

# Service Manual

## Telephone Equipment

### KX-TG6700B

### KX-TG6702B

### KX-TGA670B

5.8 GHz Expandable Digital Cordless Answering System

5.8 GHz Expandable Digital Cordless Answering System with Two Handsets

Black Version

(for U.S.A.)

*Supplement-2*

Please file and use this supplement manual together with the service manual for Model No.KX-TG6700B/KX-TG6702B/KX-TGA670B, Order No.40604038CE.

### WARNING

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

## TABLE OF CONTENTS

	PAGE		PAGE
<b>1 REPLACEMENT PARTS LIST</b> -----	<b>3</b>	2.6. Signal Route (Changed from original section	
1.1. REFERENCE CHART-----	3	4.11. Signal Route)-----	7
1.2. ORIGINAL AND NEW PARTS COMPARISON		2.7. Test Burst Mode for Base Unit (Changed from	
LISTS-----	3	original section 8.1.1. Test Burst Mode for	
<b>2 CORRECTION</b> -----	<b>4</b>	Base Unit)-----	8
2.1. Power Supply Circuit (Changed from original		2.8. RX-CW Test Mode for Base Unit (Changed	
section 4.5.3. Power Supply Circuit)-----	4	from original section 8.1.2. RX-CW Test Mode	
2.2. Calling Line Identification (Caller ID)/Call		for Base Unit)-----	9
Waiting Caller ID (Changed from original		2.9. Test Burst Mode for Handset (Changed from	
section 4.5.8. Calling Line Identification		original section 8.1.5. Test Burst Mode for	
(Caller ID)/Call Waiting Caller ID)-----	5	Handset)-----	10
2.3. Power Supply Circuit (Changed from original		2.10. RX-CW Test Mode for Handset (Changed	
section 4.9.1. Power Supply Circuit)-----	5	from original section 8.1.6. RX-CW Test Mode	
2.4. 2.4 GHz Mod/Demod Circuit (Changed from		for Handset)-----	11
original section 4.9.2. 2.4 GHz Mod/Demod		2.11. Schematic Diagram (Handset_Main)	
Circuit)-----	6	(Changed from original section 13.5.	
2.5. 5.8 GHz Converter Circuit (Changed from		Schematic Diagram (Handset_Main))-----	12
original section 4.9.3. 5.8 GHz Converter		2.12. Component View (Changed from original	
Circuit)-----	6	section 14.3.1. Component View)-----	12

2.13. Component View (Changed from original section 14.3.2. Flow Solder Side View)----- 13

2.14. IC201 (Changed from original section 15.2.1. IC201)----- 13





2.15. Cabinet and Electrical Parts (Base Unit) (Changed from original section 16.1. Cabinet and Electrical Parts (Base Unit)) ----- 13

2.16. Cabinet and Electrical Parts (Changed from original section 16.5.3.1. Cabinet and Electrical Parts)----- 14

# 1 REPLACEMENT PARTS LIST

## 1.1. REFERENCE CHART

Reason for Change	
*The following items (1-8) indicate the reason for change. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .	
1. Improve performance	<b>Remarks:</b> a. To share the parts with other models.
2. Change of material or dimension	
3. To meet approved specification	
4. Standardization	
5. Addition	
6. Deletion	
7. Correction	
8. Other	

Interchangeability Code		
**The following items (V-Z) indicate the Interchangeability. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .		
V	Original New 	Original or new parts may be used in early or late production sets. Use original parts until exhausted, then stock new parts.
W	Original New 	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
X	Original New 	New parts only may be used in early or late production sets. Stock new parts.
Y	Original New 	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
Z	Other	

**Note:**

Alphabets in the "Remarks" column in the following lists correspond to the alphabets in the "Remarks" in REFERENCE CHART.

