

# Hall Opposition Declaration Exhibit B

20061229\_DccCommander.txt

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7,3,Added SqlExpress Stred procedures,KAMIND Associates, Inc All rights reserved.,2006-10-29 00:00:00,KAMIND Associates, Inc.  
8,4,Added Lenz decoders,KAMIND Associates, Inc All rights reserved.,2006-10-31 00:00:00,KAMIND Associates, Inc  
10,5,Added Massoth eMOTION XL,KAMIND Associates, Inc,2006-12-06 00:00:00,KAMIND Associates, Inc  
1,0,English,Default Language if not specified,  
2,1,German,,  
0,Unknown  
  
1,CML Electronics Limited  
  
2,Train Technology  
  
11,NCE Corporation (formerly North Coast Engineering)  
  
12,Wangrow Electronics  
  
13,Public Domain & Do-It-Yourself Decoders  
  
14,PSI -Dynatrol  
  
15,Ramfixx Technologies (Wangrow)  
  
17,Advanced IC Engineering, Inc.  
  
19,AMW  
  
20,T4T - Technology for Trains GmbH  
  
21,Kreischer Datentechnik  
  
22,KAM Industries  
  
23,S Helper Service  
  
24,MoBaTron.de  
  
25,Team Digital, LLC  
  
26,MBTronik - PiN GITmBH  
  
27,MTH Electric Trains, Inc.  
  
28,Heljan A/S  
  
29,Mistral Train Models

20061229\_DccCommander.txt

30,Toydigit  
31,Brelec  
32,Regal Way Co. Ltd  
33,Praecipus  
34,Aristo-Craft Trains  
35,Elektronik & Model Produktion  
36,DCCconcepts  
37,NAC Services, Inc.  
62,Tams Elektronik GmbH  
66,Railnet Solutions, LLC  
68,MAWE Elektronik  
71,New York Byano Limited  
73,The Electric Railroad Company  
85,Uhlenbrock GmbH  
87,RR-Cirkits  
95,Sanda Kan Industrial, Ltd.  
97,Doehler & Haas  
99,Lenz Elektronik GmbH  
101,Bachmann Trains  
103,Nagasue System Design Office  
105,Computer Dialysis France  
109,Viessmann Modellspielwaren GmbH  
111,Haber & Koenig Electronics GmbH (HKE)  
113,QS Industries (QSI)  
115,Dietz Modellbahntechnik  
117,cT Elektronik  
119,W. S. Ataras Engineering  
123,Massoth Elektronik, GmbH  
125,ProfiLok Modellbahntechnik GmbH  
127,Atlas Model Railroad Products  
129,Digitrax  
131,Trix Modelleisenbahn

20061229\_DccCommander.txt

132,ZTC  
133,Intelligent Command Control  
135,CVP Products  
139,RealRail Effects  
141,Throttle-Up (Soundtraxx)  
143,Model Rectifier Corp.  
145,Zimo Elektronik  
147,Umelec Ing. Buero  
149,Rock Junction Controls  
151,Electronic Solutions Ulm GmbH  
153,Train Control Systems  
155,Gebr. Fleischmann GmbH & Co.  
157,Kuehn Ing.  
159,LGB (Ernst Paul Lehmann Patentwerk)  
161,Modelspielwaren GmbH (formerly Roco)  
163,WP Railshops  
165,Model Electronic Railway Group  
170,AuroTrains  
173,Arnold - Rivarossi  
186,BRAWA Modellspielwaren GmbH & Co.  
204,Con-Com GmbH  
238,NMRA Reserved  
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20061229\_DccCommander.txt

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234,36,2,False  
235,37,2,False  
236,39,2,False  
237,40,2,False  
238,41,2,False  
239,42,2,False  
240,43,2,False  
241,44,2,False  
242,45,2,False  
243,46,2,False  
244,49,2,False  
245,50,2,False  
246,51,2,False  
247,52,2,False  
248,53,2,False  
249,55,2,False  
250,56,2,False  
251,62,2,False  
252,64,2,False  
253,66,2,False  
254,67,2,False  
255,68,2,False  
256,69,2,False  
257,70,2,False  
258,71,2,False  
259,72,2,False  
260,73,2,False  
261,74,2,False  
262,75,2,False  
263,76,2,False  
264,77,2,False  
265,78,2,False  
266,79,2,False  
267,80,2,False  
268,81,2,False  
269,82,2,False  
270,83,2,False  
271,84,2,False  
272,85,2,False  
273,86,2,False  
274,87,2,False  
275,88,2,False  
276,89,2,False  
277,90,2,False

