The RC5 code: ------------- The RC5 code is an 13-bit code, it used to have a 5-bits group and a 6-bits command, and 2 stop-bits, but it was changed to 5-bits group, 7-bits command and 1 stop-bit. Carrier: 36kHz No header. +----+ 1 is coded: | | ----+ + T T +----+ 0 is coded: | | + +---- T T T = 889us Old RC5: data length: 14bit (2sync bits, 1 control bit, 11 data bits) 24,889ms Example to play video: store 5 in GROUP put 53 on stack press RC5REMOTE
****

mode: TXT	Video mode: VD	Group 0 (TV1) 1 (TV2)	Commnd:	Group 2	Video mode: TV1 & TV2 Video Group 3
0 1	1		0 0		0
2		1		1 2	2
3 4	4	2 3 3		3	
5		4		4 5	5
6 7	7	5 6 6		6	
8		7		7 8	8
9 10	1/2/3 digs (japan:10)	8 9 9		9	
channel/program(jap:11)		step page +		=/= =/= 11	
standby		step page -		* 12 standby	
mute/demute 14	P.P. (personal pref.)	standby 13	mute/demute	mute/demute	
display		P.P.		P.P. 15 display	
volume + 17	volume -	display 16	volume +	volume +	
brightness +		volume -		volume - 18	brightness +
brightness - 20	colour saturation +	brightness + 19	brightness -	brightness -	
saturation -	colour saturation -	colour saturation +	colour saturation + 21	colour	
	bass + 23	colour saturation - 22	bass +	bass +	
treble +	treble +	bass - 24	bass -	bass -	
treble - 26	balance right	treble + 25	treble -	treble -	
balance left		balance right	balance right 27		
enter/validation (Frnc) 29	contrast -	balance left	balance left 28	contrast +	
sequence out	attribute on/off 31	memory out 30	tint/hue + 32	search +	
exchange 33	channel/program -	index/summary (France)		channel/program +	
alt/channel	row zero (France) 35		1st/2nd language	index 34	
1st/2nd language 36	spacial stereo on/off	1st/2nd language	spacial stereo on/off	1st/2nd language	
mono/stereo (USA) 38	sleeptimer	spacial stereo on/off 37	hardcopy printer	hardcopy printer 39	
tint/hue -	antiope TV mixed (Frnc) 40		RF switch/PIP select	PIP select	
terminal initiation 41	vote		page hold on/off 42	timed page/channel clck	
timed page (F:magazine) 43	increment (USA)			large top/lrge bot/norm	large
top/lrge bot/norm 44	decrement (USA)		reveal/conceal/canc pic 45		
cancel teletext picture 46	2nd controls (USA:menu)			TV/Text mixed/Subtitle	TV/Text
mixed 47	PIP shift	PIP shift	view data line off 48	pause	pause
pause 49	erase			erase	erase 50
rewind		rewind		rewind 51	go to
go to		go to 52	wind		

