

LANC

PROTOCOL

CODE TABLES

Byte 0

Sub-Command for Byte 1.

Binary code	Description
0001 1000	Normal command to VTR or Camera
0010 1000	Special command to Camera
0011 1000	Special command to VTR

Byte 1

Command-Code to the device.

The codes are valid, when Code 0001 1000b is transmitted as Sub-Command in Byte 0.

LANC command code	Action
0	program 1 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), F (MD)
2	program 2 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), G (MD)
4	program 3 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), H (MD)
6	program 4 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), I (MD)
8	program 5 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), J (MD)
10	program 6 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), K (MD)
11	TimeCode write (Hi)
12	program 7 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), L (MD)
14	program 8 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), M (MD)
16	program 9 (TV/VCR/TU), Number (CD, MD, DAT, CAR-CD), N (MD)
18	program 0 (TV/VCR/TU), Number (CD), 10 (MD, CAR-CD, 950 MII), O (MD), start/stop (Hi)
20	program 11 (TU/950 MII), --/>25 od. "/"(MD), tele (Hi)
22	enter (VCR), program 12 (TU/950 MII), wide (Hi)
24	program 13 (TV/VCR), 1- (TV), TPoff 682 (VT)
26	program 14 (TV/VCR), 2- (TV), TPon 682 (VT), off (CAR)
28	program 15 (TV/VCR), channel (TV), TPon 689 (VT), mem (TU/DECK B)
30	program 16 (TV/VCR), C ₀₀ (TV), clear/file text (CD/MD), band (TU), FM/AM (CAR), cou. reset (DECK B)
32	program + (TV/VCR/TU), 17 (CD)
34	program - (TV/VCR/TU), 18 (CD), sel (CAR)
36	volume + (TV/AU/CD), tuning + (TU), + (CAR)
37	Fader <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
38	volume - (TV/AU/CD), tuning - (TU), - (CAR)
40	mute (TV/AU), x2 (VCR), Number 0 (DAT)
42	power off (TV/CAM), power on/off (DAT/AU/MD)
44	eject (VCR/MD), open/close (CD/DECK B), ® · ¬ (TV)
46	main/sub (TV/VCR), 19 (CD), monitor (DECK B), tune mode (TU)
48	picture + (TV), stop (VCR/DECK B), display/char (MD), custom index (CD)
50	picture - (TV), pause (VCR/DECK B), scroll (MD), file (CD), LD (SUR2)
51	start/stop (CAM)
52	color + (TV), play (VCR/DECK B), date present, E (MD), file recall (CD)
53	Tele <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
54	rew (VCR/DECK B), -/--, color - (TV), TPoff (VT), date recorded, D (MD), RMS enter (DAT), seek - (CAR), erase (CD)
55	Wide <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
56	fwd (VCR/DECK B), seek + (CAR)
57	Tele fast - <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>

