

SERVICE MANUAL & PARTS LIST (without price)

CSF-7950 (ZX-859)

JULY. 1995



CSF-7950

CASIO®

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FEATURES

3-color display

The display shows data in three colors: orange, blue and green. Different colors can be used to highlight specific dates in the Calendar, and even the color of text data can be specified.

Desktop Menu System

Simply point to the item that represent the function you want to use and press a button.

Do Today Function

Every time you turn on the unit, any Schedule Keeper items scheduled for that date appear on the display.

128 kbytes of memory

Enough memory to store up to 5,600 Telephone Directory items.

Powerful data bank functions

Telephone Directory, Business Card Directory, Memo, To Do, Expense Manager, Reminder, and Schedule Keeper.

Secret Drawer

A convenient place to lock up confidential information using a secret password.

Calendar - Schedule Keeper - Reminder - To Do linking

Reminder and To Do items are automatically displayed in the applicable Schedule Keeper dates. Markers appear on the Calendar display to indicate dates for which Schedule Keeper, Reminder, and To Do items are scheduled.

Timepiece with Home time and World Time

Dual timekeeping for two different locations.

Powerful alarm functions

In addition to the standard daily alarm, you can also set alarms for Schedule Keeper, Reminder, and To Do items.

Calculator

A 12-digit arithmetic calculator is just the thing for those quick, on-the-go calculations.

Data Communication

Exchange data with another CSF Unit or with a CASIO SF Unit.

SPECIFICATIONS

Storage Capacity

The 128K bytes memory capacity includes a 124,105 bytes user area. The following shows examples of what this means for the storage of data in each mode.

Telephone Directory

Approximately 5,641, under the following conditions:
8-character name
10-character telephone number

Approximately 2,886, under the following conditions:
8-character name
10-character telephone number
20-character address

Business Card Directory

Approximately 1,495, under the following conditions:
10-character employer name
8-character personal name
10-character telephone number
10-character position
10-character department
20-character address

Memo

Approximately 5,395, 20-character memos.

To Do

Approximately 3,265, under the following conditions:
20 characters description
Deadline set

Schedule Keeper

Approximately 3,182, under the following conditions:
20 characters description
Illustration used
Starting time specified, alarm time set

Approximately 4,136, under the following conditions:
20 characters description
Illustration not used
Starting time specified, no alarm time

Reminder

Approximately 6,894, under the following conditions:
10 characters description
Alarm time set

Approximately 7,756, under the following conditions:
10 characters description
No alarm time

Expense Manager

Approximately 3,760, under the following conditions:
10 characters description
Expense type and payment type set

Main Modes:

Telephone Directory, Business Card Directory, Memo, Schedule Keeper, To Do, Expense Manager, Reminder, Calendar, Home Time, World Time and Calculator.

Data storage:

Storage and recall of telephone, business card, memo, schedule, to do, expense, reminder data; calendar display; secret drawer; editing; memory status display

Clock:

Worldtime; reminder alarm; schedule alarm; to do alarm; daily alarm; accuracy under normal temperatures: ± 3 seconds average

Calculation:

12-digit arithmetic calculations; arithmetic constants (+, -, \times , \div); independent memory; percentages; square roots; 24-digit approximations; date calculations; other mixed calculations

General:

Display element: 16-column \times 8-line LCD

Memory capacity: 128KB (124,105 bytes)

Main component: LSI

Power supply:

Main: Two AAA-size batteries (Type: R03 (UM-4) or LR03 (AM4))

Back-up: one CR2025 lithium battery

Battery life*:

Main: Approximately 100 hours continuous display in Telephone Directory (approximately 180 hours on type LR03 (AM4)); approximately 80 hours repeating one minute of input and 10 minutes of display in Telephone Directory (approximately 150 hours on type LR03 (AM4))

Back-up: 5 years if main batteries are replaced as soon as they become weak. 1 year if dead main batteries are left in the unit.

Power consumption: 0.06W

Current consumption

MENU: 4mA

OFF: 25 μ A

Back up battery: 10 μ A

Low Battery message

2.5V \pm 2.5%

Forced power off

2.3V \pm 2.5%

Auto power off: Approximately 6 minutes after last key operation

Operating temperature: 0°C ~ 40°C (32°F ~ 104°F)

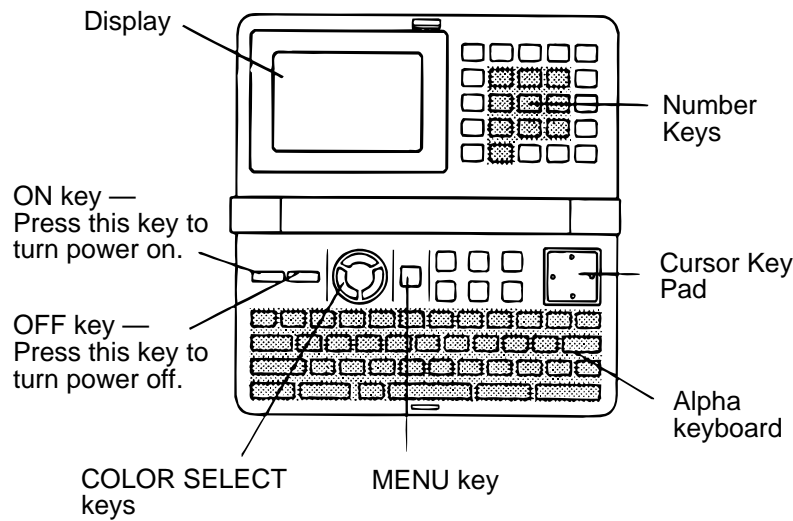
Dimensions:

Unfolded: 7.8H \times 152.4W \times 158D mm ($\frac{5}{16}$ "H \times 6"W \times 6 $\frac{1}{4}$ "D)

Folded: 17.5H \times 152.4W \times 85.8D mm ($\frac{11}{16}$ "W \times 6"W \times 3 $\frac{3}{8}$ "D)

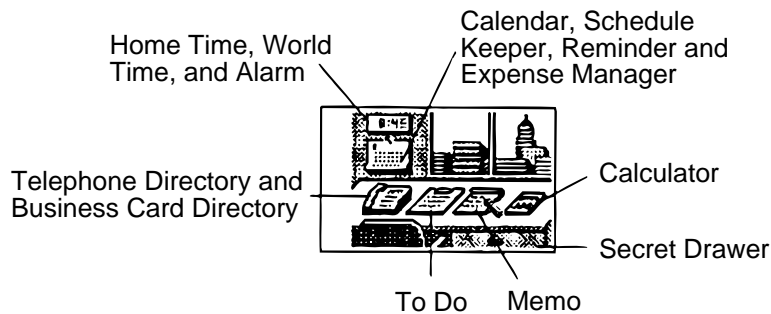
Weight: 160 g (5.6 oz) including batteries

GENERAL GUIDE



About the desktop...

