H0 Bh/Balm/Bzx TT –Aam/ Bai built in PCB board with DCC decoder - CV manual
version 1.1 2_2026, firmware 2.4

CV	factory value	function
1	3	short address
7	16	type of PCB- 16= Bh vagon, interiér ligth without red
8	72	MTB-model – manufacturer ID. read only. For factory reset of unit write value 8 into CV8
13	255	analog function enable (LSB) F1… F8 (MSB) if $bit_{(0..7)}$ =1 then in analog mode Fx is automatically active
14	255	analog function enable (LSB)FLfw,, FLrev, F9… F12 (bit 5) if $bit_{(0)}$ =1 then in analog mode FL is automatically active in forward dir if $bit_{(1)}$ =1 then in analog mode FL is automatically active in reverse dir if $bit_{(2..5)}$ =1 then in analog mode Fx is automatically active
15	255	DCC decoder lock1
16	255	DCC decoder lock2. any CV can be changed only if CV15=CV16
17	192	HI byte long address (0xC0 hex 1100.0000b)
18	0	LOW byte of long addres
19,20	0	CV19 consist address (1..127), CV20- consist long addres if $bit_{(7)}$ =1 , unit is in opposite direction (not used in Bh board)
21	0	*consist mode function enable (LSB) F1… F8 (MSB)* if $bit_{(0..7)}$ =1 then if CV19 is active (not zero) Fx function respond only for consist command. if $bit_{(0..7)}$ =0 then Fx function respond only for short/long unit address
22	0	consist mode enable (LSB)FLfw, FLrev, F9… F12 (bit 5) bit has same function as CV21 if $bit_{(0)}$ =1 FL is consist controlled in forward dir if $bit_{(1)}$ =1 FL is consist controlled in reverse dir
29	6	config bits CV29 if $bit_{(0)}$ =0 then unit is in normal direction / 1 = reversed (not effect for Bh) if $bit_{(1)}$ =0 then FL bit is in speed packed / 1 = FL controlled by Func11 group if $bit_{(2)}$ =0 then analog mode disabled / 1 = enabled if $bit_{(5)}$ =0 then short address used (CV1) / 1 = long address CV17-CV18
33	0	function mapping bits into physical OUTs- forward FL0 (see NMRA s definition)
34	0	function mapping bits into physical OUTs- reverse FL0
35-46	CV35=12 (0xC/ b.1100) CV39=2 other CVx=0	function mapping bits into physical OUTs- F1 (CV35) to F12 (CV46) allocation OUTs of Bh-B1 board: OUT 0 (bit0)- reserved OUT 1- interior ligting OUT 2- RED LED reverse direct (future expansion) OUT 3- RED LED forward direct (future expansion) in factory state: F1 control RED led (automatically direction changed, not in Bh) F5 control interior lighting
47	1	MTB specified: firmware number, now 01
48	8	MTB specified: not used
49	1	MTB specified: magnet switch mode 0= disable 1= switch ON – switch-OFF toggle 2 = switch ON, after 6 sec lights are automatically Off 3 = switch ON, after 12 sec lights are automatically Off mode 2/3 are usefull for run througth tunnel with magnets placed inside tunnel

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