ORDER NO. KM49211375C2

Service Manual

and Technical Guide

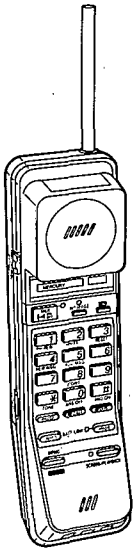
Easa-Phone

Cordless Telephone Answering System

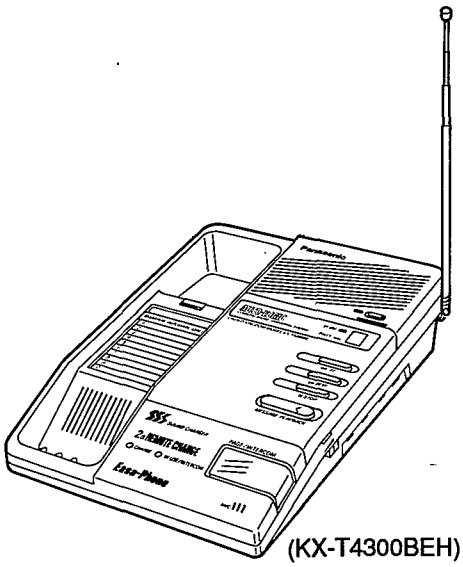
Telephone Equipment

KX-T4300BE

(for United Kingdom)



(KX-T4300BER)



(KX-T4300BEH)

■ SPECIFICATIONS

General

Modulation:	FM 4 kHz Deviation (KX-T4300BEH) FM 2.5 kHz Deviation (KX-T4300BER)
Frequency Stability:	±2.0 kHz
Dial Type:	Tone (DTMF)/Pulse
Redial:	Last dialed number each time the Redial button is pressed
Pause:	3.5 seconds per pause
Memory Capacity:	10 telephone numbers, up to 16 digits per station

Tape Deck Section:

Greeting Message Incoming Message (ICM):	Single Micro Cassette (MC-30)
Tape Speed:	2.4 cm/s
Wow and Flutter:	0.58% (WRMS)
Motor:	Electrical governor motor

	Base Unit (KX-T4300BEH)	Portable Handset (KX-T4300BER)
Power Source:	AC adaptor KX-A24BE (DC 15 V)	Built-in rechargeable Ni-Cd battery (KX-A36A)
(Receiver Section)		
Receiving Frequency:	2 channel within 47.4 to 47.6 MHz	2 channel within 1.64 to 1.79 MHz
Adjacent Channel Rejection:	40 dB	40 dB
Sensitivity:	1 μV for 12 dB S/N	2 μV for 12 dB S/N
(Transmitter Section)		
Transmitting Frequency:	2 channel within 1.64 to 1.79 MHz	2 channel within 47.4 to 47.6 MHz
Jacks:	DC IN, Telephone line	
Antenna:	Telescopic Lead Antenna	Retractable Rubber Flexible
Speaker:	2″ (5 cm) PM dynamic	1.2″ (3 cm) dynamic
Microphone:	Condenser microphone	Condenser microphone
Dimensions (H × W × D):	2 11/16″ × 6 25/32″ × 8 29/32″ (68×172×226 mm)	1 11 3/32″ × 2 11/32″ × 2 1/16″ (290×60×52 mm)
Weight:	1.6 lbs. (733 g)	0.57 lbs. (257 g) with battery

Design and specifications are subject to change without notice.

Panasonic

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.

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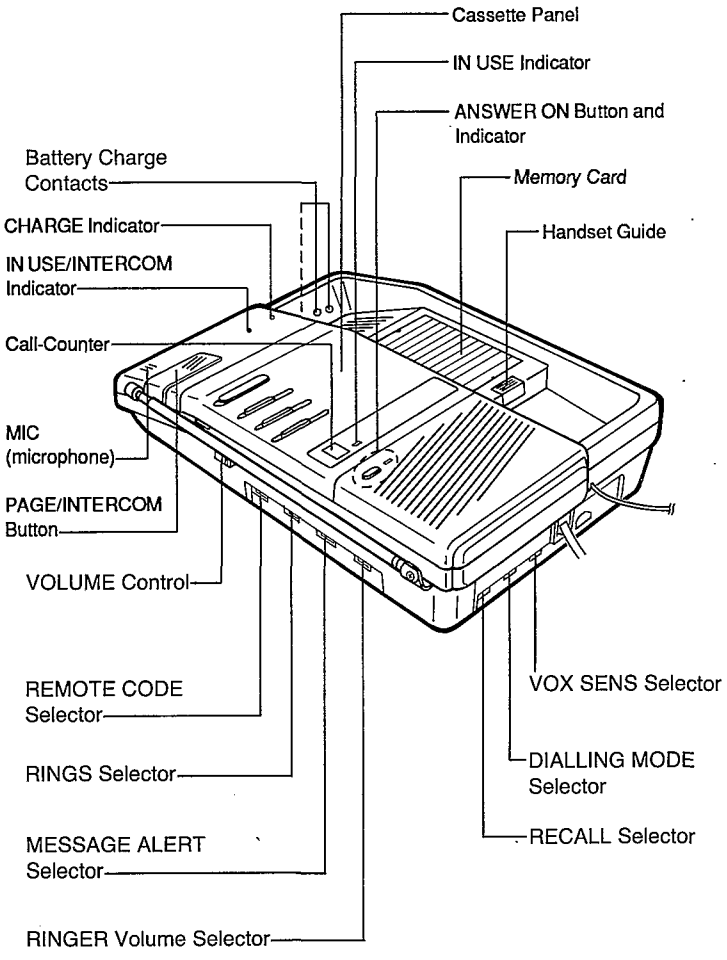
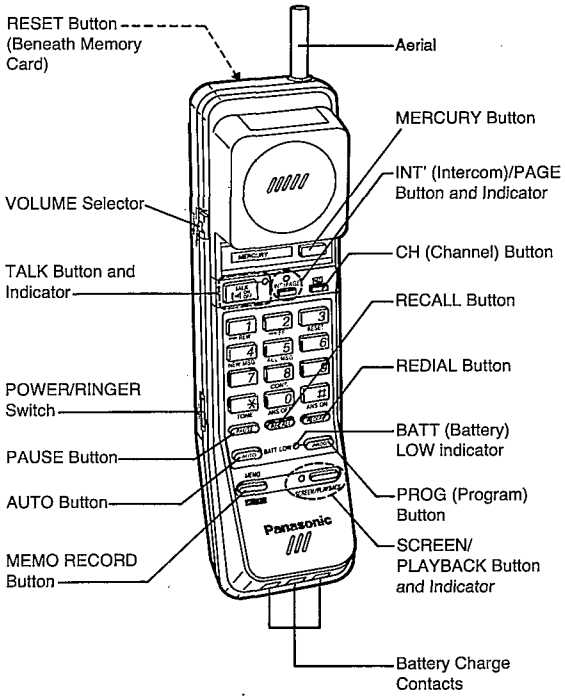
LOCATION OF CONTROLS

Base Unit (KX-T4300BEH)



Portable Handset (KX-T4300BER)



In the cassette panel

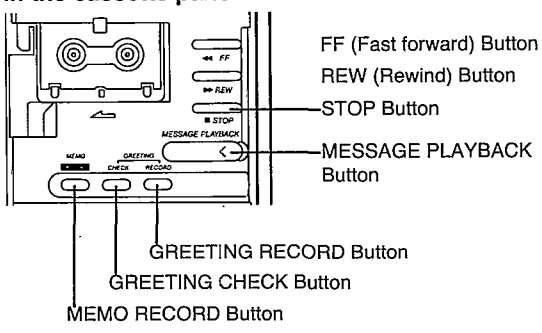


Fig. 1

DISASSEMBLY INSTRUCTIONS

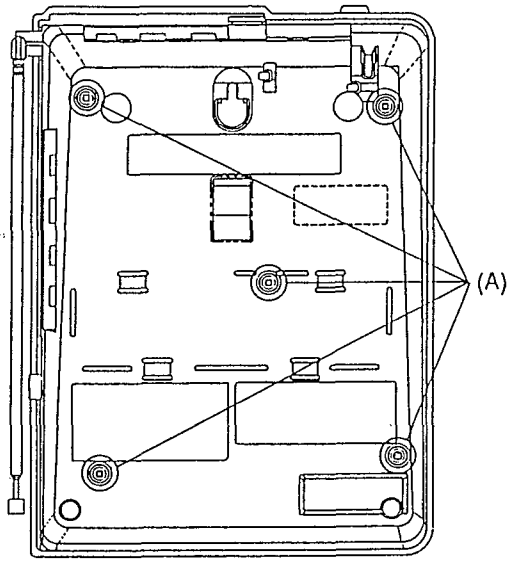


Fig. 2

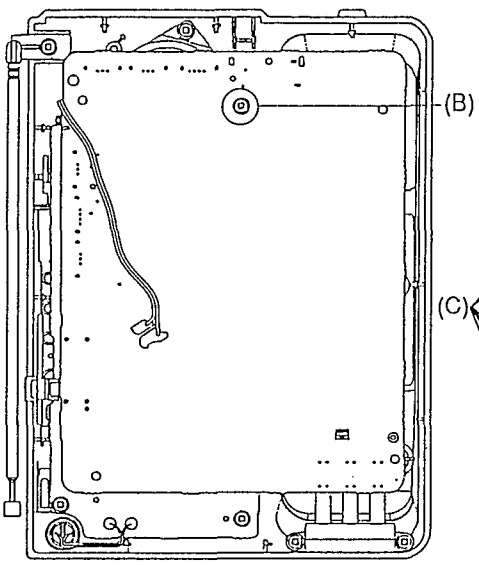


Fig. 3

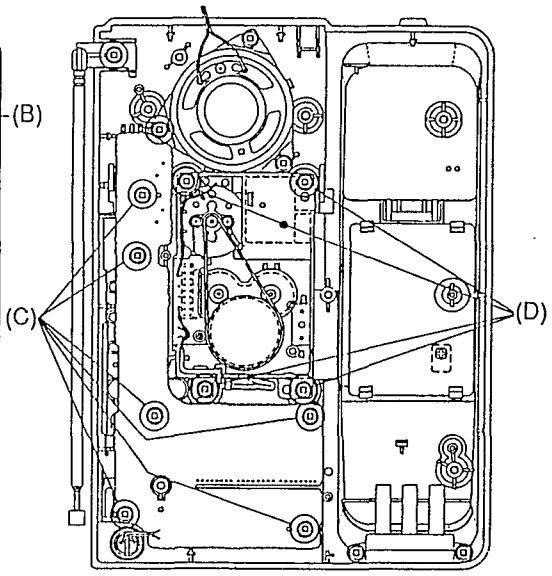


Fig. 4

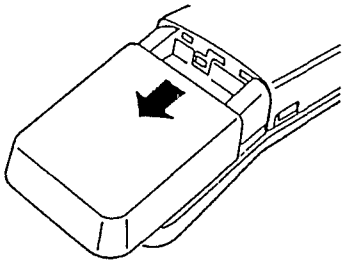


Fig. 5

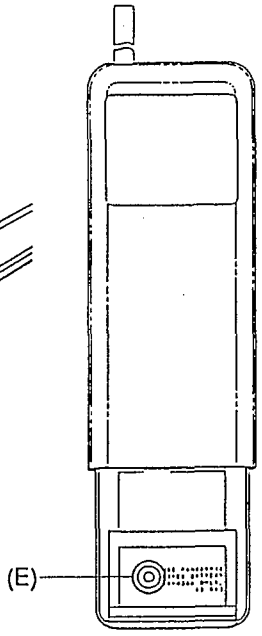


Fig. 6

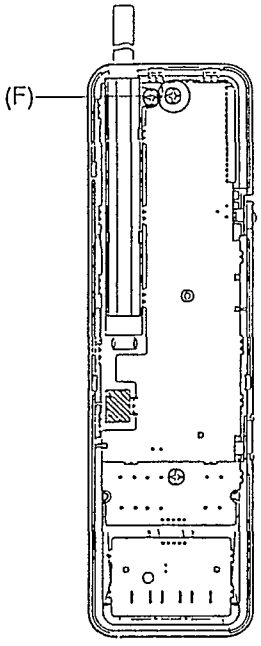


Fig. 7

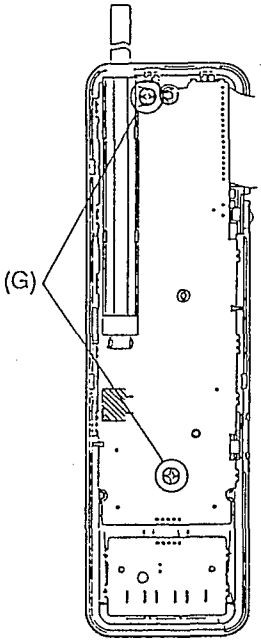


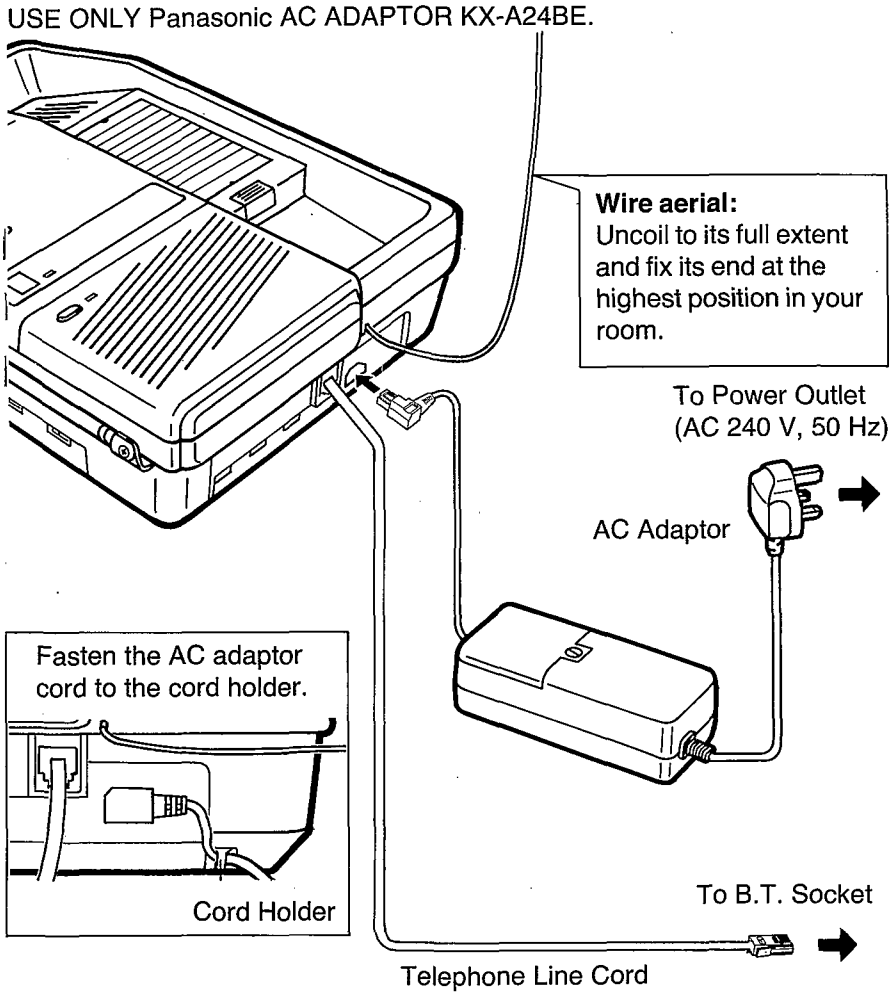
Fig. 8

Ref. No.	Procedure	Shown In Fig.—	To remove—.	Remove—.
1	1	2	Lower Cabinet	Screws (3×16) ..... (A)×5
2	1, 2	3	Printed Circuit Board	Screw (3×10) ..... (B)×1
3	1~4	4	Operational P.C. Board	Screws (3×10) ..... (C)×6
4		4	Cassette Deck	Screws (3×10) ..... (D)×4
5	5, 6	5	Rear Cabinet	Remove the battery compartment cover
6		6		Screw (2.6×10) ..... (E)×1
7	5~7	7	Printed Circuit Board	Screw (2.6×10) ..... (F)×1
8	5~8	8		Screws (2.6×10) ..... (G)×2

CONNECTION TO A TELEPHONE LINE

To connect the telephone line and AC adaptor

USE ONLY Panasonic AC ADAPTOR KX-A24BE.



Power failure protection

The unit will not function during a power failure. We recommend that you install ten optional batteries (AA, R6 or UM-3 size) into the AC adaptor. Then, you can operate all features except the answering system features, during a power failure.

Fig. 9

Battery Life

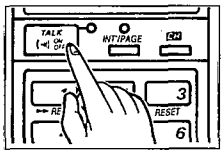
Stand-by mode	Talk mode
After charging for 10 hours, the battery life is about 3-days.	After charging for 10 hours, you can talk about 7 hours in talk mode. And even when the battery indicator flashes, you can talk about 10~20 minutes.

Note: But these values are nothing but standard and vary on condition in which you use.

OPERATIONS

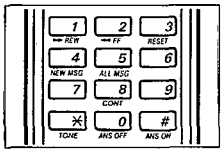
MAKING CALLS

Be sure that the POWER/RINGER switch on the portable handset is set to the "ON" position.

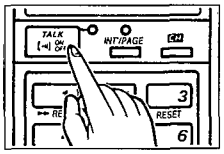
1 

Press the TALK button to get dial tone.

The TALK indicator light is on.

2 

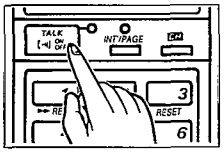
Dial a telephone number.

3 

When your conversation is over, press the TALK button or place the portable handset on the cradle to hang up.

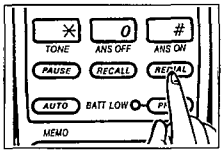
The TALK indicator light goes out.

To redial

1 

Press the TALK button to get dial tone.

The TALK indicator light is on.

2 

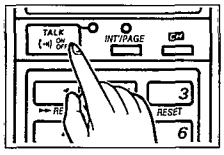
Press the REDIAL button.

The last dialled number is automatically dialled.

ANSWERING CALLS

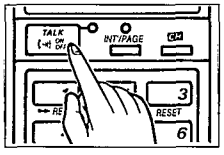
- Be sure that the POWER/RINGER switch on the portable handset is set to the "ON" position, or the portable handset will not ring.
- Extend the aerial of the portable handset fully for best performance when using it.

If the portable handset is out of the cradle

1 

When the telephone rings, press the TALK button to answer the call.

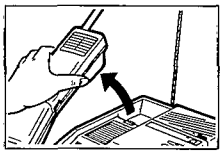
The TALK indicator light is on.

2 

When your conversation is over, press the TALK button or place the portable handset on the cradle to hang up.

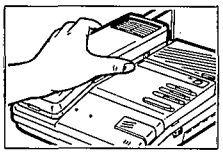
The TALK indicator light goes out.

If the portable handset is on the cradle

1 

When the telephone rings, pick up the portable handset to answer the call.

You can talk without pressing the TALK button.

2 

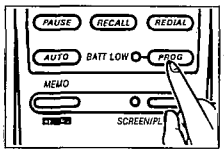
When your conversation is over, place the portable handset on the cradle or press the TALK button to hang up.

AUTOMATIC DIALING

The unit can store 10 phone numbers in memory. You can dial a stored number automatically by pressing the AUTO button and one of the dial buttons.

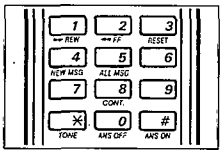
Storing phone numbers in memory

Each dial button (0 through 9) works as a memory station for automatic dialling. Each station can store a 16-digit phone number.

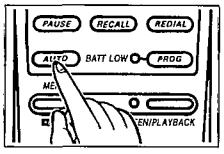
1 

Press the PROG button.

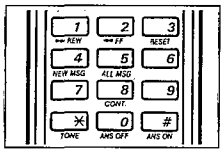
The BATT LOW indicator light is on. It shows the unit is in the programming mode.

2 

Enter the phone number you want to store up to 16 digits long.

3 

Press the AUTO button.

4 

Press one of the dial buttons (0 through 9) to store the phone number.

A beep sounds and the BATT LOW indicator light goes out.
The phone number is then stored into the memory location.

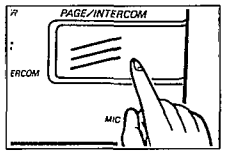
To store other numbers, repeat steps 1 through 4.

INTERCOM BETWEEN THE BASE UNIT AND THE PORTABLE HANDSET

You can use the unit as a two-way intercom between the portable handset and the base unit.

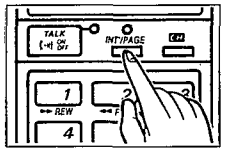
Intercom mode can be maintained up to about 3 minutes. When the time-out comes near, the alarm tone sounds. Then the intercom mode is terminated forcibly. Be sure to finish the intercom mode before 3 minutes are up, or the facility of paging, intercom and the remote operation from the portable handset will be inoperable within 1 minute of the time-out.

To page the portable handset from the base unit

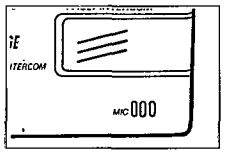
1 

The base unit user:
Press the PAGE/INTERCOM button.

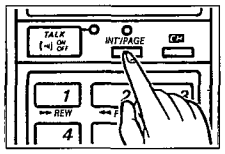
The base unit beeps until the portable handset user answers your paging. If no answer, press the PAGE/INTERCOM button again to stop paging.

2 

The portable handset user:
When the beep sounds and INT'/PAGE indicator flashes, press the INT'/PAGE button to answer the paging.

3 

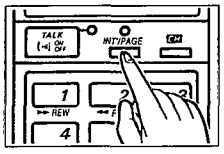
The base unit user:
Speak to the paged party through the MIC (microphone).

4 

When your conversation is over, press the INT'/PAGE button on the portable handset.

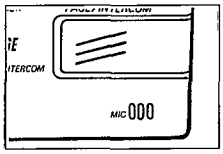
Intercom calls can only be terminated by the portable handset.

To page the base unit from the portable handset

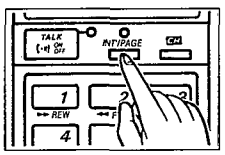
1 

The portable handset user:
Press the INT'/PAGE button.

Paging continues when pressing the INT'/PAGE button. When you release the button, the unit automatically switches to the intercom mode and you can speak to the paged party. If no answer, press the INT'/PAGE button again to stop the intercom mode.

2 

The base unit user:
When the beep sounds and the paging party's voice is heard, speak to the party through the MIC.

3 

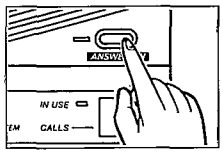
When your conversation is over, press the INT'/PAGE button on the portable handset.

Intercom calls can only be terminated by the portable handset.

Helpful hints:
- Even while in a conversation with an outside caller, the portable handset user can page the base unit user by pressing the INT'/PAGE button. The outside call is put on hold then. To return to the outside call, press the TALK button.
- If you hear tones while having an intercom conversation, it means that someone is calling from outside. You can answer the outside call by pressing the TALK button. The intercom call is then terminated.
- While having a three way conversation, the quality of the sound may be a little impaired, but it is not fault condition.

TURNING THE ANSWERING SYSTEM ON

When the ANSWER ON indicator light is off:



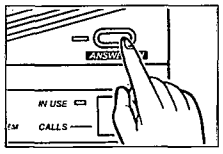
Press the ANSWER ON button to turn the answering system on.

The ANSWER ON indicator light is on.

To turn the answering system off

When you want to use the unit only as a cordless telephone, turn off the answering system.

When the ANSWER ON indicator light is on:

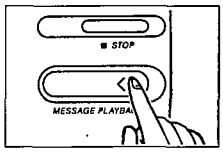


Press the ANSWER ON button to turn off the answering system.

The ANSWER ON indicator light goes out.

LISTENING TO THE RECORDED MESSAGES

To listen to messages

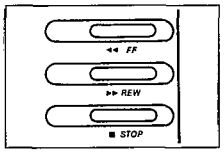


Press the MESSAGE PLAYBACK button.

The unit automatically rewinds the tape and starts to play back the messages.

At the end of the last message, 3 beeps sound and the tape stops automatically.

To rewind/fast forward the tape



Keep pressing the REW button to rewind the tape.
Keep pressing the FF button to fast forward the tape.

The unit rewinds/fast forwards the tape when the REW/FF button is depressed, and starts playback again when you release the button.

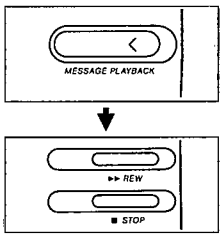
Note:
- When the tape is completely rewound, a beep sounds. To listen to the recorded messages again, press the MESSAGE PLAYBACK button within 10 seconds after the beep.

To reset the tape

After having played back all the recorded messages, the unit automatically rewinds the tape to the beginning and resets itself. New messages are recorded over old messages.

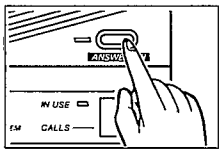
To save old messages

1



Play back the messages by pressing the MESSAGE PLAYBACK button, then press the STOP button at the end of the messages you want to save.

2

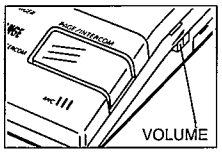


Press the ANSWER ON button to turn on the answering system.

The Call-Counter returns to "0". The ANSWER ON indicator light is on. The new messages will be recorded after saved messages.

MONITORING AN INCOMING CALL

While an incoming call is being recorded, you can monitor and answer it if you wish.



When the unit answers a call, the caller's message is heard through the speaker on the base unit.

Adjust the VOLUME control.

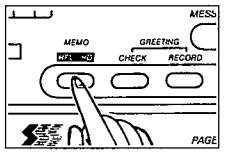
Helpful hint:

- To answer the call while monitoring, lift up the portable handset or press the TALK button of the portable handset.

RECORDING YOUR OWN MESSAGE

You may record a personal message on the tape. It can be heard by anyone playing back messages remotely or manually.

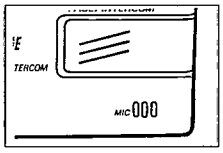
1



Open the cassette panel and press the MEMO RECORD button.

A series of short tones will sound, followed by a long beep.

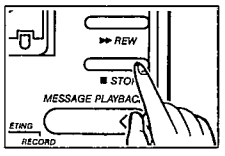
2



Speak immediately after the long beep, about 20 cm (8") away from the MIC (microphone).

The IN USE indicator flashes.

3



To stop recording, press the STOP button.

The IN USE indicator light goes out.

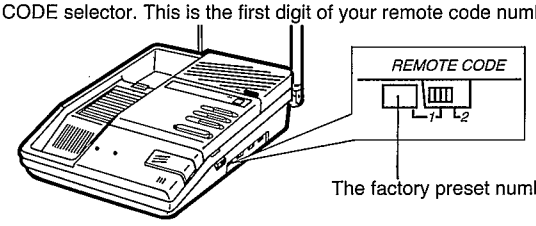
REMOTE OPERATION FROM A TOUCH TONE PHONE

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

To set the remote code number

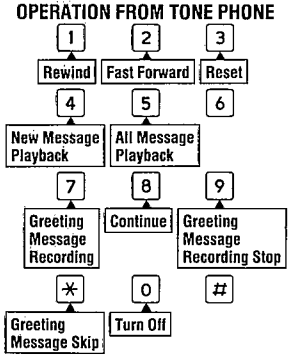
The remote code number prevents unauthorized persons from accessing your unit and listening to your messages. The remote code number is made up of 2 digits. The first digit is factory preset, and the second digit is selectable ("1" or "2").

The factory preset number is shown on the label next to the REMOTE CODE selector. This is the first digit of your remote code number.

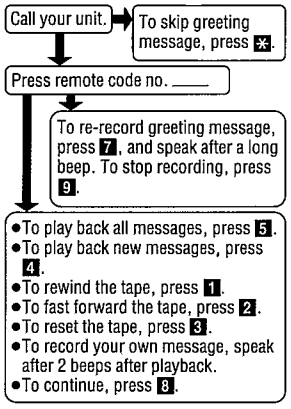


Example:
If the factory preset number is "4", then your code number could be either "41" or "42" depending on the position of the REMOTE CODE selector.

OPERATION FROM TONE PHONE

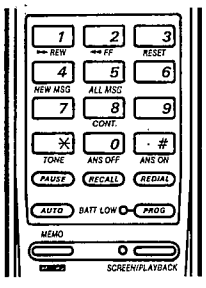


- To turn on the answering system; call your unit and wait for 20 rings. The unit answers, then hang up.
- To turn off the answering system; press code no.→press 0→hang up.

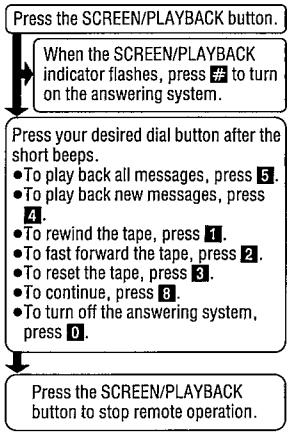


When you press a button, press firmly.

OPERATION FROM PORTABLE HANDSET



To record your own message;
1. Press the MEMO RECORD button.
2. Speak after hearing short tones followed by a long beep.
3. To stop recording, press the MEMO RECORD button again.

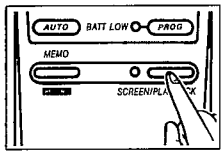


REMOTE OPERATION FROM THE PORTABLE HANDSET

You can operate the answering machine from the portable handset using dial buttons when the unit is in the answer mode.
When an incoming message is being recorded, the SCREEN/PLAYBACK indicator on the handset flashes slowly.

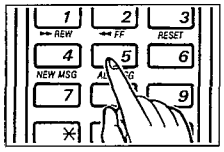
The following features are available with your portable handset.

To play back all messages

1 

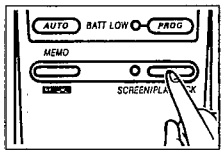
Press the SCREEN/PLAYBACK button.

The SCREEN/PLAYBACK indicator light is on.
Short beeps indicating the number of recorded messages sound.

2 

Press "5" (ALL MSG) after the short beeps.

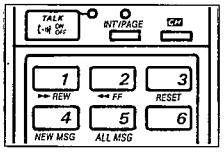
Short tones sound while the tape rewinds, then all messages are played back.
At the end of last message, 3 beeps sound.

3 

To stop remote operation, press the SCREEN/PLAYBACK button.

The SCREEN/PLAYBACK indicator light goes out.

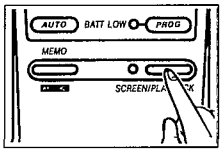
To rewind/fast forward the tape during playback



Press "1" (REW) to rewind the tape, press "2" (FF) to fast forward the tape during playback.

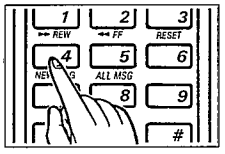
The unit rewinds or forwards the tape for a few seconds and starts playback.

To play back new messages only

1 

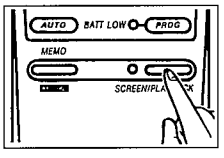
Press the SCREEN/PLAYBACK button.

The SCREEN/PLAYBACK indicator light is on.
Short beeps indicating the number of recorded messages sound.

2 

Press "4" (NEW MSG) after the short beeps.

Short tones sound while the tape rewinds, then new messages are played back.
At the end of the last message, 3 beeps sound.

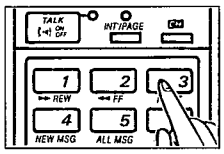
3 

To stop remote operation, press the SCREEN/PLAYBACK button.

The SCREEN/PLAYBACK indicator light goes out.

To reset the tape

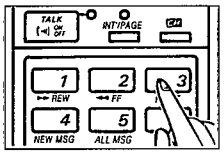
Within 10 seconds after or during playing back all messages:



Press "3" (RESET).

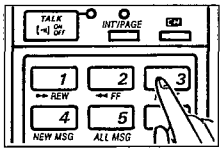
The unit rewinds the tape to the beginning.
New messages will be recorded over the old messages.
To stop remote operation, press the SCREEN/PLAYBACK button.

Within 10 seconds after having played back new messages only using "4" (NEW MSG)

1 

Press "3" (RESET).

The unit rewinds the tape to the beginning of the newly recorded messages and a beep sounds.

2 

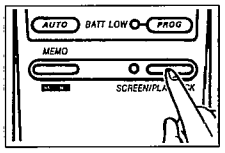
Press "3" (RESET) again after the beep.

The unit rewinds the tape to the beginning.
To stop remote operation, press the SCREEN/PLAYBACK button.

Note:
- To cancel the resetting of the tape, press "2" before ending the remote operation.

To monitor an incoming call

You will know that an incoming message is being recorded by the slow flashing of the SCREEN/PLAYBACK indicator.



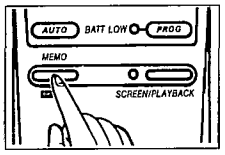
Press the SCREEN/PLAYBACK button.

The SCREEN/PLAYBACK indicator turns to a steady light from slow flashing, and you can listen to the incoming call.