58	rec (VCR/DECK B), cont. play (CD/MD), A (MD), AUX (AU), RMS check (DAT), preset - "long" (CAR)
59	Wide fast <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
60	bright + (TV), rec-p. (DECK B/2200 in VTR), clear (DAT), shuffle, B (MD), Video 2 (AU), preset + "long" (CAR)
62	bright - (TV), pgm (CD/MD), C (MD), EQ (AU)
64	hue + (TV), still (VCR), 10 (CD), hue (T), Phono start/stop (AU), open/close (DAT), skip - (MD)
65	Auto-Focus on/off (not if real switch) <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
66	hue - (TV), local/mono (CAR), mono/stereo (TU), 11 (CD), color (T), Tuner (AU), counter mode (DAT), skip + (MD)
68	sharp + (TV), x1/10 (VCR), 12 (CD), bright (T), Video 1 (AU), counter reset (DAT)
69	Focus manual far <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
70	sharp - (TV), x1/5 (VCR), vis. scan (Hi8), 13 (CD), sharp (T), DAT/Tape 1 (AU), mono (TU), rew+play (DECK B)
71	Focus manual near <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
72	Tuner input (TV), treble (T), 14 (CD), Tape 2 (AU)
73	White balance (not if real switch) <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
74	x14 (VCR), 15 (CD), AVin (TV), bass (T), CD (AU), disp pgm time (DAT)
76	balance L (TV), x9 (VCR), 16 (CD), >12 (TU), balance (T), repeat, ? (MD), disp abs time (DAT)
78	balance R (TV), auto-tracking (VCR), contrast (T), +10/>10 (CD), A-B, ! (MD), PTY (CAR), disp custom counter (DAT)
80	search - (VCR), loudness, sub level (TV), time (CD), stop (MD), Phono start (AU), disp rem time (DAT)
81	Back-Light <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
82	search + (VCR), space-sound (TV), 20 (CD), pause (MD), Phono stop (AU), date present (DAT)
84	TV/VTR (TV/VCR), A-B (CD), play (MD), date recorded (DAT)
86	TextClear (VT), Mix (AU), rew, crsr left (MD)
88	repeat (CD), fwd, crsr right (MD), Phono lift up/down (AU)
90	VTR (VCR), search select (DV), rec (MD), rec-pause (DAT)
92	power on
94	power off
96	time (TV), rev frame (VCR), skip - (CD), t.rec (MD), A (TU), preset - "short" (CAR), auto play (DECK B)
97	Shutter <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
98	fwd frame (VCR), skip + (CD), B (TU), DBFB (SUR2), preset + "short" (CAR)
100	play (AU/CD), C (TU)
101	edit-search - (CAM)
102	x1 (VCR), rew fast (AU/CD), D/shift (TU), auto-space, "(" (MD)
103	edit-search + (CAM)
104	fwd fast (AU/CD), tuning preset (TU), m.scan, ")" (MD)
105	rec-review (CAM, nicht 2200)
106	shuffle (CD), rec-pause (AU)
108	sleep (TV/VCR-850), rec (AU), index - (CD), write caps (MD), repeat 1/all (DAT)

110	reverse (AU/CAR), index + (CD), write num (MD), eject+LED flashing (VCR)
112	TV (TV), stop (AU/CD/DAT), off (SUR2)
114	pause (CD), pause (DAT), Dolby (SUR2)
116	rew+play (VCR), display (TV), rew (CD), edit (MD), play (DAT), Hall (SUR2)
118	prev. channel (TV), fwd (CD), enter (MD), rew (DAT), Simul. (SUR2)
120	m.scan (CD), fwd (DAT), write name (MD)
122	slow + (VTR), rec (DAT), clear (MD)
124	slow - (VTR), d.skip (CD), rec-play (DAT)
126	Text/Mix (VT), rec-mute (AU/DAT), surround on/off / DSP (SUR2), music sync (MD)
128	AV1 (TV), 11, P (MD), sel disc #1 (CD)
130	AV2 (TV), 12, Q (MD), display mode (VCR), sel disc #2 (CD)
132	AV3 (TV), Video 3 (AU), 13, R (MD), crsr up (VCR), sel disc #3 (CD), rear vol + (SUR2)
133	Memory impose (not if real switch) <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
134	input AV (TV), Video 4 (AU), 14, S (MD), crsr down (VCR), sel disc #4 (CD), rear vol - (SUR2)
135	Color / Mode (not if real switch) <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
136	15, T (MD), tracking/fine + (VCR), sel disc #5 (CD), delay time (SUR2)
137	Superimpose (not if real switch) <i>This code is valid, when Code 0010 1000b is transmitted as Sub-Command in Byte 0.</i>
138	input digital (TV), 16, U (MD), tracking/fine - (VCR)
140	17, V (MD), counter reset (VCR), Tuner-CD-Tape (CAR)
142	input VTR (TV), 18, W (MD), zero mem (VCR), FM 1/2-LW-MW-SW (CAR)
144	19, X (MD), index mark (VCR), CD (CAR), Page 100 (VT)
146	20, Y (MD), index erase (VCR), double (VT)
148	shuttle edit + (VCR), # (TV), hold (VT), AF/TA (CAR), test-tone (SUR), 21, Z (MD)
150	shuttle edit - (VCR), subtitle (VT), display mode (DAT/DECK B/TU), FM1/FM2 (CAR), 22, - (MD), clock disp (AU)
152	cable toggle (TV), TOP 1 (VT), goto (VCR), data code (DV), AM oder MW/SW (CAR), 23, [space] (MD)
154	TOP 2 (VT), menu (VCR), 24, . (MD)
156	TOP 3 (VT), btx (TV), 25, , (MD), rear vol + (SUR), memory (DECK B), margin reset (DAT), auto space (CD)
158	TOP 4 (VT), input select (VCR), rear vol - (SUR), peak-search (CD)
160	start ID auto (DAT), counter reset (DECK B)
162	start ID write (DAT), execute (VCR)
164	start ID erase (DAT), Quick Timer (VCR)
166	index (VCR) renumber (DAT)
168	skip ID write (DAT), center vol + (SUR)
170	skip ID erase (DAT), center vol - (SUR)
172	index search + (VCR), display mode (CD), error-rate (DAT)(initiate with 9 and 1)
174	index search - (VCR), rew + play (DAT)
176	end ID write (DAT), Tape Speed (VCR), Dolby (SUR)
178	end ID erase (DAT), goto zero / tape return (VCR, nicht DV), Matrix (SUR)
180	counter display, data screen (VCR), Hall (SUR), erase/delete (MD)
182	open/close (VCR-VTR1), skip play (DAT), Simulated (SUR), replay (VCR-VTR3), divide (MD)
184	Timer Display (VCR), Triangle/Circle key (TV)
186	DSP select (CD)

