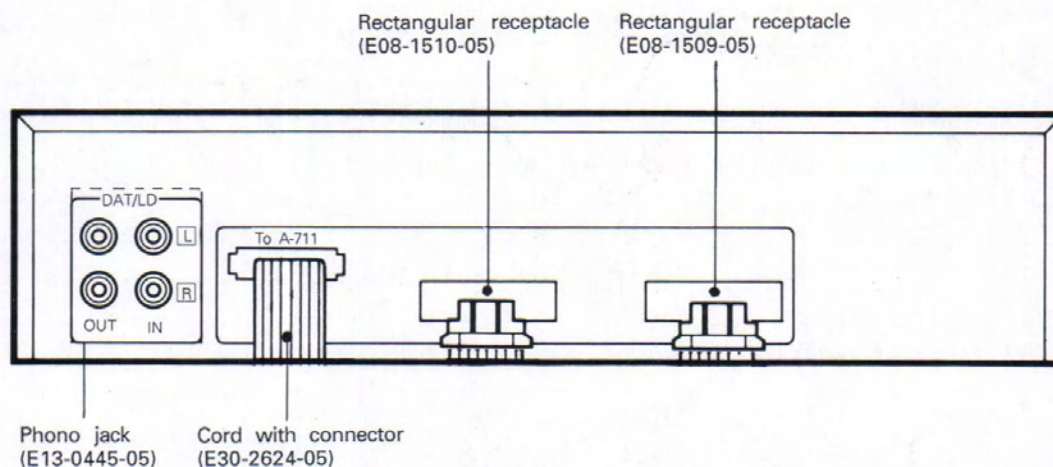
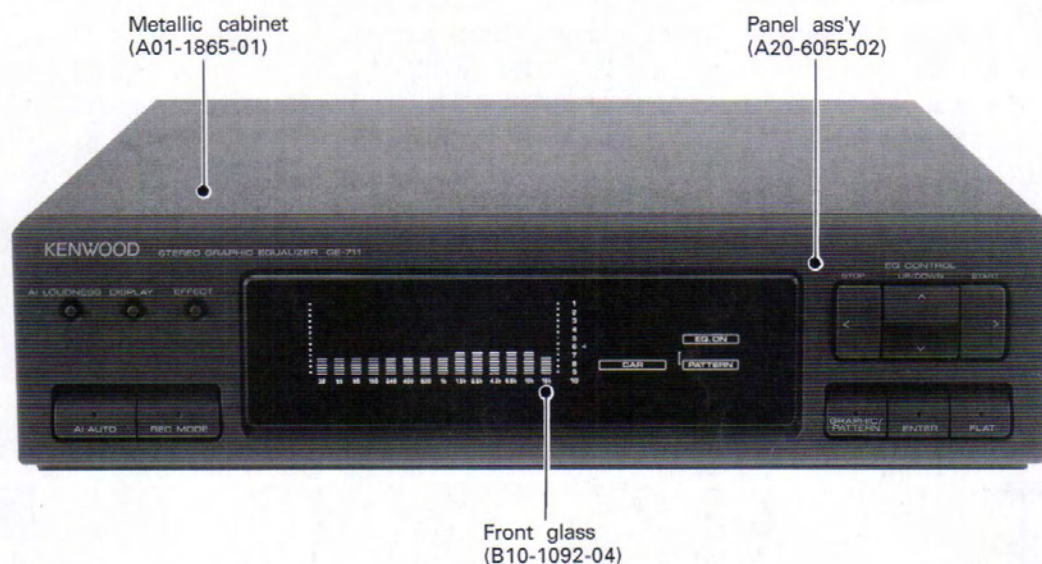


**CAUTION**

When doing repair of GE-711, be sure to have the customer bring the A-711, or supply to 9V AC to terminal Nos 6 and 7 on the X11-2890-00 PC board ass'y.

In case of operating GE-711, without CD player DP-711, short circuit TP4 and TP5 on GE-711's PC board.

If not get 9V AC, please order the A-848's power transformer (parts No. L-07-0038-05 / 120V / 220V / 240V).

Don't use the "RHEOSTAT".

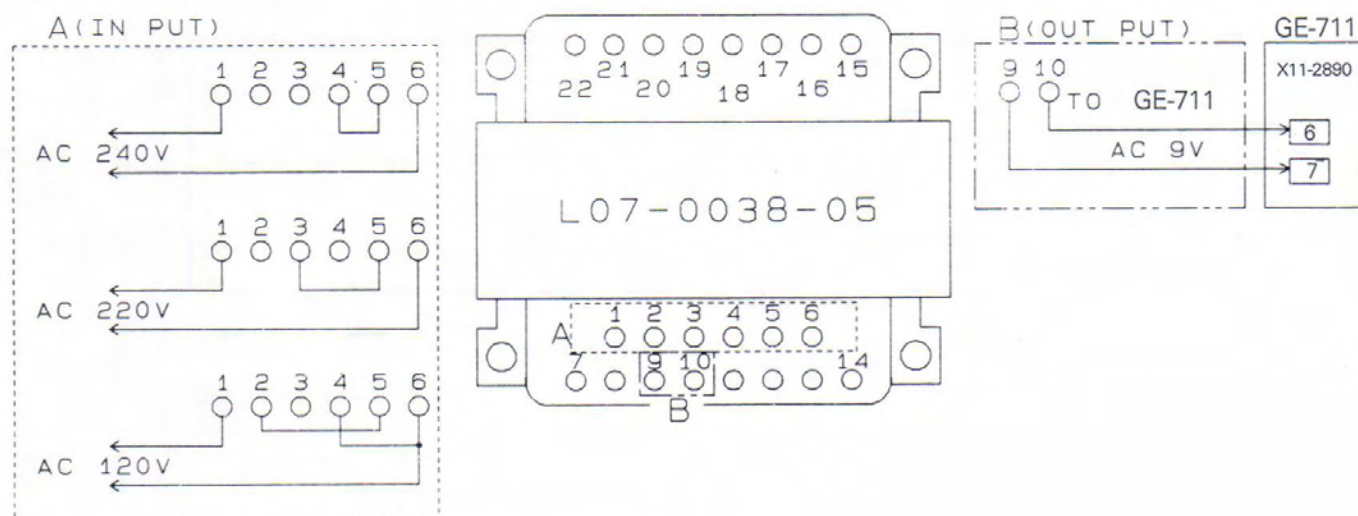
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SPECIFICATIONS	BACK COVER

System maine	Receiver	Graphic equalizer	Cassette deck	CD player	Speaker	Outer packing case
UD7	A-711	GE-711	X-711	DP-711	LS-711	H03-1576-04

Connection

POWER TRANSFORMER



CAUTION

When doing repair of GE-711, be sure to have the customer bring the A-711, or supply to 9V AC to terminal Nos 6 and 7 on the X11-2890-00 PC board ass'y.

