

Service Manual

AUTOMATIC TELEPHONE
ANSWERING SYSTEM

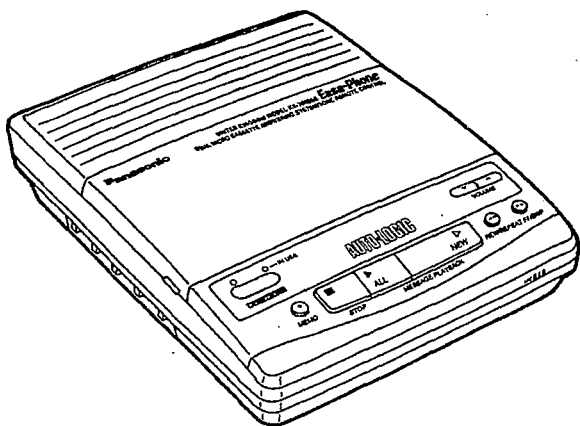
and Technical Guide

Telephone Equipment

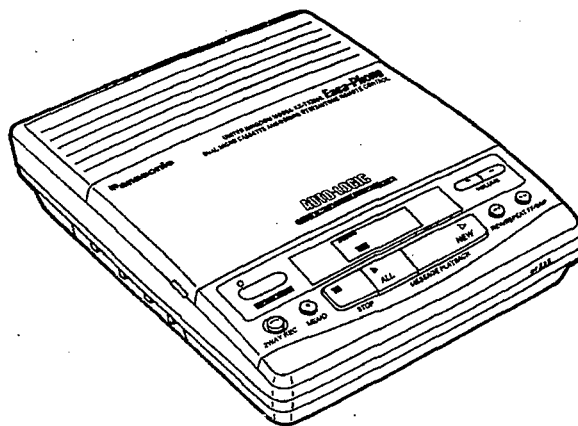
KX-T5006E-1

KX-T5206E-1

(for United Kingdom)



(Model KX-T5006E-1)



(Model KX-T5206E-1)

■ SPECIFICATIONS

Power Source:	AC: AC adaptor (DC 13.5V) KX-A11BEXE
Greeting Message: (OGM)	10-minute micro cassette (Variable, up 30 seconds)
Incoming Message: (ICM)	30-minute micro cassette Selectable recording times (1MIN/VOX/GREETING ONLY)
Tape Deck:	Logic control dual micro cassette system
Ring Control:	Auto/6/2
Power Output:	350 mW max. across the monitor speaker
Monitor Speaker:	2" PM dynamic (8 ohm)
Microphone:	Condenser microphone
Connection:	2-built-in modular jacks, DC-IN jack
Dimensions:	6 ⁷ / ₃₂ " × 1 ¹ / ₈ " × 8 ²¹ / ₃₂ " [158 (W) × 54 (H) × 220 (D)] mm
Weight:	1lb. 8.34oz (690g) [KX-T5006E-1] 1lb. 10.1oz (740g) [KX-T5206E-1]

Design and specifications are subject to change without notice.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

When you mention the serial number, write down the 11 digits. The serial number may be found on the label affixed to the bottom of the unit.

FOR SERVICE TECHNICIANS

ICs and LSIs are vulnerable to static electricity.

When replacing, the following precautions will help prevent recurring malfunctions.

- 1) Cover the plastic parts boxes with aluminum foil.
- 2) Ground the soldering irons,
- 3) Use a conductive mat on the workable.
- 4) Do not grasp IC or pins with bare fingers.

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CONNECTION

CONNECTION OF POWER SUPPLY

This apparatus is intended to use when powered by the KX-A11BEXE. Using other power supplies will invalidate any approval given to this apparatus.

Notes:

- USE ONLY Panasonic AC ADAPTOR KX-A11BEXE. The adaptor must remain connected at all times.
- The DC IN Jack is at SELV (Safety Extra Low Voltage).
- The line connections are at TNV (Telecommunication Network Voltage).

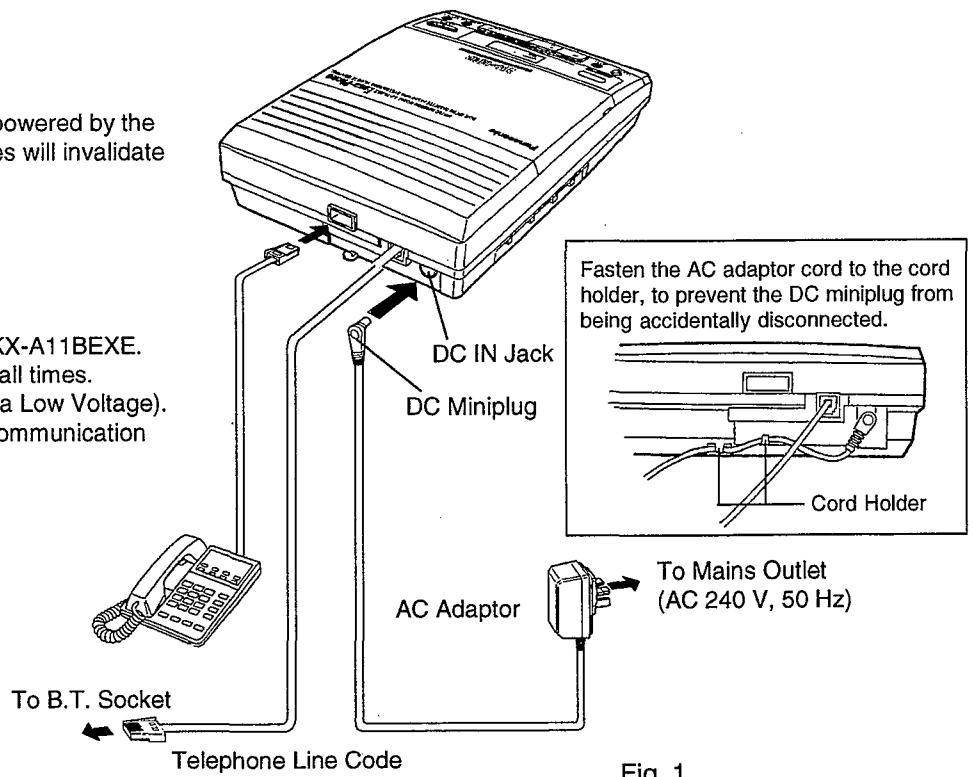


Fig. 1

LOCATION

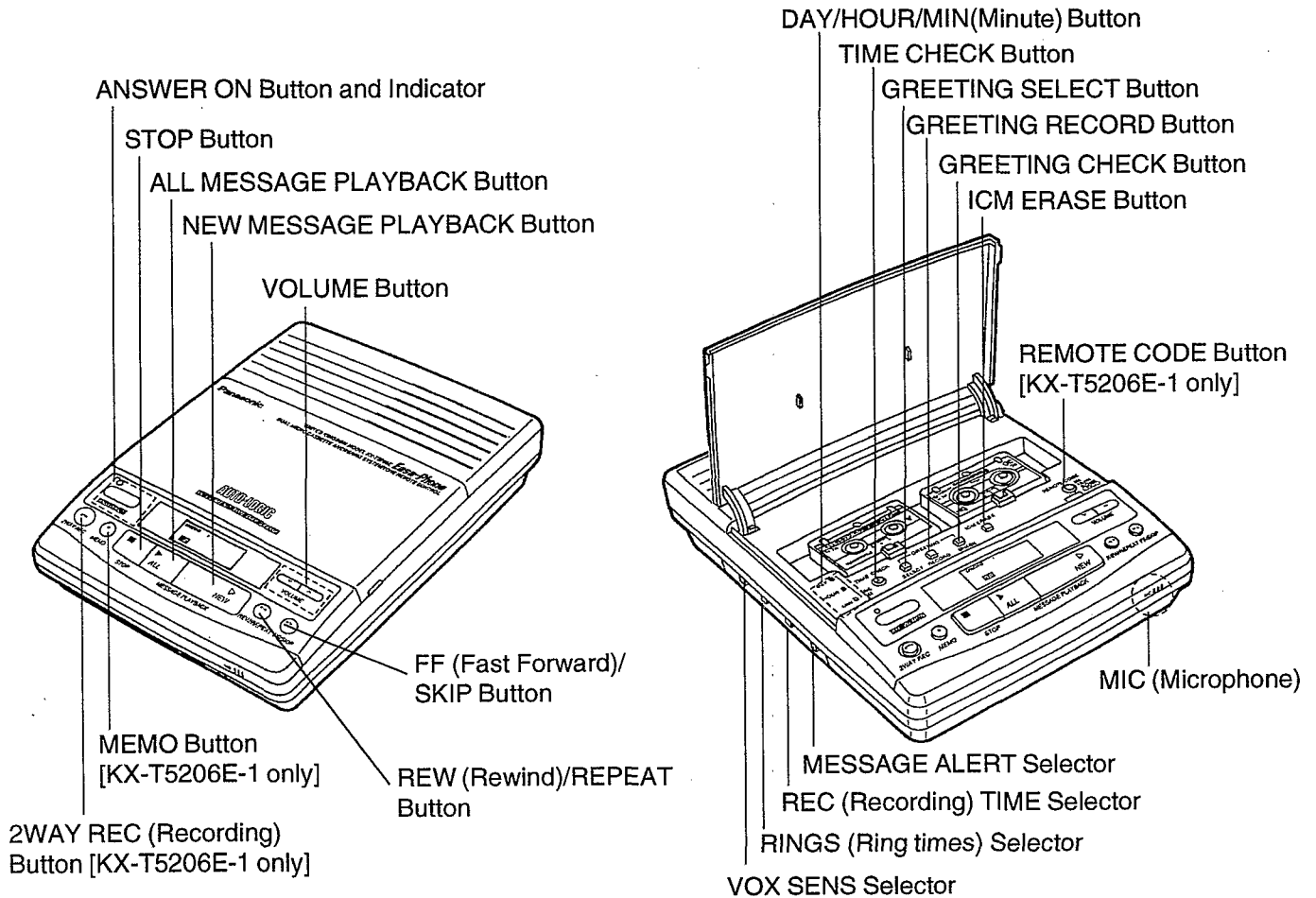


Fig. 2

Fig. 3

OPERATION

Remote operation from a touch tone phone

[KX-T5006E-1]

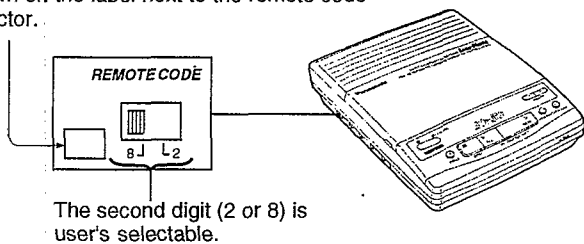
You can operate your answering system remotely using a touch tone telephone while you are away from home.

You can identify a touch tone telephone because it has a * button, a # button and each button when pressed produces a different tone from any other button.

Setting the remote code number

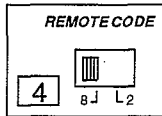
The remote code number prevents unauthorized persons from accessing your unit and listening to your message. The remote code number is made up of 2-digit. The first digit is factory preset, and the second digit is selectable (2 or 8).

The first digit of your remote code number is shown on the label next to the remote code selector.



Example:

If the factory preset number is "4", your code number could be either "42" or "48" depending on the position of the REMOTE CODE selector.



[KX-T5206E-1]

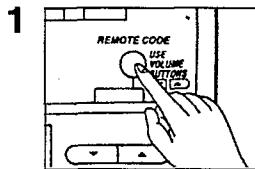
You can operate your answering system remotely using a touch tone telephone while you are away from home.

The synthesized voice gives directions on how to operate your unit.
 - To operate the unit directly, skipping the order of the voice menu.

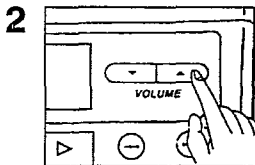
Setting the remote code number

The remote code number prevents unauthorized persons from accessing your unit and listening to your messages. You can choose any 2-digit number (00 to 99) for your remote code number.

Press the REMOTE CODE button.



- The display shows the current remote code number.



Within 7 seconds of pressing the REMOTE CODE button, press the VOLUME buttons (▲ or ▼) repeatedly to select the number.

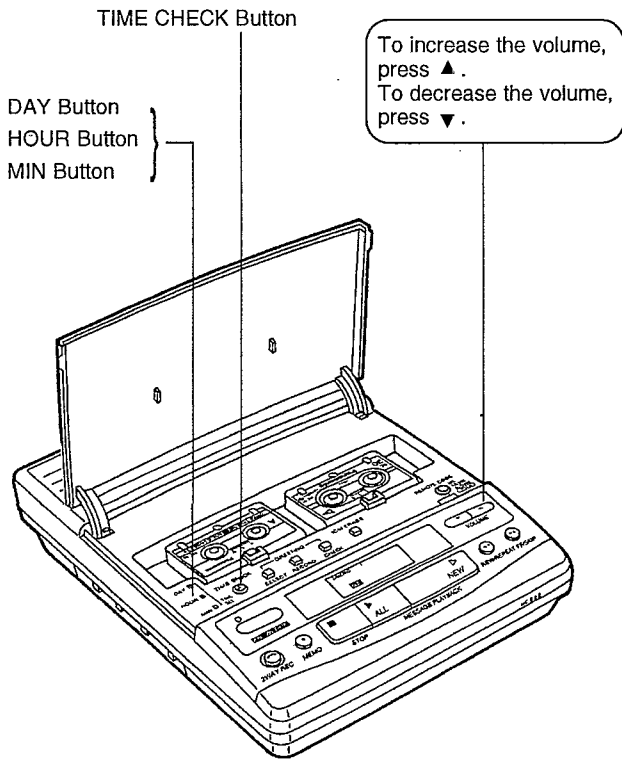
- Wait for 7 seconds after selecting the number. The number on the display is then stored.

To check the remote code

Press the REMOTE CODE button.

The display shows the programmed remote code number for 7 seconds.

TIME AND DAY ADJUSTMENT [KX-T5206E-1 only]



Notes:

- During a power failure, the programmed time and day retention time is approximately 3 hours.
- If "⊙" flashes, it means that the programmed time and day have been cleared. In this case, adjust the time and day again.

- Press the DAY button repeatedly to adjust the day.

—The unit announces the day.
- Press the HOUR button repeatedly to adjust the hour.

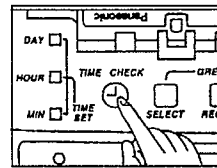
—The unit announces the hour.
- Press the MIN button repeatedly to adjust the minute.

— The unit announces the minute.
— The clock starts working.

Voice Time and Day Stamp

You know when a caller's message was recorded as the synthesized voice will announce the time and day of recording after each message.

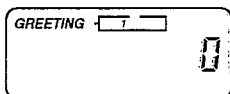
To check the time and day



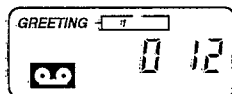
Press the TIME CHECK button.

- The unit announces the programmed time and day.

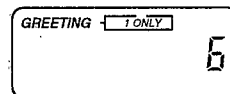
DISPLAY [KX-T5206E-1 only]



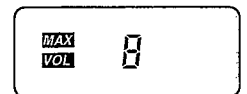
First greeting message is selected. No messages have been recorded.



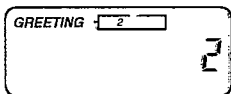
The first greeting is being recorded. The call counter counts the recording duration.



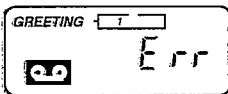
First greeting message is selected and the REC TIME selector in the GREETING ONLY position.



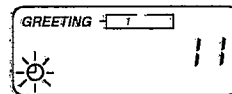
You are adjusting the volume. The number shows the current volume level. When the volume level is set to maximum (8).



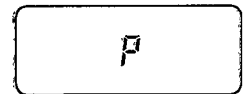
Second greeting message is selected. 2 messages have been recorded.



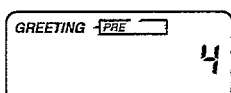
When recording the first greeting message, it results in failure.



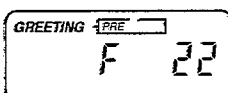
The clock in the unit is not adjusted. Program it before use.



The unit is in the programming mode.



Pre-recorded greeting message is selected. 4 messages have been recorded.



The incoming tape is full. ("22" represents the number of messages recorded, for example).

DISASSEMBLY INSTRUCTIONS

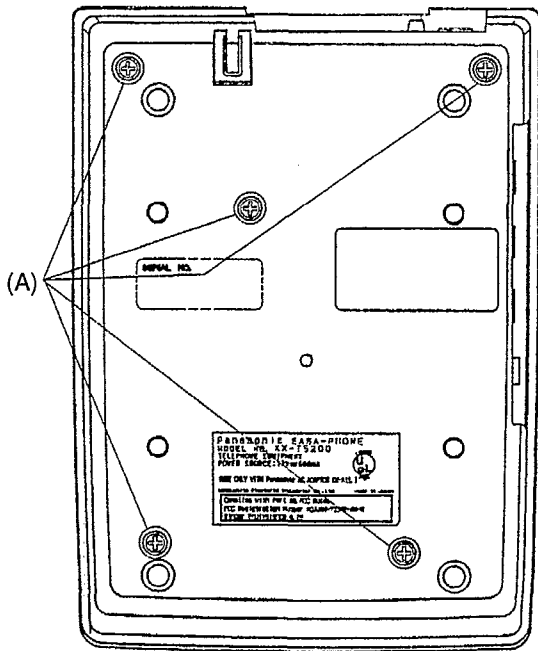


Fig. 4

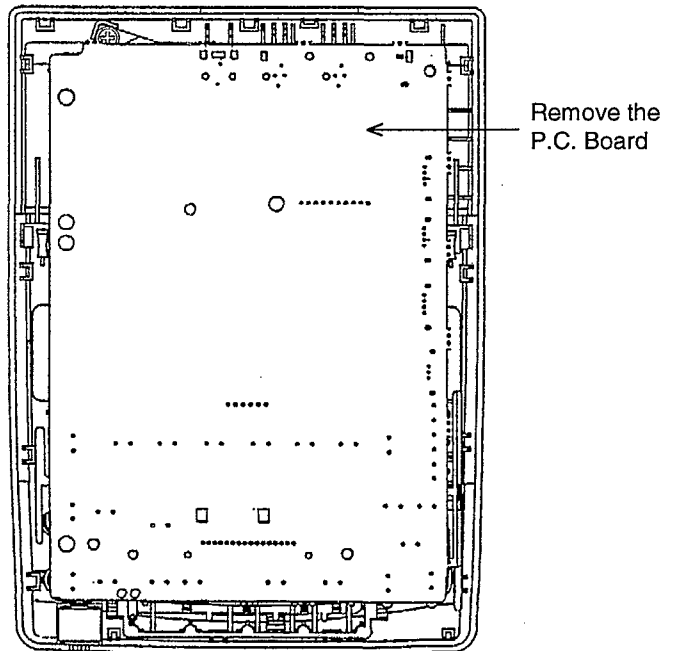


Fig. 5

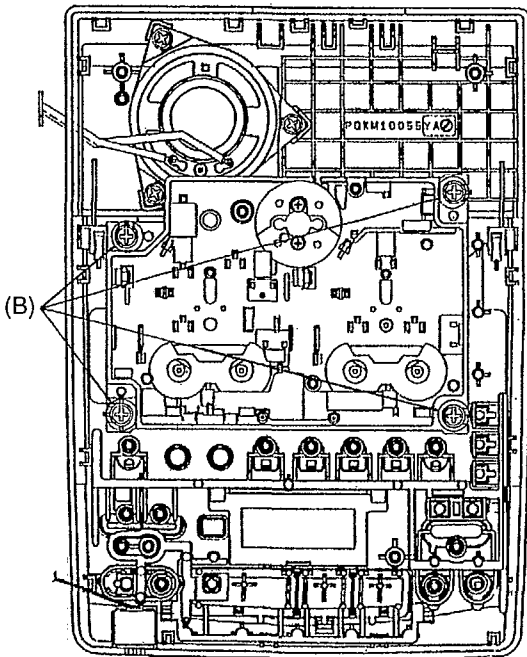


Fig. 6

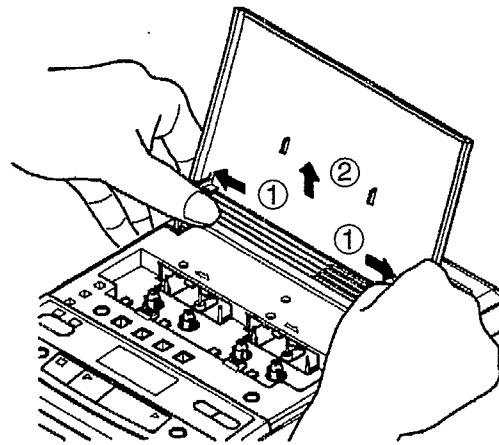
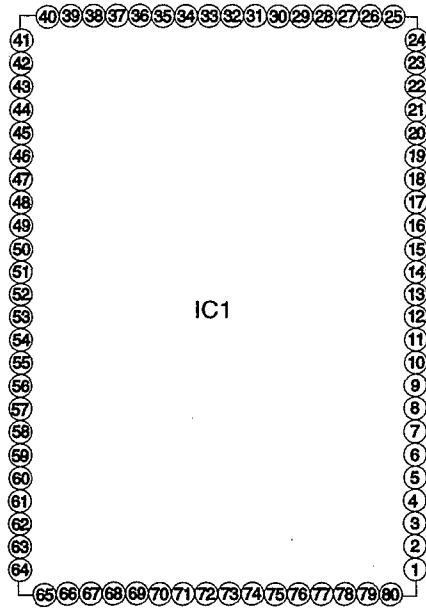


Fig. 7

Procedure	To remove—	Remove—	Shown in Fig—
1	Lower Cabinet	Screw (3x16) (A)x5	4
2	Printed Circuit Board	Remove the P.C. Board.	5
3	Cassette Deck	Screw (3x13) (B)x4	6
4	Cassette Lid	Remove the Cassette Lid.	7

CPU DATA (KX-T5006E-1 only)



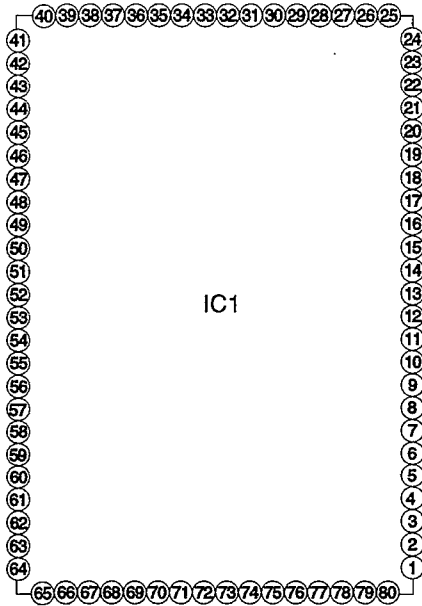
Part No.: PQVI70081D54 (IC1)
 Power Supply: 5 ± 1 V
 Program ROM: 8K × 16 bit
 Inside Data RAM: 512 × 4 bit

Pin No.	Function	High	Low	Pin No.	Function	High	Low
1, 2	COM2~1	/	/	38	Voice Busy	Busy	/
3, 4	CUP1~2	/	/	39	Erase	Active	/
5	Reset	Reset	Normal	40	Deck Start/Stop	Start	Stop
6	DTMF-SD IN	DTMF	Normal	41	Deck FF/REW	FF	REW
7~14	Key IN	Detect	/	42	Deck Play/FF	Play	FF
15	Answer LED	OFF	ON	43	Test	5V	/
16	Message LED	OFF	ON	44~46	Volume 1~3	/	/
17	ICM Deck Plunger	ON	OFF	47	Vcc Backup	/	/
18	OGM Deck Plunger	ON	OFF	48	Head Beep	/	/
19	XT OUT	/	/	49	Speaker Beep	/	/
20	XT IN	/	/	50	REC Bias	REC	Play
21, 22	VDD 2~1	/	/	51	Custom IC Clock	/	/
23	VSS	/	Ground	52	Custom IC Data	/	/
24	VDD	5V	/	53	DTMF Receiver ACK	Active	/
25	CF IN	/	/	54	2 Way Relay	ON	OFF
26	CF OUT	/	/	55	Line Beep	/	/
27	DTMF Receiver EST	Active	/	56	Relay	ON	OFF
28	Vox	/	/	57	-----	/	Start
29	OGM Deck Position	/	/	58	Voice Reset	/	Reset
30	ICM Deck Position	/	/	59	-----	/	/
31	RVN OGM IN	/	/	60	Voice data	Data	/
32	RVN ICM IN	/	/	61	Vox Sense	Active	Normal
33	Power Down	/	Down	62	-----	/	/
34	DCS	DSC	Normal	63	Option Strobe	Active	/
35	CPC	Normal	CPC	64	Switch Strobe	Active	/
36	Test	/	Test	65, 66	Key Strobe	Active	/
37	Bell	/	Bell	67~80	LCD Segment	/	/

● Pin Description (KX-T5006E-1 only)

Pin No.	Name	Description
5	RES	Input for Resetting Built-in LSI.
6	INT	Input Port <ul style="list-style-type: none"> •Input for Storing Data into RAM Control Input of Request to External Interrupt
7~10	SO1~SO4	Input/Output Port <ul style="list-style-type: none"> •Input for Storing Data into RAM •Output Data from RAM
11~14	A1~A4	Input/Output Port <ul style="list-style-type: none"> •Input for Storing Data into RAM •Output Data from RAM
15~18	P1~P4	Input/Output Port <ul style="list-style-type: none"> •Input for Storing Data into RAM •Output Data from RAM
19	XTOUT	System Clock Generator (Clock)
20	XTIN	System Clock Generator (Clock)
23	V _{ss}	Power Source
24	V _{DD}	Power Source
25	CFIN	System Clock Generator
26	CFOUT	System Clock Generator
27~30	S1~S4	Input Port <ul style="list-style-type: none"> •Input for Storing Data into RAM.
31~34	P1~P4	Input/Output Port <ul style="list-style-type: none"> •Input for Storing Data into RAM •Output Data from RAM
35~37	M1~M4	Input/Output Port <ul style="list-style-type: none"> •Input for Storing Data into RAM •Output Data from RAM
39~42	N1~N4	Output Port <ul style="list-style-type: none"> •Output Data from RAM

CPU DATA (KX-T5206E-1 only)



IC1

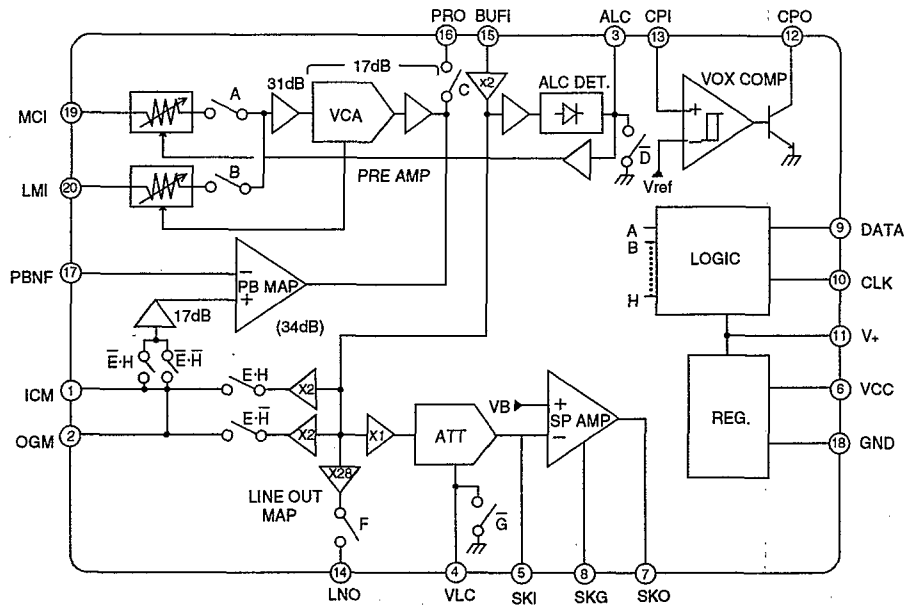
Part No.: PQVI70061D53 (IC1)
 Power Supply: 5 ± 1 V
 Program ROM: 8K × 16 bit
 Inside Data RAM: 512 × 4 bit

Pin No.	Function	High	Low	Pin No.	Function	High	Low
1, 2	COM2~1			38	-----		
3, 4	CUP1~2			39	Erase	Active	
5	Reset	Reset	Normal	40	Deck Start/Stop	Start	Stop
6	DTMF-SD IN	DTMF	Normal	41	Deck FF/REW	FF	REW
7~14	Key IN	Detect		42	Deck Play/FF	Play	FF
15	Answer LED	OFF	ON	43	Test	5V	
16	Message LED	OFF	ON	44~46	Volume 1~3		
17	OGM Deck Plunger	ON	OFF	47	Vcc Backup		
18	ICM Deck Plunger	ON	OFF	48	Head Beep		
19	XT OUT			49	Speaker Beep		
20	XT IN			50	REC Bias	REC	Play
21, 22	VDD 2~1			51	Custom IC Clock		
23	VSS		Ground	52	Custom IC Data		
24	VDD	5V		53	DTMF Receiver ACK	Active	
25	CF IN			54	-----		
26	CF OUT			55	Line Beep		
27	DTMF Receiver EST	Active		56	Relay	ON	OFF
28	Vox			57	-----		
29	OGM Deck Position			58	-----		
30	ICM Deck Position			59	-----		
31	RVN OGM IN			60	-----		
32	RVN ICM IN			61	Vox Sense	Active	Normal
33	Power Down		Down	62	IN USE LED	OFF	ON
34	DCS	DSC	Normal	63	Option Strobe	Active	
35	CPC	Normal	CPC	64	Switch Strobe	Active	
36	Test		Test	65, 66	Key Strobe	Active	
37	Bell		Bell	67~80	-----		

● Pin Description (KX-T5206E-1 only)

Pin No.	Name	Description
1	COM2	Output for COMMON Driving LCD Panel.
2	COM1	Output for COMMON Driving LCD Panel.
3	CPU1	Switch for Supplying LCD Driver Voltage with V_{DD1} , V_{DD2} Terminals.
4	CPU2	Switch for Supplying LCD Driver Voltage with V_{DD1} , V_{DD2} Terminals.
5	RES	Input for Resetting Built-in LSI.
6	INT	Input Port •Input for Storing Data into RAM Control Input of Request to External Interrupt
7~10	SO1~SO4	Input/Output Port •Input for Storing Data into RAM •Output Data from RAM
11~14	A1~A4	Input/Output Port •Input for Storing Data into RAM •Output Data from RAM
15~18	P1~P4	Input/Output Port •Input for Storing Data into RAM •Output Data from RAM
19	XTOUT	System Clock Generator (Clock)
20	XTIN	System Clock Generator (Clock)
21	V_{DD2}	Power Source for LCD Driver.
22	V_{DD1}	Power Source for LCD Driver.
23	V_{SS}	Power Source
24	V_{DD}	Power Source
25	CFIN	System Clock Generator
26	CFOUT	System Clock Generator
27~30	S1~S4	Input Port •Input for Storing Data into RAM.
31~34	P1~P4	Input/Output Port •Input for Storing Data into RAM •Output Data from RAM
35~38	M1~M4	Input/Output Port •Input for Storing Data into RAM •Output Data from RAM
39~42	N1~N4	Output Port •Output Data from RAM
43	TEST	Input Terminal for Test.
44~78	Seg1~35	LCD Panel Driver
79	COM4	Output for COMMON Driving LCD Panel.
80	COM3	Output for COMMON Driving LCD Panel.