188	DSP flat (CD)
190	Fader (CD/DAT)
192	Guide Menu (TV)
194	Video Menu (TV), crsr right (VCR), next (VCR-VTR3)
196	Audio Menu (TV), crsr left (VCR), play (CD)
198	Exit Menu (TV), Timer clear (VCR-VTR3..6)
200	ASC (TV), Timer check (VCR-VTR3)
202	Timer rec. (VCR-VTR3)
204	AVout (TV)
206	-
208	Audio Dub (VCR), *, auto program (TV), skip - (DAT), level file (CD)
210	skip + (DAT), memo input (CD)
212	Subwoofer vol + (AU) (my own code)
214	Subwoofer vol - (AU) (my own code)
216	synchro-edit (VCR), ® (TV), music scan (DAT)
218	-
220	½® + (TV), print (DV)
222	½® - (TV), dimmer high (DAT)
224	illumination color (CAR), dimmer mid (DAT)
226	loudness (CAR), dimmer low (DAT)
228	TA-vol (CAR)
230	-
232	AV + (TV), mode + (), channel scan (VCR)
234	AV - (TV), mode - (), beep (CAR)
236	½® + (TV) (wie 110), voice boost (VCR), CT on/off (CAR)
238	½® - (TV) (wie 111)
240	“, add channel (TV)
242	erase channel (TV)
244	-
246	-
248	digital scan (VCR), mode (TV), band (TVTu)
250	high-speed-rew (VCR), system select (TVTu)
252	still/shuttle (VCR-880), CREC in/mid/out, REC A/D (MD)
254	Display Test (MD)

Byte 2 and 3

The significant Guide-Codes for Byte 3 are found in the "High-Nibble" of Byte 2.
The following table shows the known codes.

Guide Code	General	Byte 3, L-N	Byte 3, H-N
9	Program-Code	AV or OFF: 1010 Program: One's No Tuner: 0000 and H-N 0000	AV or OFF: 1010 Program: Ten's (at 0: 0000 or 1010) No Tuner: 0000 and L-N 0000
10	Program-Code	AV or OFF: 1010 Program: Hundred's No Tuner: 0000	Tuner-Type 1: 00 Tuner-Type 2: 01 Tuner-Type 3: 10

Byte 4

Status-Code from the connected device.

