0x00 CV 112 = 033 00100001 0x21 CV 176 = 003 00000011 0x03 CV 252 = 000 00000000 0x00 CV 177 = 000 00000000 0x00 CV 253 = 000 00000000 0x00 CV 113 = 015 00001111 0x0F



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Revision						
Date issued:	Sent by:	Customer's feedback date:				
09-08-05	Email	09-08-05				
Customer's feedback (change requests):						
Changes in com	narican to the former version:					
driving sounds	parison to the former version: adjusted for skipping sound gaps					
Approval note ac	ddod □					
Production file g		Date of generating:				
Production me 9	enerated by.	Date of generating.				
Manual generate	ed by:	Manual generated from:				