To stop remote operation, press the SCREEN/PLAYBACK button again.

Helpful hint:
- To answer the call while monitoring, press the TALK button.

To record your own message

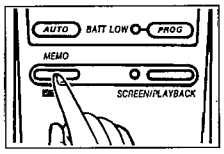
1 

Press the MEMO RECORD button.

The SCREEN/PLAYBACK indicator light is on.
A series of short tones will sound, followed by a long beep.

2 

Speak into your portable handset right after the long beep.

3 

To stop recording, press the MEMO RECORD button again.

The SCREEN/PLAYBACK indicator light goes out.

EXPLANATION OF CPU DATA COMMUNICATION

1. Calling

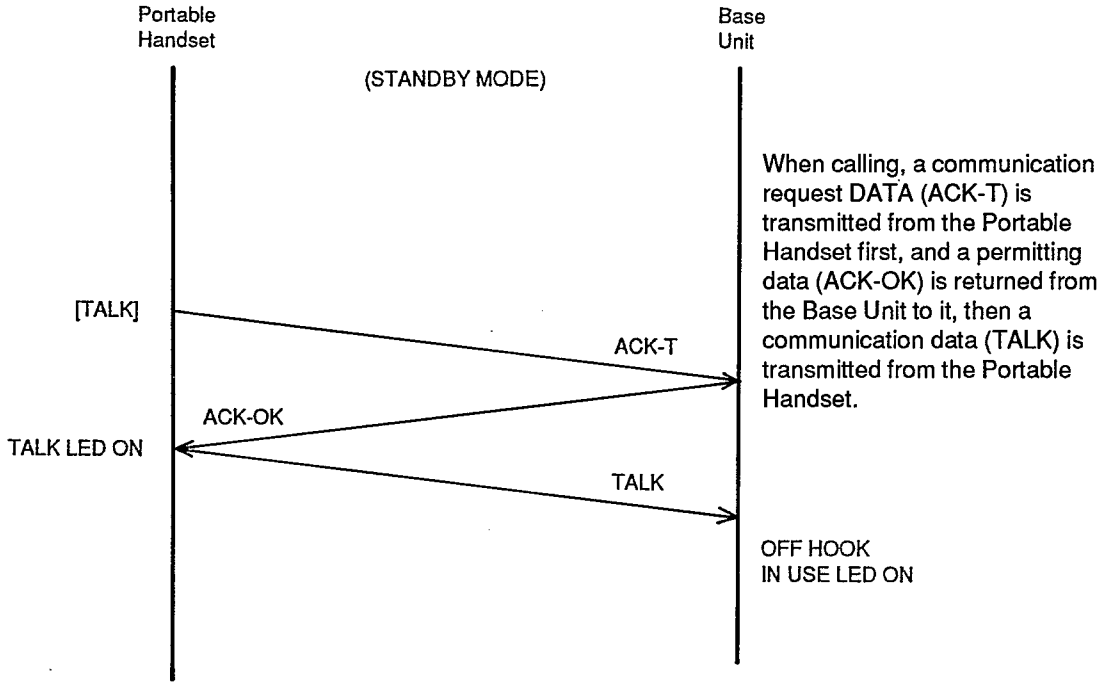


Fig. 10

2. Terminate Communication

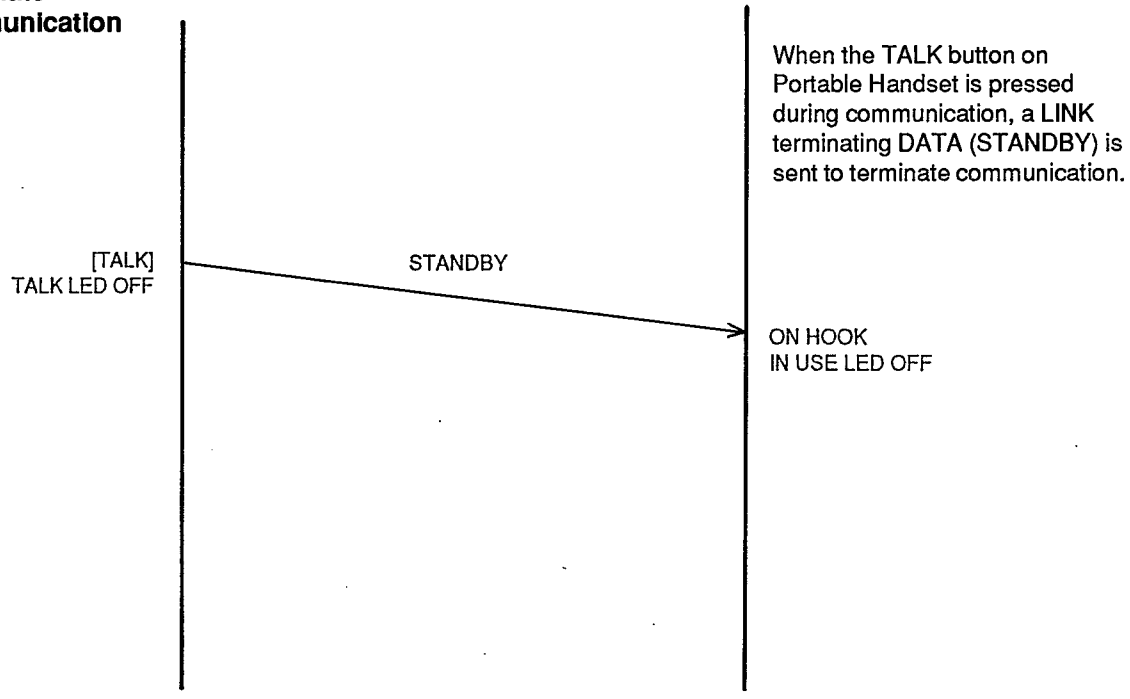


Fig. 11

3. Ringing

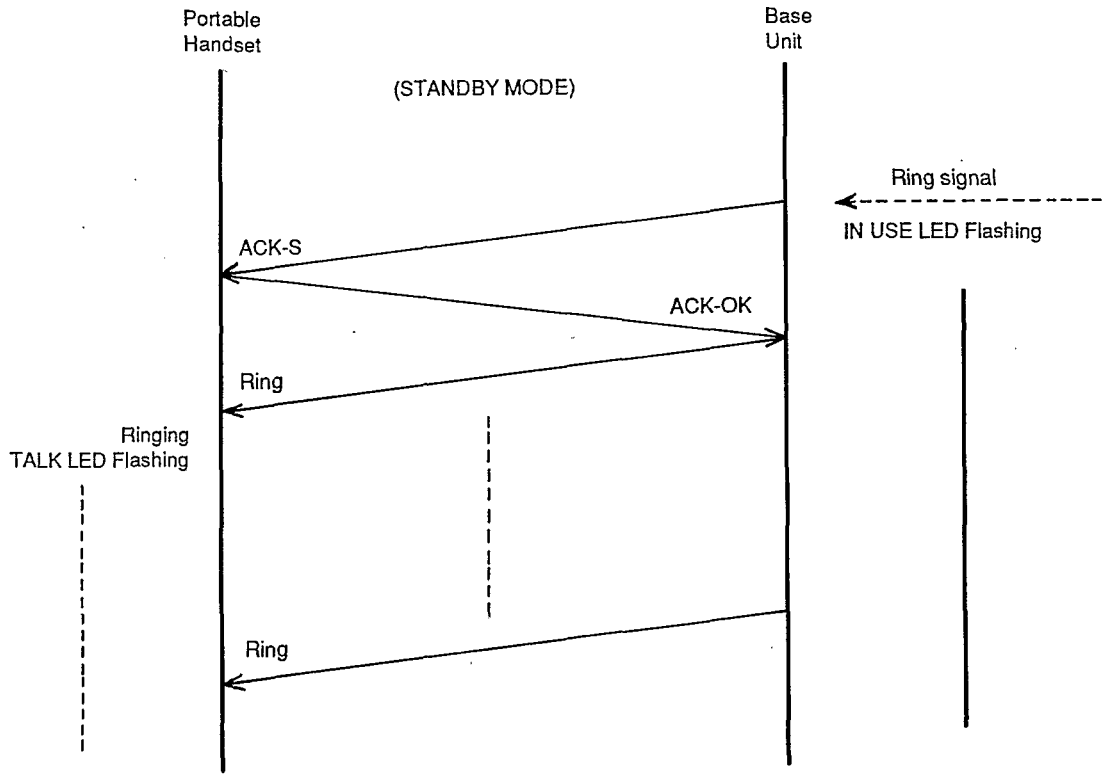


Fig. 12

After detecting the Ring signal from circuit, the Base Unit sends a LINK form requesting DATA (ACK-S) to the Portable Handset. When receiving this data, the Portable Handset returns a permitting DATA (ACK-OK) to the Base Unit. After receiving the returned DATA from the Portable Handset, the Base Unit sends a ring signal DATA, then the Portable Handset starts ringing.

4. Ports for transmitting and receiving of data

Portable Handset:	transmitting...3 Pin	receiving...7 Pin
Base Unit:	transmitting...48 Pin	receiving...2 Pin

5. Wave form of DATA used for cordless transmission and reception

The DATA which is transmitted from the Portable Handset to the Base Unit is combination of DATA 0, DATA 1, DATA Delimt, Pre data and End data of P1.
The DATA which is transmitted from the Base Unit to the Portable Handset is combination of DATA 0, DATA 1, DATA Delimt, Pre data and End data of P2.

PORTABLE HANDSET

Timer setting value

1) Timer interruption (ti)

t=333.33 µs=[1/(1.2 MHz/16)]×25

2) Standard Timer

t1=3.333 ms=t×10

4) IDLE Timer

t2=10.1 ms=t1×3

Transmitting DATA Format

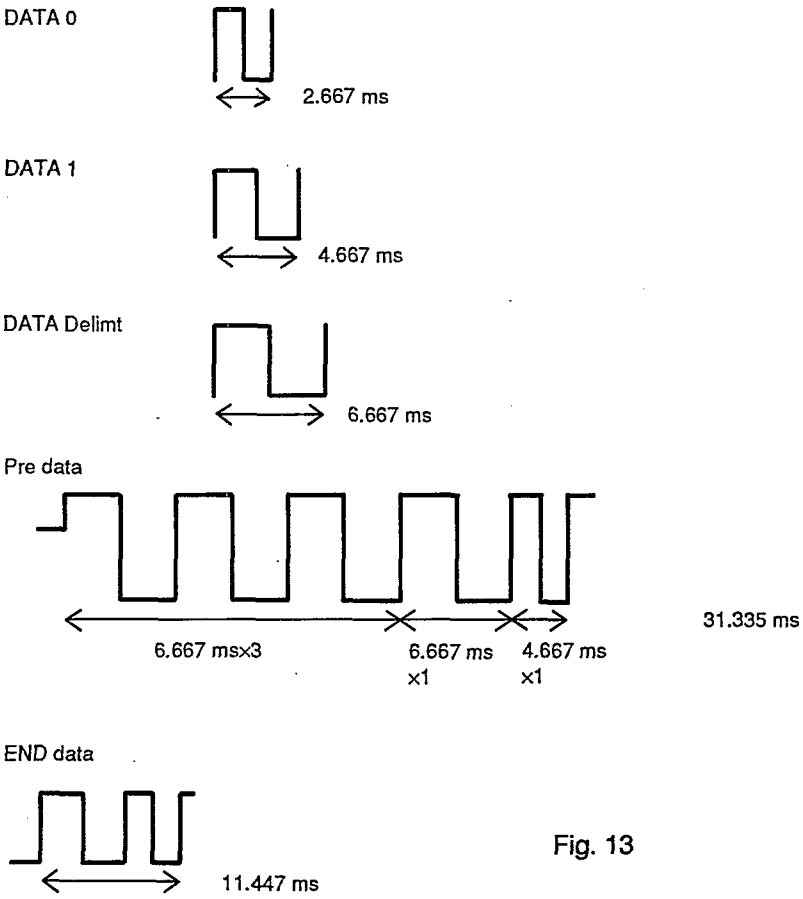


Fig. 13

BASE UNIT

Timer setting value

1) Timer interruption

t=335.238 µs=[1/(3.579545 MHz/16)]×75

2) Standard Timer

t1=2.01 ms=t×6

3) IDLE Timer

t2=16.09 ms=t1×8

Transmitting DATA Format

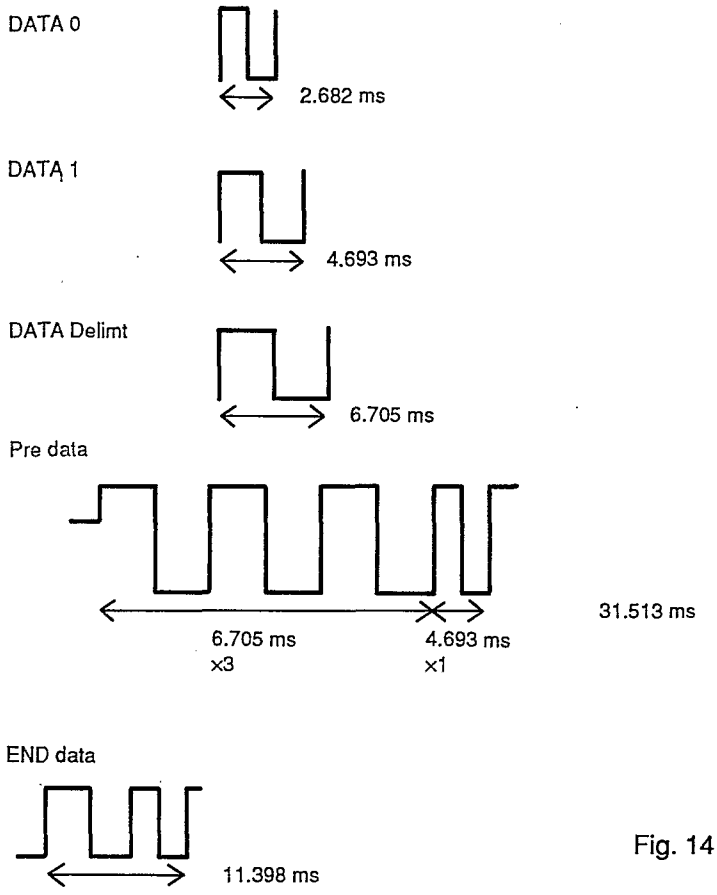
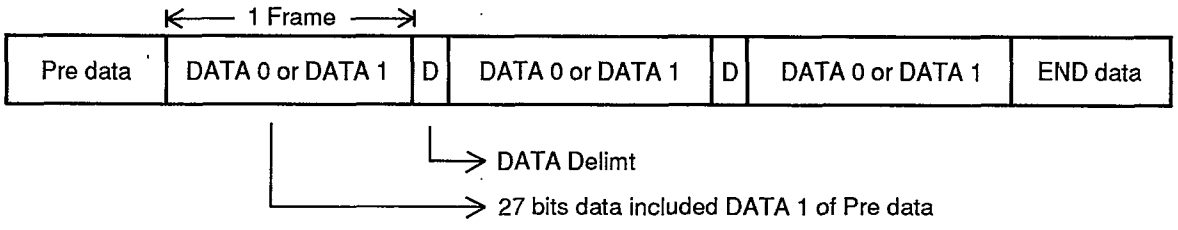


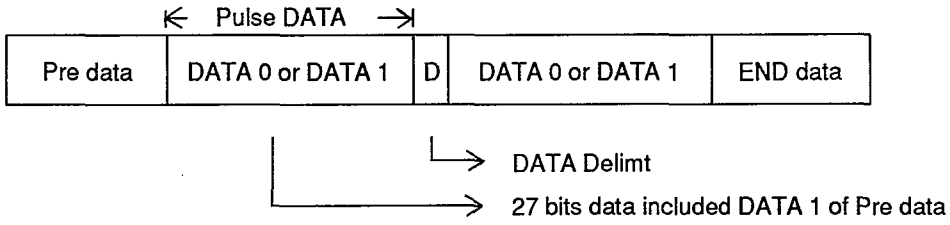
Fig. 14

6. When LINKing



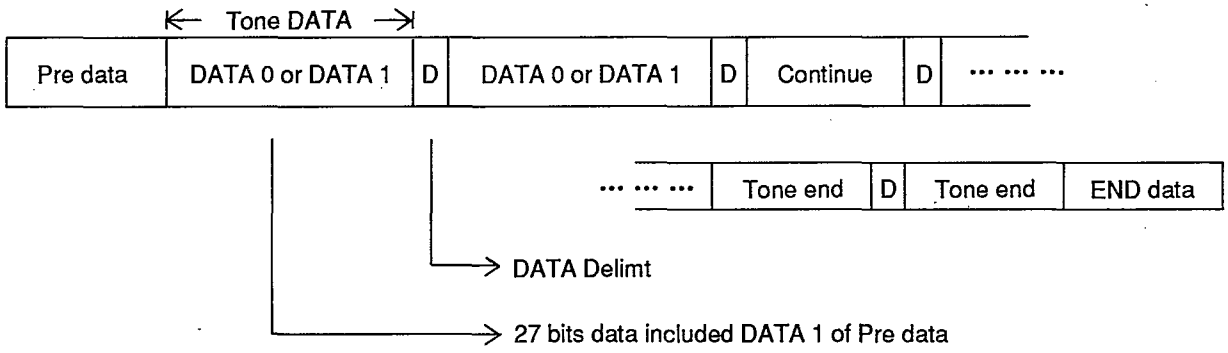
When LINKing from the Portable Handset (when becoming STBY to TALK), DATA is transmitted in above format. The combined portion of DATA 0 and DATA 1 is transmitted in LINK requesting DATA format first. Then, when LINK OK (ACK-OK) DATA is returned from the Base Unit, it is sent as LINK form DATA after changing the combination of DATA 0 and DATA 1. And the DATA Delimt is between each Frame as a stop.
The contents of LINK requesting DATA and LINK form DATA are different depending on each operation.

7. Pulse Dial



When executing Pulse Dial, the Pulse Dial DATA is transmitted from the Portable Handset to the Base Unit in above format. The combination of DATA 0 and DATA 1 are changed by each Dial No. And the DATA Delimt is between each Frame as a stop. The number of Frame is 2.

8. Tone Dial



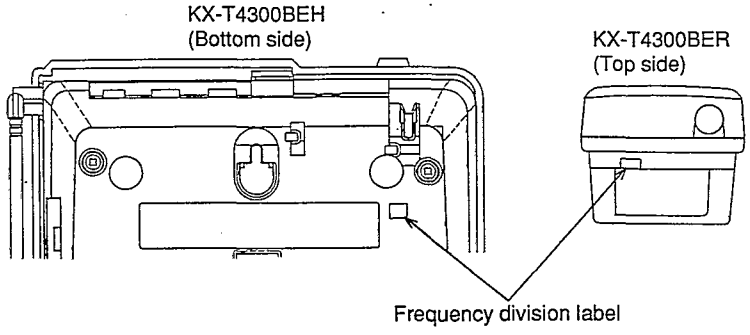
When executing Tone Dial, Tone Dial DATA is transmitted from the Portable Handset to the Base Unit in above format. The DATA is changed by Dial No. as same as Pulse Dial. When Tone Dialing, DATA (Continue DATA) that the key is pressed continuously is sent to the Base Unit during the key is pressed. When depressing the key, the TONE Dial exterminating DATA (Tone end DATA) is sent, and the END data is sent finally. When Rapid Dialing or pressing momentarily, the Continue DATA doesn't exist and the Tone end DATA is only 1 Frame.

NOTE

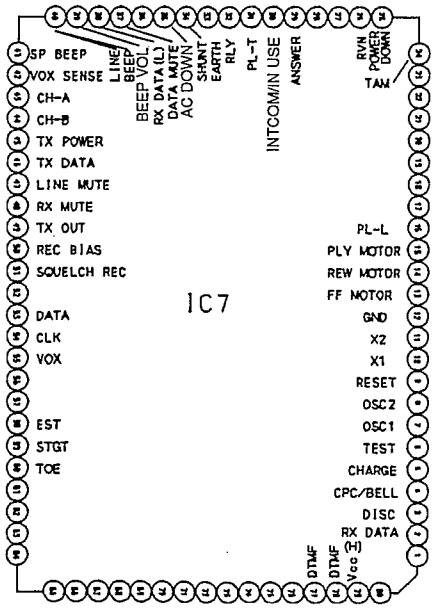
60,000 kinds of the security code are available for the model KX-T4300BE. Each time the portable unit is set on the cradle of the base unit (for charging), the CPU automatically change the security code.

KX-T4300BEH and KX-T4300BER cannot be used unless the crystal frequencies match. The frequency division labels are attached to the cabinet as shown right.
The frequency of each label: Refer to pages 17, 27.

	KX-T4300BEH	KX-T4300BER
Frequency division labels	1, 3 ◄►	1, 3
	3, 5 ◄►	3, 5
	4, 6 ◄►	4, 6



CPU DATA KX-T4300BEH (Base Unit)



IC7 PQVI4639A01F

Fig. 15

Pin No.	Mark	Description	Logical "H"	Logical "L"	Pin No.	Mark	Description	Logical "H"	Logical "L"
1		SQUELCH	High	Low	41	SP BEEP	SP Beep		
2	RX DATA (H)	RX DATA (H)	1	0	42	VOX SENES	Vox Sems	ON	OFF
3	DISC	Disconnect	off Hook	Normal	43	CH-A	CH-A	OFF	ON
4	CPC/BELL	CPC/BELL	CPC	bell	44	CH-B	CH-B	OFF	ON
5	CHARGE	CHARGE	CHARGE	Normal	45	TX POWER	TX-POW	ON	OFF
6	TEST	TEST	Normal		46	TX DATA	TX DATA	1	0
7	OCS 1	Clock			47	LINE MUTE	LIN MUTE	MUTE	
8	OCS 2	Clock			48	RX MUTE	RX MUTE	MUTE	
9	RESET	Reset	Reset	Normal	49	TX OUT	TX OUT	MUTE	OUT
10	X 1	Sub Clock			50	REC BIAS	REC Bias	ON	OFF
11	X 2	Sub Clock			51	SQUELCH REC	NC		
12	GND	GND		GND	52		NC		
13	FF MOTOR	FF MOTOR	ON	OFF	53	DATA	DATA (AMP)		
14	REW MOTOR	REW MOTOR	ON	OFF	54	CLK	Clock (AMP)		
15	PLY MOTOR	PLY MOTOR	ON	OFF	55	VOX	VOX	No sound	Sound
16	PL-L	PL-T	ON	OFF	56		NC		
17		7 seg. LED	OFF	LED on	57		NC		
18		7 seg. LED	OFF	LED on	58	EST	EST (DTMF)	ON	OFF
19		7 seg. LED	OFF	LED on	59	STGT	STGT	ON	OFF
20		7 seg. LED	OFF	LED on	60	TOE	TOE	ON	OFF
21		7 seg. LED	OFF	LED on	61		NC		
22		7 seg. LED	OFF	LED on	62		NC		
23		7 seg. LED	OFF	LED on	63		Key in	Normal	Key in
24	TAM	TAM INUSE LED	OFF	LED on	64		Key in	Normal	Key in
25	POWER DOWN	Pow down	Normal	Pow down	65		Key in	Normal	Key in
26	RVN	RVN			66		Key in	Normal	Key in
27		Batt ct1	Normal	Trickle charge	67		Strobe	Normal	Strobe on
28		NC			68		Strobe	Normal	Strobe on
29	ANSWER	ANSWER LED	LED on	OFF	69		Strobe	Normal	Strobe on
30	IN USE/INT'COM	IN USE/INT LED	LED on	OFF	70		Strobe	Normal	Strobe on
31	PL-T	PL-T	ON	OFF	71		Strobe	Normal	Strobe on
32	RLY	RLY	ON	OFF	72		Strobe	Normal	Strobe on
33	EARTH	Earth RLY	ON	OFF	73		Strobe	Normal	Strobe on
34	SHUNT	SHUNT RLY	ON	OFF	74		Strobe	Normal	Strobe on
35	AC DOWN	AC Down	Normal	AC down	75		Strobe	Normal	Strobe on
36		NC			76		SEL		Normal
37	DATA MUTE	DATA MUTE	ON	OFF	77	DTMF	DTMF OUT		
38	RX DATA (L)	RX DATA (L)	1	0	78	DTMF	DTMF OUT		
39	BEEP VOL	Beep Vol	High	Low	79	Vcc	Vcc	Vcc	
40	LINE BEEP	Line Beep			80		Vtref		

CPU DATA KX-T4300BER (Portable Handset)

IC101 PQVI006G587

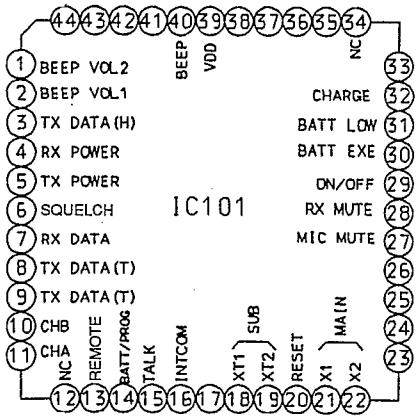


Fig. 16

Pin No.	Mark	Description	Logical "H"	Logical "L"	Pin No.	Mark	Description	Logical "H"	Logical "L"
1	BEEP	Vol 2	Low	High	23		Strobe	Normal	Strobe on
2	BEEP	Vol 1	Low	High	24		Strobe	Normal	Strobe on
3	TX DATA	TX Data High	1	0	25		Strobe	Normal	Strobe on
4	RX POW	RX Power	Power off	Power on	26		Strobe	Normal	Strobe on
5	TX POW	TX Power	Power off	Power on	27	MIC MUTE	MIC MUTE	MUTE on	
6	SQUELCH	SQUELCH	High	Low	28	RX MUTE	SP MUTE	MUTE on	
7	RX DATA	RX data	1	0	29	ON/OFF	ON/OFF	OFF	ON
8	TX DATA	TX data Low	1	0	30	BATT EXE	Batt EXE	Enable to Batt	Disable to Batt
9	TX DATA				31	BATT LOW	Batt Low	High	Low
10	CHB	CH-B		CH-B on	32	CHARGE	CHARGE	Normal	CHARGE
11	CHA	CH-A		CH-A on	33		Key in	Normal	Enable to key
12	NC	NC			34	NC	NC		
13	REMOTE	REMOTE LED	LED off	LED on	35		Key in	Normal	Enable to key
14	BATT/PRO	Bat/Prg LED	LED off	LED on	36		Key in	Normal	Enable to key
15	TALK	TALK LED	LED off	LED on	37		Key in	Normal	Enable to key
16	INTCOM	INTCOM LED	LED off	LED on	38		NC		
17		Vss		GND	39	VDD	Vdd	Vdd	
18	XT1	XT1			40		Strobe	Normal	Strobe on
19	XT2	XT2			41	BEEP	Beep	Normal	Activ
20	RESET	Reset		Reset	42		Strobe	Normal	Strobe on
21	X1	X1			43		Strobe	Normal	Strobe on
22	X2	X2			44	BEEP	Vol 3	Low	High

ADJUSTMENTS (KX-T4300BEH)

Purpose of Adjustment

Symptom	Remedy
The transmit output is low, and the arrival distance is shorted between base unit and portable handset.	Adjust the adjustment item (1).
The transmit frequency is slipped.	Adjust the adjustment item (2).
The sound volume of reception is low.	Adjust the adjustment item (3).
The sound volume of sending is low.	Adjust the adjustment item (4).
The reception sensitivity of base unit is wrong, the noise is occurred.	Adjust the adjustment item (5).

TRANSMITTER ADJUSTMENTS

Test Equipment:
Frequency Counter
AC Power Supply
S.S.G....Signal Generator
RF VTVM
FM Deviation Meter
AF VTVM

Unit condition:
Connect the AC Adaptor (KX-A24BE) plug into DC IN Jack and the other end into a power outlet (AC 240 V, 50 Hz).
When doing these adjustments, remove the transmitter wire aerial of KX-T4300BEH. After adjusting, re-solder the transmitter wire aerial.
Set the test mode switch SW1, SW2 to ON.
Connection:
Refer to Fig. 17 on page 18.

Adjustment:

	Item	Adjustment	CH	Remarks
(1)	Transmit Output Adjustment	TC1, T6, L4, L5	CHA	●Set SW10 to transmitter wire aerial side. ●Adjust TC1, T6, L4 and L5 for maximum output on Spectrum analyzer.
(2)	Frequency Adjsutment	L3 L2	CHB CHA	●Set SW10 to Frequency counter side. Set SW4 to ON. Set SW6 to ON. ●Adjust L3 so that the reading of the Frequency Counter is that of the CHB terget frequency ±200 Hz. ●Set SW6 to OFF. The unit enters CHA. ●Adjust L2 so that the reading of Frequency Counter is that of the CHA terget frequency ±200 Hz.
(3)	Modulation Adjustment	VR2 VR1	CHB CHA	●Set SW8 to AF OSC side. Set SW11 to OFF. Set SW10 to FM Deviation Meter side. Set SW5 to ON. Set SW6 to ON. Apply a signal (f=1 kHz, –20 dBm at 600Ω termination) by AF OSC. Set SW5 to ON. ●Adjust VR2 so that the reading of the FM Deviation Meter is 2.4 kHz/devi. ●Set SW6 to OFF. The unit enters CHA. ●Adjust VR1 so that the reading of the FM Deviation Meter is 2.4 kHz/devi.
(4)	Tel Line Transmit Level Adjustment	VR3	CHA	●Set the S.S.G. to receiver frequency of CHA, and apply a 60 dBμV output from the S.S.G. (modulation dev. 1.5 kHz/devi). Set SW8 to OFF. ●Set SW11 to ON. Adjust VR3 so that the reading of the AF VTVM output is +1.5 dBm±0.5 dB.

RECEIVER ADJUSTMENTS

Test Equipment:
S.S.G. ....Signal Generator
AC Power Supply
AF VTVM
RF VTVM

Unit Condition:
Connect the AC Adaptor (KX-A424BE) into the DC IN Jack and the other end into a power outlet (AC 240 V, 50 Hz).
When doing these adjustments, remove the transmitter wire aerial of KX-T4300BEH. **After adjusting, re-solder the transmitter wire aerial.**
Set the test mode switch SW1, SW2 to ON.
Refer to Fig. 17.

Adjustment:

Item	Adjustment	CH	Remarks
5) RF VTVM	T3, T2, T1 L1	CHA	●Set the S.S.G. input signal to receive frequency of CHA, and apply a 40 dBμV output from S.S.G. (modulation frequency 1 kHz, dev. 1.5 kHz/dev) to RX ANT. ●Adjust T3, T2 and T1 (in that order) so that output maximum at IC1 pin 5 (at RF VTVM). ●Adjust L1 so that the detection output of frequency (1 kHz) is maximum.