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278,91,2,False  
 279,92,2,False  
 280,93,2,False  
 281,94,2,False  
 282,95,2,False  
 283,38,2,False  
 284,96,2,False  
 285,97,2,False  
 286,98,2,False  
 287,99,2,False  
 288,100,2,False  
 289,101,2,False  
 290,102,2,False  
 291,103,2,False  
 292,104,2,False  
 293,105,2,False  
 294,112,2,False  
 295,113,2,False  
 296,114,2,False  
 297,126,2,False  
 298,127,2,False  
 299,128,2,False  
 300,1,4,False  
 301,2,4,False  
 302,3,4,False  
 303,4,4,False  
 304,5,4,False  
 305,6,4,False  
 306,7,4,False  
 307,8,4,False  
 308,17,4,False  
 309,18,4,False  
 310,29,4,False  
 311,6,1,False  
 312,10,1,True  
 1,1,0,QSI Decoder ,113,,2006-10-06 00:00:00,NMRA DCC Reference Manual for QSI  
 Quantum(R) HO Equipped Locomotives Ver 3.0, 16 Feb  
 2005,1,1,113,56,10960,127,49,50,67,94,0  
 3,2,0,NMRA Extended,22,,1997-07-27 00:00:00,NMRA Extended Decoder from KAM's  
 proposed NMRA Application programming manual.,1,3,33,8,10960,127,0,0,67,94,0  
 6,3,0,Silver Mini Silent-Back EMF DCC Decoder,99,2006-10-14  
 07:15:54.657000000,2006-10-14 07:15:54.657000000,Lenz Silver Decoders have received  
 an NMRA C&I warrant. Art no 10310.1 June 2006,1,65,33,8,9999,127,0,0,67,94,0  
 7,4,0,NMRA Compatible,22,2006-10-31 09:33:19,1997-08-24 09:33:19,NMRA Compatible  
 Decoder ,1,1,0,0,127,127,0,0,0,0,0  
 8,5,0,Gold Maxi Silent-Back EMF,99,2006-10-31 00:00:00,2006-10-31 00:00:00,Lenz  
 Gold decoders have received an NMRA,1,72,33,8,10960,127,0,0,67,94,0  
 9,6,0,Gold Mini Silent -Back EMF Dcc Decoder,99,2006-10-31 00:00:00,2006-10-31  
 00:00:00,Lenz Gold Mini Silent -Back EMF,1,60,33,8,10960,127,0,0,67,94,0  
 10,7,0,eMotion XL,123,2006-12-06 00:00:00,2006-12-06 00:00:00,Massoth Elektronik  
 Gmbh EMOTION XL Lokdecoder Nr. 8150001 v1.2,1,12,55,7,10239,127,0,0,67,94,0  
 1,2,25,0,-1,0,1  
 2,4,25,0,-1,1,1  
 3,6,25,0,-1,2,1  
 4,7,25,0,-1,3,1  
 5,8,25,0,-1,4,1  
 6,9,25,0,-1,5,1  
 7,10,25,0,-1,6,1  
 8,11,25,0,-1,7,1  
 9,12,25,0,-1,65,1  
 10,13,25,0,-1,66,1  
 11,14,25,0,-1,67,1  
 12,16,25,0,-1,68,1