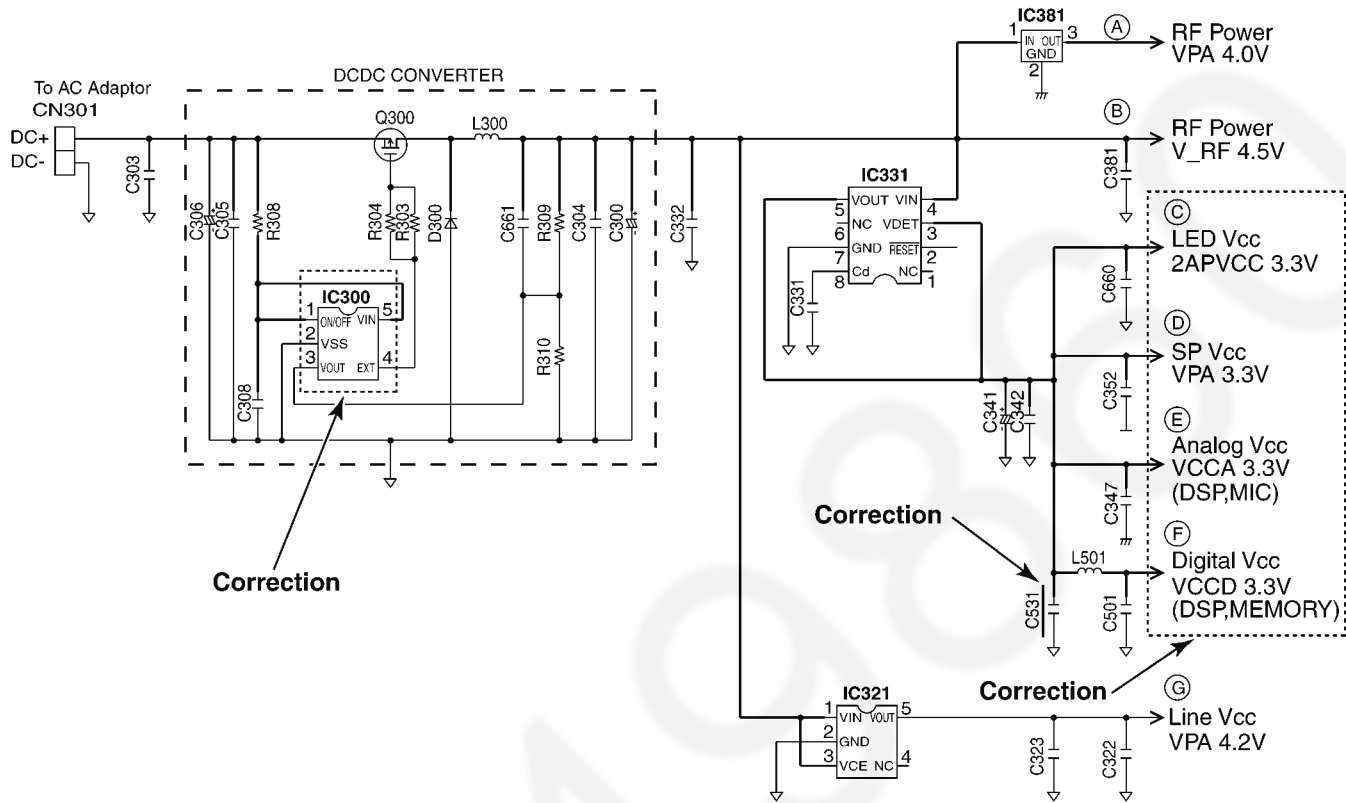
## 1.2. ORIGINAL AND NEW PARTS COMPARISON LISTS

(for KX-TG6700B/KX-TG6702B/KX-TGA670B)

Ref. No.	Part No.		Part Name & Description	Pcs/ Set	Remarks	Notes	Time of Change (Suffix)
	Original (Old)	New					
<b>BASE UNIT</b>							
12	PQJT10241Z	PQJT10241Y	Charge Terminal (L)	1	a	4 V	-
13	PQJT10242Z	PQJT10242Y	Charge Terminal (R)	1	a	4 V	-
IC701	C1CB00001657	C1CB00002285	IC	1	a	4 V	-
<b>HANDSET</b>							
117	PQWE10044Z	PQWE10044Y	Battery Terminal	1	a	4 V	-
IC701	C1CB00001657	C1CB00002285	IC	1	a	4 V	-
<b>CHARGER UNIT</b>							
200-6	PQJT10241Z	PQJT10241Y	Charge Terminal (L)	1	a	4 V	-
200-6	PQJT10241Y	PQJT10241X	Charge Terminal (L)	1	a	4 V	-
200-7	PQJT10242Z	PQJT10242Y	Charge Terminal (R)	1	a	4 V	-
<b>ACCESSORIES AND PACKING MATERIALS (KX-TG6700B)</b>							
A7	PQQV10308Z	PQQV10494Z	Card, CCP	1	a	4 V	-
<b>ACCESSORIES AND PACKING MATERIALS (KX-TG6702B)</b>							
A107	PQQV10308Z	PQQV10494Z	Card, CCP	1	a	4 V	-

## 2 CORRECTION

### 2.1. Power Supply Circuit (Changed from original section 4.5.3. Power Supply Circuit)



## 2.2. Calling Line Identification (Caller ID)/Call Waiting Caller ID (Changed from original section 4.5.8. Calling Line Identification (Caller ID)/Call Waiting Caller ID)

### Function: Caller ID

The caller ID is a chargeable ID which the user of a telephone circuit obtains by entering a contract with the telephone company to utilize a caller ID service. For this reason, the operation of this circuit assumes that a caller ID service contract has been entered for the circuit being used. The data for the caller ID from the telephone exchange is sent during the interval between the first and second rings of the bell signal. The data from the telephone exchange is a modem signal which is modulated in an FSK (Frequency Shift Keying) \* format. Data "1" is a 1200 Hz sine wave, and data "0" is a 2200 Hz sine wave. There are two types of the message format which can be received: i.e. the single message format and plural message format. The plural message format allows to transmit the name and data code information in addition to the time and telephone number data.

\*: Also the telephone exchange service provides other formats.

Correction



### Call Waiting Caller ID

Calling Identity Delivery on Call Waiting (CIDCW) is a CLASS service that allows a customer, while off-hook on an existing call, to receive information about a calling party on a waited call. The transmission of the calling information takes place almost immediately after the customer is alerted to the new call so he/she can use this information to decide whether to take the new call.

### Function:

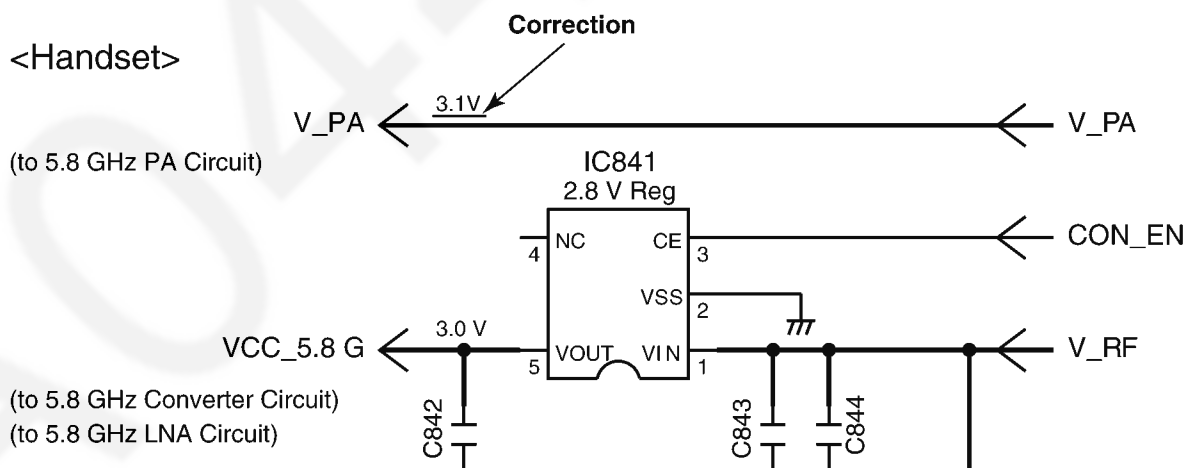
The telephone exchange transmits or receives CAS and ACK signals through each voice RX/TX route. Then FSK data and MARK data pass the following route.