The desktop gives you point-and-select access to the data management features of the CSF-7950. Whenever you want to return to the desktop, simply press the **MENU** button.



- Note that one of the icons on the desktop is flashing. This means that the icon is selected.

How to use the desktop

1. Use the cursor keys to move the flashing around the desktop until the one you want is selected (flashing).
2. After selecting an icon, press **OK** to access the functions of that icon.
 - Selecting some icons (like the Clock and Telephone) cause another selection screen to appear.
 - Details on actually using the features and functions that you access from the desktop are described in the other sections of this manual.

Changing the Desktop Screen's Window Scenery

You can change the scenery that is outside the desktop screen's window to any one of the scenes shown below. Simply display the desktop screen and press the **COLOR SELECT** key that corresponds to the scenery you want to select.

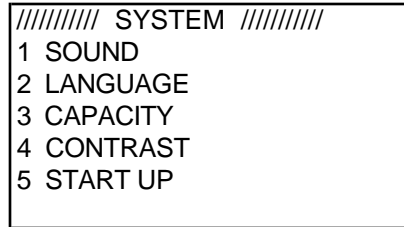
- ORG:** Night-time city scene
BLU: Daytime city scene
GRN: Beach scene

Adjusting the Display Contrast

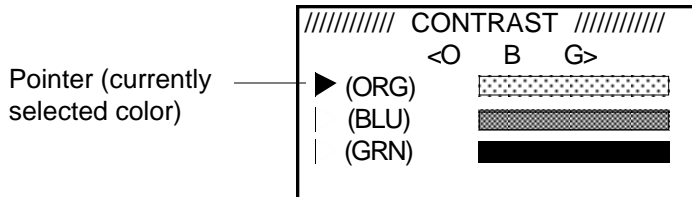
The following procedure describes how to adjust the color contrast, which controls the relative darkness and lightness of each color on the display.

To adjust the display contrast

1. While the desktop is on the display, press **FUNC**.
2. Press **1** to select **SYSTEM**.



3. Press **4** to select **CONTRAST**.



4. Use **▲** and **▼** to move the pointer to the color whose contrast you want to set.
5. Use **◀** and **▶** to adjust the contrast of the currently selected color.
 - You can adjust the overall contrast of the display by pressing **▲** or **▼**.
 - Whenever you press one of the **COLOR SELECT** keys, the color contrast is returned to its initial default setting.
6. After you finish adjusting the display contrast, press **OK**.
 - Color contrast settings are registered as soon as you make them. Because of this, pressing either **OK** or **ESC** quits the color contrast procedure only. Pressing **ESC** does not return the color contrast setting to what it was.

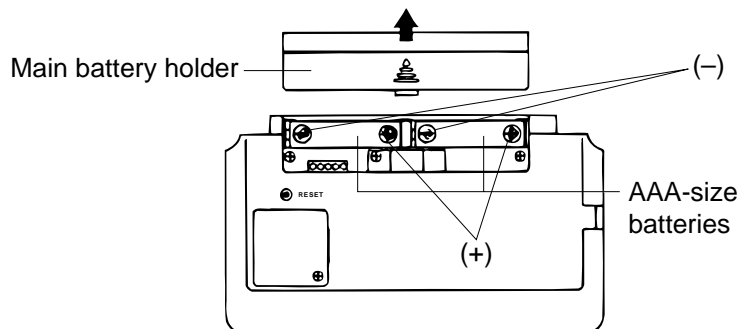
BATTERY REPLACEMENT

Main Battery

Before replacing the main batteries, note the following precautions:

- Do not remove the main batteries from the CSF Unit while back-up battery is removed.
- Be sure to replace both batteries at the same time, and do not use an old battery with a new one.

1. Press **OFF** to switch power OFF.
2. Slide the main battery holder in the direction indicated by the arrow.



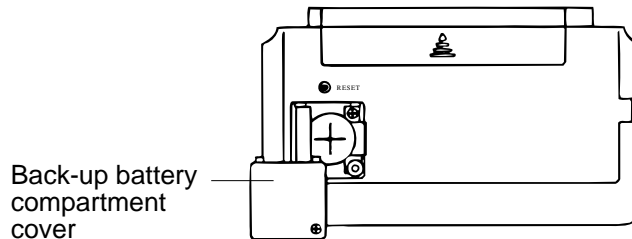
3. Remove both old batteries and replace them with two new ones.
 - Make sure that the positive (+) and negative (-) ends are facing correctly.
4. Replace the holder.
5. Turn on power
 - The Home Time screen always appears whenever you turn power on for the first time after replacing batteries.
6. Check the Home Time setting and make changes if necessary.

Back-up Battery

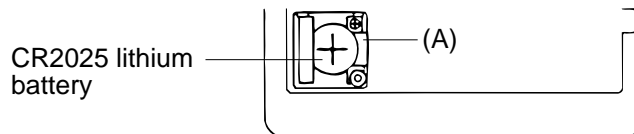
Before replacing the back-up battery, note the following precautions:

- Do not remove the back-up battery from the CSF Unit while main batteries are removed.
- Be sure to replace the back-up battery at least once a year. Otherwise, you run the risk of losing data stored in memory.

1. Press **OFF** to switch power OFF.
2. Remove the screws that hold the back-up battery compartment cover in place, and remove the cover.



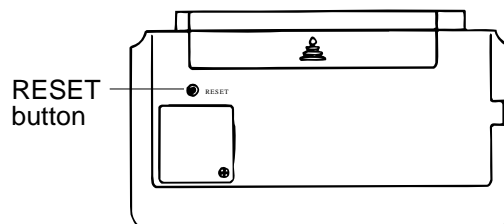
3. Insert a thin, pointed object into (A) and remove the old battery.



4. Insert a new battery into the unit, making sure that the positive (+) side of the new battery is facing up (so you can see it).
5. Replace the battery compartment cover and secure it by tightening its screw.
 - Be careful that you do not over tighten the screw.

RESET OPERATION

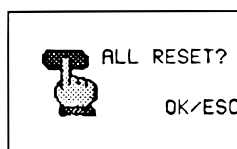
1. Press **ON** to switch power ON.
2. Press the RESET button with a thin, pointed object.



Warning!

The next step deletes all data stored in the CSF Unit's memory. Make sure that you really want to delete the data before you continue!

3. Press **1** to select **ALL RESET**.



Note

- The above message always appears in English, regardless of the system language setting.