Frequency Table (MHz)

	Receive		Transmit
	Local Frequency	Target Frequency	Target Frequency
CH1	36.7563	47.4563	1.642
CH2	36.7607	47.4687	1.662
CH3	36.7812	47.4812	1.682
CH4	36.7937	47.4937	1.702
CH5	36.8062	47.5062	1.722
CH6	36.8187	47.5187	1.742
CH7	36.8312	47.5312	1.762
CH8	36.8437	47.5437	1.782

Frequency Combination

	CHA	CHB	CHA	CHB
Frequency display	X1	X2	X4	X5
1, 3	36.7562	36.7812	1.642	1.682
3, 5	36.7812	36.8062	1.682	1.722
4, 6	36.7937	36.8187	1.702	1.742

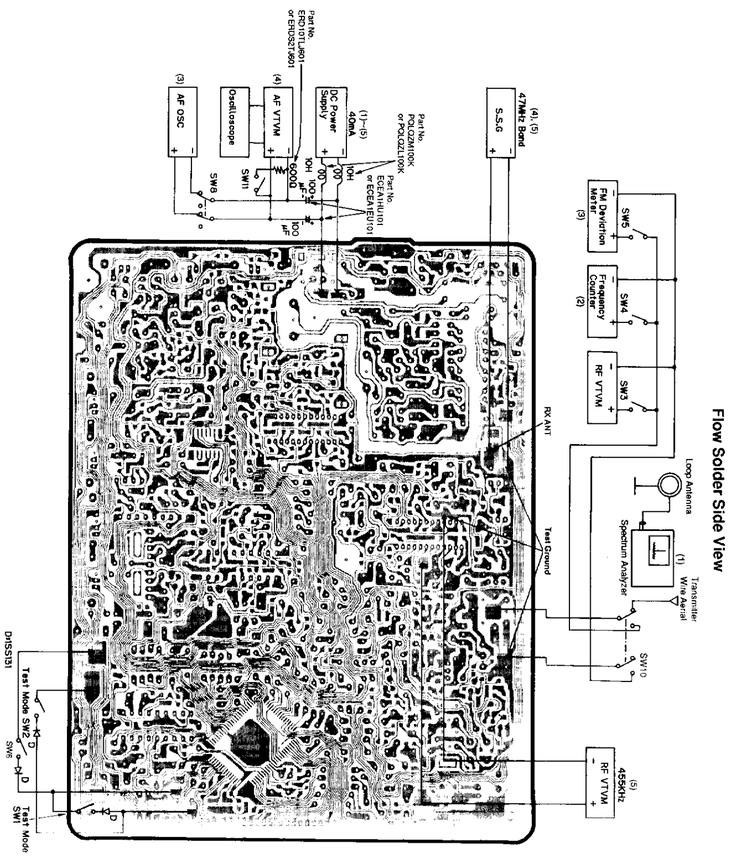
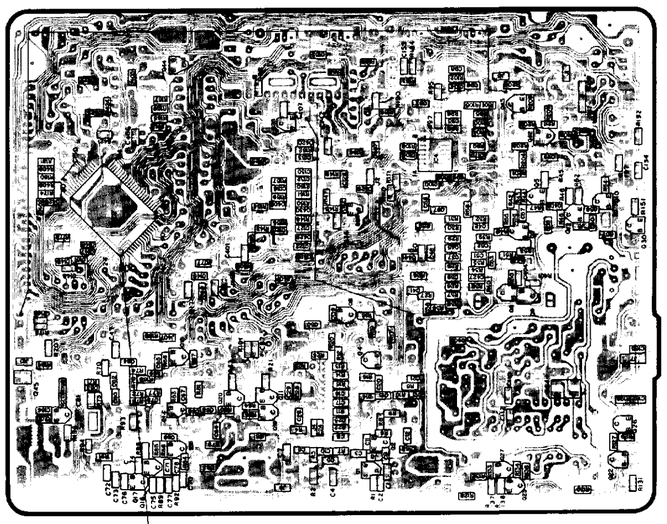
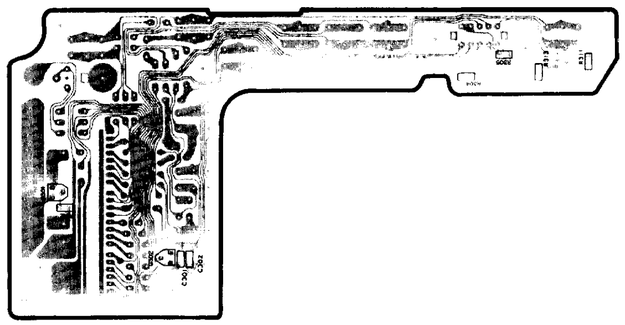


Fig. 17





CIRCUIT BOARD (KX-T4300BEH)
(Flow Solder Side View)

No.	Voltage	No.	Voltage	No.	Voltage	No.	Voltage
1	0V	21	5.0V	41	0V	61	5.0V
2	3.3V	22	5.0V	42	0V	62	5.0V
3	5.1V	23	5.0V	43	0V	63	5.0V
4	5.1V	24	5.0V	44	5.0V	64	5.0V
5	12V	25	5.2V	45	0V	65	5.0V
6	5.0V	26	5.0V	46	0V	66	5.0V
7	2.5V	27	0V	47	4.9V	67	5.0V
8	2.6V	28	0V	48	4.9V	68	5.0V
9	0V	29	0V	49	5.0V	69	5.0V
10	0.9V	30	0V	50	0V	70	5.0V
11	1.4V	31	0V	51	0V	71	5.0V
12	0V	32	0V	52	5.0V	72	5.0V
13	0V	33	0V	53	0V	73	0V
14	0V	34	0V	54	0V	74	0V
15	5.0V	35	0V	55	0V	75	0V
16	0V	36	0V	56	0V	76	5.0V
17	5.0V	37	0.5V	57	0V	77	0V
18	5.0V	38	5.0V	58	0V	78	0V
19	5.0V	39	0V	59	0V	79	5.0V
20	5.0V	40	0V	60	0V	80	5.0V

Refer to page 21.

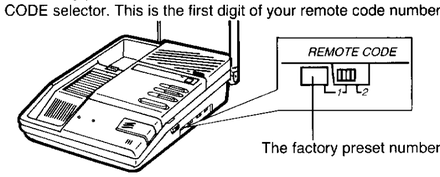
Factory Preset No.	D39	D40	D41	D42
0	×	×	×	×
1	×	×	×	○
2	×	×	○	×
3	×	×	○	○
4	×	○	×	×
5	×	○	×	○
6	×	○	○	×
7	×	○	○	○
8	○	×	×	×
9	○	×	×	○
0	○	×	○	×
1	○	×	○	○
2	○	○	×	×
3	○	○	×	○
4	○	○	○	×
5	○	○	○	○

×: Diode open.
○: Diode connected.

To set the remote code number

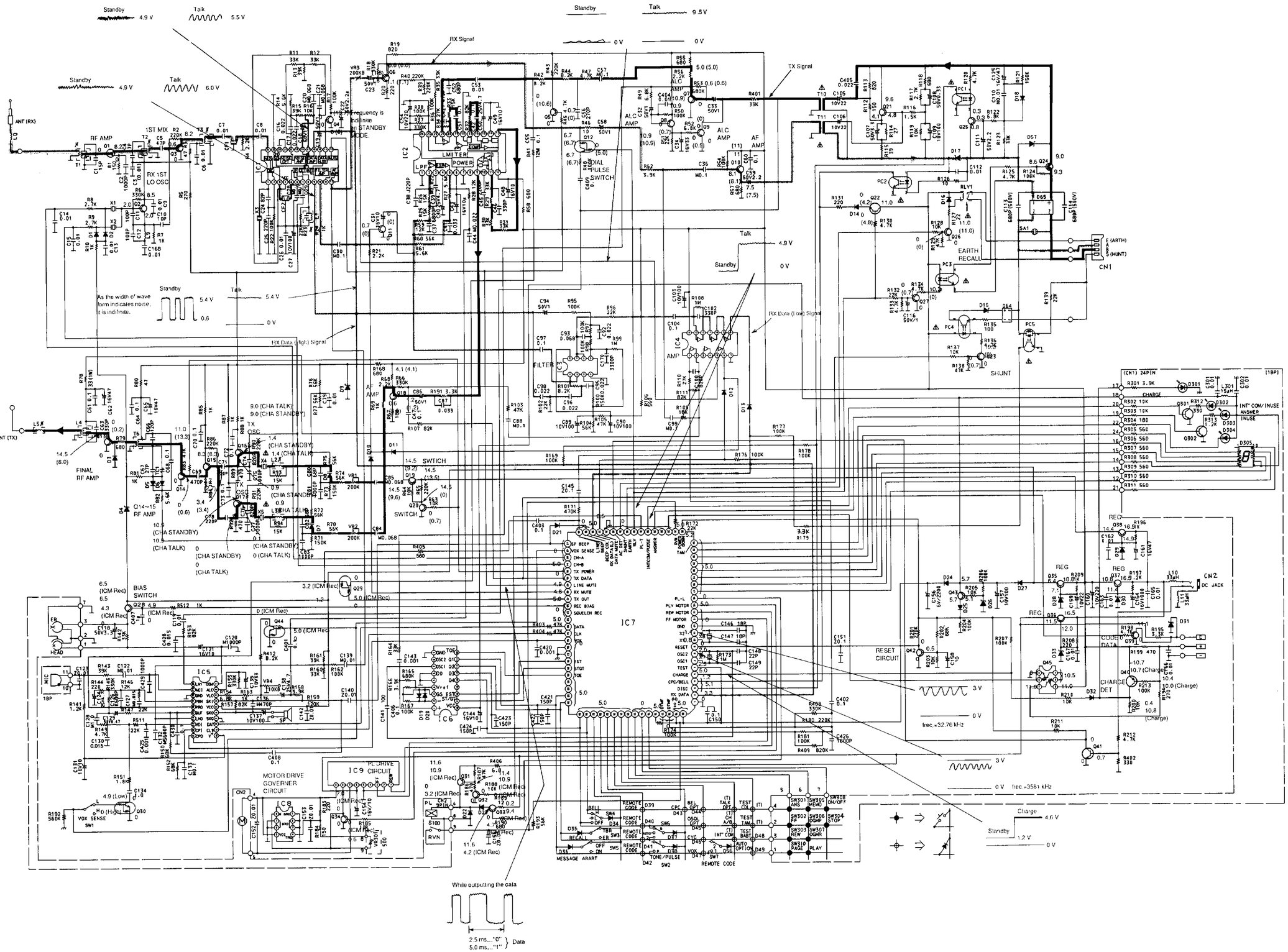
The remote code number prevents unauthorized persons from accessing your unit and listening to your messages. The remote code number is made up of 2 digits. The first digit is factory preset, and the second digit is selectable ("1" or "2").

The factory preset number is shown on the label next to the REMOTE CODE selector. This is the first digit of your remote code number.



Example:
If the factory preset number is "4", then your code number could be either "41" or "42" depending on the position of the REMOTE CODE selector.

SCHEMATIC DIAGRAM (KX-T4300BEH)



Notes:

1. SW1: Vox Sens Selector
2. SW2: Dialling Mode Selector
3. SW3: Recall Selector
4. SW4: Ringer Volume Selector
5. SW5: Message Alert Selector
6. SW6: Rings Selector
7. SW7: Remote Code Selector
8. SW301: Answer On Switch
9. SW302: Fast Forward Switch
10. SW303: Rewind Switch
11. SW304: Stop Switch
12. SW305: Memo Record Switch
13. SW306: Greeting Check Switch
14. SW307: Greeting Record Switch
15. SW308: Message Playback Switch
16. SW310: Page/Intercom Switch
17. DC voltage measurements are taken with an electronic voltmeter from the negative voltage line.
    No marking: STANDBY position
    ( ): TALK position

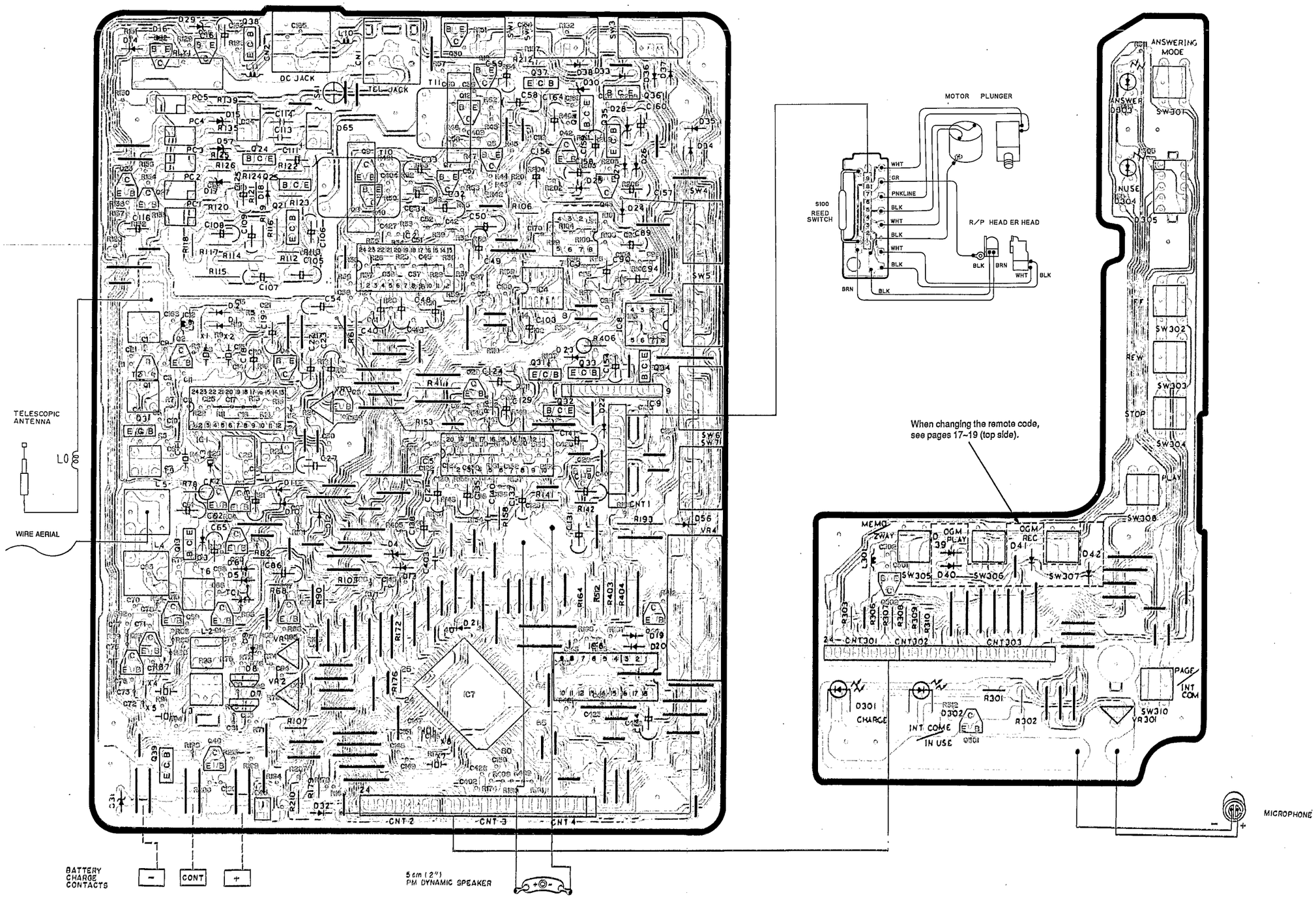
Difinition of 0 V:
0 V that indicates in schematic diagram means 0 V–0.09 V measurement value.

Important safety notice
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

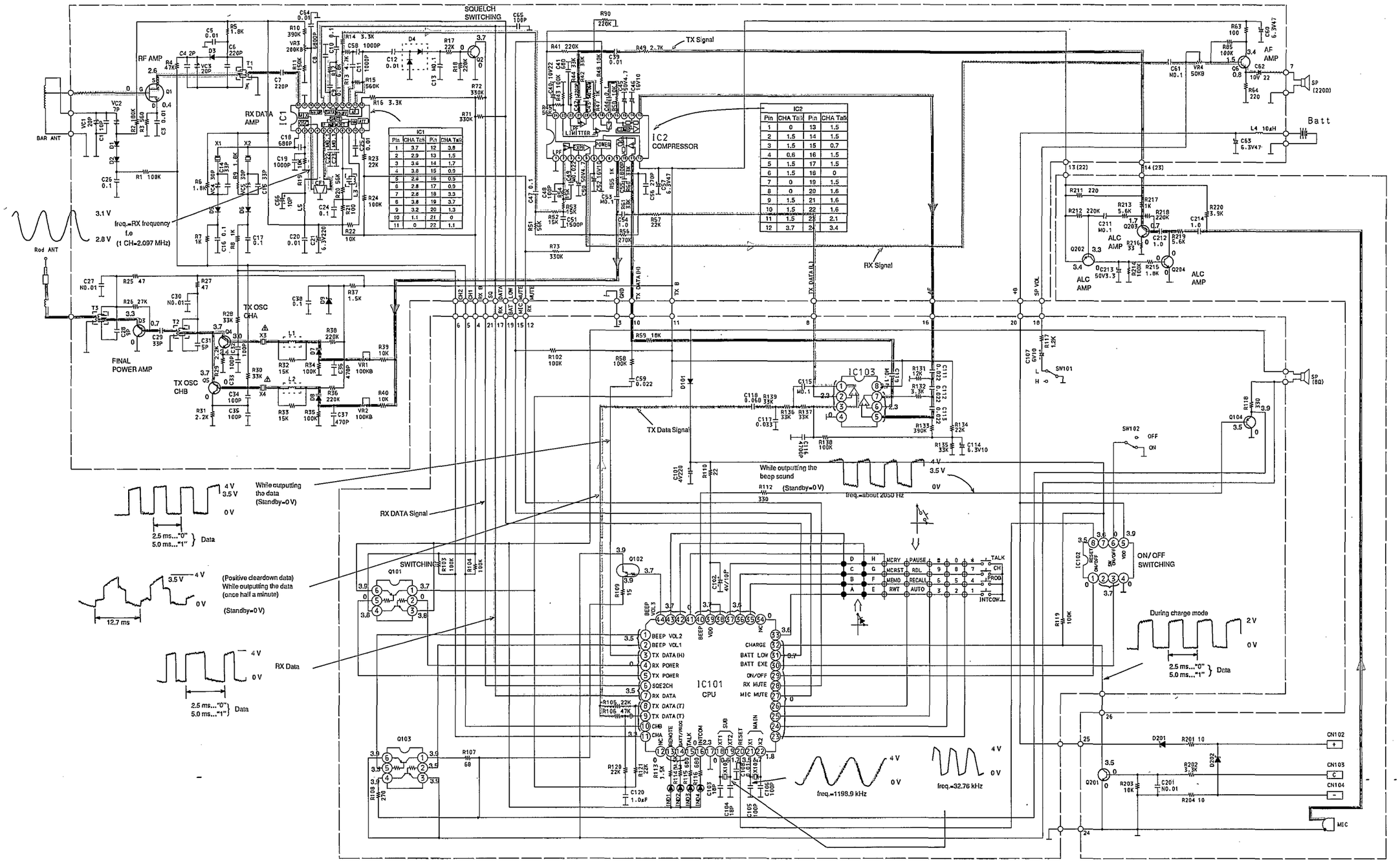
This schematic diagram may be modified at any time with development of new technology.

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM (KX-T4300BEH)

(Component View: Including Flow Solder Side Parts)



SCHEMATIC DIAGRAM (KX-T4300BER)



IC1			
Pin	CHA Talk	Pin	CHA Talk
1	3.7	12	3.8
2	2.9	13	1.5
3	3.6	14	1.7
4	3.8	15	0.9
5	2.8	16	0.5
6	2.8	17	0.9
7	2.8	18	3.3
8	3.8	19	3.7
9	3.2	20	1.3
10	1.1	21	0
11	0	22	1.1

IC2			
Pin	CHA Talk	Pin	CHA Talk
1	0	13	1.5
2	1.5	14	1.5
3	1.5	15	0.7
4	0.6	16	1.5
5	1.5	17	1.5
6	1.5	18	0
7	0	19	1.5
8	0	20	1.6
9	1.5	21	1.6
10	1.5	22	1.6
11	1.5	23	2.1
12	3.7	24	3.4

Notes:

1. S1: Mercury Switch
2. S2: Talk Switch
3. S3: INT' (Intercom)/Page Switch
4. S4: Channel Switch
5. S5: Pause Switch
6. S6: Recall Switch
7. S7: Redial Switch
8. S8: Auto Switch
9. S9: Program Switch
10. S10: Memo Record Switch
11. S11: Screen/Playback Switch
12. S12: Reset Switch
13. SW101: Volume Selector
14. SW102: Power/Ringer Switch

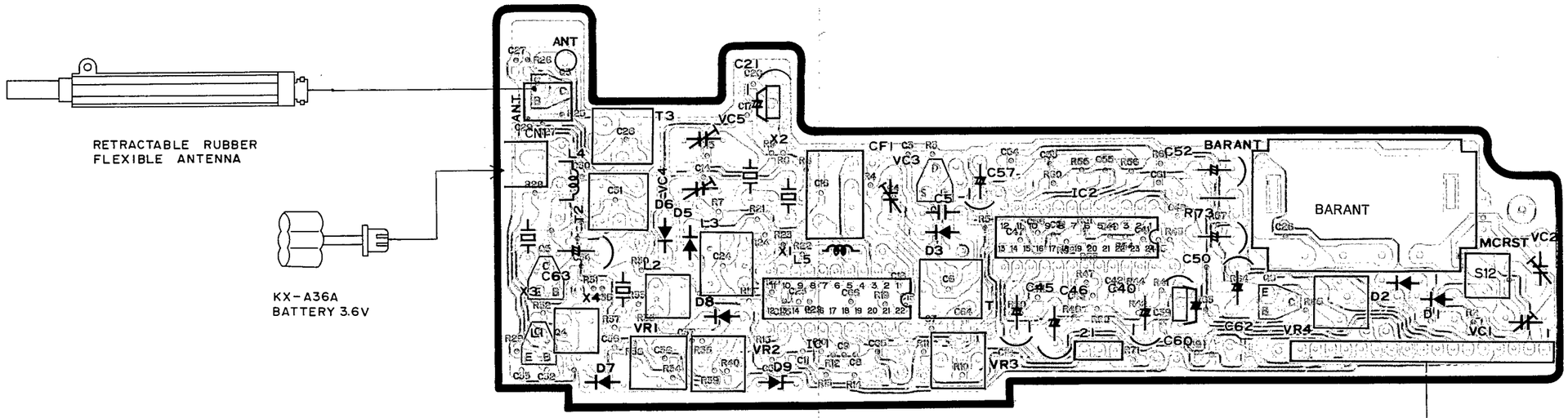
DC voltage measurements are taken with electronic voltmeter from negative voltage line.

The values of voltage without mode indication are measured in Talk mode of CHA.

Difinition of 0 V:
0 V that indicates in schematic diagram means 0 V~0.09 V measurement value.

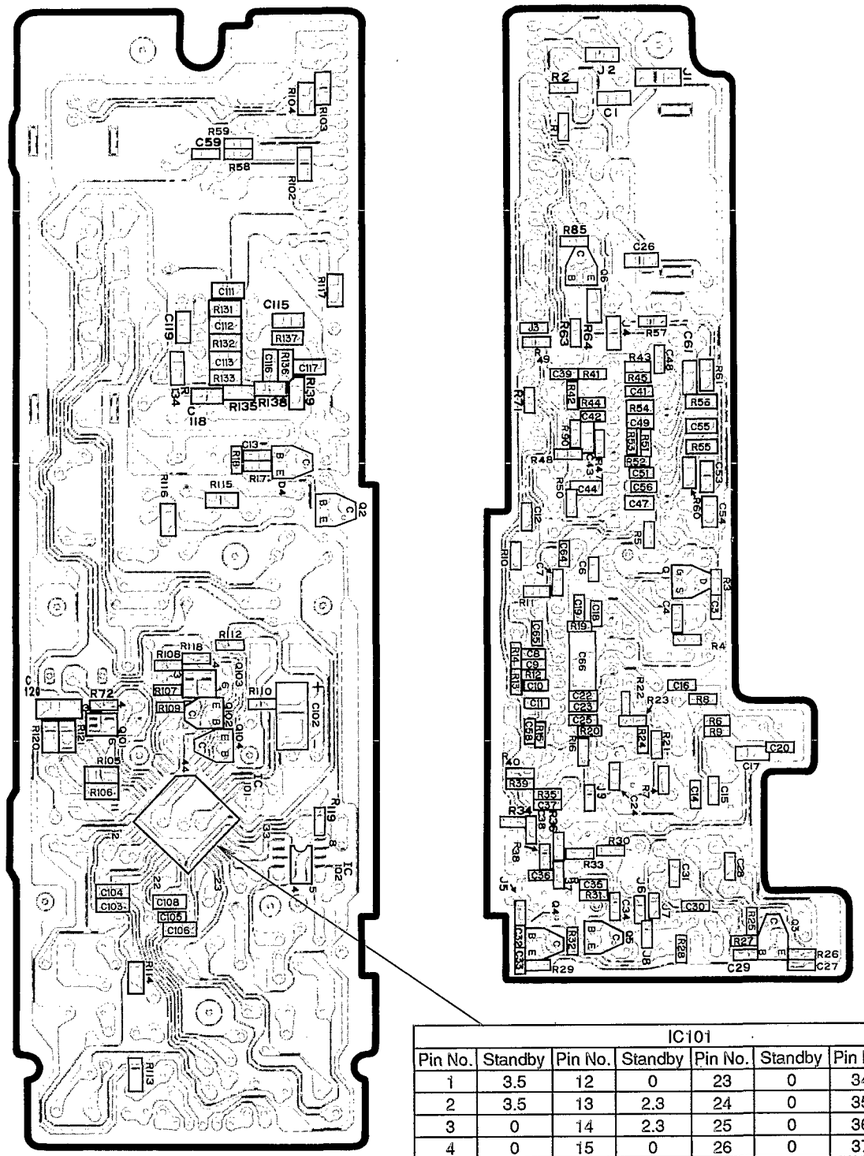
CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM (KX-T4300BER)

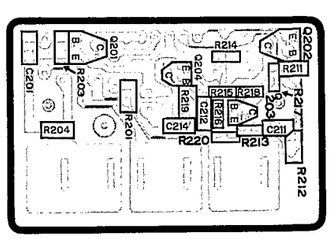
(Component View: Including Flow Solder Side Parts)



CIRCUIT BOARD (KX-T4300BER)

(Flow Solder Side View)





IC101

Pin No.	Standby	Pin No.	Standby	Pin No.	Standby	Pin No.	Standby
1	3.5	12	0	23	0	34	0
2	3.5	13	2.3	24	0	35	3.6
3	0	14	2.3	25	0	36	3.6
4	0	15	0	26	0	37	3.6
5	0	16	2.3	27	0	38	3.7
6	3.5	17	0	28	0	39	3.7
7	3.5	18	0.8	29	0	40	3.7
8	0	19	1.7	30	3.7	41	0
9	0	20	3.5	31	3.7	42	3.7
10	0	21	1.7	32	3.7	43	3.7
11	3.3	22	1.8	33	3.6	44	3.7

ADJUSTMENTS (KX-T4300BER)

Purpose of Adjustment

Symptom	Remedy
The movement of Battery Low Indicator is wrong.	Adjust the adjustment item (1).
The transmit output is low, and the arrival distance is shorted between base unit and portable handset.	Adjust the adjustment items (2), (5).
The reception sensitivity of base unit is wrong, the noise is occurred.	Adjust the adjustment item (3).
The sound of volume of base unit is low. The reception of data is wrong.	Adjust the adjustment item (4).
The transmit frequency is slipped.	Adjust the adjustment item (6).
The sound volume of sending is wrong.	Adjust the adjustment item (7).

Unit Condition: (Adjustment 2–7)
Power Supply .....DC 3.9 V
SP Load ..... Built-in speaker 220Ω
Tone/Pulse Selector Switch .....TONE
Function Selector Switch ..... TALK

Test Equipment:
Frequency Counter
RF VTVM
S.S.G....Signal Generator
FM Deviation Meter

When doing these adjustments, remove the transmitter wire aerial of KX-T4300BEH. After adjusting, re-solder the transmitter wire aerial.
Set the test mode switch SW4 to ON, and press the TALK button.

	Item	Adjustment	CH	Remarks
(1)	Battery Low Indicator Adjustment	VR3	——	●Set the DC Power Supply to 3.6 V. ●Set the Function Selector Switch to TALK. ●Adjust VR3 so that the MULTI indicator just illuminates at 3.56 V.
(2)	Receive Local Frequency Adjustment	VC5 VC4	CHB CHA	●Adjust VC5 for the local frequency of X2 (f ±200 Hz). ●Press the channel button. ●Adjust VC4 for the local frequency of X1 (f ±200 Hz). *Local Frequecny...Refer to page 27.
(3)	Receive Sensitivity Adjustment	VC1, T1, VC1 VC2, VC3, VC2	CHB CHA	●Set the channel button to CHB. ●Set the S.S.G. to receiver frequency of CHB. ●Set the S.S.G. output level to 60 dBμ (modulation frequency 1 kHz, modulation factor 2.4 kHz/devi), and apply it to loop antenna. ●Adjust VC1, T1 and VC1 (in that order) for maximum output RF VTVM I at IC1 Pin 5. ●Press the channel button. ●Set the S.S.G. to receiver frequency of CHA. ●Adjust VC2, VC3 and VC2 (in that order) for maximum output RF VTVM I at IC1 Pin 5.
(4)	Speaker Output Adjustment	L3 VR4	——	●Adjust L3 for peak output at the speaker. ●Adjust VR4 for 45 mV±5 mV at the speaker.
(5)	Transmit Output Adjustment	T2, T3	——	●Set SW1 to ON. ●Adjust T2 and T3 (in that order) for maximum output on RF VTVM II.
(6)	Transmit Frequency Adjustment	L1 L2	CHA CHB	●Set SW1 to OFF. Set SW2 to ON. ●Adjust L1 so that the reading of the Frequency counter is that of CHA frequency (±200 Hz). ●Press the channel button. ●Adjust L2 so that the reading of the Frequency counter is that of CHB frequency (±200 Hz).
(7)	Microphone Modulation Adjustment	VR2 VR1	CHB CHA	●Apply an input of 1 kHz, –40 dBm to the microphone input terminal (between + and –). Set SW5, SW3, SW7 to ON. ●Adjust VR2 for 0.9 kHz/devi. FM Deviation Meter reading. ●Press the channel button. ●Adjust VR1 for 0.9 kHz/devi. FM Deviation Meter reading.

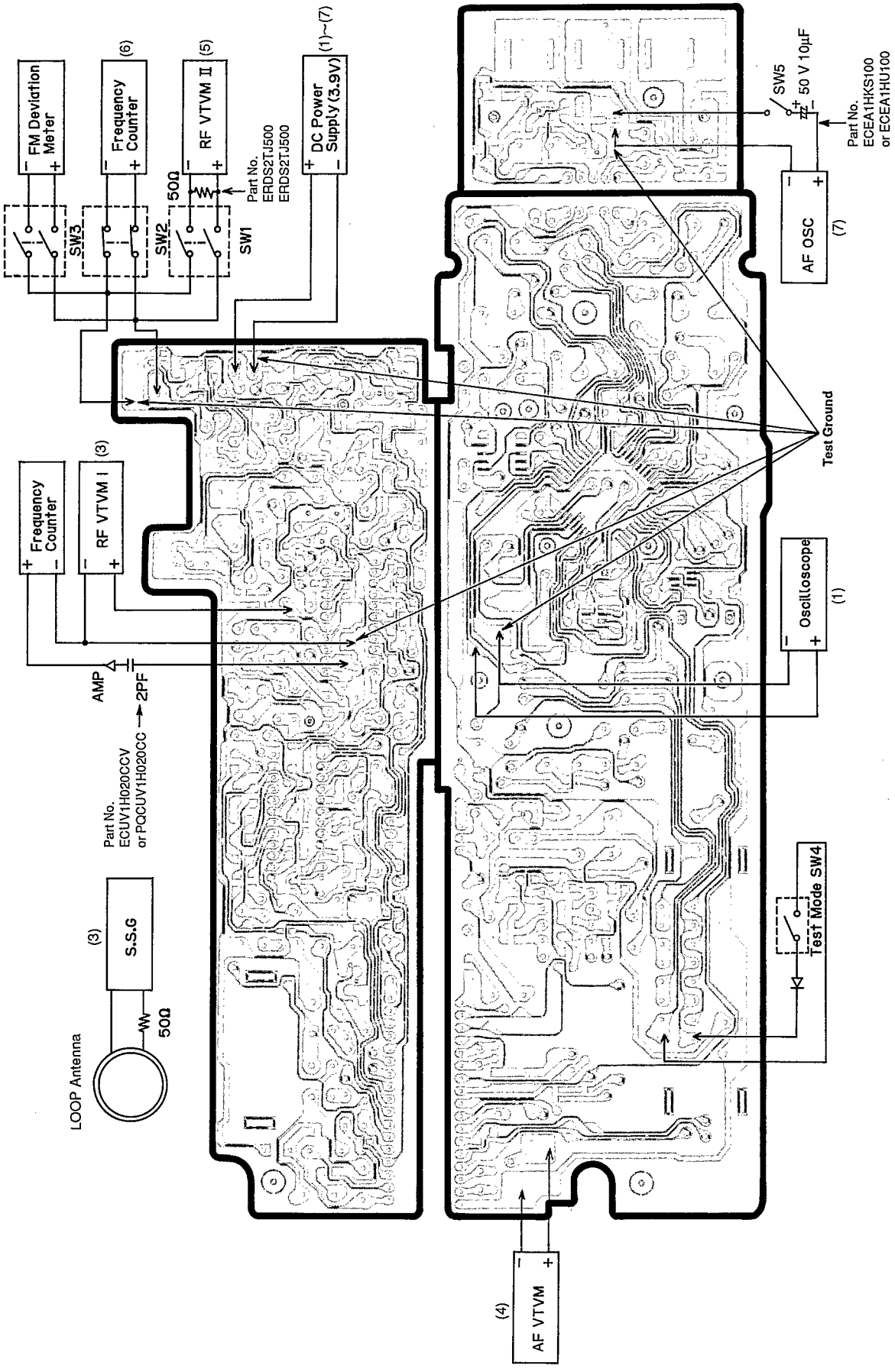

FM Deviation Meter
Frequency Counter
RF VTVM II
DC Power Supply (3.9V)
(1)~(7)
(6)
(5)
50Ω
Part No.
ERDS2TJ500
ERDS2TJ500
SW3
SW2
SW1
SW5
50 V 10µF
Part No.
ECEA1HKS100
or ECEA1HU100
AF OSC
(7)
Test Ground
Frequency Counter
RF VTVM I
(3)
AMP
2PF
Part No.
ECUV1H020CCV
or PQCUV1H020CC
Oscilloscope
(1)
(3)
S.S.G
50Ω
LOOP Antenna
Test Mode SW4
(4)
AF VTVM

Fig. 18

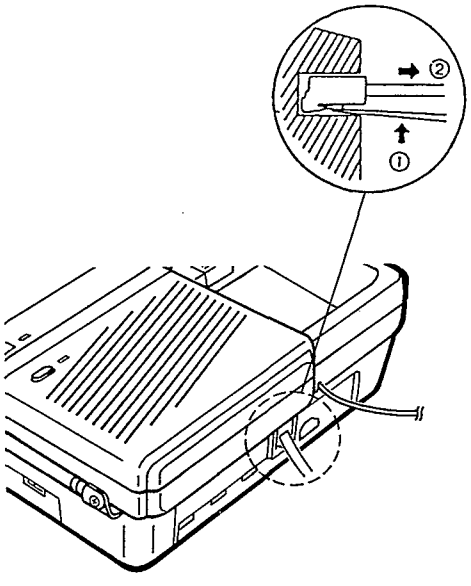
Frequency Table (MHz)

	Transmit		Receive	
CH	Local Frequency	S.S.G. Frequency	S.S.G. Frequency	Local Frequency
1	15.81875	47.45625	1.642	2.097
2	15.82291	47.46875	1.662	2.117
3	15.82708	47.48125	1.682	2.137
4	15.83125	47.49375	1.702	2.157
5	15.83541	47.50625	1.722	2.177
6	15.83958	47.51875	1.742	2.197
7	15.84375	47.53125	1.762	2.217
8	15.84791	47.54375	1.782	2.237

Frequency Combination

	CHA	CHB	CHA	CHB
Frequency division level	X3	X4	X1	X2
1, 3	15.81875	15.82708	2.097	2.137
3, 5	15.82708	15.83541	2.137	2.177
4, 6	15.83125	15.83958	2.157	2.197

REMOVAL OF THE TELEPHONE CORD



Remove the telephone cord from the unit in the same way.