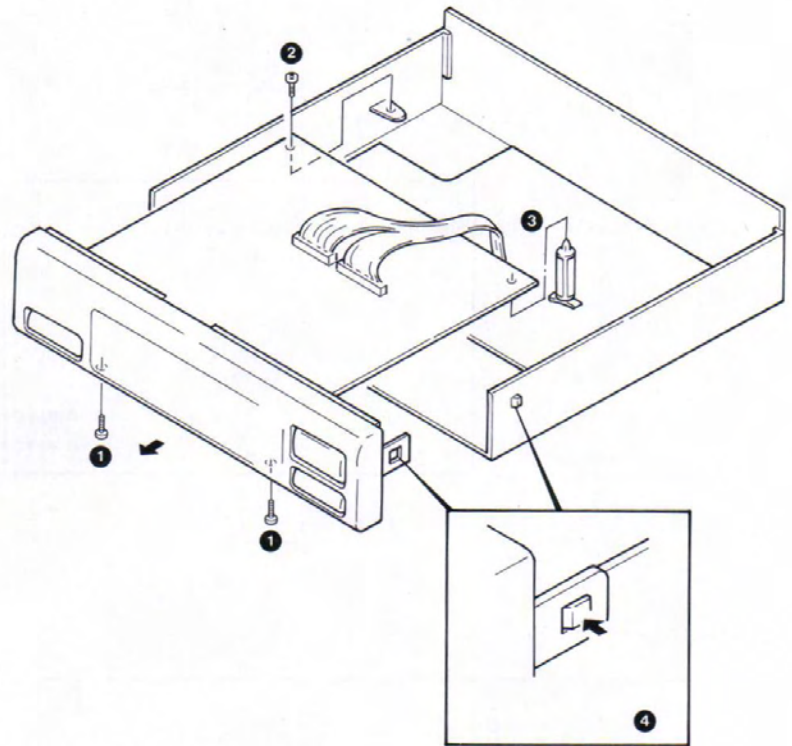
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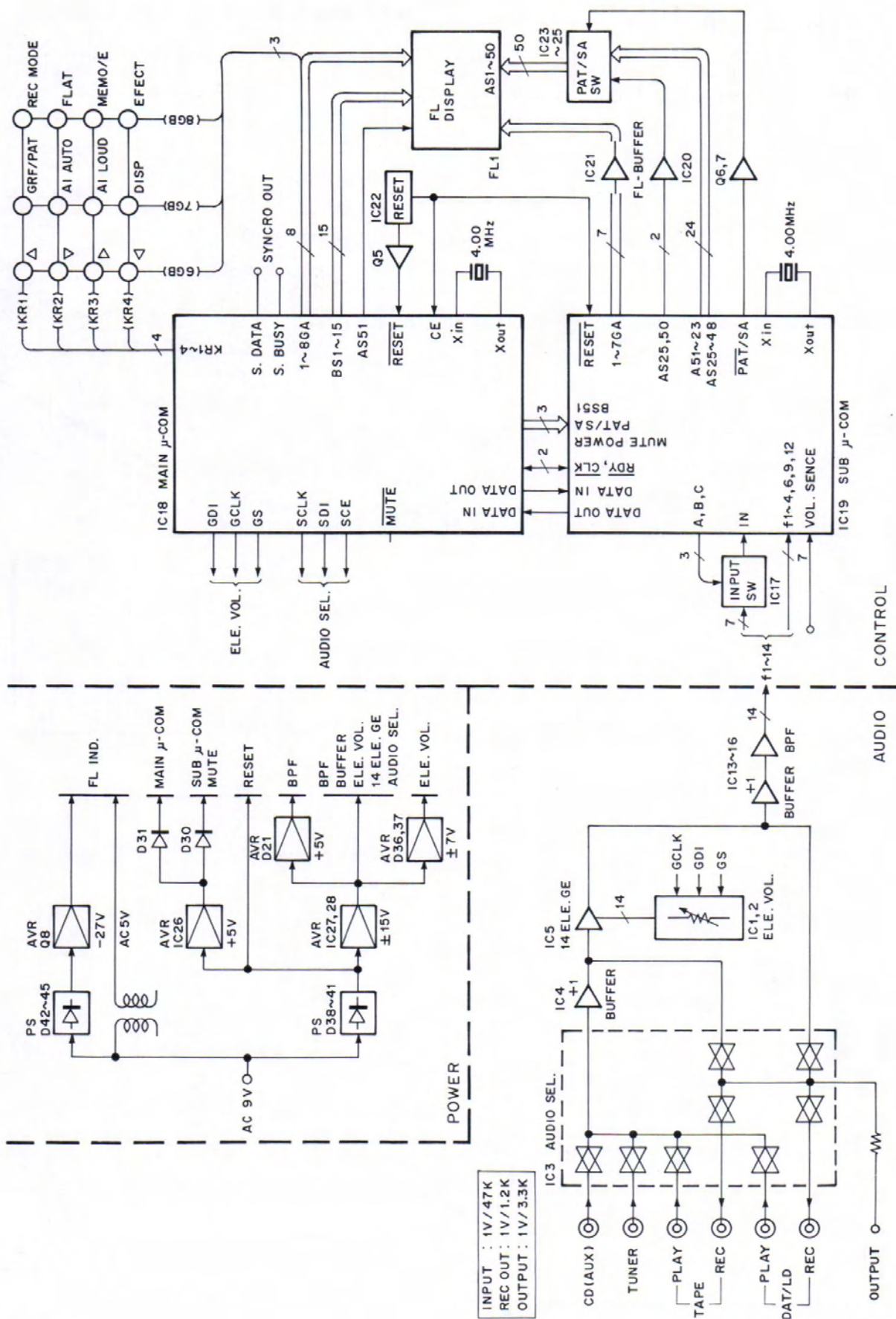
Don't use the "RHEOSTAT".

DISASSEMBLY FOR REPAIR

1. Remove two screws (1).
2. Remove screw (2).
3. Remove the PC board ass'y from unit holder (3).
4. While pushing catches (4) of chassis, slide the panel ass'y front-wards.



INPUT : 1V/47K
REC OUT: 1V/1.2K
OUTPUT : 1V/3.3K



CIRCUIT DESCRIPTION

1. Description of Components

1-1. CONTROL UNIT (X11-2890-00)

Ref. No.	Use/Function	Operation/Condition/Compatibility
IC1, 2	Electro-potentiometer for GE	Controlled by DGI/GCLK/GS signals of microprocessor
IC3	Electro-switch for selector	Controlled by SDI/SCLK/SCE signals of microprocessor
IC4	Input buffer	Low noise operation amplifier
IC5	GE amplifier	Low noise operation amplifier
IC6~12	GE curve amplifier	Low noise operation amplifier
IC13~16	Band pass filter for spectrum analyzer display	Low noise operation amplifier
IC17	Expand switch for analog input	Controlled by A/B/C signals of microprocessor (substitution : 4051 and same name)
IC18	Microprocessor	Main
IC19	Microprocessor	Sub
IC20, 21	Buffer amplifier	Buffer amplifier for grids of left part in display
IC22	Chip enable	Control for CE terminal of main microprocessor and RESET terminal of sub one
IC23~25	GE pattern /meter select	Control segments to bar indication when power is on under meter mode
IC26	+5V AVR	Power supply for microprocessor (1A type, note internal oscillation when use substitution)
IC27	+15V AVR	Power supply for analog circuit
IC28	-15V AVR	Power supply for analog circuit
Q4	Display driver (8GB)	
Q5	Reset	For main microprocessor
Q6	Pattern/Meter	Q6 is on and supply power to IC23~25 when meter mode
Q7	Pattern/Meter	Control Q6 to on when meter mode
Q8	-28V AVR	For display

CIRCUIT DESCRIPTION

2. Test Mode by Keying In

2-1. Outline of test mode

The test mode is classified into three as follows.

1. Graphic equalizer mode : Mode for testing the graphic equalizer
2. Memory clear : Mode for setting the initial memory of the graphic equalizer
3. Selector test mode : Mode for testing the selector

2-2. Graphic equalizer test mode

• Setting method

Pressing and holding the FLAT key, turn on the power. Press the FLAT key again.

• Resetting method

Turn on the power without pressing any key.

• Contents

All the indicator lamps are turned on at first, and they are returned to the normal indication when any key is pressed.

Set the contents of memories No. 6, 7, and 8 of EQ as follows.

No. 6 : FLAT

No. 7 : +12dB (ALL MAX)

No. 8 : -12dB (ALL MAX)

In all the range of frequency, the EQ level UP/DOWN key is used to set three points of +12 dB, 0, and -12 dB.

Other operation is the same as the normal mode.

2-3. Memory clear (Reset of microcomputer)

• Setting method

Pressing and holding the MEMO/ENTER key, turn on the power.

• Contents

The memory is set initially (to the reset state), then the normal operation is started.

2-4. Selector test mode

• Setting method

Pressing and holding the EFFECT key, turn on the power.

• Resetting method

Turn on the power without pressing any key.

• Contents

TUNER POSITION DAT OUT and TAPE OUT of the selector are turned ON, and TUNER is indicated by 14 seg.

The position is changed with EQ FREQUENCY START/STOP as follows, and the position is indicated with 14 seg.