4. Press **OK** to reset the memory and delete all data or **ESC** to abort the reset operation without deleting anything.
 - After the ALL RESET operation is complete, the LANGUAGE screen appears on the display.
5. Select a system language.
 - After you set the system language, the Home Time Screen appears.
6. Check the Home Time setting and make changes if necessary.

Following the all reset operation, the CSF Unit settings are initialized as noted below.

Home Time:	LON 1996/1/1 MON 12:00 AM 12-hour format
World Time:	NYC
Daily Alarm:	12:00 PM
Sound:	Data alarm (Schedule alarm, Reminder alarm and To Do alarm) — ON Daily alarm — OFF Key — ON
Messages:	English
Character input:	CAPS

To perform SECRET RESET

Important!

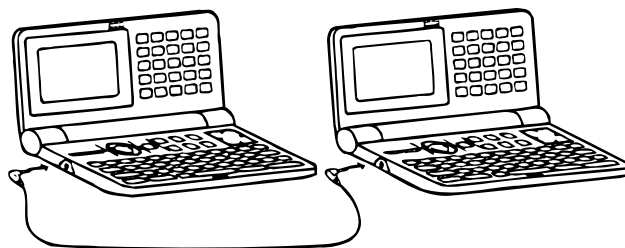
- The following procedure erases all data stored in the secret drawer. Make sure you do not need any of the data in the secret drawer before deleting it. You can transfer data you might need to the desktop before performing this procedure.
- Note that this unit has no procedure for deleting the password only (and leaving secret drawer contents) or secret drawer contents only (and leaving the password).

TO SAVE THE DATA TO OTHER MACHINE

CSF-7950 can transfer customer's data to another CSF-7950 with memory protection only when replacing the LCD or the outer case.

To connect the CSF-7950 to another CSF Unit

1. Make sure that the power of both units is switched off.
2. Remove the covers from the data communications jacks on the two CSF Units.
3. Connect the two units using the SB-62 cable.



How to transfer the data

1. The slave unit must be set the date of Feb. 3rd, 1901 into the memory under the calculator mode.

Operation : 

If you don't set the date, the "PASSWORD" isn't transferred to the slave unit.

2. Check the hardware parameters of both unit, and if the both units have another condition, reset as follows;

```
////////// SET UP PAR. //////////  
PARITY           E/ON  
BIT LENGTH       7 / 8  
BPS              4800 / 9600
```

3. Set up the slave unit.

- On the desktop, select the telephone icon and press .
- Select the home icon and press .
-

```
← [RECEIVE OK!]  
DATA  
[ ] → [TO STOP PRESS [ESC]]
```

4. Set up the customer's unit.

```
NOW SENDING  
  
TO STOP, PRESS ESC
```

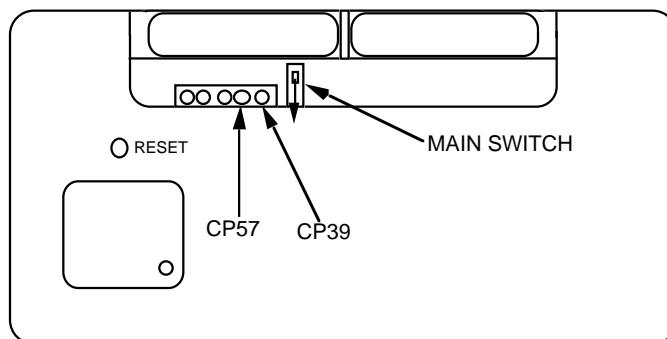
If you can not succeed to transfer the data, press ESC key on both unit and try to transfer the data again according to the above procedure.

PIN FUNCTION

CPU (HD62119A03)

Pin No.	Pin Name	Input / Output	Function
1~12	KO1~KO12	O	Key common signal
13~20	KI1~KI8	I	Key input signal
21	BUFON	O	Chip selecting signal for RAM
22	IT2	I	Interrupt input
23	IT0		Interrupt input
24~42	AO0~AO18	O	Address bus
43	OEBO	O	Enable signal
44	WEBO	O	Enable signal to write
49~51	CS4BO~CS6BO	O	Chip selecting signal
52~59	IO0~IO7	I	Data bus
62,63	OPT0,OPT1	O	Output point for check
64~71	PORT0~PORT7	I/O	Input/output port
72	VSS		GND
73,74	PI,PO		Power for ceramic oscillator
75	VLC		Power
76,77	XO,XI		Power
78	VCC		Power for LSI
79	VREG2		Power
80,81	TS1,TS2	I	Terminal for test
82	VSSR		GND
83	BZZ1	O	Buzzer signal output
84	BZZ2	O	Buzzer signal output
85	VSS		GND
86	OCLK	O	Clock
87	ITOFF	I/O	Terminal for power switch
89	SW	I	Reset switch
90	VDB		Power
91~94	VD1~VD4		Power for doubler
95	VREG1		Regulator power for LSI
96	VREG4		Regulator power for ROM
97	VREG5		Regulator power
98,99	VDT1I,VDT2I	I	Terminal for detector
100	VREG3		Regulator power for RAM

DIAGNOSTIC PROGRAM



Bottom View

- To enter the diagnostic program, proceed as follows;
- 1 : Open the battery cover and slide the main switch to the arrow side.
 - 2 : Press ON while shorting the pads CP39 and CP57.

STEP	OPERATION	DISPLAY	NOTE
Enter the diagnostics	Press ON while shorting the pads CP39 and CP57.	<p>///// SELF TEST PROG /////</p> <p>PRESS OK KEY QUIT BY OFF KEY</p> <p>CASIO JULY 1995</p>	
Main menu	OK	<p>////////// TEST MENU //////////</p> <p>1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET</p>	
Display Check	1	<p>////////// DISPLAY //////////</p> <p>1 DISPLAY 2 FRAME FREQ.</p>	
	1	No color, no display	
	OK	Orange color is displayed	
	OK	Green color is displayed	
	OK	Blue color is displayed	
	OK	Checkers are displayed	
	OK	Reverse checkers are displayed	
	OK	Frame is displayed	
	OK	Dots at the 4 corners are displayed	
	OK	Vertical 4 colors are displayed	
	OK	Horizontal 4 colors are displayed	
	OK	<p>////////// TEST MENU //////////</p> <p>1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET</p>	