Telephone Line 1: CN101 (T, R) → P101 → L101, L102 → C121, C122 → R121, R122 → IC501 (122, 123).

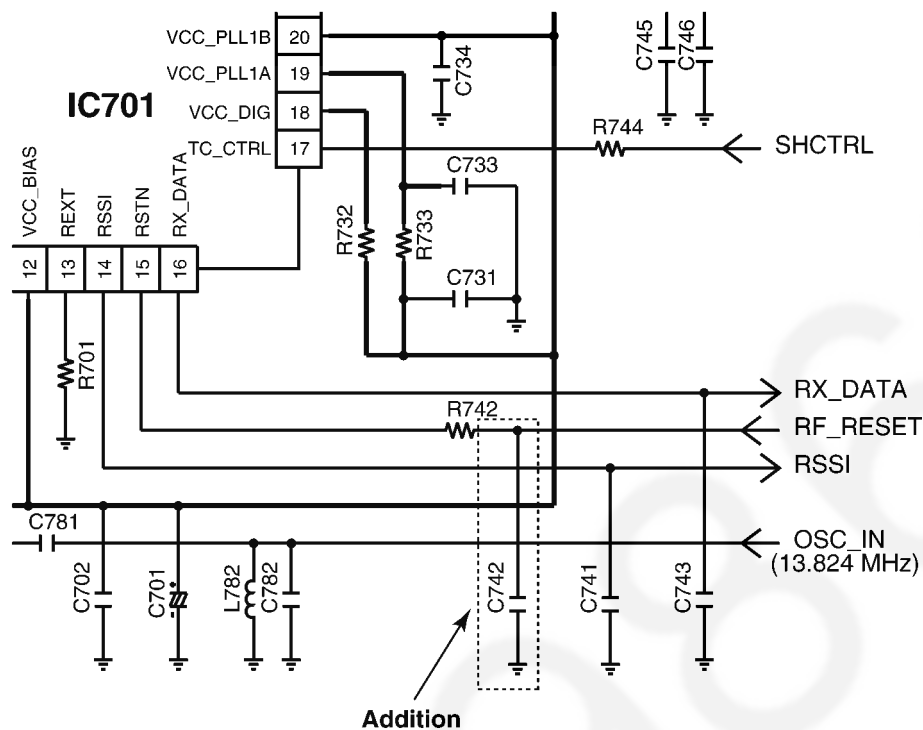
If the unit deems that a telephone connected in parallel is in use, ACK is not returned even if CAS is received, and the information for the second and subsequent callers is not displayed on the portable Handset display.

Addition

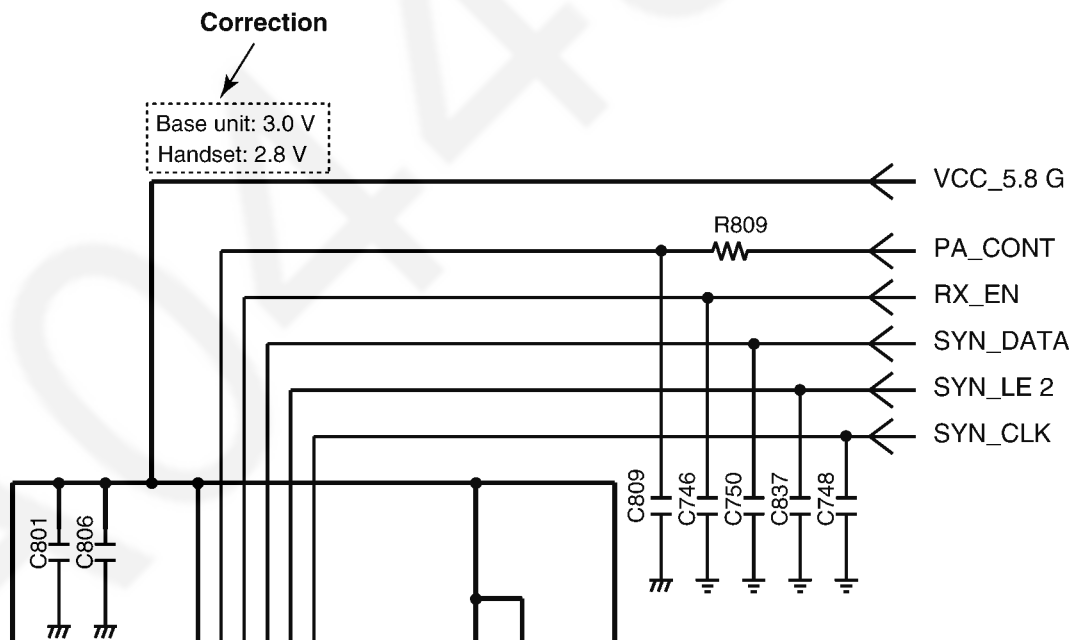
## 2.3. Power Supply Circuit (Changed from original section 4.9.1. Power Supply Circuit)