CD, DAT OUT : ON, TAPE OUT : ON

↓

DAT, DAT OUT : OFF, TAPE OUT : ON

↓

TAPE, DAT OUT : ON, TAPE OUT : OFF

↓

TUNER, DAT OUT : ON, TAPE OUT : ON

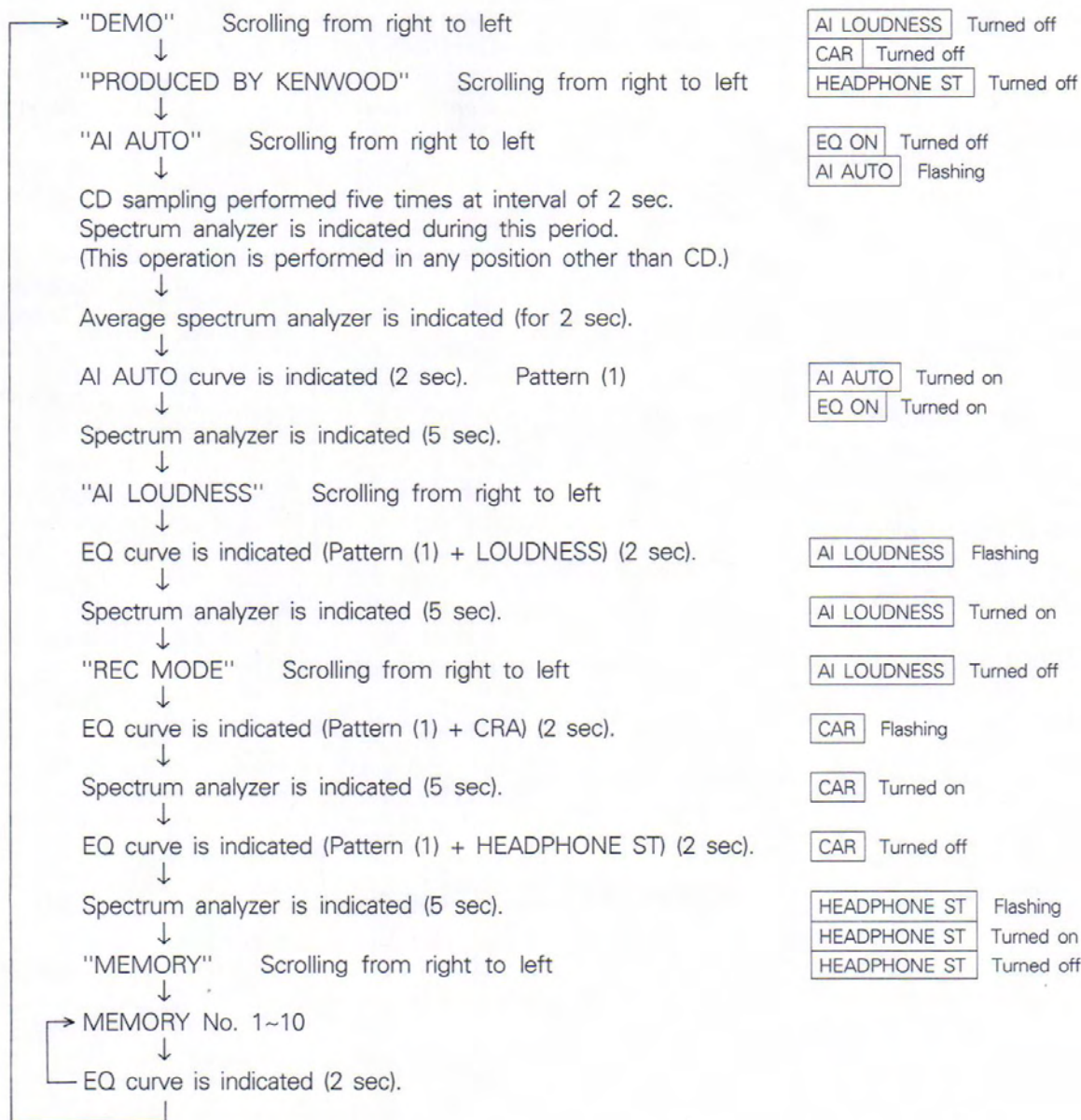
Any other key is not accepted.

- When checking GE, press the EFFECT key in the graphic equalizer mode, and the input becomes TUNER.

Check the operation of GE by using the TUNER input → GE output of the TO AMP connector.

CIRCUIT DESCRIPTION

3. DEMO operation



CIRCUIT DESCRIPTION

3-1. AI LOUDNESS operation

- The following patterns are added to the EQ curve according to the VOL position information of the amplifier.

		VOL SENCE voltage
VOL. low ↑	AI LOUDNESS 1	0V~0.136V
	AI LOUDNESS 2	0.137V~0.370V
	AI LOUDNESS 3	0.372V~0.468V
	AI LOUDNESS 4	0.469V~0.663V
VOL. HIGH ↓	AI LOUDNESS 5(FLAT)	0.664V~5V

- Indication made when the AI LOUDNESS pattern is changed

The AI LOUDNESS pattern and EQ curve are indicated at the same time (for 1 sec).

↓ 2 sec

The AI LOUDNESS pattern and EQ curve are combined together (The data is set to IC).

3-2. Operation of AI TIMER 1

After the power is turned on, the following operation is performed.

- Power is turned on.
↓ Last memory is output.
- AI TIMER 1 ON is received.
↓ Last memory → (AI LOUDNESS is turned off.)
- VOLUME 1 STOP is received.
↓ Pattern 1 of AI TIMER 1 is combined with last memory.
- VOLUME 2 STOP is received.
↓ Pattern 2 of AI TIMER 1 is combined with last memory.
- VOLUME 3 STOP is received.
AI TIMER curve is turned off (AI LOUDNESS is kept turned off). (Return to last memory.)

3-3. AI AUTO operation (1)

AI AUTO START is transmitted (EQ is turned off).

↓

CD SAMPLE START is received.

↓

2 sec after (1st time)

↓

2 sec after (2nd time)

↓

2 sec after (10th time)

Spectrum analyzer is indicated.

CD SAMPLING

CD SAMPLING

CD SAMPLING

Average spectrum analyzer is indicated (2 sec)

↓

(EQ ON)

EQ curve FLAT is indicated (2 sec)

(In AI LOUDNESS or REC MODE, its pattern is indicated at the same time.)

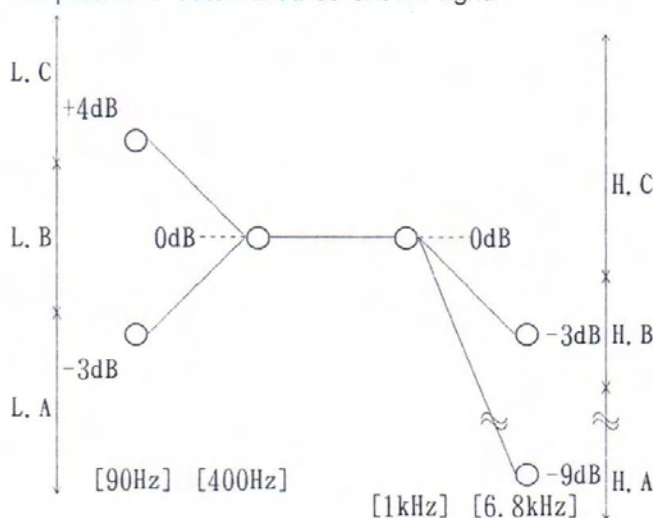
↓

AI AUTO EQ curve is indicated.

(AI AUTO STOP is output.)

Selecting method of EQ pattern

The average value of spectrum is divided and the EQ pattern is determined as shown right.

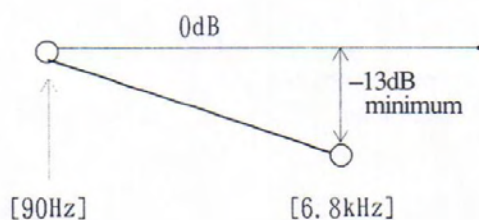


CIRCUIT DESCRIPTION

3-4. AI AUTO operation (2)

L	H	EQ pattern
C	C	AI AUTO 1
C	A	AI AUTO 2
A	C	AI AUTO 3
A	A	AI AUTO 4
B	C	AI AUTO 5
B	A	AI AUTO 6
C	B	AI AUTO 7
A	B	AI AUTO 8
B	B	AI AUTO 9

If the difference between the level of 6.8kHz and that of 90Hz is -13dB or larger, increase by 2dB above 6.8kHz.



ROM data (Original pattern)

Name	Normal	Double-speed
MEMORY NO. 1	☐	☐
MEMORY NO. 2	☐	☐
MEMORY NO. 3	☐	☐
MEMORY NO. 4	☐	☐
MEMORY NO. 5	☐ PLAY ☐ REC	☐
MEMORY NO. 6	☐	☒
MEMORY NO. 7	☐	☒
MEMORY NO. 8	☐	☒
MEMORY NO. 9	☐	☒
MEMORY NO. 10	☐	☒
AI AUTO 1	☐	☐
AI AUTO 2	☐	☐
AI AUTO 3	☐	☐
AI AUTO 4	☐	☐
AI AUTO 5	☐	☐
AI AUTO 6	☐	☐
AI AUTO 7	☐	☐
AI AUTO 8	☐	☐
AI AUTO 9	☐	☐
AI TIMER 1 -1	☐	☒
AI TIMER 1 -2	☐	☒
AI LOUDONESS 1	☐	☒
AI LOUDONESS 2	☐	☒
AI LOUDONESS 3	☐	☒
AI LOUDONESS 4	☐	☒
AI LOUDONESS 5	(FLAT)	☒
REC MODE CAR	☐	☐
REC MODE HEAD PHONE ST	☐	☐

See separate table.
(P11)

See separate table.
(P12)

(44 patterns in total + FLAT)

