

Programming of the commands on the sender

The commands to the receivers are stored in the sender program memory. There is one entry for each switch on the console, format:

AAD1D2EE

where

AA = destination receiver, most significant bit must be set!

D1 = command when switch turned to position "DOWN"

D2 = command when switch turned to position "UP"

EE = extra word not yet used (in a future release will it be used to indicate that this is a group of receivers)

Values must be given in HEX in capital letters!

In the address AA the most significant bit (7 starting from 0) mean that this is an address, i.e. the address range is 00h-7Fh (0-127 decimal).

The commands can be individually reprogrammed from a host connected to the host serial port with the settings:

baudrate: 9600

data bits: 8

stop bits: 1

parity: none

The command to reprogram an entry is:

R0SSAAD1D2EE

where

R0 = command capitalR-zero

SS = switch number (0-7F) on the console

AA = destination receiver, most significant bit must be set!

D1 = command when switch turned to position "DOWN"

D2 = command when switch turned to position "UP"

EE = extra word not yet used.

Values must be given in HEX and in capital letters!

This will update a copy of the command table stored in RAM memory. Any number of entries can be reprogrammed. To write the RAM table back into the program memory, issue the command PROG. The RAM table is not used by the program except for reprogramming. (In a future release it will be possible to use the RAM table instead of the program memory table.)

To get the content of the table stored in RAM, write g0 (smallgezero).

To get the content of the table stored in the program memory, write G0 (capitalG-zero).

G0 reads first from the program memory into the RAM memory, and then sends the RAM content to the host.

The table is written to the terminal in the same format as when reprogramming the table, i.e.

R0SSAAD1D2EE for each switch number SS on the console. This one can capture to a file, then edit the file, and send it back. This can be done with e.g. hyperterm. For each line sent is a prompt returned '>'. This can be used in the future to have a handshake using a special graphical user interface (to be defined, written in Java/LabView/...?!).

All commands must end with a carriage return.

The switches are in the hardware arranged in groups of 16. At the moment only 12 in such a group is available on the console, e.g. 10-1B exist, but not 1C-1F. Address 00 is special, it is a broadcast to all receivers, and should be used with care.

At the end of the document is an example of a command file with all switches listed.

Commands (i.e. D1 and D2) currently recognised by the receiver

The data is interpreted by the receiver as a command:

00 = all OFF
01 = relay one ON
02 = relay one OFF
03 = relay two ON
04 = relay two OFF
05 = LV1 switch ON
06 = LV1 switch OFF
07 = all ON
08 = LV3 switch ON
09 = LV3 switch OFF

R00084020100
R00185020100
R00286020100
R00387020100
R00484040300
R00585040300
R00686040300
R00787040300
R00884060500
R00985060500
R00A86060500
R00B87060500
R00C8C090800
R00D8D090800
R00E8E090800
R00F8F090800
R01084090800
R01185090800
R01286090800
R01387090800
R01480070000
R01595010203
R01696010203
R01797010203
R01898010203
R01999010203
R01A9A010203
R01B9B010203
R01C9C010203
R01D9D010203
R01E9E010203
R01F9F010203
R020A0010203
R021A1010203
R022A2010203
R023A3010203
R024A4010203
R025A5010203
R026A6010203
R027A7010203
R028A8010203
R029A9010203
R02AAA010203
R02BAB010203
R02CAC010203
R02DAD010203
R02EAE010203
R02FAF010203
R030B0010203
R031B1010203

R032B2010203
R033B3010203
R034B4010203
R035B5010203
R036B6010203
R037B7010203
R038B8010203
R039B9010203
R03ABA010203
R03BBB010203
R03CBC010203
R03DBD010203
R03EBE010203
R03FBF010203
R040C0010203
R041C1010203
R042C2020100
R043C3020100
R044C4020100
R045C4040300
R046C4060500
R047C7010203
R048C8010203
R049C9010203
R04ACA010203
R04BCB010203
R04CCC010203
R04DCD010203
R04ECE010203
R04FCF010203
R050D0010203
R051D1010203
R052D2010203
R053D3010203
R054D4020100
R055D4040300
R056D4060500
R057D7010203
R058D8010203
R059D9010203
R05ADA010203
R05BDB010203
R05CDC010203
R05DDD010203
R05EDE010203
R05FDF010203
R060E0010203
R061E1010203
R062E2010203
R063E3010203

R064E4010203
R065E5010203
R066E6010203
R067E7010203
R068E8010203
R069E9010203
R06AEA010203
R06BEB010203
R06CEC010203
R06DED010203
R06EEE010203
R06FEF010203
R070F0010203
R071F1010203
R072F2010203
R073F3010203
R074F4010203
R075F5010203
R076F6010203
R077F7010203
R078F8010203
R079F9010203
R07AFA010203
R07BFB010203
R07CFC010203
R07DFD010203
R07EFE010203
R07FFF010203