RECORD/PLAY AMP IC DATA



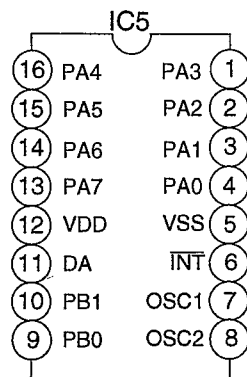
Part No.: PQVISC111812 (IC2)

• Pin Description

Pin No.	Name	Description
1	ICM	I/O for ICM head. I/O impedance is approximately 20 kohm that keeps high impedance sufficient for head load.
2	OGM	I/O for OGM head. The same configuration as ICM.
3	ALC	For connection to CR for ALC detection smoothing. The time constant of the CR decides the recovery time. The attack time depends on the values of C and internal resistance (approx. 8.5 kohm).
4	VLC	Volume control input. The speaker output controlled by changing the volume resistance between this pin and GND.
5	SKI	Reverse input of the speaker amplifier. The gain and frequency characteristics are set by external CR. Non-reverse input is biased by internal power source (approx. $1/2V_{cc}$).
6	V _{cc}	Power source of IC except LOGIC part.
7	SKO	Output of speaker amplifier. Sets frequency characteristics by connecting to Pin 5 in parallel. Speaker's impedance is normally 30 ohms.
8	SKG	GND of speaker amplifier output part.
9	DATA	Input of control data for mute mode. For serial synchronous input with clock signal.
10	CLK	Clock input for data input synchronization. Controls shift register by data bit at fall, and latches by reading data at rise.
11	V+	5.4 V stable output to supply bias with microphone.
12	CPO	Output of comparator. Connected to open-collector of NPN transistor.

Pin No.	Name	Description
13	CPI	Input of VOX detector comparator. Compares internal reference voltage with gained voltage, and has a bit hysteresis characteristics.
14	LNO	Output of buffer amplifier for line output. Radio amplifier.
15	BUFI	Inputs of Recording amplifier, line output amplifier, speaker amplifier, and ALC detector. These are input after voltage/radio conversion by CR between this pin and Pin 16.
16	PRO	Output of MIC/LINE amplifier and playback amplifier.
17	PBNF	Reverse input of playback amplifier for controlling frequency characteristics. The CR network between this pin and Pins 16 and 18 set frequency and gain.
18	GND	GND for all ICs except speaker amplifier.
19	MCI	Input of microphone amplifier. The input resistance is normally 33 khoms.
20	LNI	Input of line amplifier. The same configuration as MCI.

VOICE SYNTHESIZED IC DATA (KX-T5206E-1 only)



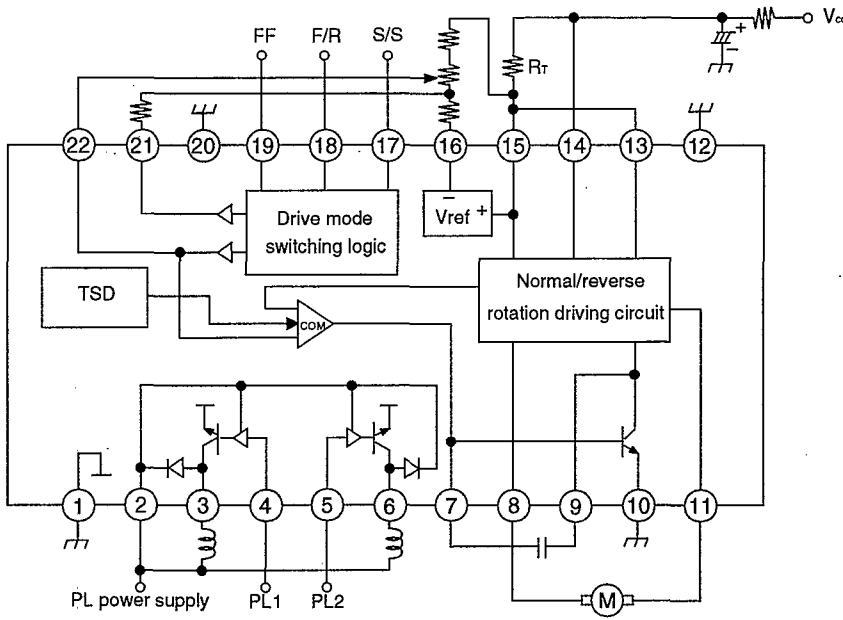
Part No.: PQVICS11160N (IC3)

• Pin Description

Pin No.	Name	Description
11	DA1	D/A output terminal
6	$\overline{\text{INIT}}$	Initialization terminal When INIT is at "L" level, the clock stops and CMS11160AN is set to the low power mode, the program counter is reset to "0", and then the contents of RAM is maintained. The INIT pulse of 1 μs or more is required to reset the processor.
7	OSC1	Clock input terminal Used to connect the crystal or ceramic oscillator between OSC1 and OSC2, or input the clock signal into OSC1. The clock frequency is 7.68 MHz.
8	OSC2	Clock return terminal
1-4, 13-16	PA0~PA7	8-bit bidirectional I/O port terminals In the parallel mode: Data input/READY output terminals In the serial mode: Extension output terminals
9-10	PB0~1	2-bit bidirectional I/O port terminals In the parallel mode: Read & write selector terminals/strobe terminals In the serial mode: Data input/BUSY output terminals
12	V _{DD}	5 V line voltage terminal
5	V _{SS}	GND terminal

GOVERNOR IC DATA

Part No.: AN6658K (IC4)

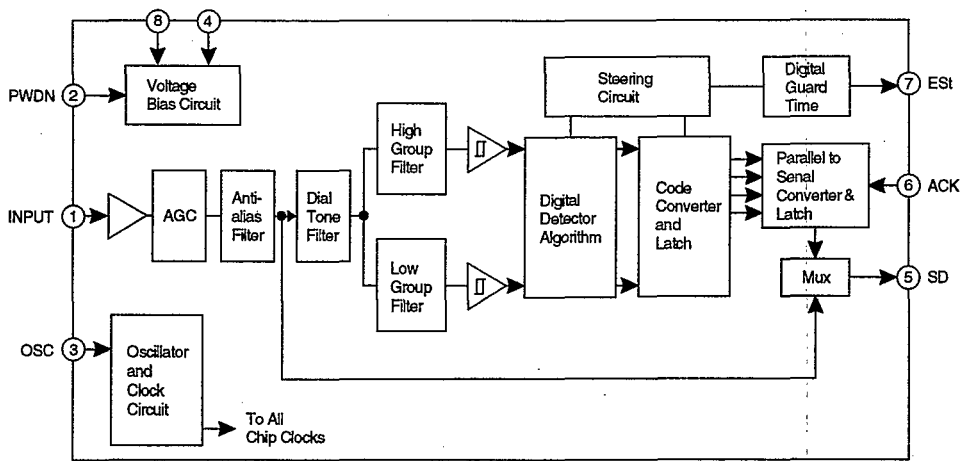


• Pin Description

Pin No.	Description	Pin No.	Description
1	GND	12	NC
2	PL power supply	13	To Pin 15
3	PL1 driving terminal	14	V _{cc}
4	PL1 setting terminal	15	For setting of load characteristics
5	PL2 setting terminal	16	Reference voltage output terminal
6	PL2 driving terminal	17	Start/stop control terminal
7	Phase compensation terminal 1	18	Normal/reverse rotation control terminal
8	Motor driving terminal (-)	19	Constant speed/FF control terminal
9	Phase compensation terminal 2	20	NC
10	GND	21	FF setting terminal
11	Motor driving terminal (+)	22	Speed adjustment terminal

DTMF RECEIVER IC DATA

Part No.: PQVIMT3074AE



Pin Description

Pin No.	Name	Description
1	INPUT	Audio Input. Input signal must be AC coupled.
2	PWDN	Power Down Input. A logic high on this pin will power down the device to reduce power consumption. The ACK pin must be logic low before a logic high is applied on this pin. For normal operation, PWDN pin must be logic low.
3	OSC	Oscillator Input. This pin can be either driven by an external clock or used with a 4.194304 MHz crystal/ceramic resonator connected to ground.
4	V _{SS}	Ground.
5	SD	Serial Data Output. If EST is high and the ACK pulse sequence is applied, the SD output provides a 4-bit binary code representing the decoded DTMF digit. Refer to Fig. A.
6	ACK	Acknowledge Pulse Input. After EST or DS _t D goes high, applying a sequence of four pulse on this pin will shift out four bits on the SD pin, representing the decoded DTMF digit. The rising edge of the first pulse will latch the data prior to shifting. Refer to Fig. A
7	ES _t	Early Steering Output. A logic high on ES _t indicates that a DTMF signal is present.
8	V _{DD}	Positive Power Supply.

ACK to SD Timing

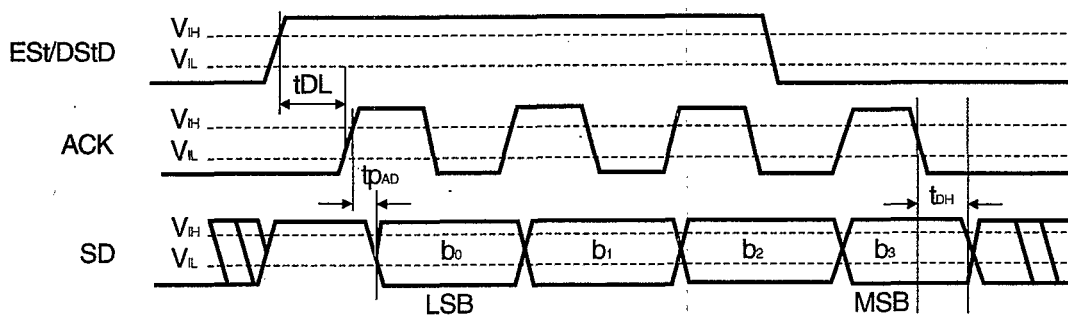
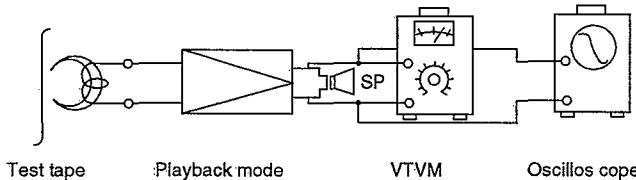
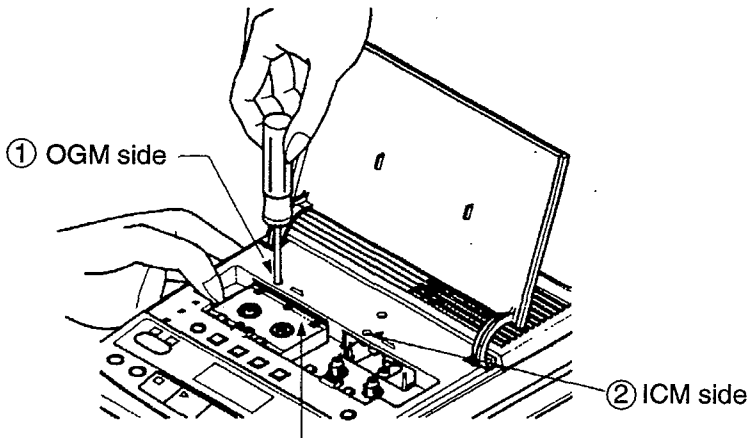
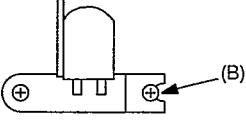
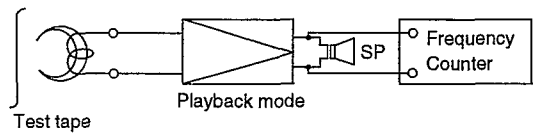
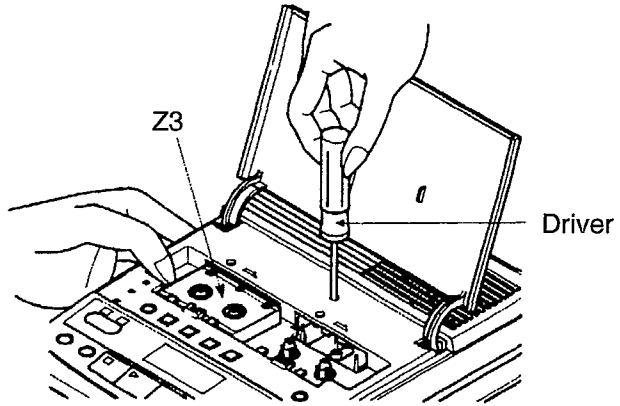


Fig. A

MEASUREMENT AND ADJUSTMENT METHOD

- Notes: 1. Make sure the heads are clean.
 2. Make sure the capstan and pressure roller are clean.
 3. Room temperature for measuring and adjusting: $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$)
 4. Test equipments are not treated as replacement parts.

ITEM	MEASUREMENT & ADJUSTMENT	REMARKES
<p>1. Head azimuth adjustment</p>	<p>1. Play back the test tape (QZZMWA or PQZZLCT2401A) [Ref No. Z3]. 2. Adjust screw (B) shown in Fig. B for maximum output at SP terminal. (Test equipment connection is shown below.)</p>  <p>Test tape Playback mode VTVM Oscilloscope</p>  <p>① OGM side ② ICM side</p>	<p>*Record/playback head</p>  <p>Fig. B</p>
<p>2. Tape speed adjustment</p>	<p>1. Play back the test tape (QZZMWA or PQZZLCT2401A) [Ref No. Z3] 2. Adjust VR1 for 2980-3000 Hz on frequency counter reading.</p>  <p>Test tape Playback mode Frequency Counter</p>  <p>Z3 Driver</p>	

HOW TO REPLACE FLAT PACKAGE IC

■ PREPARATION

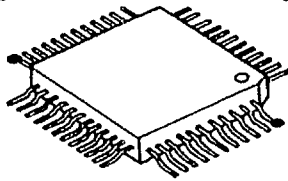
- SOLDER Sparkle Solder 115A-1, 115B-1
OR
Almit Solder KR-19, KR-19RMA
- Soldering iron Recommended power consumption will be between 30 W to 40 W.
Temperature of Copper Rod $662 \pm 50^{\circ} \text{ F}$ ($350 \pm 10^{\circ} \text{ C}$)

(An expert may handle 60~80 W iron, but beginner might damage foil by overheating.)
- Flux HI115 Specific gravity 0.863

(Original flux will be replaced daily.)

■ PROCEDURE

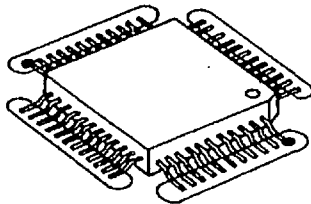
1. Temporarily fix FLAT PACKAGE IC by soldering on marked 2 pins.



● Temporary soldering point.

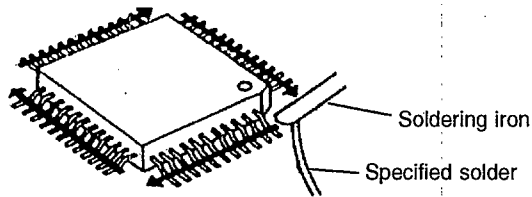
*Most important matter is accurate setting of IC to the corresponding soldering foil.

2. Apply flux for all pins of FLAT PACKAGE IC.



..... Flux

3. Solder employing specified solder to direction arrow, as slide the soldering iron.

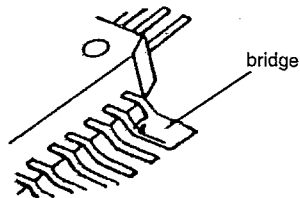


Soldering iron

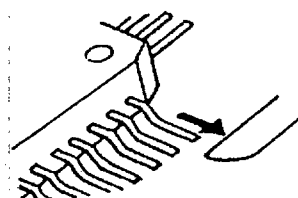
Specified solder

■ MODIFICATION PROCEDURE OF BRIDGE

1. Re-solder slightly on bridged portion.
2. Remove remained solder along pins employing soldering iron as shown in below Figure.

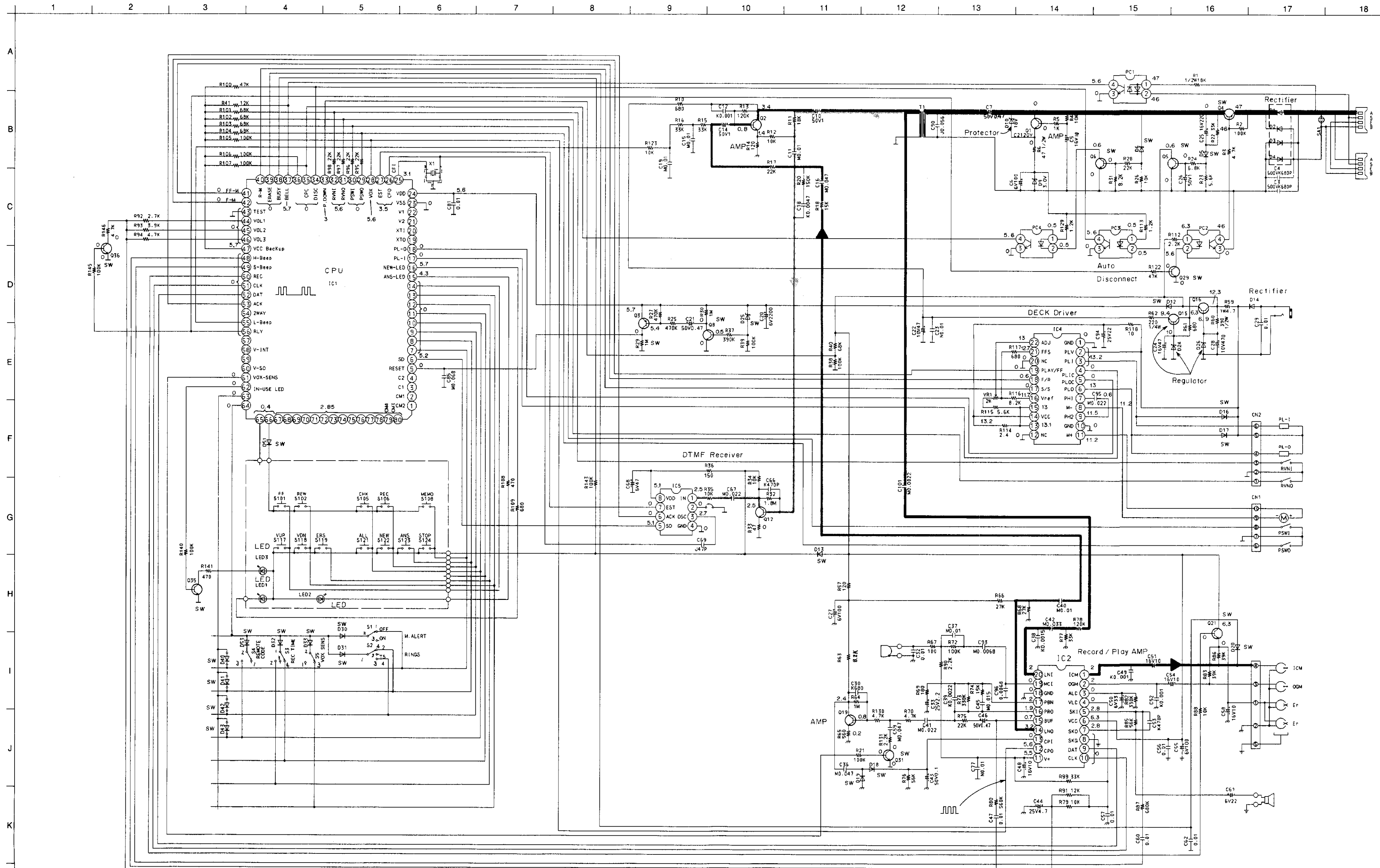


bridge



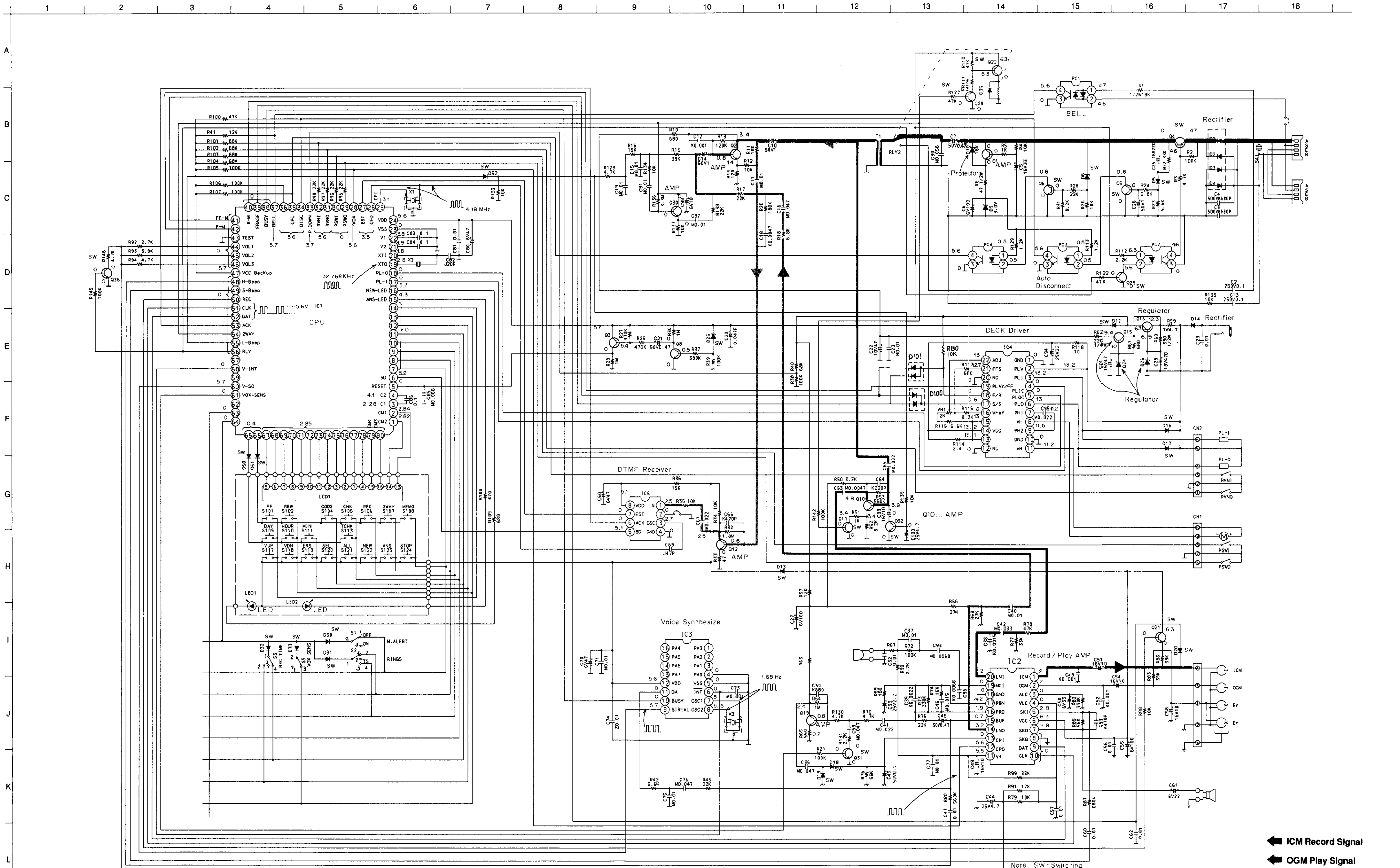
MEMO

SCHMATIC DIAGRAM-KX-T5006E-1



ICM Record Signal
 OGM Play Signal
 DTMF Signal

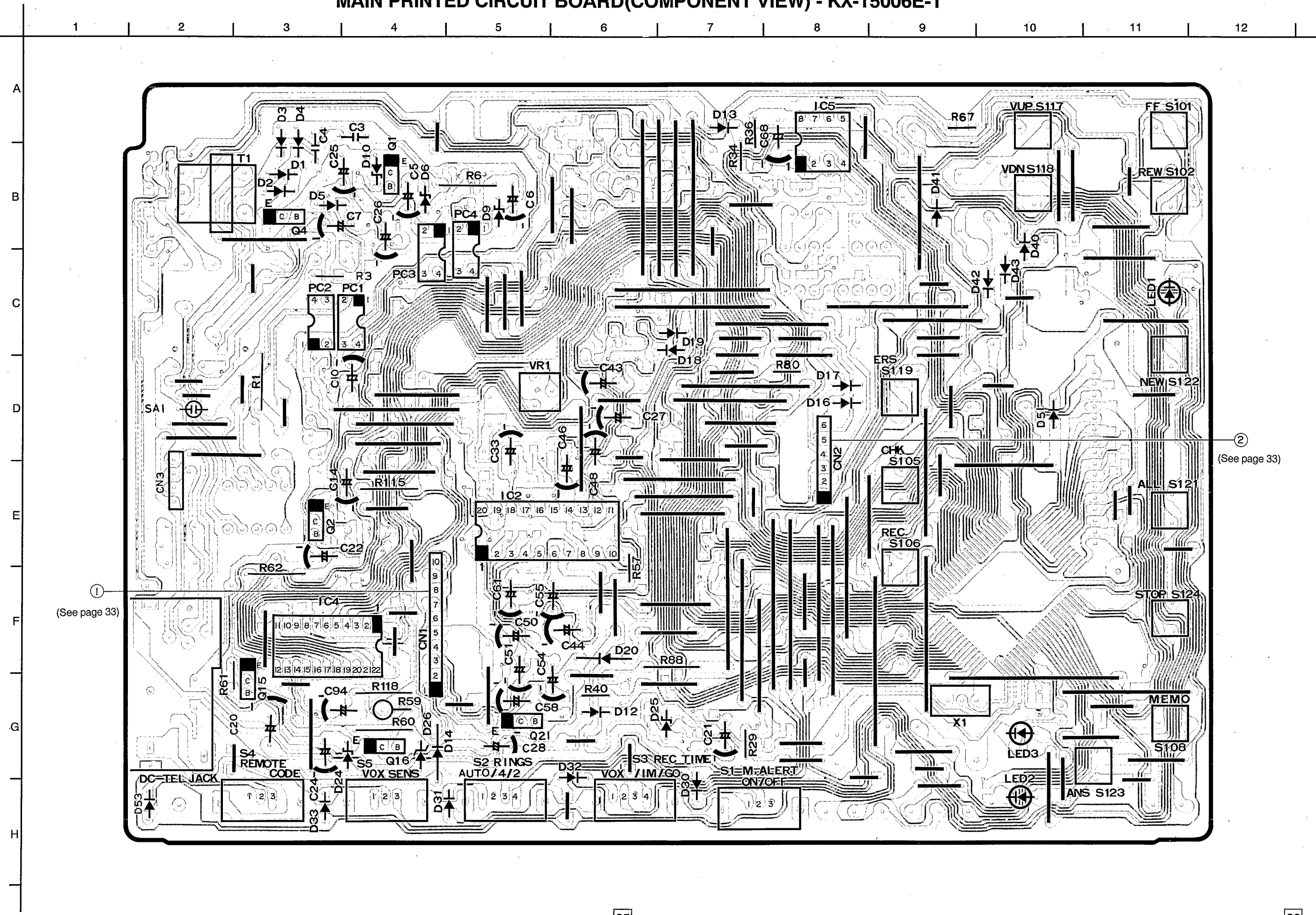
SCHEMATIC DIAGRAM-KX-T5206E-1



- ← ICM Record Signal
- ← OGM Play Signal
- ← DTMF Signal

Note SW = Switching

MAIN PRINTED CIRCUIT BOARD(COMPONENT VIEW) - KX-T5006E-1



(See page 33)

