

File Creation Date: Feb 20th, 2014

File Type: Programmer Manual

File Name: PM_Control AC and Floor Heating on DLP AC page.pdf

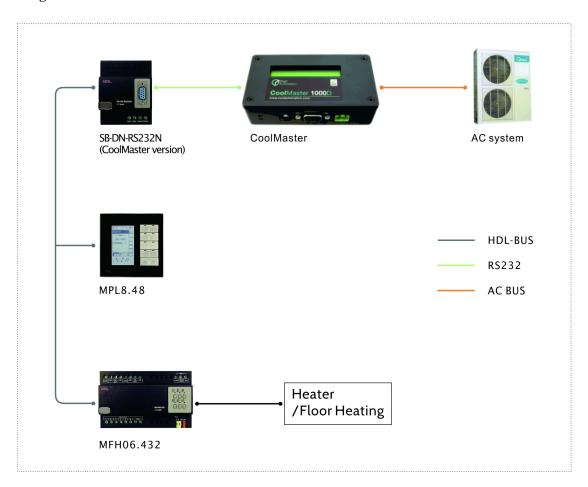
Goal

Use DLP AC page to control both AC unit and Floor Heating.

Description

There are AC and Floor Heating installed in the same room, the AC system is integrated with HDL-BUS system via a CoolMaster module (http://coolautomation.com) and a SB-DN-RS232N (CoolMaster version), the Floor Heating is controlled by SB-DN-FH06, the user interface is HDL-MPL8.48.

Diagram





Special requirement

The AC system can do heating and cooling, but the AC is disabled in Winter since generally it cannot work under minus 5° C. There shall be a season selection page for end-user to select the season.

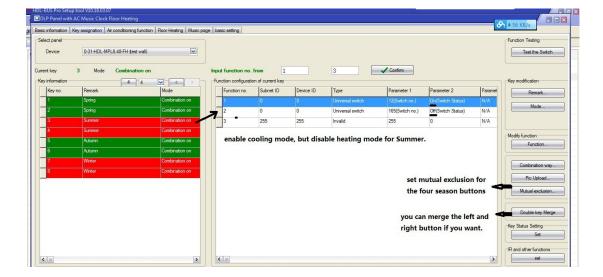
	AC cooling	AC heating
Spring	Yes	Yes
Summer	Yes	No
Autumn	Yes	Yes
Winter	No	No

Configuration

HDL-MPL8.48

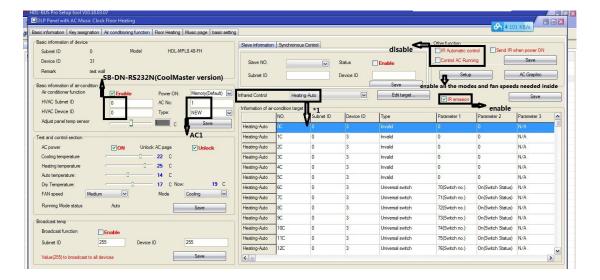
Season selection page (recommend to use page 4)

According to the Universal switch list below, to enable or disable the cooling and heating mode of AC1 we can use universal switch 12 and 165, respectively.





AC page



*1

1) Set all tables - "Heating-Auto" table, "Heating-High" table, "Heating-Middle" table, "Heating-Low" table as exactly the same. The universal switches for SB-DN-FH06 can be looked up in "UV switch list for Floor Heating module.pdf", this .pdf can be downloaded from here,

ftp://59.41.255.150/HDL-BUS/HDL-BUS%20Products/SB-DN-FH06/

2) Set "Defined OFF" table and "Defined OFF" table using the corresponding Universal switch. (The universal switch can be found in the .pdf file also. E.g., the universal switch 11 is for Floor Heating channel 1.)