L-N H-N	0	1	2	3	4	5	6	7	8
0	initial	is eject	stop	fwd	rec		play	play/pause fwd	AL insert
1		dew cass. out	load		rec/ pause			frame fwd	AL ins- pause
2		ejecting	cassette busy		timer-rec		x1 fwd	1/5 fwd	AR insert
3		unload	low-battery	go zero/play f.	timer-rec s.		x1 rev	1/5 rev	AR ins- pause
4			dew stop	fwd mem stop	AV insert		cue	1/10 fwd	AL+V insert
5			emergency		AV ins.- pause		rev	1/10 rev	AL+V ins- ps
6			tape end		video insert		x2/x3 fwd	frame fwd	AR+V insert
7			tape top		video ins.- ps		x2/x3 rev	frame rev	AL+R ins- ps
8				rew	audio dub	edit search+	x9 fwd		
9			stp after zero		a.dub pause	edit search-	x9 rev	play/pause rev	
A			load emer.	auto-play	cam rec	edit-s fwd	frame sea. cue		
B		unload emerg.	stop emerg. 1	go zero/play r.	cam stby	edit-s rev	frame sea. rev		
C			stop emerg. 2	rew mem stop			x14 fwd		
D				hi-speed rew			x14 rev		
E			stop NC						
F						edit pause			

Byte 5

Bit	Description (if bit = 1)
0	invalid transmitted code
1	player mode: rec protection / camera mode: tape pre-end
2	battery low
3	zero mem / zero found
4...7	Guide-Codes for Byte 6 and 7

Byte 6 and 7

The significant Guide-Codes for Byte 6 and 7 are found in the „High-Nibble“ of Byte 5.
The following table shows the known codes.

Guide Code	Allgemein	Byte 6, L-N	Byte 6, H-N	Byte 7, L-N	Byte 7, H-N
0					
1	Status V8, DV	0: tape-speed (1=LP) 1: tape-speed (always 0) 2: standard FM-sound 3: PCM-sound	0: camera-mode 1: rec-prot. / pre-end 2: ME (0=MP) 3: 13µm (0=10µm)	0: 1: camera-mode 2: 3: tape loading/deloading	0+2: input select (00=tuner, 01=sim, 11=line)
2	decimal Counter	One's	Ten's	Hundred's	Thousand's
3	real time Counter	Seconds One's	Seconds Ten's	Minutes One's	Minutes Ten's
4	real time Counter	Hours One's	Hours Ten's	Day One's (or 00/FF) TC: Frames One's	0..2: Day Ten's (or 00/FF) TC: Frames Ten's + 4 3: sign (1=negativ)
5	remain time	Minutes One's	Minutes Ten's	Hours One's	while calculating: FF
6					
7	Status Betamax or DV	0+1: Beta-Code (00=BI, 10=BI, 01=BI1, 11=--) 2: Beta Hifi 3: Servo/Mechanics on DV: 0000	0: -- 1: rec-protection 2+3: Byte 7 mode 00=input, 11=instr. VTR-Status DV: 0011=input, 0111=Byte7:00	input-select (wie V8 H-N) or 0+1: Audio L+R insert 2: Video insert, 3: assemble DV: input tuner: 0000 input Line: 0101 input DV: 1010	wenn Bit 6+7 in Byte 5=11 0: edit, 1: preview, 2: EE, 3: - DV: Line 1: 0000 Line 3: 1010 Line 2: 0101 Line 4: 1111
8	Data-Guide	DC: 4	DC: 1	DC: 3=Date, 4=Time	DC: 0
9	Data-Code	Date: Year One's Time: Hour One's	Date: Year Ten's Time: Hour Ten's	Date: Month One's Time: Minutes One's	Date: Month Ten's Time: Minutes Ten's
10	Data-Code	Date: Day One's Time: Seconds One's	Date: Day Ten's Time: Seconds Ten's	DC: 1111 sometimes 1000	DC: 1111 sometimes 1001/1011
11					
12	Status Hi8, DV (+GC1)	Hi8: 0100 DV: 0010 or 0001	Hi8: 0100 DV: 0010 or 0000	0: camera mode / CTL found 1: 2: edit on 3: auto Hi8	0000