CIRCUIT EXPLANATION (KX-T4300BEH)

■ BLOCK DIAGRAM

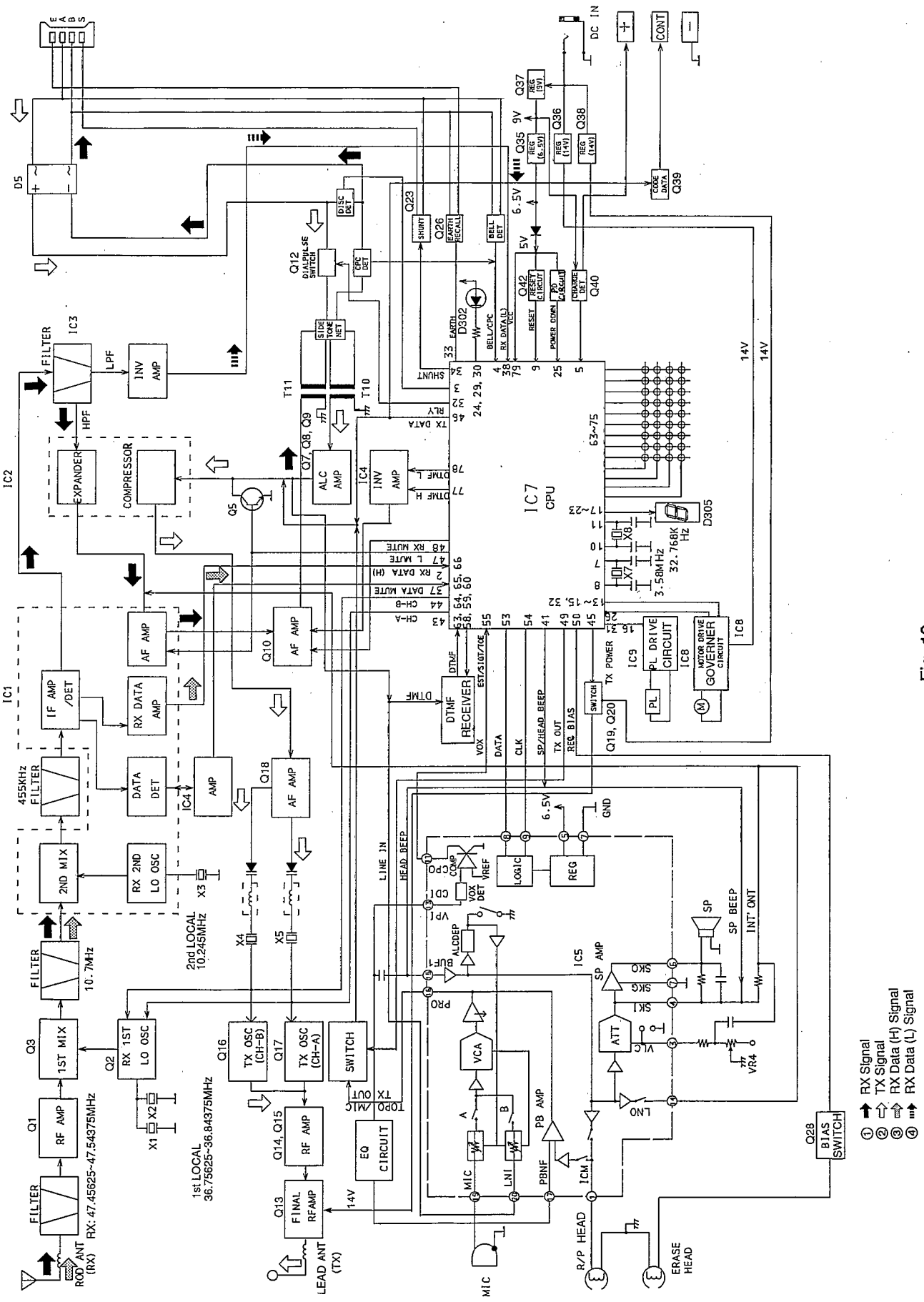


Fig. 19

■ TELEPHONE MODE OPERATION

When a ring signal enters from the Line

1) The ring detection circuit, i.e., the photocoupler PC5, begins to operate and its output is inputted to Pin 4 of IC7 (CPU).

2) To obtain a display synchronized with the ring signal, an IN USE signal is outputted from Pin 30 of IC7 and the IN USE LED (D302) flashes.

3) To show the arrival of the ring signal to the portable unit, Pin 45 of IC7 enters into the transmission mode thus becoming a High and the ring signal data having the code set by Pin 46 of IC7 is sent to portable unit as a modulated output signal.

4) Upon receiving the ring signal data, when the portable unit is switched from standby to the talk mode, the base unit receives a carrier modulated by the data indicating the switch from standby to talk. This data is then demodulated at the base unit. This signal is then inputted to Pin 2 of IC7, activating Q27 via Pin 32 of IC7 which causes the circuit relay to release the muting, and enables talk.

Circuit-making from the portable unit

1) When the operator of the portable unit switches from STANDBY to TALK, data enters into the base unit, this data is then demodulated by the base unit and passed through the data amp of IC1 and enters Pin 2 of IC7.

2) When the codes coincide, Pin 48 of IC7 becomes a "Low". At this time the transmission condition is reached and the muting is cancelled via Q11 and the transistor relay Q24 is closed.

3) Further, an IN USE signal is sent out from Pin 30 of IC7, thus dimly lighting the IN USE LED (D302).

■ INTERCOM MODE

1. When the base unit Page/Intercom button is pressed, a call monitor signal of [1.95 kHz] (intercom sound) is outputted from pin 41 of IC7 (CPU). If the Page/Intercom button is turned off, this condition keeps until it is pressed again.

2. At the same time, Pin 45 of IC7 goes High, transmission power is supplied, the transmission mode is entered, and modulation is effected by the all data output from Pin 46 of IC7. An INTERCOM LED signal is output from Pin 30 of IC7 and the INTERCOM LED flashes.

3. When the portable unit receives this electromagnetic wave in the standby mode, the magnetic speaker sounds off to indicate that a page signal has arrived from the base unit. When the base unit is in the standby mode (the call button is released), the electromagnetic wave from the portable unit is received by the reception unit and the modulated signal is passed through the data processing circuit comprising IC4, to the input of Pin 2 of IC7 (CPU). If the signal is recognized by the CPU IC7, a call signal is outputted from Pins 12, 13 of IC5 becomes a "High", and Pin 41 of IC7 becomes a "High".

4. When the operator of the portable unit switches stand-by to the talk mode, data to that effect enters the base unit and is inputted to Pin 2 of IC7 following the same route as paragraph 3 above. Pin 48 of IC7 becomes the low level to release the muting of the base unit. The output of Pin 30 of IC7 becomes the Low level to keep the INTERCOM LED lighted up. Then unit becomes the Intercom transmission mode.

5. When a ring signal arrives from the line during dialogue in the intercom mode of the above paragraph 4, a ring monitor signal is outputted from Pin 41 of IC7 and a monitor signal is heard from the speaker.
   But the ring signal isn't sent to the portable unit.

■ CHARGE MODE

1. When charging the portable unit on the base unit, current is supplied to the portable unit from the battery charge contacts via R199. During the charge mode the voltage of battery charge contacts (+) becomes approx. 5 V, and Q40 turned on. Then voltage of Q40 collector becomes 9.4 V, voltage is cut by D32, and Pin 5 of IC7 will become "High", and the CHARGE LED (D301) lights up.

2. The base unit stops the transmission and does not output even a base call. However, when a ring signal arrives from the line, the ring signal enters IC7 (Pin 4), in turn a ring signal monitor is generated from Pin 41 of IC7 and is heard at the Speaker. But the base unit doesn't go into the transmission mode, and it doesn't output the ring data to the portable unit, and the magnetic speaker of the portable unit doesn't ring.
However, the IN USE LED of the base unit lights up.

Circuit Diagram

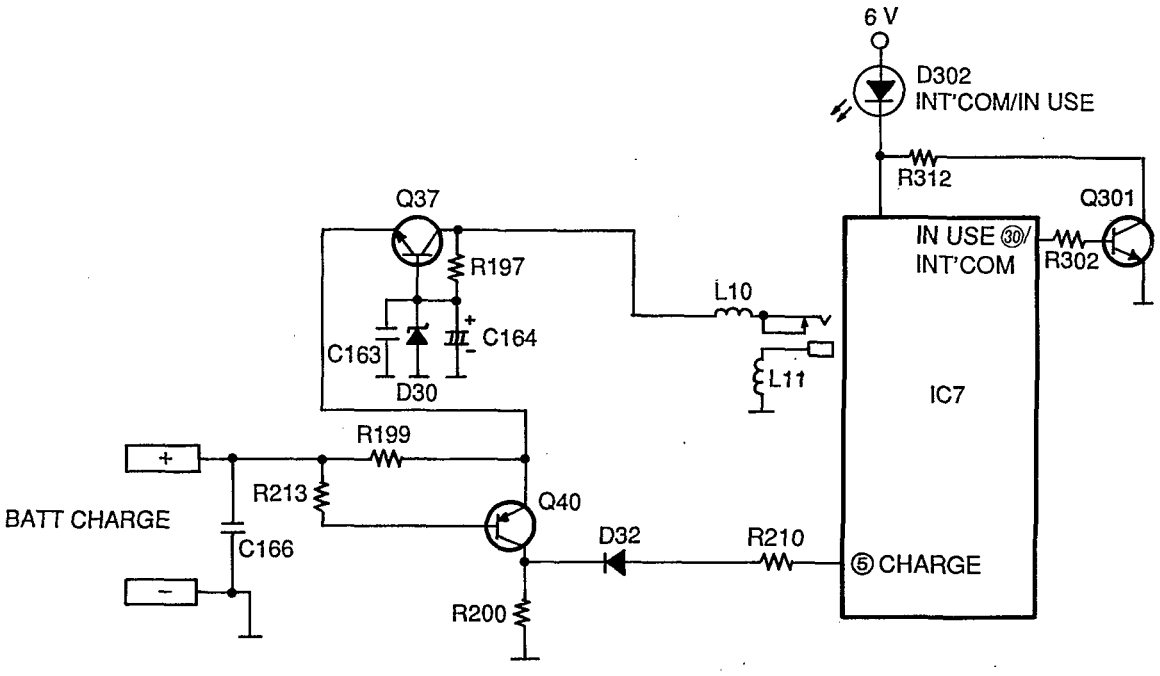


Fig. 20

■ CPU OPERATION

1. TIMING OF IC7 (CPU) OUTPUT PORT WITH THE BASE UNIT PAGE/INT' MODE.

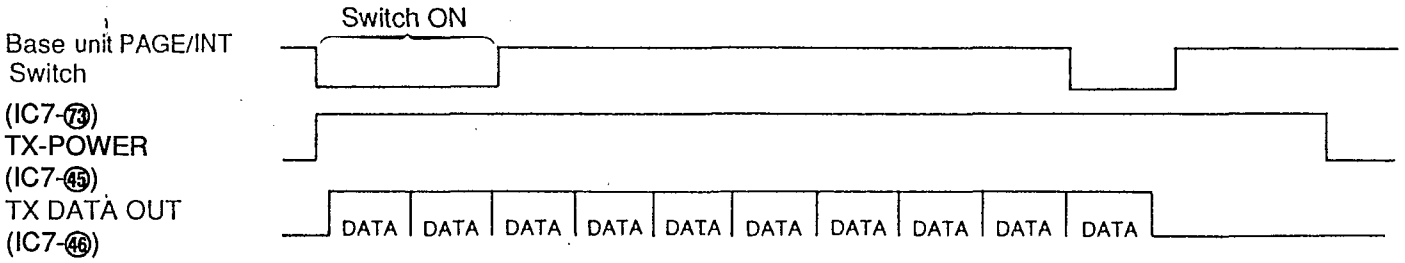


Fig. 21

2. WHEN CHANGING THE SETTING OF THE PORTABLE HANDSET FROM STANDBY TO TALK.

3. WHEN CHANGING THE SETTING OF THE PORTABLE HANDSET FROM TALK TO STANDBY.

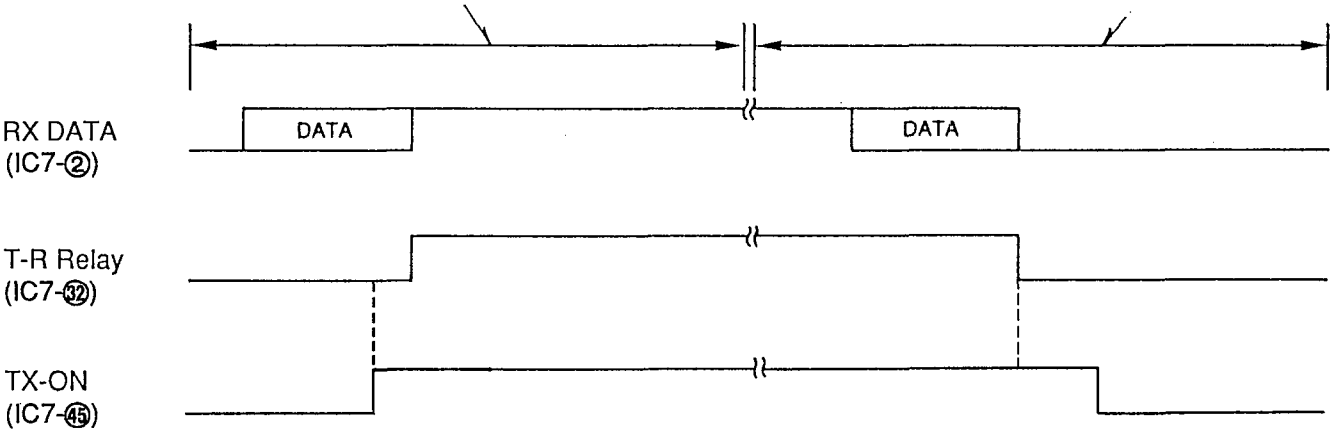


Fig. 22

4. RESONANCE PREVENTION CIRCUIT.

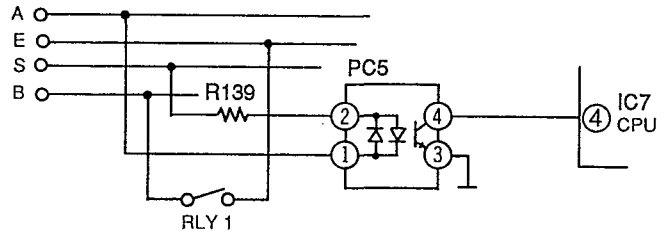


Fig. 23

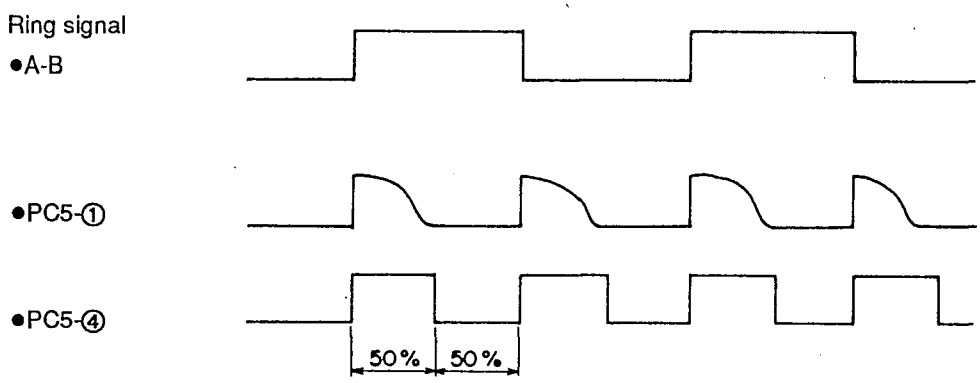


Fig. 24

Make/break ratio when dialing with the Portable handset: 40%: 60%
High/low ratio upon ring signal: 50%: 50%
Therefore, if the low/high ratio is greater than 45% at IC7-Pin 4 (CPU), it is judged as a ring signal. See Fig. 24.

6. EXPLANATION OF THE RECEIVE DATA CIRCUIT

5-1. Signal Flow

Circuit Diagram

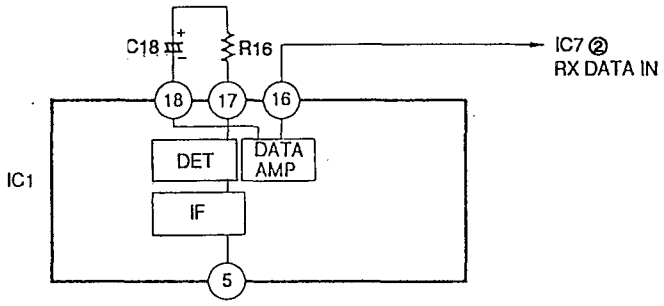


Fig. 25

In areas where the transmission power from the portable unit is extremely weak, noise is superimposed on the data and the chance of an error can become extremely great upon reception of the data. To help prevent this, the above circuit is used.

EXTENSION CORD CONNECTING METHOD

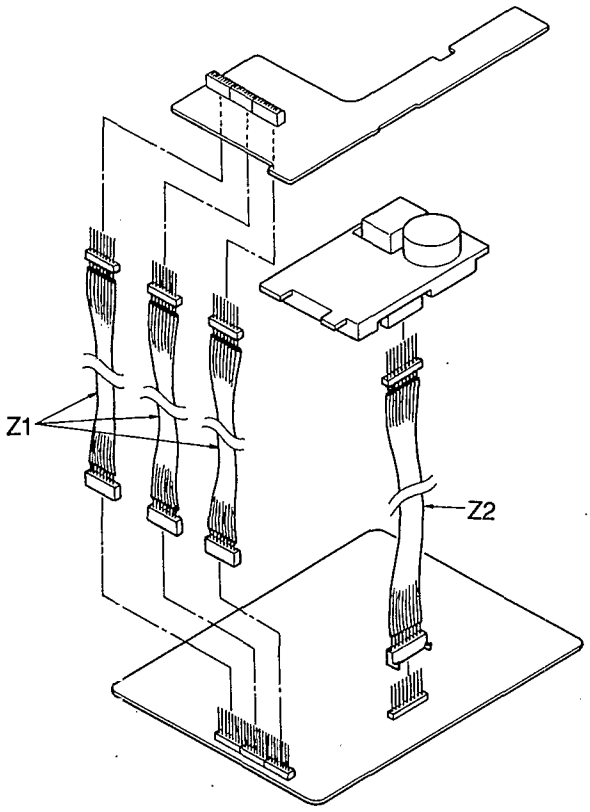


Fig. 26

■ TELEPHONE LINE INTERFACE

Circuit Operation:

• ANSWER

In the idle mode, Q24 is open to cut the DC loop current and decrease the ring load. When ring voltage appears at the A and B leads (When the telephone rings), the AC ring voltage is transferred as follows:

S→R139→PC5→IC7 Pin 4

When the CPU detects a ring signal, Q22 turns on, thus providing an off-hook condition (active DC current flow through the circuit) and the following signal flow is for the voice signal.

A→D65→Q24→R113→C105→T10 Pin 5→D17→D65→B

• ON HOOK

Q24 is open, Q24 is connected as to cut the DC loop current and to cut the voice signal. The unit is consequently in an on-hook condition.

• SPECIFICATIONS

In the on-hook state(idle), the current flows between the telephone line and the unit is as follows:

S→R139→PC5→B

Thereby providing an on-hook condition.

The AC interface impedance is over 47 kΩ; thus, satisfying the telephone company requirements.

Circuit Diagram

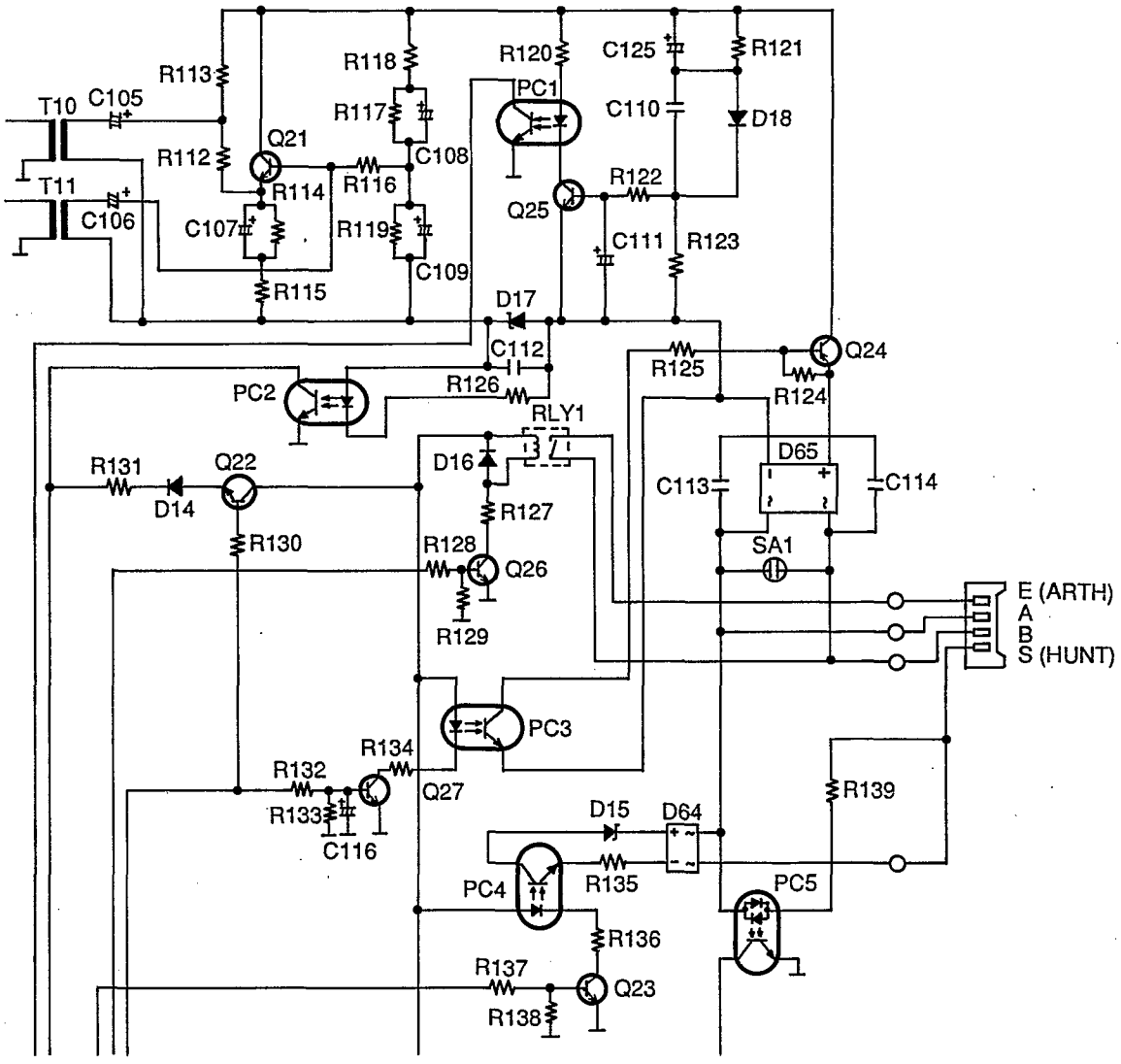


Fig. 27

■ CPC (CALLING PARTY CONTROL) DETECTOR CIRCUIT

Function:

The CPC DETECTOR complements the units shut off, in the ANSWER mode, after the caller hangs up. At this time, the CPC DETECTOR takes over.

The CPC DETECTOR senses the temporary disconnection of the telephone line which occurs after the caller hangs up.

Circuit Operation:

When off-hook, the DC current of telephone line flows as follows:

A→D65→R113→C165→T10→PC2 →R126→D65→B

When in the off-hook mode, the collector of PC4 is at Low level.

If an instant break down of the telephone line occurs, the collector of phototransistor goes to a high level from a low level. (The CPC detector is designed for the instant break down of more than 8 msec. or 600 msec.)

Circuit Diagram

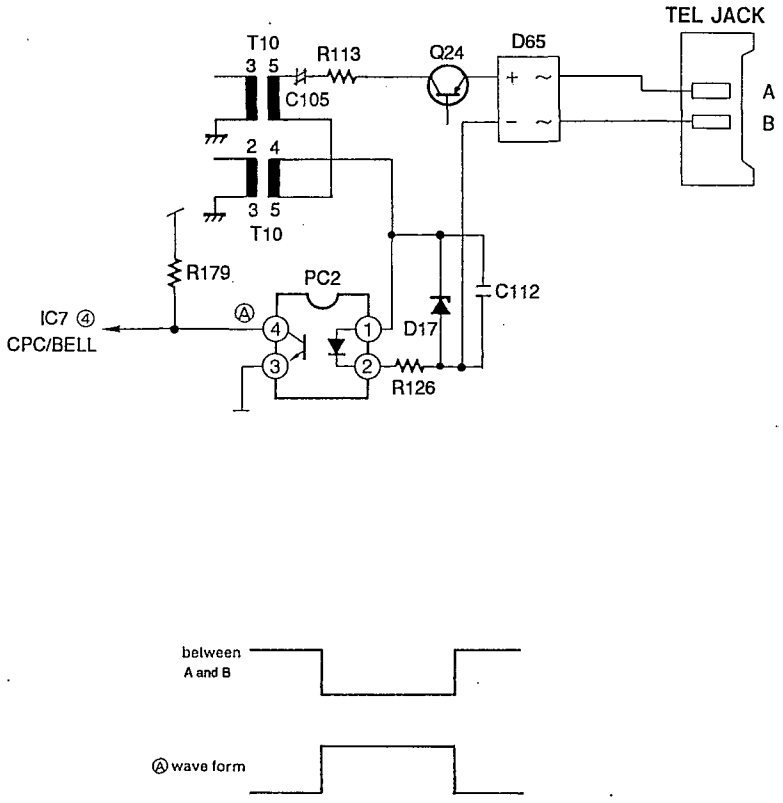


Fig. 28

■ RECORD CIRCUIT (GREETING MESSAGE and ICM)

Circuit Operation:

(Recording Signals)

Recording input signals from the telephone line or MIC is selected by Pin 8 of IC5.

The signal from the telephone line flows through C119, then passes through R153 and Pin 20 of IC5.

The signal of the built-in condenser microphone goes to Pin 19 of IC5 via R143 and C122.

The selected input signals are amplified an amplifier in IC5. Then go to Pin 16 of IC5→C129→R147→Pin 15 of IC5→Pin 1 of IC5→Head.

(Signal)

The beep tone generated by IC7.

The beep tone of the ICM recording (from pin 20 of IC7) is processed to the ICM recording head via C140→R150→Pin 15 of IC5→Pin1 of IC5→Head.

(Erase)

When in the Rec mode, Pin 50 of IC7 is High.

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

The bias current is applied the R/P Head via R142.

Circuit Diagram

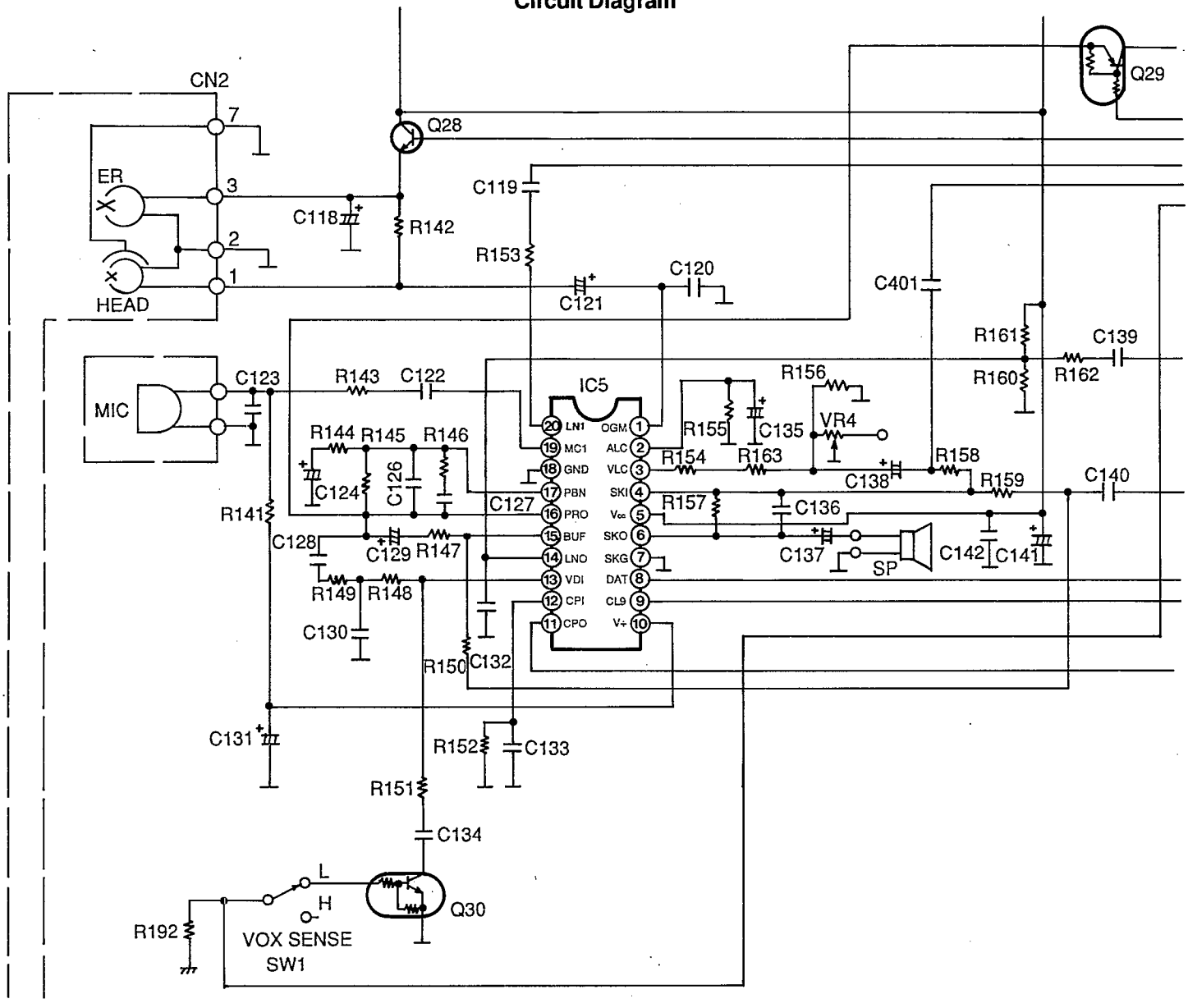


Fig. 29

•IC5 (PQVISC79132P)

The IC5 (PQVISC79132P) is REC/PLAY AMP for TAM.
Data is entered serially through Pin 8 and Pin 9.

The data whether Pin 8 is HIGH or LOW when signals to Pin 9 go HIGH are read into the internal register.
The register is reset when signals to Pin 9 go HIGH and Pin 8 becomes HIGH (as shown in Fig. b).
The internal block diagram is shown in Fig. c.
The logic of each switch is shown in Fig. d.
The input signals on each operation are shown in Fig. a.