## 2.4. 2.4 GHz Mod/Demod Circuit (Changed from original section 4.9.2. 2.4 GHz Mod/Demod Circuit)



## 2.5. 5.8 GHz Converter Circuit (Changed from original section 4.9.3. 5.8 GHz Converter Circuit)



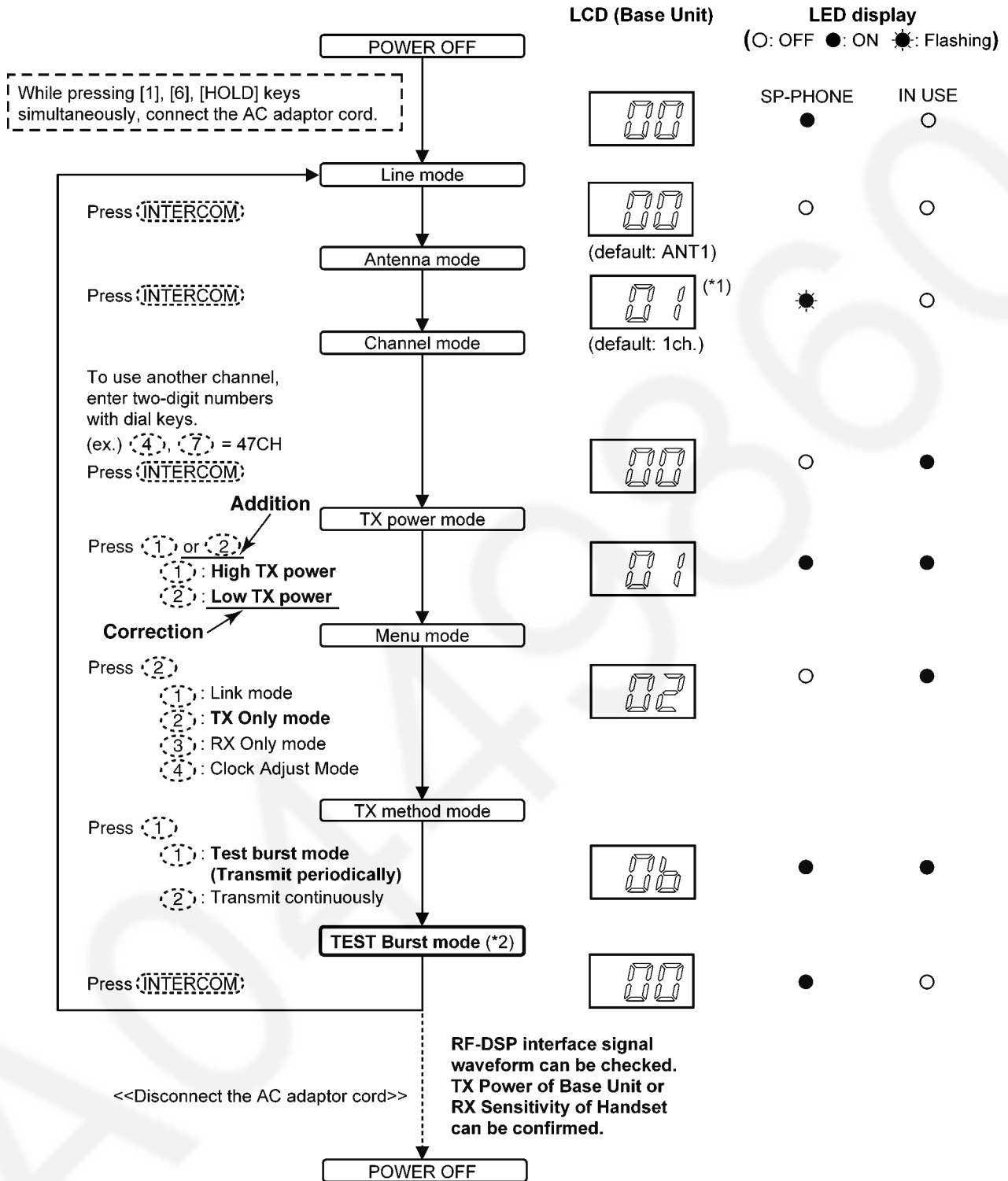
## 2.6. Signal Route (Changed from original section 4.11. Signal Route)

### RF part signal route

SIGNAL ROUTE	IN	→	ROUTE	→	OUT
<b>HANDSET RF</b> [ TX_ROUTE ]	< R747 - R751 - IC701(27 - 1) - C715 - C716 - IC801(17 - 2) - C811 - FL811 - R813 - IC851(18 - 5) - C881 - FL881 >				
<b>HANDSET RF</b> [ RX_ROUTE ]	< FL881 - C881 - IC851(5 - 12) - C824 - R823 - FL821 - C821 - IC801(5 - 15) - C725 - C722 - IC701(4 - 16) >				
<b>BASE UNIT RF</b> [ TX_ROUTE ]	< R747 - R751 - IC701(27 - 1) - C715 - C716 - IC801(17 - 2) - C811 - FL811 - R813 - IC851(18 - 5/2) - C881/C891 - FL881/FL891 >				
<b>BASE UNIT RF</b> [ RX_ROUTE ]	< FL881/FL891 - C881/C891 - IC851(5/2 - 12) - C824 - R823 - FL821 - C821 - IC801(5 - 15) - C725 - C722 - IC701(4 - 16) >				