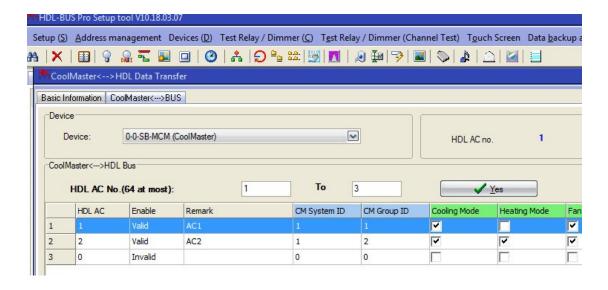
SB-DN-RS232N (CoolMaster version)

Firmware version

FW_SB-MCM_V04.01U(2014-02-19) or above

Fill in the indoor unit ID (the "CM System ID" and the "CM Group ID", turn to CoolMaster tech support if help is needed, different AC system have different ID ranges), enable modes and fan speeds needed. (The heating and cooling modes will be enabled or disabled by pressing season buttons by user later.)





Universal Switch list for SB-DN-RS232N(CoolMaster) to enable/disable AC mode (FW_SB-MCM_V04.01U(2014-02-19) or above)

	cooling mode	heating mode
AC1	12	165
AC2	13	166
AC3	14	167
AC4	15	168
AC5	16	169
AC6	17	170
AC7	18	171
AC8	19	172
AC9	20	173
AC10	21	174
AC11	22	175
AC12	23	176
AC13	24	177
AC14	25	178
AC15	26	179
AC16	27	180
AC17	28	181
AC18	29	182
AC19	30	183
AC20	31	184
AC21	32	185
AC22	33	186
AC23	34	187
AC24	35	188
AC25	36	189
AC26	37	190
AC27	38	191



AC28 39 192 AC29 40 193 AC30 41 194 AC31 42 195 AC32 43 196 AC33 44 197 AC34 45 198 AC35 46 199 AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 2			
AC30 41 194 AC31 42 195 AC32 43 196 AC33 44 197 AC34 45 198 AC35 46 199 AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226	AC28	39	192
AC31 42 195 AC32 43 196 AC33 44 197 AC34 45 198 AC35 46 199 AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 2	AC29	40	193
AC32	AC30	41	194
AC33	AC31	42	195
AC34 45 198 AC35 46 199 AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 2	AC32	43	196
AC35 46 199 AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 2	AC33	44	197
AC36 47 200 AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 2	AC34	45	198
AC37 48 201 AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 2	AC35	46	199
AC38 49 202 AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 2	AC36	47	200
AC39 50 203 AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC37	48	201
AC40 51 204 AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC38	49	202
AC41 52 205 AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC39	50	203
AC42 53 206 AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC40	51	204
AC43 54 207 AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC41	52	205
AC44 55 208 AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC42	53	206
AC45 56 209 AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC43	54	207
AC46 57 210 AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC44	55	208
AC47 58 211 AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC45	56	209
AC48 59 212 AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC46	57	210
AC49 60 213 AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC47	58	211
AC50 61 214 AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC48	59	212
AC51 62 215 AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC49	60	213
AC52 63 216 AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC50	61	214
AC53 64 217 AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC51	62	215
AC54 65 218 AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC52	63	216
AC55 66 219 AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227		64	217
AC56 67 220 AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC54	65	218
AC57 68 221 AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC55	66	219
AC58 69 222 AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC56	67	220
AC59 70 223 AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC57	68	221
AC60 71 224 AC61 72 225 AC62 73 226 AC63 74 227	AC58	69	222
AC61 72 225 AC62 73 226 AC63 74 227	AC59	70	223
AC62 73 226 AC63 74 227	AC60	71	224
AC63 74 227	AC61	72	225
	AC62	73	226
AC64 75 228	AC63	74	227
	AC64	75	228



SB-DN-FH06

Firmware version

FW_HDL-MFH06.332_V04.09U(2013-12-25) or above

Set Floor Heating module works in "Fully control" mode, the programmer manual – "PM_SB-DN-FH06_V04.05U(2013-01-09)V1.1.pdf" can be downloaded from here,

 $\underline{ftp://59.41.255.150/HDL\text{-}BUS/HDL\text{-}BUS\%20Products/SB\text{-}DN\text{-}FH06/}$