CIRCUIT DESCRIPTION

3-5. EQ curve data

RAM data

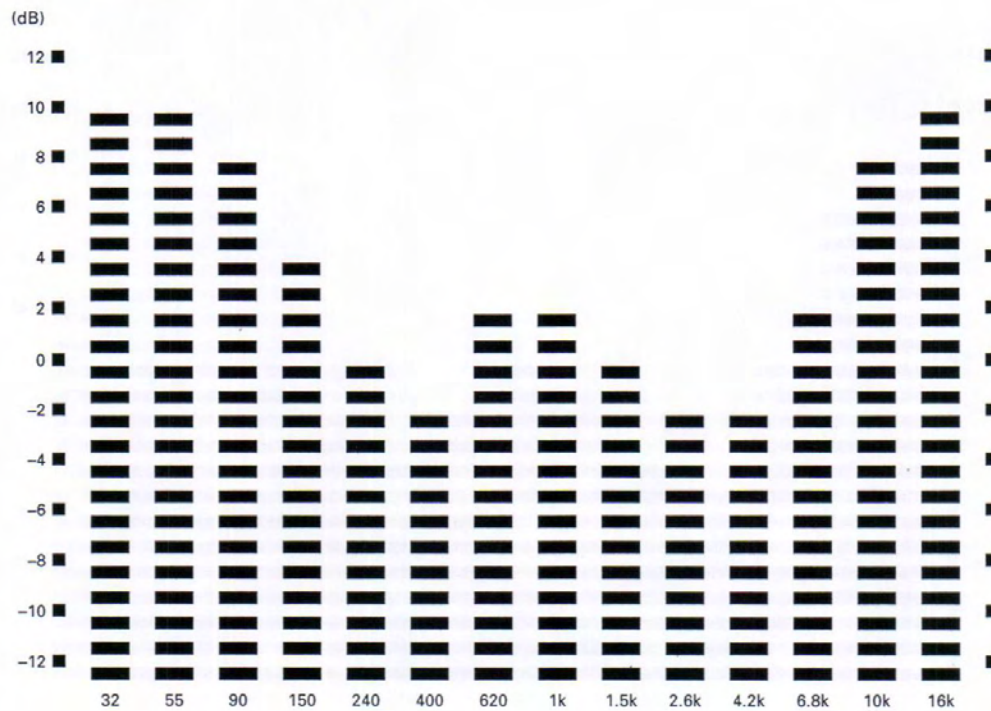
Name	EQ curve	MEMORY NO.	AI AUTO NO.	AI TIMER NO.	AI LOUDNESS NO.	REC MODE
Last memory	☐	☐	☐	☐	☐	☐
MEMORY NO. 1						
MEMORY NO. 2						
MEMORY NO. 3						
MEMORY NO. 4						
MEMORY NO. 5						
MEMORY NO. 6	☐	*1				
MEMORY NO. 7	☐					
MEMORY NO. 8	☐					
MEMORY NO. 9	☐					
MEMORY NO. 10	☐					
Position CD		☐	☐			
Position TUNER		☐				
Position TAPE		☐	*2			
Position DAT		☐				
DEMO	☐	☐	☐		☐	☐

*1: If a new EQ curve is input to MEMORIES No. 6~10, the original pattern is hidden. To call the original pattern again, press and hold the ENTER key for more than 5 sec.

*2: One pattern for each selector position is stored. A pattern is selected by each selector from the patterns stored in the memory in advance.

CIRCUIT DESCRIPTION

3-6. AI TIMER 1 (Pattern 1)

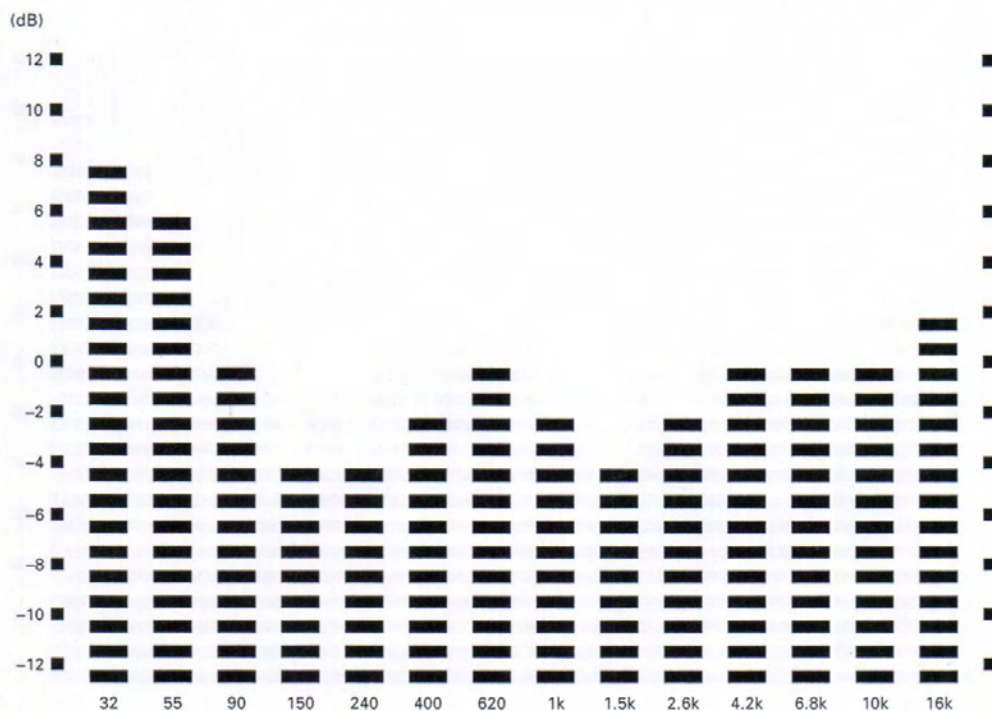


3-7. AI TIMER 1 (Pattern 2)

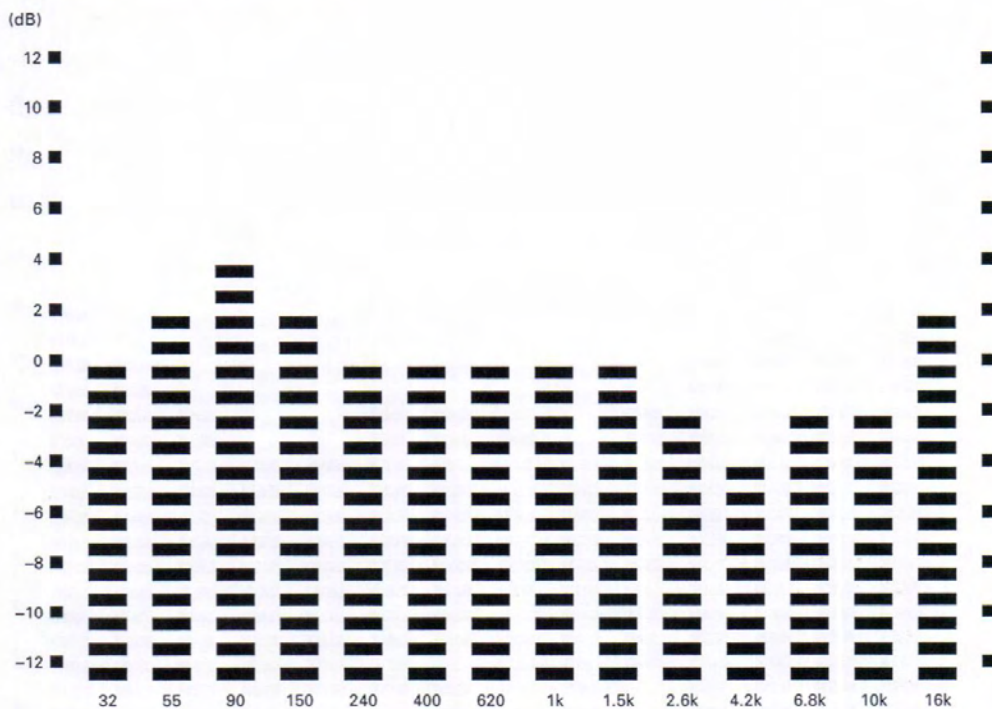


CIRCUIT DESCRIPTION

3-8. REC MODE CAR (Normal)