wind
wind 53 play
play
play 54 stop
stop
stop 55
recording
recording
recording 56 external 1
external 1
external 1 57 external 2
external 2
external 2 58 PIP display
mode PIP display mode 59 view data mode/advance
view data line
on 60 teletext submode (J:12) 61 system standby
system standby system
standby 62 crispener on/off news flash (France) 63 system select system
select system select 64 surround sound
surround sound
surround sound 65 balance front
balance front balance front
66 balance rear balance rear
balance rear 67 sound effects
sound effects sound effects 68 sound effects
sound effects
sound effects 69 sound effects sound effects
sound effects
70 sound effects sound effects
sound effects 71 sound effects
sound effects sound effects 72 sound or menu func. sound or menu func.
sound or menu func. 73 sound or menu func. sound or menu func. sound or menu func. 74
sound or menu func. sound or menu func. sound or menu func. 75 76 77 linear function up
linear function up linear function up 78 linear function down linear function down linear
function down 79 sound or menu func. sound or menu func. sound or menu func. 80 cursor step up
cursor step up cursor step up 81 cursor step down cursor step down
cursor step down 82 menu on menu on
menu on 83
menu off menu off menu off 84 display A/V status display A/V
status display A/V status 85 cursor step left cursor step left cursor step left 86 cursor step right
cursor step right cursor step right 87 menu function menu function
menu function 88 PIP on/off PIP on/off PIP on/off 89 PIP shift
PIP shift PIP shift 90 PIP main swap PIP main swap
PIP main swap 91 strobe on/off strobe on/off strobe on/off 92
multi strobe multi strobe multi strobe 93 main freezed
main freezed main freezed 94 3/9 multi scan 3/9 multi scan
3/9 multi scan 95 PIP mode select PIP mode select PIP mode select
96 mosaic mosaic mosaic 97 solarization
solarization solarization 98 main stored main stored
main stored 99 PIP strobe PIP strobe PIP strobe 100 recall main
recall main recall main 101 PIP freeze PIP freeze PIP freeze 102
PIP step up PIP step up PIP step up 103 PIP step down
PIP step down PIP step down 104 105 106 107 red 108
green 109 yellow 110
cyan 111 index 112 113 114 115 116 117 118 sub mode
sub mode sub mode 119 sub mode sub mode sub mode 120
121 122 cleaning up cleaning up cleaning up 123 connect
connect connect 124 disconnect disconnect
disconnect 125 cleaning up cleaning up cleaning up 126
cleaning up cleaning up cleaning up 127 cleaning up

VCR1 & VCR2 / 6 (VCR2) — Group 8	Video mode: Satellite	Commnd: / Group 4	Video mode: LV1 — Group 5	Video (VCR1)
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
	picture number/time	10	1/2 digits/AM/PM	1/2 digits
channel number		11		
	channel/program mode	12	channel/program mode	
standby	standby	13	standby	
mute/demute	mute/demute	14	P.P. (personal pref.)	mute/demute
P.P.	display	15	display	P.P.
display	volume +	16	volume +	display
volume +	volume +	17	volume -	volume -
volume -	brightness +	18	brightness +	volume -
brightness -	brightness -	19	brightness -	brightness +
saturation +	colour saturation +	20	colour saturation +	colour
saturation -	colour saturation -	21	colour saturation -	colour
bass +	bass -	22	bass +	bass +
	bass -	23	bass -	bass -
treble +	treble +	24	treble -	treble +
	treble +	25	treble -	treble -
balance right	balance right	26	balance right	balance left
balance left	balance left	27	repeat once/TSPo	ITR (OTR) delay
repeat cont/TSPc	timer programming	28	next	record select
fast run reverse	fast run reverse	29	entry	step +
channel/program +	auto stop/memory	30	step -	
channel/program -	slow run reverse	31	slow run reverse	audio 1
audio output select	language select/mode 1	32	audio 2	clock/channel
special stereo on/off	still picture	33	speed -	audio
mixed / mode 2	speed +	34	speed -	Instant
Time Recording	slow run forward	35	still forward	still forward
fast run forward	fast run forward	36	search automatic	index scan	scan reverse
scan reverse	open/close (eject)	37	eject	scan forward	scan forward
subtitle	play reverse	38	play reverse	pause
pause	pause	39	erase	erase
erase	rewind	40	rewind	go to
go to	go to	41	wind	wind
wind	play	42	play	play	stop
stop	stop	43	recording	recording
recording	external 1	44	external 1	external 1	external 2
external 2	external 2	45	clear all memory	short/long play	freeze segment
counter memory	TXT (pal)/ant.sw (ntsc)	46	scroll local display	TXT submode
system standby	system standby		system	

(The command column numbering shown in the original runs: 0, 1, 2, 4, 5, 7, 8, 10, channel number, standby, mute/demute 14, P.P. 15, display 16, volume + 17, volume - 18, 19, 20, colour saturation + 21, 22, bass + 23, treble + 25, balance right 26, balance left 28, timer programming 30, record select 31, fast run reverse 32, channel/program + 33, channel/program - 34, slow run reverse 35, language select/mode 1 36, speed + 39, Instant Time Recording 40, slow run forward 41, still forward 42, fast run forward 43, index scan 44, eject 46, subtitle 47, play reverse 48, pause 49, erase 50, rewind 51, go to 52, wind 53, play 54, stop 55, recording 56, external 1 57, external 2 58, short/long play 59, counter memory 60, TXT submode 61.)