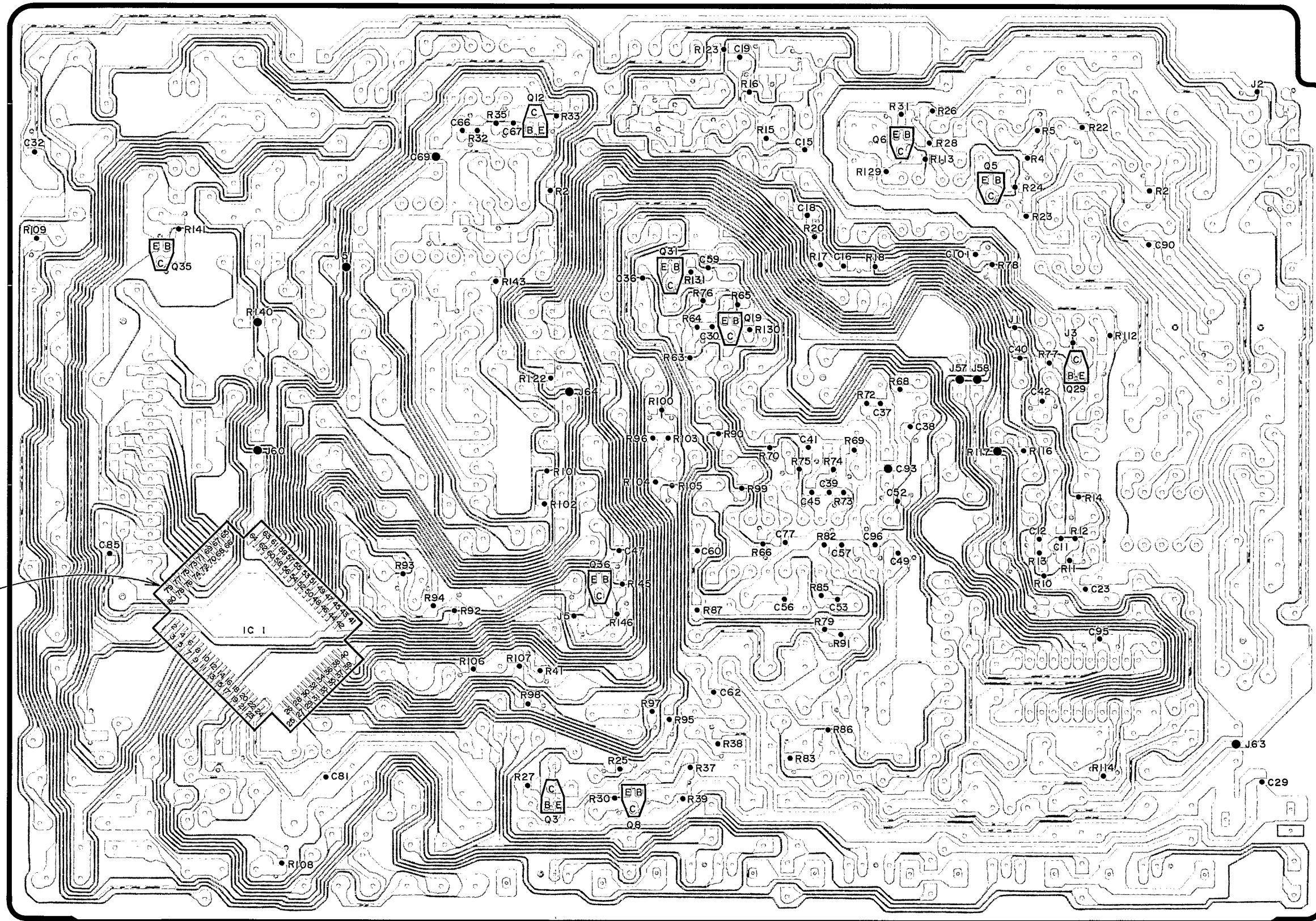
(See page 33)

MAIN PRINTED CIRCUIT BOARD(BOTTOM VIEW) - KX-T5006E-1

1 2 3 4 5 6 7 8 9 10 11 12

A
B
C
D
E
F
G
H

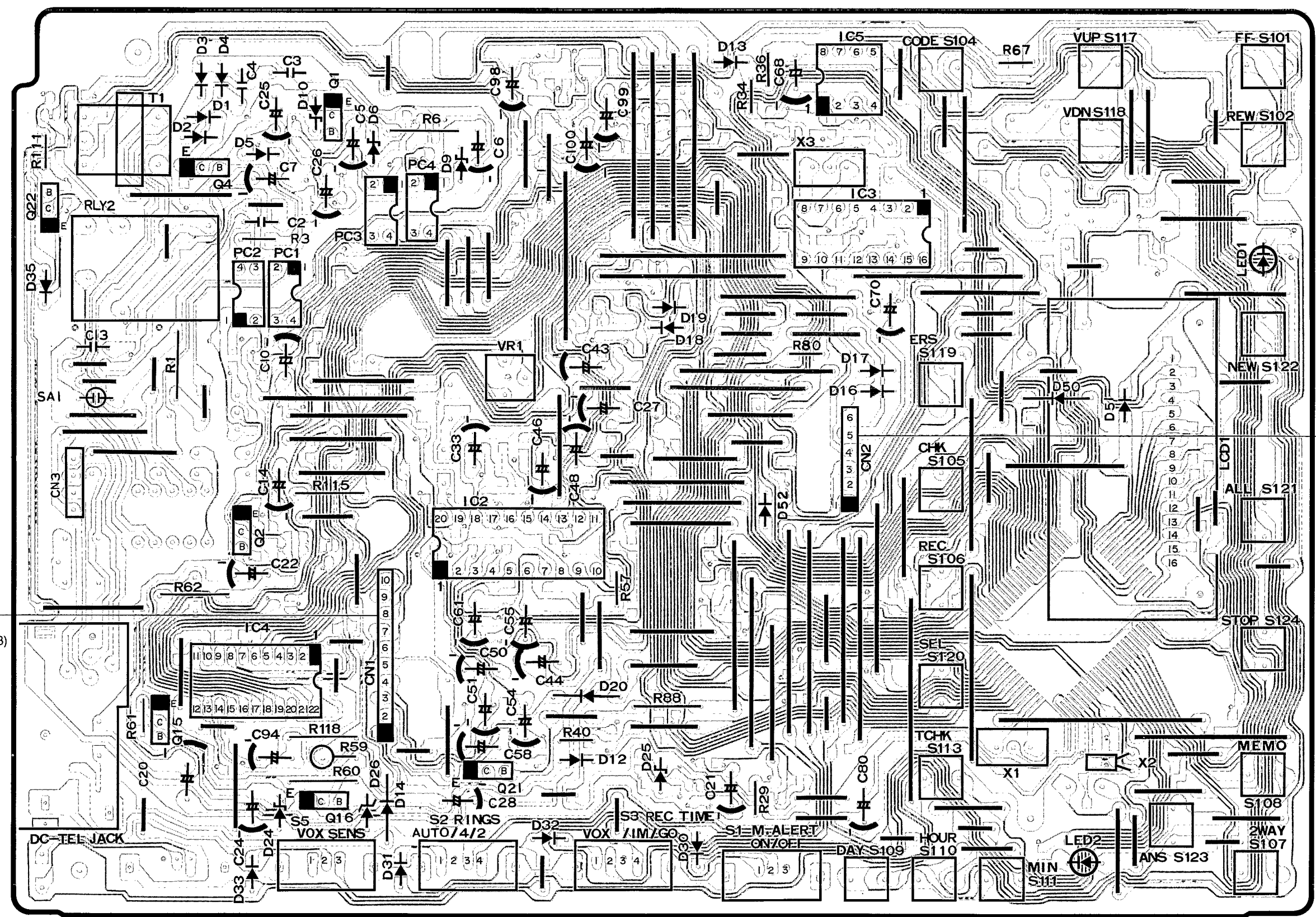
IC1	
Pin No.	Volatge
1	2.82
2	2.84
3	2.28
4	4.1
5	0
6	5.2
7~14	0
15	4.3
16	5.7
17	0
18	0
19	2.8
20	1.8
21	1.9
22	3.8
23	0
24	5.6
25	3.1
26	3.5
27	3.5
28	5.6
29	0
30	0
31	5.6
32	5.6
33	3.7
34~36	5.6
37	5.7
38~46	0
47	5.7
48~59	0
60	5.7
61~64	0
65	0.4
66	0.4
67~80	2.85



MAIN PRINTED CIRCUIT BOARD(COMPONENT VIEW) - KX-T5206E-1

1 2 3 4 5 6 7 8 9 10 11 12

A
B
C
D
E
F
G
H



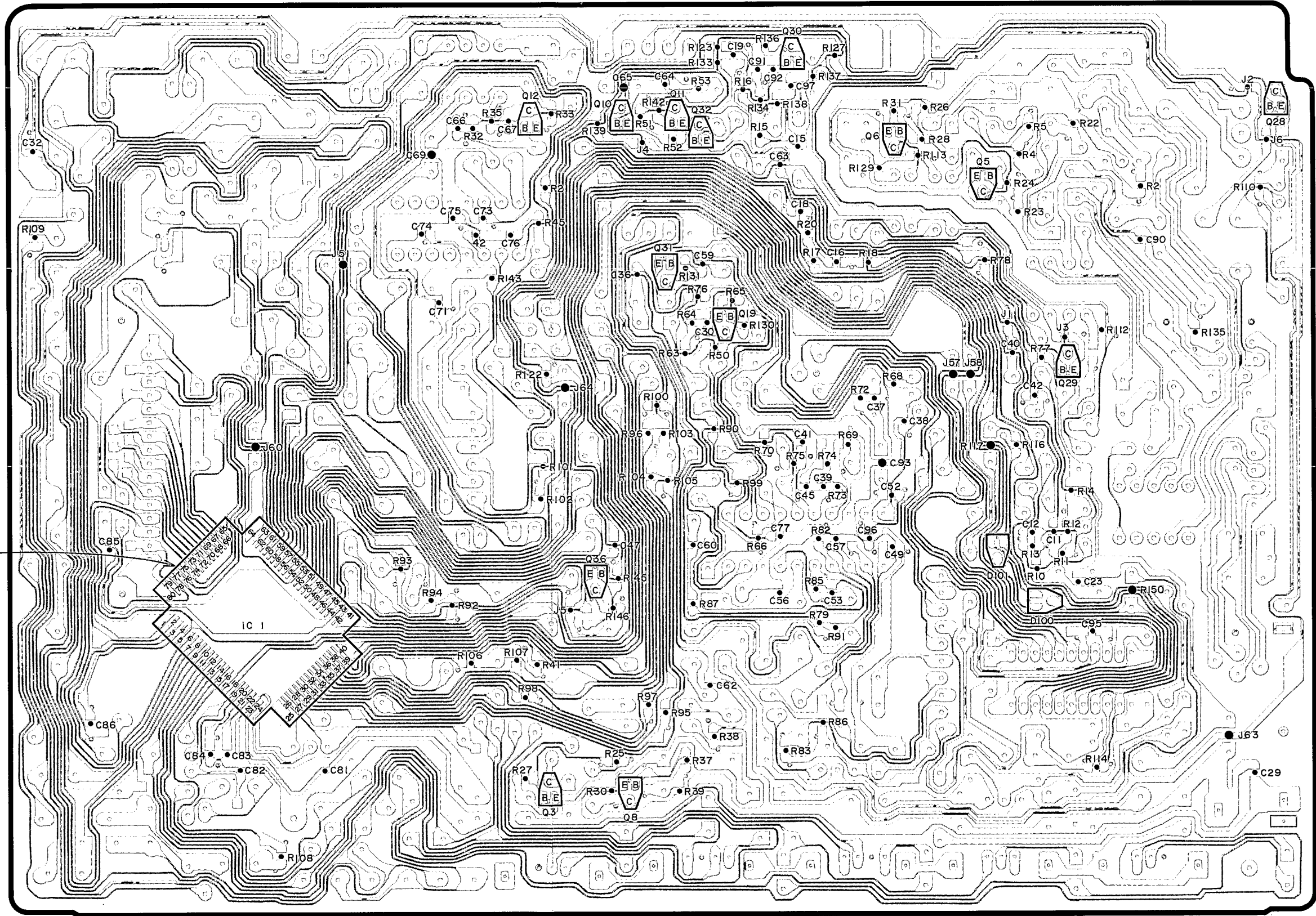
(See page 33)

(See page 33)

MAIN PRINTED CIRCUIT BOARD(BOTTOM VIEW) - KX-T5206E-1

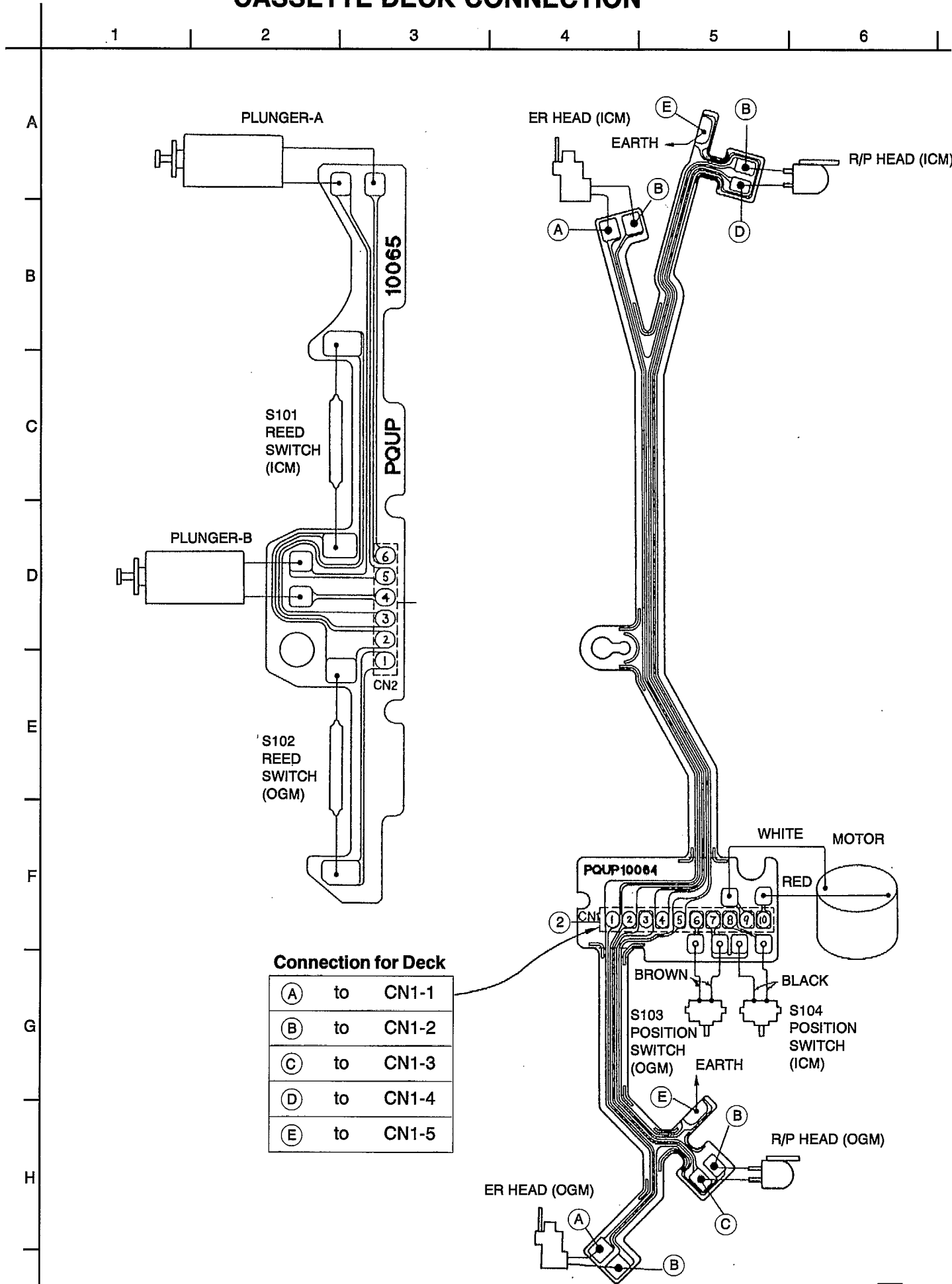
1 2 3 4 5 6 7 8 9 10 11 12

A
B
C
D
E
F
G
H



IC1	
Pin No.	Volatge
1	2.82
2	2.84
3	2.28
4	4.1
5	0
6	5.2
7-14	0
15	4.3
16	5.7
17	0
18	0
19	2.8
20	1.8
21	1.9
22	3.8
23	0
24	5.6
25	3.1
26	3.5
27	3.5
28	5.6
29	0
30	0
31	5.6
32	5.6
33	3.7
34-36	5.6
37	5.7
38-46	0
47	5.7
48-59	0
60	5.7
61-64	0
65	0.4
66	0.4
67-80	2.85

CASSETTE DECK CONNECTION

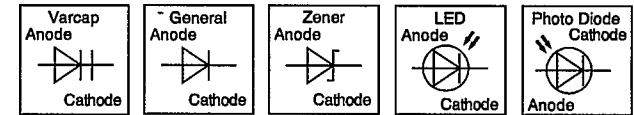


FOR SCHEMATIC DIAGRAM

1. S1: Message Alert switch.
2. S2: Rings switch.
3. S3: REC Time switch.
4. S4: Remote Code switch. (KX-T5006E-1 only)
5. S5: Vox Sens switch.
6. S101: FF switch.
7. S102: REW switch.
8. S104: Remote Code switch. (KX-T5206E-1 only)
9. S105: Greeting Check switch.
10. S106: Greeting Record switch.
11. S107: 2Way REC switch. (KX-T5206E-1 only)
12. S108: Memo switch.
13. S109: Day switch. (KX-T5206E-1 only)
14. S110: Hour switch. (KX-T5206E-1 only)
15. S111: Minute switch. (KX-T5206E-1 only)
16. S113: Time Check switch. (KX-T5206E-1 only)
17. S117: Volume Up switch.
18. S118: Volume Down switch.
19. S119: ICM Erase switch.
20. S120: Greeting Selector switch. (KX-T5206E-1 only)

21. S121: All Message Playback switch.
22. S122: New Message Playback switch.
23. S123: Answer On switch.
24. S124: Stop switch.

Important safety notice
 The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards.
 When servicing, it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

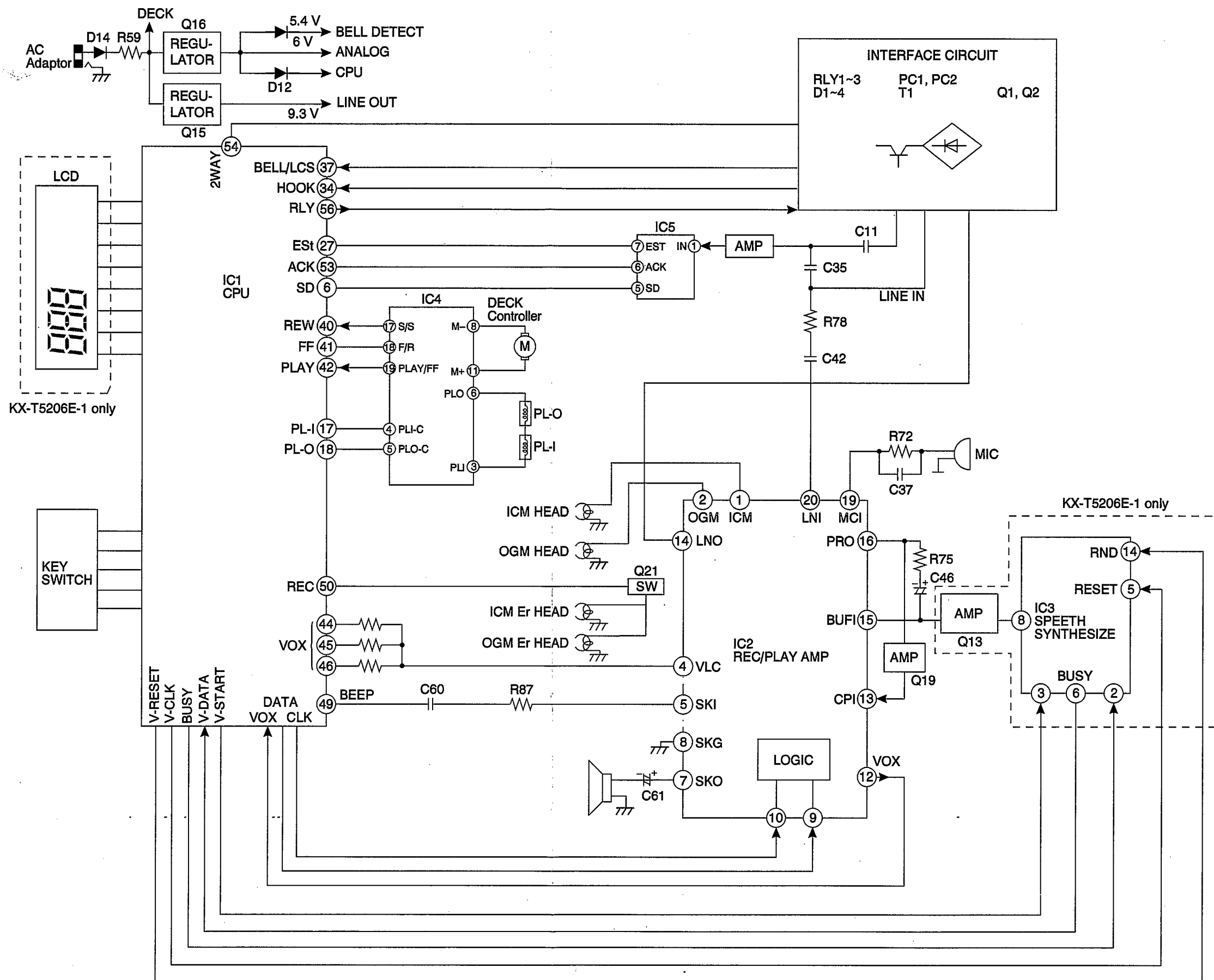


- DC voltage measurements are taken with electronic voltmeter from negative voltage line.
- "ANS SET" Standby position.
- This schematic diagram may be modified at any time with the development of new technology.

TERMINAL GUIDE OF ICs, TRANSISTORS AND DIODES

<p>PQVI70061D53 PQVI70081D54</p>	<p>PQVISC111812</p>	<p>PQVIMT3074AE</p>	<p>LN21RCPHV LN31GCPHU</p>	<p>PQVICS11160N</p>
<p>2SB1322 2SA1625 PQVTKSD261CY</p>	<p>2SA854 2SC3330</p>	<p>AN6658K</p>	<p>2SD2136</p>	<p>2SD1819A</p>
<p>PQVDS5688G</p>	<p>MA4180</p>	<p>MA4051</p>	<p>PQVDMTZ6R8 MA4036 MA4300 MA4100 1SS119</p>	

BLOCK DIAGRAM



CIRCUIT OPERATIONS

Note: The circuit diagram may be modified at any time with the development of new technology.

INTERFACE

Circuit Operation:

•OFF-HOOK CONDITION

In the idle mode, Pin 56 of IC1 when Low is cuts the DC current and decreases the ring load. When a ring voltage appears at the A and B leads (when the telephone rings), the AC ring voltage is transferred as follows: A → R1 → PC1 → S to close the telephone line loop and PC1 → Pin 37 of IC1 for processing through the unit.

Once the CPU detects the ring signal, thus providing an off-hook condition (active DC current flows through the circuit Q4, PC2 and Q29 turn on), the following signal flows is for the voice signal.

A → D1 → Q4 → Q1 → R6 → D9 → B

•ON-HOOK CONDITION

When Pin 37 of IC1 becomes Low, Q4, PC2 and Q29 turn off, hence Q4 is connected to cut the DC current and the voice signal. The unit is consequently in on-hook condition.

•2WAY (KX-T5206E-1 only)

In 2way mode, RLY2 changes the connection. So, AC signal loop is made up this loop is;

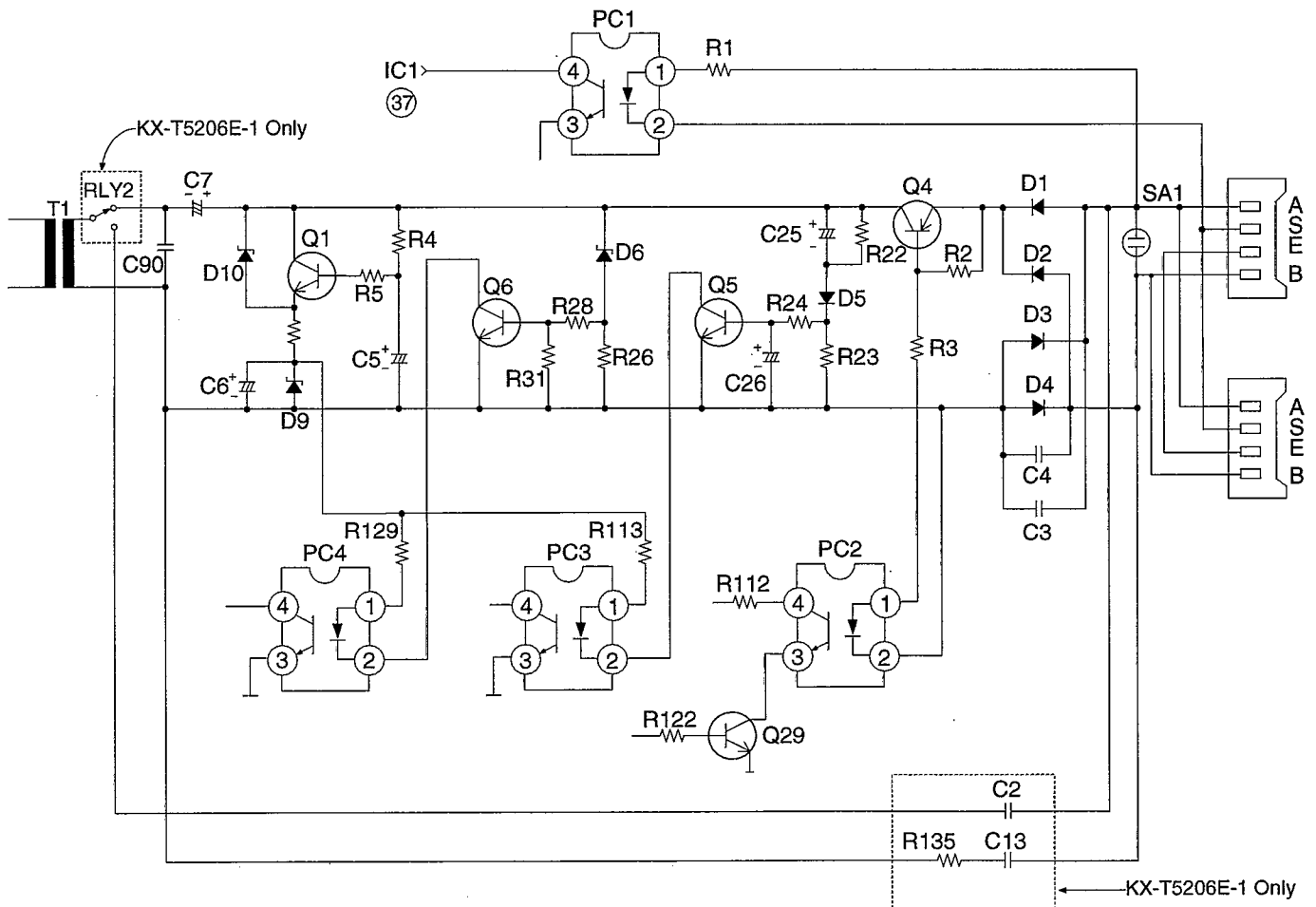
A → C2 → RLY2 → T1 → R135 → C13 → B

So, this unit will record the conversation of telephone line, and C2 and C13 acts as the block of DC current flow.