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13,17,25,0,-1,69,1  
14,18,25,0,-1,70,1  
15,19,25,0,-1,71,1  
16,20,33,0,0,0,1  
17,21,33,0,1,0,1  
18,22,33,0,0,1,1  
19,23,33,0,1,1,1  
20,24,33,0,0,2,1  
21,25,33,0,1,2,1  
22,26,33,0,0,3,1  
23,27,33,0,1,3,1  
24,28,33,0,0,4,1  
25,29,33,0,1,4,1  
26,30,33,0,0,5,1  
27,31,33,0,1,5,1  
28,32,33,0,0,6,1  
29,33,33,0,1,6,1  
30,34,33,0,0,7,1  
31,35,33,0,1,7,1  
32,49,34,0,0,0,1  
33,50,34,0,1,0,1  
34,51,34,0,0,1,1  
35,52,34,0,1,1,1  
36,53,34,0,0,2,1  
37,54,34,0,1,2,1  
38,56,34,0,0,3,1  
39,57,34,0,1,3,1  
40,58,34,0,0,4,1  
41,59,34,0,1,4,1  
42,60,34,0,0,5,1  
43,61,34,0,1,5,1  
44,62,34,0,0,6,1  
45,63,34,0,1,6,1  
46,64,34,0,0,7,1  
47,65,34,0,1,7,1  
48,66,35,0,0,0,1  
49,67,35,0,1,0,1  
50,68,35,0,0,1,1  
51,69,35,0,1,1,1  
52,70,35,0,0,2,1  
53,71,35,0,1,2,1  
54,72,35,0,0,3,1  
55,73,35,0,1,3,1  
56,74,35,0,0,4,1  
57,75,35,0,1,4,1  
119,76,35,0,0,5,1  
120,77,35,0,1,5,1  
121,78,35,0,0,6,1  
122,79,35,0,1,6,1  
123,80,35,0,0,7,1  
124,81,35,0,1,7,1  
134,20,36,0,0,0,1  
135,21,36,0,1,0,1  
136,22,36,0,0,1,1  
137,23,36,0,1,1,1  
138,24,36,0,0,2,1  
139,25,36,0,1,2,1  
140,26,36,0,0,3,1  
141,27,36,0,1,3,1  
142,28,36,0,0,4,1  
143,29,36,0,1,4,1  
144,30,36,0,0,5,1  
145,31,36,0,1,5,1

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146,32,36,0,0,6,1
147,33,36,0,1,6,1
148,34,36,0,0,7,1
149,35,36,0,1,7,1
1,7,0,255,0,0,False,1
2,33,0,255,1,0,True,1
3,34,0,255,3,0,True,1
4,35,0,255,4,0,True,1
6,49,0,255,0,0,False,1
9,50,0,255,0,0,False,1
10,51,0,255,0,0,False,1
11,52,0,255,0,0,False,1
13,53,0,255,0,0,False,1
14,55,0,255,0,0,False,1
15,56,0,255,0,0,False,1
16,62,0,255,1,0,False,1
17,64,0,255,0,0,False,1
18,2,0,255,32,0,True,1
19,3,0,255,0,0,False,1
20,4,0,255,0,0,False,1
21,36,0,255,8,0,True,1
24,37,0,255,16,0,True,1
25,38,0,255,4,0,True,1
27,39,0,255,8,0,True,1
28,40,0,255,16,0,True,1
29,41,0,255,32,0,True,1
30,42,0,255,64,0,True,1
31,43,0,255,16,0,True,1
32,44,0,255,32,0,True,1
33,45,0,255,64,0,True,1
34,46,0,255,128,0,True,1
143,9,0,63,0,0,False,3
1,1,mainLine,,,0
2,2,page,,,0
3,3,Direct,,,0
4,1,German mainline,,,1
5,2,German page,,,1
6,3,German Direct,,,1
7,4,Register,Register Mode programm for older decoders that do nto conform tothe
new programming standards,,0
9,5,Bit Mode Programing,,,0
10,6,Byte Mode programming,,,0
1,25,2,Convex Speed Table,,Reverts to user defined speed table (CV67 - 94)
,1,0
2,25,4,Convex Speed Table,,Reverts to user defined speed table (CV 67-94)
,1,0
3,25,6,Convex Speed table,,Linear Curve
,1,0
4,25,7,Convex Speed Table,,Fast Start 1 (close to linear)
,1,0
5,25,8,Convex Speed Table,,Fast Start 2
,1,0
6,25,9,Convex Speed Table,,Fast Start 3
,1,0
7,25,10,Convex Speed Table,,Fast Start 4
,1,0
8,25,11,Convex Speed Table,,Fast Start 5 (greatest curvature)
,1,0
9,25,12,Concave SLOW Start Curve,,reverts to Linear Curve
,1,0
10,25,13,Concave SLOW Start Curve,,Reverts t Linear Curve
,1,0
11,25,14,Concave SLOW Start Curve,,Slow Start 1 (close to linear)
,1,0