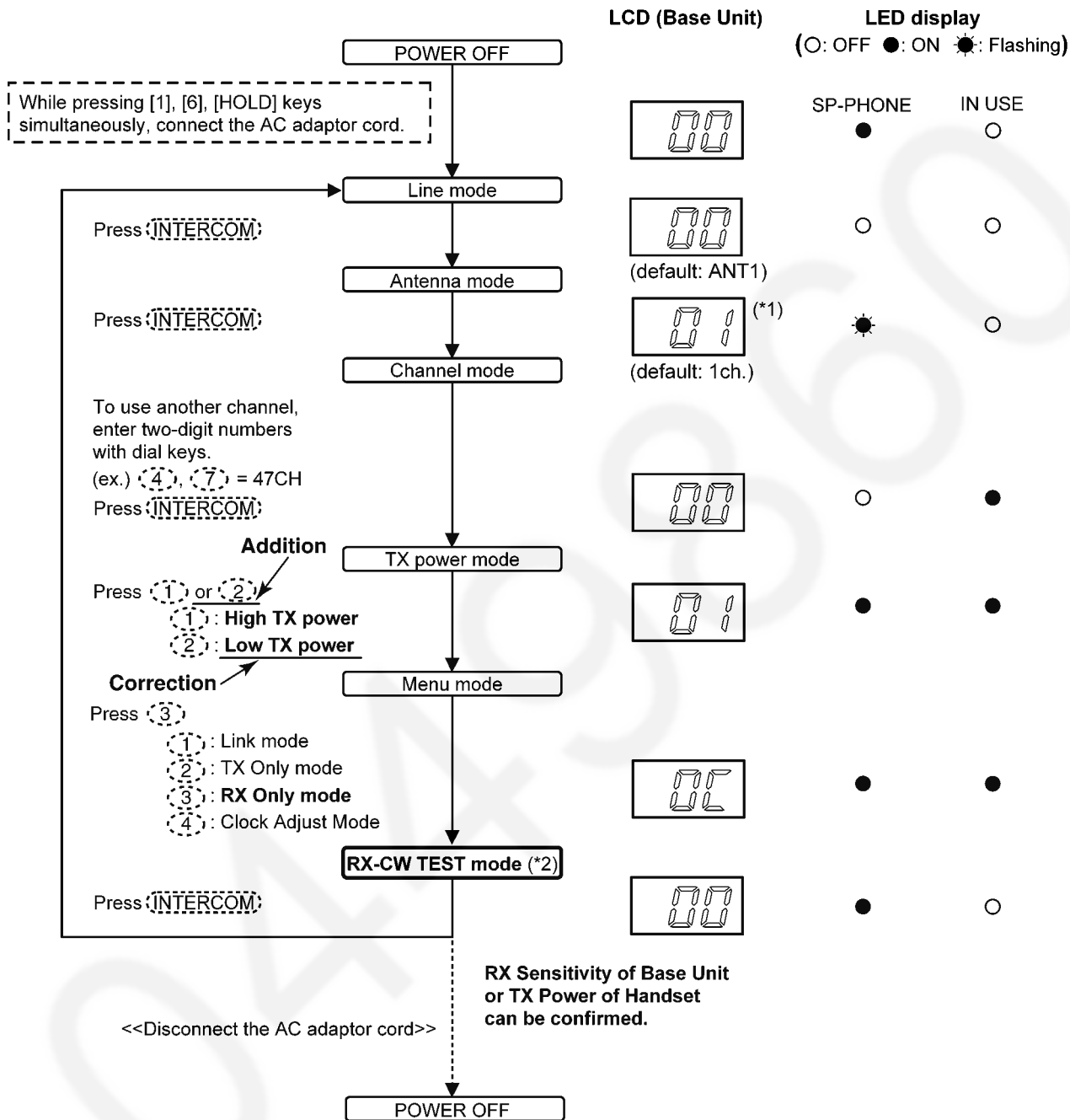
Correction

## 2.7. Test Burst Mode for Base Unit (Changed from original section 8.1.1. Test Burst Mode for Base Unit)

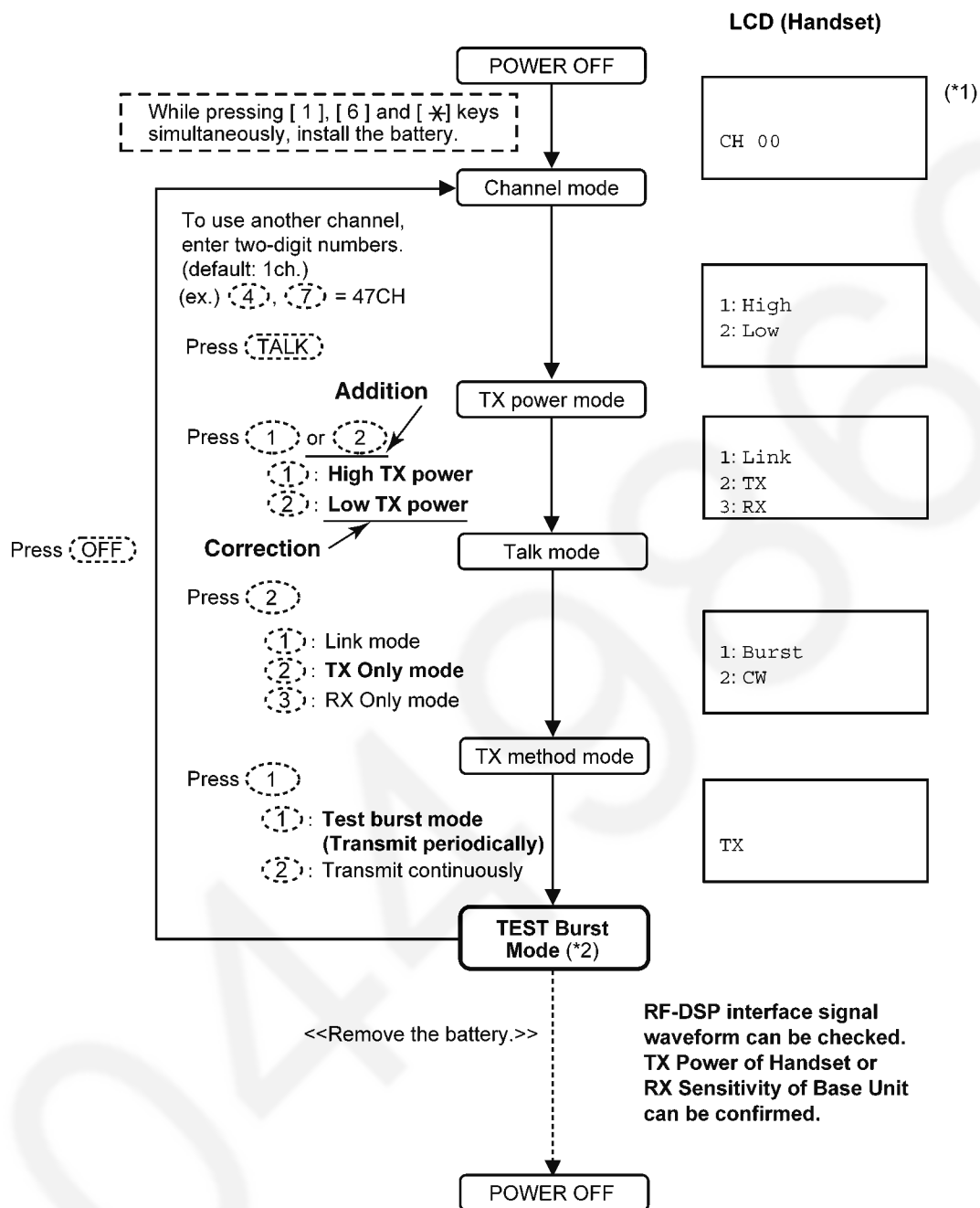




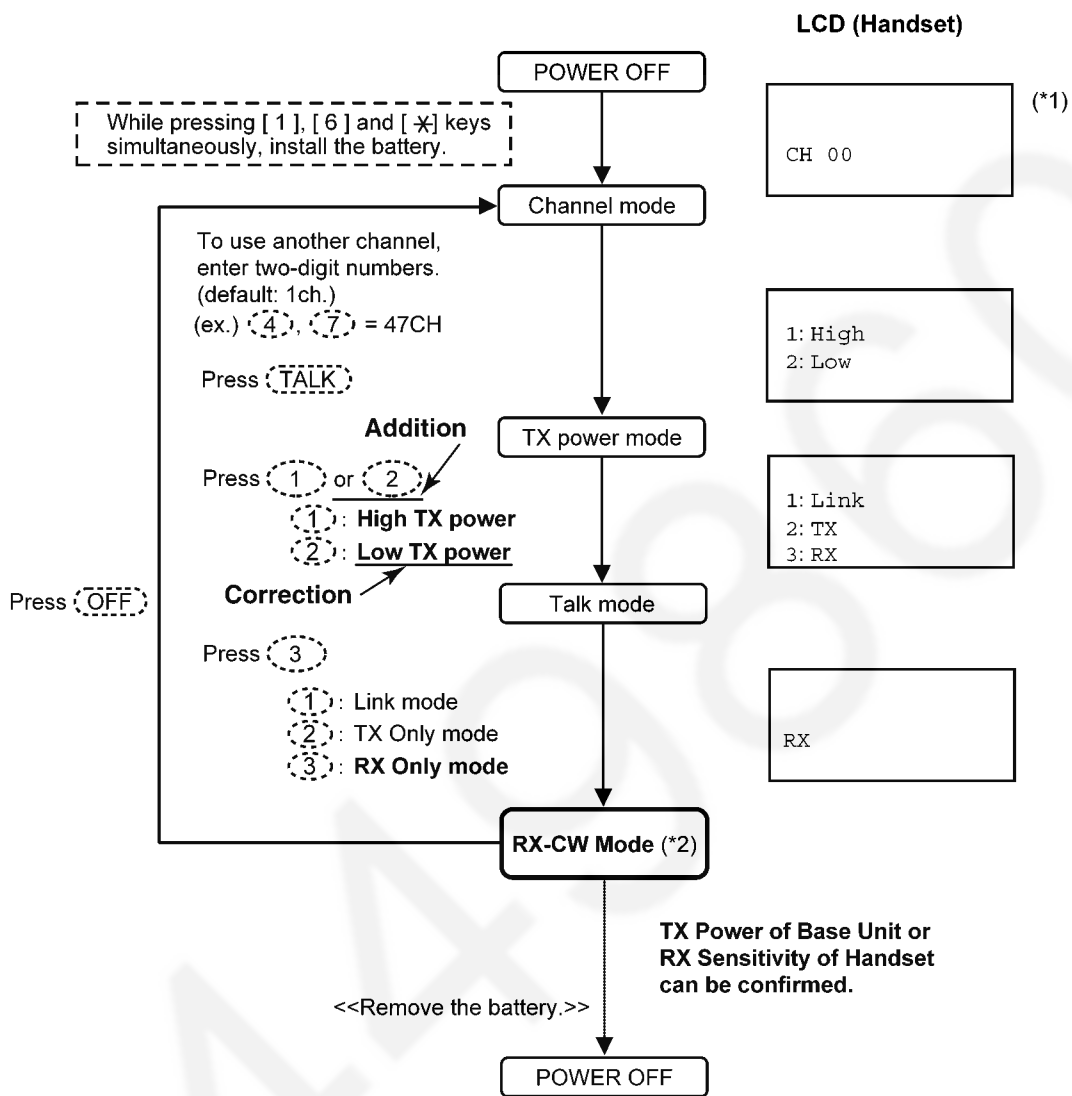
## 2.8. RX-CW Test Mode for Base Unit (Changed from original section 8.1.2. RX-CW Test Mode for Base Unit)



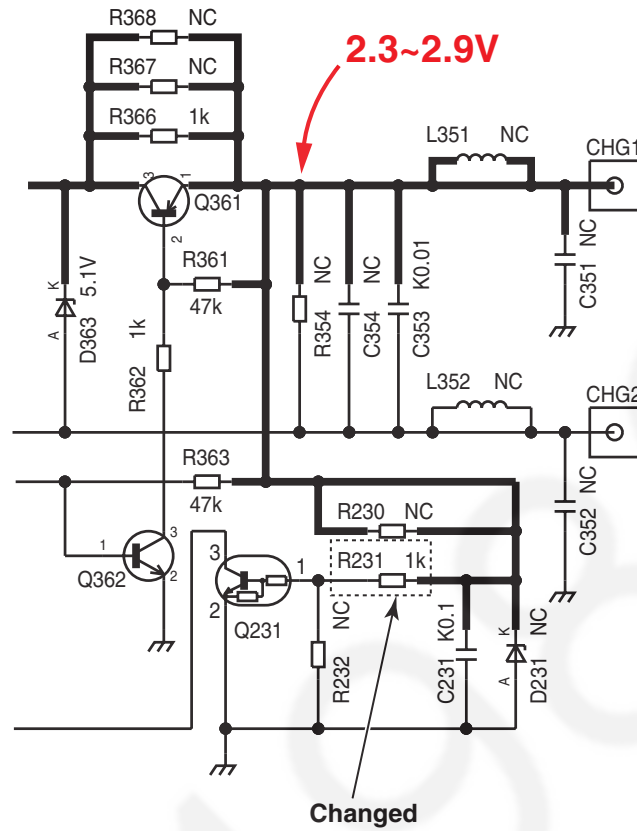
## 2.9. Test Burst Mode for Handset (Changed from original section 8.1.5. Test Burst Mode for Handset)



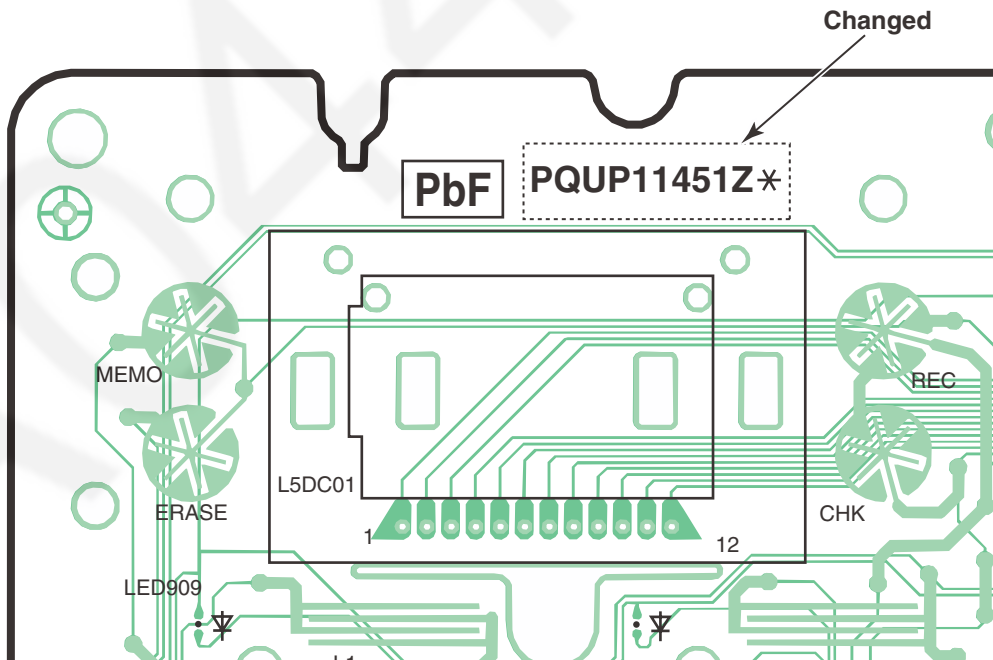
## 2.10. RX-CW Test Mode for Handset (Changed from original section 8.1.6. RX-CW Test Mode for Handset)



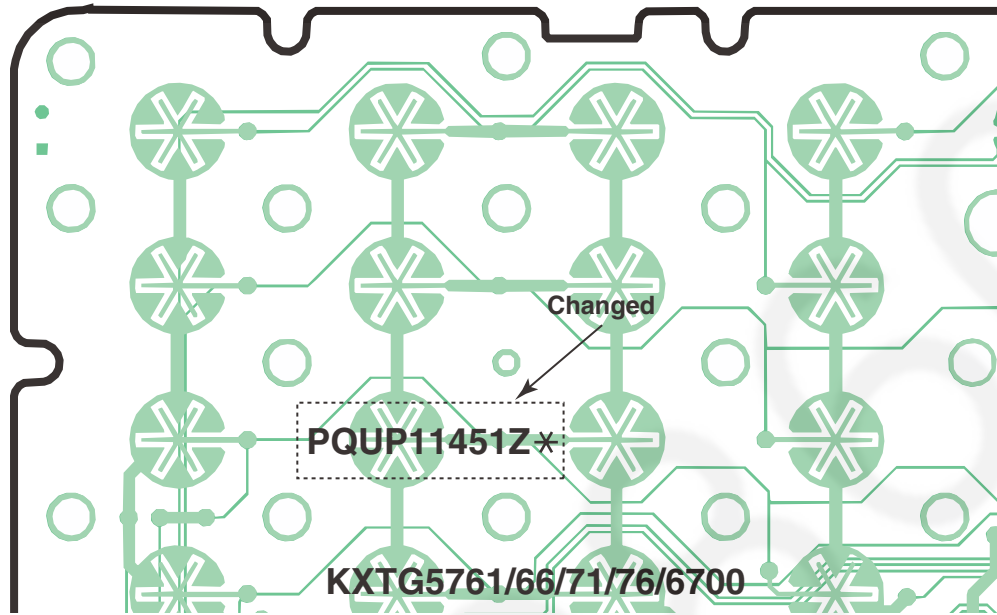
## 2.11. Schematic Diagram (Handset\_Main) (Changed from original section 13.5. Schematic Diagram (Handset\_Main))



## 2.12. Component View (Changed from original section 14.3.1. Component View)



**2.13. Component View (Changed from original section 14.3.2. Flow Solder Side View)**

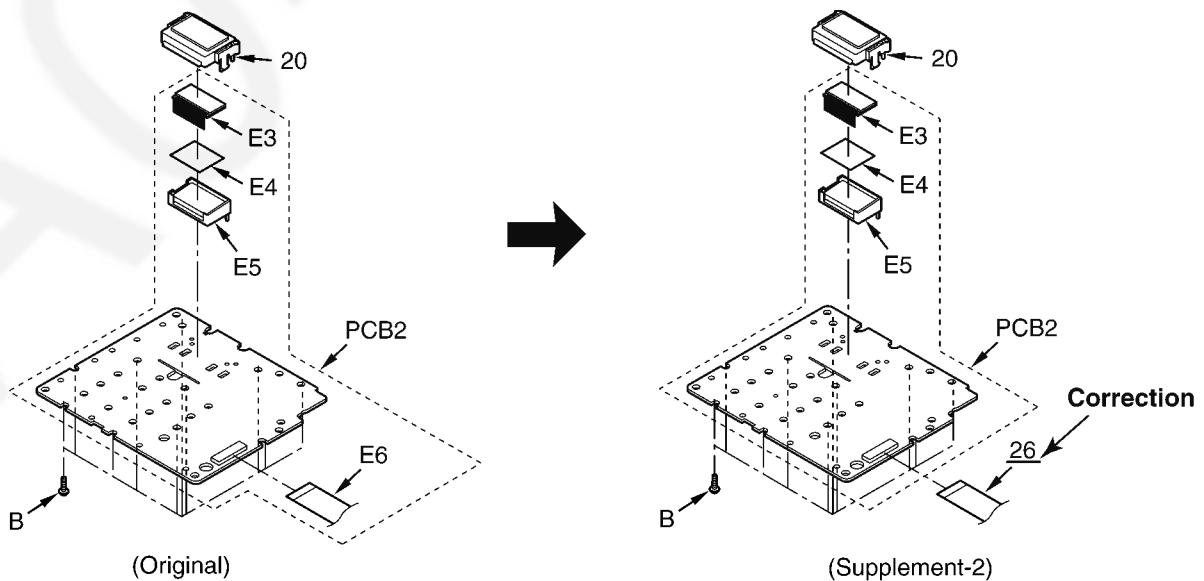


**2.14. IC201 (Changed from original section 15.2.1. IC201)**

PIN	Description	I/O	High	High_Z	Low
87	IBAT1	A.I			
88	VREF	A.O			
89	MIP	A.I			
90	MIN	A.I			
91	IBAT2	A.I.O			
92	GNDA	GNDA	--	--	GNDA

Correction

**2.15. Cabinet and Electrical Parts (Base Unit) (Changed from original section 16.1. Cabinet and Electrical Parts (Base Unit))**



## 2.16. Cabinet and Electrical Parts (Changed from original section 16.5.3.1. Cabinet and Electrical Parts)

Ref. No.	Part No.	Part Name & Description	Remarks
200	PQLV30043ZB	CHARGER UNIT <u>ASS'Y (RTL)</u>	
200-1	PQKM10721Z5	CABINET BODY	PS-HB
200-2	PQGG10410Z1	GRILLE, CRADLE	ABS-HB

Addition

# 3 SUP-1 (KM40701535SE)

ORDER NO. KM40701535SE  
F12

# Service Manual

## Telephone Equipment

*Supplement-1*

**KX-TG6700B**  
**KX-TG6702B**  
**KX-TGA670B**

5.8 GHz Expandable Digital Cordless Answering System  
5.8 GHz Expandable Digital Cordless Answering System with Two Handsets

Black Version  
(for U.S.A.)

Please file and use this supplement manual together with the service manual mentioned below.

Model No.	Order No.	Sup. No.	Countries/Areas
KX-TG6700B/KX-TG6702B/KX-TGA670B	KM40604038CE	1	U.S.A.

**⚠ WARNING**

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

## CONTENTS

	Page	Page
1 CHANGES .....	2	1.1. REPLACEMENT PARTS LIST .....

**Panasonic®**









© 2007 Panasonic Communications Co., Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

# 1 CHANGES

## 1.1. REPLACEMENT PARTS LIST

### 1.1.1. REFERENCE CHART

Reason for Change	
*The following items (1-8) indicate the reason for change. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .	
1. Improve performance	<b>Remarks:</b> a. To share with other models.  For RoHS-compliant parts marked by *R
2. Change of material or dimension	
3. To meet approved specification	
4. Standardization	
5. Addition	
6. Deletion	
7. Correction	
8. Other	

Interchangeability Code		
**The following items (V-Z) indicate the Interchangeability. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .		
V	Original  Early (before change) New  Late (after change)	Original or new parts may be used in early or late production sets. Use original parts until exhausted, then stock new parts.
W	Original  Early (before change) New  Late (after change)	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
X	Original  Early (before change) New  Late (after change)	New parts only may be used in early or late production sets. Stock new parts.
Y	Original  Early (before change) New  Late (after change)	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
Z	Other	

**Note:**

Alphabets in the "Remarks" column in the following lists correspond to the alphabets in the "Remarks" in REFERENCE CHART.

### 1.1.2. ORIGINAL AND NEW PARTS COMPARISON LISTS

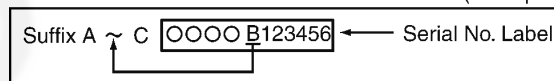
**Change of the Suffix Code**

- Base Unit

Suffix Code	Reasons of change
A to B	To share with other models, so that there is no change in the replacement parts list.
B to C	To share with other models, so that there is no change in the replacement parts list.

Serial No.Label tells you the suffix code as follows

(Example)

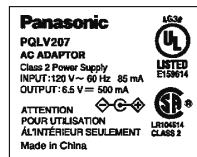




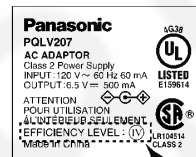
(for KX-TG6700B/KX-TG6702B/KX-TGA670B)

Ref. No.	Part No.		Part Name & Description	Pcs/ Set	Remarks	Notes	Time of Change (Suffix)
	Original (Old)	New					
<b>BASE UNIT</b>							
CN101	PQJ1TB26Z	K2LB1YYB0001	Jack	1	*R	8 V	-
E6	PQJE10172X	PQJE10177X	Lead Wire, FFC	1	a	4 V	-
<b>HANDSET</b>							
Q262	PSVTUMG11NTR	B1GFCFEN0011	Transistor (Si)	1	*R	8 V	-
R231	ERJ2GEJ223	ERJ2GEJ102	Resistor, 1kΩ	1	a	4 X	-
<b>ACCESSORIES AND PACKING MATERIALS (KX-TG6700B)</b>							
A1	PQLV207Z	PQLV207V	AC Adaptor △	1	a	4 W	-
<b>ACCESSORIES AND PACKING MATERIALS (KX-TG6702B)</b>							
A101	PQLV207Z	PQLV207V	AC Adaptor △	2	a	4 W	-
<b>ACCESSORIES AND PACKING MATERIALS (KX-TGA670B)</b>							
A201	PQLV207Z	PQLV207V	AC Adaptor △	1	a	4 W	-

The label of AC Adaptor has been changed as shown below.



[ Old ]



[ New ]

Addition

A0449860

G  
KXTG6700B  
KXTG6702B  
KXTGA670B