•SPECIFICATION

Surge Absorber, SA1 provides Surge protection.

Circuit Diagram



INITIALIZING CIRCUIT

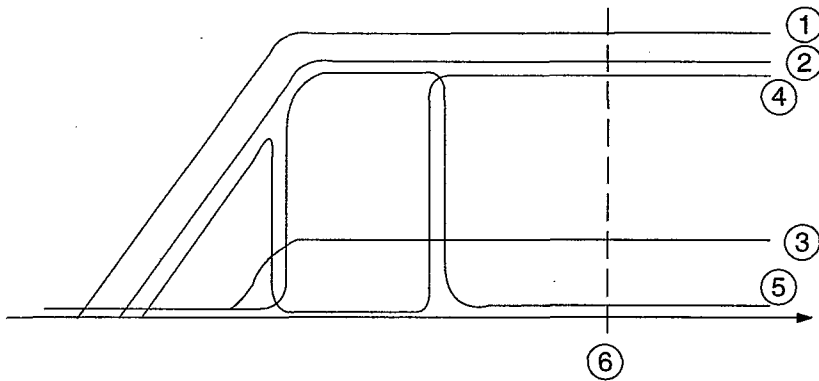
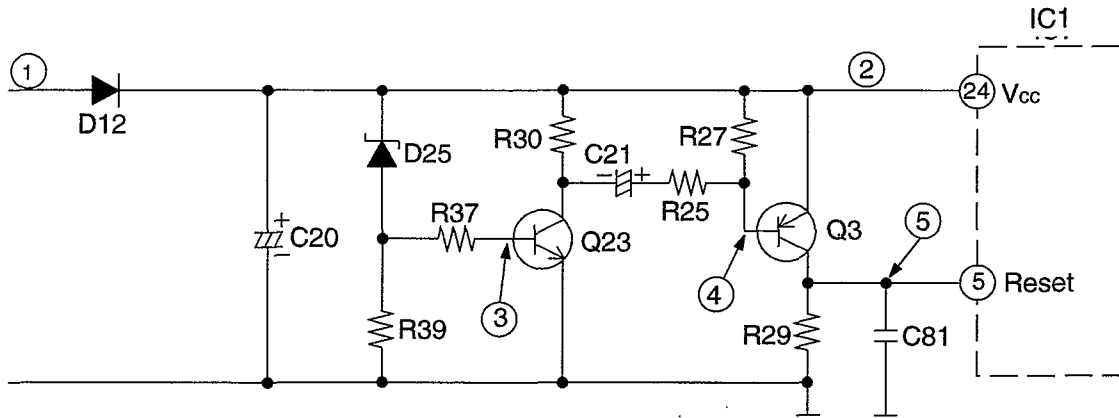
Function:

This circuit is used for to initialize the microcomputer when it incorporates an AC adaptor.

Circuit Operation:

When the AC Adaptor is inserted into the unit, then the voltage is shifted by D12 and power is supplied to the CPU. The set can operate beyond point A in the circuit voltage diagram.

Circuit Diagram



TAPE TRANSPORT CONTROL

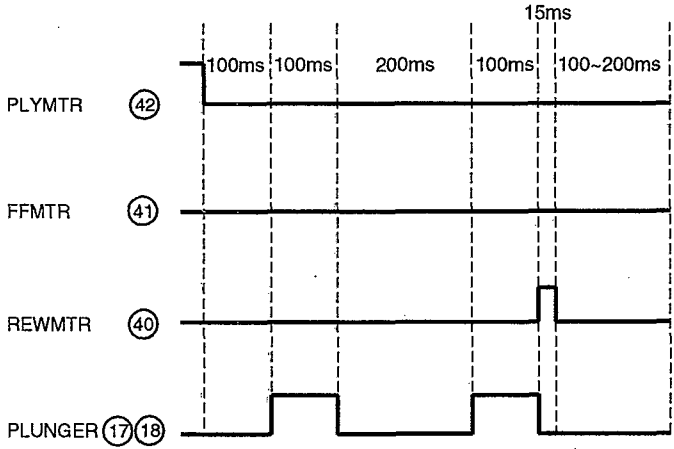
Circuit Operation:

The timing for the plunger and motor switch are used to operate the deck is as shown in the timing chart.

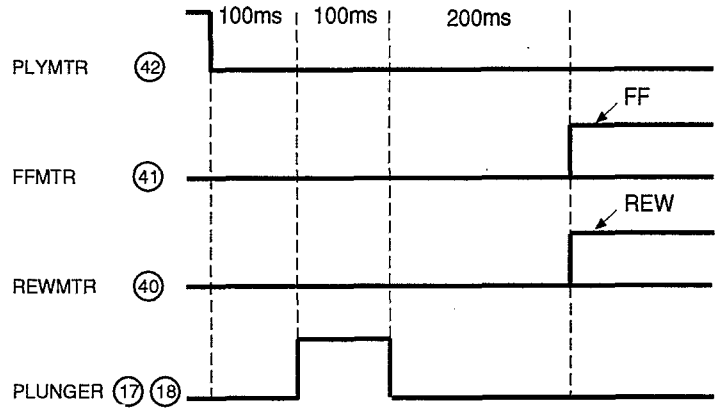
Greeting Message

Timing Chart

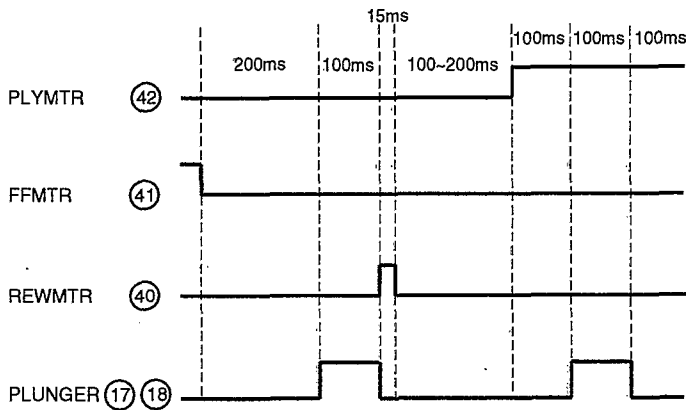
PLAY/REC → STOP



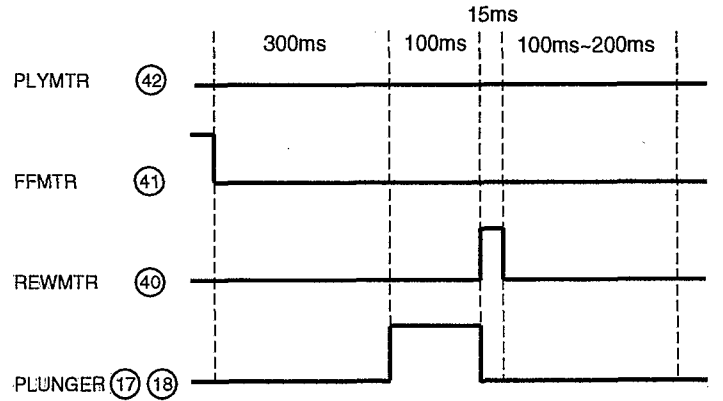
PLAY/REC → FF/REW



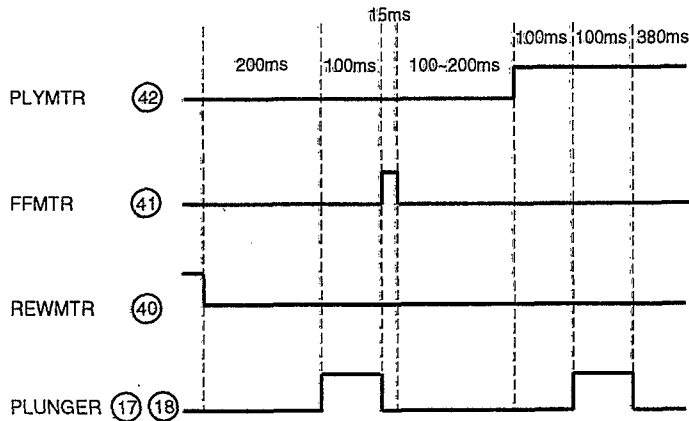
FF → PLAY/REC



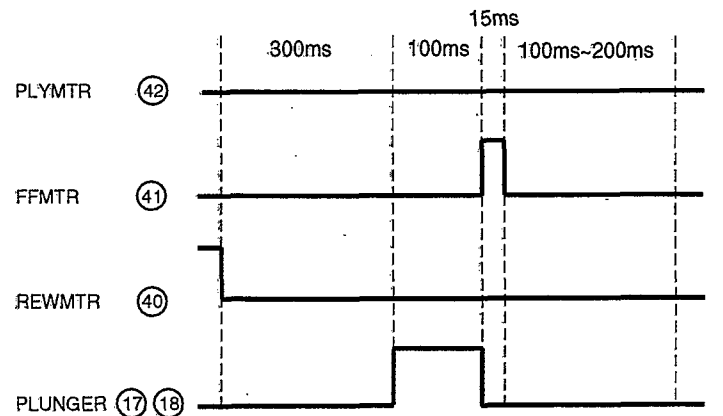
FF → STOP



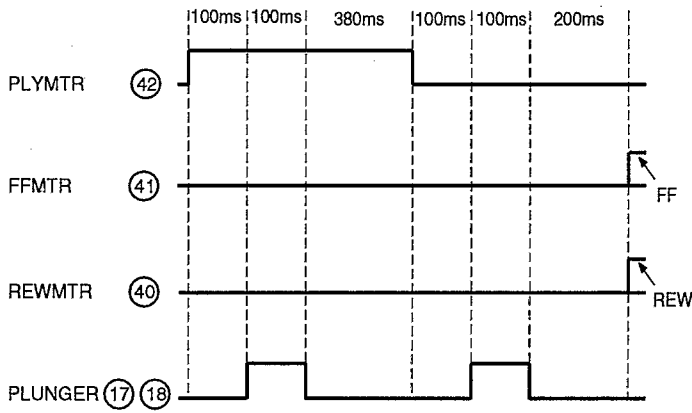
REW → PLAY/REC



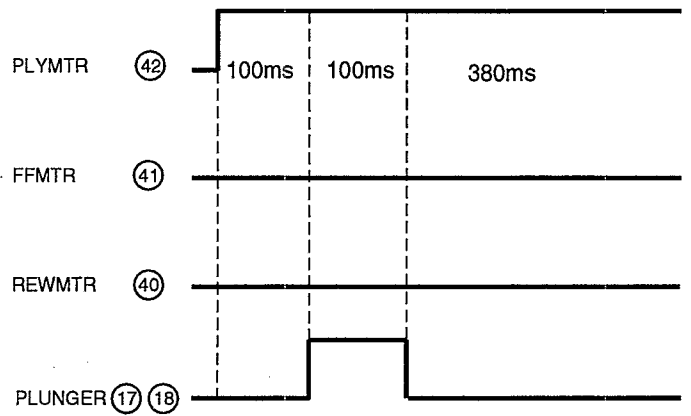
REW → STOP



STOP→FF/REW

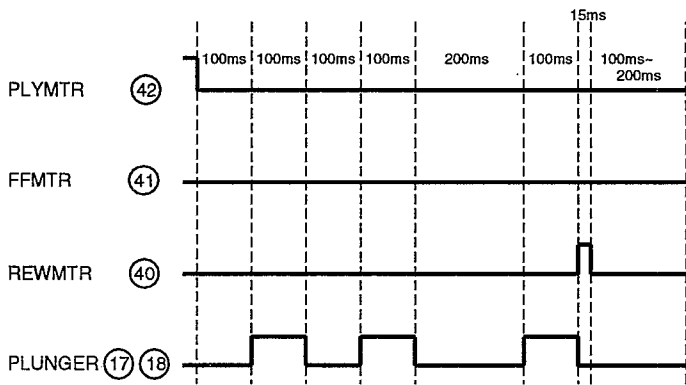


STOP→PLAY/REC

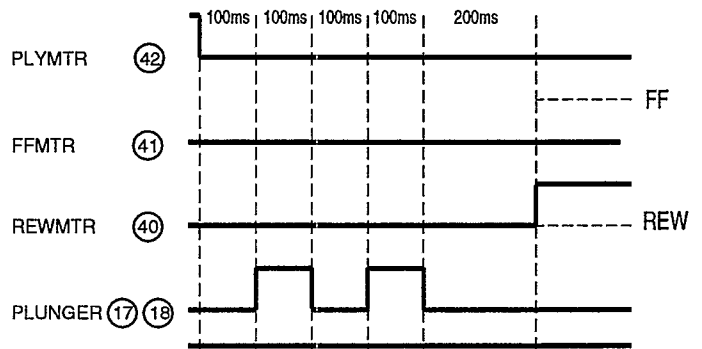


Incoming Message

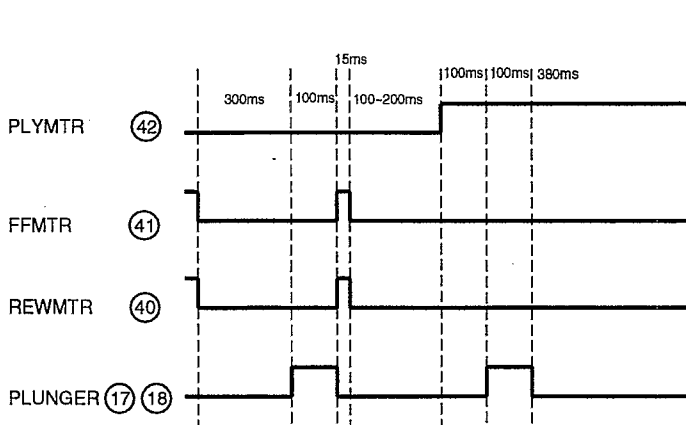
PLAY/REC→STOP



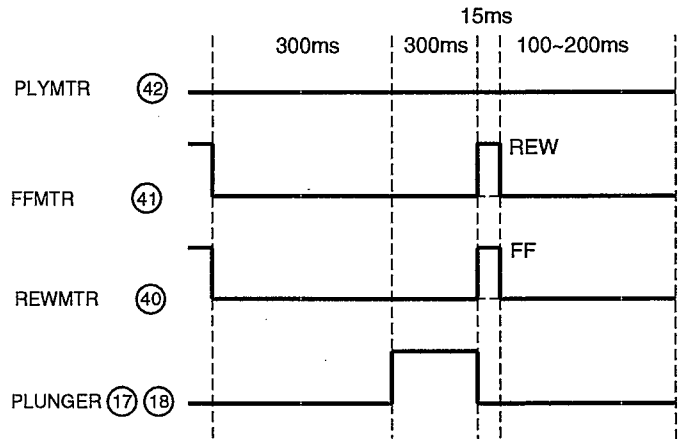
PLAY/REC→FF/REW



FF/REW→PLAY/REC

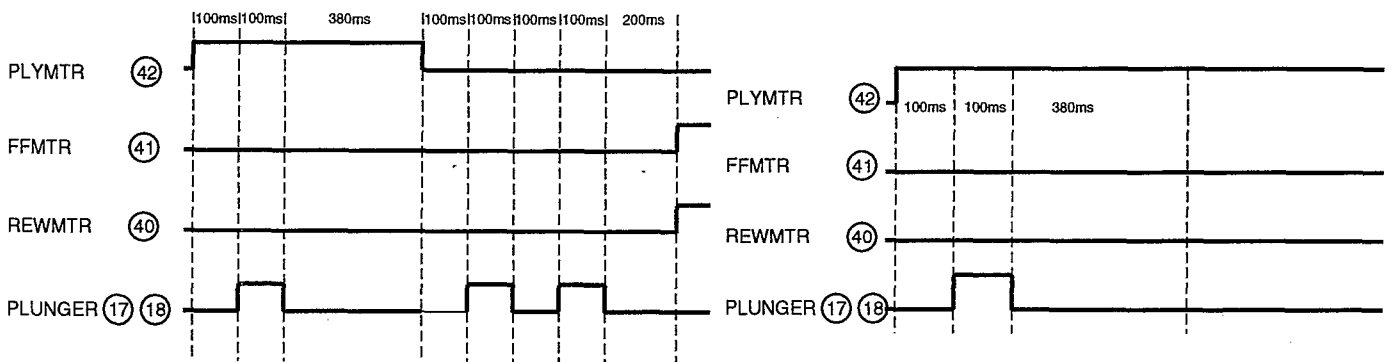


FF/REW→STOP



STOP → FF/REW

STOP → PLAY/REC

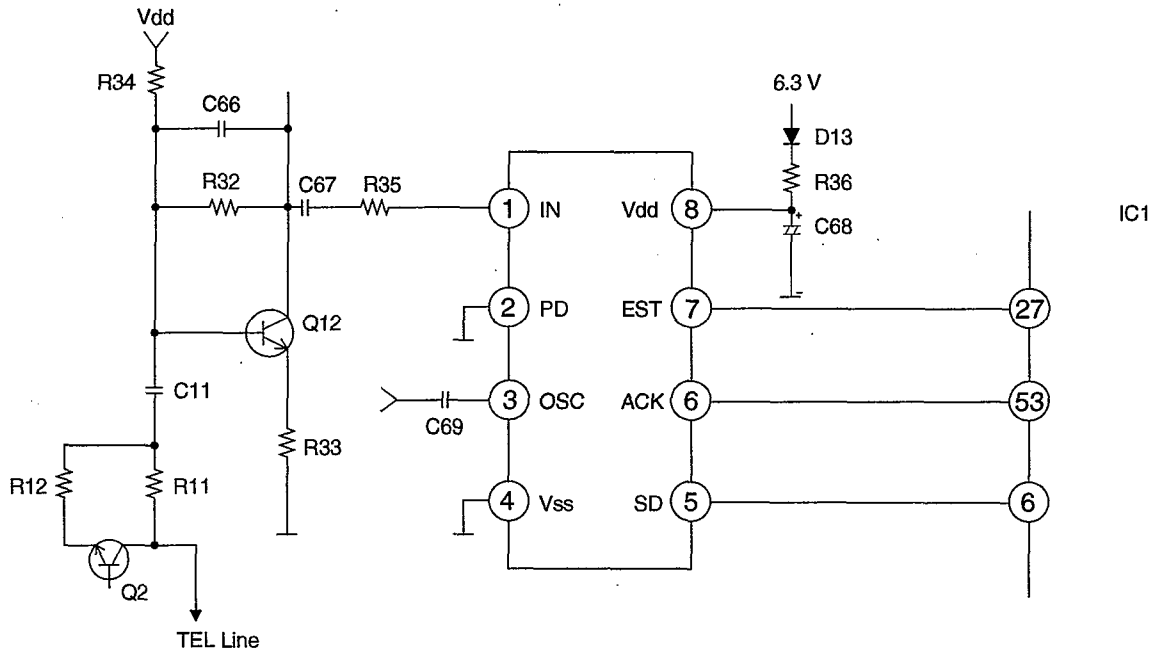


REMOTE SIGNAL DETECTOR CIRCUIT

Circuit Operation:

A remote control signal is used with the dual-tone multiple-frequency (DTMF) signal. Telephone Line → R11 → C11 → Base of Q12 → Collector of Q12 → C67 → R35 → Pin 1 of IC5. The DTMF signal is inputted to IC5 which changes the 4 bit serial data and is inputted it to Pin 6 of IC1.

Circuit Diagram



PLAYBACK CIRCUIT (OGM, ICM MESSAGE)

Circuit Operation:

The playback signal for OGM and ICM MESSAGE is selected by IC5.

- ICM
ICM R/P → C 51 → Pin 1 of IC2 → Pin 16 of IC2 → R75 → C46 → Pin 15 of IC2 → Pin 7 of IC2 → C61 → SPEAKER.
- OGM
OGM R/P → C 54 → Pin 2 of IC2

Circuit Diagram See Page 44

OGM END DETECTOR CIRCUIT

Circuit Operation:

When the Stop Button is pressed upon completion of the OGM recording, no sound signals are recorded on the tape. A no-sound detection system is used during playback. If a no-sound condition exists for 2 seconds, CPU detects the OGM end by the output of Vox Circuit (Fig. C).

Circuit Diagram

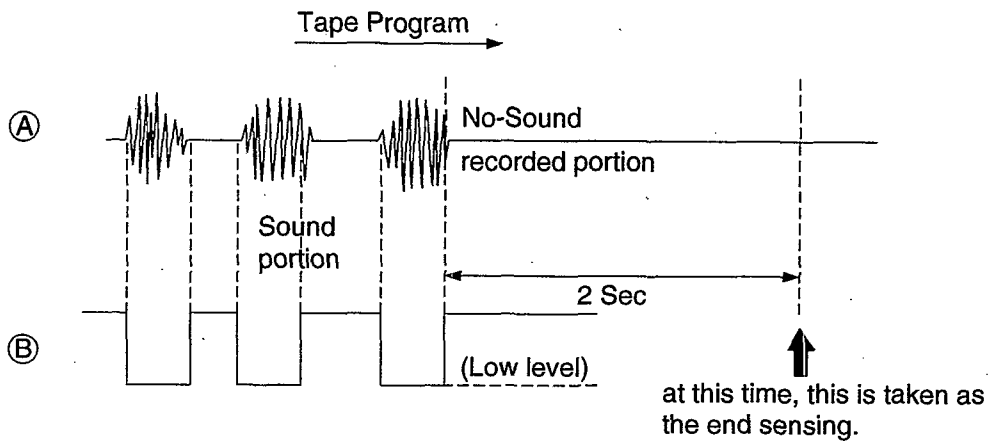
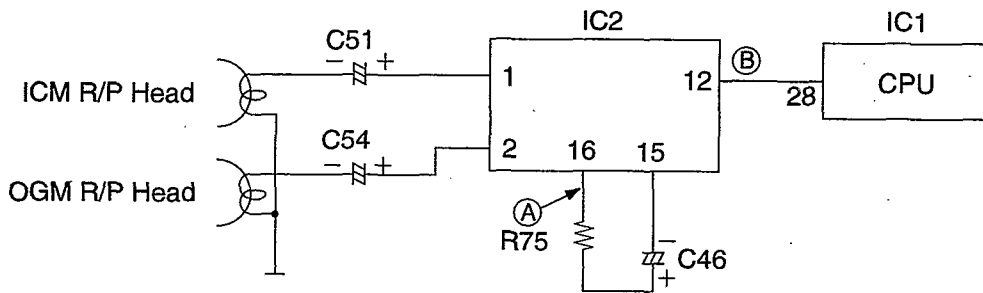


Fig. C

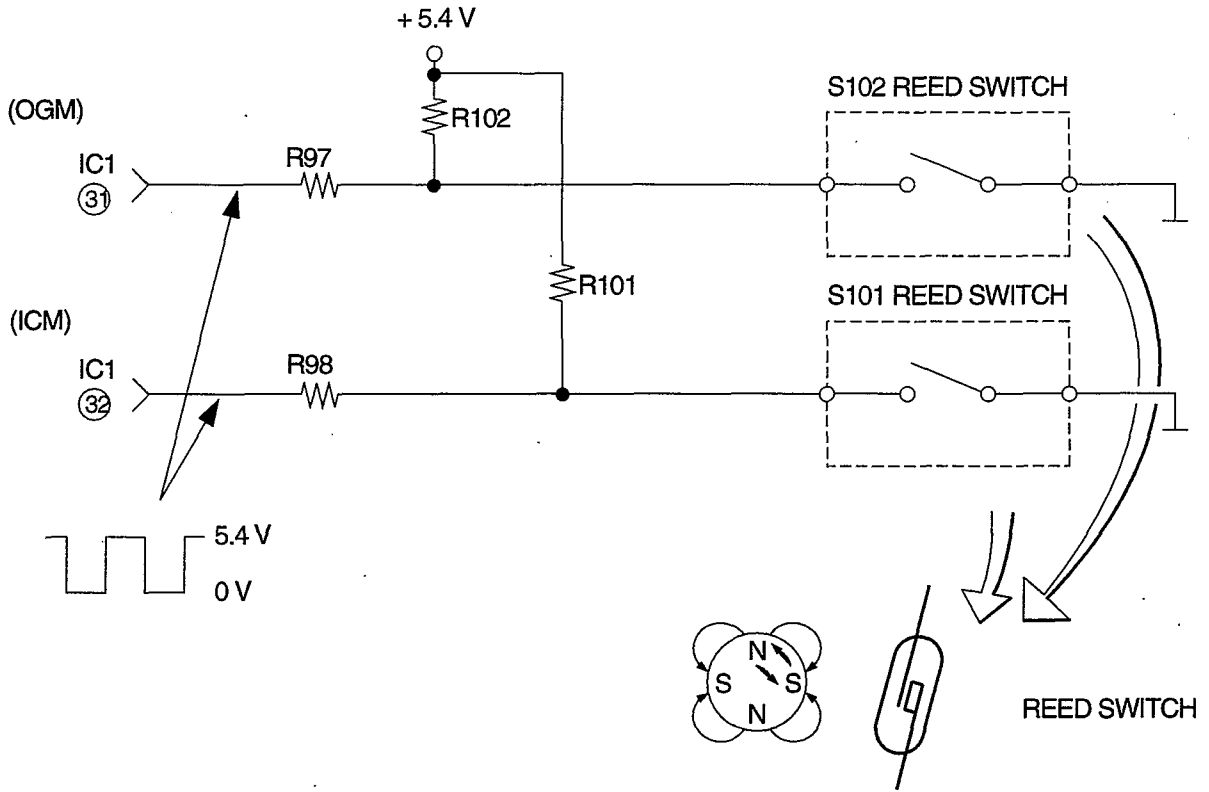
■ ICM AND OGM TAPE ROTATION DETECTOR CIRCUIT

Circuit Operation:

When there are changes in the direction of the magnetic field caused by the rotation of the four-pole ferrite magnet, they are detected by the Reed Switch. This output is added to the microcomputer input.

Reed Swith (S101) → R98 → Pin 32 of IC1 (ICM)
 Reed Swith (S102) → R97 → Pin 31 of IC1 (OGM)

Circuit Diagram



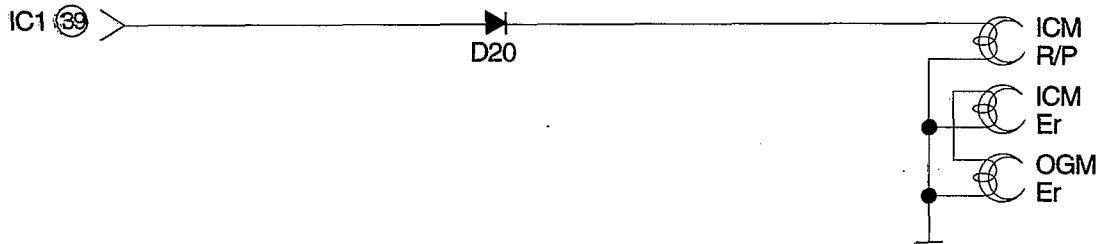
■ QUICK ERASE CIRCUIT

Circuit Operation:

If the erase switch is turned on, DC current will flow as follows:

Pin 39 of IC1 (High Level) → D20 → ICM R/P Head

Circuit Diagram



RECORD CIRCUIT

Circuit Operation:

(Recording signals)

Recording signal from the telephone line or MIC is selected by IC2.