STEP	OPERATION	DISPLAY	NOTE
Memory Check	2	////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	
	1	RAM WRITE 1	Write the test pattern 1 into RAM
		////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	After 3 sec.
	2	EXECUTING !!	Read the test pattern 1 from RAM
		COMPLETE !! 128kB	After 3 sec.
Memory Check	OK	////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	
	3	RAM WRITE 2	Write the test pattern 2 into RAM
		////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	After 3 sec.
	4	EXECUTING !!	Read the test pattern 2 from RAM
		COMPLETE !! 128kB	After 3 sec.
	OK	////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	
	5	09B5	Wiring check for ROM

STEP	OPERATION	DISPLAY	NOTE
Memory Check	OK	////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	
	6	CHECK SUM CS5 TYPE ROM SIZE 512kB SUM XXXX EXOR XX	Check SUM value SUM = 4338 or 1A8D
	OK	////////// MEMORY ////////// 1 WRITE 1 2 READ 1 3 WRITE 2 4 READ 2 5 DUMP 6 CHECK SUM	
	ESC	////////// TEST MENU ////////// 1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET	
KEY CHECK	3	////////// KEY & TIME ////////// 1 RANDOM 2 AUTO 3 TIME	
	1	////////// KEY & TIME ////////// 1 RANDOM 2 AUTO 3 TIME	
	1, ON, OFF, T, G	16 25 26 46 58	To push the key sequentially that key code is being appeared in the display.
	OK	////////// TEST MENU ////////// 1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET	
Buzzer Check	4	////////// BZZ ////////// 1 BEEP 2 ALARM 3 ALARM	1 : Key input sound 2 : Sound alarm 1 3 : Sound alarm 2

STEP	OPERATION	DISPLAY	NOTE
	ESC	<pre> ////////// TEST MENU ////////// 1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET </pre>	
Interface Check	5	<pre> ////////// I/F ////////// 1 TRANS 2 RECEIVE 3 ASCII 4 LOOP 7N9 </pre>	The parameter can be changed as follows; Key "5" : Bit length 7 or 8 bit Key "6" : Parity bit N(Non), E(Even) or O(Odd) Key "7" : BPS 9(9600) or 4(4800)
	1	EXECUTING !!	Send the code "H"
	2	No display	Display the received character.
	3	EXECUTING !!	Send the ASCII code
	4	EXECUTING !!	Loop back check
	ESC	<pre> ////////// I/F ////////// 1 TRANS 2 RECEIVE 3 ASCII 4 LOOP 7N9 </pre>	
CONTRAST ADJ.	6	<pre> ////////// TEST MENU ////////// 1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET </pre>	
	<p>Contrast up : ▲ or SHIFT + ▲</p> <p>Contrast down : ▼ or SHIFT + ▼</p>	<pre> ////////// CONTRAST ////////// <O B G> ▶ (ORG) ██████████ (BLU) ██████████ (GRN) ██████████ </pre>	Contrast adjustment
	Cursor keys	<pre> ////////// CONTRAST ////////// <O B G> ▶ (ORG) ██████████ (BLU) ██████████ (GRN) ██████████ </pre>	Adjust the color using cursor keys until the primary colors appear accurately.

STEP	OPERATION	DISPLAY	NOTE
	OK	////////// TEST MENU ////////// 1 DISPLAY 2 MEMORY 3 KEY & TIME 4 BUZZER 5 I/F 6 CONTRAST 7 RESET	
RESET	7	NAME? TELEPHONE 0	END