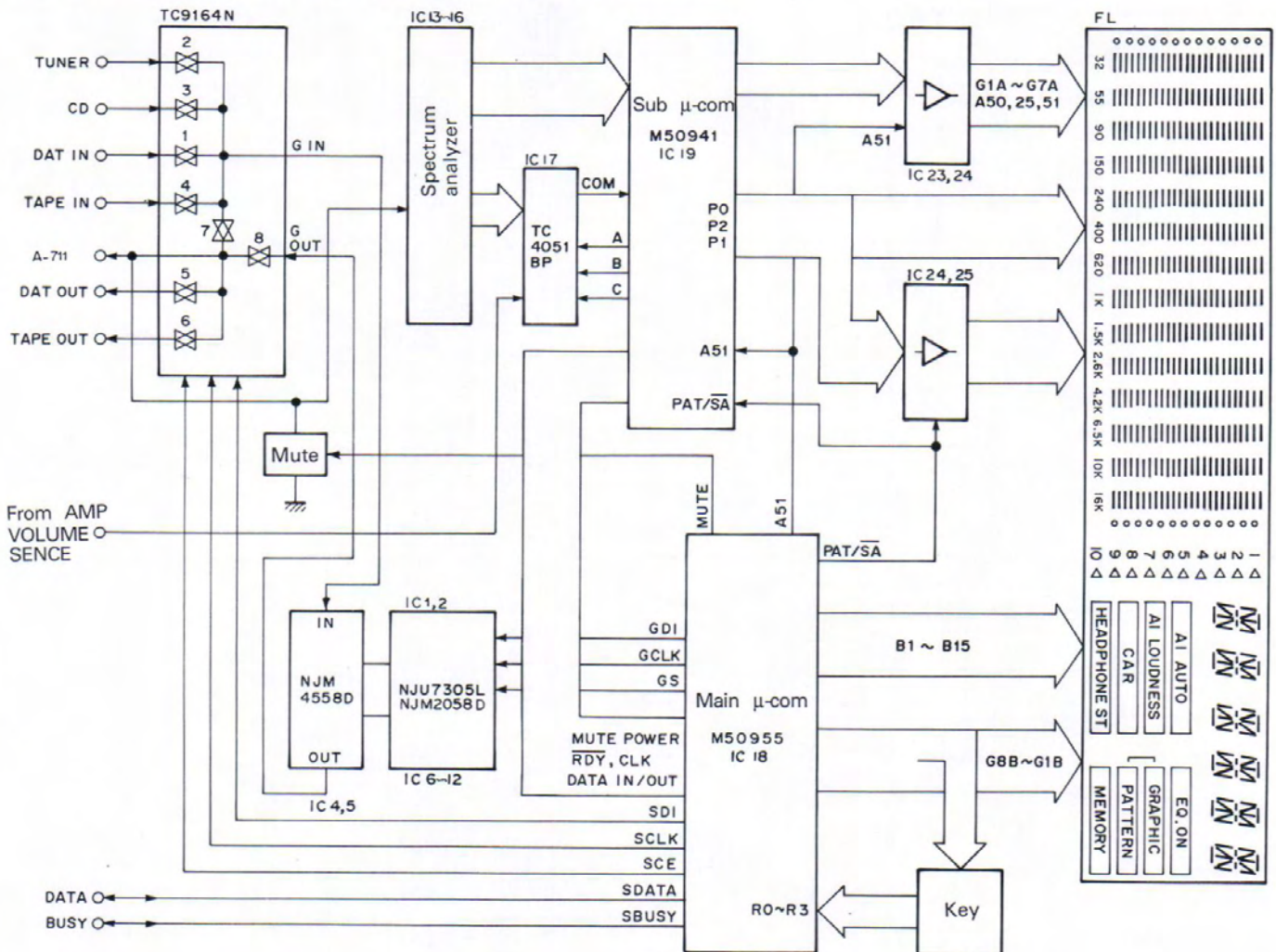


3-9. REC MODE HEADPHONE ST (Normal)



CIRCUIT DESCRIPTION

4. Block Diagram of Environmental Microprocessor



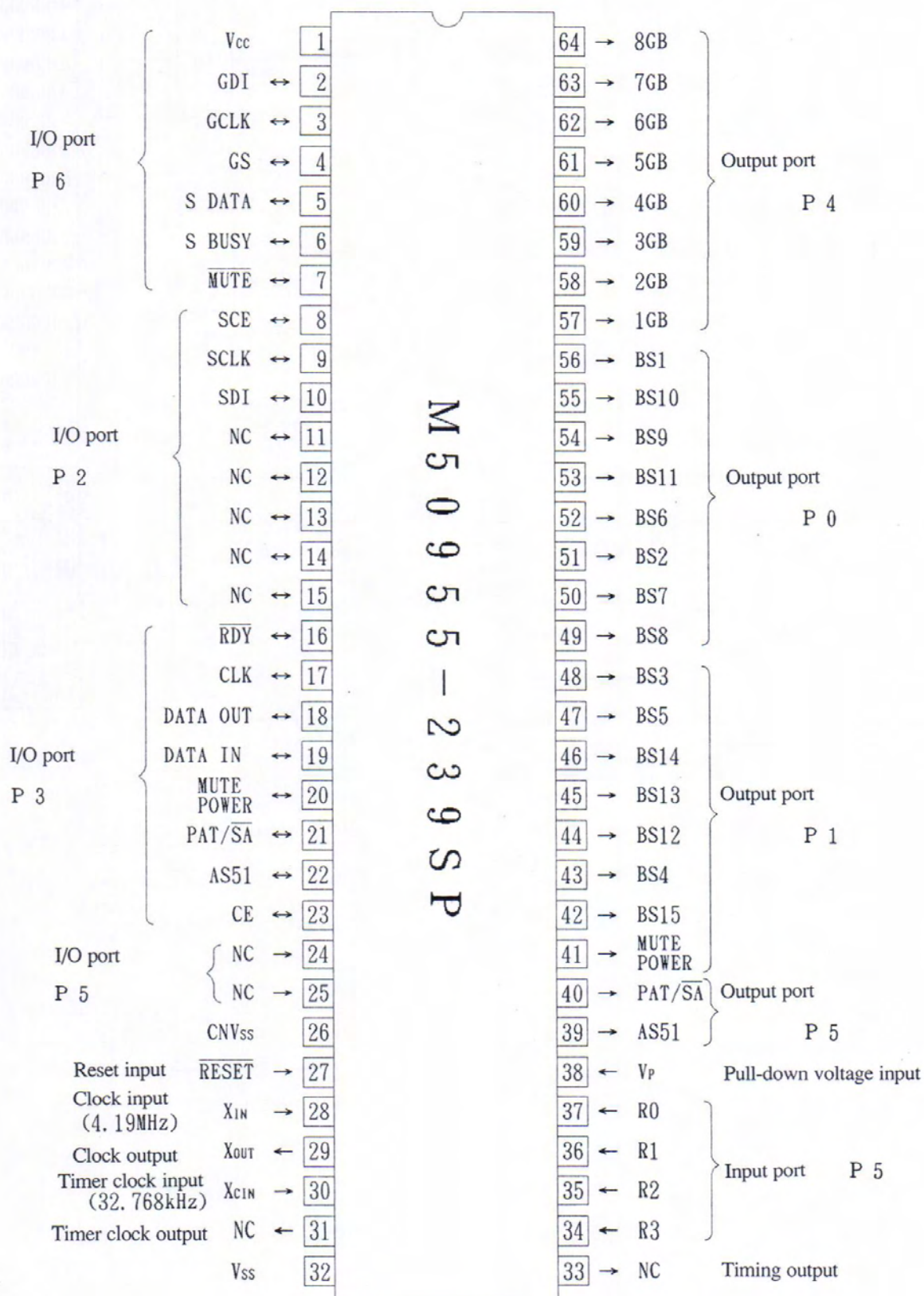
Key matrix

	6GB	7GB	8GB
R0	EQ. L. UP	GRAPHIC/ PATTERN	REC MODE
R1	EQ. L. DOWN	AI AUTO	FLAT
R2	EQ. F. UP	AI LOUDNESS	MEMO/ ENTER
R3	EQ. F. DOWN	DISP	EFFECT