The recording signal flows as follows:

Mic → R67 → R72 → C93 → Pin 19 of IC2 → Pin 16 of IC2 → R75 → C46 → Pin 15 of IC2 → Pin 1 of IC2 → C75 → ICM Head

Tel line → R78 → C42 → Pin 20 of IC2

→ Pin 2 of IC2 → C54 → OGM Head

(Signal)

The beep tone is generated by IC1.

The beep tone of the ICM recording (from pin 48 of IC1) is processed in the ICM recording head via C47 and R80.

(Erase)

When in the Rec mode, pin 52 of IC1 is Low.

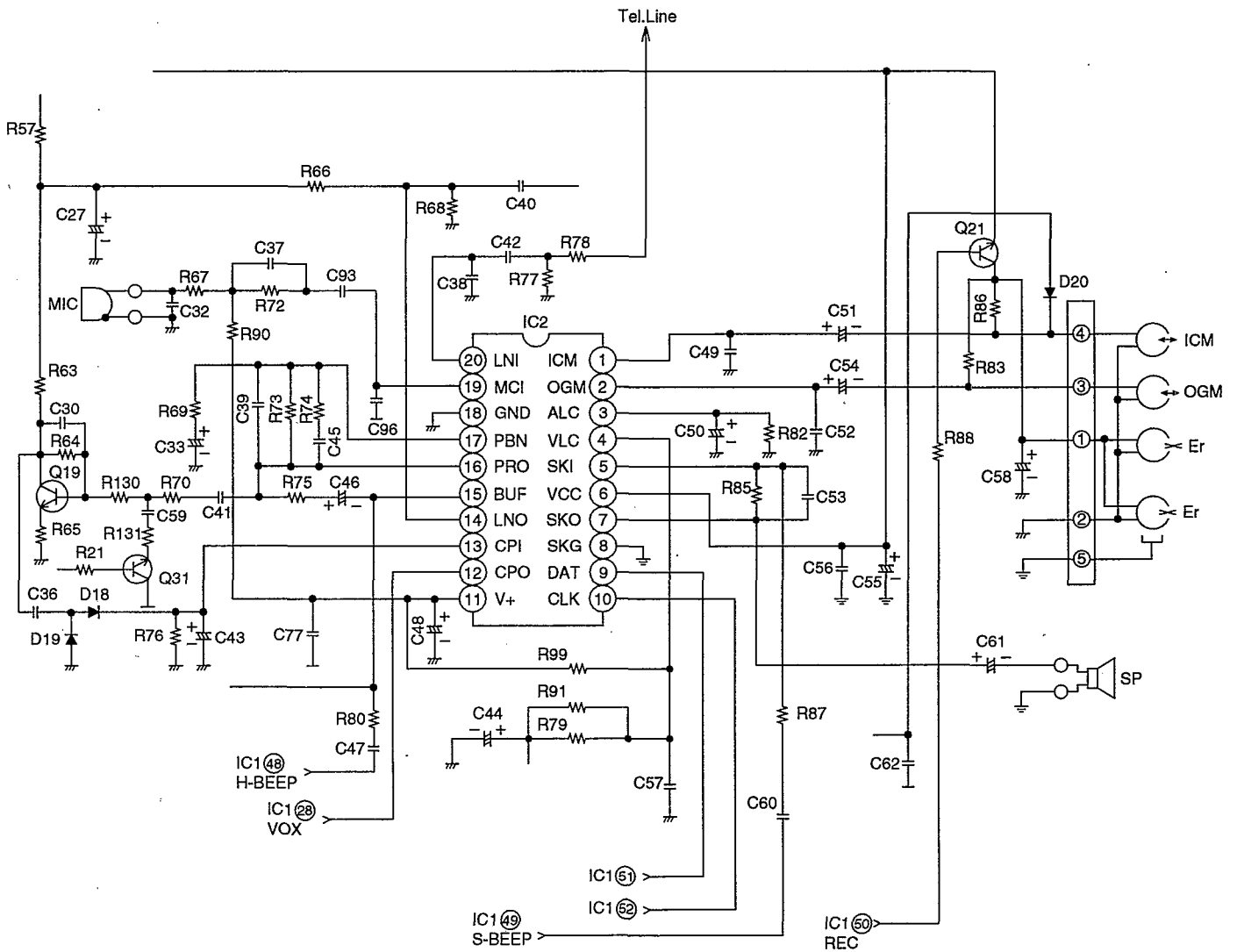
The voltage is applied to the Erase Head, thus the Erase Head is activated.

The bias current is applied to the R/P Head via Q21, R83 and R86.

The DC current flow is as follows;

6 V DC → Q21 turns ON (by High level of Pin 50 of IC1) → Collector of Q21 → Emitter of Q21 → Erase Head.

Circuit Diagram



MONITOR CIRCUIT AND SPEAKER MUTE CIRCUIT

Circuit Operation:

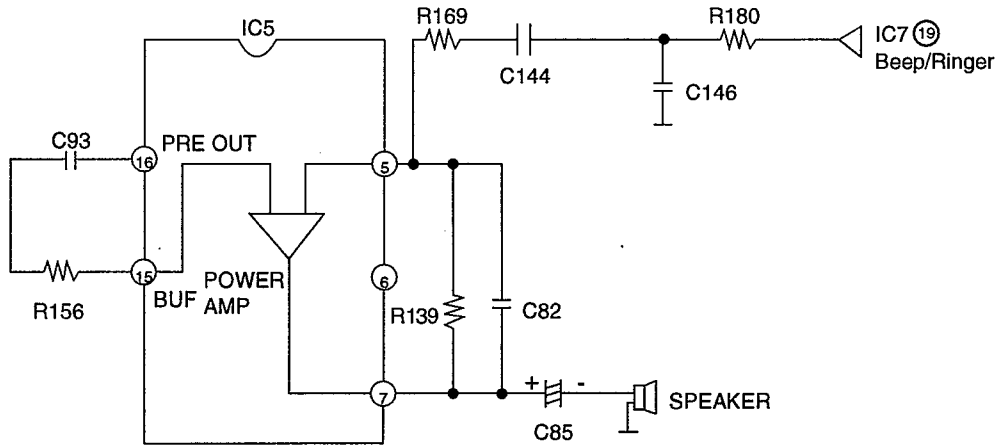
The monitor signal flow is as follows:

The Line signal and Head signal are amplified by IC5 in each mode. Then these signals appear at Pin 7 of IC5.

Pin 16 of IC5 → C93 → R156 → Pin 15 of IC5 → Pin 7 of IC5 → C85 → Speaker.

The speaker beep tone path: Pin 19 of IC7 → R180 → D36 → R169 → Pin 5 of IC5 → Pin 7 of IC5 → C85 → Speaker.

Circuit Diagram



SPEECH SYNTHESIS SIGNAL CIRCUIT (KX-T5206E-1 only)

• Audio speaker monitor source:

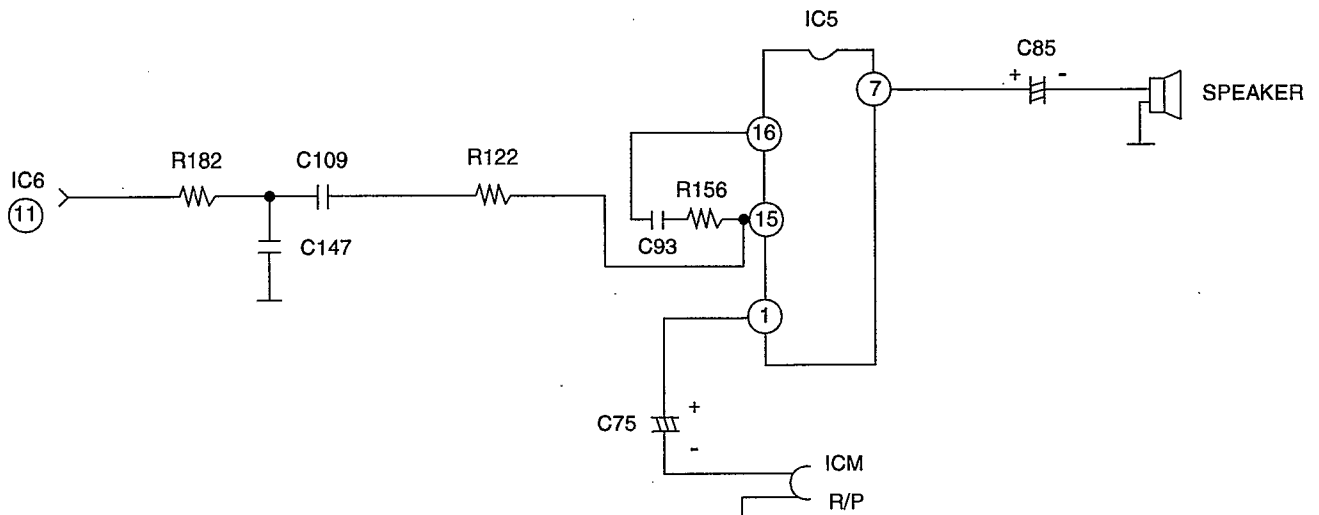
In the circuit diagram, the audio signal from Pin 11 of IC6 takes the following path to the monitoring speaker.

Pin 11 of IC6 → R182 → C109 → R122 → Pin15 of IC5 → Pin 7 of IC5 → C85 → Speaker.

• Audio record signal source:

Pin 11 of IC6 → R182 → C109 → R122 → Pin15 of IC5 → Pin1 of IC5 → C75 → ICM Head.

Circuit Diagram

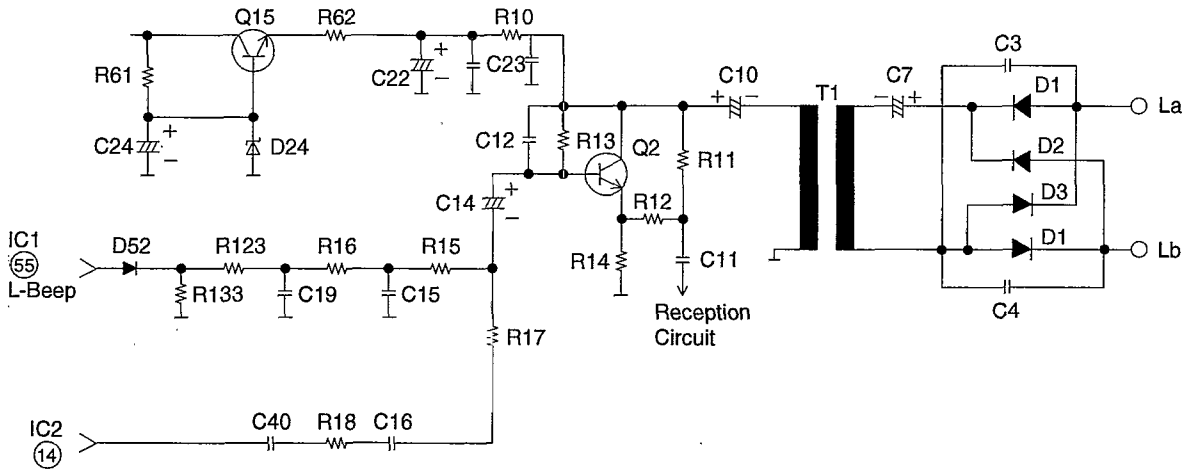


■ LINE OUTPUT CIRCUIT

Each signals are sent to the telephone line as follows.

- (Beep Tone) → Pin 20 of IC7 → R170 → C103 → Q35 → T1 → C10 → R21 → Q1 → D6 → Telephone Line.
- (Tape Playback Signal) Pin 14 of IC5 → R148 → C145 →

Circuit Diagram



■ VOX CIRCUIT

Function:

The VOX circuit is designed to detect cyclic signals in which the signal is ON for 100 msec. to 1 sec, continuous sounds and no sound at all.

After detection, the CPU issues an instruction that makes VOX operation possible.

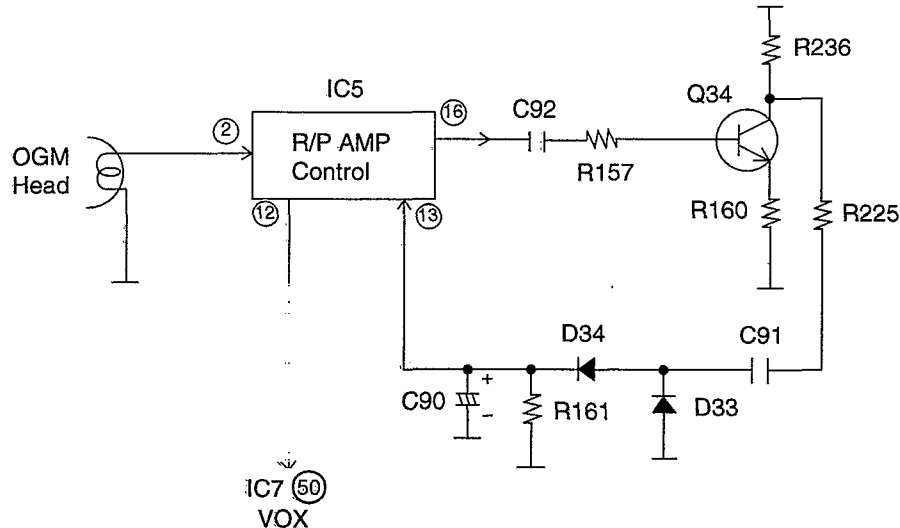
This means that when a telephone call has ended, the phone is reset and is ready to receive the next call.

Circuit Operation:

A signal output from terminal Pin 16 of IC5 passed through C92, R157 and inputted to Pin 13 of IC5 → Pin 12 of IC5 → Pin 50 of IC7.

When sound is present, the output at Pin 12 of IC5 becomes a low level, while no-sound its output becomes a high level.

Circuit Diagram



■ POWER SUPPLY CIRCUIT

Function:

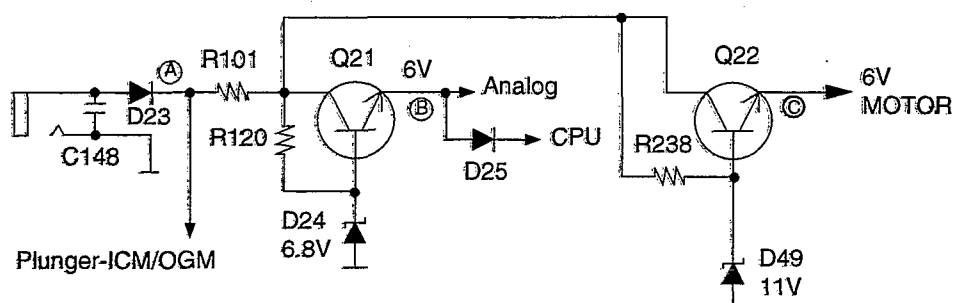
Power from the AC adapter passes through the 1-stage regulating block consisting of Q21, Q22 and provides system voltages of 6V.

Circuit Operation:

Power from the AC adapter is supplied directly to IC4 (A). Q21 is the first stage regulated power supply. The voltage at point B is regulated to 6 V by the 6.8 V zener voltage of D24. The 6 V voltage is shifted by D25 to 5.4 V which is used to power the CPU, etc.

Q22 is the first stage regulator power supply. The voltage at point C is regulator to 10V by the 11V zener voltage of D24. The 6V It's power circuit etc.

Circuit Diagram



■ MOTOR DRIVE CIRCUIT

Playback (or Recording)

When Pin 40 of IC7 becomes Low and Pin 39 of IC 7 becomes Low and Pin 38 of IC 7 becomes High. The governor (IC4) is activated and the motor voltage is regulated, hence the motors rotate at a constant speed.

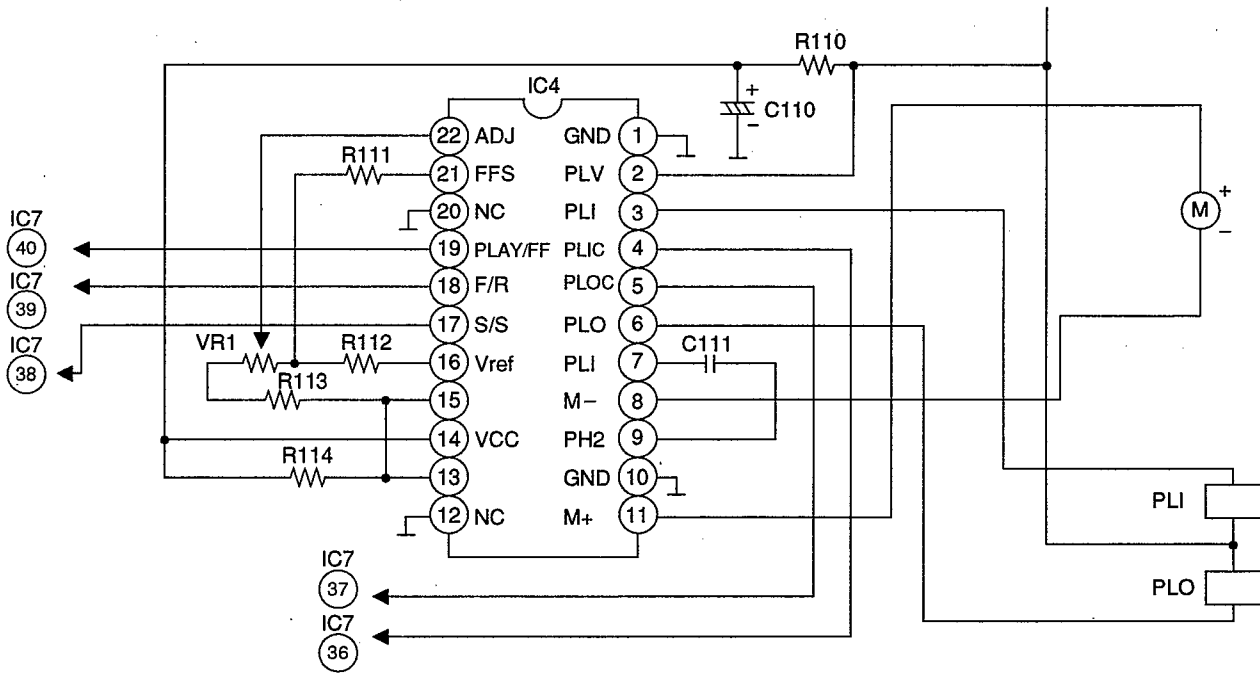
Fast Forward

Pin 40 of IC7 becomes High and Pin 39 of IC7 becomes Low and Pin 38 of IC7 becomes High→the governor (IC4) is activated → the motor rotates at high speed.

Rewind

Pin 40 of IC 7 becomes High and Pin 39 of IC 7 becomes High and Pin 38 of IC 7 becomes High→the governor (IC4) is activated → the motor rotates at high speed in the reverse direction.

Circuit Diagram



■ DISPLAY CIRCUIT (KX-T5206E-1 Only)

IC1 drives the LCD.

When the power down is High, the voltage for the LCD indication will be produced through C81 and C82.

Vdd=Vdd

V1 = 2/3 Vdd

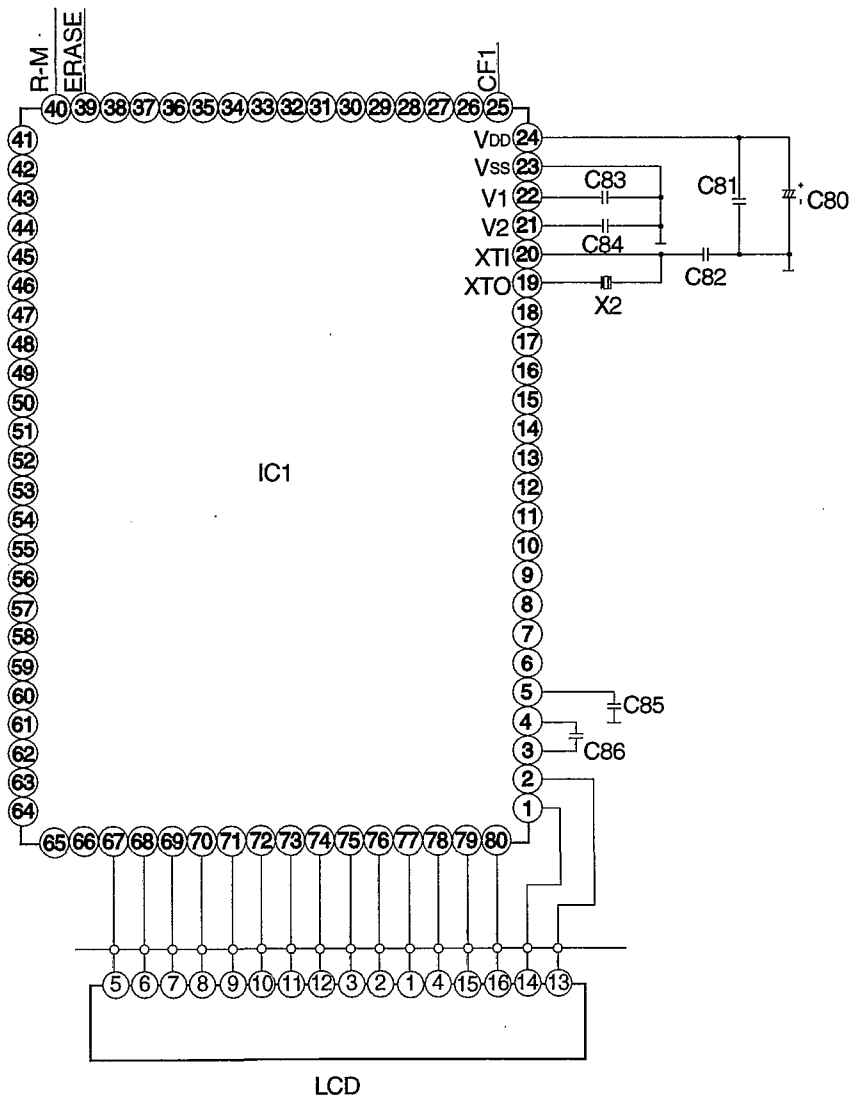
V2 = 1/3 Vdd

Vdd=5V. The voltage of 5V will be provided to the LCD.

There are clock oscillation consisting of X2 and C82.

When Vdd voltage is less than 2V, clock oscillation stop.