standby 62   CX on/off   RF switch 63   system select   system select
         system select 64   surround sound   surround sound   surround sound
65   balance front   balance front   balance front 66   balance rear
         balance rear   balance rear 67   sound effects   sound effects
         sound effects 68   sound effects   sound effects   sound effects
69   sound effects   sound effects   sound effects 70   sound effects
         sound effects   sound effects 71   sound effects   sound effects
         sound effects 72   sound or menu func. sound or menu func. sound or menu func. 73   sound or
menu func.   sound or menu func. sound or menu func. 74   sound or menu func.   sound or
menu func.   sound or menu func. 75   data stream start 76
                       data stream end 77 linear function up   linear function up linear function
up 78   linear function down linear function down linear function down 79   sound or menu func.
         catalogue   sound or menu func. 80   cursor step up   cursor step up
         cursor step up 81   cursor step down   cursor step down   cursor step down 82   menu on
                       menu on   menu on 83   menu off
         menu off   menu off 84   display A/V status   display A/V status display A/V
status 85 cursor step left   cursor step left   cursor step left 86   cursor step right cursor step right
         cursor step right 87 menu function   acknowledge   menu function
88   PIP on/off   PIP on/off   PIP on/off 89   PIP shift   PIP shift
         PIP shift 90   PIP main swap   PIP main swap   PIP main swap
91   strobe on/off   strobe on/off   strobe on/off 92   multi strobe
         multi strobe   multi strobe 93   main freezed   main freezed
         main freezed 94   3/9 multi scan   3/9 multi scan   3/9 multi scan
95   PIP mode select   PIP mode select   PIP mode select 96   mosaic
                   mosaic   mosaic 97 solarization   solarization
         solarization 98   main stored   main stored   main stored 99
         PIP strobe   PIP strobe   PIP strobe 100   recall main   recall main
         recall main 101   PIP freeze   PIP freeze   PIP freeze 102   PIP step up
         PIP step up   PIP step up 103   PIP step down   PIP step down
         PIP step down 104   automatic start ID 105
         write skip ID 106   skip on/off 107
         write end ID 108   write FTS 109
         write TOC 110 111 112   viss index next 113
                   viss index previous 114   mark 115
                   erase 116   renumber 117
         blank search 118   sub mode   sub mode   TV1 119   sub mode
         sub mode   sub mode 120   auto repeat 121
                   insert temp 122   scr loc disp 123 connect
                   connect   connect 124   disconnect 125 126 127

-- Commnd: Audio mode: LV2/CDLV   Audio
mode: Pre-Amp   Audio mode: Tuner   Group 12   Group 16 (#1) 19 (#2)   Group 17
-- 0   0   0