CIRCUIT DESCRIPTION

5. Main Microprocessor : M50955-239SP (IC18)

5-1. Terminal connection diagram



CIRCUIT DESCRIPTION

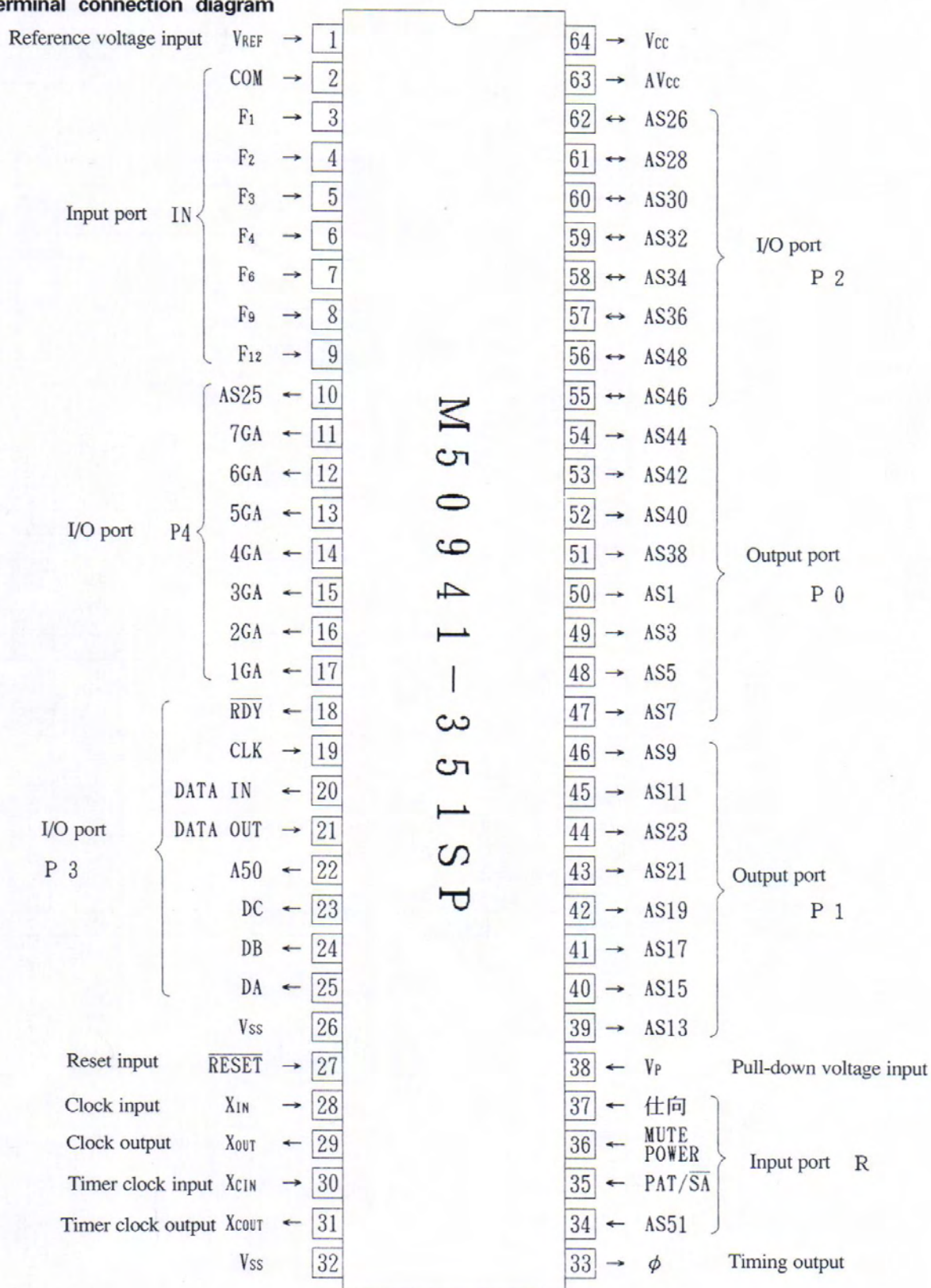
5-2. Explanation of terminals

Pin No.	Pin Name	I/O	Port Function	Description
1	Vcc	–	Vcc	Connect to Vcc
2	P65	O	GDI	Data signal for NJU7305 (EQ electro-pot.)
3	P64	O	GCLK	Clock signal for NJU7305 (EQ electro-pot.)
4	P63/PWM3	O	GS	Select signal for NJU7305 (EQ electro-pot.)
5	P33	I/O	SDATA	Serial data for system control
6	P32	I/O	SBUSY	Busy signal for system control
7	P24	O	MUTE	Mute control signal (L : OFF, H : ON)
8	P27	O	SCE	CE signal for TC9164N (selector)
9	P26	O	SCLK	Clock signal for TC9164N (selector)
10	P25	O	SDI	Data signal for TC9164N (selector)
11	P31	O	NC	Set L level
12~15	P23~P20	O	NC	Set L level
16	P37/SRDY	I	RDY	Communicate with M50941-351SP (sub-microprocessor)
17	P36/CLK	O	CLK	Communicate with M50941-351SP (sub-microprocessor)
18	P35/SOUT	O	DATA OUT	Communicate with M50941-351SP (sub-microprocessor)
19	P34/SIN	I	DATA IN	Communicate with M50941-351SP (sub-microprocessor)
20	P62/PWM2	O	MUTE POWER	Control for display-on/off (L : ON, H : OFF)
21	P61/PWM1	O	PAT/SA	Control for display-segments (L : curve of EQ, H : spectrum mode and letters mode)
22	P60/T	O	AS51	Display-segments
23	P30	I	CE	Detection power off (L : OFF, H : ON)
24, 25	P53 ,P52	I	NC	Connect to Vss
26	CNVss	–	CNVss	Connect to Vss
27	RESET	–	RESET	Reset
28	XIN	–	XIN	Crystal oscillation (4MHz)
29	XOUT	–	XOUT	Crystal oscillation (4MHz)
30	XCIN	–	XCIN	Connect to Vss
31	XOUT	–	XOUT	Not connect
32	Vss	–	Vss	Connect to Vss
33	ø	–	NC	Not connect
34~37	P57~P54	I	R3~R0	Key input
38	Vp	–	Vp	Connect to pull-down power supply (–32V)
39	AS51	O	AS51	Display-segments (same timing with 7 pin)
40	P50	O	PAT/SA	Control for display-segments (same timing with 6 pin)
41	F17	O	MUTE POWER	Control for display on/off (same timing with 5 pin)
42~56	P16~P00	O	BS	Control for display segments
57~61	P47~P43	O	GB	Control for display grids
62~64	P42~P40	O	GB	Control for display grids

CIRCUIT DESCRIPTION

6. Sub Microprocessor : M50941-351SP (IC19)

6-1. Terminal connection diagram



CIRCUIT DESCRIPTION

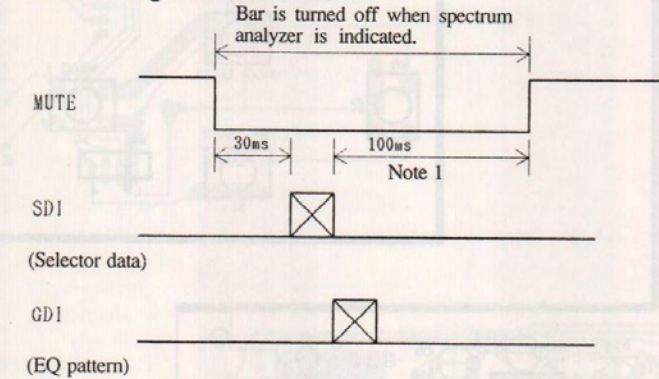
CIRCUIT DESCRIPTION

6-2. Explanation of terminals

Pin No.	Pin Name	I/O	Port Name	Description
1	VREF	-	VREF	Reference voltage of A/D converter (connected to Vcc)
2	IN7	I	COM	Analog input for Spectrum analyzer (input of M4051BP COM)
3~9	IN6~IN0	I	F	Analog input for Spectrum analyzer (32Hz to 6.5kHz)
10	P47	O	AS25	Control for display segments
11~17	P46~P40	O	GA	Control for display grids
18	P37/SRDY	O	RDY	Communicate with main microprocessor (M50955-239SP)
19	P36/CLK	I	CLK	Communicate with main microprocessor (M50955-239SP)
20	P35/SOUT	O	DATA IN	Communicate with main microprocessor (M50955-239SP)
21	P34/SIN	I	DATA OUT	Communicate with main microprocessor (M50955-239SP)
22	P33/T1	O	AS50	Control for display segments
23	P32/T2	O	Dc	Control for M4051BP
24	P31/INT1	O	Db	Control for M4051BP
25	P30/INT2	O	Da	Control for M4051BP
26	CNVss	-	CNVss	Connect to Vss
27	RESET	-	RESET	Reset
28	XIN	-	XIN	Crystal oscillation (4MHz)
29	XOUT	-	XOUT	Crystal oscillation (4MHz)
30	XCIN	-	XCIN	Connect to Vss
31	XOUT	-	XOUT	Not connect
32	Vss	-	Vss	Connect to Vss
33	ø	-	NC	Not connect
34	R3	I	AS51	AS51 signal of main microprocessor
35	R2	I	PAT/SA	PAT/SA signal of main microprocessor
36	R1	I	MUTE POWER	MUT POWER signal of main microprocessor
37	R0	I	Desti	Destination (L : KENWOOD, H : AUREX)
38	Vp	-	Vp	Pull-down voltage for display (-32V)
39~62	P	O	AS	Control for display segments
63	AVcc	-	-	Connect to Vcc
64	Vcc	-	-	Connect to Vcc

7. Timing Chart

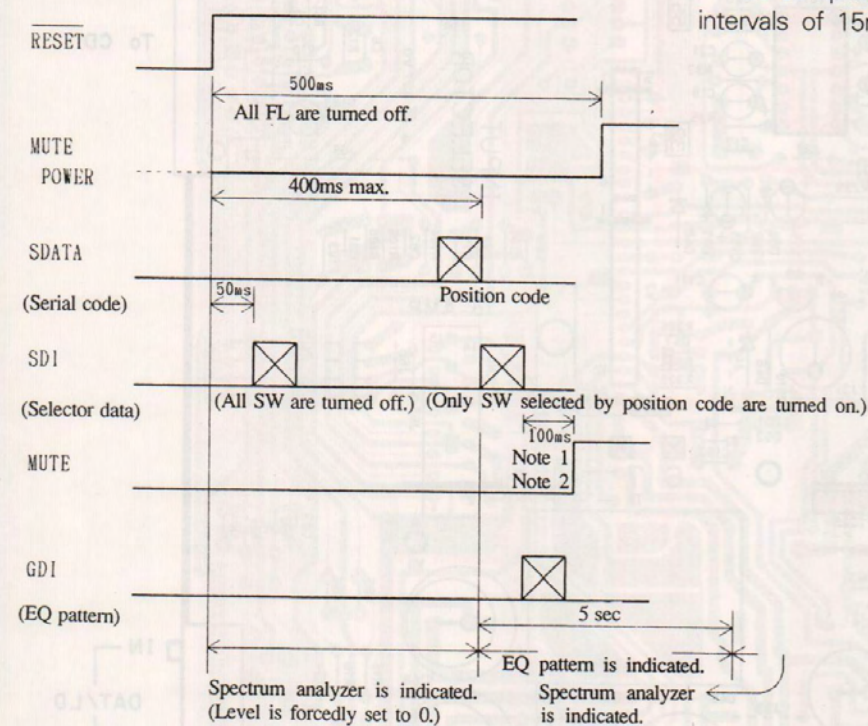
7-1. Changeover of selector



Note 1 : A position code or a selector code may be received on this serial code in this period. In this case, received position must be selected.

7-2. POWER ON

• Normal state



Note 2 : While MUTE POWER is L, MUTE is also set to L.

