

RAM Memory			V. 1.0/	HERMES	
L/H			Q	L/H	
268	0/128	8000	0000	00/00	INITIAL
		<u>VARs</u> (64 bytes)	0378	2A/01	MESSAGE TO DISPLAY
			039C	8C/01	DELAY
			0422	06/01	DELAY*
			0438	86/01	KEY DISPLAY
31	63/128	803F	0529	11/02	TAKE 2/4 Key Display
32	64/128	8040	0695	82/02	KEY VALUE CONVERT
		<u>Buff OUT</u> (448 bytes)	0727	02/02	Rx MESSAGE
			0723	05/03	Rx
29	255/129	81FF	0881	21/03	TX
80	0/130	8200	0996	E4/03	CRC
		<u>PGM IN</u> (32256)	1023	FF/03	TX CRC
			1044	14/04	Rx CRC
			1082	3A/04	Delay * Display
			1098	4A/04	LEVEL 0 M
			1112	5D/04	LEVEL 0 (2)
			1346	42/05	CTROL KEYS (1)
35	255/255	FFFF	1461	85/05	Add To display
		↑ STACK ↑	1525	F5/05	Data To display
			0022	48/00	V IN

056	PUSH AF	INT	245	
52	IN A, (AF)		219, 255	
59	LD (32299), A		50, 31, 128	
62	OUT (AF), A		211, 255	
64	LD A, ϕ		62, ϕ	
66	LD (32800), A		50, 32, 128	
69	POP AF		241	
70	RET		232, 22	
72	PUSH AF	VEN	245	
73	LDA, 255		62, 255	
75	LD (32100), A		50, 32, 128	
78	ET		251	
79	LD A, (32800) $\leftarrow$		58, 32, 128	
82	CP 255		254, 255	
84	JRZ $\leftarrow$		40, 249	
86	POP AF		241	
87	RET		201	
ϕ	JP ϕ 290	INITIAL	195, 34, 1	(V. 3.33)
ϕ	LD SP, $\phi\phi\phi\phi$		49, ϕ , ϕ	$\phi\phi\phi\phi$ 49, ϕ , ϕ
93	EM 1		232, 86	$\phi 3$ 232, 86
95	LD A, 129		62, 129	$\phi 5$ 195, 35, 1
97	OUT (3), A		211, 3	
99	OUT (2), A		211, 2	
101	LDA, 128		62, 128	0298 62, 129
103	OUT (ϕ), A		211, ϕ	43 211, 3
105	OUT (11), A		211, 11	95 211, 2
107	OUT (15), A		211, 15	42 62, 64
109	OUT (19), A		211, 19	44 211, 2
111	OUT (23), A		211, 23	301 62, 128
113	OUT (27), A		211, 27	
115	LDA, 128		62, 128	
117	OUT (31), A		211, 31	
119	LD HL, 32832		33, 64, 128	
121	LD (32296), HL		34, 28, 128	
123	LD HL, 33280		33, ϕ , 130	
125	LD (32294), HL		34, 26, 128	
127	IN A, (2)		219, 2	
129	RRC A		45	
131	AND 2		230, 2	
133	LD (32298), A		50, 30, 128	
135	CP ϕ		254, ϕ	
137	JPZ		202, 93, 4	$\leftarrow$ Level ϕ Diagnostics
139	CP1		254, 1	
141	JPB		202, 66, 5	$\leftarrow$ μ Programming
143	CP2		254, 2	
145	JPZ		202, 88, 6	$\leftarrow$ DIONISOS
147	CP3		254, 3	
149	JPB		202, ,	
151	CP4		254, 4	
153	JPB		202, ,	
155	CP5		254, 5	
157	JPB		202, ,	
159	CP6		254, 6	
161	JPB		202, ,	
163	JP		195, ,	
165	NDP		ϕ	
			Basic Monitor Voltage In 1 ϕ	
			V. 1. ϕ or More	
			40, 48, $\phi\phi$	
			3A, 1F, 80	
			32, ϕE , 80	
			40, F5, $\phi 5$	
			40, B6, $\phi 1$	
			18, EF	

VARS		MULTI INTERFACE PORTS SYSTEM	
Addr	L/H	Port	Function
8	L	$\phi / 128$	8000
9	H	1/128	8001 Delay /CTE/
20	L	2/128	8002
21	H	3/128	8003 Delay /HL/
22	X	4/128	8004
23	X	5/128	8005
24	X	6/128	8006
25	X	7/128	8007
26	X	8/128	8008
27	X	9/128	8009
28	X	10/128	800A
29	X	11/128	800B
30	X	12/128	800C
31	X	13/128	800D
32	X	14/128	800E Key Code Pulsed
33	L	15/128	800F VALUE DATA enter
34	H	16/128	8010 VALUE Add. enter
35	X	17/128	8011 Key Code Converter xxxxxxxx
36	X	18/128	8012 Routine 2 Keys, 4 Keys 2, 0 (Values)
37	L	19/128	8013 Add. Message To display
38	H	20/128	8014
39	X	21/128	8015 RESULTADO (255 = Si / 0 = No)
40	L	22/128	8016
41	H	23/128	8017 Rx-Tx long
42	L	24/128	8018 Rx-Tx add
43	H	25/128	8019
44	L	26/128	801A Next add (Rx-Tx buff/m) /PEM IN/
45	H	27/128	801B
46	L	28/128	801C Next add (Rx-Tx buff/m) /BUFF OUT/
47	H	29/128	801D
48	X	30/128	801E SWITCHES
49	X	31/128	801F Analog Input
50	X	32/128	8020 Analog VAR

28	Φ, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F (display)		63, 24, 109, 124, 90, 118, 119, 28, 122, 94, 95, 115, 39, 121, 103, 21
4	Φ, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, etc, rd, add, wt (Keyboard)		116, 180, 212, 228, 129, 211, 222, 128, 210, 226, 122, 209, 225, 126, 208, 224, 115, 112, 113, 114
4	-HERMES_P	(164/Φ)	Φ, 91, 103, 65, 31, 103, 118, Φ, 29
3	-HERMES_D	(123/Φ)	Φ, 91, 103, 65, 31, 103, 118, Φ, 121
2	-----Add-----	(182/Φ)	Φ, Φ, Φ, Φ, Φ, 95, 121, 121, Φ
1	-----DATA-----	(191/Φ)	Φ, Φ, Φ, Φ, 121, 95, 2, 95, Φ
0	-----Port-----	(200/Φ)	Φ, Φ, Φ, Φ, 29, 113, 65, 2, Φ
9	-----TIME-----	(209/Φ)	Φ, Φ, Φ, Φ, 2, 24, 31, 103, Φ
8	-----FAIL-----	(218/Φ)	Φ, Φ, Φ, Φ, 21, 95, 24, 35, Φ
	MARSUPIAL	(227/Φ)	31, 95, 65, 118, 59, 29, 24, 95, 35
	PRESENTA-	(236/Φ)	29, 65, 103, 118, 103, 81, 2, 95, Φ
	HERMES--Y	(245/Φ)	91, 103, 65, 31, 103, 118, Φ, Φ, 122
	BUSQUESE-	(254/Φ)	115, 59, 118, 94, 59, 103, 118, 103, Φ
	LA--VIDA-	(21/Φ)	35, 95, Φ, Φ, 49, 16, 121, 95, Φ
	8.8.8.8.8.8.8.	(11/Φ)	255, 255, 255, 255, 255, 255, 255, 255
	-----	(25/Φ)	Φ, Φ, Φ, Φ, Φ, Φ, Φ, Φ
Φ 102	PUSH AF	NMT	245
Φ3	PUSH HL		229
Φ4	PUSH BC		192
Φ5	PUSH DE		213
Φ6	CALL (Rx Message)		
Φ9	LD HL, (32292)		205, 215, 2
12	JP (HL)		42, 24, 128
102	PUSH AF	NMT	233
Φ3	PUSH HL		245
Φ4	PUSH BC		229
Φ5	PUSH DE		192
Φ6	CALL (RX)		213
Φ9	CALL (RX CRC)		205, 5, 3 (906A) CD, 5, 3
12	LD HL, (32292)		205, 20, 4 CD, 14, 4
15	JP (HL)		42, 24, 128 2A, 18, 80
			233 E9
24	LDA, 91		3E, 91
26	OUT (F3), A		D3, F3
27	OUT (F3), A		205, 20, 4
3	OUT (F1), A		D3, F1
2A	JP 0123		C3, 23, 01
000			31, 00, 00
03			ED, 56
05	JP 0123		(C3, 23, 01) → C3, 24, 00