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,1,0  
12,25,16,Concave SLOW Start Curve,,SLOW Start 2 ,1,0  
,1,0  
13,25,17,Concave SLOW Start Curve,,Slow Start 3 ,1,0  
,1,0  
14,25,18,Concave SLOW Start Curve,,Slow Start 4 ,1,0  
,1,0  
15,25,19,Concave SLOW Start Curve,,Slow Start 5 (greatest curvature) ,1,0  
,1,0  
16,33,20,Directional Lighting,,Directional lighting turn off by FL(f) ,1,0  
,1,0  
17,33,21,Directional Lighting,,Directional Lighting turn on by FL(f) ,1,0  
,1,0  
18,33,22,Directional Reverse Light,,Direction lighting turn off by FL(f) ,1,0  
,1,0  
19,33,23,Directional Reverse Light,,Directional Lighting turn on by FL(f) ,1,0  
,1,0  
20,33,24,Bell,,Bell turn off by FL(f) ,1,0  
,1,0  
21,33,25,Bell,,Bell turn on by FL(f) ,1,0  
,1,0  
22,33,26,Whistle/Horn,,The Whistle/Horn turn off by FL(f) ,1,0  
,1,0  
23,33,27,Whistle/Horn,,Whistle/Horn turn on by FL(f) ,1,0  
,1,0  
24,33,28,Couple Crash, Couple Arm, Couple Fire,, "0-1" If FL(f) changed when engine is moving, couple crash sounds are produced. ,1,0  
25,33,29,Couple Crash, Couple Arm, Coupler Fire,, "1-0" If FL(f) changed when engine is in Neutral, Coupler Arm or couple Fire occurs ,1,0  
26,33,30,Steam Engine Blower Hiss or diesel,,Blower-Hiss/Fans will turn off FL(f) and you will "take control" of Blower-Hiss/Fans. ,1,0  
27,33,31,Steam Engine Blower Hiss or Diesel,,Blower-Hiss/Fans will turn on FL(f) and you will "take control" of Blower-Hiss/Fans. ,1,0  
28,33,32,Dynamic Brakes,,Dynamic Brakes will turn off by FL(f) ,1,0  
,1,0  
29,33,33,Dynamics brakes,,Dynamics brakes will turn on by FL(f) ,1,0  
,1,0  
30,33,34,Doppler, Start Up,, "0-1" or "1-0" If FL(f) is changed, Doppler shift will occur in a moving Engine ,1,0  
31,33,35,Doppler Start Up,, "0-1-0" or "1-0-1" If FL(f) is double pressed, Quantum will clear all "Take Control" ,1,0  
32,34,49,Directional Lighting,,Directional lighting turn off by FL(r) ,1,0  
,1,0  
33,34,50,Directional Lighting,,Directional Lighting turn on by FL(r) ,1,0  
,1,0  
34,34,51,Directional Reverse Light,,Direction lighting turn off by FL(r) ,1,0  
,1,0  
35,34,52,Directional Reverse Light,,Directional Lighting turn on by FL(r) ,1,0  
,1,0  
36,34,53,Bell,,Bell turn off by FL(r) ,1,0  
,1,0  
37,34,54,Bell,,Bell turn on by FL(r) ,1,0  
,1,0  
38,34,56,Whistle/Horn,,The Whistle/Horn turn off by FL(r) ,1,0  
,1,0  
39,34,57,Whistle/Horn,,Whistle/Horn turn on by FL(r) ,1,0  
,1,0  
40,34,58,Couple Crash, Couple Arm, Couple Fire,, "0-1" If FL(r) changed when engine is moving, couple crash sounds are produced. ,1,0  
41,34,59,Couple Crash, Couple Arm, Coupler Fire,, "1-0" If FL(r) changed when engine is in Neutral, Coupler Arm or couple Fire occurs ,1,0  
42,34,60,Steam Engine Blower Hiss or diesel,,Blower-Hiss/Fans will turn off by FL(r) and you will "take control" of Blower-Hiss/Fans. ,1,0