	A	B	C	D	E	F	G	H
PLAY	L	L	H	L	L	L	H	L
GREETING MESSAGE REC	H	L	H	H	H	L	L	L
LINE REC	L	H	H	H	H	L	H	L
LINE OUT	L	L	H	L	L	H	L	L

Fig. a

Example of data input

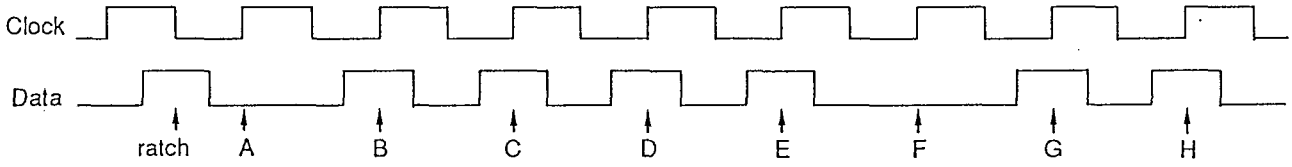


Fig. b

	A	B	C	D	E		F	G	H
H	Mic Amp on	Line Amp on	SP Amp on	ALC on	Rec Amp on	PB Amp off	Lout AMP on	ATT (Power Amp) on	ICM/OGM on
L	Mic Amp off	Line Amp off	SP Amp off	ALC off	Rec Amp off	PB Amp on	Lout AMP off	ATT (Power Amp) off	ICM/OGM on

Fig. c

IC5 BLOCK DIAGRAM

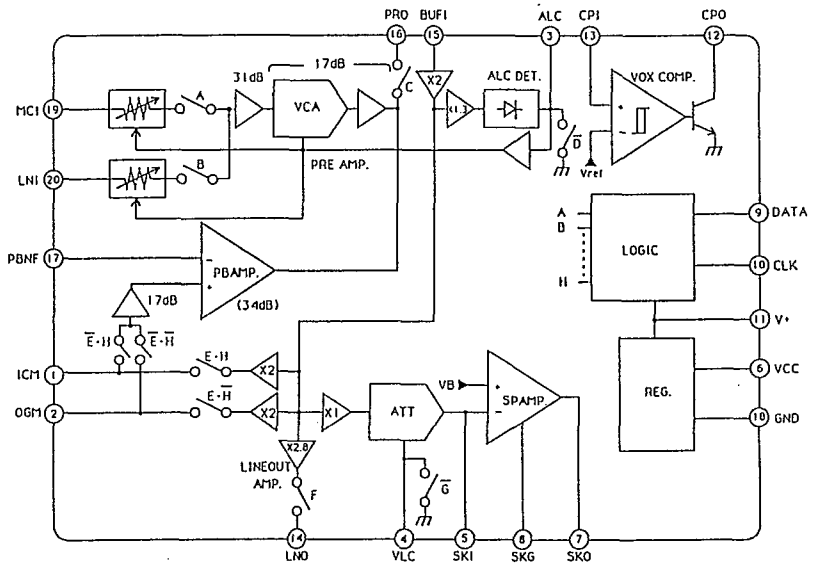


Fig. d

■ PLAYBACK CIRCUIT (GREETING MESSAGE and ICM)

Circuit Operation:
Playback signal flows as following:
Head→C121→Pin 1 of IC5→Pin 16 of IC5→C129→R147→Pin 15 of IC5→Pin 6 of IC5→C137→SPEAKER.
Speaker output level are controlled by VR4.

Circuit Diagram.....See page 36

■ VOX CIRCUIT

Function:
The vox circuit is designed to detect cyclic signals is 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 passes through C128, R149, R148 is inputted Pin 13 of IC5. Then output from Pin 11 of IC5 is inputted to Pin 55 of CPU (IC7). When sound is present, the output at Pin 11 if IC5 becomes a low level, while with no-sound its output becomes a high level.

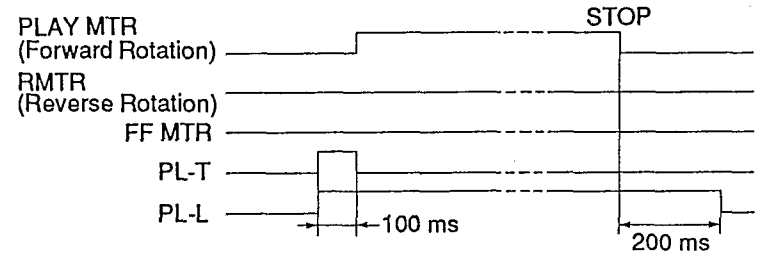
Circuit Diagram ..... See page **36**

■ TAPE TRANSPORT CONTROL

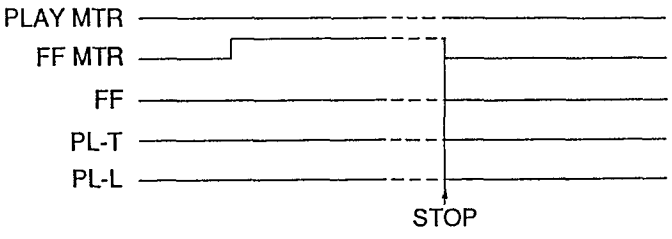
Circuit Operation:
The timing for the plunger and motor which are used to operate the deck is as shown in the timing chart.

Timing Chart

1 PLAY REC MODE



2 REW MODE



3 FF MODE

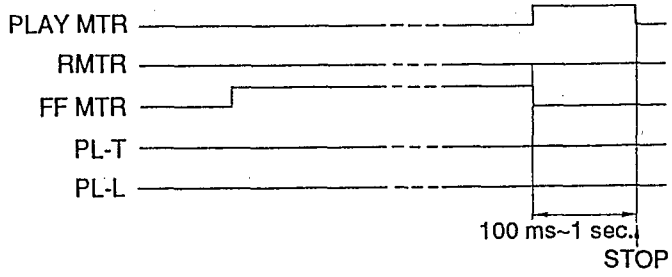


Fig. 30

■ INITIALIZATION CIRCUIT

Function:
This circuit is used for initializing the microcomputer when the AC adaptor is connected.

Circuit Operation:
When the unit is switched ON. Then the voltage is shifted by D24 and power is supplied to the CPU.
When Q43 turns ON, and Q42 turns on, the reset terminal voltage drops. The CPU has been reset, and the unit can operate beyond point Ⓐ in the circuit voltage diagram.

Circuit Diagram

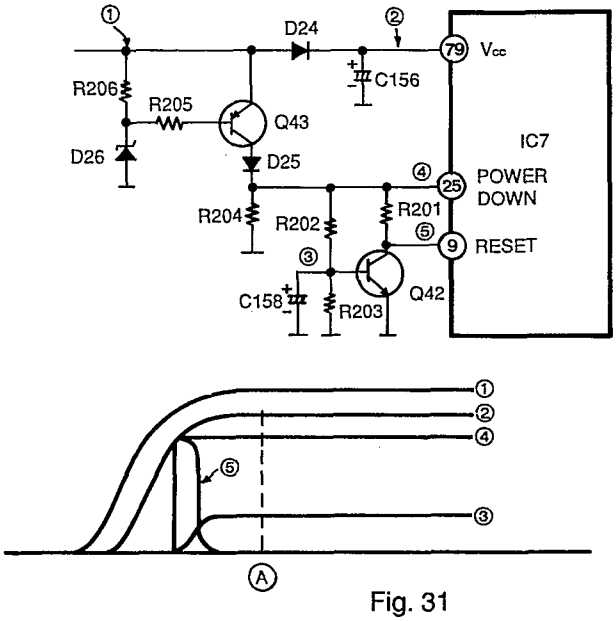


Fig. 31

■ ICM TAPE ROTATION DETECTOR CIRCUIT

Circuit Operation:
The changes in the direction of the magnetic field caused by the rotation of the four-pole ferrite magnet are detected by the Reed Switch; this output is added to the microcomputer input.

Reed Switch→IC7 Pin 14

Circuit Diagram

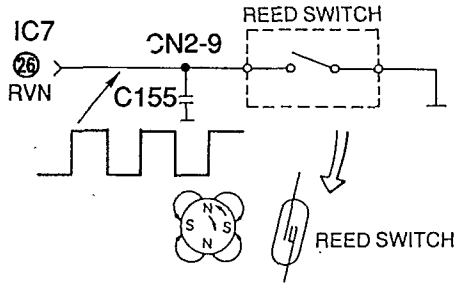


Fig. 32

■ REMOTE SIGNAL DETECTOR CIRCUIT

Circuit Operation:

A remote control signal is activated by a dual-tone multiple-frequency (DTMF) signal.
And it is input to Pin 1 of IC7 and it is input to Pin 63~66 of IC7.

Circuit Diagram

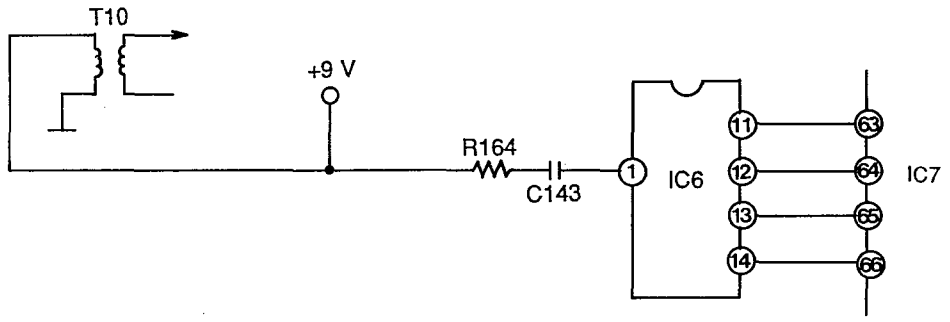


Fig. 33

■ POWER SUPPLY CIRCUIT

Function

Power from the AC adaptor passes through a 2-stage regulating block consisting of Q37 and Q35 and provides of 5.4 and 6 V.

Circuit Operation:

Power from the AC adaptor is supplyed directly to the plunger. Q37 is a regulated power supply. The voltage at point Ⓑ is regulated to 9 V by the zener voltage of D30→Amp power. Q35 is a regulated power supply. The voltage at point Ⓒ is regulated to 6 V by the zener voltage of D28. The 6 V voltage is dropped by D27 to 5.4 V.

Circuit Diagram

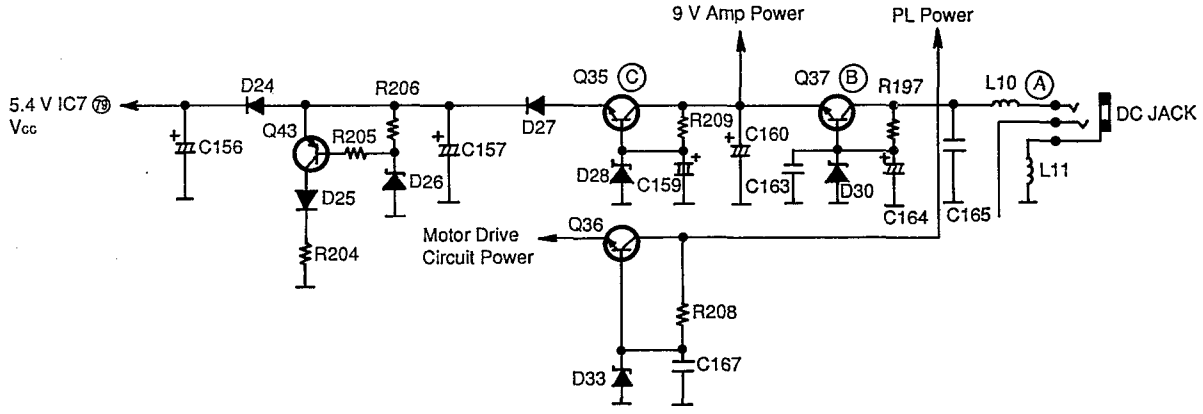
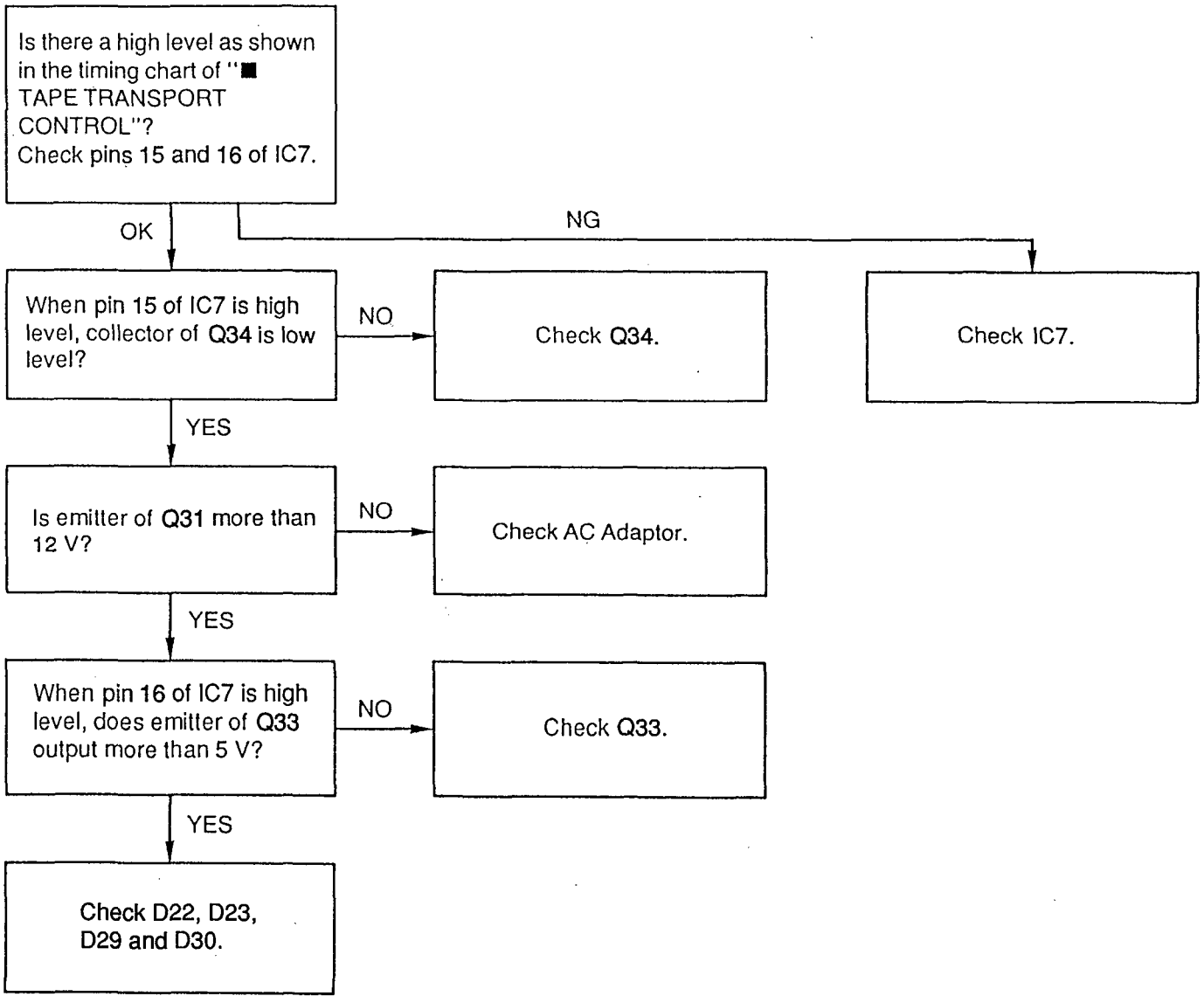


Fig. 34

TROUBLESHOOTING GUIDE (KX-T4300BEH)

(ANSWERING SYSTEM)

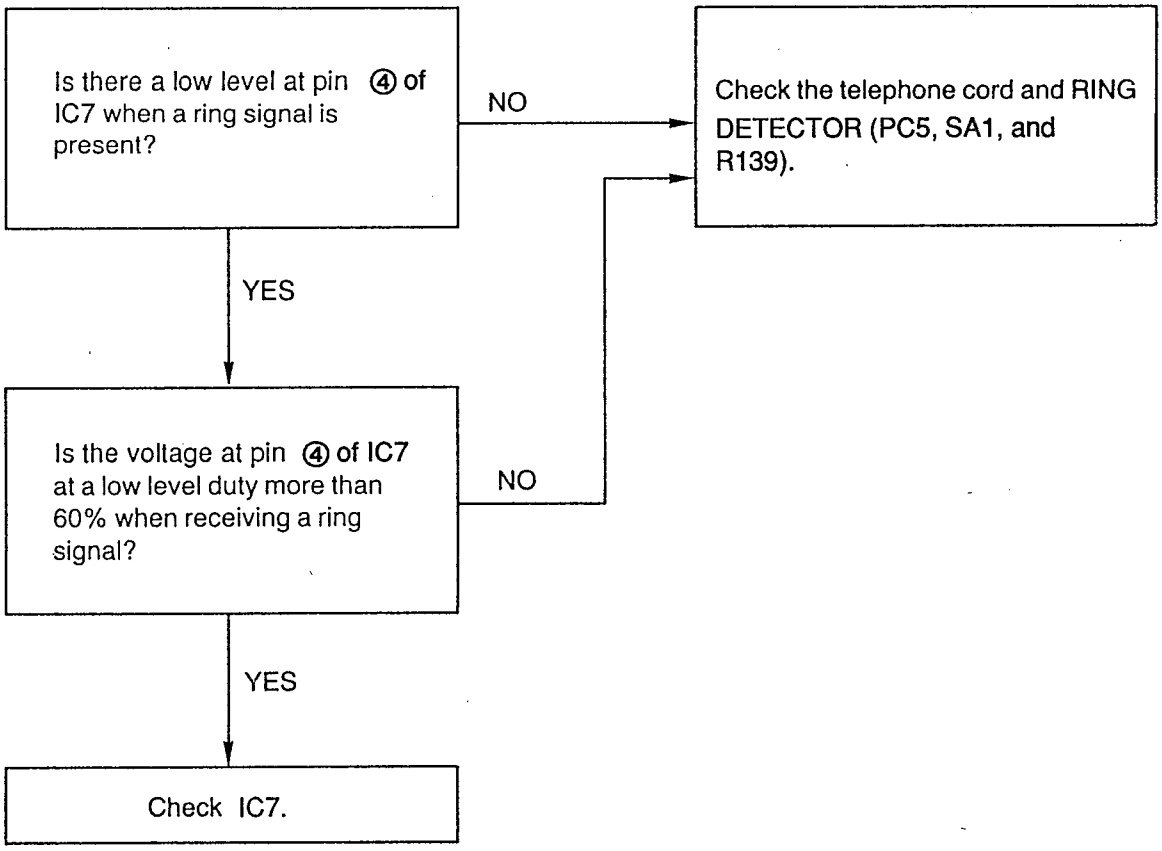
1) THE PULL OF PLUNGER IS POOR OR NOT AT ALL



2) GREETING MESSAGE END MARK DETECTOR

Check IC7 and pin 12 and 13 of IC5.

3) DOES NOT ANSWER TELEPHONE CALL



4) •ICM CONTINUES TO RECORD AFTER CALLER HANGS UP.
•END OF MESSAGE CLIPPED WHEN CALLER HANGS UP.

When caller hangs up, the KX-T4300BE can detect the following 4 signal type.

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

A. Check CPC DETECTOR CIRCUIT (PC2, D17, R126, C112)
B., C., D.
Check VOX DETECTOR CIRCUIT (IC5, C128, R148, R149)

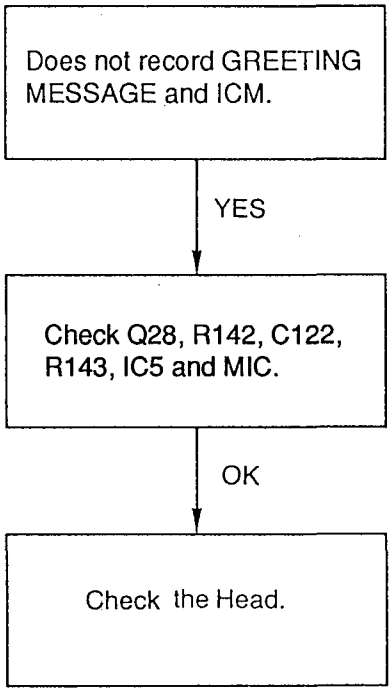
5) REMOTE CONTROLLER DOES NOT WORK/RESPONSE IS POOR.

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

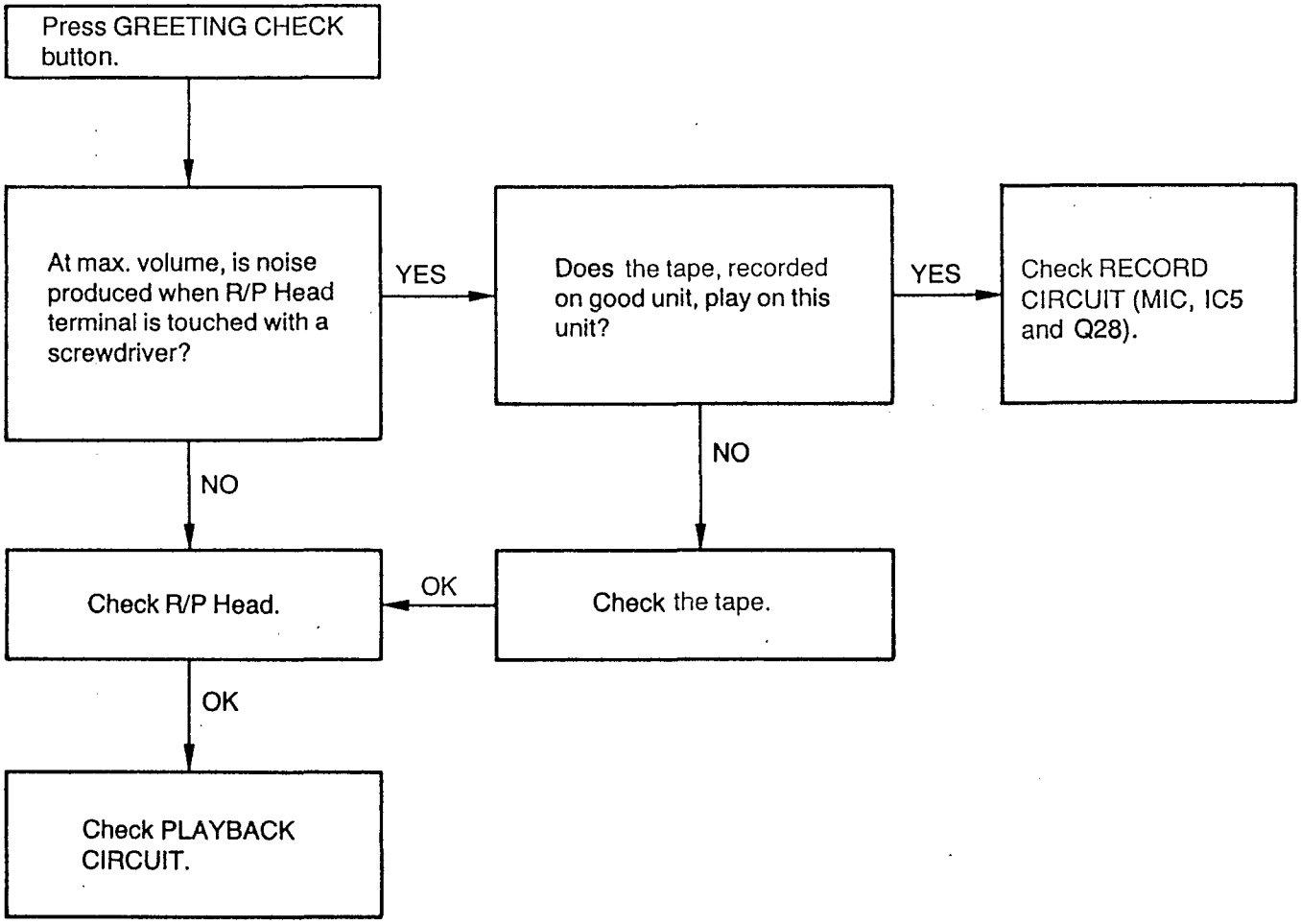
A. Does the security code of the unit fit in with the input code from the telephone line?
B. High distortion in LINE OUTPUT CIRCUIT causing interference between transmitting signal and remote signal.
C. Excessive loss in telephone line.
D. Remote Control Detective Circuit...defective frequency adjustment.

A. Check the security code of the unit.
B. Test on telephone line known to be working properly.

6) DOES NOT RECORD

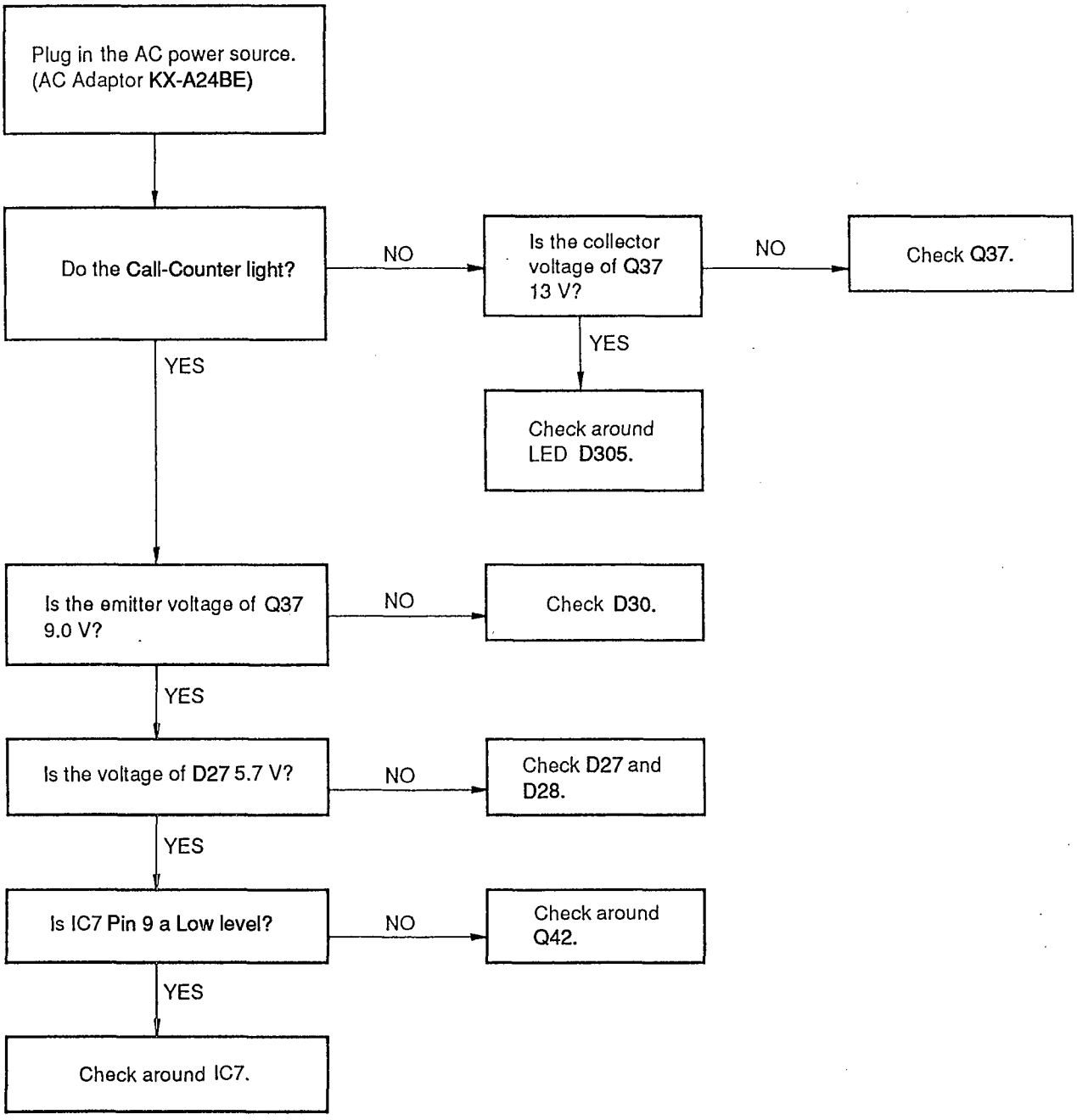


7) NO RO LOW GREETING MESSAGE PLAYBACK

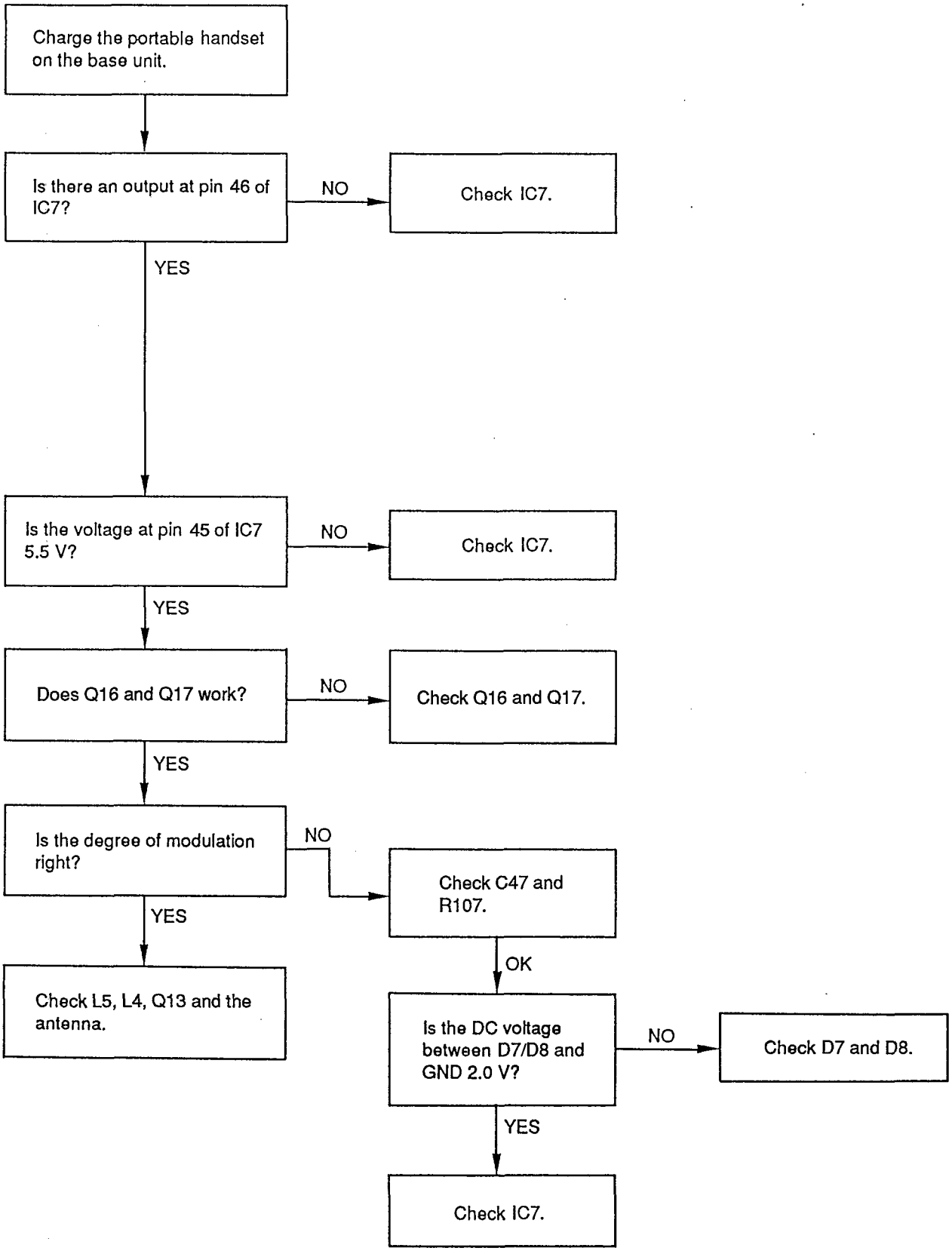


(CORDLESS TELEPHONE)