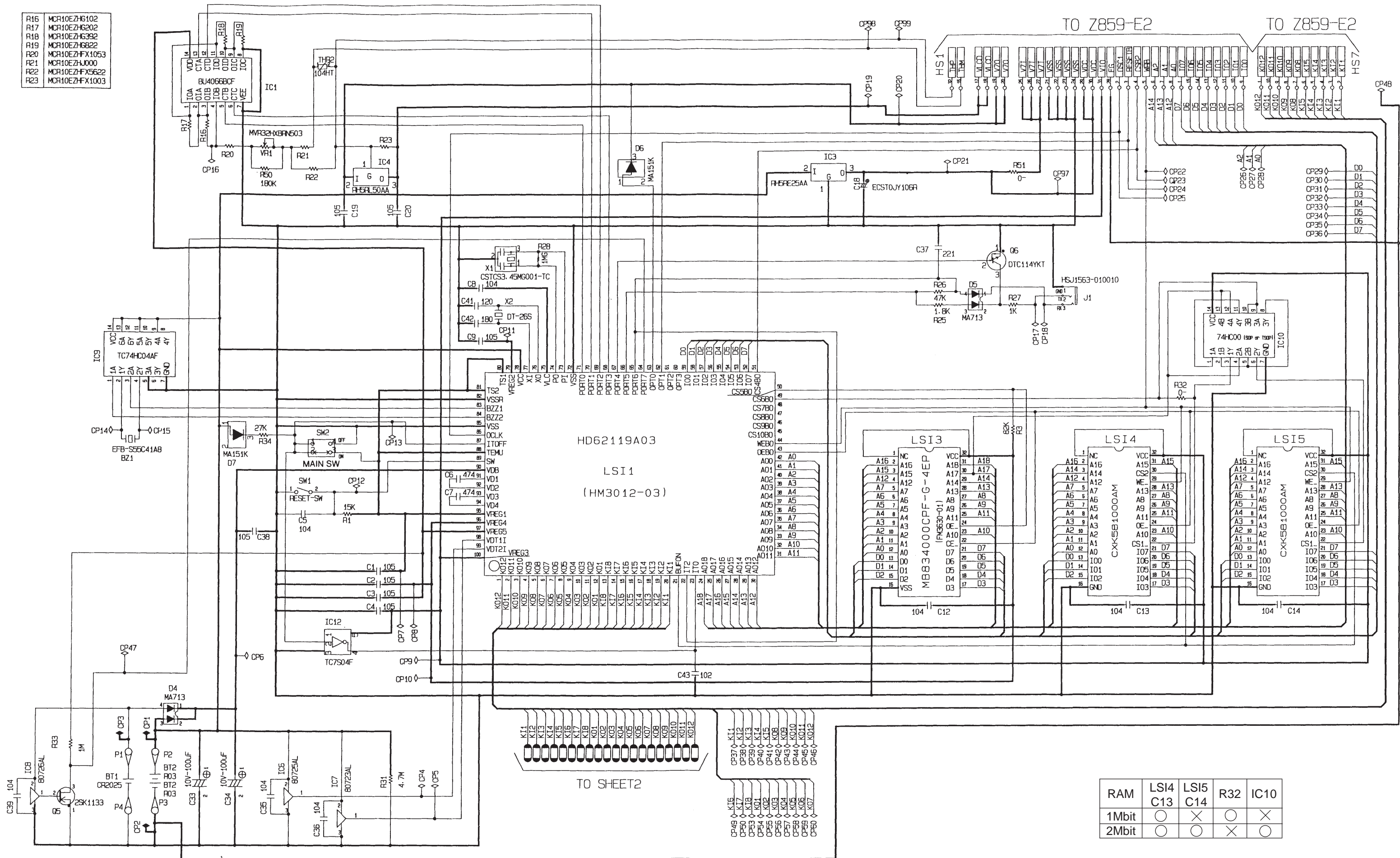
ERROR MESSAGE

Message	Meaning	Action
NO DATA!	Search operation attempted when no data is stored in memory.	Current search operation cannot be performed.
DATA ITEM NOT FOUND!	Data specified in search operation does not exist in memory.	Change specification or cancel search.
MEMORY FULL!	No more room in memory for storage of data.	Delete unnecessary data items from memory.
ALARM TIME ALREADY USED!	Attempt to set a Schedule Keeper, a Reminder or a To Do alarm time that is already used for another entry.	Set a different alarm time or change the existing alarm time to another one.
ALARM TIME ALREADY PASSED!	Attempt to set a Schedule Keeper, a Reminder or a To Do alarm time for a time/date that is already passed.	Set a different alarm time (for a future time/date).
SECRET DATA!	Alarm for a secret memory area data item is sounding.	Enter the secret memory area to view details of the alarm.
PASSWORD MISMATCH!	Attempt to enter the secret memory area using a password that does not match the one preset for the secret area.	Use the correct password.
TRANSMIT ERROR!	Error during data communications.	Cancel the data communications operation and try again.
STOPPED!	Data communication has been interrupted.	Stop the data communication procedure and try again.
SAME TYPE ALREADY USED!	Attempt to store a label that is identical to one already stored.	Use a different label.
NOTICE! CONSULT THE OWNER'S MANUAL!	<ul style="list-style-type: none"> • This message appears when this is the first time you ever turned on the CSF Unit. • Data corrupted by strong impact, electrostatic charge, etc. 	Perform the ALL RESET operation (page 6). See page 6 of this manual.

SCHEMATIC DIAGRAM

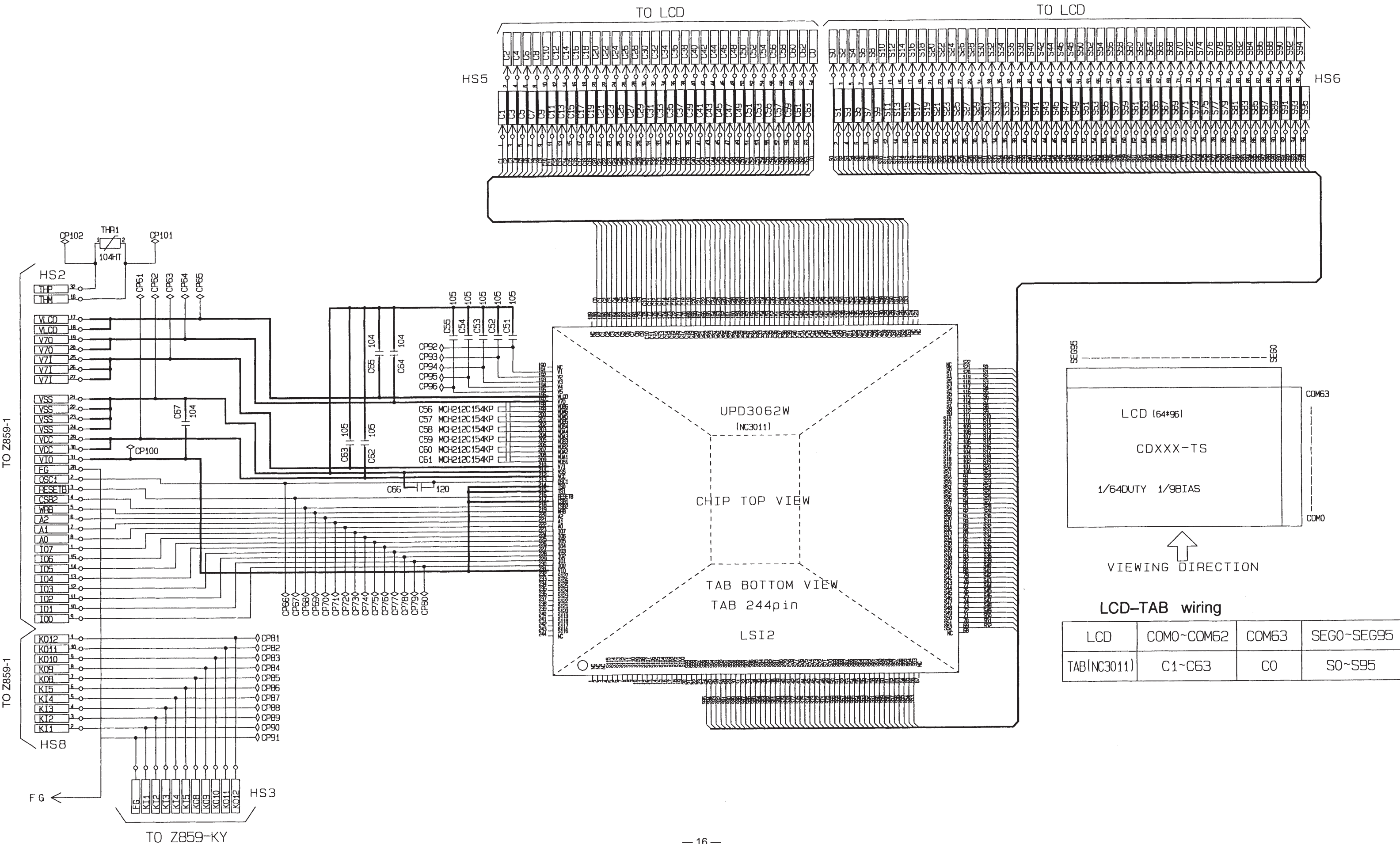
MAIN PCB

R16	MCR10EZHG102
R17	MCR10EZHG202
R18	MCR10EZHG392
R19	MCR10EZHG822
R20	MCR10EZHF1053
R21	MCR10EZHU000
R22	MCR10EZFX5622
R23	MCR10EZFX1003