8. Sensitivity of Input for Turning On Spectrum Analyzer

Same conditions for all of F1~F14
VCC = VREF = 5.0V, 0dB = 267mV

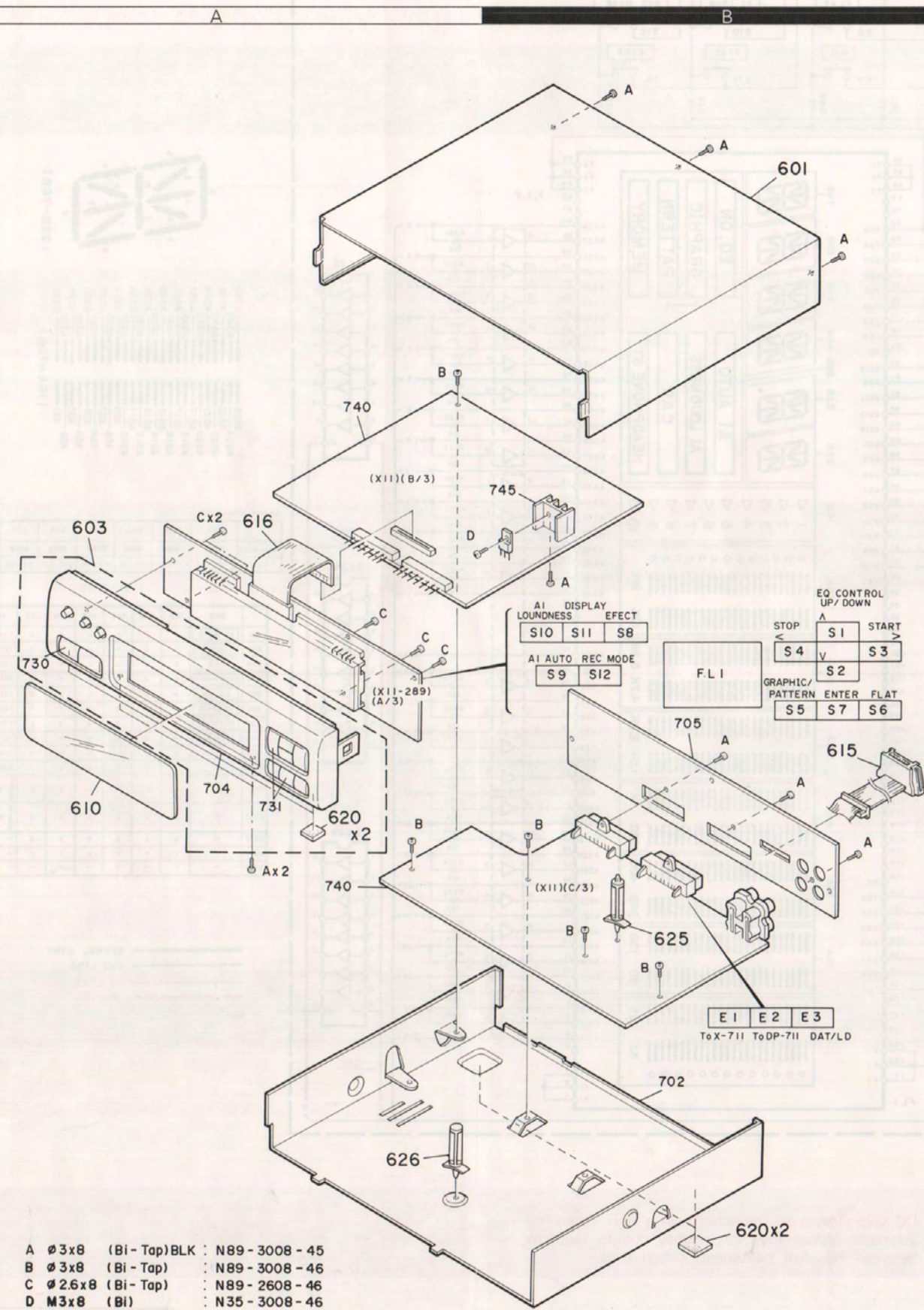
Segment turned on	Typ input (dB)	Typ input voltage (mV)	Value of A/D register (10 values)
+12	24	4272.0	219
+10	22	3361.0	172
+8	20	2670.0	137
+6	18	2136.0	109
+4	16	1692.7	86
+2	14	1344.5	69
0	12	1068.0	55
-2	10	846.3	43
-4	8	672.3	34
-6	6	534.0	27
-8	4	423.2	22
-10	2	336.0	17
-12	0	267.0	13

When the value of the A/D register is the same as the value in the table or larger, the segment corresponding to that value is turned on.

The peak holding time is about 0.5 sec. A timer is installed for each frequency for holding peak.

The sampling time of the analog input may be set at intervals of 15ms~30ms.

EXPLODED VIEW



A #3x8 (Bl-Tap)BLK : N89-3008-45
B #3x8 (Bl-Tap) : N89-3008-46
C #2.6x8 (Bl-Tap) : N89-2608-46
D #3x8 (Bl) : N35-3008-46

Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks		
参照番号	位置	新	部品番号	部品名 / 規格	仕向	備考		
GE-711								
601 603	1B 2A	*	A01-1865-01 A20-6055-02	METALLIC CABINET PANEL ASSY	K Y Y X P E T			
610 - - -	2A	*	B10-1092-04 B46-0092-03 B46-0094-03 B46-0095-03 B46-0096-13	FRONT GLASS WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD				
- - -			B46-0121-03 B46-0122-13 B46-0143-13	WARRANTY CARD WARRANTY CARD WARRANTY CARD				
615 616	2B 2A	* *	E30-2624-05 E31-7680-05	CORD WITH CONNECTOR WIRING HARNESS				
620 - - - -	2A		G11-2017-04	CUSHION				
- - - -		* * * *	H01-8817-04 H10-5021-02 H10-5022-02 H25-0232-04 H25-0400-04	ITEM CARTON CASE POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE PROTECTION BAG (235X350X0.03) PROTECTION BAG				
625 626	3B 3A		J19-0517-05 J19-3078-05	UNIT HOLDER UNIT HOLDER				
A B C			N89-3008-45 N89-3008-46 N89-2608-46	BINDING HEAD TAPTITE SCREW BINDING HEAD TAPTITE SCREW BINDING HEAD TAPTITE SCREW				
CONTROL (X11-2890-00)								
C1 C3 C6 C7 C11	,2 -5 -10 -14		CC45FSL1H221J C91-0749-05 CC45FSL1H221J CE04KW1V100M CE04KW1C470M	CERAMIC 220PF J CERAMIC 220PF K CERAMIC 220PF J ELECTRØ 10UF 35WV ELECTRØ 47UF 16WV				
C15 C17 C19 C21 C23	,16 ,18 ,20 ,22 ,24		CE04KW1H010M CF92FV1H824J CE04KW1H010M CE04KW1HR47M CF92FV1H564J	ELECTRØ 1.0UF 50WV MF 0.82UF J ELECTRØ 1.0UF 50WV ELECTRØ 0.47UF 50WV MF 0.56UF J				
C25 C27 C29 C31 C33	,26 ,28 ,30 ,32 ,34		CE04KW1HR33M CF92FV1H394J CF92FV1H184J CE04KW1HR22M CF92FV1H124J	ELECTRØ 0.33UF 50WV MF 0.39UF J MF 0.18UF J ELECTRØ 0.22UF 50WV MF 0.12UF J				
C35 C37 C39 C41 C43	,36 ,38 ,40 ,42 ,44		CF92FV1H154J CF92FV1H753J CF92FV1H823J C91-0692-05 CF92FV1H563J	MF 0.15UF J MF 0.075UF J MF 0.082UF J CERAMIC 0.047UF K MF 0.056UF J				
C45 C47 C49 C51 C53	,46 ,48 ,50 ,52 ,54		CF92FV1H303J C91-0688-05 C91-0682-05 CF92FV1H203J CF92FV1H113J	MF 0.030UF J CERAMIC 0.033UF K CERAMIC 0.018UF K MF 0.020UF J MF 0.011UF J				
C55	,56		C91-0678-05	CERAMIC 0.012UF K				