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43,34,61,Steam Engine Blower Hiss or Diesel,,Blower-Hiss/Fans will turn on by FL(r)  
and you will "take control" of Blower-Hiss/Fans. ,1,0

44,34,62,Dynamic Brakes,,Dynamic Brakes will turn off FL(r)  
,1,0

45,34,63,Dynamics brakes,,Dynamics brakes will turn on by FL(r)  
,1,0

46,34,64,Doppler, Start Up,, "0-1" or "1-0" If FL(r) is changed, Doppler shift will  
occur in a moving Engine ,1,0

47,34,65,Doppler, Start Up,, "0-1-0" or "1-0-1" If FL(r) is double pressed, Quantum  
will clear all "Take Control" ,1,0

48,35,66,Directional Lighting,,Directional lighting turn off by F1  
,1,0

49,35,67,Directional Lighting,,Directional Lighting turn on by F1  
,1,0

50,35,68,Directional Reverse Light,,Direction lighting turn off by F1  
,1,0

51,35,69,Directional Reverse Light,,Directional Lighting turn on by F1  
,1,0

52,35,70,Bell,,Bell turn off by F1  
,1,0

53,35,71,Bell,,Bell turn on by F1  
,1,0

54,35,72,Whistle/Horn,,The Whistle/Horn turn off by F1  
,1,0

55,35,73,Whistle/Horn,,Whistle/Horn turn on by F1  
,1,0

56,35,74,Couple Crash, Couple Arm, Couple Fire,, "0-1" If F1 changed when engine is  
moving, couple crash sounds are produced. ,1,0

57,35,75,Couple Crash, Couple Arm, Coupler Fire,, "1-0" If F1 changed when engine  
is in Neutral, Coupler Arm or couple Fire occurs ,1,0

58,35,76,Steam Enigne Blower Hiss or diesel,,Blower-Hiss/Fans will turn off F1  
and you will "take control" of Blower-Hiss/Fans. ,1,0

59,35,77,Steam Engine Blower Hiss or Diesel,,Blower-Hiss/Fans will turn on F1 and  
you will "take control" of Blower-Hiss/Fans. ,1,0

60,35,78,Dynamic Brakes,,Dynamic Brakes will turn off by F1  
,1,0

61,35,79,Dynamics brakes,,Dynamics brakes will turn on by F1  
,1,0

62,35,80,Doppler, Start Up,, "0-1" or "1-0" If F1 is changed, Doppler shift will  
occur in a moving Engine ,1,0

63,35,81,Doppler Start Up,, "0-1-0" or "1-0-1" If F1 is double pressed, Quantum  
will clear all "Take Control" ,1,0

64,36,82,Directional Lighting,,Directional lighting turn off by F2  
,1,0

65,36,83,Directional Lighting,,Directional Lighting turn on by F2  
,1,0

66,36,84,Directional Reverse Light,,Direction lighting turn off by F2  
,1,0

67,36,85,Directional Reverse Light,,Directional Lighting turn on by F2  
,1,0

68,36,86,Bell,,Bell turn off by F2  
,1,0

69,36,87,Bell,,Bell turn on by F2  
,1,0

70,36,88,Whistle/Horn,,The Whistle/Horn turn off by F2  
,1,0

71,36,89,Whistle/Horn,,Whistle/Horn turn on by F2  
,1,0

72,36,90,Couple Crash, Couple Arm, Couple Fire,, "0-1" If F2 changed when engine is  
moving, couple crash sounds are produced. ,1,0

73,36,91,Couple Crash, Couple Arm, Coupler Fire,, "1-0" If F2 changed when engine  
is in Neutral, Coupler Arm or couple Fire occurs ,1,0

74,36,92,Steam Enigne Blower Hiss or diesel,,Blower-Hiss/Fans will turn off F2

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and you will "take control" of Blower-Hiss/Fans. ,1,0

75,36,93,Steam Engine Blower Hiss or Diesel,,Blower-Hiss/Fans will turn on F2 and  
you will "take control" of Blower-Hiss/Fans. ,1,0