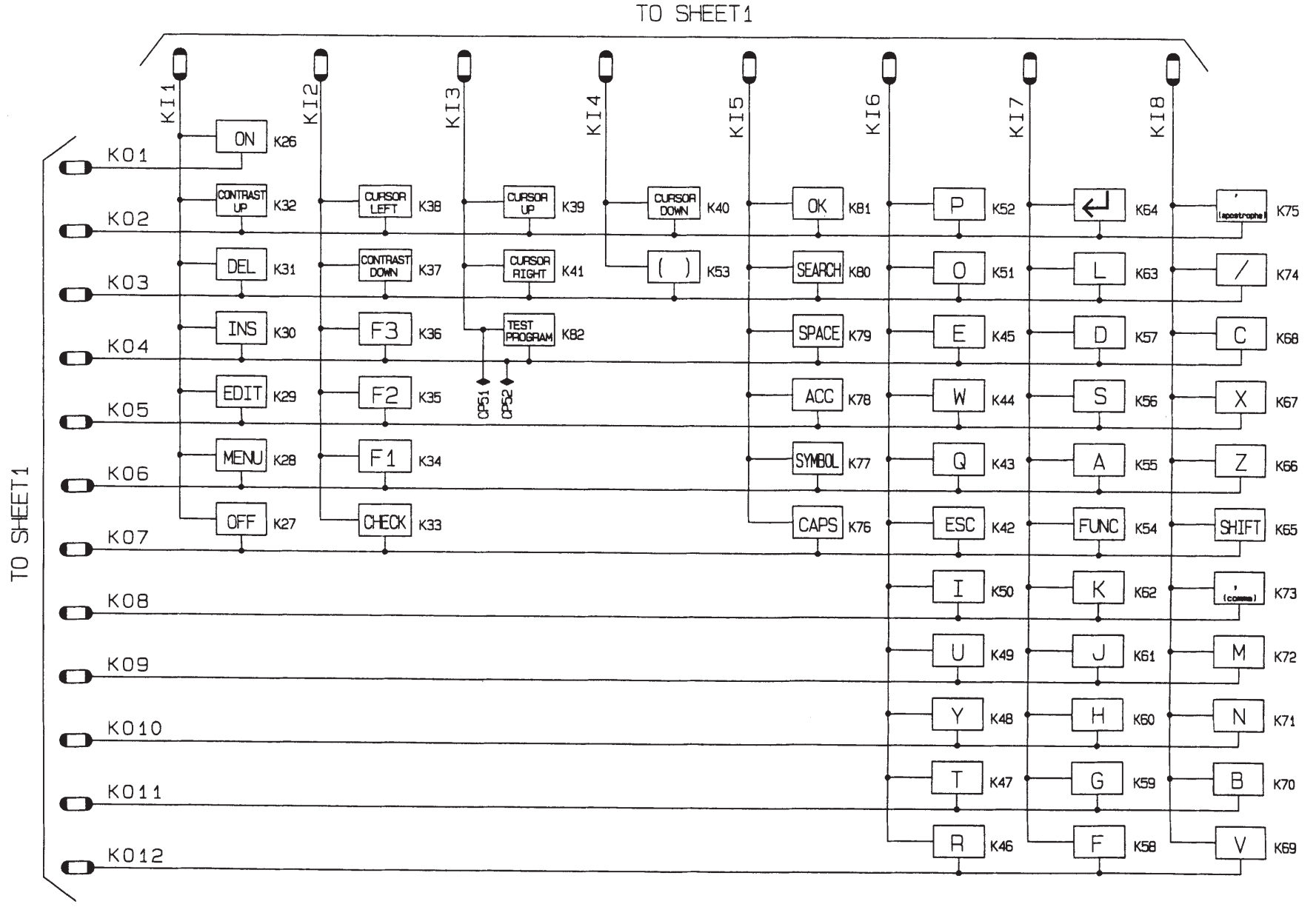


	RAM	LSI4 C13	LSI5 C14	R32	IC10
1Mbit	○	×	○	○	×
2Mbit	○	○	○	×	○

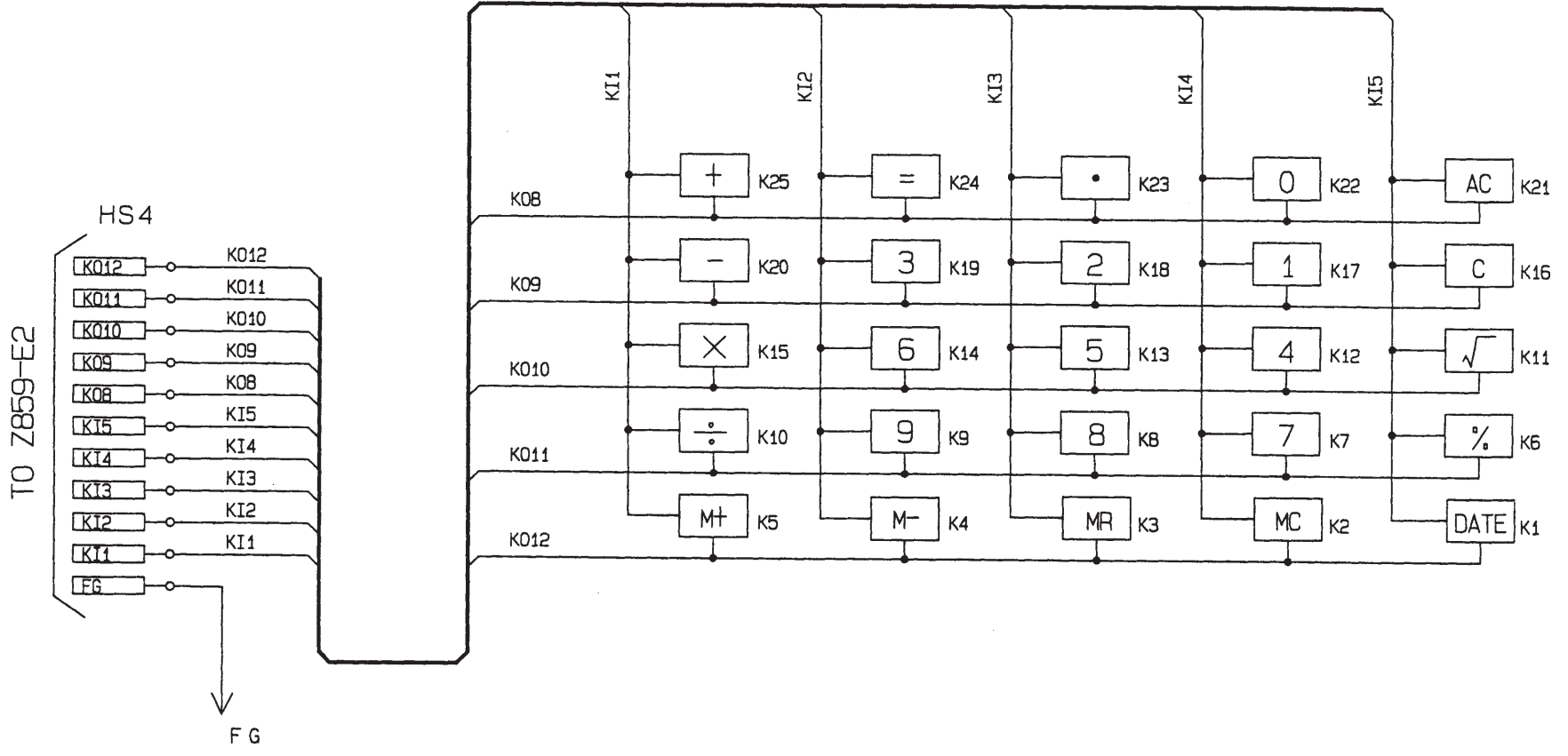
DISPLAY PCB



KEY MATRIX (Keyboard side)



KEY MATRIX (Display side)



PARTS LIST

N	Item	Code No.	Parts Name	Specification	Q'ty		M	FOB Japan N.R.Yen Unit Price	R
					AQ	BQ			
CPU BOARD ASS'Y									
	D4,5	2390 0364	Schottky diode	MA713-TX	2	2	10		C
	D6,7	2301 2359	Chip diode	MA151K-(TX)	2	2	20		C
	IC1	2105 3213	IC	BU4066BCF-T1	1	1	10		B
	IC12	2105 2821	CMOS-IC	TC7S04F-TE85R	1	1	10		B
N	IC3	2105 4704	IC	RH5RE25AA-T1	1	1	5		B
	IC4	2105 2737	CMOS-IC	RH5RL50AA-T1	1	1	10		B
N	IC6	2105 4228	CMOS-IC	RH5VL25CA-T1	1	1	10		B
N	IC7	2105 4914	CMOS-IC	RH5VL23CA-T1	1	1	10		B
N	IC8	2105 4144	CMOS-IC	RH5VL26CA-T1	1	1	10		B
	IC9	2011 8806	IC	TC74HC04AF-TP1	1	1	10		B
	J1	3501 8778	Mini jack	HSJ1563-010010	1	1	5		C
N	LS11	2012 1078	LSI	HD62119A03	1	1	1		A
N	LS13	2012 2695	LSI	UPD23C4001EJGW-C18	1	1	1		A
	LS14	2011 9422	LSI	CXK581000AM-10LLB	1	1	1		A
	Q5	2254 0287	FET	2SK1133-T1B	1	1	20		B
	Q6	2259 0959	Chip digital transistor	DTC114YKT-146	1	1	20		B
N	VR1	2765 1869	Chip volume	MVR32HXBRN503	1	1	20		C
N	X1	2590 1764	Ceramic oscillator	CSTCS3.45MG001-TC	1	1	5		C
	X2	7110 0642	Crystal oscillator	DT-26S	1	1	10		C
	37	6409 6310	Battery plate -	EF02DB10100	1	1	20		X
	38	6410 9810	Battery plate +	EF01DB10107	1	1	20		X
The following electrical parts will be not supplied from CASIO.									
	C1-4,9,19, C20,38		Chip capacitor	MCH312F105ZP	8	8			
	C5,8,12,13, C35,36,39		Chip capacitor	MCH212F104ZK	7	7			
	C6,7		Chip capacitor	MCH312F474ZP	2	2			
	C18		Chip tantalum capacitor	ECST0JY106R	1	1			
	C33,34		Electrolytic capacitor	UVR1A101MDA6TP	2	2			
	C37		Chip capacitor	MCH215C221KK	1	1			
	C41		Chip capacitor	MCH215A120JK	1	1			
	C42		Chip capacitor	MCH215A180JK	1	1			
	C43		Chip capacitor	MCH215C102KK	1	1			
	R1		Chip resistor	MCR10EZHJ153	1	1			
	R3		Chip resistor	MCR10EZHJ823	1	1			
	R16		Chip resistor	MCR10EZHG102	1	1			
	R17		Chip resistor	MCR10EZHG202	1	1			
	R18		Chip resistor	MCR10EZHG392	1	1			
	R19		Chip resistor	MCR10EZHG822	1	1			
	R20		Chip resistor	MCR10EZHFX1053	1	1			
	R22		Chip resistor	MCR10EZHFX5622	1	1			
	R23		Chip resistor	MCR10EZHFX1003	1	1			
	R25		Chip resistor	MCR10EZHJ182	1	1			
	R26		Chip resistor	MCR10EZHJ473	1	1			
	R27		Chip resistor	MCR10EZHJ102	1	1			
	R28		Chip resistor	MCR10EZHG105	1	1			
	R31		Chip resistor	MCR10EZHJ475	1	1			
	R33		Chip resistor	MCR10EZHJ105	1	1			
	R34		Chip resistor	MCR10EZHJ273	1	1			

Notes: N – New parts

M – Minimum order/supply quantity

R – Rank

Q – Quantity used per unit

R – A : Essential

B : Stock recommended

C : Others

X : No stock recommended

BQ : B.O.S.S.