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	Desti-nation	Re-marks
参照番号	位置	新	部品番号	部品名 / 規格	仕	向備考
C57	,58	-	C91-0672-05	CERAMIC 0.0068UF K		
C59	,60	-	CF92FV1H752J	MF 7500PF J		
C61	,62	-	CF92FV1H432J	MF 4300PF J		
C63	,64	-	C91-0668-05	CERAMIC 0.0047UF K		
C65	,66	-	CF92FV1H302J	MF 3000PF J		
C67	,68	-	CK45FB1H332K	CERAMIC 3300PF K		
C69	,70	-	C91-0658-05	CERAMIC 0.0018UF K		
C71	,72	-	CF92FV1H202J	MF 2000PF J		
C73	-76	-	CK45FB1H102K	CERAMIC 1000PF K		
C79	-82	-	CC45FSL1H221J	CERAMIC 220PF J		
C83	-86	-	CK45FB1H102K	CERAMIC 1000PF K		
C90	,91	-	CE04KW1HR22M	ELECTRØ 0.22UF 50WV		
C92	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C93	,94	-	CF92FV1H154J	MF 0.15UF J		
C95	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C96	,97	-	CF92FV1H913J	MF 0.091UF J		
C98	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C99	,100	-	CF92FV1H513J	MF 0.051UF J		
C101	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C102	,103	-	C91-0688-05	CERAMIC 0.033UF K		
C104	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C105	,106	-	CF92FV1H203J	MF 0.020UF J		
C107	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C108	,109	-	CF92FV1H133J	MF 0.013UF J		
C110	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C111	,112	-	C91-0674-05	CERAMIC 0.0082UF K		
C113	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C114	,115	-	CF92FV1H512J	MF 5100PF J		
C116	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C117	,118	-	CF92FV1H302J	MF 3000PF J		
C119	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C120	,121	-	CF92FV1H202J	MF 2000PF J		
C122	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C123	,124	-	C91-0654-05	CERAMIC 0.0012UF K		
C125	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C126	,127	-	CK45FB1H821K	CERAMIC 820PF K		
C128	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C129	,130	-	CK45FB1H561K	CERAMIC 560PF K		
C131	-	-	CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C133	-	-	CE04KW1H010M	ELECTRØ 1.0UF 50WV		
C134	-	-	CE04KW1C220M	ELECTRØ 22UF 16WV		
C136	-	*	C90-1826-05	BACKUP 0.047F 5.5WV		
C137	,138	-	CC45FSL1H221J	CERAMIC 220PF J		
C139	-	-	CF92FV1H104J	MF 0.10UF J		
C141	-	-	CF92FV1H103J	MF 0.010UF J		
C142	-	-	CE04KW1V100M	ELECTRØ 10UF 35WV		
C143	-	-	CE04KW1HR22M	ELECTRØ 0.22UF 50WV		
C144	-	-	CE04KW0J221M	ELECTRØ 220UF 6.3WV		
C145	-	-	C91-0769-05	CERAMIC 0.01UF K		
C146	-	-	C91-0757-05	CERAMIC 1000PF K		
C147	,148	-	CK45FF1H103Z	CERAMIC 0.010UF Z		
C149	,150	-	CE04KW1C470M	ELECTRØ 47UF 16WV		
C151	,153	-	CE04KW1V100M	ELECTRØ 10UF 35WV		
C154	,155	-	CE04KW1V4R7M	ELECTRØ 4.7UF 35WV		
C156	-	-	CE04KW1C222M	ELECTRØ 2200UF 16WV		

E: Scandinavia & Europe K: USA P: Canada W: Europe

Y: PX(Far East, Hawaii) T: England M: Other Areas

Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks
参照番号	位置	新	部品番号	部品名 / 規格	仕向	備考
C157			CE04KW1E222M	ELECTRØ 2200UF 25WV		
C158			CF92FV1H104J	MF 0.10UF J		
C159			CF92FV1H103J	MF 0.010UF J		
C160			CE04KW1V100M	ELECTRØ 10UF 35WV		
C161			CE04KW1C102M	ELECTRØ 1000UF 16WV		
C162			CE04KW1E102M	ELECTRØ 1000UF 25WV		
C163			CF92FV1H104J	MF 0.10UF J		
C164			CF92FV1H103J	MF 0.010UF J		
C165			CE04KW1V100M	ELECTRØ 10UF 35WV		
C166			CE04KW1C102M	ELECTRØ 1000UF 16WV		
C167			CE04KW1E102M	ELECTRØ 1000UF 25WV		
C168,169			CE04KW1H102M	ELECTRØ 1000UF 50WV		
C170			CE04KW1V101M	ELECTRØ 100UF 35WV		
C171-173			CE04KW1V100M	ELECTRØ 10UF 35WV		
C174,175			CK45FF1H103Z	CERAMIC 0.010UF Z		
C176			C91-0769-05	CERAMIC 0.01UF K		
C177			CE04KW1E221M	ELECTRØ 220UF 25WV		
C178			CE04KW1H220M	ELECTRØ 22UF 50WV		
C179,180			C91-0757-05	CERAMIC 1000PF K		
C181,182			C91-0769-05	CERAMIC 0.01UF K		
C183			C90-1349-05	NP-ELEC 1UF 50WV		
C184			CE04KW1A101M	ELECTRØ 100UF 10WV		
C185			CE04KW1V100M	ELECTRØ 10UF 35WV		
C186			CC45FSL1H101J	CERAMIC 100PF J		
C187			CK45FB1H102K	CERAMIC		
C188			CE04KW1V100M	ELECTRØ 10UF 35WV		
CN5			E10-2503-05	FLAT CABLE CONNECTØR		
CN6			E10-2504-05	FLAT CABLE CONNECTØR		
E1		*	E08-1509-05	RECTANGULAR RECEPTACLE		
E2		*	E08-1510-05	RECTANGULAR RECEPTACLE		
E3			E13-0445-05	PHONE JACK (4P)		
E6			J11-0098-05	WIRE CLAMPER		
T1			L19-0068-05	TRANSFORMER FOR CONVERTER		
X1 ,2			L78-0244-05	RESONATOR		
A			N89-3008-45	BINDING HEAD TAPTITE SCREW		
D			N35-3008-46	BINDING HEAD MACHINE SCREW		
CP1 -4			R90-0491-05	MULTI-COMP 820KX7 J 1/6W		
CP5			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
CP6 ,7			R90-0861-05	MULTI-COMP 1000PX1 2		
R292			RS14KB3D470J	FL-PROØF RS 47 J 2W		
R294,295			RD14GB2E101J	FL-PROØF RD 100 J 1/4W		
R296			RS14KB3A271J	FL-PROØF RS 270 J 1W		
R297			RD14GB2E101J	FL-PROØF RD 100 J 1/4W		
R301			RS14KB3D151J	FL-PROØF RS 150 J 2W		
R302			RS14KB3DØ20J	FL-PROØF RS 82 J 2W		
R303			RS14KB3D151J	FL-PROØF RS 150 J 2W		
S1 -12			S40-1064-05	PUSH SWITCH		
D1 -20			HSS104	DIØDE		
D1 -20			1SS133	DIØDE		
D21 ,22			HZS6.8N(B2)	ZENER DIØDE		
D21 ,22			RD6.8ES(B2)	ZENER DIØDE		
D23 -35			HSS104	DIØDE		

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
D23 -35 D36 ,37 D36 ,37 D38 -45 D46			1SS133 HZS6.8N(B2) RD6.8ES(B2) S5566B HZS30N(B)	DIODE ZENER DIODE ZENER DIODE DIODE ZENER DIODE		
D46 D47 D47 D48 -52 D48 -52			RD30ES(B) HZS5.6N(B2) RD5.6ES(B2) HSS104 1SS133	ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE		
D53 D53 D54 -57 D54 -57 FL1			HZS8.2N(B2) RD8.2ES(B2) HSS104 1SS133 * BG-805G	ZENER DIODE ZENER DIODE DIODE DIODE FLUORESCENT INDICATOR TUBE		
IC1 ,2 IC3 IC4 ,5 IC6 -16 IC17			NJU7305L TC9164N NJM4558D NJM2058D TC4051BP	IC(DUAL 4-CHANNEL MULTIPLEXER) IC(16CH BILATERAL SELECTOR SW) IC(OP AMP X2) IC(OP AMP X4) IC(8CH MPX/ DE-MPX)		
IC18 IC19 IC20,21 IC22 IC23-25		*	M50955-239SP * M50941-351SP LB1294 PST529D * LB1291	IC IC(MICROPROCESSOR) IC(6CH DARLINGTON DRIVER) IC IC		
IC26 IC27 IC28 Q4 ,5 Q4 ,5			UPC7805HF UPC7815HF UPC7915HF 2SC1740S(Q,R) 2SC945(A)(Q,P)	IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR/ +15V) IC(VOLTAGE REGULATOR/ -15V) TRANSISTOR TRANSISTOR		
Q6 Q6 Q7 Q8			2SA733(A)(Q,P) 2SA933S(Q,R) DTC124ES 2SB941	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		

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△ indicates safety critical components.

SPECIFICATIONS

Equalizer characteristic

Variable range $\pm 12\text{dB}$

Center frequencies 32Hz, 55Hz, 90Hz, 150Hz, 240Hz, 400Hz, 620Hz,
1kHz, 1.5kHz, 2.6kHz, 4.2kHz, 6.8kHz, 10kHz, 16kHz

Dimensions 270 W x 70 H x 258 D (mm)

Weight 1.8kg

Note : KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION

2201 East Dominguez Street, Long Beach, CA 90810;

550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. BOX 1075, 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

TRIO-KENWOOD U.K. LTD.

KENWOOD HOUSE, Dwight Road, Watford, Herts., WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD LINEAR S.p.A.

20125, MILANO-VIA ARBE, 50, ITALY

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (INCORPORATED IN N.S.W.)

4E Woodcock Place, Lane Cove, N.S.W. 2086, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong