

# Service Manual

## and Technical Guide

Telephone Equipment

# KX-TC409BX

(KX-A91X)

(for Asia, Middle Near East and Other areas)

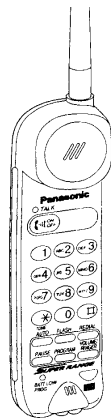
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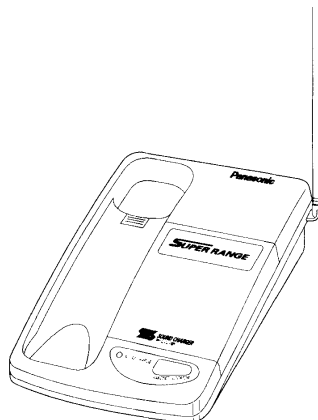
Cordless Phone

Please refer to the original Service Manual of model KX-TC408BX (order No. KM49607064A3) when reviewing the Service Manual for model KX-T4026AL (order No. KM49604044C3).

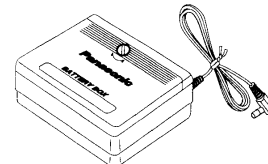
This Service Manual indicates the main differences between: Original KX-T4026AL and KX-TC409BX.



(KX-TC409BXR)



(KX-TC409BXH)



(KX-A91X)

**SPECIFICATIONS (Change from original) \ ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ (Изменения в оригинальной инструкции)**

**SCHEMATIC DIAGRAM (KX-TC409BXH) \ ПРИНЦИПИАЛЬНАЯ СХЕМА (KX-TC409BXH)**

**SCHEMATIC DIAGRAM (KX-TC409BXR) \ ПРИНЦИПИАЛЬНАЯ СХЕМА (KX-TC409BXR)**

**CPU OPERATIONS (Change from original) \ РАБОТА МИКРОПРОЦЕССОРА (Изменения в оригинальной инструкции)**

**CABINET AND ELECTRICAL PARTS LOCATION (KX-A91X) \ РАСПОЛОЖЕНИЕ ЧАСТЕКЪ КОРПУСА И ЭЛЕКТРИЧЕСКИХ ЧАСТЕЙ (KX-A91X)**

**REPLACEMENT PARTS LIST (Model KX-TC409BXH) \ СПИСОК ЗАПАСНЫХ ЧАСТЕЙ (Model KX-TC409BXH)**

**REPLACEMENT PARTS LIST (Model KX-TC409BXR) \ СПИСОК ЗАПАСНЫХ ЧАСТЕЙ (Model KX-TC409BXR)**

**CABINET AND ELECTRICAL PARTS LOCATIONS (KX-T4026ALH) [Change from original] \ РАСПОЛОЖЕНИЕ ЧАСТЕКЪ КОРПУСА И ЭЛЕКТРИЧЕСКИХ ЧАСТЕЙ (KX-T4026ALH) (Изменения в оригинальной инструкции)**

**CABINET AND ELECTRICAL PARTS LOCATIONS (KX-T4026ALR) [Change from original] \ РАСПОЛОЖЕНИЕ ЧАСТЕКЪ КОРПУСА И ЭЛЕКТРИЧЕСКИХ ЧАСТЕЙ (KX-T4026ALR) (Изменения в оригинальной инструкции)**

# Panasonic

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## KX-TC409BX


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

### ■ SPECIFICATIONS (Change from original cover page)

#### General

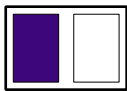
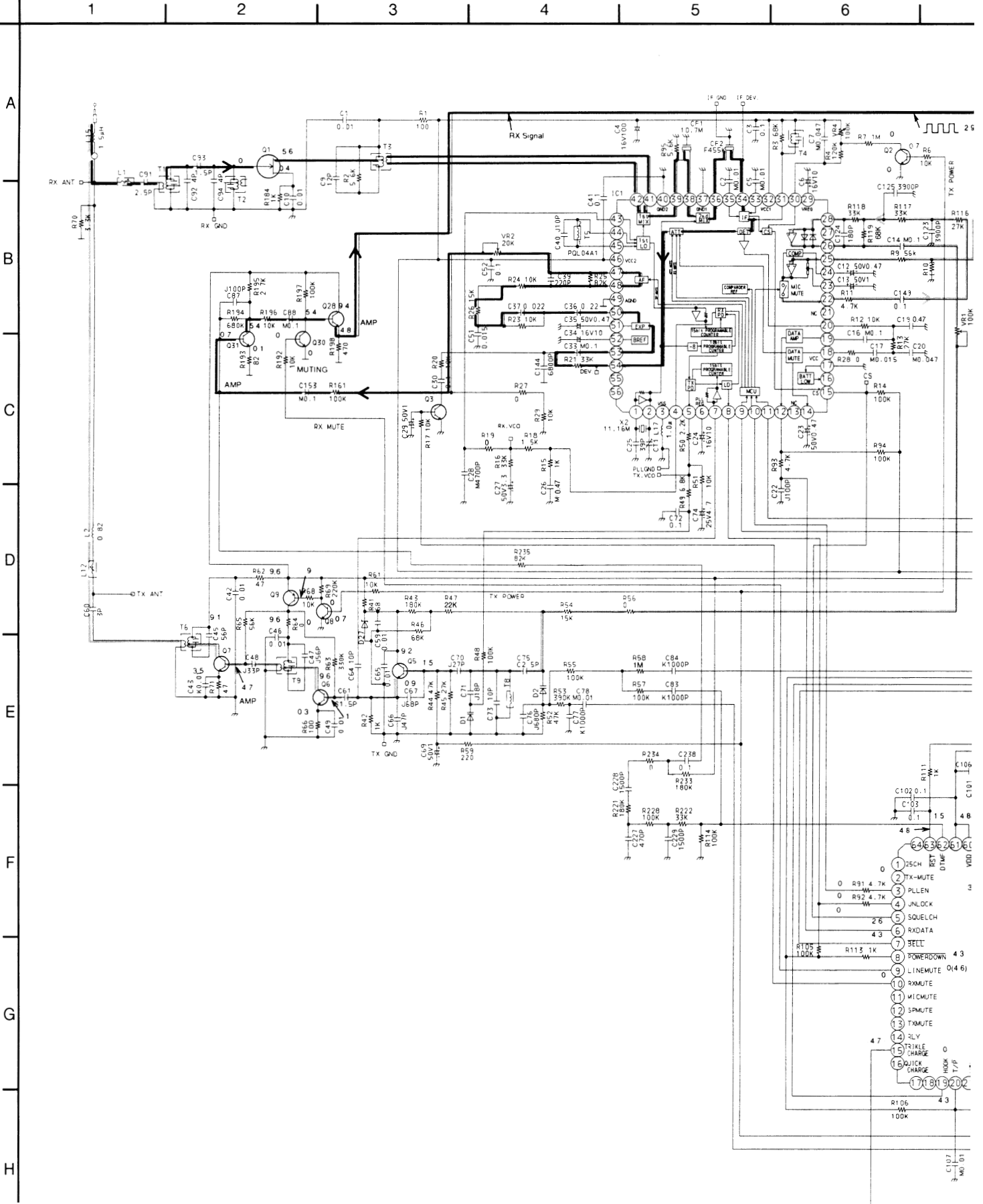
Modulation:	FM, 5 kHz Deviation	Pause:	3.5 seconds per pause
Frequency Stability:	$\pm 2.5$ kHz	Memory Capacity:	10 telephone numbers, up to 16 digits per station
Dial Type:	Tone (DTMF)/Pulse		
Redial:	Last dialed number each time the Redial button is pressed		

Addition



(Model KX-TC409BX)

# SCHEMATIC DIAGRAM (K)



# RAM (KX-TC409BXH)

7

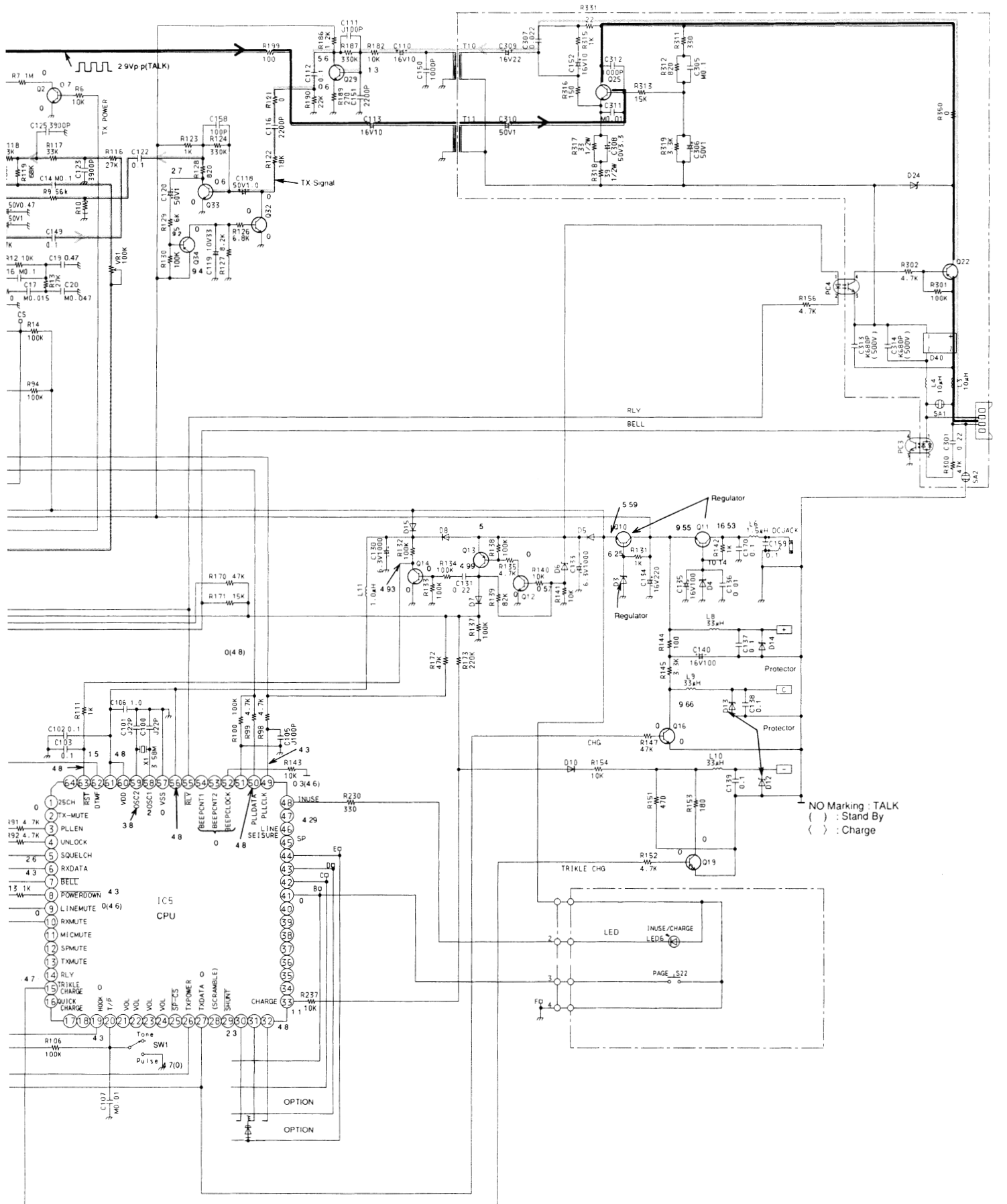
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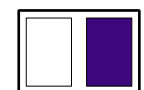
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11

12



Pin	Signal
1	2SCH
2	TX-MUTE
3	PLLEN
4	UNLOCK
5	SQUELCH
6	RXDATA
7	BELL
8	POWERDOWN
9	LINEMUTE
10	RXMUTE
11	MICMUTE
12	SPMUTE
13	TXMUTE
14	RLY
15	TRIKLE CHARGE
16	QUICK CHARGE
17	HOOK
18	VOL
19	VOL
20	VOL
21	VOL
22	VOL
23	VOL
24	VOL
25	VOL
26	VOL
27	VOL
28	VOL
29	VOL
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66	VOL
67	VOL
68	VOL
69	VOL
70	VOL



# SCHEMATIC DIAGRAM

1 2 3 4 5 6

A

B

C

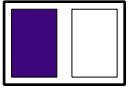
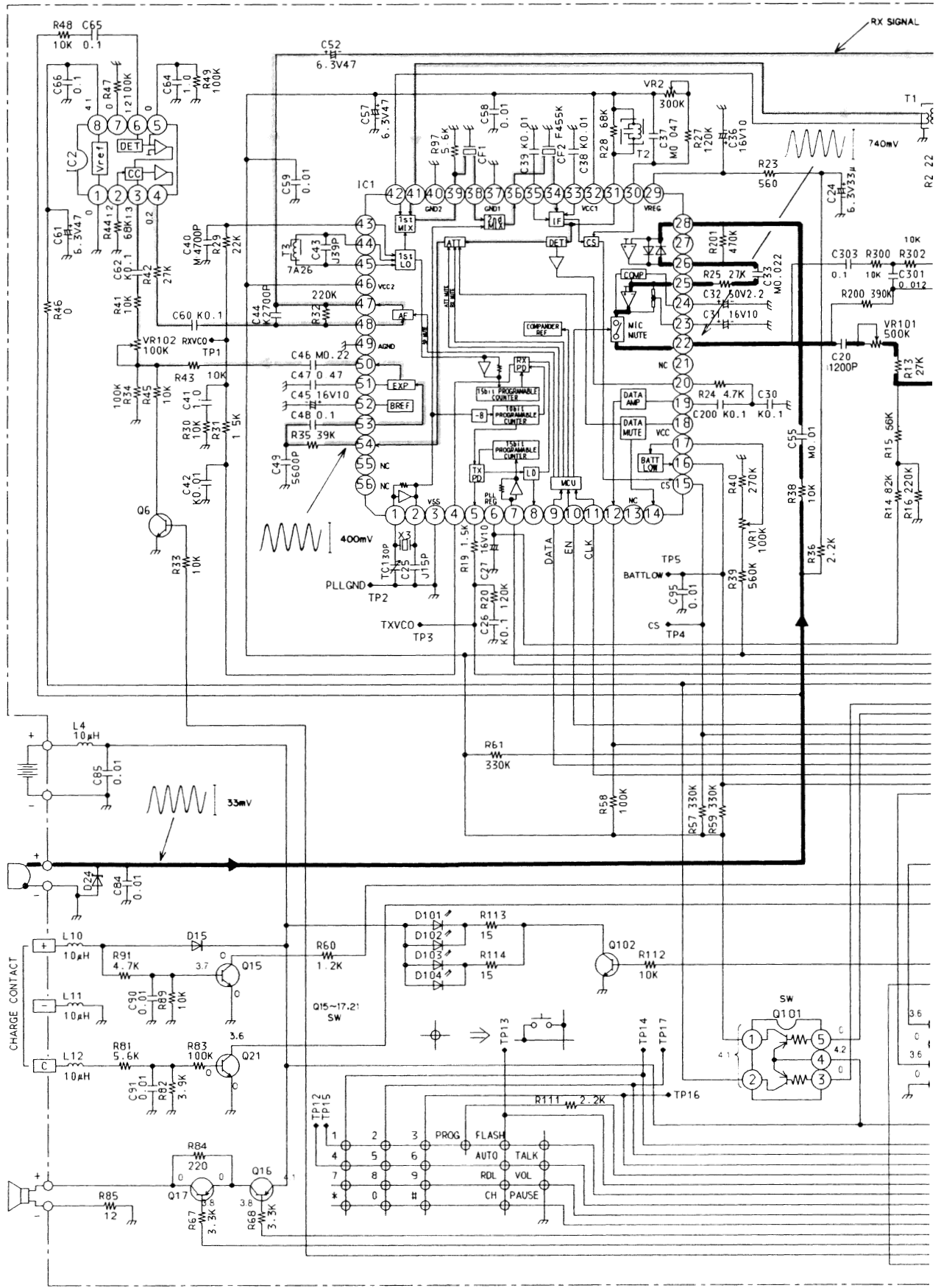
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E

F

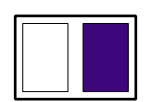
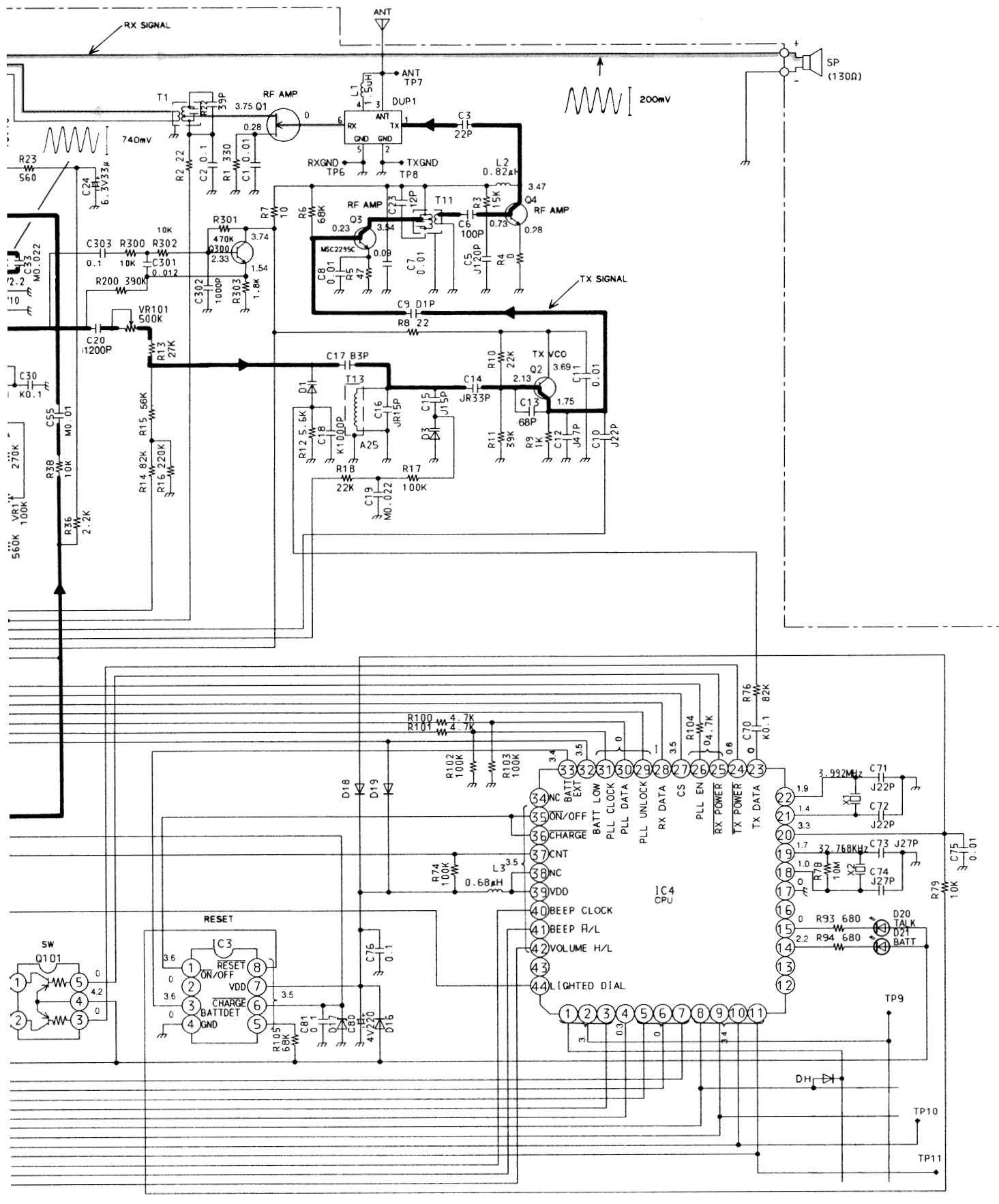
G

H





# TIC DIAGRAM (KX-TC409BXR)



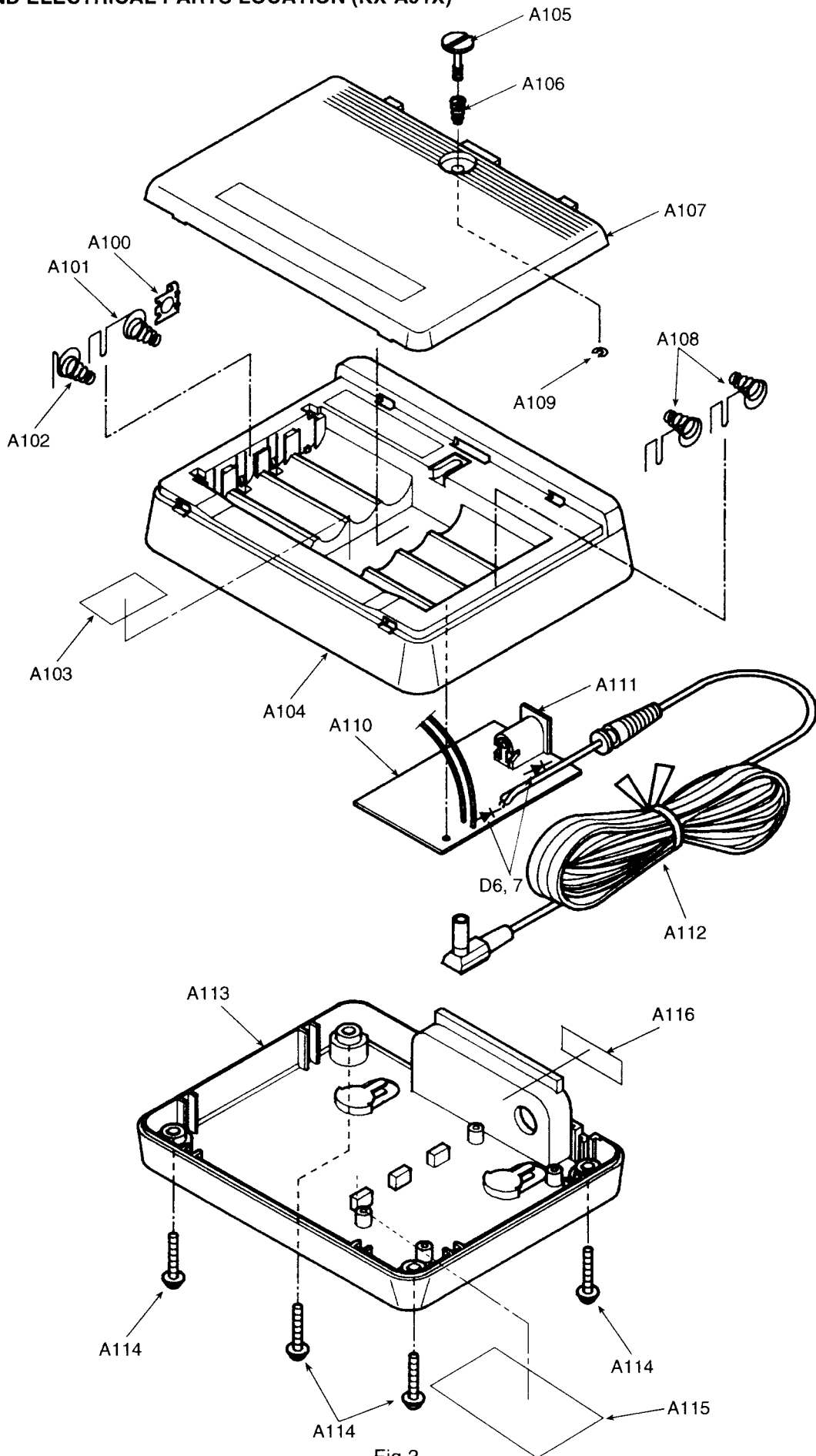
■ CPU OPERATION (Change from original page 48)

CPU Terminals Operation Mode	23 TX DATA	25 RX POW	24 TX POW	41 BEEP	15 TALKLED
STANDBY	L	Intermittently H or L	H	H	H
TALK	L	L	L	H	L
4026ALH→4026ALR Ring	—	L	L	L	FLASHING
4026ALH→4026ALR Paging	—	L	L	L	H
CHARGE	L	H	H	H	H
During (TALK)	—	L	L	H	L
4026ALR PULSE DIAL	DATA	L	L	H	FLASHING
4026ALR TONE DIAL	DATA	L	L	H	L
4026ALR OFF MODE	L	H	—	L	H

← Addition

(Model KX-TC409BX)

■ CABINET AND ELECTRICAL PARTS LOCATION (KX-A91X)





**KX-TC409BX**

**REPLACEMENT PARTS LIST**

**Model KX-TC409BXH**

Notes:

- 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 dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- Important safety notice.**  
Components identified by the  $\Delta$  mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- The S mark indicates service standard parts and may differ from production parts.
- RESISTORS & CAPACITORS**  
Unless otherwise specified.  
All resistors are in ohms ( $\Omega$ ) K=1000 $\Omega$ , M=1000K $\Omega$   
All capacitors are in MICRO FARADS ( $\mu$ F) P= $\mu$ F  
\*Type &Wattage of Resistor

Type

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

Wattage

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

Type

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

Voltage

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

Ref. No.	Part No.	Part Name & Description	Pcs/Set
<b>CABINET AND ELECTRICAL PARTS</b>			
1	PQKM10246U4	CABINET BODY	1
2	PQJT10100Z	BATTERY TERMINAL	3
3	XEAPQK170D	ANTENNA	1
4	PQGT12685Z	NAME PLATE	1
5	PQKE46Y3	HANGER	1
6	PQYF10086E2	CABINET PLATE	1
7	PQBC10187Z2	BUTTON, LOCATOR	1
8	PQQT11367Z	ADAPTOR LABEL	1
<b>MAIN PRINTED CIRCUIT BOARD PARTS</b>			
PCB1	PQWPTC409BXH	MAIN, P.C.BOARD ASSY (RTL)	1
		(ICS)	
IC1	AN6185NFA	IC	1
IC5	MN150832KKAA	IC	1

Ref. No.	Part No.	Part Name & Description	Pcs/Set
<b>(TRANSISTORS)</b>			
Q 1	2SK543	TRANSISTOR(SI)	1
Q 2	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q 3	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q 5	2SC2295	TRANSISTOR(SI)	S 1
Q 6	PQVTMSC2295C	TRANSISTOR(SI)	1
Q 7	PQVTMSC2295C	TRANSISTOR(SI)	S 1
Q 8	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q 9	2SB1322	TRANSISTOR(SI)	1
Q10	2SD1991A	TRANSISTOR(SI)	1
Q11	2SD2136	TRANSISTOR(SI)	1
Q12	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q13	2SB1218A	TRANSISTOR(SI) [or 2SA1576]	1
Q14	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q16	2SC1740S	TRANSISTOR(SI) [or 2SC3311 or 2SC3330]	1
Q19	2SC1740S	TRANSISTOR(SI) [or 2SC3311 or 2SC3330]	1
Q22	2SA1776P	TRANSISTOR(SI) [or 2SA1625]	1
Q25	PQVTKSD261CY	TRANSISTOR(SI) [or 2SC2120]	1
Q28	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q29	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q30	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q31	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q32	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q33	2SD1819A	TRANSISTOR(SI) [or 2SC4081]	1
Q34	2SB1218A	TRANSISTOR(SI) [or 2SA1576]	1
<b>(DIODES)</b>			
D 1	MA840BTAKU	DIODE(SI)	S 1
D 2	MA840ATAKU	DIODE(SI)	1
D 3	MA4062	DIODE(SI)	S 1
D 4	MA4100	DIODE(SI)	S 1
D 5	1SS120	DIODE(SI)	S 1
D 6	MA4047	DIODE(SI)	1
D 7	1SS120	DIODE(SI)	S 1
D 8	1SS120	DIODE(SI)	S 1
D10	1SS120	DIODE(SI)	S 1
D12	MA4300	DIODE(SI)	S 1
D13	MA4300	DIODE(SI)	S 1
D14	MA4300	DIODE(SI)	S 1
D15	1SS120	DIODE(SI)	S 1
D24	MA4300	DIODE(SI)	S 1
D27	MA4091	DIODE(SI)	S 1
D40	PQVDS1ZB40F1	DIODE(SI)	1
D300	1SS314	DIODE(SI)	1
DE	MA110	DIODE(SI)	1
<b>(COILS AND TRNSFORMERS)</b>			
L1	PQLA7N3	COIL	1
L2	PQLQZKR82M	COIL	S 1
L3	ELEPK100KA	COIL	1
L6	PQLQZM1R5K	COIL	S 1
L8	PQLQZM330K	COIL	1
L9	PQLQZM330K	COIL	1
L10	PQLQZM330K	COIL	1
L11	PQLQZM1R0K	COIL	1
L12	PQLA7N7	COIL	1
L15	PQLQZK1R5K	COIL	1
T1	PQLA7A9	COIL	1
T2	PQLA7A9	COIL	1
T3	PQLA7A7	COIL	S 1
T4	PQLI2B201	I.F. TRANSFORMER	1
T5	PQL04A1	COIL	1

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Part Name & Description & Value	Pcs/Set
T6	PQLA7A19	COIL	1	R27	ERJ3GEY0R00	0Ω	1
T8	PQLA7A27	COIL	1	R28	ERJ3GEY0R00	0Ω	1
T9	PQLA7A19	COIL	1	R29	PQ4R10XJ103	10k	1
T10	PQLT8F11A	TRANSFORMER	△ 1	R41	ERJ3GEYJ680	68	1
T11	PQLT8F11A	TRANSFORMER	△ 1	R42	ERJ3GEYJ102	1k	1
		(PHOTO COUPLERS)		R43	ERJ3GEYJ184	180k	1
PC3	PQVIPC814K	PHOTO ELECTRIC TRANSDUCER	S △ 1	R44	ERJ3GEYJ473	47k	1
PC4	PQVITLP627	PHOTO ELECTRIC TRANSDUCER	S △ 1	R45	ERJ3GEYJ273	27k	1
		(JACK)		R46	ERJ3GEYJ683	68k	1
JJ1	PQJJ2HA2Z	JACK, TELEPHONE LINE, DC IN	△ 1	R47	ERJ3GEYJ223	22k	1
		(VARIABLE RESISTORS)		R48	ERJ3GEYJ104	100k	1
VR1	EVNDXAA03B15	VARIABLE RESISTOR, 100kΩ	1	R49	ERJ3GEYJ682	6.8k	1
VR2	EVNDXAA03B24	VARIABLE RESISTOR, 20kΩ	1	R50	PQ4R10XJ222	2.2k	1
VR4	EVNDXAA03B15	VARIABLE RESISTOR, 100kΩ	1	R51	ERJ3GEYJ103	10k	1
		(CRYSTALS)		R52	ERJ3GEYJ473	47k	1
X1	PQVCJ3581N9Z	CRYSTAL OSCILLATOR	S 1	R53	ERJ3GEYJ394	390k	1
X2	PQVCK1116N3ZF	VARIABLE CAPACITOR	1	R54	ERJ3GEYJ153	15k	1
		(CERAMIC FILTERS)		R55	ERJ3GEYJ104	100k	1
CF1	PQVFSFE107MJ	CERAMIC FILTER	1	R56	ERJ3GEY0R00	0Ω	1
CF2	PQVFCFH455F1	CERAMIC FILTER	S 1	R57	ERJ3GEYJ104	100k	1
		(SWITCH)		R58	ERJ3GEYJ105	1M	1
SW1	PQSS2A27W	SWITCH	1	R59	ERJ3GEYJ221	220	1
		(OTHERS)		R61	ERJ3GEYJ103	10k	1
CT1	ECRLA030E53	TRIMMER CAPACITOR	S 1	R62	ERJ3GEYJ470	47	1
SA1	PQVDDSS301L	VARIATOR	△ 1	R63	ERJ3GEYJ334	330k	1
SA2	PQVDDSA242M	VARIATOR	△ 1	R65	ERJ3GEYJ563	56k	1
E1	PQMC10226Z	SHIELD SHEET	1	R66	ERJ3GEYJ101	100	1
		(RESISTORS)		R68	ERJ3GEYJ103	10k	1
R 1	ERJ3GEYJ101	100	1	R69	ERJ3GEYJ224	220k	1
R 2	ERJ3GEYJ562	5.6k	1	R70	ERJ3GEYJ332	3.3k	1
R 3	ERJ3GEYJ683	68k	1	R71	ERJ3GEYJ470	47	1
R 4	PQ4R10XJ124	120k	1	R91	ERJ3GEYJ472	4.7k	1
R 6	ERDS2TJ103	10k	1	R92	ERJ3GEYJ472	4.7k	1
R 7	PQ4R10XJ105	1M	1	R93	ERJ3GEYJ472	4.7k	1
R 9	ERJ3GEYJ563	56k	1	R94	ERJ3GEYJ104	100k	1
R11	PQ4R10XJ472	4.7k	1	R95	ERJ3GEYJ562	5.6k	1
R12	ERJ3GEYJ103	10k	1	R98	ERJ3GEYJ472	4.7k	1
R13	ERJ3GEYJ273	27k	1	R99	ERJ3GEYJ472	4.7k	1
R14	ERJ3GEYJ104	100k	1	R100	ERJ3GEYJ104	100k	1
R15	ERJ3GEYJ102	1k	1	R105	PQ4R18XJ104	100k	1
R16	ERJ3GEYJ333	33k	1	R106	ERJ3GEYJ104	100k	1
R17	ERJ3GEYJ103	10k	1	R111	ERJ3GEYJ102	1k	1
R18	ERJ3GEYJ152	1.5k	1	R113	ERJ3GEYJ102	1k	1
R19	ERJ3GEY0R00	0Ω	1	R114	ERJ3GEYJ104	100k	1
R20	ERJ3GEYJ103	10k	1	R116	PQ4R10XJ273	27k	1
R21	ERJ3GEYJ333	33k	1	R117	ERJ3GEYJ333	33k	1
R23	ERJ3GEYJ103	10k	1	R118	ERJ3GEYJ333	33k	1
R24	ERJ3GEYJ103	10k	1	R119	ERJ3GEYJ683	68k	1
R25	ERJ3GEYJ823	82k	1	R121	ERJ3GEY0R00	0Ω	1
R26	ERJ3GEYJ153	15k	1	R122	ERJ3GEYJ183	18k	1
				R123	ERJ3GEYJ102	1k	1
				R124	ERJ3GEYJ334	330k	1
				R126	ERJ3GEYJ682	6.8k	1
				R127	ERJ3GEYJ822	8.2k	1
				R128	ERJ3GEYJ821	820	1
				R129	ERJ3GEYJ562	5.6k	1
				R130	ERJ3GEYJ104	100k	1
				R131	PQ4R10XJ102	1k	1
				R132	ERJ3GEYJ104	100k	1
				R133	ERJ3GEYJ104	100k	1
				R134	ERJ3GEYJ104	100k	1
				R135	ERJ3GEYJ472	4.7k	1
				R137	ERJ3GEYJ104	100k	1
				R138	ERJ3GEYJ104	100k	1
				R139	ERJ3GEYJ823	82k	1
				R140	ERJ3GEYJ103	10k	1

**KX-TC409BX**

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
R141	ERJ3GEYJ103	10k	1	C12	ECEA1HKS47	0.47	S 1
R142	ERDS2TJ102	1k	1	C13	ECEA1HKS010	1	S 1
R143	ERJ3GEYJ103	10k	1	C14	PQCUV1E104MD	0.1	S 1
R144	ERDS2TJ101	100	1	C16	PQCUV1E104MD	0.1	1
R145	ERDS2TJ332	3.3k	1	C17	PQCUV1H153KB	0.015	S 1
R147	ERJ3GEYJ473	47k	1	C19	PQCUV1C474ZF	0.47	1
R151	ERDS2TJ471	470	1	C20	PQCUV1E473MD	0.047	1
R152	ERDS2TJ472	4.7k	1	C22	PQCUV1H101JC	100p	1
R153	ERDS2TJ181	180	1	C23	ECEA1HKS47	0.47	S 1
R154	ERDS2TJ103	10k	1	C24	ECEA1CK100	10	S 1
R156	ERJ3GEYJ472	4.7k	1	C25	ECUV1H390JCV	39p	1
R161	ERJ3GEYJ104	100k	1	C26	PQCUV1C474ZF	0.47	S 1
R170	ERJ3GEYJ473	47k	1	C27	ECEA1HKS3R3	3.3	S 1
R172	ERJ3GEYJ473	47k	1	C28	ECUV1H472KBV	0.0047	S 1
R173	ERJ3GEYJ224	220k	1	C29	ECEA1HKS010	1	S 1
R180	ERJ3GEYJ103	10k	1	C30	PQCUV1E104MD	0.1	S 1
R182	ERJ3GEYJ103	10k	1	C33	PQCUV1E104MD	0.1	S 1
R184	ERJ3GEYJ102	1k	1	C34	ECEA1CK100	10	S 1
R186	ERJ3GEYJ122	1.2k	1	C35	ECEA1HKS47	0.47	S 1
R187	ERJ3GEYJ334	330k	1	C36	PQCUV1C224ZF	0.22	1
R189	ERJ3GEYJ271	270	1	C37	ECUV1H223KBV	0.022	S 1
R190	ERJ3GEYJ223	22k	1	C39	ECUV1H221JCV	220p	1
R192	ERJ3GEYJ103	10k	1	C40	PQCUV1H100DC	10p	1
R193	ERJ3GEYJ820	82	1	C41	ECUV1E104ZFV	0.1	1
R194	ERJ3GEYJ684	680k	1	C42	ECUV1H103KBV	0.01	S 1
R195	ERJ3GEYJ272	2.7k	1	C43	ECUV1H103KBV	0.01	1
R196	ERJ3GEYJ103	10k	1	C45	ECUV1H560JCV	56p	1
R197	ERJ3GEYJ104	100k	1	C46	PQCUV1H103KB	0.01	S 1
R198	ERJ3GEYJ471	470	1	C47	PQCUV1H560JC	56p	1
R199	ERJ3GEYJ101	100	1	C48	PQCUV1H330JC	33p	1
R221	ERJ3GEYJ184	180k	1	C49	PQCUV1H103KB	0.01	S 1
R222	ERJ3GEYJ333	33k	1	C51	PQCUV1H153KB	0.015	S 1
R228	ERJ3GEYJ104	100k	1	C52	PQCUV1E104MD	0.1	S 1
R230	PQ4R10XJ331	330	1	C59	ECUV1H103KBV	0.01	S 1
R233	ERJ3GEYJ184	180k	1	C60	ECUV1H030CCV	3p	1
R234	ERJ3GEY0R00	0Ω	1	C61	PQCUV1H1R5CC	1.5p	1
R235	ERJ3GEYJ823	82k	1	C64	PQCUV1H100DC	10p	1
R237	ERDS2TJ103	10k	1	C65	ECUV1H103KBV	0.01	S 1
R300	ERDS2TJ473	47k	1	C66	PQCUV1H470JC	47p	1
R301	ERDS2TJ104	100k	1	C67	PQCUV1H680JC	68p	1
R302	ERDS2TJ472	4.7k	1	C69	ECEA1HKS010	1	S 1
R311	PQ4R10XJ331	330	1	C70	PQCUV1H270JC	27p	1
R312	PQ4R10XJ821	820	1	C71	PQCUV1H180JC	18p	1
R313	PQ4R10XJ153	15k	1	C72	PQCUV1E104MD	0.1	S 1
R315	PQ4R10XJ102	1k	1	C73	PQCUV1H100DC	10p	1
R316	PQ4R10XJ151	150	1	C74	ECEA1HKS4R7	4.7	S 1
R317	ERDS1TJ330	33	1	C75	PQCUV1H2R5C	2.5p	1
R318	ERDS1TJ390	39	1	C76	ECUV1H681JCV	680p	1
R319	PQ4R10XJ332	3.3k	1	C77	PQCUV1H102J	0.001	S 1
R331	PQ4R10XJ220	22	1	C78	ECUV1H103KBV	0.01	1
J12, J78	ERJ3GEY0R00	0Ω	5	C83	PQCUV1H102J	0.001	S 1
J90~J92				C84	ECUV1H102KBV	0.001	1
J13	ERDS2TJ223	22k	1	C87	PQCUV1H101JC	100p	1
		(CAPACITORS)		C88	PQCUV1E104MD	0.1	S 1
C 1	ECUV1H103KBV	0.01	S 1	C91	ECUV1H2R5CCV	2.5p	1
C 2	PQCUV1H103KB	0.01	S 1	C92	ECUV1H040CCV	4p	1
C 3	ECUV1E104ZFV	0.1	1	C93	ECUV1H1R5CCV	1.5p	1
C 4	ECEA1CK101	100	S 1	C94	ECUV1H040CCV	4p	1
C 5	PQCUV1H103KB	0.01	S 1	C100	ECUV1H220JCV	22p	1
C 6	ECEA1CK100	10	S 1	C101	ECUV1H220JCV	22p	1
C 7	ECUV1H473MDV	0.047	S 1	C102	ECUV1E104ZFV	0.1	1
C 9	ECUV1H120JCV	12p	1	C103	ECUV1E104ZFV	0.1	1
C10	ECUV1H103KBV	0.01	S 1	C105	ECUV1H101JCV	100p	1
				C106	PQCUV1C105ZF	1	1
				C107	PQCUV1H103KB	0.01	S 1
				C110	ECEA1CK100	10	S 1

Ref. No.	Part No.	Value	Pcs/Set
C111	ECUV1H101JCV	100p	1
C112	PQCUV1E104MD	0.1	S 1
C113	ECEA1CKS100	10	S 1
C116	PQCUV1H222KB	0.0022	1
C118	ECEA1HKS010	1	S 1
C119	ECEA1AKS330	33	S 1
C120	ECEA1HKS010	1	S 1
C122	PQCUV1E104MD	0.1	S 1
C123	ECUV1H392KBV	0.0039	S 1
C124	ECUV1H181JCV	180p	1
C125	PQCUV1H392KB	0.0039	1
C130	ECEA0JU102	1000	1
C131	PQCUV1C224ZF	0.22	1
C133	ECEA0JU102	1000	1
C134	ECEA1CU221	220	1
C135	ECEA1CK101	100	S 1
C136	ECUV1H103KBV	0.01	S 1
C137	PQCUV1E104MD	0.1	S 1
C138	PQCUV1E104MD	0.1	S 1
C139	PQCUV1E104MD	0.1	S 1
C140	ECEA1CK101	100	S 1
C144	PQCUV1H682KB	0.0068	1
C149	PQCUV1E104MD	0.1	S 1
C150	ECUV1H102KBV	0.001	1
C151	ECUV1H222KBV	0.0022	1
C152	ECEA1CKS100	10	S 1
C153	PQCUV1E104MD	0.1	S 1
C158	ECUV1H101JCV	100p	1
C159	PQCUV1E104MD	0.1	S 1
C170	PQCUV1E104MD	0.1	S 1
C227	PQCUV1H471JC	470p	S 1
C228	ECUV1H152KBV	0.0015	1
C229	PQCUV1H152KB	0.0015	1
C238	PQCUV1E104MD	0.1	S 1
C301	ECQE2224KF	0.22	1
C305	PQCUV1E104MD	0.1	1
C306	ECEA1HKS010	1	S 1
C307	PQCUV1H223KB	0.022	S 1
C308	ECEA1HKS3R3	3.3	S 1
C309	ECEA1HU220	22	S 1
C310	ECEA1HKS010	1	1
C311	PQCUV1H103KB	0.01	S 1
C312	PQCUV1H102J	0.001	S 1
C313	ECKD2H681KB	680p	S 1
C314	ECKD2H681KB	680p	S 1
OPERATION PRINTED CIRCUIT BOARD PARTS			
PCB2	PQWP24026ALH	OPERATION, P.C.BOARD ASS'Y (RTL)	1
LED6	LNJ322GKGAH	(LED) LED	1
S22	EVQQJJ05Q	(SWITCH) SWITCH, HANDSET LOCATOR	S 1

**REPLACEMENT PARTS LIST**

**Model KX-TC409BXR**

**Notes:**

- 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 dependent on the type of assembly, and in accordance with the laws governing part and product retention.  
After the end of this period, the assembly will no longer be available.
- Important safety notice.  
Components identified by the  $\Delta$  mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- The S mark indicates service standard parts and may differ from production parts.
- RESISTORS & CAPACITORS**  
Unless otherwise specified.  
All resistors are in ohms (  $\Omega$  ) K=1000 $\Omega$ , M=1000K $\Omega$   
All capacitors are in MICRO FARADS (  $\mu$ F ) P=  $\mu$ F  
\*Type &Wattage of Resistor

Type		
ERC:Solid	ERX:Metal Film	PQ4R:Carbon
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resistor
PQRD:Carbon	ERO: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,PQCB : Ceramic	
ECQS:Styrol		ECQE,ECQV,ECQG : Polyester	
PQCUV:Chip		ECEA,ECSZ : Electrolytic	
ECQMS:Mica		ECQP : Polypropylene	

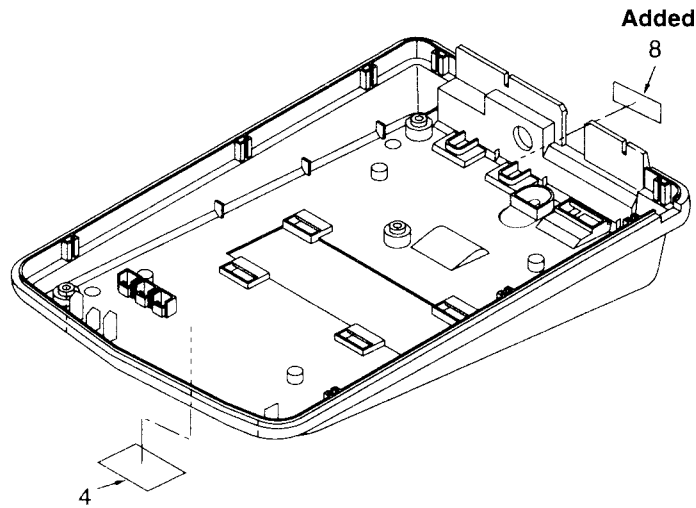
Voltage				
ECQ Type	ECQG	ECSZ Type	Others	
	ECQV Type			
1H: 50V	05: 50V	0F:3.15V	0J :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C :16V	1J :63V
2H:500V		0J:6.3V	1E,25:25V	2A :100V

Ref. No.	Part No.	Part Name & Description	Pcs
<b>CABINET PARTS</b>			
100	PQKM10245K3	FRONT CABINET	1
101	PQKF10155Z2	CABINET COVER	1
102	PQSA10054Z	ANTENNA	1
103	PQAX3P16Z	SPEAKER	1
104	PQSX10028F	12 KEYPAD	1
105	PQKK10061Z2	BATTERY COVER	1
106	PQXA36ASVC	RECHARGEABLE BATTERY	1
107	PQSX10029Z	12 KEY SWITCH	1
108	PJHE5065Z	SCREW	2
109	PQGT12686Z	NAME PLATE	1
110	PQHE10070Z	MIC SPONGE	1
111	PQHE10084Z	FOAM PAD	1

Ref. No.	Part No.	Part Name & Description	Pcs/Set
<b>MAIN P.C.BOARD PARTS</b>			
PCB100	PQWPTC409BXR	MAIN, P.C.BOARD ASS'Y (RTL)	1
(ICS)			
IC1	AN6185NFA	IC	1
IC2	AN6183SAE1	IC	1
IC3	PQVISC78184D	IC	1
IC4	PQVI0006G515	IC	1
(TRANSISTORS)			
Q 1	2SK543	TRANSISTOR(SI)	1
Q 2	2SC2295	TRANSISTOR(SI)	1
Q 3	PQVTMSC2295C	TRANSISTOR(SI)	1
Q 4	2SC3356R24	TRANSISTOR(SI)	1
Q 6	2SD1819A	TRANSISTOR(SI) [or 2SC4155]	1
Q15	2SD1819A	TRANSISTOR(SI) [or 2SC4155]	1
Q16	2SB709A	TRANSISTOR(SI)	1
[or 2SB709 or 2SA1162]			
Q17	2SB709A	TRANSISTOR(SI)	1
[or 2SB709 or 2SA1162]			
Q21	2SD1819A	TRANSISTOR(SI) [or 2SC4155]	1
Q101	XN1116	TRANSISTOR(SI)	1
Q102	2SD1819A	TRANSISTOR(SI) [or 2SC4155]	1
Q300	2SD1819A	TRANSISTOR(SI) [or 2SC4155]	1
(DIODES)			
D 1	MA840ATAKU	DIODE(SI)	1
D 3	PQVD1SV145	DIODE(SI)	S 1
D15	1SS120	DIODE(SI)	S 1
D16	MA700A	DIODE(SI)	S 1
D17	MA4068	DIODE(SI)	S 1
D18	1SS120	DIODE(SI)	S 1
D19	MA110	DIODE(SI)	1
D20	LNJ330GKGAC	LED	1
D21	LNJ230RKRAC	LED	1
D24	MA4068	DIODE(SI)	S 1
D101	LN363GPPKU	LED	1
D102	LN363GPPKU	LED	1
D103	LN363GPPKU	LED	1
D104	LN363GPPKU	LED	1
DH	MA110	DIODE(SI)	1
(VARIABLE RESISTORS)			
VR1	EVNDXAA03B15	VARIABLE RESISTOR, 100k $\Omega$	1
VR2	EVNDXAA03B35	VARIABLE RESISTOR, 300k $\Omega$	1
VR101	EVNDXAA03B55	VARIABLE RESISTOR, 500k $\Omega$	1
VR102	EVNDXAA03B15	VARIABLE RESISTOR, 100k $\Omega$	1
(CRYSTALS)			
X1	PQVCJ3992N9Z	CRYSTAL OSCILLATOR	1
X2	PQVCL3276N9Z	CRYSTAL OSCILLATOR	1
X3	PQVCJ10240C5	CRYSTAL OSCILLATOR	1
(COILS AND TRANSFORMERS)			
L1	PQLQZK1R5K	COIL	1
L2	PQLQZMR82K	COIL	S 1
L3	ELJFAR68M	COIL	S 1
L4	PQLQZM100K	COIL	S 1

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
L10	PQLQZM100K	COIL	S 1	R41	ERJ3GEYJ103	10k	1
L11	PQLQZM100K	COIL	S 1	R42	ERJ3GEYJ273	27k	1
L12	PQLQZM100K	COIL	S 1	R43	ERJ3GEYJ103	10k	1
T1	PQLA7A9	COIL	1	R44	ERJ3GEYJ683	68k	1
T2	PQLI2B201	I.F. TRANSFORMER	1	R45	ERJ3GEYJ103	10k	1
T3	PQL04V3	COIL	1	R46	ERJ3GEY0R00	0Ω	1
T11	PQLA7A7	COIL	1	R47	ERJ3GEYJ104	100k	1
T13	PQL04V2	COIL	1	R48	ERJ3GEYJ103	10k	1
				R49	ERJ3GEYJ104	100k	1
		(CERAMIC FILTERS)		R57	ERJ3GEYJ334	330k	1
CF1	RVFSFE107MSR	CERAMIC FILTER	S 1	R58	ERJ3GEYJ104	100k	1
CF2	PQVFCFH455F1	CERAMIC FILTER	S 1	R59	ERJ3GEYJ334	330k	1
		(OTHERS)		R60	ERJ3GEYJ122	1.2k	1
CN1	PQJP2D13Z	CONNECTOR, 2 PIN	1	R61	ERJ3GEYJ334	330k	1
TC1	ECRLA030E53	TRIMMER CAPACITOR	S 1	R67	ERJ3GEYJ332	3.3k	1
DUP1	ELB4Z010	COIL	1	R68	ERJ3GEYJ332	3.3k	1
E100	PQEFBQM111G1	BUZZER	S 1	R74	ERJ3GEYJ104	100k	1
E101	PQNW10011Z	FELT WASHER	1	R76	ERJ3GEYJ823	82k	1
E102	PQJM124X	MICROPHONE	1	R79	ERJ3GEYJ103	10k	1
E103	PQHR10269Z	MIC HOLDER	1	R81	ERJ3GEYJ562	5.6k	1
E104	PQJT10101Z	BATTERY TERMINAL	1	R82	ERJ3GEYJ392	3.9k	1
E105	PQJT10102Z	BATTERY TERMINAL	2	R83	ERJ3GEYJ104	100k	1
E106	PQMC10226Z	SHIELD SHEET	1	R84	ERJ3GEYJ221	220	1
		(RESISTORS)		R85	ERJ3GEYJ120	12	1
R 1	ERJ3GEYJ331	330	1	R89	ERJ3GEYJ103	10k	1
R 2	ERJ3GEYJ220	22	1	R91	ERJ3GEYJ472	4.7k	1
R 3	ERJ3GEYJ153	15k	1	R93	ERJ3GEYJ681	680	1
R 4	ERJ3GEY0R00	0Ω	1	R94	ERJ3GEYJ681	680	1
R 5	ERJ3GEYJ390	39	1	R100	ERJ3GEYJ472	4.7k	1
R 6	ERJ3GEYJ683	68k	1	R101	ERJ3GEYJ472	4.7k	1
R 7	ERJ3GEYJ100	10	1	R102	ERJ3GEYJ104	100k	1
R 8	ERJ3GEYJ220	22	1	R103	ERJ3GEYJ104	100k	1
R 9	ERJ3GEYJ102	1k	1	R104	ERJ3GEYJ472	4.7k	1
R10	ERJ3GEYJ223	22k	1	R105	ERJ3GEYJ683	68k	1
R11	ERJ3GEYJ393	39k	1	R111	ERJ3GEYJ222	2.2k	1
R12	ERJ3GEYJ562	5.6k	1	R112	ERJ3GEYJ103	10k	1
R13	ERJ3GEYJ273	27k	1	R113	ERJ3GEYJ151	150	1
R14	ERJ3GEYJ823	82k	1	R114	ERJ3GEYJ151	150	1
R15	ERJ3GEYJ563	56k	1	R200	ERJ3GEYJ394	390k	1
R16	ERJ3GEYJ224	220k	1	R201	ERJ3GEYJ474	470k	1
R17	ERJ3GEYJ104	100k	1	R300	ERJ3GEYJ103	10k	1
R18	ERJ3GEYJ223	22k	1	R301	ERJ3GEYJ474	470k	1
R19	ERJ3GEYJ152	1.5k	1	R302	ERJ3GEYJ103	10k	1
R20	ERJ3GEYJ124	120k	1	R303	ERJ3GEYJ182	1.8k	1
R23	ERJ3GEYJ561	560	1	J10	ERJ3GEY0R00	0Ω	1
R24	ERJ3GEYJ472	4.7k	1			(CAPACITORS)	
R25	ERJ3GEYJ273	27k	1	C 1	ECUV1H103KBV	0.01	S 1
R27	ERJ3GEYJ124	120k	1	C 2	ECUV1E104ZFB	0.1	S 1
R28	ERJ3GEYJ683	68k	1	C 3	ECUV1H220JCV	22p	1
R29	ERJ3GEYJ223	22k	1	C 5	ECUV1H121JCV	120p	1
R30	ERJ3GEYJ103	10k	1	C 6	ECUV1H101JCV	100p	1
R31	ERJ3GEYJ152	1.5k	1	C 7	ECUV1H103KBV	0.01	S 1
R32	ERJ3GEYJ224	220k	1	C 8	ECUV1H103KBV	0.01	S 1
R33	ERJ3GEYJ103	10k	1	C 9	ECUV1H010CCV	1p	1
R34	ERJ3GEYJ104	100k	1	C10	ECUV1H220JCV	22p	1
R35	ERJ3GEYJ393	39k	1	C11	ECUV1H103KBV	0.01	S 1
R36	ERJ3GEYJ222	2.2k	1	C12	ECUV1H470JCV	47p	1
R38	ERJ3GEYJ103	10k	1	C13	ECUV1H680JCV	68p	1
R39	ERJ3GEYJ564	560k	1	C14	PQCUV1H330JC	33p	1
R40	ERJ3GEYJ274	270k	1	C15	ECUV1H150JCV	15p	1
				C16	PQCUV1H150JR	15p	1
				C17	ECUV1H3R0BCV	3p	1

■ CABINET AND ELECTRICAL PARTS LOCATION (KX-T4026ALH) [Change from original page 55]



(Model KX-TC409BX)

■ CABINET AND ELECTRICAL PARTS LOCATION (KX-T4026ALR) [Change from original page 56]



(Model KX-TC409BX)