Circuit Diagram



TROUBLESHOOTING GUIDE

1) FLOW CHART for DECK

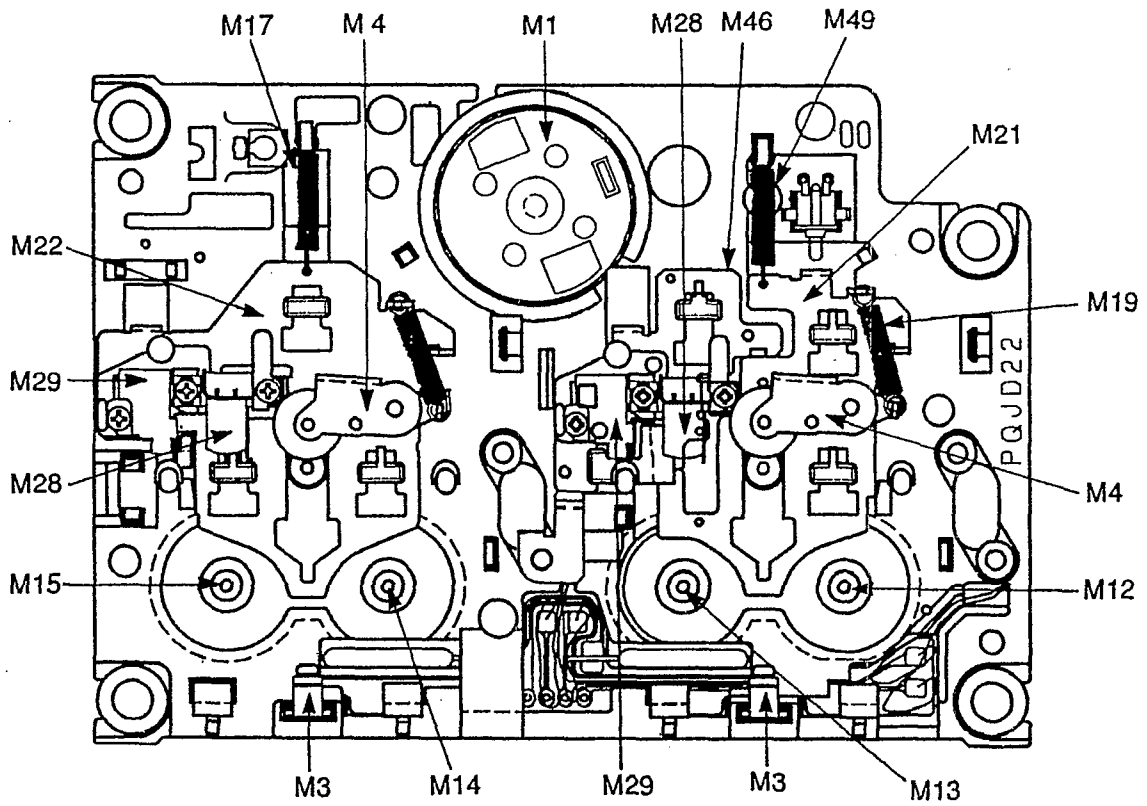


Fig. 9

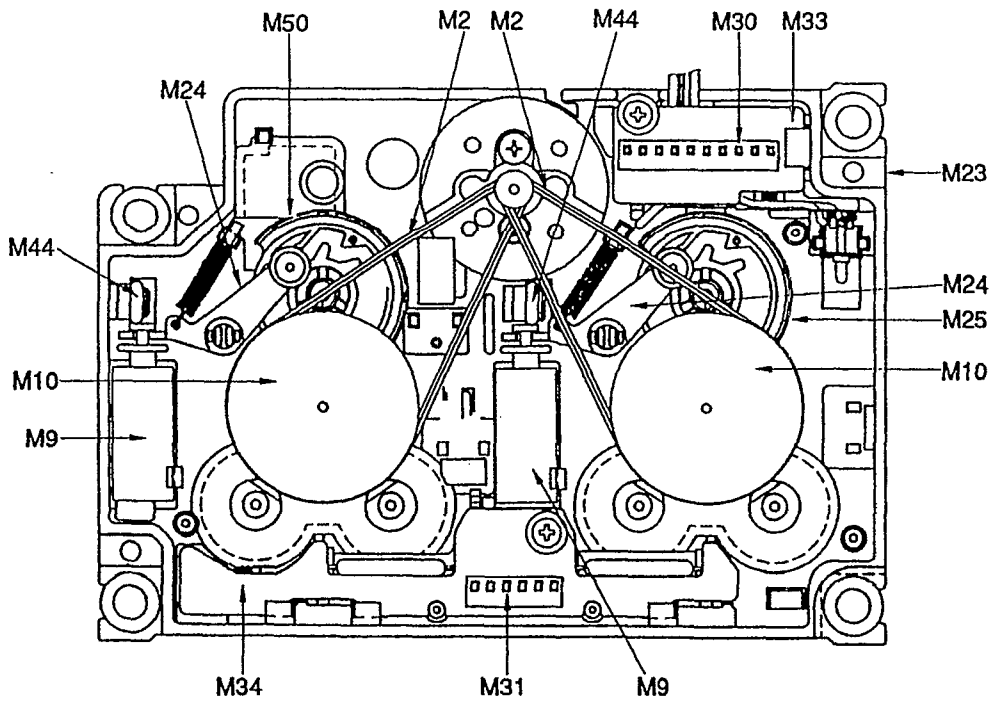
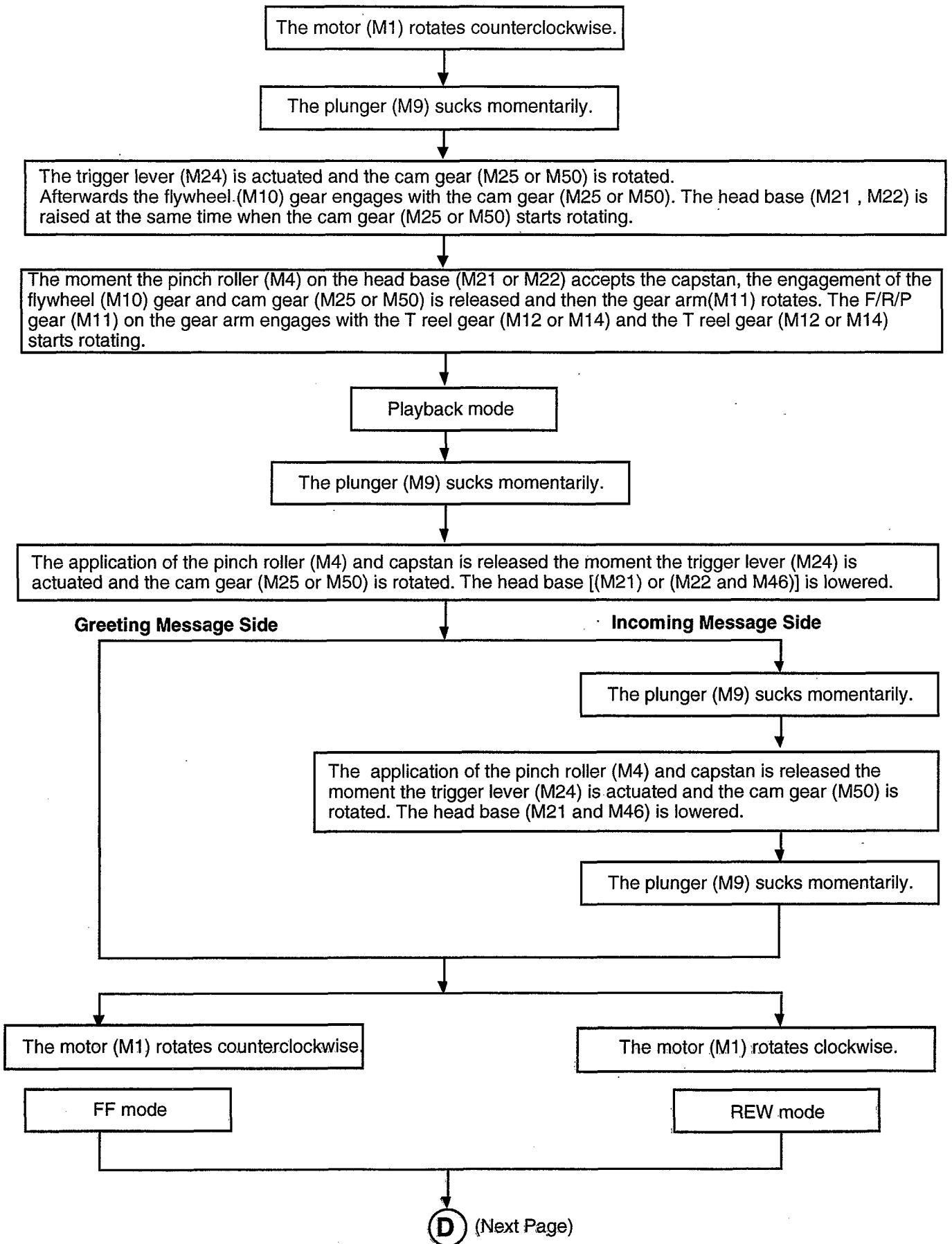
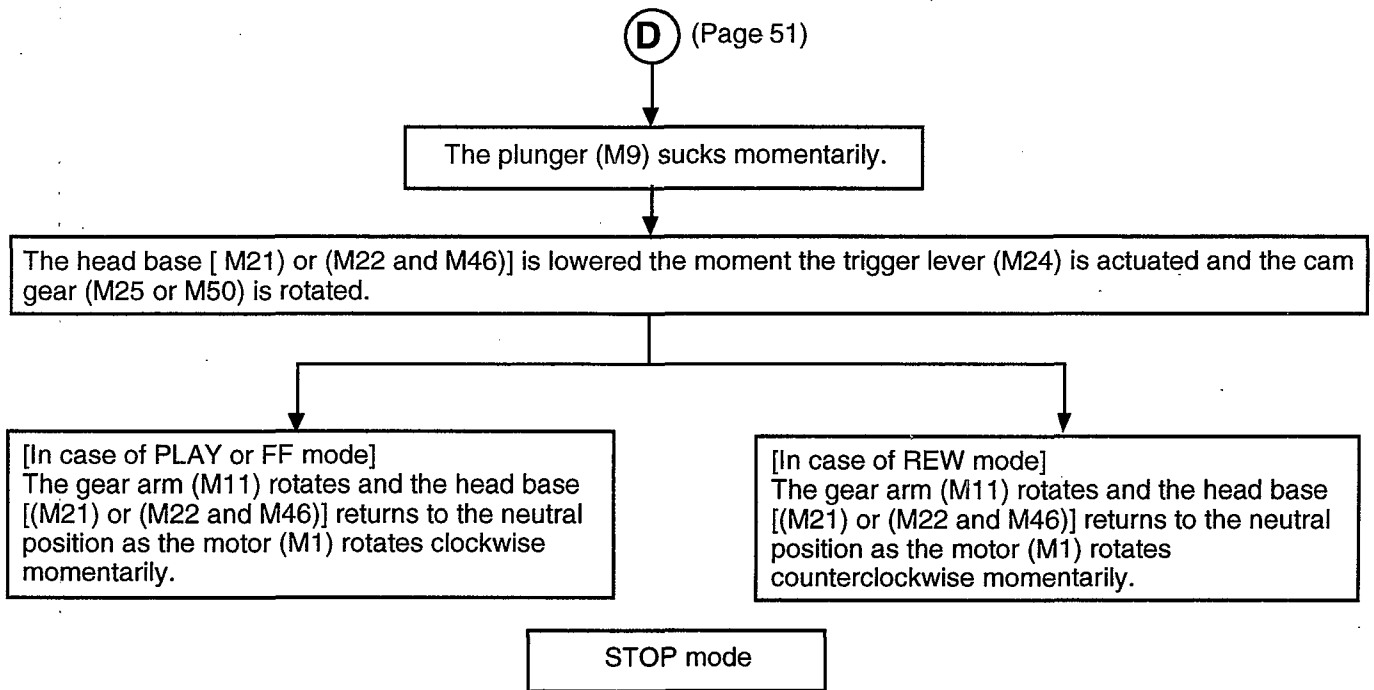


Fig. 10



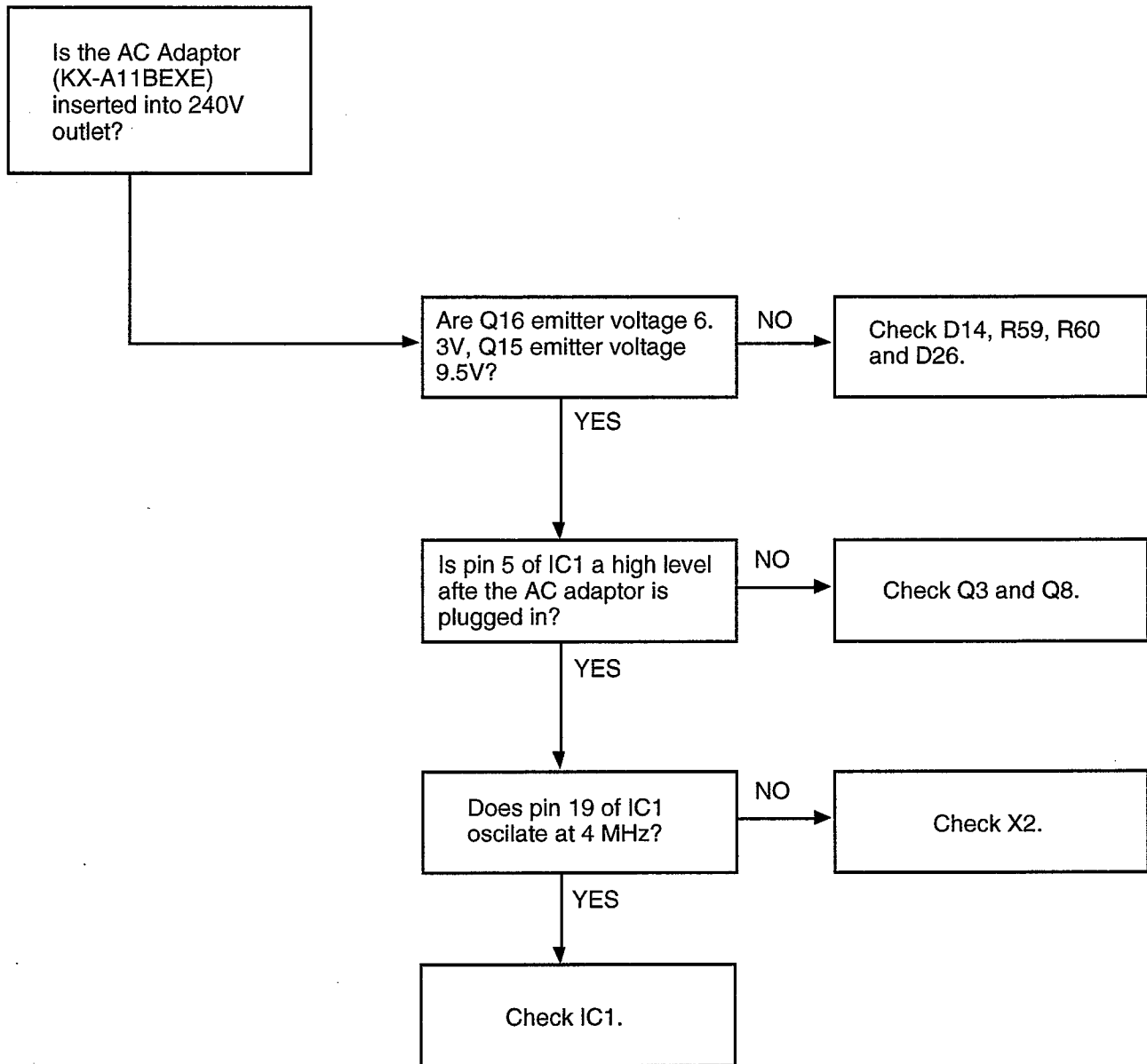
D (Page 51)



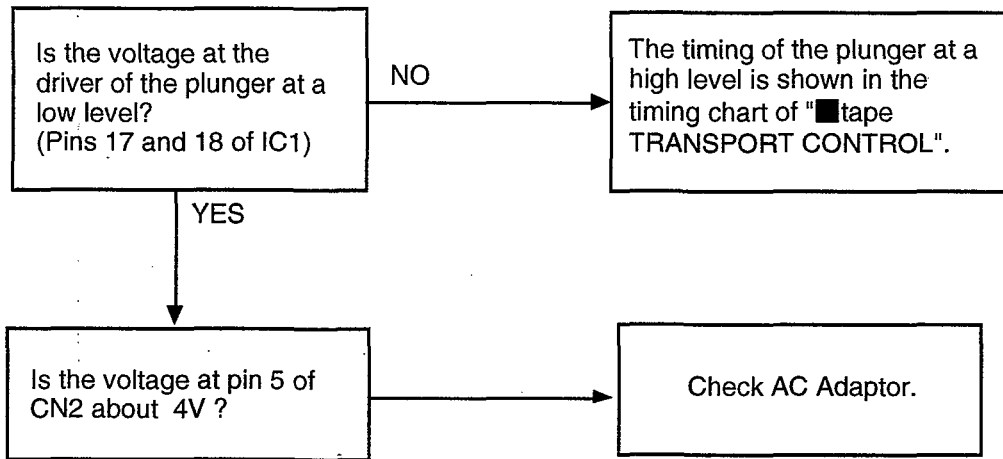
2) SERVICE HINTS

SYMPTOM	CURE
Unit will not respond to remote.	Check IC1.
Will not answer.	Check PC1.
OGM/ICM has distorted audio.	Check Speaker.
Would not record OGM and OGM stops after 3 second.	Check IC2.
Hangs up when OGM starts.	Check Q2. For bad solder joints.
Dead from factory.	Check R59, R60 and D26.
Will not record OGM end of message beep.	Check IC1 and IC2.
No remote function.	Check IC5.
Motor turns on and off constantly.	Check IC1, IC4, CN1 and CN2.
OGM clicks on then off.	Check IC1, IC4, CN1 and CN2.
ICM eats tapes.	Small belt off or is not on lower side of tension pulley.
No power.	Check R59 for open or heat also check D26 causing R60 to heat.
Plunger ICM (OGM) is not functioning.	Check IC1, IC4, CN1 and CN2.
Will not answer ring.	Check R1, D7 and R3 coming apart from P.C.Board.
OGM will not stay long enough.	Check splder contacts around IC1 and IC2.
No function.	Check Q15 and Q16.

3) FUNCTIONS DO NOT OPERATE.



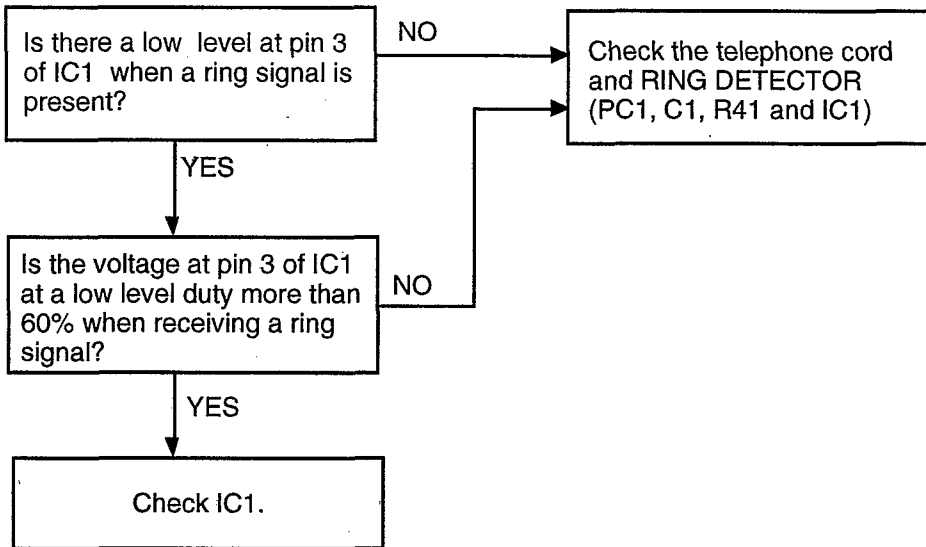
4) THE PULL OF PLUNGER IS POOR NONE AT ALL.



5) OGM END MARK DETECTION.
Check the Vox Circuit.

6) FAST ERASE DOES NOT WORK
Check D20 and IC1.

7) DOES NOT ANSWER TELEPHONE CALL



- 8) •ICM CONTINUES TO RECORD AFTER THE CALLER HANGS UP.
•END OF MESSAGE IS CLIPPED WHEN CALLER HANGS UP.

When caller hangs up, the KX-T5006E-1/KX-T5206E-1 can detect the following 4 signal type.

- A. CPC pulse.
- B. Dial tone or other continuous tones.
- C. Silence.
- D. Cycle signals.

A. Check CPC DETECTOR CIRCUIT (Q6, D6, PC4, IC1)

B., C., D.

Check VOX DETECTOR CIRCUIT (Pin 12 of IC2, Pin 28 of IC1, C41, R70, Q19, C36, R76, D18, D19.)

- 9) REMOTE CONTROLLER DOES NOT WORK OR RESPONSE IS POOR.

The following are considered for the causes of no remote reception:

- A. The security code may not be the same as set on the unit.
- B. High distortion in LINE OUTPUT CIRCUIT causing interference between the transmitting signal and the remote signal.
- C. Excessive loss in telephone line.

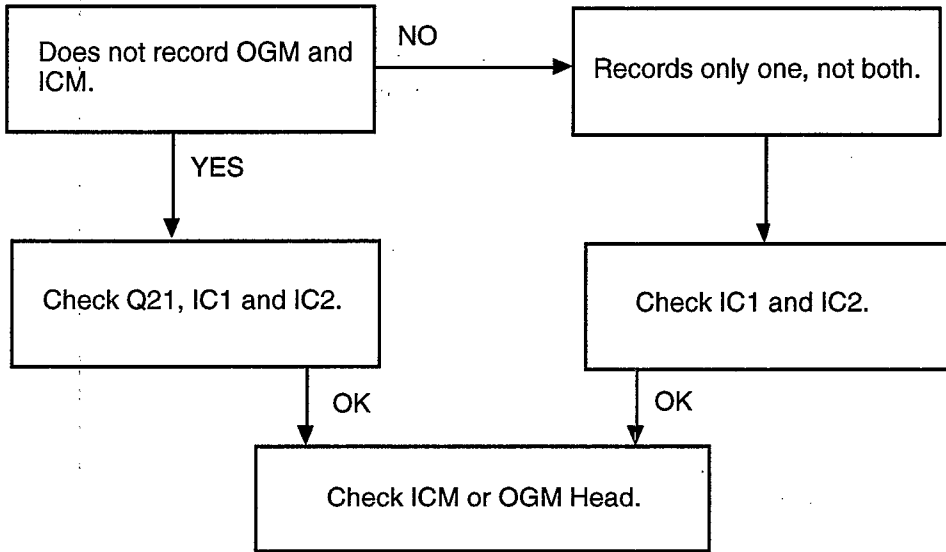
A. Check the security code of the unit.

B. Check LINE OUTPUT CIRCUIT (Q2)

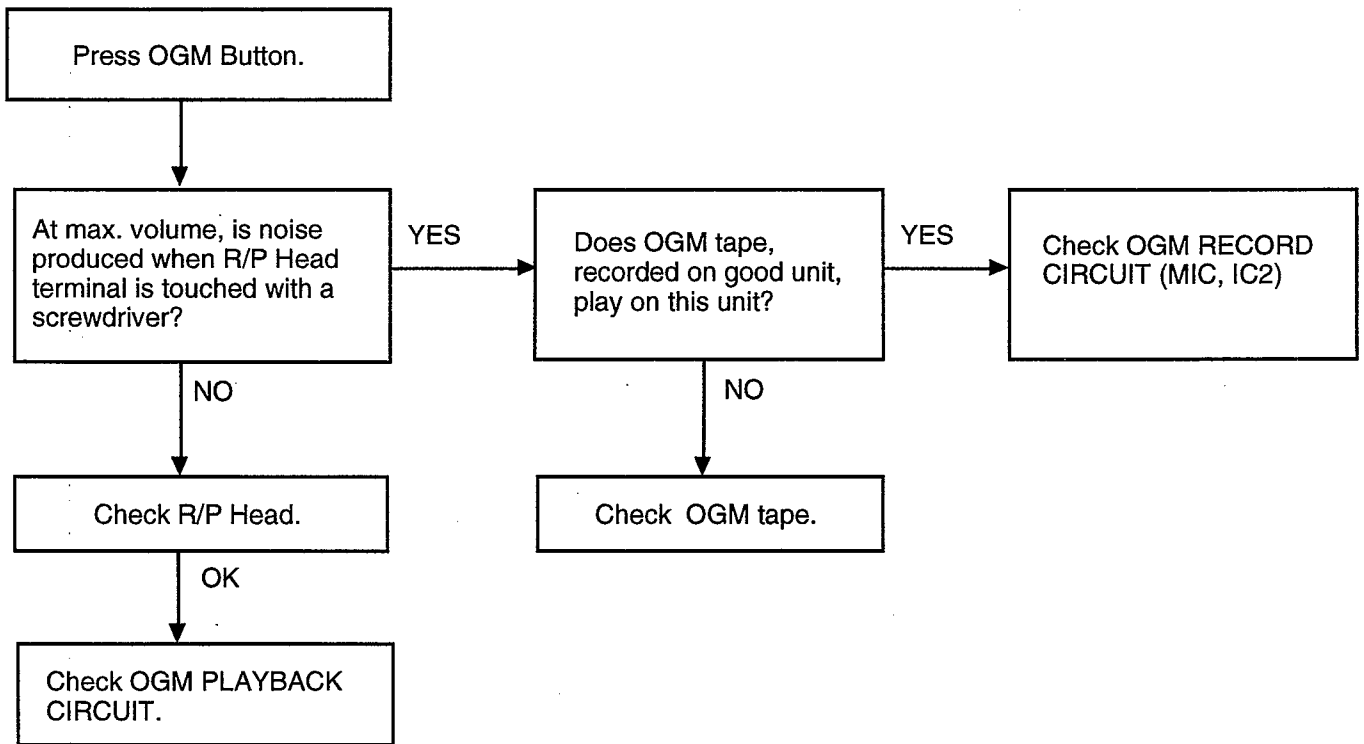
C. Test on a telephone line known to be working properly.

If all of the above check N.G., check the remote signal detect circuit (IC1 and IC5)

10) DOES NOT RECORD



9) NO OR LOW OGM PLAYBACK



CASSETTE DECK PARTS LOCATION

Actual Size of Screws

Ref No.	Figure
M35	
M36	
M37	
M38	
M39	
M40	

Specifications

Playback torque	10~20 g · cm
Fast forward torque	10~20 g · cm
Rewind torque	25 g · cm
Back tension	0.5~3.5 g · cm
Wow and flutter	0.65%

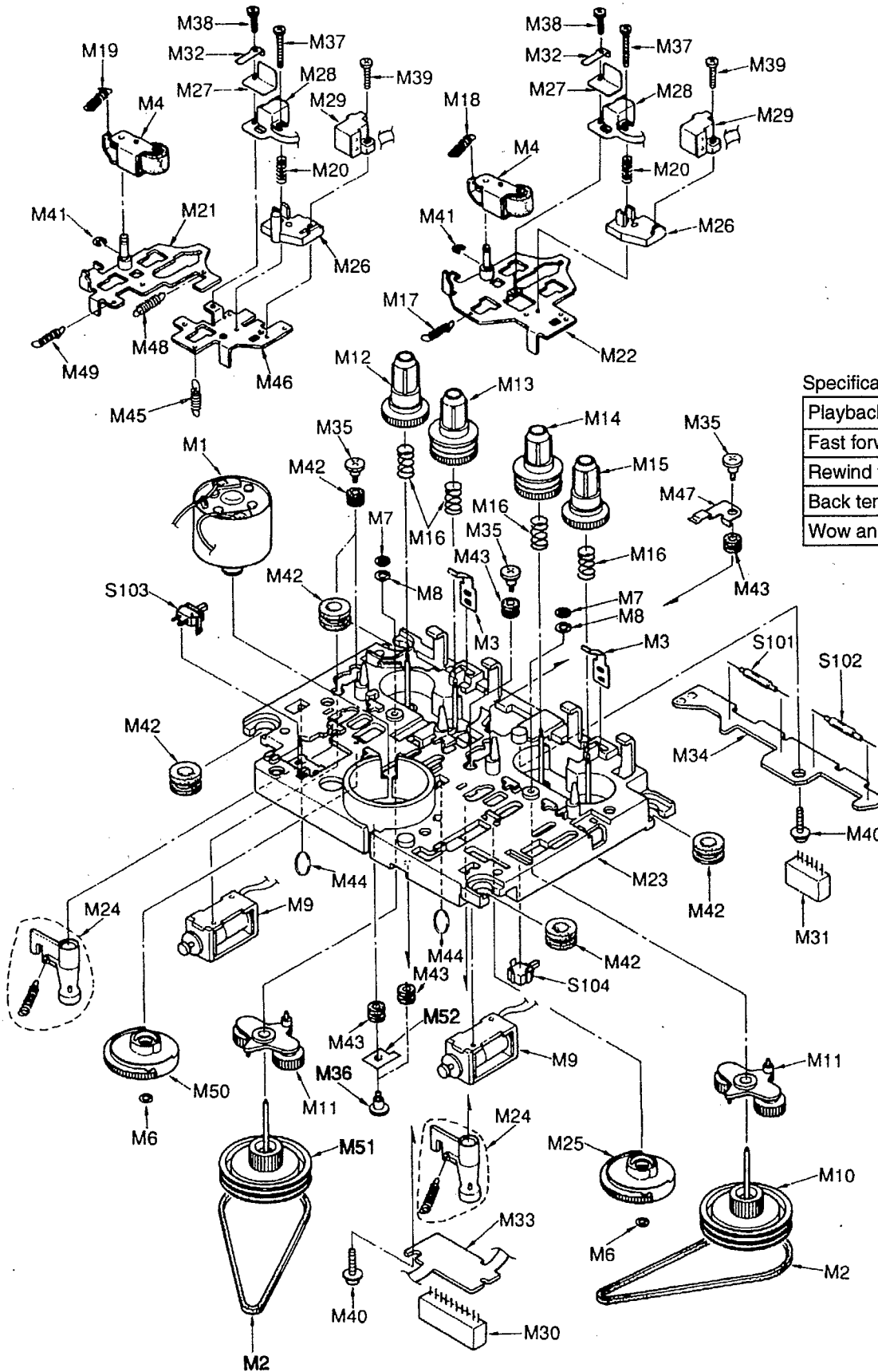


Fig. 11

CABINET AND ELECTRICAL PARTS LOCATION (KX-T5006E-1 only)

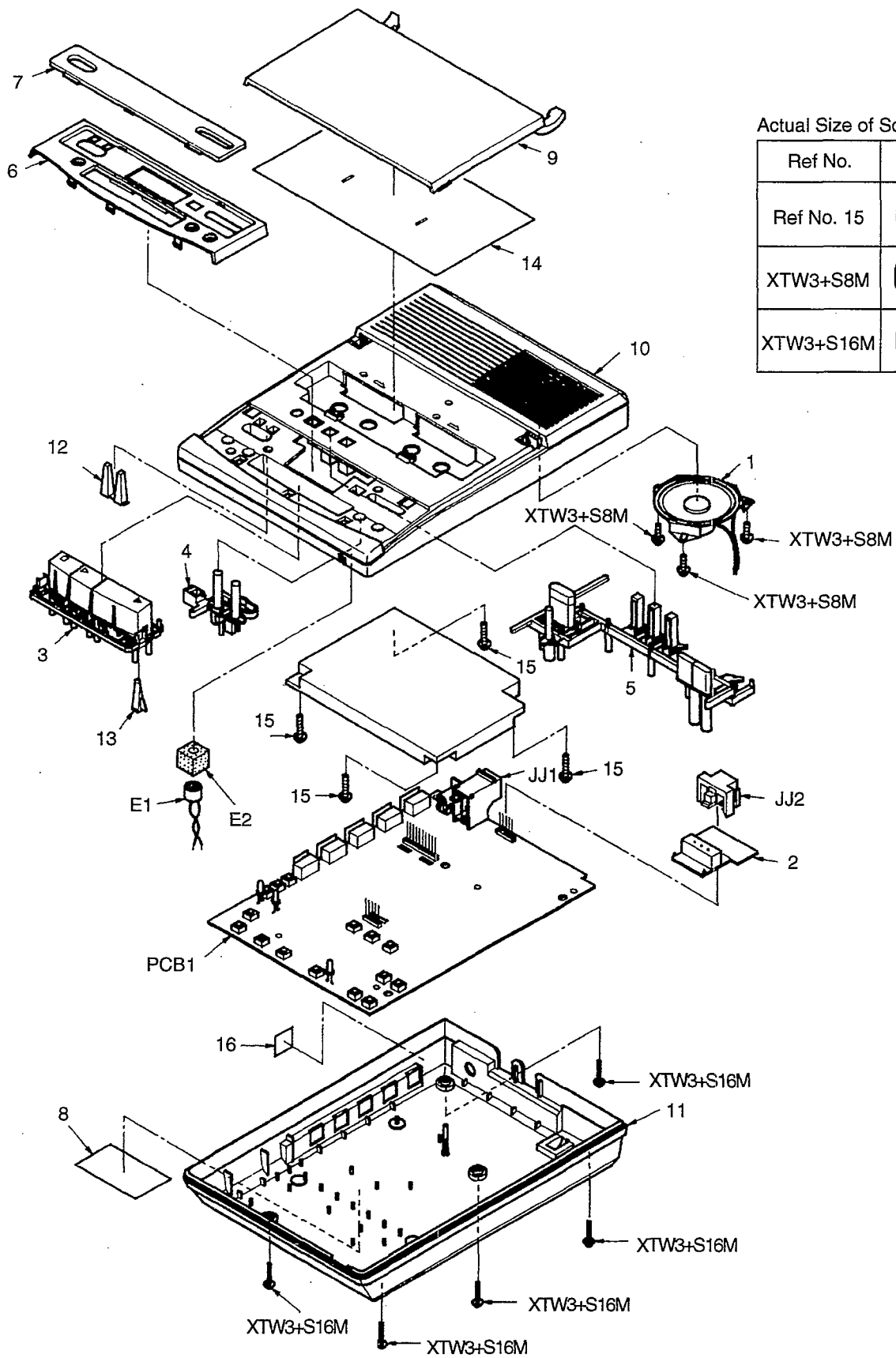


Fig. 12

CABINET AND ELECTRICAL PARTS LOCATION (KX-T5206E-1 only)

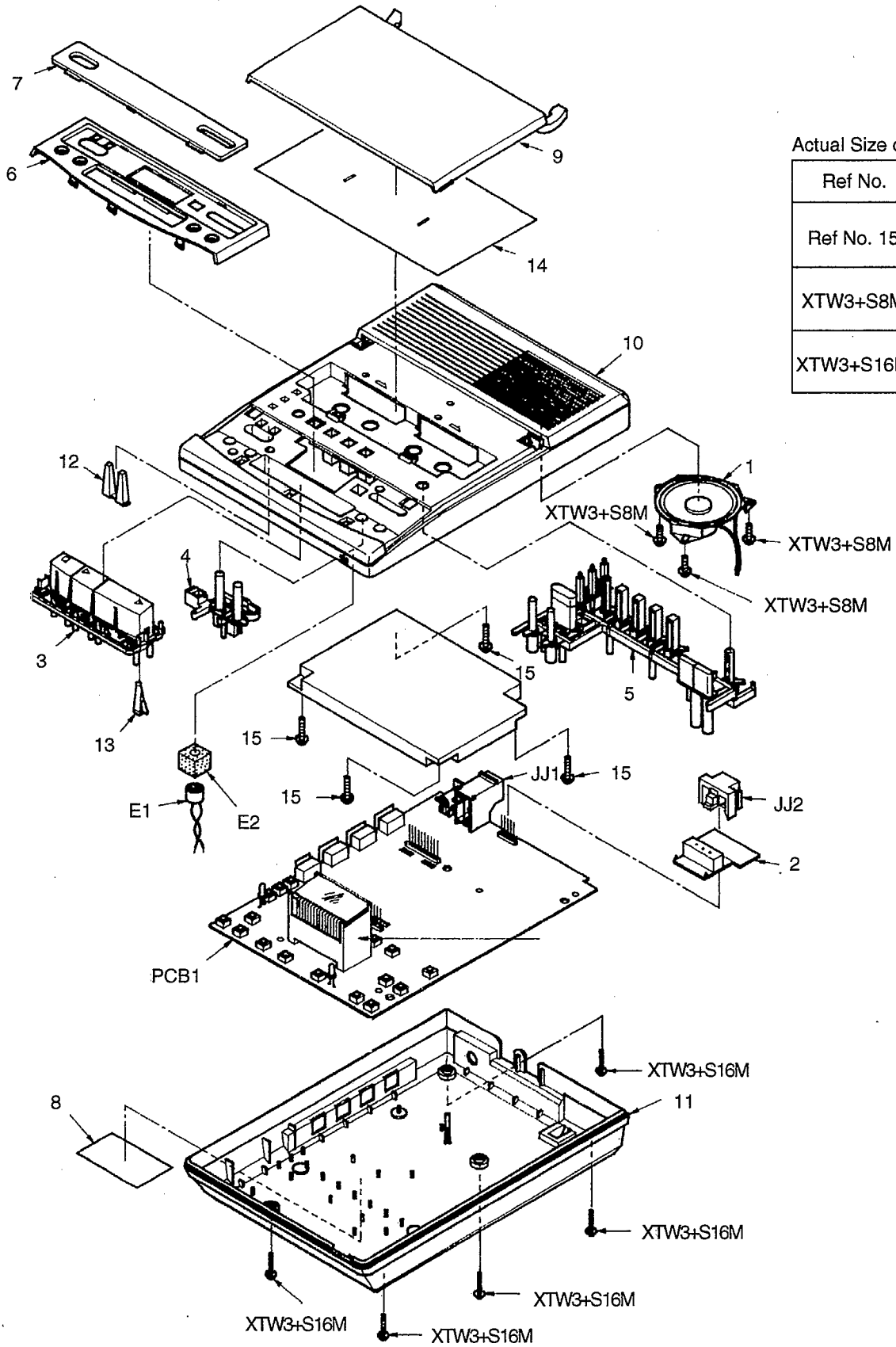


Fig. 13

EXTENSION CABLE CONNECTING METHOD

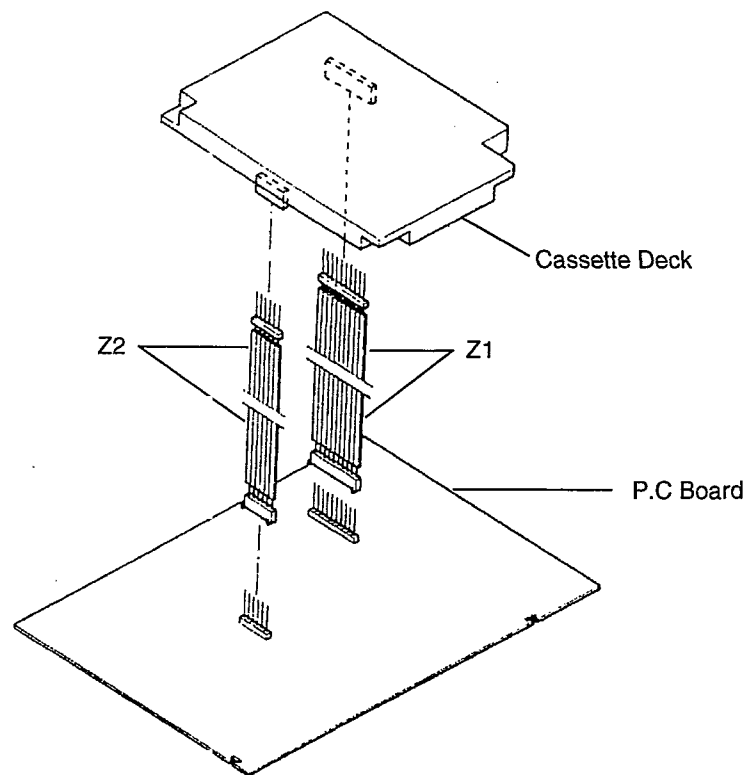


Fig. 14

ACCESSORIES AND PACKING MATERIALS

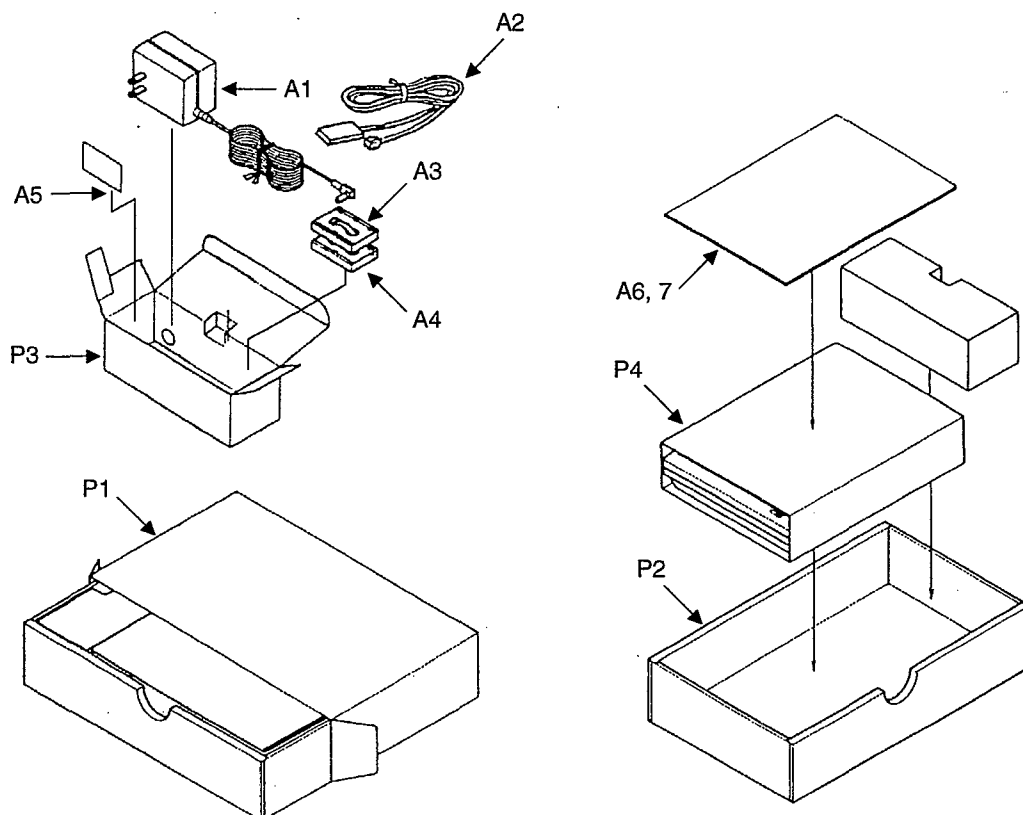


Fig. 15

This replacement parts list is for KX-T5006E-1 only.

REPLACEMENT PARTS LIST

Model KX-T5006E-1

- RTL (Retention Time Limited)
Note: The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- Important safety notice.
Components identified by the Δ mark special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.
- The S mark indicates service standard parts and may differ from production parts.
- RESISTORS & CAPACITORS
Unless otherwise specified
All resistors are in ohms (Ω) k=1000 Ω , M=1000k Ω
All capacitors are in MICRO FARADS (μ F) P= μ F
*Type & Wattage of Resistor

Type	
ERC:Solid	ERX:Metal Film
ERD:Carbon	ERG:Metal Oxide
PQRD:Carbon	ER0:Metal Film
PQ4R:Carbon	ERS:Fusible Resistor
	ERF:Cement Resistor

Wattage				
10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W 3:3W

*Type & Voltage of Capacitor	
Type	
ECFD:Semi-Conductor	ECCD,ECKD,ECBT,PQCBC : Ceramic
ECQS:Styrol	ECQE,ECQV,ECQG : Polyester
PQCUV:Chip	ECEA,ECSZ : Electrolytic
ECQMS:Mica	ECQP : Polypropylene

Voltage				
ECQ Type	ECQG ECQV Type	ECSZ Type	Others	
1H: 50V	05: 50V	0F:3.15V	0J :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C :16V	1J :63V
2H:500V		0J:6.3V	1E,25:25V	2A :100V

Ref. No.	Part No.	Part Name & Description	Pcs/Set
M26	PQFW10010Y	ERASE HEAD BASE	2
M27	PQHR321Y	INSULATOR	2
M28	PQJH1M2X	P/R HEAD	2
M29	PQJH6M2Y	ERASE HEAD	2
M30	PQJS10B32Z	CONNECTOR, 10 PIN	1
M31	PQJS6B30Z	CONNECTOR, 6 PIN	1
M32	PQJT10029Y	TERMINAL	2
M33	PQUP10064Z	P. C. BOARD, FLEXIBLE	1
M34	PQUP10065Y	P. C. BOARD, REED SWITCH	1
M35	PQHD10013Z	SCREW, PLUNGER	4
M36	PQHD15Z	SCREW, MOTOR	2
M37	XSN17+10FN-3	SCREW, AZIMUTH	2
M38	XSN17+4FN-3	SCREW, R/P HEAD	2
M39	XSN17+7FN-A	SCREW, ERASE HEAD	2
M40	XTW26+6F	SCREW, P. C. BOARD	2
M41	XUC15FY	RETAINING RING	2
M42	PQFI10001Z	CUSHION, CHASSIS	4
M43	PQFI14Z	CUSHION, PLUNGER and MOTOR	6
M44	PQFE10004Z	RUBBER, RING	2
M45	PQFS10020Z	SPRING	1
M46	PQFD10004Z	ICM HEAD BASE-B	1
M47	PQFD10014Y	SPRING	1
M48	PQFS10002Y	SPRING	1
M49	PQFS10013Y	SPRING	1
M50	PQFG3D2201Z	ICM CAM GRAR ASSEMBLY	1
M51	PQFFJD2209Z	ICM FLYWHEEL ASSEMBLY	1
M52	PQFJ4Z	TERMINAL for MOTOR	1
S101	PQSE17Y	REED SWITCH (ICM)	1
S102	PQSE17Y	REED SWITCH (OGM)	1
S103	PQSH1A52X	SWITCH, POSITION (ICM)	1
S104	PQSH1A52X	SWITCH, POSITION (OGM)	1

CABINET AND ELECTRICAL PARTS

Ref. No.	Part No.	Part Name & Description	Pcs/Set
CASSETTE DECK PARTS			
M1	PQFMJD2205X	MOTOR ASSEMBLY	1
M2	PQFB10002Z	ANGULAR BELT	2
M3	PQFD10009Z	LEAF SPRING	2
M4	PQFIJD2200X	PINCH LEVER ASSEMBLY	2
M5	Not Used		
M6	PQFN16Z	WASHER	2
M7	PQFN33Z	WASHER	2
M8	PQFN49Z	WASHER	2
M9	PQFP10001Z	PLUNGER	2
M10	PQFFJD2200X	OGM FLYWHEEL ASSEMBLY	1
M11	PQFG1D2200Z	GEAR ARM ASSEMBLY	2
M12	PQFR1D2200Z	ICM TAKEUP REEL TABLE ASSEMBLY	1
M13	PQFR2D2200Z	ICM SUPPLY REEL TABLE ASSEMBLY	1
M14	PQFR3D2200Z	OGM TAKEUP REEL TABLE ASSEMBLY	1
M15	PQFR4D2200Z	OGM SUPPLY REEL TABLE ASSEMBLY	1
M16	PQFS10005Z	SPRING, BACK TENSION	4
M17	PQFS10007Z	SPRING, HEAD BASE	1
M18	PQFS10015Z	SPRING, OGM PINCH LEVER	1
M19	PQFS10019Z	SPRING, ICM PINCH LEVER	1
M20	PQFS73Z	SPRING, AZIMUTH	2
M21	PQFD1D2201Z	ICM HEAD BASE-A ASSEMBLY	1
M22	PQFD2D2200X	OGM HEAD BASE ASSEMBLY	1
M23	PQFCJD2200Z	MECHANISM CHASSIS ASSEMBLY	1
M24	PQFYJD2200Z	TRIGGER LEVER ASSEMBLY	2
M25	PQFG2D2200Y	OGM CAM GEAR ASSEMBLY	1

Ref. No.	Part No.	Part Name & Description	Pcs/Set
1	PQAS5P13Z	SPEAKER	S 1
2	PQUP770Z	P.C.BOARD , BT TEL JACK	1
3	PQBX10092Y1	BUTTON, STOP, ALL/NEW MESSAGE PLAYBACK	1
4	PQBX10093Z1	BUTTON, FF, REW	1
5	PQBX10095X1	BUTTON, ANSWER ON etc.	1
6	PQGG10020U2	GRILLE	1
7	PQGP10036U2	PANEL	1
8	PQGT10891Y	NAME PLATE	Δ 1
9	PQKK10017T3	CASSETTE LID	1
10	PQKM10055U2	UPPER CABINET	1
11	PQYF10021Q1	LOWER CABINET	1
12	PQHR10124Z	SPACER, ANSWER ON LED	1
13	PQHR10125Z	SPACER, NEW MESSAGE LED	1
14	PQQT10675Z	INSTRUCTION LABEL	1
15	PQHD10009Z	SCREW for DECK	4
16	PQQT52R	REMOTE CODE LABEL "8"	1
16	PQQT52T	REMOTE CODE LABEL "6"	1
16	PQQT52U	REMOTE CODE LABEL "5"	1
16	PQQT52V	REMOTE CODE LABEL "4"	1
16	PQQT52W	REMOTE CODE LABEL "3"	1
16	PQQT52X	REMOTE CODE LABEL "2"	1
16	PQQT52Y	REMOTE CODE LABEL "1"	1
16	PQQT52Z	REMOTE CODE LABEL "0"	1

This replacement parts list is for KX-T5006E-1 only.

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Part Name & Description	Pcs/Set
ACCESSORIES				Q 8	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A1	KX-A11BEXE	AC ADAPTOR	S Δ 1	Q12	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A2	PQJA87T	TELEPHONE CORD	Δ 1	Q15	PQVTKSD261CY	TRANSISTOR(SI)	1
A3	PQJN1M10AY	CASSETTE TAPE (10 MIN)	1	Q16	2SD2136	TRANSISTOR(SI)	1
A4	PQJN1M30AY	CASSETTE TAPE (30 MIN)	S 1	Q19	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A5	PQQW10776Z	QUICK REFERENCE GUIDE	1	Q21	2SC3330	TRANSISTOR(SI) [or 2SC3311 or 2SC1740S]	1
A6	PQQW10809Z	DIAL CARD	1	Q29	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A7	PQQX10823Z	INSTRUCTION BOOK	Δ 1	Q31	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
PACKING MATERIALS				Q35	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
P1	PQPK10752Z	GIFT BOX	1	Q36	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
P2	PQPN10248Z	CUSHION	1				
P3	PQPN10256Z	ACCESSORY BOX	1				
P4	PQPH81Y	PROTECTION COVER (for UNIT)	1				
FIXTURES AND TOOLS							
Z1	PQJS11K3Z	EXTENSION CORD, 11 PIN	1				
Z2	PQJS6K2Z	EXTENSION CORD, 6 PIN	1				
Z3	PQZZLCT2401A	TEST TAPE	1				
<p>Note:</p> <p>1. PQJS11K3Z and PQJS6K2Z are useful for servicing. (They make servicing easy.)</p> <p>2. PQZZLCT2401A is necessities for servicing.</p>							
PRINTED CIRCUIT BOARD PARTS							
PCB1	PQWP5006EUK1	P. C. BOARD ASSEMBLY (RTL)	Δ 1				
		(ICS)					
IC1	PQVI70061D53	IC	1	D 1	PQVDS5688G	DIODE(SI)	1
IC2	PQVISC111812	IC	1	D 2	PQVDS5688G	DIODE(SI)	1
IC4	AN6658K	IC	1	D 3	PQVDS5688G	DIODE(SI)	1
IC5	PQVIMT3074AE	IC	S 1	D 4	PQVDS5688G	DIODE(SI)	1
		(TRANSISTORS)		D 5	1SS119	DIODE(SI)	S 1
Q 1	PQVTKSD261CY	TRANSISTOR(SI)	1	D 6	MA4036	DIODE(SI)	S 1
Q 2	2SC3330	TRANSISTOR(SI) [or 2SC3311 or 2SC1740S]	1	D 9	MA4030	DIODE(SI)	S 1
Q 3	2SB1218A	TRANSISTOR(SI) [or 2SA1603 or 2SA1576]	1	D10	MA4180	DIODE(SI)	1
Q 4	2SA1625	TRANSISTOR(SI) [or 2SA1776Q or 2SA1776P or 2SB1488P or 2SB1488Q or 2SA1884Q or 2SA1884P]	1	D12	1SS119	DIODE(SI)	S 1
Q 5	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1	D13	1SS119	DIODE(SI)	S 1
Q 6	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1	D14	PQVDS5688G	DIODE(SI)	1
				D16	1SS119	DIODE(SI)	S 1
				D17	1SS119	DIODE(SI)	S 1
				D18	1SS119	DIODE(SI)	S 1
				D19	1SS119	DIODE(SI)	S 1
				D20	1S2076	DIODE(SI)	1
				D24	MA4100	DIODE(SI)	S 1
				D25	MA4051	DIODE(SI)	S 1
				D26	PQVDMTZ6R8	DIODE(SI)	S 1
				D30	1SS119	DIODE(SI)	S 1
				D31	1SS119	DIODE(SI)	S 1
				D32	1SS119	DIODE(SI)	S 1
				D33	1SS119	DIODE(SI)	S 1
				D40	1SS119	DIODE(SI)	S 1
				D41	1SS119	DIODE(SI)	S 1
				D42	1SS119	DIODE(SI)	S 1
				D43	1SS119	DIODE(SI)	S 1
				D51	1SS119	DIODE(SI)	S 1
				D53	1SS119	DIODE(SI)	S 1
						(LEDS)	
				LED1	LN21RCPHV	LED	S 1
				LED2	LN21RCPHV	LED	S 1
				LED3	LN31GCPHU	LED	S 1

This replacement parts list is for KX-T5006E-1 only.

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
		(JACKS)				(RESISTORS)	
JJ1	PQJJ2H002Z	JACK, TELEPHONE, DC IN	1	R 1	ERD25TJ183	18K	1
JJ2	PQJJ1J5Z	JACK, BT TEL	1	R 2	PQ4R10XJ104	100K	1
				R 3	ERDS2TJ472	4.7K	1
				R 4	PQ4R10XJ103	10K	1
				R 5	PQ4R10XJ102	1K	1
				R 6	ERDFS1TJ470	47	1
		(CONNECTORS)		R10	PQ4R10XJ681	680	1
CN1	PQJP10D78Z	CONNECTOR, 10 PIN	1	R11	PQ4R10XJ183	18K	1
CN2	PQJP06D80Z	CONNECTOR, 6 PIN	1	R12	PQ4R10XJ103	10K	1
CN3	PQJP4D99Z	CONNECTOR, 4 PIN	1	R13	PQ4R10XJ124	120K	1
CN101	PQJS4X41Z	CONNECTOR SOCKET, 6 PIN	1	R14	PQ4R10XJ121	120	1
				R15	PQ4R10XJ333	33K	1
				R16	PQ4R10XJ333	33K	1
				R17	PQ4R10XJ223	22K	1
				R18	PQ4R10XJ153	15K	1
				R20	PQ4R10XJ154	150K	1
				R21	PQ4R10XJ104	100K	1
				R22	PQ4R10XJ333	33K	1
				R23	PQ4R10XJ562	5.6K	1
		(SWITCHES)		R24	PQ4R10XJ682	6.8K	1
S1	PQSS2A27W	SWITCH, MESSAGE ALERT	1	R25	PQ4R10XJ474	470K	1
S2	PQSS3A17W	SWITCH, RINGS	1	R26	PQ4R10XJ103	10K	1
S3	PQSS3A17W	SWITCH, REC TIME	1	R27	PQ4R10XJ474	470K	1
S4	PQSS2A27W	SWITCH, REMOTE CODE	1	R28	PQ4R10XJ223	22K	1
S5	PQSS2A27W	SWITCH, VOX SENS	1	R29	ERDS2TJ105	1M	1
S101	EVQPJH05K	SWITCH, FF	S 1	R30	PQ4R10XJ105	1M	1
S102	EVQ21005G	SWITCH, REW	S 1	R31	PQ4R10XJ822	8.2K	1
S105	EVQ21005G	SWITCH, GREETING CHECK	S 1	R32	PQ4R10XJ185	1.8M	1
S106	EVQ21005G	SWITCH, GREETING RECORD	S 1	R33	PQ4R10XJ470	47	1
S108	EVQ21005G	SWITCH, MEMO	S 1	R34	ERDS2TJ103	10K	1
S117	EVQ21005G	SWITCH, VOLUME UP	S 1	R35	PQ4R10XJ103	10K	1
S118	EVQ21005G	SWITCH, VOLUME DOWN	S 1	R36	ERDS2TJ151	150	1
S119	EVQ21005G	SWITCH, ICM ERASE	S 1	R37	PQ4R10XJ394	390K	1
S121	EVQ21005G	SWITCH, ALL MESSAGE PLAYBACK	S 1	R38	PQ4R10XJ104	100K	1
S122	EVQ21005G	SWITCH, NEW MESSAGE PLAYBACK	S 1	R39	PQ4R10XJ104	100K	1
S123	EVQ21005G	SWITCH, ANSWER ON	S 1	R40	ERDS2TJ683	68K	1
S124	EVQ21005G	SWITCH, STOP	S 1	R41	PQ4R10XJ123	12K	1
				R57	ERDS2TJ121	120	1
				R58	Not Used		
				R59	PQRQ1VJ4R7	4.7	1
				R60	ERDS1TJ391	390	1
				R61	ERDS2TJ681	680	1
				R62	ERD25TJ221	220	1
		(OTHERS)		R63	PQ4R10XJ822	8.2K	1
SA1	PQVDRA311PT2	VARISTOR	1	R64	PQ4R10XJ105	1M	1
T1	PQLT8E5A	TRANSFORMER	△ 1	R65	PQ4R10XJ561	560	1
VR1	EVNDXAA03B23	VARIABLE RESISTOR	1	R66	PQ4R10XJ273	27K	1
X1	PQVBT4.19G1	CERAMIC FILTER	S 1	R67	ERDS2TJ101	100	1
PC1	PQVIPC814Y	PHOTO ELECTRIC TRANSDUCER	△ 1	R68	PQ4R10XJ273	27K	1
PC2	PQVIPC851K	PHOTO ELECTRIC TRANSDUCER	△ 1	R69	PQ4R10XJ181	180	1
PC3	PQVIPC817K	PHOTO ELECTRIC TRANSDUCER	△ 1				
PC4	PQVIPC817K	PHOTO ELECTRIC TRANSDUCER	△ 1	R70	PQ4R10XJ472	4.7K	1
E1	PQJM113Z	MICROPHONE	1	R71	Not Used		
E2	PQMG10001Z	RUBBER, MICROPHONE COVER	1	R72	PQ4R10XJ104	100K	1
				R73	PQ4R10XJ334	330K	1
				R74	PQ4R10XJ153	15K	1
				R75	PQ4R10XJ223	22K	1
				R76	PQ4R10XJ563	56K	1
				R77	PQ4R10XJ333	33K	1
				R78	PQ4R10XJ124	120K	1
				R79	PQ4R10XJ103	10K	1

This replacement parts list is for KX-T5006E-1 only.

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
R80	ERDS2TJ564	560K	1			(CAPACITORS)	
R81	Not Used			C 3	ECKD2H681KB	680P	1
R82	PQ4R10XJ334	330K	1	C 4	ECKD2H681KB	680P	1
R83	PQ4R10XJ393	39K	1	C 5	ECEA1CKS100	10	1
R84	Not Used			C 6	ECEA1CK101	100	1
R85	PQ4R10XJ563	56K	1	C 7	ECEA1HKSR47	0.47	1
R86	PQ4R10XJ393	39K	1				
R87	PQ4R10XJ684	680K	1	C10	ECEA1HKS010	1	1
R88	ERD25TJ103	10K	1	C11	PQCUV1H103KB	0.01	1
				C12	PQCUV1H102J	0.001	1
R90	PQ4R10XJ222	2.2K	1	C14	ECEA1HKS010	1	1
R91	PQ4R10XJ123	12K	1	C15	PQCUV1H103KB	0.01	1
R92	PQ4R10XJ272	2.7K	1	C16	PQCUV1E473MD	0.047	1
R93	PQ4R10XJ392	3.9K	1	C17	Not Used		
R94	PQ4R10XJ472	4.7K	1	C18	PQCUV1H472KB	0.0047	1
R95	PQ4R10XJ223	22K	1	C19	PQCUV1H103KB	0.01	1
R96	PQ4R10XJ223	22K	1				
R97	PQ4R10XJ223	22K	1	C20	ECEA1AU222	2200	1
R98	PQ4R10XJ223	22K	1	C21	ECEA1HKSR47	0.47	1
R99	PQ4R10XJ333	33K	1	C22	ECEA1EK470	47	1
				C23	PQCUV1H103KB	0.01	1
R100	PQ4R10XJ473	47K	1	C24	ECEA1EK470	47	1
R101	PQ4R10XJ683	68K	1	C25	ECEA1CU221	220	1
R102	PQ4R10XJ683	68K	1	C26	ECEA1HKS010	1	1
R103	PQ4R10XJ683	68K	1	C27	ECEA1CK101	100	1
R104	PQ4R10XJ683	68K	1	C28	ECEA1AU471	470	1
R105	PQ4R10XJ104	100K	1	C29	PQCUV1H103KB	0.01	1
R106	PQ4R10XJ104	100K	1				
R107	PQ4R10XJ104	100K	1	C30	PQCUV1H681JC	680P	1
R108	PQ4R10XJ471	470	1	C31	Not Used		
R109	PQ4R10XJ681	680	1	C32	PQCUV1H103KB	0.01	1
				C33	ECEA1HKS2R2	2.2	1
R112	PQ4R10XJ222	2.2K	1	C34	Not Used		
R113	PQ4R10XJ122	1.2K	1	C35	Not Used		
R114	PQ4R10XJ2R4	2.4	1	C36	PQCUV1E473MD	0.047	1
R115	ERDS1TJ562	5.6K	1	C37	PQCUV1H103KB	0.01	1
R116	PQ4R10XJ822	8.2K	1	C38	PQCUV1H152KB	0.0015	1
R117	PQ4R18XJ681	680	1	C39	PQCUV1H222KB	0.0022	1
R118	ERDS1TJ100	10	1				
				C40	PQCUV1H103KB	0.01	1
R122	PQ4R10XJ473	47K	1	C41	PQCUV1H223KB	0.022	1
R123	PQ4R10XJ103	10K	1	C42	PQCUV1E333MD	0.033	1
R129	PQ4R10XJ122	1.2K	1	C43	ECEA1HKS0R1	0.1	1
				C44	ECEA1VKS4R7	4.7	1
R130	PQ4R10XJ472	4.7K	1	C45	PQCUV1E153MD	0.015	1
R131	PQ4R10XJ222	2.2K	1	C46	ECEA1HKSR47	0.47	1
				C47	PQCUV1H103KB	0.01	1
R140	PQ4R18XJ104	100K	1	C48	ECEA1CKS100	10	1
R141	PQ4R10XJ471	470	1	C49	PQCUV1H102J	0.001	1
R142	Not Used						
R143	PQ4R10XJ104	100K	1	C50	ECEA1AKS330	33	1
R144	Not Used			C51	ECEA1CKS100	10	1
R145	PQ4R10XJ104	100K	1	C52	PQCUV1H102J	0.001	1
R146	PQ4R10XJ472	4.7K	1	C53	PQCUV1H471JC	470P	1
				C54	ECEA1CKS100	10	1
				C55	ECEA1CK101	100	1
				C56	PQCUV1H103KB	0.01	1
				C57	PQCUV1H103KB	0.01	1
J1	PQ4R10XJ000	0Ω	1	C58	ECEA1CKS100	10	1
J2	PQ4R10XJ000	0Ω	1	C59	PQCUV1E473MD	0.047	1
J3	PQ4R10XJ000	0Ω	1				
J5	PQ4R10XJ000	0Ω	1	C60	PQCUV1H103KB	0.01	1
J51	PQ4R18XJ000	0Ω	1	C61	ECEA0JKS220	22	1
J57	PQ4R18XJ000	0Ω	1	C62	PQCUV1H103KB	0.01	1
J58	PQ4R18XJ000	0Ω	1	C63-65	Not Used		
J60	PQ4R18XJ000	0Ω	1	C66	PQCUV1H471JC	470P	1
J63	PQ4R18XJ000	0Ω	1	C67	PQCUV1H223KB	0.022	1
J64	PQ4R18XJ000	0Ω	1	C68	ECEA1CKS470	47	1

This replacement parts list is for KX-T5006E-1 only.

Ref. No.	Part No.	Value	Pcs/Set
C69	ECUV1H470JC	47P	1
C77	PQCUV1H103KB	0.01	1
C81	PQCUV1H103KB	0.01	1
C85	PQCUV1H683MD	0.068	1
C90	PQCUV1E563MD	0.056	1
C91	Not Used		
C92	Not Used		
C93	ECUV1H682KB	0.0068	1
C94	ECEA1HKS220	22	1
C95	PQCUV1H223KB	0.022	1
C96	PQCUV1H682KB	0.0068	1
C101	PQCUV1H222KB	0.0022	1

This replacement parts list is for KX-T5206E-1 only.

REPLACEMENT PARTS LIST

Model KX-T5206E-1

1. RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period with the laws of availability is dependant on the type of assembly, and in accordance governing part and product retention. After the end of this period, the assembly will no longer be available.

2. Important safety notice.

Components identified by the Δ mark special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.

3. The S mark indicates service standard parts and may differ from production parts.

4. RESISTORS & CAPACITORS

Unless otherwise specified.

All resistors are in ohms (Ω) k=1000 Ω , M=1000k Ω

All capacitors are in MICRO FARADS (μ F) P= μ μ F

*Type & Wattage of Resistor

Type

ERC:Solid	ERX: Metal Film	PQ4R: Carbon
ERD: Carbon	ERG: Metal Oxide	ERS: Fusible Resistor
PQRD: Carbon	ER0: Metal Film	ERF: Cement Resistor

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W
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*Type & Voltage of Capacitor

Type

ECFD: Semi-Conductor	ECCD, ECKD, ECBT, PQCBC : Ceramic
ECQS: Styrol	ECQE, ECQV, ECQG : Polyester
PQCUV: Chip	ECEA, ECSZ : Electrolytic
ECQMS: Mica	ECQP : Polypropylene

Voltage

ECQ Type	ECQG Type	ECSZ Type	Others		
1H: 50V	05: 50V	0F: 3.15V	0J : 6.3V	1V : 35V	
2A: 100V	1: 100V	1A: 10V	1A : 10V	50, 1H: 50V	
2E: 250V	2: 200V	1V: 35V	1C : 16V	1J : 63V	
2H: 500V		0J: 6.3V	1E, 25: 25V	2A : 100V	

Ref. No.	Part No.	Part Name & Description	Pcs/Set
M26	PQFW10010Y	ERASE HEAD BASE	2
M27	PQHR321Y	INSULATOR	2
M28	PQJH1M2X	P/R HEAD	2
M29	PQJH6M2Y	ERASE HEAD	2
M30	PQJS10B32Z	CONNECTOR, 10 PIN	1
M31	PQJS6B30Z	CONNECTOR, 6 PIN	1
M32	PQJT10029Y	TERMINAL	2
M33	PQUP10064Z	P. C. BOARD, FLEXIBLE	1
M34	PQUP10065Y	P. C. BOARD, REED SWITCH	1
M35	PQHD10013Z	SCREW, PLUNGER	4
M36	PQHD15Z	SCREW, MOTOR	2
M37	XSN17+10FN-3	SCREW, AZIMUTH	2
M38	XSN17+4FN-3	SCREW, R/P HEAD	2
M39	XSN17+7FN-A	SCREW, ERASE HEAD	2
M40	XTW26+6F	SCREW, P. C. BOARD	2
M41	XUC15FY	RETAINING RING	2
M42	PQFI10001Z	CUSHION, CHASSIS	4
M43	PQFI14Z	CUSHION, PLUNGER and MOTOR	6
M44	PQFE10004Z	RUBBER, RING	2
M45	PQFS10020Z	SPRING	1
M46	PQFD10004Z	ICM HEAD BASE-B	1
M47	PQFD10014Y	SPRING	1
M48	PQFS10002Y	SPRING	1
M49	PQFS10013Y	SPRING	1
M50	PQFG3D2201Z	ICM CAM GRAR ASSEMBLY	1
M51	PQFFJD2209Z	ICM FLYWHEEL ASSEMBLY	1
M52	PQFJ4Z	TERMINAL for MOTOR	1
S101	PQSE17Y	REED SWITCH (ICM)	1
S102	PQSE17Y	REED SWITCH (OGM)	1
S103	PQSH1A52X	SWITCH, POSITION (ICM)	1
S104	PQSH1A52X	SWITCH, POSITION (OGM)	1

CABINET AND ELECTRICAL PARTS

Ref. No.	Part No.	Part Name & Description	Pcs/Set
CASSETTE DECK PARTS			
M1	PQFMJD2205X	MOTOR ASSEMBLY	1
M2	PQFB10002Z	ANGULAR BELT	2
M3	PQFD10009Z	LEAF SPRING	2
M4	PQFJD2200X	PINCH LEVER ASSEMBLY	2
M5	Not Used.		
M6	PQFN16Z	WASHER	2
M7	PQFN33Z	WASHER	2
M8	PQFN49Z	WASHER	2
M9	PQFP10001Z	PLUNGER	2
M10	PQFFJD2200X	OGM FLYWHEEL ASSEMBLY	1
M11	PQFG1D2200Z	GEAR ARM ASSEMBLY	2
M12	PQFR1D2200Z	ICM TAKEUP REEL TABLE ASSEMBLY	1
M13	PQFR2D2200Z	ICM SUPPLY REEL TABLE ASSEMBLY	1
M14	PQFR3D2200Z	OGM TAKEUP REEL TABLE ASSEMBLY	1
M15	PQFR4D2200Z	OGM SUPPLY REEL TABLE ASSEMBLY	1
M16	PQFS10005Z	SPRING, BACK TENSION	4
M17	PQFS10007Z	SPRING, HEAD BASE	1
M18	PQFS10015Z	SPRING, OGM PINCH LEVER	1
M19	PQFS10019Z	SPRING, ICM PINCH LEVER	1
M20	PQFS73Z	SPRING, AZIMUTH	2
M21	PQFD1D2201Z	ICM HEAD BASE-A ASSEMBLY	1
M22	PQFD2D2200X	OGM HEAD BASE ASSEMBLY	1
M23	PQFCJD2200Z	MECHANISM CHASSIS ASSEMBLY	1
M24	PQFYJD2200Z	TRIGGER LEVER ASSEMBLY	1
M25	PQFG2D2200Y	OGM CAM GEAR ASSEMBLY	2

Ref. No.	Part No.	Part Name & Description	Pcs/Set
1	PQAS5P13Z	SPEAKER	S 1
2	PQUP770Z	P.C.BOARD , BT TEL JACK	1
3	PQBX10092Y1	BUTTON, STOP, ALL/NEW MESSAGE PLAYBACK	1
4	PQBX10093Z1	BUTTON, FF, REW	1
5	PQBX10095Y1	BUTTON, ANSWER ON etc.	1
6	PQGG10020Z1	GRILLE	1
7	PQGP10036Y1	PANEL	1
8	PQGT10711Y	NAME PLATE	Δ 1
9	PQKK10017U2	CASSETTE LID	1
10	PQKM10055V1	UPPER CABINET	1
11	PQYF10021S1	LOWER CABINET	1
12	PQHR10124Z	SPACER, ANSWER ON LED	1
13	PQHR10125Z	SPACER, NEW MESSAGE LED	1
14	PQQT10665Y	INSTRUCTION LABEL	1
15	PQHD10009Z	SCREW, for DECK	1

This replacement parts list is for KX-T5206E-1 only.

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Part Name & Description	Pcs/Set
ACCESSORIES							
A1	KX-A11BEXE	AC ADAPTOR	S Δ 1	Q 6	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A2	PQJA87T	TELEPHONE CORD	Δ 1	Q 8	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A3	PQJN1M10AY	CASSETTE TAPE (10 MIN)	1	Q10	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A4	PQJN1M30AY	CASSETTE TAPE (30 MIN)	S 1	Q11	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A5	PQQW10691Z	QUICK REFERENCE GUIDE	1	Q12	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
A6	PQQW10753Z	DIAL CARD	1	Q15	PQVTKSD261CY	TRANSISTOR(SI)	1
A7	PQQX10736Z	INSTRUCTION BOOK	Δ 1	Q16	2SD2136	TRANSISTOR(SI)	1
PACKING MATERIALS				Q19	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
P1	PQPK10631Z	GIFT BOX	1	Q21	2SC3330	TRANSISTOR(SI) [or 2SC3311 or 2SC1740S]	1
P2	PQPN10248Z	CUSHION	1	Q22	2SA854	TRANSISTOR(SI)	1
P3	PQPN10256Z	ACCESSORY BOX	1	Q28	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
P4	PQPH81Y	PACKING SHEET	1	Q29	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
FIXTURES AND TOOLS				Q30	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
Z1	PQJS11K3Z	EXTENSION CORD, 11 PIN	1	Q31	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
Z2	PQJS6K2Z	EXTENSION CORD, 6 PIN	1	Q32	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
Z3	PQZZLCT2401A	TEST TAPE	1	Q36	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1
Note: 1. PQJS11K3Z and PQJS6K2Z are useful for servicing. (They make servicing easy.) 2. PQZZLCT2401A is necessities for servicing.							
PRINTED CIRCUIT BOARD PARTS							
PCB1	PQWP5206EUK1	P.C.BOARD ASSEMBLY (RTL)	Δ 1	(DIODES)			
				D 1	PQVDS5688G	DIODE(SI)	1
				D 2	PQVDS5688G	DIODE(SI)	1
				D 3	PQVDS5688G	DIODE(SI)	1
				D 4	PQVDS5688G	DIODE(SI)	1
				D 5	1SS119	DIODE(SI)	S 1
				D 6	MA4036	DIODE(SI)	S 1
				D 9	MA4030	DIODE(SI)	S 1
				D10	MA4180	DIODE(SI)	1
				D12	1SS119	DIODE(SI)	S 1
				D13	1SS119	DIODE(SI)	S 1
				D14	PQVDS5688G	DIODE(SI)	1
				D16	1SS119	DIODE(SI)	S 1
				D17	1SS119	DIODE(SI)	S 1
				D18	1SS119	DIODE(SI)	S 1
				D19	1SS119	DIODE(SI)	S 1
				D20	1S2076	DIODE(SI)	1
				D24	MA4100	DIODE(SI)	S 1
				D25	MA4051	DIODE(SI)	S 1
				D26	PQVDMTZ6R8	DIODE(SI)	S 1
				D30	1SS119	DIODE(SI)	S 1
				D31	1SS119	DIODE(SI)	S 1
				D32	1SS119	DIODE(SI)	S 1
				D33	1SS119	DIODE(SI)	S 1
				D35	1SS119	DIODE(SI)	S 1
				D50	1S2076	DIODE(SI)	1
				D51	1SS119	DIODE(SI)	S 1
				D52	1SS119	DIODE(SI)	S 1
				D100	MA141WK	DIODE(SI)	1
				D101	MA141WA	DIODE(SI)	1
IC1	PQVI70081D54	IC	1				
IC2	PQVISC111812	IC	1				
IC3	PQVICS11160N	IC	1				
IC4	AN6658K	IC	1				
IC5	PQVIMT3074AE	IC	S 1				
				(TRANSISTORS)			
Q 1	PQVTKSD261CY	TRANSISTOR(SI)	1				
Q 2	2SC3330	TRANSISTOR(SI) [or 2SC3311 or 2SC1740S]	1				
Q 3	2SB1218A	TRANSISTOR(SI) [or 2SA1603S or 2SA1576S]	1				
Q 4	2SA1625	TRANSISTOR(SI) [or 2SA1776Q or 2SA1776P or 2SB1448P or 2SB1448Q or 2SA1884Q or 2SA1884P]	1				
Q 5	2SD1819A	TRANSISTOR(SI) [or 2SC4155S or 2SC4081S]	1				

This replacement parts list is for KX-T5206E-1 only.

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
		(LEDS)				(OTHERS)	
LED1	LN21RCPHV	LED	S 1	SA1	PQVDRA311PT2	VARISTOR	△ 1
LED2	LN21RCPHV	LED	S 1	T1	PQLT8E5A	TRANSFORMER	1
				VR1	EVNDXAA03B23	VARIABLE RESISTOR	1
				X1	PQVBT4.19G1	CERAMIC FILTER	S 1
				X2	PQVCL3276N6Z	CRYSTAL OSCILLATOR	1
				X3	EF0EC7684T4P	CERAMIC FILTER	S 1
				RLY2	PQSL116Z	RELAY	△ 1
				LCD1	PQADB5584AZ	LIQUID CRYSTAL DISPLAY	1
		(JACKS)		PC1	PQVIPC814Y	PHOTO ELECTRIC TRANSDUCER	△ 1
JJ1	PQJJ2H002Z	JACK, TELEPHONE LINE, DC IN	1	PC2	PQVIPC851K	PHOTO ELECTRIC TRANSDUCER	S △ 1
JJ2	PQJJ1J5Z	JACK, BT TEL	1	PC3	PQVIPC817K	PHOTO ELECTRIC TRANSDUCER	△ 1
				PC4	PQVIPC817K	PHOTO ELECTRIC TRANSDUCER	△ 1
				E1	PQJM113Z	MICROPHONE	1
				E2	PQMG10001Z	RUBBER, MICROPHONE COVER	1
				E3	PQHR10126Z	LCD HOLDER	1
		(CONNECTORS)					
CN1	PQJP10D78Z	CONNECTOR, 10 PIN	1				
CN2	PQJP06D80Z	CONNECTOR SOCKET, 6 PIN	1				
CN3	PQJP4D99Z	CONNECTOR, 4 PIN	1				
CN101	PQJS4X41Z	CONNECTOR SOCKET, 4 PIN	1				
						(RESISTORS)	
		(SWITCHES)		R 1	ERD25TJ183	18K	1
S1	PQSS2A27W	SWITCH, MESSAGE ALERT	1	R 2	PQ4R10XJ104	100K	1
S2	PQSS3A17W	SWITCH, RINGS	1	R 3	ERDS2TJ472	4.7K	1
S3	PQSS3A17W	SWITCH, REC TIME	1	R 4	PQ4R10XJ103	10K	1
S5	PQSS2A27W	SWITCH, VOX SENS	1	R 5	PQ4R10XJ102	1K	1
S101	EVQPJH05K	SWITCH, FF	1	R 6	ERDFS1TJ470	47	1
S102	EVQ21005G	SWITCH, REW	S 1	R10	PQ4R10XJ681	680	1
S104	EVQ21005G	SWITCH, REMOTE CODE	S 1	R11	PQ4R10XJ183	18K	1
S105	EVQ21005G	SWITCH, GREETING CHECK	S 1	R12	PQ4R10XJ103	10K	1
S106	EVQ21005G	SWITCH, GREETING RECORD	S 1	R13	PQ4R10XJ124	120K	1
S107	EVQ21005G	SWITCH, 2WAY REC	S 1	R14	PQ4R10XJ121	120	1
S108	EVQ21005G	SWITCH, MEMO	S 1	R15	PQ4R10XJ393	39K	1
S109	EVQ21005G	SWITCH, DAY	S 1	R16	PQ4R10XJ153	15K	1
S110	EVQ21005G	SWITCH, HOUR	S 1	R17	PQ4R10XJ223	22K	1
S111	EVQ21005G	SWITCH, MINUTE	S 1	R18	PQ4R10XJ682	6.8K	1
S113	EVQ21005G	SWITCH, TIME CHECK	S 1	R20	PQ4R10XJ184	180K	1
S117	EVQ21005G	SWITCH, VOLUME UP	S 1	R21	PQ4R10XJ104	100K	1
S118	EVQ21005G	SWITCH, VOLUME DOWN	S 1	R22	PQ4R10XJ333	33K	1
S119	EVQ21005G	SWITCH, ICM ERASE	S 1	R23	PQ4R10XJ562	5.6K	1
S120	EVQ21005G	SWITCH, GREETING SELECTOR	S 1	R24	PQ4R10XJ682	6.8K	1
S121	EVQ21005G	SWITCH, ALL MESSAGE PLAYBACK	S 1	R25	PQ4R10XJ474	470K	1
S122	EVQ21005G	SWITCH, NEW MESSAGE PLAYBACK	S 1	R26	PQ4R10XJ103	10K	1
S123	EVQ21005G	SWITCH, ANSWER ON	S 1	R27	PQ4R10XJ474	470K	1
S124	EVQ21005G	SWITCH, STOP	S 1	R28	PQ4R10XJ223	22K	1
				R29	ERDS2TJ105	1M	1
				R30	PQ4R10XJ105	1M	1
				R31	PQ4R10XJ822	8.2K	1
				R32	PQ4R10XJ185	1.8M	1
				R33	PQ4R10XJ470	47	1
				R34	ERDS2TJ103	10K	1
				R35	PQ4R10XJ103	10K	1
				R36	ERDS2TJ151	150	1
				R37	PQ4R10XJ394	390K	1
				R38	PQ4R10XJ104	100K	1
				R39	PQ4R10XJ104	100K	1

This replacement parts list is for KX-T5206E-1 only.

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
R40	ERDS2TJ683	68K	1	R109	PQ4R10XJ681	680	1
R41	PQ4R10XJ123	12K	1				
R42	PQ4R10XJ562	5.6K	1	R110	PQ4R10XJ473	47K	1
R43	Not Used			R111	ERDS2TJ103	10K	1
R44	Not Used			R112	PQ4R10XJ222	2.2K	1
R45	PQ4R10XJ223	22K	1	R113	PQ4R10XJ122	1.2K	1
				R114	PQ4R10XJ2R4	2.4	1
R50	PQ4R10XJ332	3.3K	1	R115	ERDS1TJ562	5.6K	1
R51	PQ4R10XJ102	1K	1	R116	PQ4R10XJ822	8.2K	1
R52	PQ4R10XJ822	8.2K	1	R117	PQ4R18XJ681	680	1
R53	PQ4R10XJ564	560K	1	R118	ERDS1TJ100	10	1
R54-56	Not Used						
R57	ERDS2TJ121	120	1	R122	PQ4R10XJ473	47K	1
R58	Not Used			R123	PQ4R10XJ472	4.7K	1
R59	PQRQ1VJ4R7	4.7	1	R124-126	Not Used		
				R127	PQ4R10XJ473	47K	1
R60	ERDS1TJ391	390	1	R128	Not Used		
R61	ERDS2TJ681	680	1	R129	PQ4R10XJ122	1.2K	1
R62	ERD25TJ221	220	1				
R63	PQ4R10XJ822	8.2K	1	R130	PQ4R10XJ472	4.7K	1
R64	PQ4R10XJ105	1M	1	R131	PQ4R10XJ222	2.2K	1
R65	PQ4R10XJ561	560	1	R132	Not Used		
R66	PQ4R10XJ273	27K	1	R133	PQ4R10XJ103	10K	1
R67	ERDS2TJ101	100	1	R134	PQ4R10XJ103	10K	1
R68	PQ4R10XJ273	27K	1	R135	PQ4R10XJ103	10K	1
R69	PQ4R10XJ181	180	1	R136	PQ4R10XJ335	3.3M	1
				R137	PQ4R10XJ103	10K	1
R70	PQ4R10XJ472	4.7K	1	R138	PQ4R10XJ223	22K	1
R71	Not Used			R139	PQ4R10XJ103	10K	1
R72	PQ4R10XJ104	100K	1				
R73	PQ4R10XJ334	330K	1	R142	PQ4R10XJ104	100K	1
R74	PQ4R10XJ153	15K	1	R143	Not Used		
R75	PQ4R10XJ223	22K	1	R144	Not Used		
R76	PQ4R10XJ563	56K	1	R145	PQ4R10XJ104	100K	1
R77	PQ4R10XJ333	33K	1	R146	PQ4R10XJ472	4.7K	1
R78	PQ4R10XJ473	47K	1				
R79	PQ4R10XJ103	10K	1	R150	PQ4R18XJ103	10K	1
R80	ERDS2TJ564	560K	1				
R81	Not Used			J1	PQ4R10XJ000	0Ω	1
R82	PQ4R10XJ334	330K	1	J2	PQ4R10XJ000	0Ω	1
R83	PQ4R10XJ393	39K	1	J3	PQ4R10XJ000	0Ω	1
R84	Not Used			J4	PQ4R10XJ000	0Ω	1
R85	PQ4R10XJ563	56K	1	J5	PQ4R10XJ000	0Ω	1
R86	PQ4R10XJ393	39K	1	J51	PQ4R18XJ000	0Ω	1
R87	PQ4R10XJ684	680K	1	J57	PQ4R18XJ000	0Ω	1
R88	ERD25TJ103	10K	1	J58	PQ4R18XJ000	0Ω	1
				J6	PQ4R10XJ000	0Ω	1
R90	PQ4R10XJ222	2.2K	1	J60	PQ4R18XJ000	0Ω	1
R91	PQ4R10XJ123	12K	1	J63	PQ4R18XJ000	0Ω	1
R92	PQ4R10XJ272	2.7K	1	J64	PQ4R18XJ000	0Ω	1
R93	PQ4R10XJ392	3.9K	1				
R94	PQ4R10XJ472	4.7K	1				
R95	PQ4R10XJ223	22K	1				
R96	PQ4R10XJ223	22K	1				
R97	PQ4R10XJ223	22K	1				
R98	PQ4R10XJ223	22K	1				
R99	PQ4R10XJ333	33K	1				
R100	PQ4R10XJ473	47K	1				
R101	PQ4R10XJ683	68K	1				
R102	PQ4R10XJ683	68K	1				
R103	PQ4R10XJ683	68K	1				
R104	PQ4R10XJ683	68K	1				
R105	PQ4R10XJ104	100K	1				
R106	PQ4R10XJ104	100K	1				
R107	PQ4R10XJ104	100K	1				
R108	PQ4R10XJ471	470	1				

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This replacement parts list is for KX-T5206E-1 only.

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
(CAPACITORS)							
C 2	ECQE2E104KZ	0.1	1	C65	ECUV1H223MD	0.022	1
C 3	ECKD2H681KB	680P	1	C66	PQCUV1H471JC	470P	1
C 4	ECKD2H681KB	680P	1	C67	PQCUV1H223KB	0.022	1
C 5	ECEA1CKS100	10	1	C68	ECEA1CKS470	47	1
C 6	ECEA1CK101	100	1	C69	ECUV1H470JC	47P	1
C 7	ECEA1HKSR47	0.47	1	C70	ECEA1CKS470	47	1
C10	ECEA1HKS010	1	1	C71	PQCUV1H103KB	0.01	1
C11	PQCUV1H103KB	0.01	1	C72	Not Used		
C12	PQCUV1H102J	0.001	1	C73	PQCUV1H102J	0.001	1
C13	ECQE2E104KZ	0.1	1	C74	PQCUV1H103KB	0.01	1
C14	ECEA1HKS010	1	1	C75	PQCUV1H103KB	0.01	1
C15	PQCUV1H103KB	0.01	1	C76	PQCUV1E473MD	0.047	1
C16	PQCUV1E473MD	0.047	1	C77	PQCUV1H103KB	0.01	1
C17	Not Used			C80	ECEA1CKS470	47	1
C18	PQCUV1H472KB	0.0047	1	C81	PQCUV1H103KB	0.01	1
C19	PQCUV1H103KB	0.01	1	C82	PQCUV1H200JC	20P	1
C20	EECW5R5D473	0.047	1	C83	PQCUV1E104MD	0.1	1
C21	ECEA1HKSR47	0.47	1	C84	PQCUV1E104MD	0.1	1
C22	ECEA1EK470	47	1	C85	PQCUV1H683MD	0.068	1
C23	PQCUV1H103KB	0.01	1	C86	PQCUV1E104MD	0.1	1
C24	ECEA1EK470	47	1	C90	PQCUV1E563MD	0.056	1
C25	ECEA1CU221	220	1	C91	PQCUV1H103KB	0.01	1
C26	ECEA1HKS010	1	1	C92	Not Used		
C27	ECEA1CK101	100	1	C93	ECUV1H682KB	0.0068	1
C28	ECEA1AU471	470	1	C94	ECEA1HKS220	22	1
C29	PQCUV1H103KB	0.01	1	C95	PQCUV1H223KB	0.022	1
C30	PQCUV1H681JC	680P	1	C96	PQCUV1H682KB	0.0068	1
C31	Not Used			C97	PQCUV1H103KB	0.01	1
C32	PQCUV1H103KB	0.01	1	C98	ECEA1CKS100	10	1
C33	ECEA1HKS2R2	2.2	1	C99	ECEA1CKS100	10	1
C34	Not Used			C100	ECEA1VKS4R7	4.7	1
C35	Not Used						
C36	PQCUV1E473MD	0.047	1				
C37	PQCUV1H103KB	0.01	1				
C38	PQCUV1H152KB	0.0015	1				
C39	PQCUV1H222KB	0.0022	1				
C40	PQCUV1H103KB	0.01	1				
C41	PQCUV1H223KB	0.022	1				
C42	PQCUV1E333MD	0.033	1				
C43	ECEA1HKS0R1	0.1	1				
C44	ECEA1VKS4R7	4.7	1				
C45	PQCUV1E153MD	0.015	1				
C46	ECEA1HKSR47	0.47	1				
C47	PQCUV1H103KB	0.01	1				
C48	ECEA1CKS100	10	1				
C49	PQCUV1H102J	0.001	1				
C50	ECEA1AKS330	33	1				
C51	ECEA1CKS100	10	1				
C52	PQCUV1H102J	0.001	1				
C53	PQCUV1H471JC	470P	1				
C54	ECEA1CKS100	10	1				
C55	ECEA1CK101	100	1				
C56	PQCUV1H103KB	0.01	1				
C57	PQCUV1H103KB	0.01	1				
C58	ECEA1CKS100	10	1				
C59	PQCUV1E473MD	0.047	1				
C60	PQCUV1H103KB	0.01	1				
C61	ECEA0JKS220	22	1				
C62	PQCUV1H103KB	0.01	1				
C63	PQCUV1H472KB	0.0047	1				
C64	PQCUV1H221JC	220P	1				