28	PUSH HL	122/1	MESSAGE TO DISPLAY	229
29	PUSH DE			213
30	PUSH BC			192
31	LD HL, (32282)			42, 19, 128
32	LD DE, 32222			12, 4, 128
33	LD BL, 0009			1, 9, 0
34	LD ER			232, 126
35	POP BC			193
36	POP DE			209
37	POP HL			225
38	RET			201
39	PUSH BC	140/1	DELAY	192
40	PUSH HL			229
41	PUSH AF			245
42	LD BC, (32224)			232, 25, 2, 128
43	DEC BC			11
44	LD A, B			120
45	OR C			122
46	JR Z			40, 10
47	LD HL, (32268)			42, 0, 128
48	DEC HL			43
49	LD A, H			124
50	OR L			181
51	JR NZ			32, 251
52	JR			24, 241
53	POP AF			241
54	POP HL			225
55	POP BC			193
56	RET			201
57	PUSH HL	100/1	DELAY *	229
58	PUSH AF			245
59	LD HL, (32220)			42, 2, 128
60	CALL (Delay)			205, 140, 1
61	DEC HL			43
62	LD A, H			124
63	OR E			181
64	JR NZ			32, 248
65	POP AF			241
66	POP HL			225
67	RET			201

Delay $f_{osc} = 31.6 \text{ MHz}$
 $T = 31.6 \mu\text{s} \left\{ \begin{array}{l} HL = 1 \\ CTC = X \end{array} \right.$
 $T = 1.5 \mu\text{s} \left\{ \begin{array}{l} CTC = 256 \\ HL = 2 \end{array} \right.$
 $T = 50 \mu\text{s} \left\{ \begin{array}{l} CTC = 256 \\ HL = 33 \end{array} \right.$

Delay *
 $T = 1.6 \mu\text{s} \left\{ \begin{array}{l} CTC = 256 \\ HL = 33 \end{array} \right.$

438 PUSH BC (182/1) **KEY DISPLAY**

39 PUSH DE
40 PUSH HL
41 PUSH AF
42 LDA, 255
44 OUT (1), A
46 LD HL, 180
49 LD (32268), HL
52 LD HL, 0004
55 LD (32220), HL
58 LD HL, 32281
61 LD C, 0
63 LD B, 254
65 DEC HL
66 LDA, B
62 OUT (5), A
69 LD A, (HL)
70 OUT (4), A
72 IN A, (6)
74 LD D, A
75 AND 15
77 CP 15
79 JR Z
81 RLC A
82 RLC A
83 RLC A
84 RLC A
85 ADD A, C
86 LD (32281), A
89 IN A, (6)
91 CP D
92 JR NZ
94 CALL (Delay)
96 INC C
98 LDA, B
99 RLC A
05 04 LD B, A
01 CP 254
03 JR NZ
05 LD A, 255
02 OUT (5), A
09 LD A, 122
11 OUT (6), A
13 DEC HL
14 LD A, (HL)
15 OUT (4), A
12 CALL (Delay)
20 LD A, 255
22 OUT (6), A
24 POP AF
25 POP HL
26 POP DE
22 POP BC
28 RET

192
213
224
245
62, 255
211, 6
33, 180, 0
34, 0, 128
33, 4, 0
34, 2, 128
33, 13, 128
14, 0
6, 254
43
120
211, 5
126
211, 4
219, 6
82
230, 15
254, 15
40, 13
2
2
2
2
129
50, 13, 128
219, 6
186
40, 251
205, 140, 1
12
120
2
21
254, 254
32, 216
62, 255
211, 5
62, 122
211, 6
43
126
211, 4
205, 140, 1
62, 255
211, 6
241
225
207
193
201

* 13

529 PUSH AF (17/2) **TAKE 2/4 Key Display**
 30 PUSH BC
 31 PUSH DE
 32 PUSH HL
 33 LD A, (32286)
 36 LD D, A
 32 LD A, ϕ 25/2
 39 LD (32281), A
 42 CALL (Key Display)
 45 LD A, (32281)
 48 CP ϕ
 50 JR Z
 52 CALL (Key Value)
 55 LD HL, 32222
 58 LD BC, 32223
 61 LD E, 9
 63 DEC E
 64 LD A, E
 65 CP ϕ
 62 JR Z
 69 LD A, (BC)
 70 LD (HL), A
 71 INC BC
 72 INC HL
 73 JR
 75 LD A, (32285)
 78 ADD A, 128
 80 LD L, A
 81 LD H, ϕ
 83 LD A, (HL)
 84 LD (32280), A
 82 LD A, (32286)
 90 CP ϕ
 92 JR Z
 94 LD A, D
 95 CP Z
 92 JR Z
 99 LD A, (32285)
 02 RLC A
 03 RLC A
 04 RLC A
 05 RLC A
 06 LD (32282), A
 09 INC D
 10 JP
 13 LD A, (32282)
 16 LD HL, 32285
 19 ADD A, (HL)
 20 LD (32282), A
 23 JR
 25 LD A, D
 26 CP 1
 28 JR Z
 30 CP 2
 32 JR Z
 34 CP 3

245
 192
 213
 229
 58, 18, 128
 82
 62, ϕ
 50, 13, 128
 205, 182, 1
 58, 13, 128
 254, ϕ
 40, 246
 205, 183, 2
 33, 4, 128
 1, 5, 128
 30, 9
 29
 123
 254, ϕ
 40, 6
 10
 119
 3
 35
 24, 244
 58, 12, 128
 198, 128
 111
 38, ϕ
 126
 50, 12, 128
 58, 18, 128
 254, ϕ
 40, 31
 122
 254, 2
 40, 14
 58, 12, 128
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 50, 14, 128
 20
 195, 25, 2
 58, 14, 128
 33, 12, 128
 134
 50, 14, 128
 24, 65
 122
 254, 2
 40, 22
 254, 2
 40, 32
 254, 3

(D) (C) (B) (A)

636	SRZ	(D)	(C)	(B)	(A)	40, 42	(5)
38	LD A, (32285)					58, 12, 128	
41	RLC A					2	
42	RLC A					2	
43	RLC A					2	
44	RLC A					2	
45	LD (32284), A					50, 16, 128	
48	INC D					20	
49	JP					195, 25, 2	-
52	LD A, (32284)					58, 16, 128	
55	LD HL, 32285					33, 12, 128	
58	ADD A, (HL)					134	
59	LD (32284), A					50, 16, 128	
62	INC D					20	
63	JP					195, 25, 2	-
66	LD A, (32285)					58, 12, 128	
69	RLC A					2	
70	RLC A					2	
71	RLC A					2	
72	RLC A					2	
73	LD (32283), A					50, 15, 128	
76	INC D					20	
77	JP					195, 25, 2	-
80	LD A, (32283)					58, 15, 128	
83	LD HL, 32285					33, 12, 128	
86	ADD A, (HL)					134	
87	LD (32283), A					50, 15, 128	
90	POP HL					225	
91	POP DE					209	
92	POP BC					193	
93	POP AF					241	
94	RET					202	

695 PUSH AF (183/2) **KEY VALUE CONVERT**
 96 PUSH HL
 92 LD A, (32281)
 0200 LD(32285), A
 93 LD HL, 0143
 06 INC HL
 02 LD A, L
 08 CP 160
 10 JRB
 12 LD A, (32281)
 15 CP (HL)
 16 JRN
 18 LD A, L
 19 AND 15
 21 LD (32285), A
 24 POP HL
 25 POP AF
 26 RET

245
 229
 58, 13, 128
 50, 12, 128
 33, 143, 0
 35
 125
 254, 160
 40, 12
 58, 13, 128
 190
 32, 244
 125
 230, 15
 50, 12, 128
 225
 241
 201

0222 LD HL, (32294) ^(215/2) **Rx MESSAGE**
 30 LD (32292), HL
 33 CALL (Rx)
 36 CALL (Rx CRC)
 39 LD A, (32289)
 42 CP 0
 44 JRB
 46 LD HL, 0218
 49 LD (32282), HL
 52 CALL (LEVEL 0 M)
 55 RET
 56 LD HL, (32292)
 59 LD BC, (32290)
 63 ADD HL, BC
 64 LD A, H
 65 AND 128
 67 JRB
 69 LD (32294), HL
 72 RET

42, 26, 128
 34, 24, 128
 205, 3
 205, 20, 4
 58, 21, 128
 254, 0
 40, 10
 33, 218, 0
 34, 19, 128
 205, 24, 4
 201
 42, 24, 128
 232, 25, 22, 128
 9
 124
 230, 128
 40, 233
 34, 26, 128
 201

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	(5/3) Rx		$\left\{ \begin{array}{l} \text{Driver} \\ 64 = 40H \equiv 0100\ 0000 \\ 80 = 50H \equiv 0101\ 0000 \end{array} \right\}$ $\begin{array}{c} \overline{E} \\ \uparrow \\ R_x \\ \updownarrow \\ T_x \\ \downarrow \end{array}$
23	PUSH AF	245	
24	PUSH HL	229	
25	PUSH BC	192	
26	LD A, 131	62, 131	
28	OUT (3), A	211, 3	
80	LD A, 128	62, 128	
82	OUT (0), A	211, 0	
84	LD A, 64	62, 64	
86	OUT (2), A	211, 2	
88	IN A, (2) ←	219, 2	
90	AND 1	230, 1	
92	JR Z	40, 250	
94	IN A, (1)	219, 1	
96	LD (32290), A	50, 22, 128	
98	LD A, 80	62, 80	
2 01	OUT (2), A	211, 2	
93	IN A, (2) ←	219, 2	
95	AND 1	230, 1	
97	JR NZ	32, 250	
99	LD A, 64	62, 64	
11	OUT (2), A	211, 2	
13	IN A, (2) ←	219, 2	
15	AND 1	230, 1	
17	JR Z	40, 250	
19	IN A, (1)	219, 1	
21	LD (32291), A	50, 23, 128	
23	LD A, 80	62, 80	
25	OUT (2), A	211, 2	
27	IN A, (2) ←	219, 2	
29	AND 1	230, 1	
31	JR NZ	32, 250	
33	LD BC, (32292)	232, 25, 24, 128	
35	DEC BC	11	
37	LD HL, (32290)	42, 22, 128	
39	LD A, H ←	124	
41	OR L	181	
43	JR NZ	32, 8	
45	LD A, 0	62, 0 ← 64 (40H) (V. 3.33)	
47	OUT (2), A	211, 2	
49	POP BC	193	
51	POP HL	225	
53	POP AF	241	
55	RET	201	
57	DEC HL ←	43	
59	INC BC	3	
61	LD A, 64	62, 64	
63	OUT (2), A	211, 2	
65	IN A, (2) ←	219, 2	
67	AND 1	230, 1	
69	JR Z	40, 250	
71	IN A, (1)	219, 1	
73	LD (BC), A	2	
75	LD A, 80	62, 80	
77	OUT (2), A	211, 2	
79	IN A, (2) ←	219, 2	
81	AND 1	230, 1	
83	JR NZ	32, 250	
85	JR	24, 212	

881	PUSH AF	(113/3) TX	245		$\left\{ \begin{array}{l} \text{Driver} \\ 16 = 10_{16} = 00000000 \\ 00 = 00_{16} = 00000000 \\ 40 = 40_{16} = 01000000 \end{array} \right\}$	18
82	PUSH HL		229			
83	PUSH BC		192			
84	LD A, 129		62, 129			
86	OUT (3), A		211, 3			
88	LD A, 128		62, 128			
90	OUT (0), A		211, 0			
92	LD A, (32290)		58, 22, 128			
95	OUT (1), A		211, 1			
97	LD A, 80		62, 80	16 (10H) (V.3.33)		
99	OUT (2), A		211, 2			
01	IN A, (2)		219, 2			
03	AND 1		230, 1			
05	JRZ		40, 250			
07	LD A, 64		62, 64	0 (V.3.33)		
09	OUT (2), A		211, 2			
11	IN A, (2)		219, 2			
13	AND 1		230, 1			
15	JR NZ		32, 250			
17	LD A, (32291)		58, 23, 128			
20	OUT (1), A		211, 1			
22	LD A, 80		62, 80	16 (10H) (V.3.33)		
24	OUT (2), A		211, 2			
26	IN A, (2)		219, 2			
28	AND 1		230, 1			
30	JRZ		40, 250			
32	LD A, 64		62, 64	0 (V.3.33)		
34	OUT (2), A		211, 2			
36	IN A, (2)		219, 2			
38	AND 1		230, 1			
40	JR NZ		32, 250			
42	LD BC, (32292)		232, 25, 24, 128			
46	DEC BC		11			
48	LD HL, (32290)		42, 22, 128			
50	LD A, H		124			
51	OR L		181			
52	JR NZ		32, 8			
54	LD A, 0		62, 0	64 (40H) (V.3.33)		
56	OUT (2), A		211, 2			
58	POP BC		193			
59	POP HL		225			
60	POP AF		241			
61	RET		201			
62	DEC HL		43			
63	INC BC		3			
64	LD A, (BC)		10			
65	OUT (1), A		211, 1			
67	LD A, 80		62, 80	16 (10H) (V.3.33)		
69	OUT (2), A		211, 2			
71	IN A, (2)		219, 2			
73	AND 1		230, 1			
75	JRZ		40, 250			
77	LD A, 64		62, 64	0 (V.3.33)		
79	OUT (2), A		211, 2			
81	IN A, (2)		219, 2			
83	AND 1		230, 1			
85	JR NZ		32, 250			
87	JR		24, 212			

989

φ, φ, φ, φ, φ, φ, φ,

(9)

96 PUSH AF (228/3) **CRC**
 97 LD D, φ
 98 LD BC, (3229φ)
 99 LD HL, (32292)
 00 LD A, B
 01 OR C
 02 JR Z
 03 LD A, (HL)
 04 ADD D
 05 LD D, A
 06 DEC BC
 07 INC HL
 08 JR
 09 LD A, D
 10 LD (32289), A
 11 POP AF
 12 RET

245
 22, φ
 232, 25, 22, 128
 42, 24, 128
 120
 122
 40, 2
 126
 130
 82
 11
 35
 24, 245
 122
 50, 21, 128
 241
 201

89 PUSH AF (221/3) **CRC**
 90 PUSH BC
 91 PUSH HL
 92 PUSH DE
 93 LD D, φ
 94 LD BC, (32290)
 95 LD HL, (32290)
 00 LD A, B
 01 OR C
 02 JR Z
 03 LD A, (HL)
 04 ADD D
 05 LD D, A
 06 DEC BC
 07 INC HL
 08 JR
 09 LD A, D
 10 LD (32289), A
 11 POP DE
 12 POP HL
 13 POP BC
 14 POP AF
 15 RET
 002 NOP

245
 192
 229
 213
 22, φ
 232, 25, 22, 128
 42, 24, 128
 120
 122
 40, 2
 126
 130
 82
 11
 35
 24, 245
 122
 50, 21, 128
 209
 225
 193
 241
 201
 0

V. 3.2

Add	Data
1024	221
1054	221

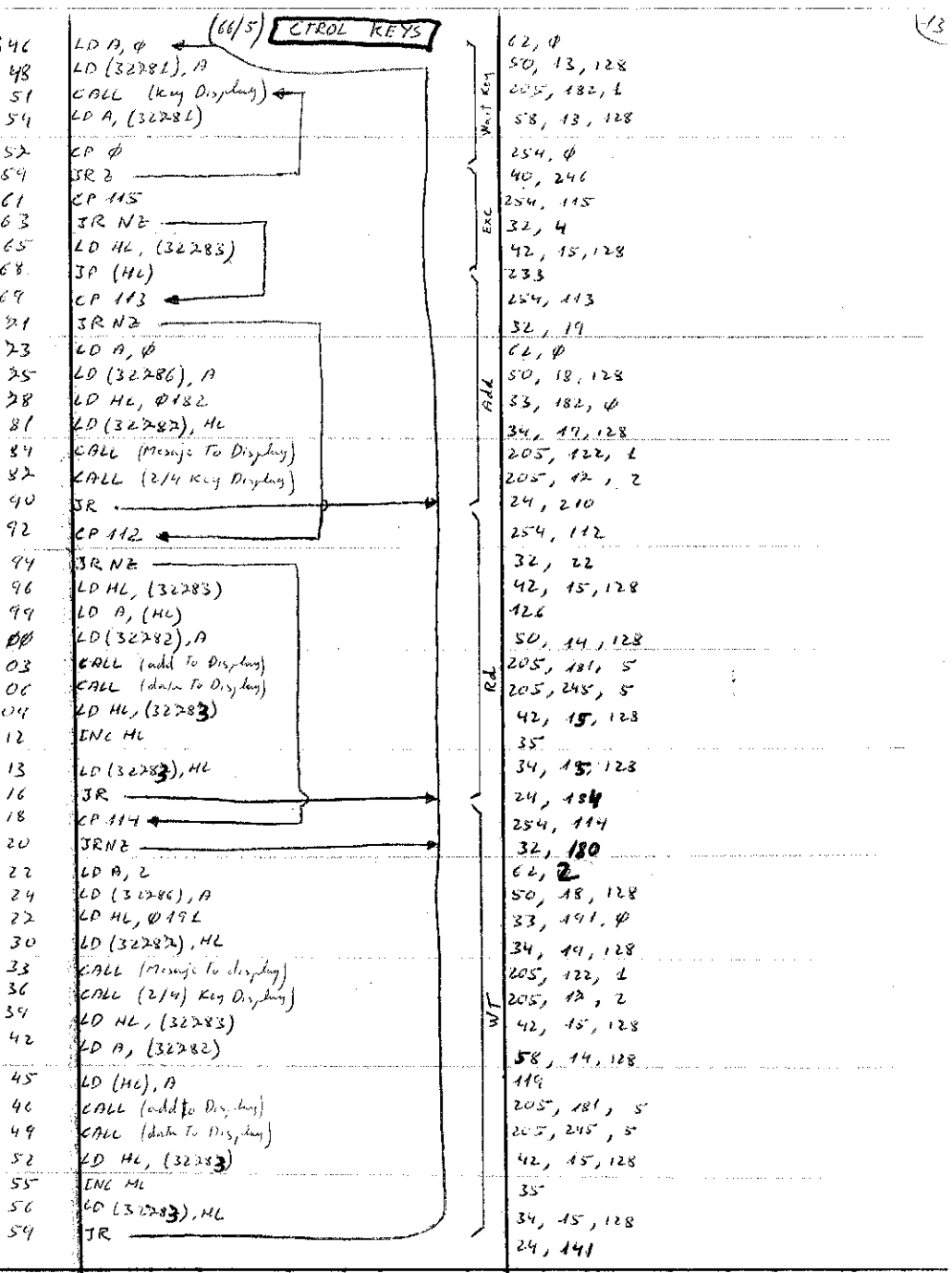
	255/3	TX CRC	
23	CALL (CRC)		205, 228, 3
26	LD A, (32289)		58, 21, 128
29	LD BC, (32290)		232, 25, 22, 128
33	LD HL, (32292)		42, 24, 128
36	ADD BC		9
32	LD (HL), A		119
38	INC BC		3
39	LD (32290), BC		232, 62, 22, 128
43	RET		201
44	LD BC, (32290)	20/4	RX CRC
48	DEC BC		232, 25, 22, 128
49	LD (32290), BC		11
53	CALL (CRC)		232, 62, 22, 128
58	LD A, (32289)		205, 228, 3
59	LD BC, (32290)		58, 21, 128
63	LD HL (32292)		232, 25, 22, 128
66	ADD BC		42, 24, 128
62	CP (HL)		9
68	JR NZ		190
70	LD A, 255 ϕ		32, 6
72	LD (32289), A		62, 255 ϕ
75	RET		50, 21, 128
76	LD A, 255		201
78	LD (32289), A		62, 255
81	RET		50, 21, 128
			201
82	PUSH HL	58/4	DELAY * DISPLAY
83	PUSH AF		(043A)
84	LD HL, (32220)		229
82	CALL (KEY DISPLAY)		245
90	DEC HL		42, 2, 128
91	LD A, H		205, 182, 1
92	OR L		43
93	JR NZ		124
95	POP AF		181
96	POP HL		32, 248
92	RET		241
			225
			201

TX CRC → TX

RX → RX CRC → $\phi = OK$
 → 255 = FAIL

098	LD HL, 0003	24/4	LEVEL 0M	33, 3, 0	(14)
101	LD (32208), HL			34, 0, 128	
04	LD HL, 0123			33, 123, 0	
02	LD (32220), HL			34, 2, 128	
10	CALL (Memory to display)			205, 122, 1	
13	CALL (Delay * Display)			205, 58, 4	
16	RET			201	
12	LD HL, 0222	93/4	LEVEL 0	33, 16, 1	(0450)
20	LD (32208), HL			34, 14, 128	
23	CALL (LEVEL 0M)			205, 24, 4	
26	LD HL, 0281			33, 25, 1	
29	LD (32208), HL			34, 14, 128	
32	CALL (LEVEL 0M)			205, 24, 4	
35	LD HL, 0003			33, 3, 0	
38	LD (32208), HL			34, 0, 128	
41	LD HL, 0123			33, 123, 0	
44	LD (32220), HL			34, 2, 128	
42	LD A, 224			62, 224	
49	OUT (2), A			211, 2	
51	CALL (Delay *)			205, 166, 1	
54	LD A, 0			62, 0	
56	OUT (2), A			211, 2	
58	CALL (Delay *)			205, 166, 1	
61	LD A, 255			62, 255	
63	OUT (16), A			211, 16	
65	OUT (17), A			211, 17	
67	OUT (18), A			211, 18	
69	OUT (20), A			211, 20	
71	OUT (21), A			211, 21	
73	OUT (22), A			211, 22	
75	OUT (24), A			211, 24	
77	OUT (25), A			211, 25	
79	OUT (26), A			211, 26	
81	CALL (Delay *)			205, 166, 1	
84	LD A, 0			62, 0	
86	OUT (16), A			211, 16	
88	OUT (17), A			211, 17	
90	OUT (18), A			211, 18	
92	OUT (20), A			211, 20	
94	OUT (21), A			211, 21	
96	OUT (22), A			211, 22	
98	OUT (24), A			211, 24	
2 00	OUT (25), A			211, 25	
02	OUT (26), A			211, 26	
04	CALL (Delay *)			205, 166, 1	
02	LD HL, 0030			33, 30, 0	
10	LD (32208), HL			34, 0, 128	

13	LD A, ϕ	62, ϕ	
15	OUT (ϕ), A	211, ϕ	
12	CALL (Display)	205, 140, 1	
20	ENC A	60	
21	CP 128	254, 128	
23	SR N2	32, 246	
25	OUT (ϕ), A	211, ϕ	
22	LD HL, $\phi\phi\phi 3$	33, 3, ϕ	
30	LD (32268), HL	34, ϕ , 128	
33	LD A, 30	62, 30	
35	OUT (ϕ), A	211, ϕ	
32	LD A, 255	62, 255	
39	OUT (8), A	211, 8	
41	OUT (9), A	211, 9	
43	OUT (10), A	211, 10	
45	OUT (12), A	211, 12	
42	OUT (13), A	211, 13	
44	OUT (14), A	211, 14	
51	CALL (Display*)	205, 166, 1	
54	LD A, ϕ	62, ϕ	
56	OUT (8), A	211, 8	
58	OUT (9), A	211, 9	
60	OUT (10), A	211, 10	
62	OUT (12), A	211, 12	
64	OUT (13), A	211, 13	
66	OUT (14), A	211, 14	
68	LD HL, $\phi 222$	33, 222, ϕ	
21	LD (32282), HL	34, 19, 128	
24	LD A, 128	62, 128	
26	OUT (ϕ), A	211, ϕ	
28	CALL (LEVEL ϕM)	205, 24, 4	
31	LD HL, $\phi 236$	33, 236, ϕ	
34	LD (32282), HL	34, 19, 128	
32	CALL (LEVEL ϕM)	205, 24, 4	
40	LD HL, $\phi 245$	33, 245, ϕ	
43	LD (32282), HL	34, 19, 128	
46	CALL (LEVEL ϕM)	205, 24, 4	
49	LD HL, $\phi 254$	33, 254, ϕ	
302	LD (32282), HL	34, 19, 128	
55	CALL (LEVEL ϕM)	205, 24, 4	
58	LD HL, $\phi 263$	33, 2, 1	
61	LD (32282), HL	34, 19, 128	
64	CALL (LEVEL ϕM)	205, 24, 4	
62	LD HL, $\phi 191$	33, 191, ϕ	
20	LD (32282), HL	34, 19, 128	
23	CALL (Message To display)	205, 122, 1	
26	LD A, ϕ	62, ϕ	
28	LD (32286), A	50, 18, 128	
31	CALL (TAKE 2/4 KHz display)	205, 12, 2	
34	LD HL, 16384 ($\phi 123$)	33, ϕ , 16 123, ϕ	
32	LD (32220), HL	34, 2, 128	
40	CALL (Display) (Delay* Display)	205, 140, 1	58, 4
43	3P	195, 93, 4	



(181/5) Add To Display

61	LD A, (32284)	58, 16, 128
64	AND 240	230, 240
66	RRC A	15
68	RRC A	15
69	RRC A	15
70	ADD A, 128	198, 128
72	LD L, A	111
73	LD H, $\phi\phi$	38, ϕ
75	LD A, (HL)	126
76	LD (32283), A	50, 5, 128
79	LD A, (32284)	58, 16, 128
82	AND 15	230, 15
84	LD A, 128 ADD A, 128	198, 128
86	LD L, A	111
88	LD A, (HL)	126
88	LD (32282), A	50, 6, 128
91	LD A, (32282)	58, 15, 128
94	AND 240	230, 240
96	RRC A	15
98	RRC A	15
98	RRC A	15
99	RRC A	15
100	ADD A, 128	198, 128
102	LD L, A	111
103	LD A, (HL)	126
104	LD (32283), A	50, 2, 128
106	LD A, (32283)	58, 15, 128
110	AND 15	230, 15
112	ADD A, 128	198, 128
114	LD L, A	111
115	LD A, (HL)	126
116	LD (32280), A	50, 8, 128
119	LD A, 128	62, 128
121	LD (32282), A	50, 4, 128
124	RET	208

(245/5) Data To Display

125	LD A, (32282)	58, 14, 128
128	AND 240	230, 240
130	RRC A	15
131	RRC A	15
132	RRC A	15
133	RRC A	15
134	ADD A, 128	198, 128
136	LD L, A	111
137	LD H, $\phi\phi$	38, ϕ
139	LD A, (HL)	126
140	LD (32281), A	50, 11, 128
143	LD A, (32282)	58, 14, 128
146	AND 15	230, 15
148	ADD A, 128	198, 128
150	LD L, A	111
151	LD A, (HL)	126
152	LD (32280), A	50, 12, 128
155	LD A, ϕ	62, ϕ
157	LD (32282), A	50, 9, 128
160	LD (32284), A	50, 10, 128
163	RET	208