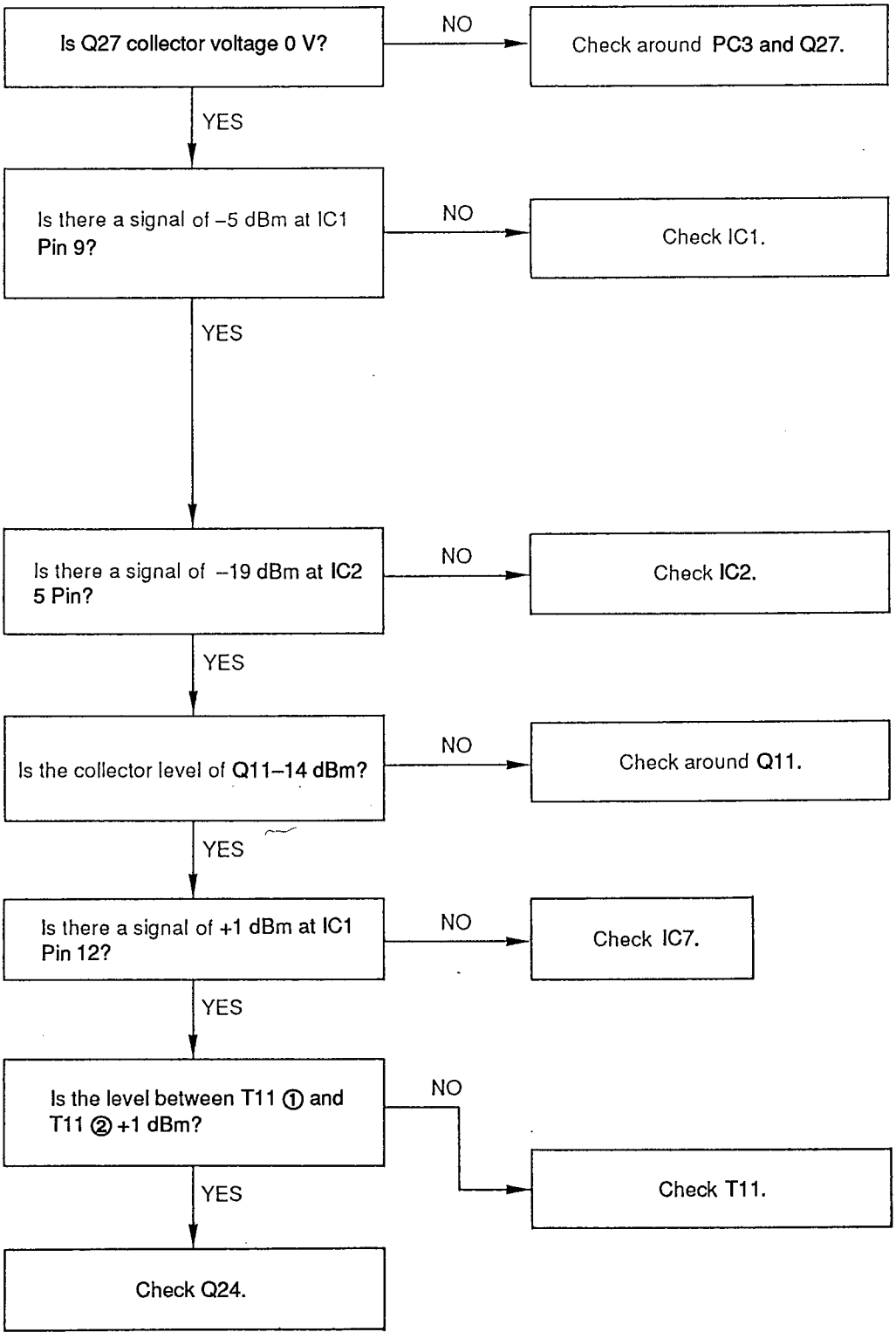
(8) NO FUNCTION OPERATE



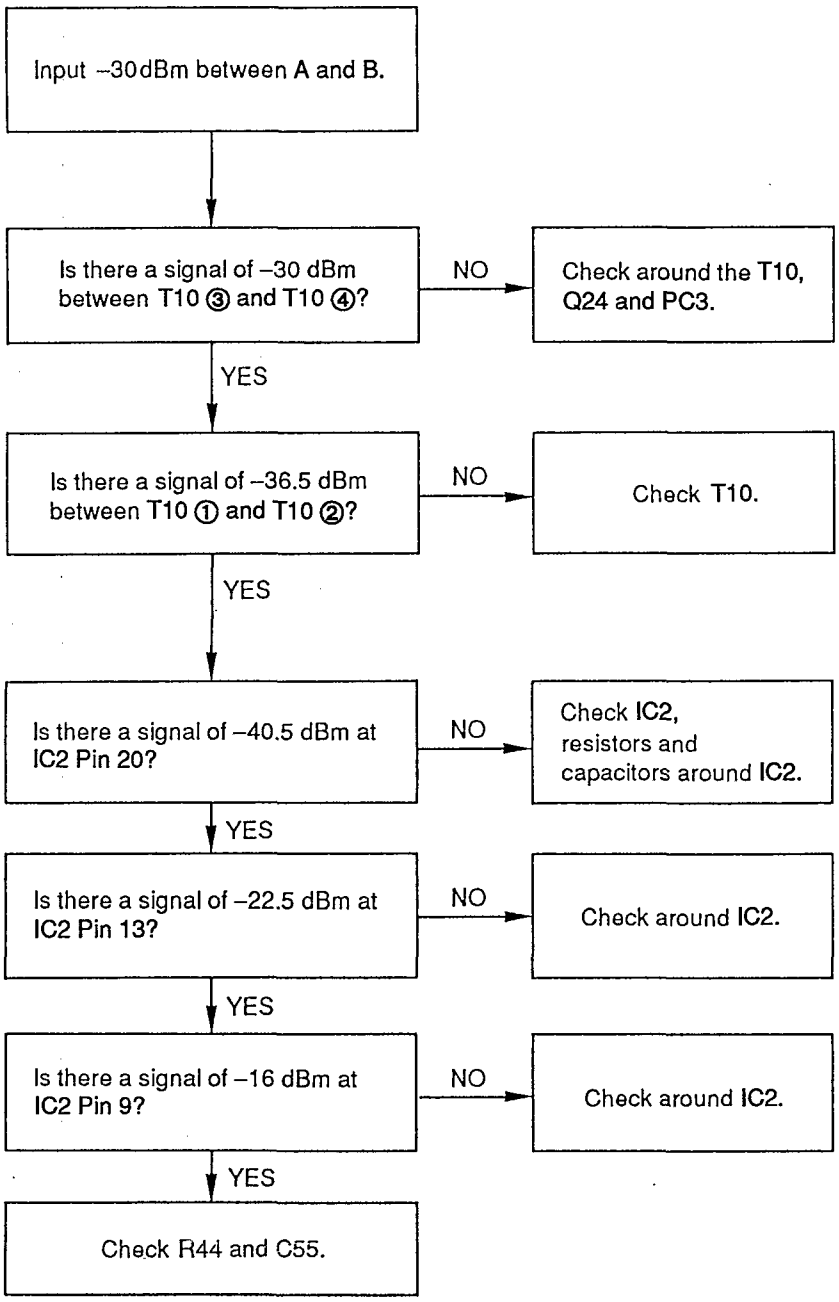
(9) PORTABLE HANDSET DOES NOT RECEIVE THE PAGE/INTERCOM SIGNAL.



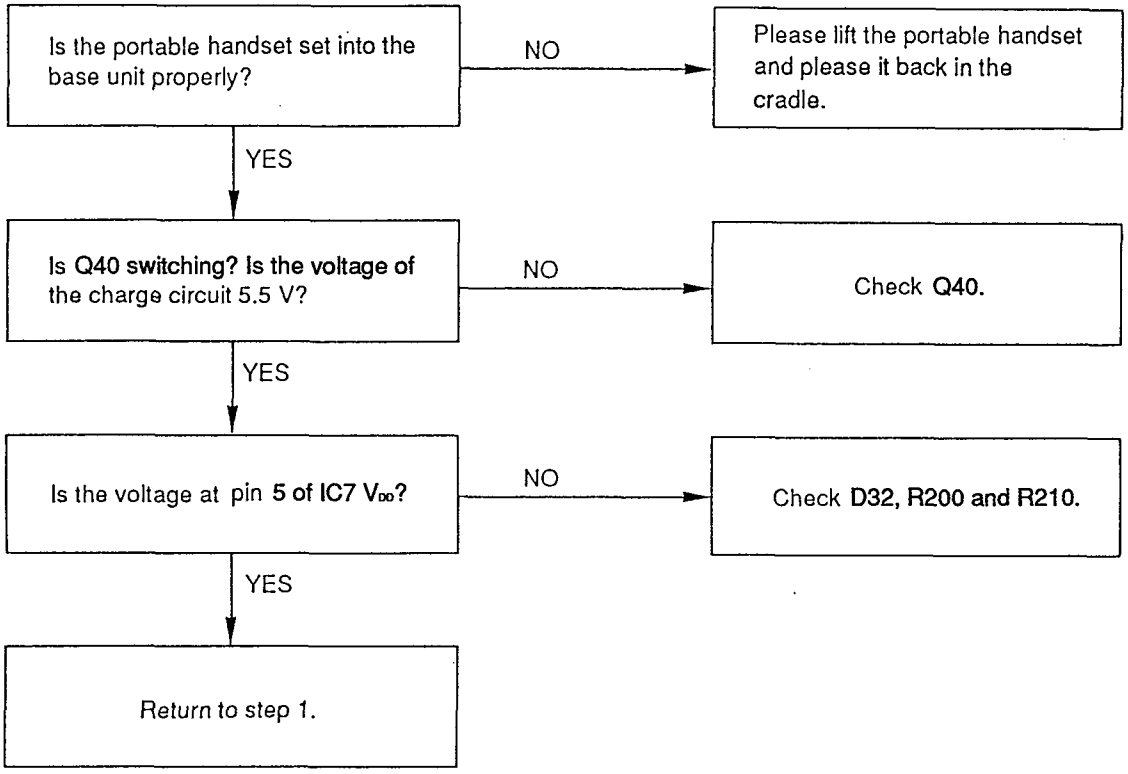
(10) DURING USE OF THE PORTABLE HANDSET, THE CONVERSATION CAN NOT BE HEARD.



(11) DOES NOT RECEIVE THE CONVERSATION FROM THE BASE UNIT.



(12) WHEN THE PORTABLE HANDSET IS SET IN THE CRADLE OF THE BASE UNIT, THE PORTABLE HANDSET DOES NOT CHARGE.



■ SERVICE HINTS

MODEL	SYMPTOM	CURE
KX-T4300BEH (Base Unit)	Does not ring.	Replace PC5 and C139.
	Answering Machine Answers itself.	Check pin 3 and 4 of PC5 for short.
	GREETING MESSAGE recording distroted.	Check for cold solder joints on IC7.
	No PWR/AFTER PWR fixed no plunger a activation.	Check Q31, Q34, R186, R187 and R188.
	Intermittent rewind.	Check AC Adaptor or R172 or R193.
	NO GREETING MESSAGE.	Check IC7 and IC5.
	Can dial out but incoming calls get busy signal.	Check Q24 and SA1.
	Holds line-constantly.	Check Q24.
	Would not record all GREETING MESSAGE.	Check C121.

CIRCUIT EXPLANATION (KX-T4300BER)

■ BLOCK DIAGRAM

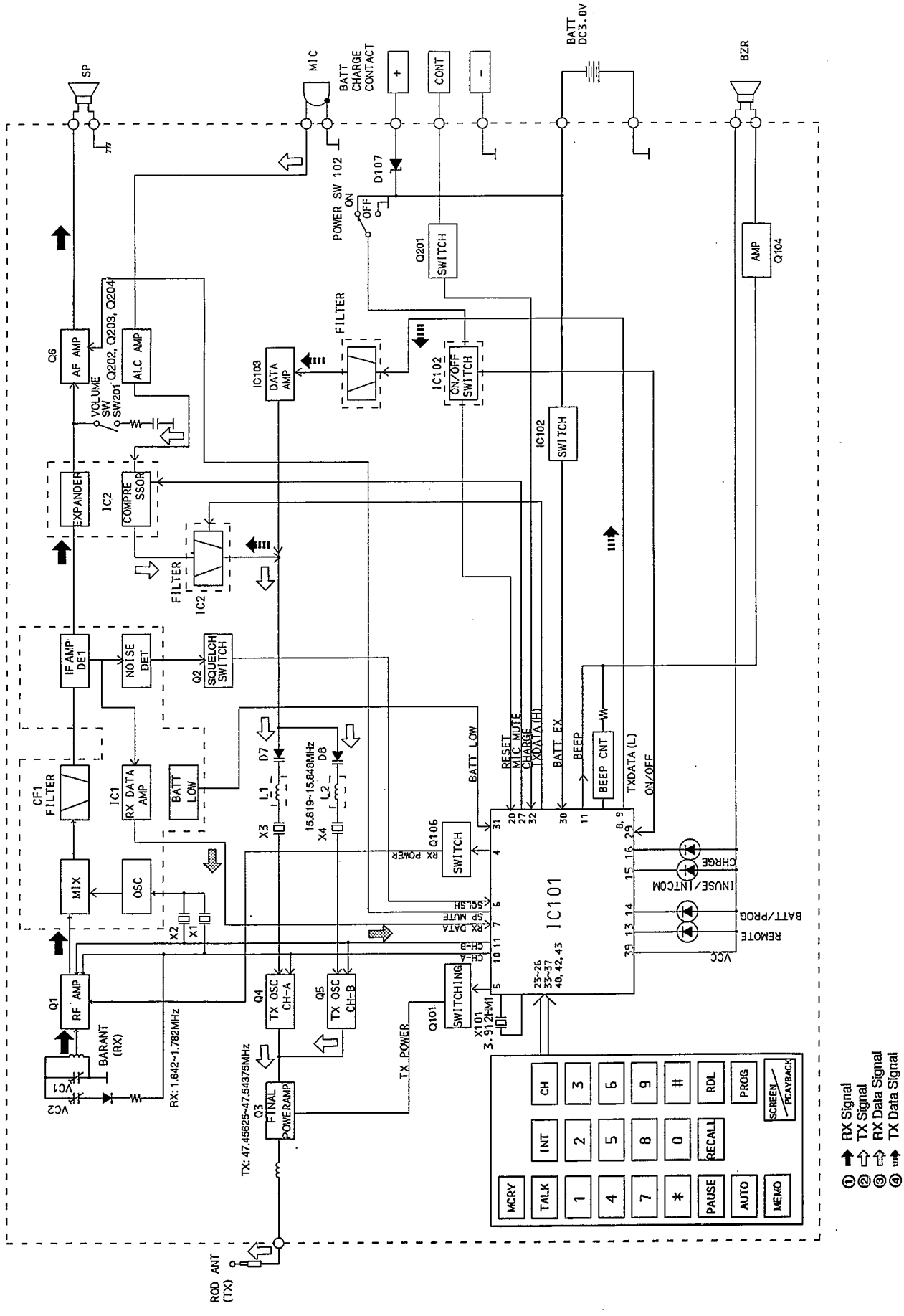


Fig. 35

■ OPERATION IN THE STANDBY MODE

1-1. Operation in the Standby position.

1. A call signal comes from the base unit.
2. A ring signal for incoming calls can be made from an outside caller.
3. A call signal can be sent to the base unit.

1-2. Reception Operation

a) A signal is received by the BAR antenna, and is amplified by the RF AMP (Q1), and mixed by IC1 to generate 455 kHz of the IF.
This IF signal is amplified by IC1 and detected by L3 then applied to a waveform correction circuit.
b) The data component of this signal is sent to Pin 7 of the CPU (IC101), where it is determined whether or not it matches the code.
c) When the data matches, a signal is emitted from the magnetic speaker via Q104 and Pin 41 of IC101.
A call signal and a ring signal will differ in tone.
d) In this case, the AF output is muted by Pin 28 of IC101, therefore no signal will be heard from the speaker.

1-3. Transmission Operation

Q101, controls the TX power supply, and is brought to the OFF condition by the CPU (IC101), in the OFF condition the TX part will not operate.

■ OPERATION IN THE TALK MODE

2-1. Reception Operation

a) Same as 1-2 a).
b) The signal detected by IC1 is outputted from IC1 Pin 15.
c) The detected signal is amplified by the power amplifiers (IC2 and Q9), and is removed a noise.
d) During the talk mode the muting function is released, therefore a signal is outputted to the speaker.
e) Further, during talking the input of the waveform correction circuit becomes a high from the TX power supply.

2-2. Transmission Operation

a) During the talk mode the CPU (IC101 Pin 5) becomes a low level, and Q101 turns on, thus the transmission stage enters into the operational state.
b) The OSC circuit (Q5) oscillates at a frequency in the 39 MHz band. Power amplification is executed by the power amplifier Q3, and then transmission is made from the whip antenna.
c) During the talk mode, first the data code is outputted by the CPU (IC101 Pin 8, 9) and is then modulated, and is transmitted.
d) During pulse dialing the dial pulse signal is outputted by the CPU (IC101 Pin 8, 9).
This signal is modulated by the modulation unit and then transmitted.
e) During pulse transmission, the talk indicator (green LED) will flash by the number dialed and outputted by the CPU (IC101 Pin 15).
f) During tone dialing, the TONE DATA is outputted by the CPU (IC101 Pin 8, 9). This signal is modulated by the modulation unit and then transmitted.
The base unit is received the tone data, and transmits from the tone generator of the CPU.

■ BATTERY LOW CIRCUIT

When the power supply voltage is high (3.6 V or more), the Pin 20 of IC1 input becomes $V_{DD}/2<1.8$ V and the output at Pin 19 of IC1 will becomes "High". This is given as an input to Pin 31 of the CPU (IC101), thus Pin 14 of the CPU (IC101) will become "High", and no current will flow to the LED (IND2). When the battery voltage drops to about 3.6 V or less, $V_{DD}/2<1.8$ V is obtained, 19 Pin of IC1 will become "Low". This is given an input to Pin 31 of the CPU (IC101), and Pin 14 of the CPU (IC101) will become "Low". This causes current flow to IND2 and the LED will light.
The semifixed resistor VR3 is adjusted for the lighting level of the LED (IND2), and the threshold voltage of IC1.

NOT USED **Circuit Diagram**

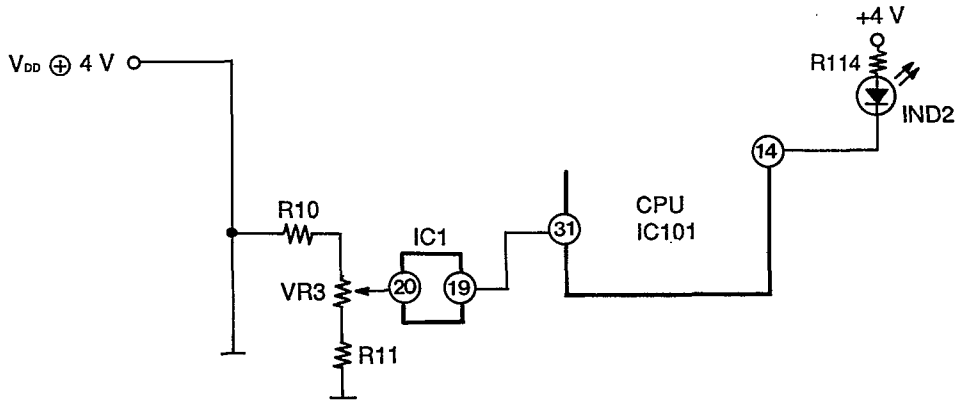


Fig. 36

■ INITIALIZING CIRCUIT

This circuit is for resetting the CPU (IC101) when the power of the unit is turned on.
(Reset is necessary to prevent errors in the operation of the CPU.)
When the power switch (SW102) is OFF, 8 Pin of IC102 is "High".
When the power switch (SW102) is ON, 8 Pin of IC102 is "Low".
Further 8 Pin of IC102 is "High", so 8 Pin of IC102 becomes the reset signal.

Circuit Diagram

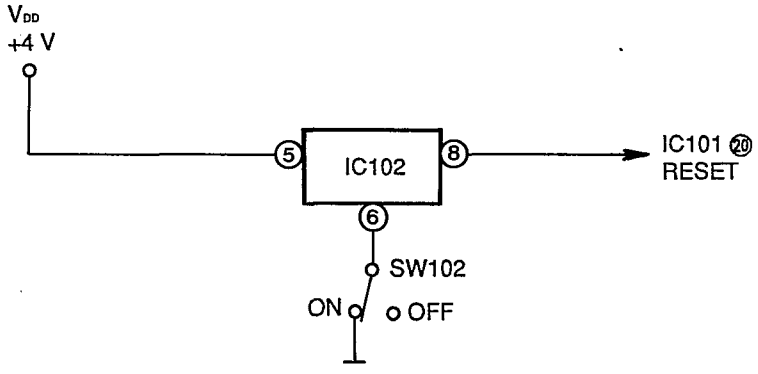


Fig. 37

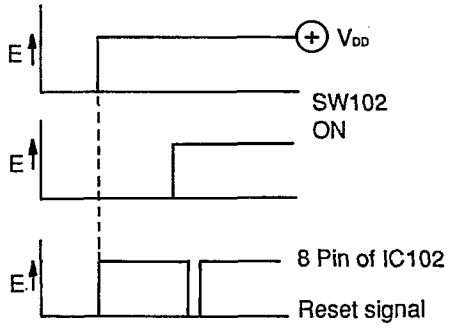
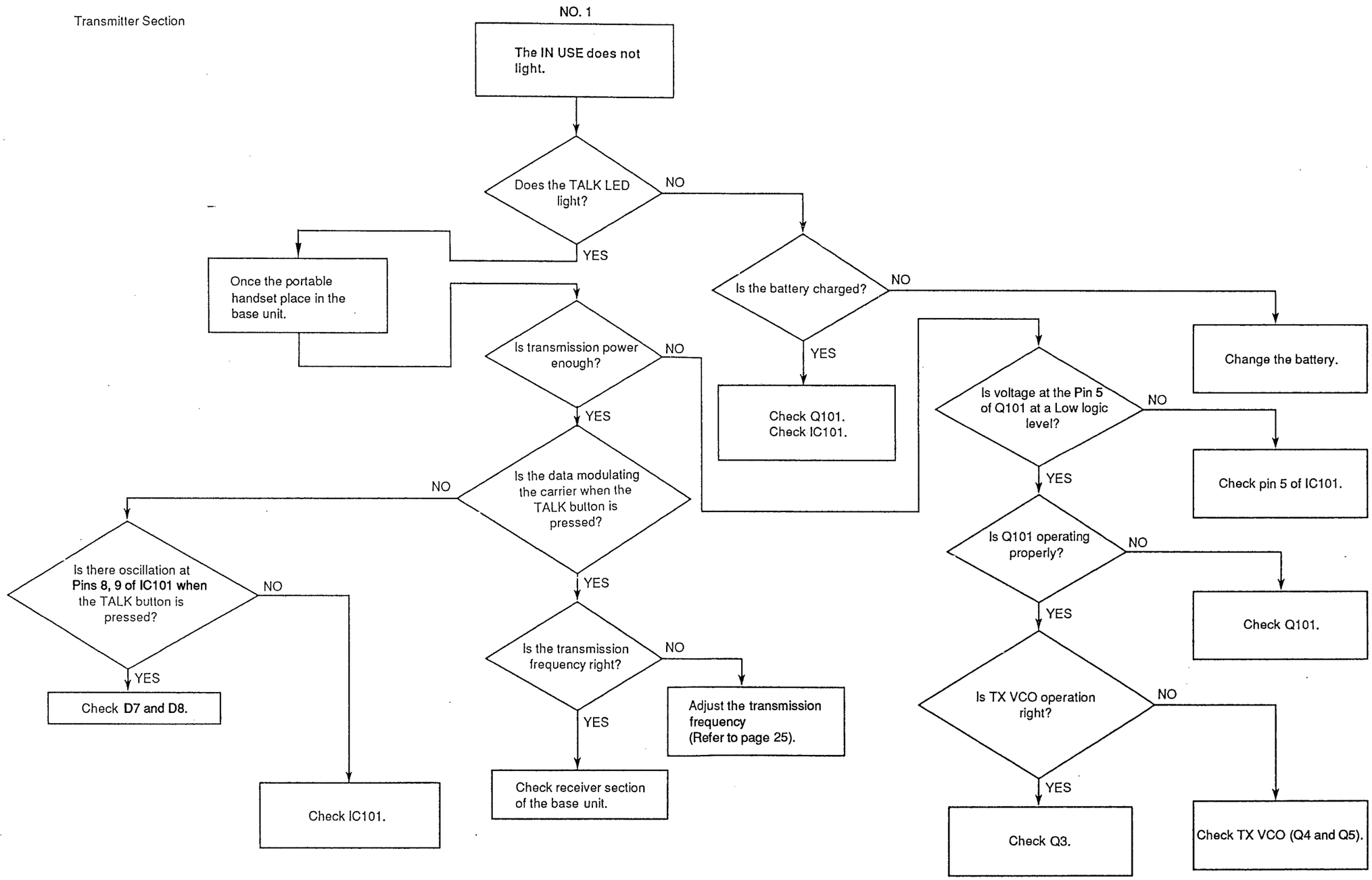


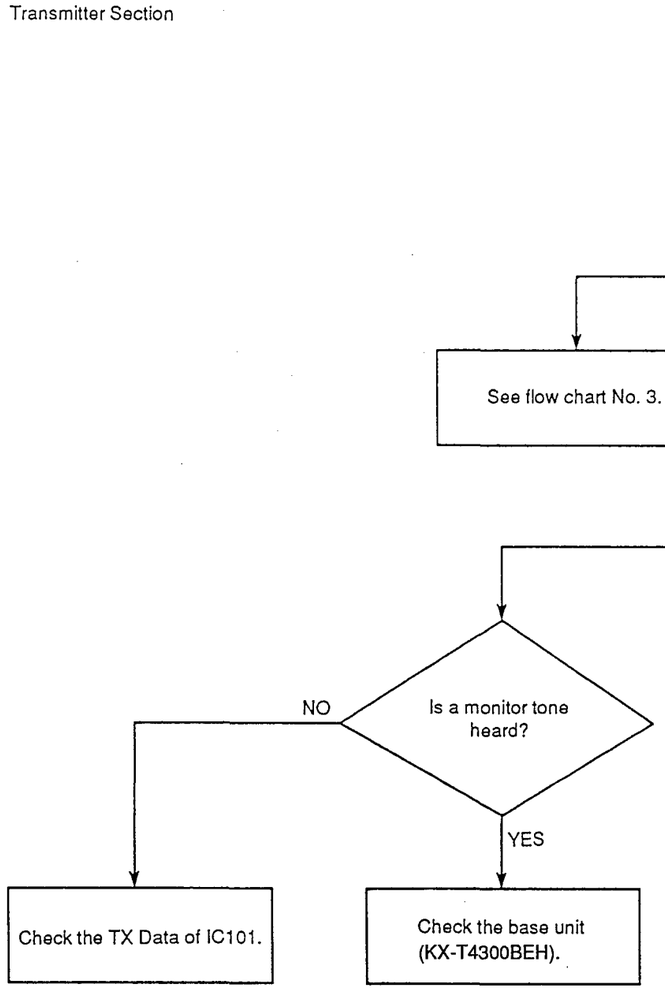
Fig. 38

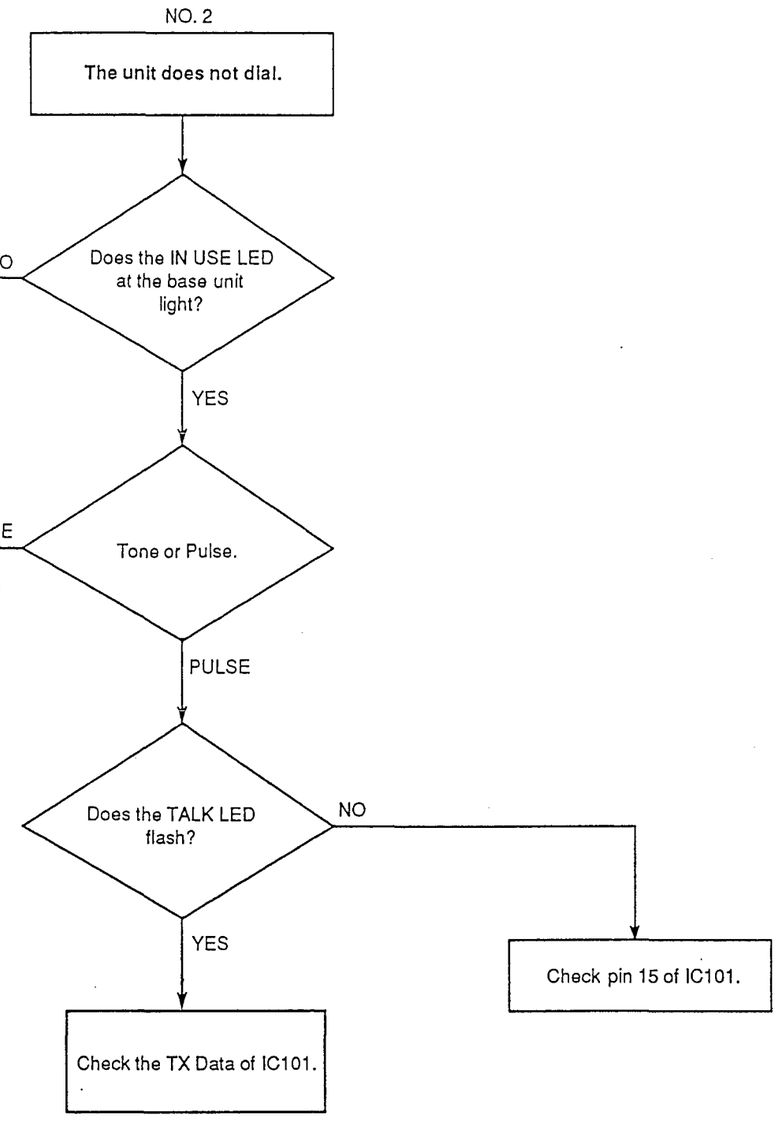
TROUBLESHOOTING GUIDE (KX-T4300BER)