AQ : Others

N	Item	Code No.	Parts Name	Specification	Q'ty		M	FOB Japan N.R.Yen Unit Price	R
					AQ	BQ			
	R50 R51,32,21		Chip resistor Chip resistor	MCR10EZHJ184 MCR10EZHJ000	1 2	1 2			
CHIP ON BOARD BONDING									
	LSI2 THR1	6413 5320 2755 0147	COF3011-F1 sub ass'y Thermister	A340214*1 104HT	1 1	1 1	1 5		A C
The following electrical parts will be not supplied from CASIO.									
	C51~55 C56~61 C62,63 C64,65,67 C66		Chip capacitor Chip capacitor Chip capacitor Chip capacitor Chip capacitor	MCH312F105ZP MCH212C154KP MCH213F105ZP MCH212F104ZK MCH215A120JK	5 6 2 3 1	5 6 2 3 1			
COMPONENTS									
N	1	6416 6840	Upper cabinet (Keyboard)	FAADB321003	1	1	1		C
N	2	6416 6650	Key top(Red)	KB1DB324002	1	1	1		C
N	3	6416 6720	Key top(Blue)	KB1DB324029	1	1	1		C
N	4	6416 6630	Key top FM ass'y	KGDB3210007*1	1	1	1		C
N	5	6416 6730	Rubber sheet(56KL)	LADB3210003	1	1	1		C
N	6	6416 6790	Battery spring -	EF06DB32104	1	1	20		X
N	7	6416 6680	CPU board ass'y	DB32XX3100L*1	1	1	1		B
	8	3122 2380	Buzzer	EFB-S55C41A8	1	1	5		X
N	9	6416 6880	Lower cabinet(Keyboard)	FABDB321026	1	0	1		C
N	9	6416 6890	Lower cabinet(Keyboard)	FABDB321034	0	1	1		C
N	10	6416 6660	Key top(Green)	KB1DB324011	1	1	1		C
N	11	5610 8990	Heat seal(96P)	FX200P50027	1	1	5		A
N	12	3335 6006	LCD	CD1024A-TS	1	1	1		A
N	13	5610 8980	Heat seal(64P)	FX200P50035	1	1	1		A
N	14	6416 6780	Battery spring +/-	EF05DB32101	1	1	20		X
N	15	6416 6690	Chip on board bonding	DB32XX3F00R*1	1	1	1		B
N	16	5610 8950	Heat seal(32P)	FX200P80104	1	1	1		A
N	17	5610 8960	Heat seal(10P)	FX200P80112	1	1	1		A
N	18	6416 8510	Battery cover	FADDB321006	1	1	10		C
N	19	6416 6620	Switch knob ass'y	DB32XX4A00V*1	1	1	1		C
N	20	6416 8520	Battery cover	FAD0L961035	1	1	20		C
	21	6512 1020	Screw	MAA80009301	1	1	20		X
N	22	6416 6770	Display plate	EL5K0004107	1	1	1		B
N	23	6416 6820	Newton ring spacer	ELDB3200000	1	1	5		X
N	24	6416 6830	Upper cabinet (Display)	FAADB322000	1	1	1		C
N	25	6416 6640	Key top ass'y	KCDB3220006	1	1	5		C
N	26	6416 6740	Rubber sheet(25KL)	LADB3220009	1	1	5		C
N	27	5610 8970	Heat seal	FX201P00074	1	1	1		A
N	28	4321 0980	PCB 60.29 X 56	DADB32XX311	1	1	5		X
N	29	6416 6920	Push button	FB3DB321007	1	1	10		C
N	30	6416 6900	Lower cabinet(Display)	FABDB322006	1	0	1		C
N	30	6416 6910	Lower cabinet(Display)	FABDB322014	0	1	1		C
N	31	6416 6930	Push button plate	EX07DB32109	1	1	20		C
	32	6408 5830	Rubber sheet	LADB0140101	1	1	20		C
N	33	6416 6850	Hinge RB	LC610000001	1	1	20		C
N	34	6416 5860	Color label Z850	C440972-1	1	1	20		X
	35	6511 7160	Connector cap	LC120000102	1	1	20		C
N	36	6416 6950	Battery spring +	EF04DB32109	1	1	20		X

Notes: N – New parts

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R – A : Essential

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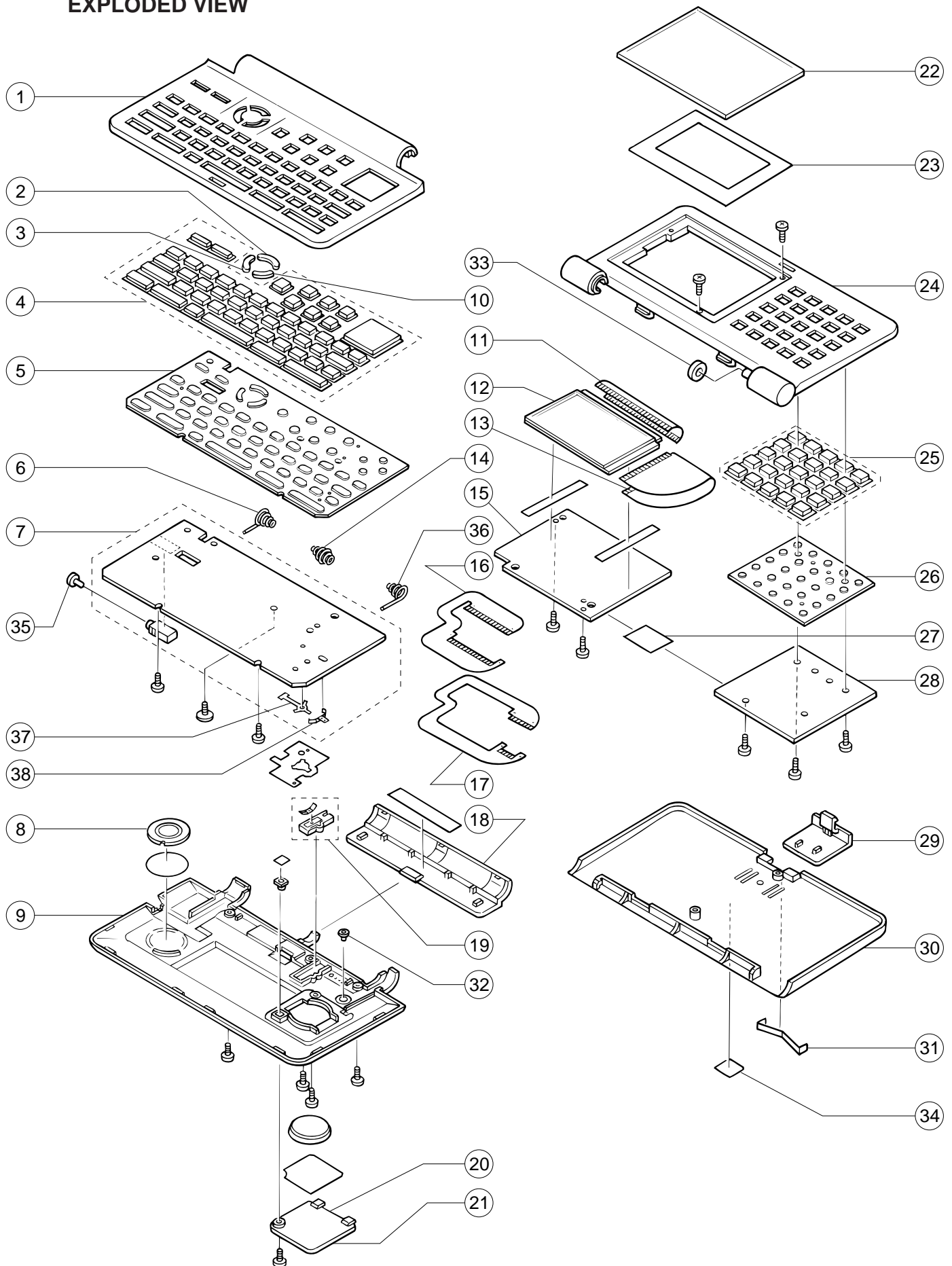
C : Others

X : No stock recommended

BQ : B.O.S.S.

AQ : Others

EXPLODED VIEW



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