0	1	1		1	1 2 2
2			2 3	3	3
3	4	4		4	4 5 5
5			5 6	6	6
6	7	7		7	7 8 8
8			8 9	9	9

9 10   picture number/time   graphic equalizer left 1/2 digits 11   chapter number
graphic equalizer right 12   standby   standby   standby
13   mute/demute   mute/demute   mute/demute 14 P.P. (personal
pref.)   P.P.   P.P. 15 display   display
display 16 volume +   volume +   volume + 17   volume -
volume -   volume - 18   brightness +   brightness +
brightness + 19   brightness -   brightness -   brightness - 20
colour saturation +   colour saturation +   colour saturation + 21   colour saturation -
colour saturation -   colour saturation - 22   bass +   bass +
bass + 23 bass -   bass -   bass - 24   treble +
treble +   treble + 25   treble -   treble -   treble -
26   balance right   balance right   balance right 27 balance left
balance left   balance left 28   repeat once/TSPo   graph equal left&right
29   repeat cont/TSPc   loudness 30   next   high tone filter search
+ 31   programming   low tone filter   search - 32
step +   preset + 33   auto stop/memory   step -
preset - 34   slow run reverse   signal path scroll 35 stereo left/right 36   previous
37   still reverse   surround mode   mono/stereo 38 speed +
sleeptimer 39   speed -   balance rear 40 slow run forward
balance front   RF switch 41   still forward   TPS
store execute 42   digital multi screen timer set 43   strobe   timer up
scan forward 44   scan reverse   timer down 45 open/close
(eject)   timer memo   FM 46   scan forward   acoustic memory
MW (USA: MW/FM) 47   acoustic memory select LW 48
pause   pause   pause 49 erase
erase   erase 50 rewind   rewind
rewind 51 go to   go to   go to 52   wind
wind   wind 53   play   play
play 54   stop   stop   stop 55
recording   recording   recording 56   external 1   external 1
external 1 57   external 2   external 2   external 2 58 clear all
memory   clear all memory   clear all memory 59 repeat A/B program 60   TXT (pal)/ant.sw (ntsc)
dyn range expand/compr 61   system standby   system standby   system
standby 62   CX on/off 63   system select   system select   system
select 64 surround sound   surround sound   surround sound 65   balance
front   balance front   balance front 66 balance rear   balance
rear   balance rear 67   sound effects   sound effects   sound
effects 68 sound effects   sound effects   sound effects 69 sound effects
sound effects   sound effects 70   sound effects   sound

effects   sound effects 71   sound effects   sound effects   sound
effects 72 sound or menu func. sound or menu func. sound or menu func. 73   sound or menu func.
             sound or menu func. sound or menu func. 74   sound or menu func. sound or menu func.
             sound or menu func. 75 76 77 linear function up   linear function up   linear function up 78
             linear function down linear function down linear function down 79   sound or menu func.
             catalogue   sound or menu func. 80   cursor step up   cursor step up
             cursor step up 81   cursor step down   cursor step down   cursor step down 82   menu on
             menu on   menu on 83   menu off
             menu off   menu off 84   display A/V status   display A/V status display A/V
status 85 cursor step left   cursor step left   cursor step left 86   cursor step right   cursor step right
             cursor step right 87 menu function   menu function   menu function
88   PIP on/off   PIP on/off   PIP on/off 89   PIP shift   PIP shift
             PIP shift 90   PIP main swap   PIP main swap   PIP main swap
91   strobe on/off   strobe on/off   strobe on/off 92   multi strobe
             multi strobe   multi strobe 93   main freezed   main freezed
             main freezed 94   3/9 multi scan   3/9 multi scan   3/9 multi scan
95   PIP mode select   PIP mode select   PIP mode select 96   mosaic
             mosaic   mosaic 97 solarization   solarization
             solarization 98   main stored   main stored   main stored 99
             PIP strobe   PIP strobe   PIP strobe 100   recall main   recall main
             recall main 101   PIP freeze   PIP freeze   PIP freeze 102   PIP step up
             PIP step up   PIP step up 103   PIP step down   PIP step down
             PIP step down 104 105 106
107
108   FTS
109
110
111
112   index next
113   index previous
114
115
116
117
118   sub mode
119   sub mode
120
121
122
123   connect   connect   connect
124   disconnect   disconnect   disconnect
125
126
127