Transmitter Section

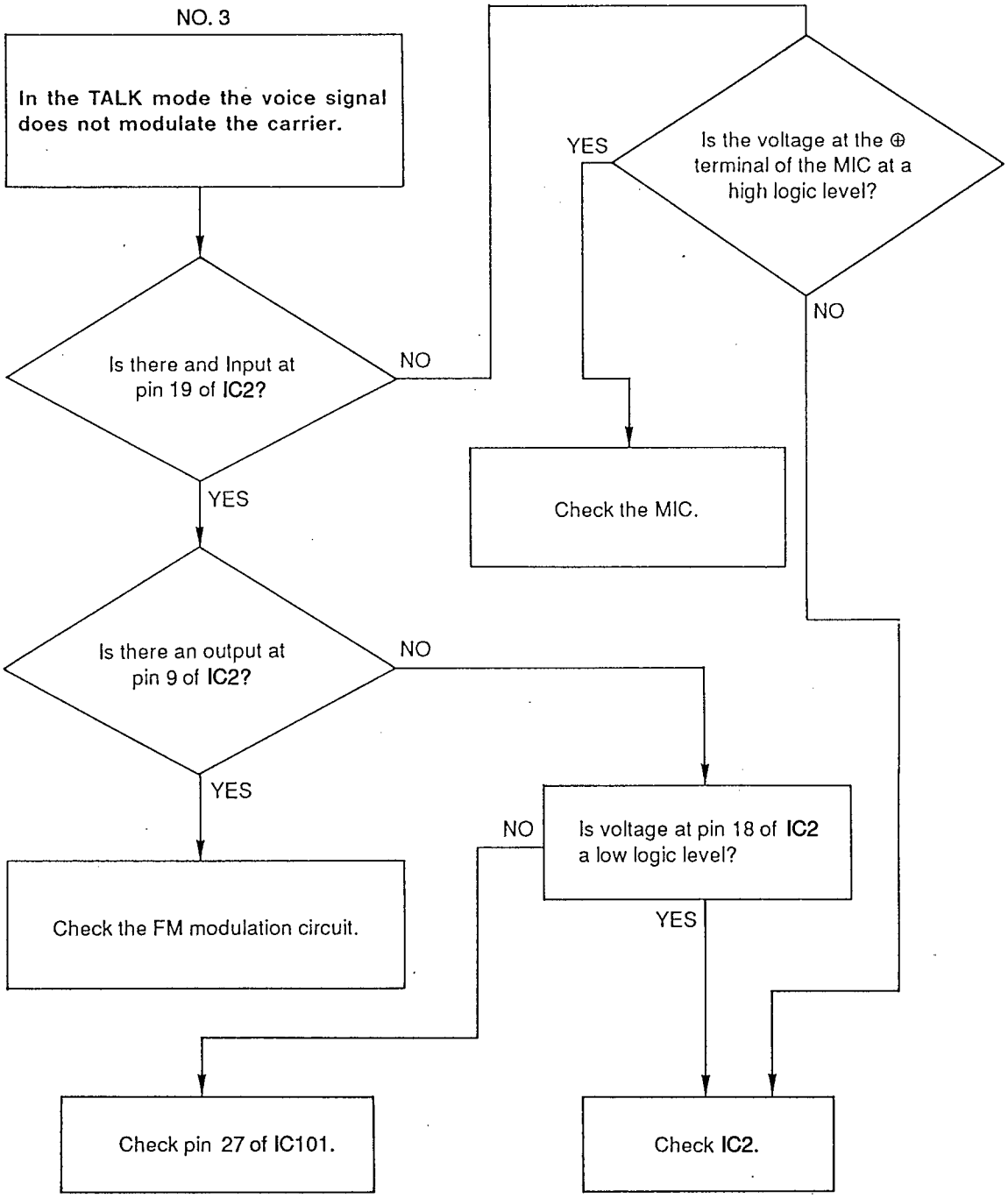


Transmitter Section

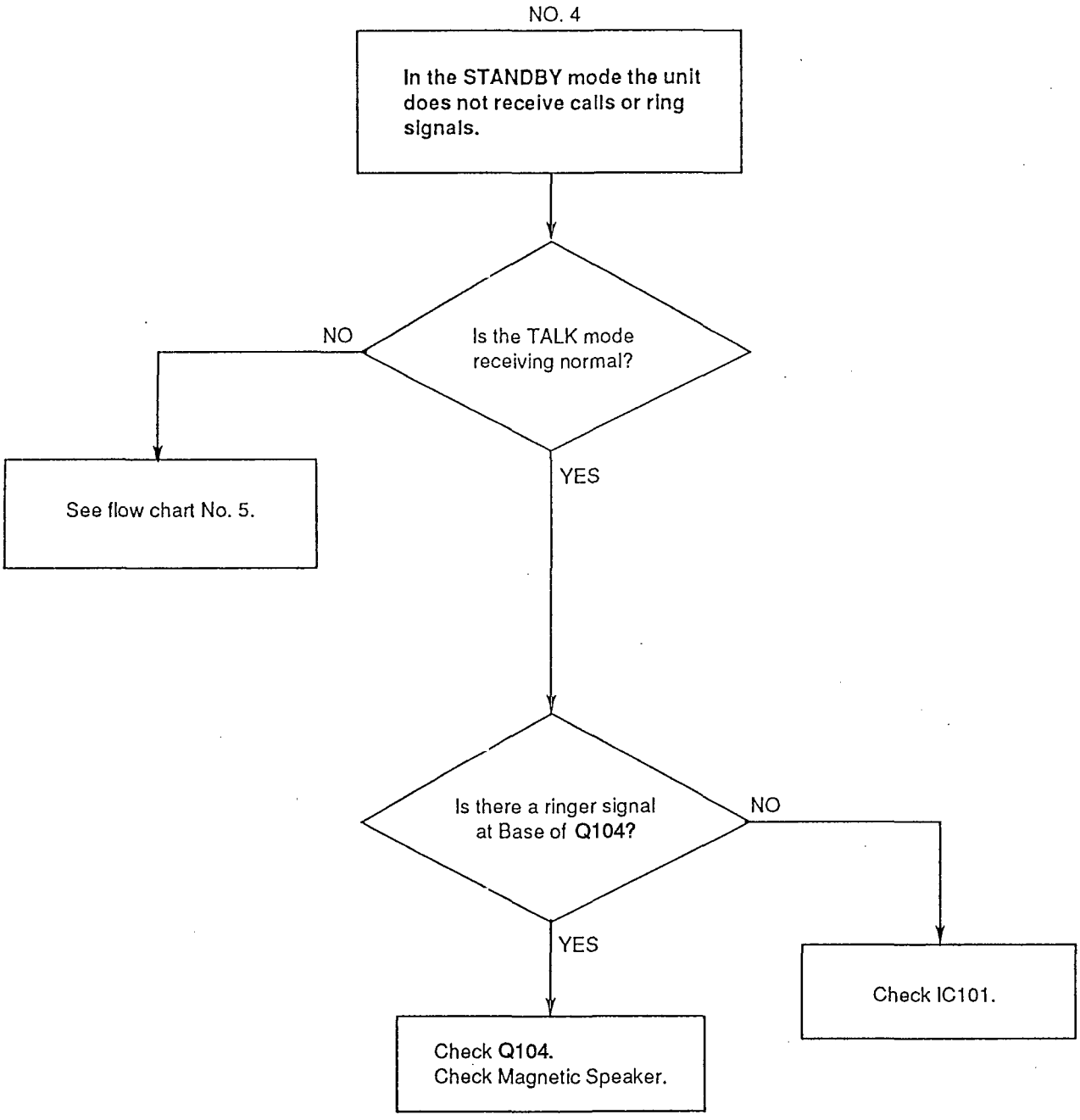




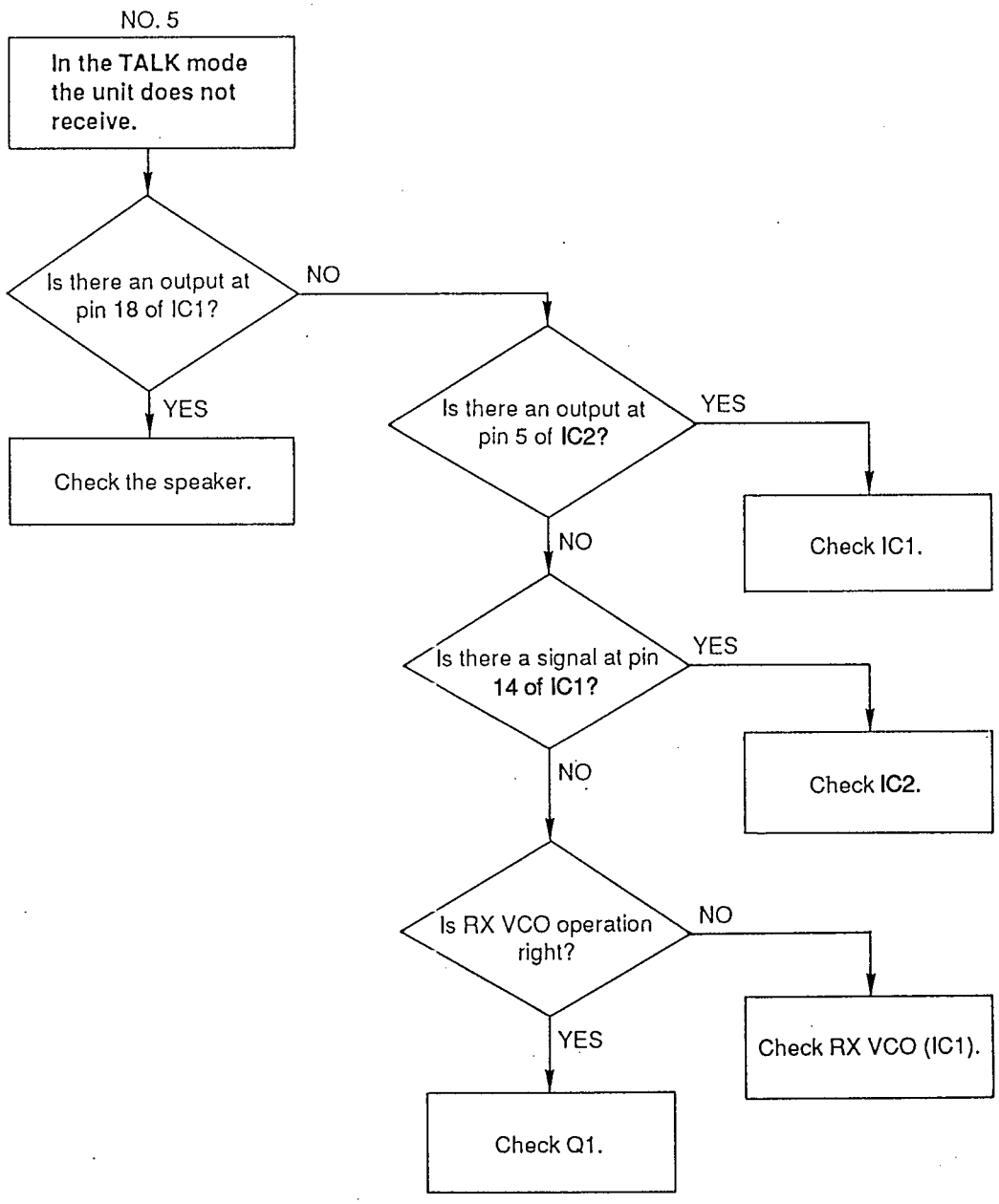
Transmitter Section



Receiver Section



Receiver Section



CABINET AND ELECTRICAL PARTS LOCATION (KX-T4300BEH)

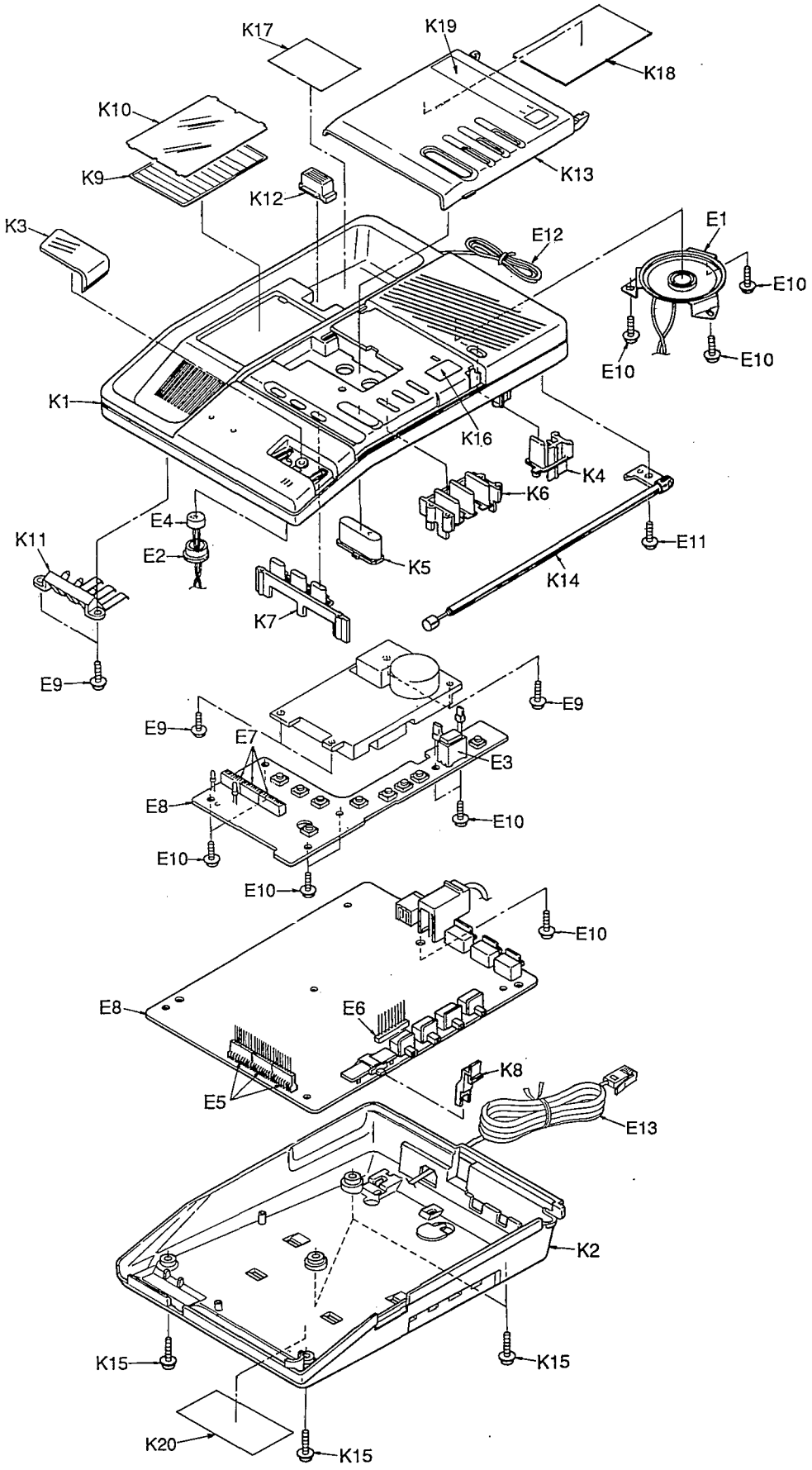


Fig. 39

CABINET AND ELECTRICAL PARTS LOCATION (KX-T4300BER)

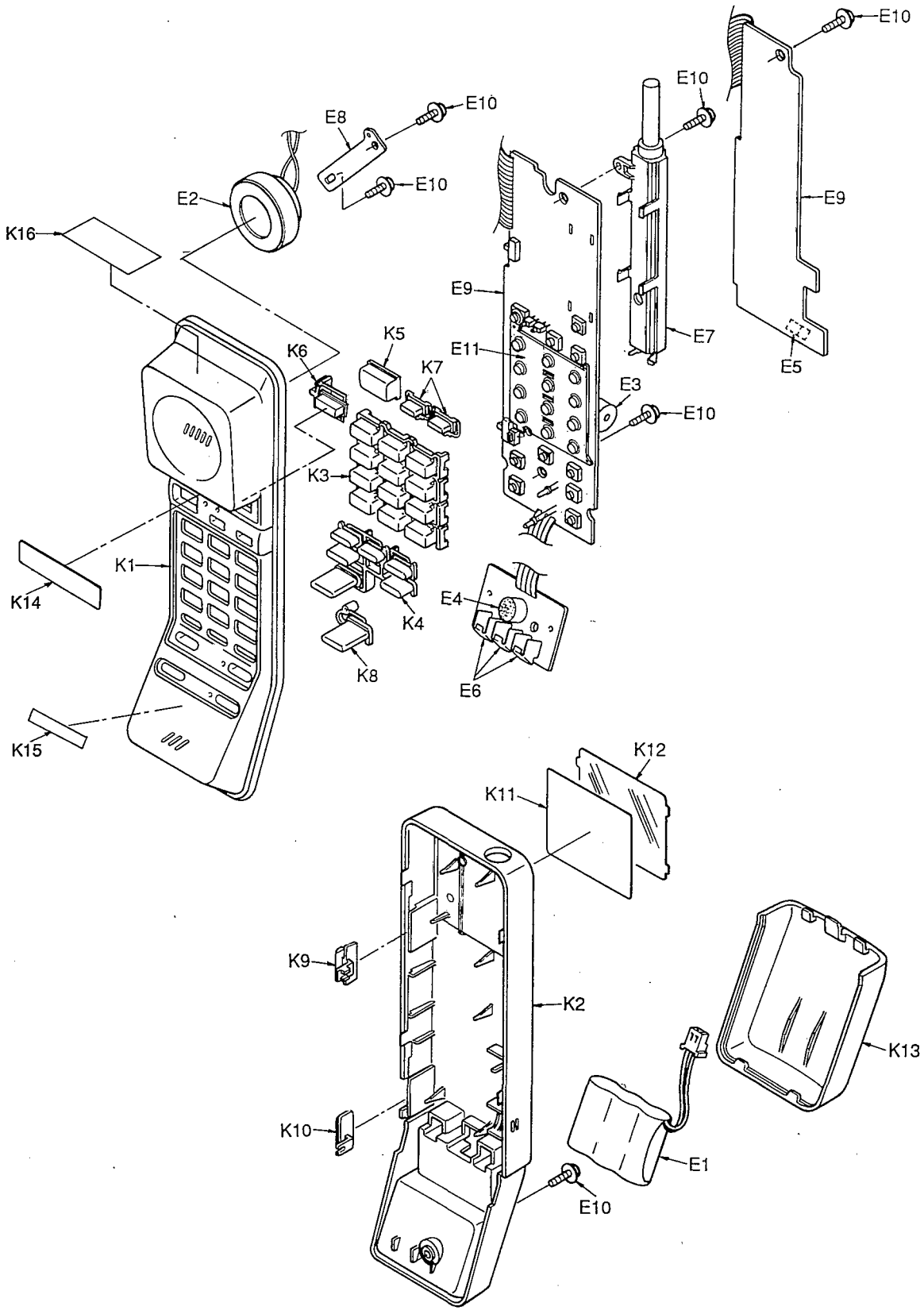


Fig. 40

CASSETTE DECK PARTS LOCATION

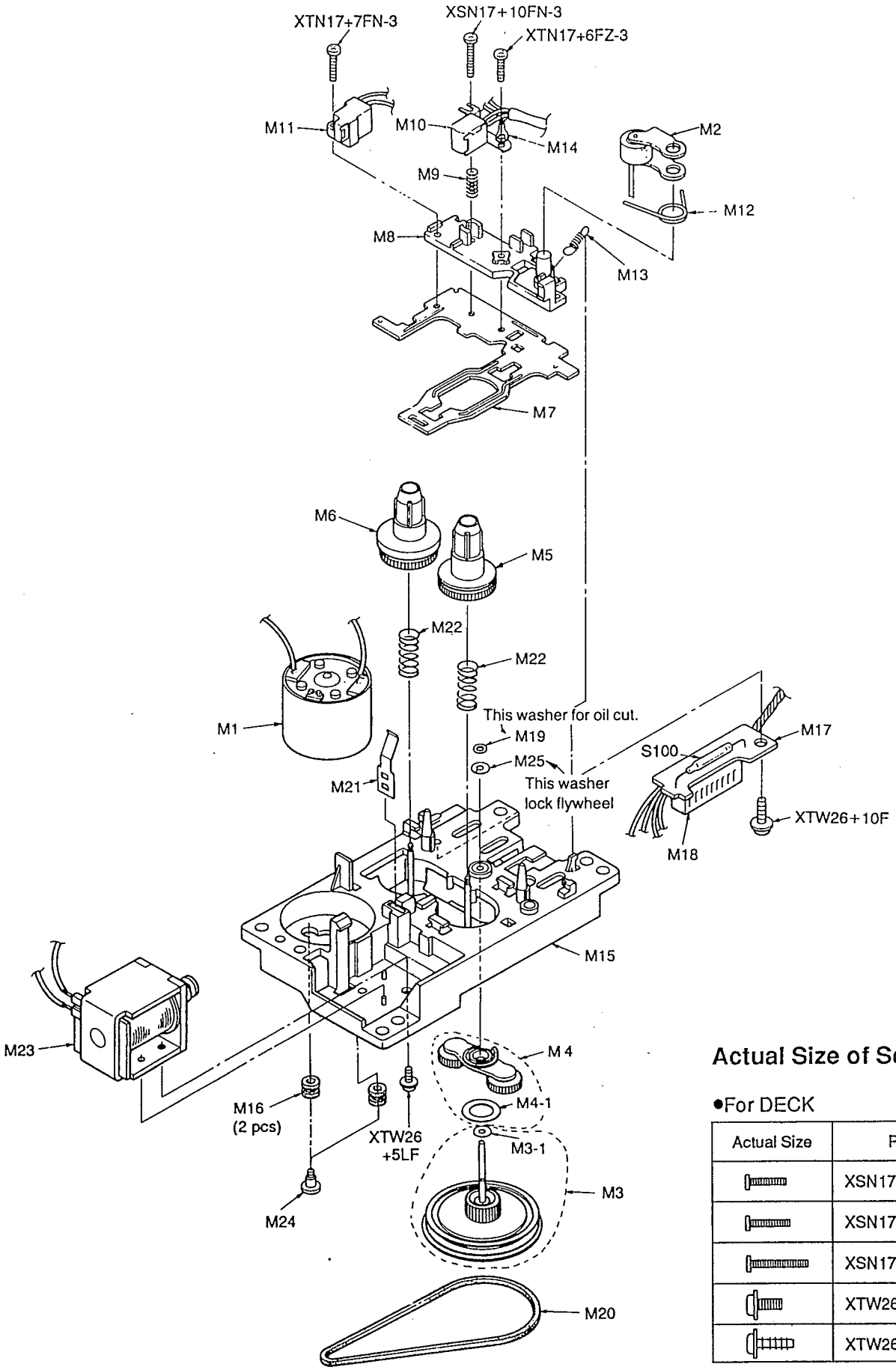


Fig. 41

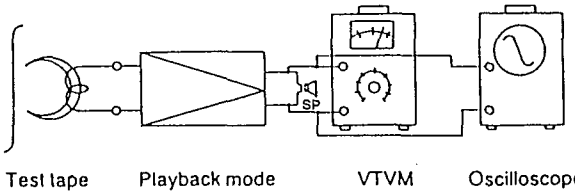
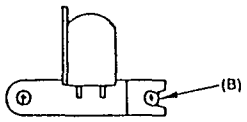
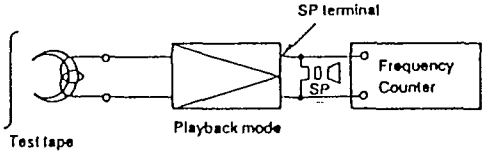
Actual Size of Screws

•For DECK

Actual Size	Part No.
	XSN17+6FZ-3
	XSN17+7FN-3
	XSN17+10FN-3
	XTW26+5LF-A
	XTW26+6F

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±5°C (68±9°F)
4. Test equipments are not treated as replacement parts.

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
1. Head azimuth adjustment	1. Play back test tape (QZZCWAT 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.)  Fig. A	*Record/playback head  Fig. B
2. Tape speed adjustment	1. Play back test tape (QZZCWAT or PQZZLCT2401A) [Ref No. Z3]. 2. Adjust VR301 for 2990±10 Hz on frequency counter reading.  Fig. C	

ACCESSORIES AND PACKING MATERIALS

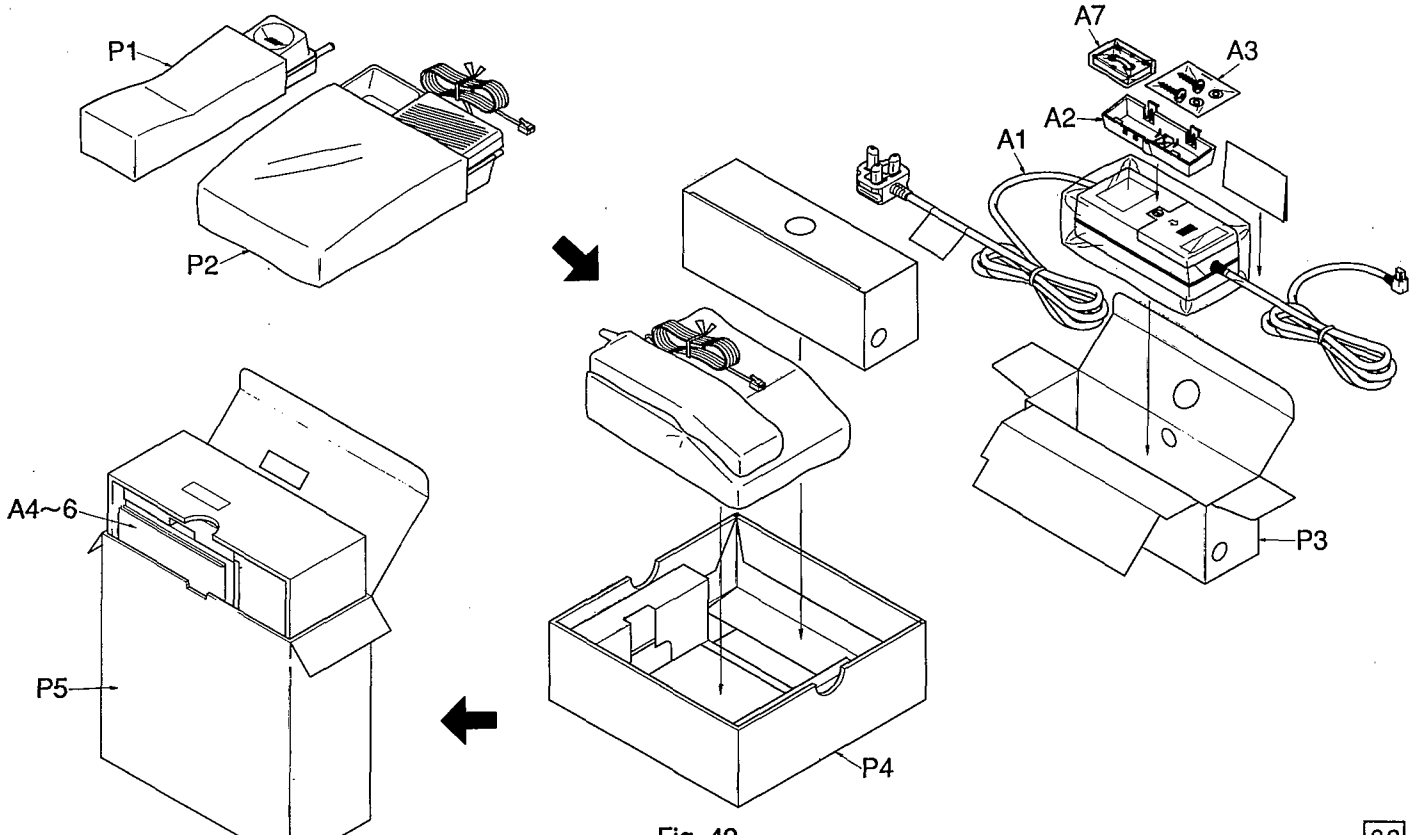


Fig. 42

REPLACEMENT PARTS LIST

Model KX-T4300BEH

Notes:

1. RTL (Retention Time Limited)
   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.
2. Important safety notice.
   Components identified by the ⚠ 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=1000Ω,M=1000kΩ
   All capacitors are in MICRO FARADS(μF) P=μμF
   *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

*Type & Voltage of Capacitor

Type

ECFD:Semi-Conductor	ECCD,ECKD,ECBT,PQCBC : Ceramic
ECQS:Styrol	ECQE,ECQV,ECQG : Polyster
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
INTEGRATED CIRCUITS, TRANSISTORS & DIODES				
IC1	AN6161NK	IC		1
IC2	AN6165K	IC		1
IC3	PQVINJM4558D	IC		1
IC4	PQVITC4069UBF	IC		1
IC5	PQVISC79132P	IC		1
IC6	PQVIMT8870CE	IC	S	1
IC7	PQVI4639A01F	IC		1
IC8	PQVIBA6220	IC		1
IC9	PQVIBA6218	IC		1
Q1	2SK543	TRANSISTOR(SI)		1
Q2, 15~17	2SC2295	TRANSISTOR(SI)		4
Q3	2SC2063	TRANSISTOR(SI)		1
Q4~7, 9~11 ,14, 18, 20 , 22, 23, 26~28 , 42, 301, 302	2SD1819A	TRANSISTOR(SI)		19
Q8, 19, 40, 43	2SB1218A	TRANSISTOR(SI)		4
Q12, 29	UN5113	TRANSISTOR(SI)		2
Q13	2SC34210	TRANSISTOR(SI)		1
Q21	2SD1350	TRANSISTOR(SI)		1
Q24	2SA1625	TRANSISTOR(SI)		1
Q25, 32, 39, 41	2SC1740S	TRANSISTOR(SI) (or 2SC3330U, 2SC3311A)		4
Q30, 44	UN5213	TRANSISTOR(SI)	S	2
Q31	2SA854	TRANSISTOR(SI)		1
Q33, 35, 38	2SD1994A	TRANSISTOR(SI)		3
Q34	2SD1302	TRANSISTOR(SI)		1
Q36, 37	2SD2137	TRANSISTOR(SI)		2
Q45	XN4315	TRANSISTOR(SI)		1
D1, 2, 5, 6	1SS238	DIODE(SI)		4
D3, 10~14	1SS131	DIODE(SI)	S	27
D4, 15	MA4033	DIODE(SI)		2
D7, 8	PQVD1SV149	DIODE(SI)		2
D9, 28	MA4068	DIODE(SI)	S	2
D17	PQVDMTZ2R0A	DIODE(SI)		1
D26	MA4056	DIODE(SI)		1
D29	MA4150	DIODE(SI)		1
D30, 31	MA4110	DIODE(SI)		2
D33	PQVDMTZ12A	DIODE(SI)		1
D57	MA4270	DIODE(SI)		1
D64, 65	PQVDS1ZB40F1	DIODE(SI)		2
D301	LN28RPL	LED		1
D302	LN38GP	LED	S	1
D303	LN224RP	LED	S	1
D304	LN342GPHJF2	LED		1
D305	PQVD7301T188	DIODE(SI)		1
VARIABLE RESISTORS				
VR1~3	EVNDXAA03B25	SEMI-FIXED RESISTOR, 200kΩ (B)		3
VR301	ENDXAA03B52	SEMI-FIXED RESISTOR, 500Ω (B)		1
VR4	EWAU1ET04JV3	VOLUME CONTROL		1
SWITCHES				
SW1~3, 5, 7	PQSS2A27W	SWITCH, DIALING MODE etc		5
SW301~308 , 310	PQSH1A43Z	SWITCH, ANSWER ON, FF , REW, STOP		9
SW4, 6	PQSS3A17W	SWITCH, RINGER VOLUME etc		2
S100	PQSE91Y	SWITCH, REED (for DECK)		1
RLY1	PQSL107Z	RELAY	⚠	1
COILS & TRANSFORMERS				
L0	PQLQZK1R0K	COIL		1
L1	PQLI2B201	I.F. TRANSFORMER		1
L2, 3	PQLA2B5	COIL		2
L4	PQLA2C2	COIL		1
L5	PQLA2C3	COIL		1
L9	PQLQZKR22K	COIL		1
L10, 11	ELEPK330KA	COIL		2
L301	PQLQZM150K	COIL		1
T1	PQLA7A17	COIL		1
T2	PQLA7A7	COIL	S	1
T3	RLI4B153	I.F. TRANSFORMER		1
T6	PQLA2B4	COIL		1
T10, 11	PQLT8F7A	TRANSFORMER	⚠	2
CRYSTALS				
X1	PQVCK36756N4	CRYSTAL OSCILLATOR (CH1)		1
X1, 2	PQVCK36781N4	CRYSTAL OSCILLATOR (CH3) (CH3)		2
X1	PQVCK36793N4	CRYSTAL OSCILLATOR (CH4)		1
X2	PQVCK36806N4	CRYSTAL OSCILLATOR (CH5)		1
X2	PQVCK36818N4	CRYSTAL OSCILLATOR (CH6)		1
X3	PQVCJ10245N9	CRYSTAL OSCILLATOR (CH6)		1
X4	PQVBA1.642K1	CRYSTAL OSCILLATOR (CH1)	⚠	1
X4, 5	PQVBA1.682K1	CRYSTAL OSCILLATOR (CH3)	⚠	2
X4	PQVBA1.702K1	CRYSTAL OSCILLATOR (CH4)	⚠	1
X5	PQVBA1.722K1	CRYSTAL OSCILLATOR (CH5)	⚠	1
X5	PQVBA1.742K1	CRYSTAL OSCILLATOR (CH6)	⚠	1
X7	PQVCJ3581N9Z	CRYSTAL OSCILLATOR		1
X8	PQVCL3276N9Z	CRYSTAL OSCILLATOR		1
OTHERS				
CF1	PQVCM107M7.5	CERAMIC FILTER		1
CF2	PQVFCFW455G1	CERAMIC FILTER		1
CN1	PQJJ1TB13Z	JACK, TEL		1
CN2	PQJJ1B001Z	JACK, DC IN		1
PC1, 2, 4	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	⚠	3
PC3	PQVITLP627	PHOTO ELECTRIC TRANSDUCER	⚠	1
PC5	PQVIPC814Y	PHOTO ELECTRIC TRANSDUCER	⚠	1
SA1	PQVDSAE310F1	VARISTOR		1
TC1	PQCVTZ20F	TRIMMER CAPACITOR		1

Ref. No.	Part No.	Part Name & Description	Pcs
		CASSETTE DECK PARTS	
M1	PQFM9913Z	DC MOTOR	1
M2	PQFD9913Z	ROLLER	1
M3	PQFF9909Y	WHEEL	1
M3-1	PQFN35Z	WASHER	1
M4	PQFG9905Y	GEAR	1
M4-1	PQFN48Z	WASHER	1
M5	PQFR9912Z	REEL TABLE	1
M6	PQFR9914Z	REEL TABLE	1
M7	PQFD82Y	METAL PARTS	1
M8	PQFW42Z	PLASTIC PARTS	1
M9	PQFS73Z	SPRING	1
M10	PQJH1M2X	MAGNETIC HEAD	1
M11	PQJH6M2Z	MAGNETIC HEAD	1
M12	PQFS109Z	SPRING	1
M13	PQFS110Z	SPRING	1
M14	PQFJ2Z	TERMINAL PLATE	1
M15	PQFC9909W	CHASSIS	1
M16	PQFI14Z	RUBBER PARTS	2
M17	PQUP864Z	PRINTED CIRCUIT BOARD	1
M18	PQJS9B30Z	CONNECTOR, 9P	1
M19	PQFN33Z	WASHER	2
M20	PQFB12Z	ANGULAR BELT	1
M21	PQFD64Z	SPRING	1
M22	PQFS82Z	SPRING	2
M23	PQFP126Y	PLUNGER	1
M24	PQHD15Z	SCREW	2
M25	PQFN49Z	WASHER	1
			1
		CABINET PARTS	
K1	PQKM223V8	CABINET BODY	1
K2	PQYF1061T7	LOWER CABINET	1
K3	PQBC299Z	BUTTON, PAGE/INT' COM	1
K4	PQBC300Z	BUTTON, ANSWER ON	1
K5	PQBC350Z	BUTTON, MESSAGE PLAYBACK	1
K6	PQBCX219Z	BUTTON, FF, REW, STOP	1
K7	PQBCX220Y	BUTTON, GREETING RECORD etc	1
K8	PQBD171Z	KNOB, VOLUME CONTROL	1
K9	PQHP5089Y	CARD, TEL	1
K10	PQHR5335Z	TRANSPARENT PLATE	1
K11	PQJT989Z	RECHARGEABLE TERMINAL	1
K12	PQKE49Z	HANGER	1
K13	PQKG15Y	CASSETTE LID	1
K14	XEAPQK170D	ROD ANTENNA	1
K15	XTW3+S16M	SCREW	5
K16	PQGP142Z	PANEL	1
K17	PQQT10177Z	CAUTION LABEL	1
K18	PQQT5181Y	INDICATION LABEL	1
K19	PQGG96Z	GRILLE	1
K20	PQGT10116Z	NAME PLATE	1
		ELECTRICAL PARTS	
E1	PQAS5P11Z	SPEAKER	1
E2	PQHG559Z	RUBBER PARTS, MIC COVER	1
E3	PQHR9616Z	SPACER, LED	1
E4	PQJM122Z	MICROPHONE	1
E5	PQJP8G82Z	CONNECTOR, 8P (CNT2~4)	3
E6	PQJP9D56Z	CONNECTOR, 9P (CNT1)	1
E7	PQJS8X49Z	CONNECTOR, 8P (CN301~303)	3
E8	PQWPT4300BEH	P. C. BOARD ASS'Y (RTL)	1
E9	XTW3+S10P	SCREW	6
E10	XTW3+S8M	SCREW	10
E11	XTW3+S14P	SCREW	1
E12	PQJA215Z	WIRE AERIAL	1
E13	PQJA87T	TELEPHONE CORD	1

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
		RESISTORS			
R1	PQ4R10XJ151	150	R76	PQ4R10XJ563	56K
R2	PQ4R10XJ224	220K	R77	PQ4R10XJ563	56K
R3	PQ4R10XJ470	47	R78	ERDS1TJ330	33
R4	PQ4R10XJ222	2.2K	R79	PQ4R10XJ681	680
R5	PQ4R10XJ271	270	R80	PQ4R10XJ470	47
R6	PQ4R10XJ334	330K	R81	PQ4R10XJ102	1K
R7	PQ4R10XJ102	1K	R82	ERDS2TJ562	5.6K
R8	PQ4R10XJ272	2.7K	R83	PQ4R10XJ473	47K
R9	PQ4R10XJ272	2.7K	R84	PQ4R10XJ102	1K
R10	PQ4R10XJ102	1K	R85	PQ4R10XJ102	1K
R11	PQ4R10XJ333	33K	R86	PQ4R10XJ224	220K
R12	PQ4R10XJ333	33K	R87	ERDS2TJ102	1K
R13	PQ4R10XJ393	39K	R88	PQ4R10XJ102	1K
R14	PQ4R10XJ562	5.6K	R89	PQ4R10XJ471	470
R15	PQ4R10XJ393	39K	R90	ERDS2TJ224	220K
R16	PQ4R10XJ103	10K	R91	PQ4R10XJ224	220K
R17	PQ4R10XJ104	100K	R92	PQ4R10XJ471	470
R18	PQ4R10XJ334	330K	R93	PQ4R10XJ153	15K
R19	PQ4R10XJ821	820	R94	ERJ3GEYJ153	15K
R20	PQ4R10XJ221	220	R95	PQ4R10XJ104	100K
R21	PQ4R10XJ222	2.2K	R96	PQ4R10XJ223	22K
R22	PQ4R10XJ104	100K	R97	PQ4R10XJ104	100K
R23	ERJ3GEYJ223	22K	R98	PQ4R10XJ104	100K
R24	PQ4R10XJ102	1K	R99	PQ4R10XJ105	1M
R25	PQ4R10XJ153	15K	R100	PQ4R10XJ154	150K
R26	PQ4R10XJ153	15K	R101	PQ4R10XJ822	8.2K
R27	PQ4R10XJ562	5.6K	R102	PQ4R10XJ223	22K
R28	PQ4R10XJ123	12K	R103	ERDS2TJ473	47K
R29	PQ4R10XJ333	33K	R104	PQ4R10XJ563	56K
R30	PQ4R10XJ333	33K	R105	PQ4R10XJ473	47K
R31	PQ4R10XJ333	33K	R106	ERDS2TJ561	560
R32	PQ4R10XJ823	82K	R107	ERDS2TJ823	82K
R33	PQ4R10XJ153	15K	R108	PQ4R10XJ105	1M
R34	PQ4R10XJ273	27K	R109	PQ4R10XJ183	18K
R35	PQ4R10XJ333	33K	R110	PQ4R10XJ273	27K
R36	PQ4R10XJ104	100K	R111	PQ4R10XJ823	82K
R37	PQ4R10XJ334	330K	R112	ERDS2TJ151	150
R38	PQ4R10XJ104	100K	R113	ERDS2TJ821	820
R39	PQ4R10XJ224	220K	R114	ERD25TJ270	27
R40	PQ4R10XJ224	220K	R115	ERD25TJ390	39
R41	ERD25TJ125	12M	R116	ERDS2TJ152	1.5K
R42	PQ4R10XJ822	8.2K	R117	ERDS2TJ272	2.7K
R43	ERJ3GEYJ224	220K	R118	ERDS2TJ681	680
R44	ERJ3GEYJ822	8.2K	R119	ERDS2TJ103	10K
R45	PQ4R10XJ472	4.7K	R120	ERDS2TJ472	4.7K
R46	PQ4R10XJ100	10	R121	ERDS2TJ154	150K
R47	PQ4R10XJ472	4.7K	R122	ERDS2TJ682	6.8K
R48	PQ4R10XJ104	100K	R123	ERDS2TJ333	33K
R49	PQ4R10XJ682	6.8K	R124	ERDS2TJ104	100K
R50	PQ4R10XJ104	100K	R125	ERDS2TJ472	4.7K
R51	PQ4R10XJ223	22K	R126	ERDS2TJ100	10
R52	ERJ3GEYJ682	6.8K	R127	PQ4R10XJ220	22
R53	PQ4R10XJ684	680K	R128	PQ4R10XJ103	10K
R54	PQ4R10XJ104	100K	R129	PQ4R10XJ473	47K
R55	PQ4R10XJ681	680	R130	PQ4R10XJ472	4.7K
R56	PQ4R10XJ222	2.2K	R131	PQ4R10XJ221	220
R57	PQ4R10XJ681	680	R132	PQ4R10XJ223	22K
R58	PQ4R10XJ681	680	R133	PQ4R10XJ472	4.7K
R59	PQ4R10XJ123	12K	R134	PQ4R10XJ472	4.7K
R60	PQ4R10XJ563	56K	R135	ERDS2TJ101	100
R61	ERD25TJ562	5.6K	R136	PQ4R10XJ472	4.7K
R62	PQ4R10XJ392	3.9K	R137	PQ4R10XJ103	10K
R63	PQ4R10XJ103	10K	R138	PQ4R10XJ473	47K
R64	PQ4R10XJ103	10K	R139	ERDS2TJ223	22K
R65	PQ4R10XJ224	220K	R141	ERDS2TJ122	1.2K
R66	PQ4R10XJ334	330K	R142	ERDS2TJ333	33K
R67	PQ4R10XJ181	180	R143	PQ4R10XJ393	39K
R68	ERDS2TJ222	2.2K	R144	ERDS2TJ221	220
R69	ERJ3GEYJ102	1K	R145	PQ4R10XJ334	330K
R70	PQ4R10XJ563	56K	R146	PQ4R10XJ123	12K
R71	ERJ3GEYJ154	150K	R147	PQ4R10XJ223	22K
R72	PQ4R10XJ563	56K	R149	PQ4R10XJ472	4.7K
R73	PQ4R10XJ154	150K	R150	PQ4R10XJ683	68K
R74	PQ4R10XJ563	56K	R151	PQ4R10XJ182	1.8K
R75	PQ4R10XJ563	56K	R152	PQ4R10XJ683	68K

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R153	ERDS2TJ823	82K	R198	PQ4R10XJ472	4.7K
R154	PQ4R10XJ682	6.8K	R199	PQ4R10XJ471	470
R155	PQ4R10XJ334	330K	R200	PQ4R10XJ103	10K
R157	PQ4R10XJ823	82K	R201	PQ4R10XJ274	270K
R158	ERDS2TJ392	3.9K	R202	PQ4R10XJ683	68K
R159	PQ4R10XJ124	120K	R203	PQ4R10XJ103	10K
R160	PQ4R10XJ333	33K	R204	PQ4R10XJ104	100K
R161	PQ4R10XJ333	33K	R205	PQ4R10XJ103	10K
R162	ERJ3GEYJ104	100K	R206	PQ4R10XJ104	100K
R163	PQ4R10XJ102	1K	R207	PQ4R10XJ104	100K
R164	ERD25TJ333	33K	R208	PQ4R10XJ221	220
R165	PQ4R10XJ684	680K	R209	PQ4R10XJ102	1K
R166	PQ4R10XJ392	3.9K	R210	ERDS2TJ103	10K
R167	PQ4R10XJ104	100K	R211	PQ4R10XJ103	10K
R168	PQ4R10XJ681	680	R212	ERDS2TJ472	4.7K
R169	ERJ3GEYJ104	100K	R213	PQ4R10XJ104	100K
R171	PQ4R10XJ474	470K	R301	ERDS2TJ392	3.9K
R172	ERD25TJ223	22K	R302	ERDS2TJ103	10K
R173	PQ4R10XJ105	1M	R303	ERDS2TJ103	10K
R174	PQ4R10XJ104	100K	R304	PQ4R10XJ181	180
R176	ERDS2TJ104	100K	R305	PQ4R10XJ561	560
R177	PQ4R10XJ104	100K	R306	ERDS2TJ561	560
R178	ERJ3GEYJ104	100K	R307	ERDS2TJ561	560
R179	ERDS2TJ332	3.3K	R308	ERDS2TJ561	560
R180	PQ4R10XJ224	3.3K	R309	ERDS2TJ561	560
R181	PQ4R10XJ104	100K	R310	ERDS2TJ561	560
R183	PQ4R10XJ221	220	R311	PQ4R10XJ561	560
R184	PQ4R10XJ151	150	R312	PQ4R10XJ331	330
R185	PQ4R10XJ103	10K	R313	PQ4R10XJ122	1.2K
R186	PQ4R10XJ471	470	R401	ERJ3GEYJ333	33K
R187	PQ4R10XJ473	47K	R402	PQ4R10XJ331	330
R188	PQ4R10XJ103	10K	R403	ERD25TJ473	47K
R189	PQ4R10XJ120	12	R404	ERD25TJ473	47K
R190	PQ4R10XJ681	680	R405	PQ4R10XJ561	560
R191	PQ4R10XJ332	3.3K	R406	ERDS1TJ6R8	6.8
R192	PQ4R10XJ564	560K	R408	PQ4R10XJ334	330K
R193	ERD25TJ563	56K	R409	PQ4R10XJ824	820K
R194	PQ4R10XJ271	270	R412	PQ4R10XJ822	8.2K
R195	PQ4R10XJ332	3.3K	R511	PQ4R10XJ223	22K
R196	PQ4R10XJ102	1K	R512	ERD25TJ102	1K
R197	PQ4R10XJ122	1.2K			

CAPACITORS

C1	PQCUV1H150JC	15P	C25	PQCUV1H221JC	220P
C2	PQCUV1H102J	0.001	C26	PQCUV1H103KB	0.01
C3	PQCUV1H103KB	0.01	C27	ECEA1CK101	100 S
C4	PQCUV1H070DC	7P	C28	PQCUV1E104MD	0.1
C5	PQCUV1H470JC	47P	C29	PQCUV1E104MD	0.1
C6	PQCUV1H103KB	0.01	C30	PQCUV1E104MD	0.1
C7	PQCUV1H103KB	0.01	C31	ECEA1CKS100	10 S
C8	PQCUV1H103KB	0.01	C32	ECEA1HKS010	1
C9	PQCUV1H103KB	0.01	C33	ECEA1HKS010	1
C10	PQCUV1H100DC	10P	C34	ECEA1AKS330	33 S
C11	PQCUV1H101JC	100P	C36	PQCUV1E104MD	0.1
C12	PQCUV1H101JC	100P	C37	PQCUV1H682KB	0.0068
C13	PQCUV1H103KB	0.01	C38	PQCUV1H221JC	220P
C14	PQCUV1H103KB	0.01	C39	PQCUV1H223KB	0.022
C15	PQCUV1H103KB	0.01	C40	ECEA1HKS4R7	4.7 S
C16	PQCUV1H223KB	0.022	C41	PQCUV1E333MD	0.033
C17	PQCUV1H223KB	0.022	C42	PQCUV1E104MD	0.1
C18	ECEA1HKS010	1	C43	ECEA1CKS100	10 S
C19	ECEA1HKS010	1	C44	PQCUV1H223KB	0.022
C20	PQCUV1C683MD	0.068	C45	PQCUV1H222KB	0.0022
C21	PQCUV1C683MD	0.068	C46	PQCUV1H331JC	330P
C22	ECEA1HKS2R2	2.2	C47	PQCUV1E104MD	0.1
C23	ECEA1HKS010	1	C48	ECEA1CKS100	10 S
C24	ECUV1H820JCV	82P	C49	ECEA1CKS100	10 S
C50	ECEA1HKS4R7	4.7 S	C123	PQCUV1H103KB	0.01
C51	PQCUV1E104MD	0.1	C124	ECEA1HKS4R7	4.7 S
C52	PQCUV1H681JC	680P	C125	ECEA1EK470	47 S
C53	PQCUV1H103KB	0.01	C126	PQCUV1H681JC	680P
C54	ECEA1AU221	220	C127	PQCUV1H153KB	0.015
C55	PQCUV1E104MD	0.1	C128	PQCUV1H105JC	1
C56	PQCUV1H271JC	270P	C129	ECEA1HKSR47	0.47
C57	PQCUV1E104MD	0.1	C130	PQCUV1H153KB	0.015
C58	ECEA1HKS010	1	C131	ECEA1CKS100	10 S
C59	ECEA1HKS2R2	2.2	C132	PQCUV1H562KB	0.0056
C60	PQCUV1E104MD	0.1	C133	PQCUV1E104MD	0.1
C61	PQCUV1E104MD	0.1	C134	PQCUV1H105JC	1
C62	ECEA1EK470	47 S	C135	ECEA1AKS330	33
C63	PQCUV1H331JC	330P	C136	PQCUV1H471JC	470P
C64	PQCUV1E104MD	0.1	C137	ECEA1CK101	100
C65	ECEA1EK470	47 S	C138	ECEA1HKS4R7	4.7 S
C66	PQCUV1H121JC	120P	C139	PQCUV1H103KB	0.01
C67	PQCUV1H270JC	27P	C140	ECFD1E103KD	0.01
C68	PQCUV1E104MD	0.1	C141	ECEA1CK101	100 S
C69	PQCUV1H471JC	470P	C142	PQCUV1H103KB	0.01
C70	PQCUV1E104MD	0.1	C143	PQCUV1H102J	0.001
C71	PQCUV1H221JC	220P	C144	ECEA1CKS100	10
C72	PQCUV1E104MD	0.1	C145	PQCUV1E104MD	0.1
C73	PQCUV1E104MD	0.1	C146	ECUV1H180JCV	18P
C74	PQCUV1H821JC	820P	C147	ECUV1H180JCV	18P
C75	PQCUV1H102J	0.001	C148	ECUV1H220JCV	22P
C76	PQCUV1H821JC	820P	C149	PQCUV1H220JC	22P
C77	PQCUV1H102J	0.001	C150	PQCUV1E104MD	0.1
C78	PQCUV1H221JC	220P	C151	PQCUV1E104MD	0.1
C79	PQCUV1H103KB	0.01	C152	PQCUV1H103KB	0.01
C80	PQCUV1H680JC	68P	C153	PQCUV1H103KB	0.01
C81	PQCUV1H102J	0.001	C154	ECEA1CKS100	10
C82	PQCUV1H680JC	68P	C155	ECUV1H103KBV	0.01
C83	ECUV1H102KBV	0.001	C156	ECEA1AU222	2200
C84	PQCUV1C683MD	0.068	C157	ECEA1CK101	100 S
C85	PQCUV1C683MD	0.068	C158	ECEA1CKS100	10 S
C86	ECEA1HKS010	1	C159	ECEA1CKS220	22 S
C87	PQCUV1E333MD	0.033	C160	ECEA1AU221	220
C88	PQCUV1E104MD	0.1	C161	ECEA1EK470	47 S
C89	ECEA1CK101	100 S	C162	PQCUV1H103KB	0.01
C90	ECEA1CK101	100 S	C163	PQCUV1H103KB	0.01
C92	PQCUV1H223KB	0.022	C164	ECEA1CU102	1000
C93	PQCUV1C683MD	0.068	C165	PQCUV1H103KB	0.01
C94	ECEA1HKS010	1	C166	PQCUV1H103KB	0.01
C95	PQCUV1H223KB	0.022	C167	PQCUV1H103KB	0.01
C96	PQCUV1H223KB	0.022	C168	PQCUV1H103KB	0.01
C97	PQCUV1E104MD	0.1	C170	PQCUV1H332KB	0.0033
C98	PQCUV1H223KB	0.022	C301	PQCUV1H103KB	0.01
C99	PQCUV1E104MD	0.1	C302	PQCUV1H103KB	0.01
C100	PQCUV1H821JC	820P	C401	PQCUV1E104MD	0.1
C102	PQCUV1H331JC	330P	C402	PQCUV1E104MD	0.1
C103	ECEA1CK101	100 S	C403	ECFD1C104KD	0.1
C104	PQCUV1E104MD	0.1	C404	ECUV1H103KBV	0.01
C105	ECEA1CKS220	22 S	C405	PQCUV1H223KB	0.022
C106	ECEA1CKS220	22 S	C406	PQCUV1E104MD	0.1
C107	ECEA1HKS3R3	3.3	C407	PQCUV1H105JC	1
C108	ECEA1HKSR33	0.33	C408	PQCUV1E104MD	0.1
C109	ECEA1CK101	100 S	C409	PQCUV1E104MD	0.1
C110	PQCUV1H103KB	0.01	C420	PQCUV1H102J	0.001
C111	ECEA1HKS2R2	2.2	C421	PQCUV1H151JC	150P
C112	PQCUV1H103KB	0.01	C422	PQCUV1H151JC	150P
C113	ECKD2H681KB	680P	C423	PQCUV1H151JC	150P
C114	ECKD2H681KB	680P	C424	PQCUV1H151JC	150P
C116	ECEA1HKS010	1	C425	PQCUV1H102J	0.001
C118	ECEA1HKS3R3	3.3	C426	PQCUV1H102J	0.001
C119	PQCUV1H103KB	0.01	C427	PQCUV1H471JC	470P
C120	PQCUV1H102J	0.001	C428	PQCUV1H153KB	0.015
C121	ECEA1CKS100	10 S	C429	PQCUV1H102J	0.001
C122	PQCUV1H103KB	0.01	C430	PQCUV1E104MD	0.1

REPLACEMENT PARTS LIST

Model KX-T4300BER

Notes:

1. RTL (Retention Time Limited)
   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.
2. Important safety notice.
   Components identified by the ⚠ 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=1000Ω,M=1000kΩ
   All capacitors are in MICRO FARADS(μF) P=μμF
   *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

*Type & Voltage of Capacitor
Type

ECFD:Semi-Conductor	ECCD,ECKD,ECBT,PQCBC : Ceramic
ECQS:Styrol	ECQE,ECQV,ECQG : Polyster
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
INTEGRATED CIRCUITS, TRANSISTORS & DIODES				
IC1	AN6160NK	IC		1
IC2	AN6165K	IC		1
IC101	PQVI006G587	IC		1
IC102	PQVISC78184D	IC		1
IC103	PQVINJM4558D	IC		1
Q1	2SK543	TRANSISTOR(SI)		1
Q2	2SD601R	TRANSISTOR(SI)		1
Q3~5	2SC2295	TRANSISTOR(SI) (or 2SC2413K)	S	3
Q6	2SC1623	TRANSISTOR(SI)		1
Q101, 103	XN4116	TRANSISTOR(SI)		2
Q102	UN5116	TRANSISTOR(SI)		1
Q104, 202	2SB709A	TRANSISTOR(SI)	S	2
Q201	2SD601R	TRANSISTOR(SI)		1
Q203, 204	2SD1819A	TRANSISTOR(SI)		2
D1~3, 5, 6	1SS238	DIODE(SI)		5
D4	MA153	DIODE(SI)		1
D7, 8	PQVD1SV145	DIODE(SI)		2
D9	MA4030	DIODE(SI)		1
D101	MA700A	DIODE(SI)	S	1
D201, 202	MA4068	DIODE(SI)		2
IND1, 2	LN28RPL	LED	S	2
IND3, 4	LN330GPX	LED	S	2
VARIABLE RESISTORS				
VR1, 2	EVNDXAA03B15	SEMI FIXED RESISTOR, 100KΩ (B)		2
VR3	EVNDXAA03B25	SEMI FIXED RESISTOR, 200KΩ (B)		1
VR4	EVNDXAA03B54	SEMI FIXED RESISTOR, 50KΩ (B)		1

Ref. No.	Part No.	Part Name & Description		Pcs
SWITCHES				
S1, 3, 4 , 6~11	EVQ22405K	SWITCH, MERCURY, INT'/PAGE , CH, RECALL, REDIAL etc		9
S2	EVQQJJ05Q	SWITCH, TALK		1
S5	EVQPJH05K	SWITCH, PAUSE		1
S12	EVQ21409K	SWITCH, RESET		1
SW101, 102	ESD11H120	SWITCH, VOLUME POWER/RINGER		2
COILS & TRANSFORMERS				
L1, 2	PQL07A3	COIL		2
L3	PQLI2B201	I.F. TRANSFORMER		1
L4	PQLQZM100K	COIL	S	1
L5	PQLQZM220K	COIL		1
T1	EIR7QF022A	COIL		1
T2, 3	PQLA7A7	COIL	S	2
	PQLF2I4	FERRITE ANTENNA COIL		1
CRYSTALS				
X1	PQVBA2.097G1	CRYSTAL OSCILLATOR (CH1)		1
X1, 2	PQVBA2.137G1	CRYSTAL OSCILLATOR (CH3) (CH3)		2
X1	PQVBA2.157G1	CRYSTAL OSCILLATOR (CH4)		1
X101	PQVCL3276N9Z	CRYSTAL OSCILLATOR		1
X102	PQVBB120J1	CRYSTAL OSCILLATOR	S	1
X2	PQVBA2.177G1	CRYSTAL OSCILLATOR (CH5)		1
X2	PQVBA2.197G1	CRYSTAL OSCILLATOR (CH6)		1
X3	PQVCJ15.818N	CRYSTAL OSCILLATOR (CH1)	⚠	1
X3	PQVCJ15.831N	CRYSTAL OSCILLATOR (CH4)	⚠	1
X3, 4	PQVCJ15.827N	CRYSTAL OSCILLATOR (CH3) (CH4)	⚠	1
X4	PQVCJ15.835N	CRYSTAL OSCILLATOR (CH5)	⚠	1
X4	PQVCJ15.839N	CRYSTAL OSCILLATOR (CH6)	⚠	1
OTHERS				
VC1, 3	PQCVTZ20F	TRIMMER CAPACITOR		2
VC2	PQCVTZ10F	TRIMMER CAPACITOR		1
VC4, 5	PQCVTZ30F	TRIMMER CAPACITOR		2
CF1	PQVFCFW455E	CERAMIC FILTER		1
CABINET PARTS				
K1	PQKM10056Y1	CABINET BODY		1
K2	PQKF200W8	CABINET PLATE		1
K3	PQBX10029Z1	BUTTON, DIALING		1
K4	PQBX10030Z1	BUTTON, PAUSE, RECALL etc		1
K5	PQBC302Y	BUTTON, TALK		1
K6	PQBC10050Z1	BUTTON, MERCURY		1
K7	PQBC303Z1	BUTTON, CH, INT'/PAGE		2
K8	PQBC304Z	BUTTON, SCREEN/PLAYBACK		1
K9	PQBD149Y	KNOB, VOLUME SELECTOR		1
K10	PQBD172Z1	KNOB, POWER/RINGER		1
K11	PQHP5149Y	CARD, TEL		1
K12	PQHR5291Z	TRANSPARENT PLATE		1
K13	PQKK61Z8	BATTERY COVER		1
K14	PQGP10010Z	PANEL		1
K15	PQQT10210Z	CAUTION LABEL		1
K16	PQGT10368Z	NAME PLATE		1
ELECTRICAL PARTS				
E1	KX-A36A	RECHARGEABLE BATTERY		1
E2	PQAX3P12Z	SPEAKER		1
E3	PQEFBQM111G1	BUZZER		1
E4	PQJM124Z	MICROPHONE		1
E5	PQJP2D59Z	CONNECTOR, 2P		1
E6	PQJT3119X	RECHARGEABLE TERMINAL		3
E7	PQSA807X	RETRACTABLE FLEXIBLE RUBBER ANTENNA		1 1
E8	PQUL145Z	BRACKET, SP M'TG		
E9	PQWPT4300BER	P. C. BOARD ASS'Y (RTL)		1
E10	XTW26+10E	SCREW	S	6
E11	PQSX10005Z	DIALING KEY PAD		1

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Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
RESISTORS					
R1	ERJ3GEYJ104	100K	R56	PQ4R10XJ274	270K
R2	ERJ3GEYJ184	180K	R57	ERJ3GEYJ223	22K
R3	ERJ3GEYJ561	560	R58	ERJ3GEYJ104	100K
R4	ERJ3GEYJ473	47K	R59	ERJ3GEYJ183	18K
R5	ERJ3GEYJ182	1.8K	R60	PQ4R10XJ333	33K
R6	ERJ3GEYJ182	1.8K	R61	PQ4R10XJ333	33K
R7	ERJ3GEYJ102	1K	R63	ERJ3GEYJ101	100
R8	ERJ3GEYJ102	1K	R64	PQ4R10XJ221	220
R9	ERJ3GEYJ182	1.8K	R71	ERJ3GEYJ334	330K
R10	ERJ3GEYJ394	390K	R72	ERJ3GEYJ334	330K
R11	ERJ3GEYJ154	150K	R73	ERDS2TJ334	330K
R12	ERJ3GEYJ682	6.8K	R85	ERJ3GEYJ104	100K
R13	ERJ3GEYJ472	4.7K	R90	ERJ3GEYJ224	220K
R14	ERJ3GEYJ332	3.3K	R102	PQ4R10XJ104	100K
R15	ERJ3GEYJ564	560K	R103	PQ4R10XJ104	100K
R16	ERJ3GEYJ332	3.3K	R104	PQ4R10XJ104	100K
R17	ERJ3GEYJ223	22K	R105	PQ4R10XJ223	22K
R18	ERJ3GEYJ224	220K	R106	PQ4R10XJ473	47K
R19	ERJ3GEYJ103	10K	R107	ERJ3GEYJ680	68
R20	ERJ3GEYJ563	56K	R108	ERJ3GEYJ271	270
R21	ERJ3GEYJ101	100	R109	ERJ3GEYJ150	15
R22	ERJ3GEYJ103	10K	R110	ERJ3GEYJ220	22
R23	ERJ3GEYJ223	22K	R112	ERJ3GEYJ331	330
R24	ERJ3GEYJ104	100K	R113	PQ4R10XJ152	1.5K
R25	ERJ3GEYJ470	47	R114	PQ4R10XJ152	1.5K
R26	ERJ3GEYJ273	27K	R115	PQ4R10XJ681	680
R27	ERJ3GEYJ470	47	R116	PQ4R10XJ681	680
R28	ERJ3GEYJ333	33K	R117	PQ4R10XJ122	1.2K
R29	ERJ3GEYJ222	2.2K	R118	ERJ3GEYJ331	330
R30	ERJ3GEYJ333	33K	R119	ERJ3GEYJ104	100K
R31	ERJ3GEYJ222	2.2K	R120	PQ4R10XJ223	22K
R32	ERJ3GEYJ153	15K	R121	PQ4R10XJ223	22K
R33	ERJ3GEYJ153	15K	R131	PQ4R10XJ123	12K
R34	ERJ3GEYJ104	100K	R132	PQ4R10XJ332	3.3K
R35	ERJ3GEYJ104	100K	R133	PQ4R10XJ394	390K
R36	ERJ3GEYJ224	220K	R134	PQ4R10XJ223	22K
R37	ERJ3GEYJ152	1.5K	R135	PQ4R10XJ333	33K
R38	ERJ3GEYJ224	220K	R136	PQ4R10XJ333	33K
R39	ERJ3GEYJ103	10K	R137	PQ4R10XJ333	33K
R40	ERJ3GEYJ103	10K	R138	PQ4R10XJ104	100K
R41	ERJ3GEYJ224	220K	R139	PQ4R10XJ333	33K
R42	ERJ3GEYJ333	33K	R201	PQ4R10XJ100	10
R43	ERJ3GEYJ104	100K	R202	ERDS2TJ332	3.3K
R44	ERJ3GEYJ333	33K	R203	PQ4R10XJ103	10K
R45	ERJ3GEYJ563	56K	R204	PQ4R10XJ100	10
R47	ERJ3GEYJ102	1K	R211	PQ4R10XJ221	220
R48	ERJ3GEYJ103	10K	R212	PQ4R10XJ224	220K
R49	ERJ3GEYJ272	2.7K	R213	ERJ3GEYJ562	5.6K
R50	ERJ3GEYJ103	10K	R214	ERJ3GEYJ104	100K
R51	PQ4R10XJ563	56K	R215	ERJ3GEYJ182	1.8K
R52	ERJ3GEYJ153	15K	R216	ERJ3GEYJ330	33
R53	ERJ3GEYJ153	15K	R217	ERJ3GEYJ102	1K
R54	PQ4R10XJ153	15K	R218	ERJ3GEYJ224	220K
R55	PQ4R10XJ102	1K	R219	PQ4R10XJ562	5.6K
			R220	ERJ3GEYJ392	3.9K
CAPACITORS					
C1	PQCUV1H100DC	10P	C16	ECUV1H104ZFV	0.1
C3	ECUV1H103KBV	0.01	C17	PQCUV1E104MD	0.1
C4	ECUV1H020CCV	2P	C18	ECUV1H681JCV	680P
C5	PQCBC1C103MY	0.01	C19	ECUV1H102KBV	0.001
C6	ECUV1H221JCV	220P	C20	ECUV1H103KBV	0.01
C7	ECUV1H221JCV	220P	C21	ECEA0JK221	220
C8	ECUV1H682KBV	0.0068	C22	ECUV1H104ZFV	0.1
C9	ECUV1H104ZFV	0.1	C23	ECUV1H104ZFV	0.1
C10	ECUV1H104ZFV	0.1	C24	ECUV1H104ZFV	0.1
C11	ECUV1H102KBV	0.001	C25	ECUV1H103KBV	0.01
C12	ECUV1H103KBV	0.01	C26	PQCUV1E104MD	0.1
C13	ECUV1H104ZFV	0.1	C27	ECUV1H103KBV	0.01
C14	ECUV1H330JCV	33P	C28	ECUV1H090DCV	9P
C15	ECUV1H330JCV	33P	C29	ECUV1H330JCV	33P

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
C30	ECUV1H103KBV	0.01	C60	ECEA0JKS470	47
C31	ECUV1H050CCV	5P	C61	PQCUV1E104MD	0.1
C32	ECUV1H101JCV	100P	C62	ECEA1CKS220	22
C33	ECUV1H101JCV	100P	C63	ECEA0JKS470	47
C34	ECUV1H101JCV	100P	C64	ECUV1H103KBV	0.01
C35	ECUV1H101JCV	100P	C65	ECUV1H101JCV	100P
C36	ECUV1H471JCV	470P	C66	ECST0GX106	10P
C37	ECUV1H471JCV	470P	C101	ECEA0GKS221	220
C38	ECUV1H104ZFV	0.1	C102	ECST0GX106	10P
C39	ECUV1H103KBV	0.01	C103	PQCUV1H180JC	18P
C40	ECEA1CKS220	22 S	C104	PQCUV1H180JC	18P
C41	ECUV1H681JCV	680P	C105	ECUV1H101JCV	100P
C42	ECUV1H222KBV	0.0022	C106	PQCUV1H101JC	100P
C43	PQCUV1C683MD	0.068	C107	ECEA1CKS100	10 S
C44	PQCUV1E104MD	0.1	C108	PQCUV1H103KB	0.01
C45	ECEA1HKS4R7	4.7 S	C111	PQCUV1H223KB	0.022
C46	ECEA1CKS100	10 S	C112	PQCUV1H223KB	0.022
C47	PQCUV1E104MD	0.1	C113	PQCUV1H223KB	0.022
C48	ECUV1H101JCV	100P	C114	ECEA1CKS100	10 S
C49	PQCUV1H223KB	0.022	C115	PQCUV1E104MD	0.1
C50	ECEA1HKS4R7	4.7 S	C116	PQCUV1H472KB	0.0047
C51	ECUV1H152KBV	0.0015	C117	PQCUV1E333MD	0.033
C52	ECEA1CKS100	10 S	C118	PQCUV1C683MD	0.068
C53	PQCUV1E104MD	0.1	C119	PQCUV1E104MD	0.1
C54	PQCUV1H105JC	1	C120	ECUV1E105ZF	1
C55	PQCUV1H182KB	0.0018	C201	PQCUV1H103KB	0.01
C56	ECUV1H271JCV	270P	C211	PQCUV1E104MD	0.1
C57	ECEA0JKS470	47	C212	PQCUV1H105JC	1
C58	ECUV1H102KBV	0.001	C213	ECEA1HKS3R3	3.3
C59	ECUV1H223KBV	0.022	C214	PQCUV1H105JC	1

KX-T4300BE

Ref. No.	Part No.	Part Name & Description	Pcs
ACCESSORIES			
A1	KX-A24BEXE	AC ADAPTOR ⚠	1
A2	PQKL28Z7	WALL MOUNT BACKET	1
A3	PQZXXT2330M	WALL MOUNT KIT	1
A4	PQQW10053Z	QUICK REFFERENCE CARD	1
A5	PQQX10052Z	INSTRUCTION BOOK	1
A6	PQQW10173Z	DIAL CARD	1
A7	PQJN1M30AY	CASSETTE TAPE (10 MIN)	1
PACKING MATERIALS			
P1	PQPP94X	PROTECTION COVER	1
P2	XZB30X30A02	PROTECTION COVER	1
P3	PQPN10079Z	ACCESSORY BOX	1
P4	PQZN10003Z	CUSHION	1
P5	PQPK10108Z	GIFT BOX	1
TOOLS			
Z1	PQZZ8K11Z	EXTENTION CORD	3
Z2	PQJS9K2Z	EXTENTION CORD	1
Z3	PQZZLCT2401A (or QZZCWAT)	TEST TAPE (See page 62)	1

IM (F)
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