76,36,94,Dynamic Brakes,,Dynamic Brakes will turn off by F2  
,1,0

77,36,95,Dynamics brakes,,Dynamics brakes will turn on by F2  
,1,0

78,36,96,Doppler, Start Up,, "0-1" or "1-0" If F2 is changed, Doppler shift will  
occur in a moving Engine ,1,0

79,36,97,Doppler Start Up,, "0-1-0" or "1-0-1" If F2 is double pressed, Quantum  
will clear all "Take Control" ,1,0

80,37,20,Directional Lighting,,Directional lighting turn off by FL(f)  
,1,0

81,37,21,Directional Lighting,,Directional Lighting turn on by FL(f)  
,1,0

82,37,22,Directional Reverse Light,,Direction lighting turn off by FL(f)  
,1,0

83,37,23,Directional Reverse Light,,Directional Lighting turn on by FL(f)  
,1,0

84,37,24,Bell,,Bell turn off by FL(f)  
,1,0

85,37,25,Bell,,Bell turn on by FL(f)  
,1,0

86,37,26,Whistle/Horn,,The Whistle/Horn turn off by FL(f)  
,1,0

87,37,27,Whistle/Horn,,Whistle/Horn turn on by FL(f)  
,1,0

88,37,28,Couple Crash, Couple Arm, Couple Fire,, "0-1" If FL(f) changed when engine  
is moving, couple crash sounds are produced. ,1,0

89,37,29,Couple Crash, Couple Arm, Coupler Fire,, "1-0" If FL(f) changed when  
engine is in Neutral, Coupler Arm or couple Fire occurs ,1,0

90,37,30,Steam Engine Blower Hiss or diesel,,Blower-Hiss/Fans will turn off FL(f)  
and you will "take control" of Blower-Hiss/Fans. ,1,0

91,37,31,Steam Engine Blower Hiss or Diesel,,Blower-Hiss/Fans will turn on FL(f)  
and you will "take control" of Blower-Hiss/Fans. ,1,0

92,37,32,Dynamic Brakes,,Dynamic Brakes will turn off by FL(f)  
,1,0

93,37,33,Dynamics brakes,,Dynamics brakes will turn on by FL(f)  
,1,0

94,37,34,Doppler, Start Up,, "0-1" or "1-0" If FL(f) is changed, Doppler shift will  
occur in a moving Engine ,1,0

95,37,35,Doppler Start Up,, "0-1-0" or "1-0-1" If FL(f) is double pressed, Quantum  
will clear all "Take Control" ,1,0

1,7,Manufacturer version No.,See CV 56.128.nn for additional informaiton on Quantum  
Specifications.,,1,0

2,33,Output Function Location FL(f),Preset to directional lighting,,1,0

3,34,Output Function Location FL(r),Preset to directional lighting,,1,0

4,35,Output Function Location F1,Preset to bell output,,1,0

5,49,QSI Primary Index,,1,0

6,50,QSI Secondary Index,,1,0

7,51,QSI System Soud Control,,1,0

8,52,QSI Individual Sound Volume Control,,1,0

9,53,QSI Function Output Feature Assignmnet,,1,0

10,55,QSI Feature Configuration,,1,0

11,56,QSI Configuration,,1,0

12,62,QSI Control,,1,0

13,64,Verbal CV Inquiry,,1,0

14,2,V-Start,Sets the voltage drive level applied to the motor at the first  
throttle speed step. This number may change form engine to engine,,1,0