--- Commnd: Audio mode: CD   Audio
mode: Phono   Audio mode: Recorder   Group 20   Group 21   Group 18 (#1)
23 (#2)

```
------------------------------------------------------------------------------  0        0                                      0
                0   1         1                                      1                              1   2     2
                2                                      2   3         3                              3
                3   4         4                                      4                              4   5     5
                5                                      5   6         6                              6
                6   7         7                                      7                              7   8     8
                8                                      8   9         9                              9
                9  10         cursor scroll  11        display scroll  12        standby                            standby
                           standby  13          mute/demute                      mute/demute
                mute/demute  14      P.P. (personal pref.)   P.P.                              P.P.  15  display
                display                              display  16          volume +              volume +
                volume +  17          volume -                volume -              volume -  18          brightness +
                brightness +                              brightness +  19        brightness -              brightness -
                brightness -  20      colour saturation +    colour saturation +   colour saturation +  21      colour
saturation -            colour saturation -    colour saturation - 22          bass +                        bass +
                           bass +  23 bass -                              bass -              bass - 24
                treble +              treble +                      treble +  25      treble -              treble -
                treble -  26 balance right                      balance right                balance right  27
                balance left                      balance left                  balance left  28      rept
once/TSPo/shuffle    repeat once                      repeat once  29      repeat cont/TSPc    repeat
continuously          repeat continuously  30          select +              select +          select +  31
                select -              select -                      select -  32          next                        next
                           next  33      previous                    previous              previous  34          index next
                index next  35      index previous                  index previous                last record
cancel  36  play/program                      stereo/mono                      sequential  37      speed nominal
                                      blank search  38          speed +  39              speed -  40
                                      recording pause  41   store execute                      store
execute              store execute  42
                recording blank  43   scan forward                      scan forward                  scan forward  44
                                                      mechanism A  45   open/close
                open/close              eject  46                      wave scroll
                mechanism B  47                                      play reverse  48
                pause                              pause                      pause  49  erase
                erase                              erase  50  rewind                      rewind
                rewind  51 go to                      go to                      go to 52          wind
                           wind                      wind  53    play                      play
                play  54    stop                      stop                      stop  55
                recording              recording                      recording  56      external 1              external 1
                external 1  57      external 2                      external 2              external 2  58      clear all
memory      clear all memory          clear all memory  59  repeat A/B program  60          dynamic range expand
61          system standby                      system standby                  system standby  62          dynamic
range compress                                      counter memory  63  system select                      system
select              system select  64      surround sound                      surround sound
                surround sound  65  balance front                      balance front                  balance front
66          balance
```

rear   balance rear   balance rear 67   sound effects   sound
effects   sound effects 68   sound effects   sound effects   sound
effects 69 sound effects   sound effects   sound effects 70   sound effects
           sound effects   sound effects 71   sound effects   sound effects
           sound effects 72   sound or menu func. sound or menu func. sound or menu func. 73   sound or
menu func.   sound or menu func. sound or menu func. 74   sound or menu func.   sound or
menu func.   sound or menu func. 75 76 77 linear function up   linear function up linear function
up 78   linear function down linear function down linear function down 79   sound or menu func.
           sound or menu func. sound or menu func. 80   cursor step up   cursor step up
           cursor step up 81   cursor step down   cursor step down   cursor step down 82   menu on
                       menu on   menu on 83   menu off
           menu off   menu off 84   display A/V status   display A/V status display A/V
status 85 cursor step left   cursor step left   cursor step left 86   cursor step right   cursor step right
           cursor step right 87 menu function   menu function   menu function
88   PIP on/off   PIP on/off   PIP on/off 89   PIP shift   PIP shift
           PIP shift 90   PIP main swap   PIP main swap   PIP main swap
91   strobe on/off   strobe on/off   strobe on/off 92   multi strobe
           multi strobe   multi strobe 93   main freezed   main freezed
           main freezed 94   3/9 multi scan   3/9 multi scan   3/9 multi scan
95   PIP mode select   PIP mode select   PIP mode select 96   mosaic
                   mosaic   mosaic 97 solarization   solarization
           solarization 98   main stored   main stored   main stored 99
           PIP strobe   PIP strobe   PIP strobe 100   recall main   recall main
           recall main 101   PIP freeze   PIP freeze   PIP freeze 102   PIP step up
           PIP step up   PIP step up 103   PIP step down   PIP step down
           PIP step down 104   automatic start
ID 105   write skip ID 106
                                                       skip on/off 107
           write end ID 108   FTS   write FTS 109
                                                       write TOC 110 111 112 113 114
                                                       write start ID 115
                   Ca/Er/SK ID 116   reformat
117   blank search 118 sub mode
           sub mode   sub mode 119   sub mode   sub mode   sub mode 120
121 122 123   connect   connect   connect 124
           disconnect   disconnect   disconnect 125 126 127

The codes and parts of the RC5REMOTE program are copied from the article "Remote Control for HP28S" written by Michiel Niemeijer & Eric Toonen.