15,3,Aceleration Rate,Sets Quantum vlaue of Inertia Under Acceleration,,1,0

16,4,Decelration rate,Sets Quantum Inertia Under Deceleration,,1,0

17,36,Output Function Location F2,Preset to whistle output,,1,0

18,37,Output Function Location F3,,1,0

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19,38,Output Function Location F4,,,1,0  
 20,39,Output Function Location F5,,,1,0  
 21,40,Output Function Location F6,,,1,0  
 22,41,Output Function Location F7,,,1,0  
 23,42,Output Function Location F8,,,1,0  
 24,43,Output Function Location F9,,,1,0  
 25,44,Output Function Location F10,,,1,0  
 26,45,Output Function Location F11,,,1,0  
 27,46,Output Function Location F12,,,1,0  
 28,9,Total PWM Period26,Not needed with our moor control,,1,0  
 29,10,EMF Feedback Cutout2,Not needed with our BENF detection,,1,0  
 31,11,Packet Time-Out Value,About 1 sec,,1,0  
 33,5,V-High,Either 1 or 0 in this CV will disable V-High,,1,0  
 35,17,Extended Address,CV 17 and 18 form a paired CV. CV 17 must be written first followed by CV 18,,1,0  
 36,25,Speed Table Selection,Linear,,1,0  
 1,29,1,Locomotive Direction,,Forward Direction,0  
 2,29,2,Locomotive Direction,,Reverse Direction,0  
 3,29,3,FL,,Speed and Direction instruction FL (14 Speed Step Mode),0  
 4,29,4,FL,,Function Group 1 controls FL,0  
 5,29,5,Power Source Conversion,,Power Souce Conversion disabled,0  
 6,29,8,Power Source Conversion,,Power Source Conversion enabled,0  
 7,29,9,Advance Decoder Acknowledgement,,Disabled,0  
 8,29,10,Advance Decoder Acknowledgement,,Enabled,0  
 9,29,11,Speed Table set by Configuration Variables,,Speed Table not used,0  
 10,29,12,Speed Table set by Configuration Variables,,Speed Table set by CV 25, Quantum Speed Table selection,0  
 11,29,13,Extended Address mode enabled,,Quantum responds to one byte address (see cv1),0  
 12,29,14,Extended Address Mode enabled,,Quantum responds to two byte Exttended Address (CV17 and CV 18),0  
 13,29,15,Reserved for NMRA Use,,,0  
 14,29,16,Reserved for NMRA Use,,,0  
 15,29,17,Accessory Decoder,,Multifunction Locomotive Decoder,0  
 16,29,18,Accessory Decoder,,Accessory Decoder,0  
 513,1,Primary Address,,,0  
 514,2,V-Start,This number may change form engine to Engine,,0  
 515,3,Acceleration Rate,,,0  
 516,4,Deceleration Rate,,,0  
 517,5,V-High,Either 1 or 0 in this CV will disable V-High,,0  
 518,6,V-Mid,,,0  
 519,7,Manufactures Version No.,,,,0  
 520,8,Manufacturer's ID,,,0  
 521,9,Total PWM Period26,,,0  
 522,10,EMF Feedback Cutout2,,,0  
 523,11,Packet Time-Out Value,About 1 second,,0  
 524,12,Power Source,,,0  
 525,13,Analog Mode Funticon Status,,,0  
 526,14,Reserved by NMRA for future use,,,0  
 527,15,Resered by NMRA for future use,,,0  
 528,16,Resered by NMRA for future use,,,0  
 529,17,Extended Address,,,0  
 530,18,Extended Address,,,0  
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 1026,3,Beschleunigungszeit,Dieser Wert multipliziert mit 0.869 ergibt die Zeit vom Stillstand bis zur Maximalgeschwindigkeit,,1  
 1029,4,Bremszeit,Dieser Wert multipliziert mit 0.869 ergibt die Zeit von der Maximalgeschwindigkeit bis zum Stillstand,,1  
 1030,5,Höchstgeschwindigkeit,Die Höchstgeschwindigkeit der Lok,,1  
 1031,6,Mittengeschwindigkeit,Die Geschwindigkeit der Lok bei mittlerer Fahrstufe,,1  
 1032,7,Versionsnummer,Interne Softwareversion des LokPiloten (nur lesen),,1  
 1033,8,Herstellerkennung,NMRA Kennung des Herstellers (nur lesen),,1  
 1034,18,Erweiterte Lokadresse,Lange Adresse der Lokomotive,,1  
 1035,19,Erweiterte Lokadresse,Lange Adresse der Lokomotive,,1  
 1036,2,Anfahrspannung,Interne Fahrstufe für die erste externe Fahrstufe (also Fahrstufe 1),,1  
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 1038,60,Einstellungen 2,Diverse Einstellungen der Lok,,1  
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