

SPP-801/811/851/861

SERVICE MANUAL

Taiwan Model

Ver 1.0 1999. 10



Photo: SPP-851

SPECIFICATIONS

General

Frequency control	Crystal-controlled PLL
Operation mode	FM, duplex
Operation channel	10 channels
Supplied accessories	AC power adaptor AC-T56 (1) Telephone line cord (1) Rechargeable battery pack BP-T16 (1) Screws (2) Directories (2 sheets)

Handset

Power source	Rechargeable battery pack BP-T16
Battery life	Standby: Approx. 14 days Talk: Approx. 6 hours
Dimensions	Approx. 58 × 194 × 47 mm (w/h/d), antenna excluded
Mass	Antenna: Approx. 110 mm Approx. 220 g, battery included

Base unit

Power source	DC 9V from AC power adaptor
Battery charging time	Approx. 12 hours
Dimensions	Approx. 132 × 56 × 220 mm (w/h/d), antenna excluded
Mass	Antenna: Approx. 310 mm Approx. 310 g

Design and specifications are subject to change without notice.

CORDLESS TELEPHONE

SONY®



TABLE OF CONTENTS

1. GENERAL	3	5. DIAGRAMS	
2. DISASSEMBLY		5-1. IC Pin Descriptions	16
2-1. Cabinet (Lower) (Base Unit)	6	5-2. Block Diagram –Base Unit Section–	19
2-2. Cabinet (Rear) (Handset)	6	5-3. Block Diagram –Handset Section–	21
3. TEST MODE		5-4. Printed Wiring Board –Base Unit Section–	23
Base Unit Section	7	5-5. Schematic Diagram –Base Unit Section–	25
Handset Section	9	5-6. Printed Wiring Board –Handset Section–	27
4. ELECTRICAL ADJUSTMENTS		5-7. Schematic Diagram –Handset Section–	29
Base Unit Section	12	6. EXPLODED VIEWS	
Handset Section	14	6-1. Base Unit Section	32
		6-2. Handset Section	33
		7. ELECTRICAL PARTS LIST	34

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted from instruction manual.

安裝電話機

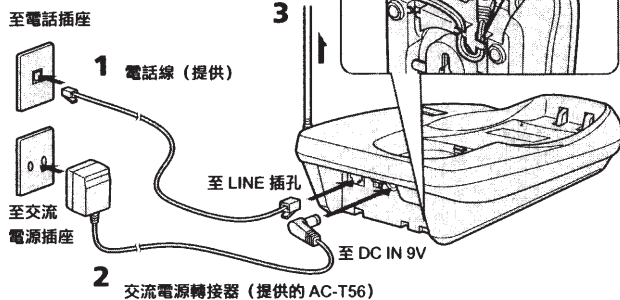
注意

本無線電話機所使用的訊號頻率可能會干擾附近的電視機和錄影機。

因此，請勿將基座靠近電視機或錄影機，也不要置於其上/如果發生了干擾，請將無線電話從電視機和錄影機旁移開，這樣可減輕或消除干擾。

連接基座

若要將基座掛在牆上，請先安裝基座（參見“在牆上安裝基座”）。



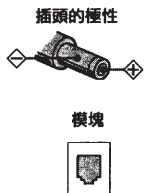
- 1 將電話線的一端插入 LINE 插孔，另一端插入電話插座。
- 2 將交流電源轉接器的一端連接至 DC IN 9V 插孔，另一端插入交流電源插座。POWER（電源）（綠燈）亮。
- 3 將天線完全拉出。務必使其指向屋頂。

註

- 請僅使用提供的 AC-T56 交流電源轉接器（AC 120V 60Hz 3W）。請勿使用任何其他交流電源轉接器。
- 請將交流電源轉接器連接到連續供電的電源上。
- 請將基座放置在交流電源插座附近，以便於拔下交流電源轉接器。

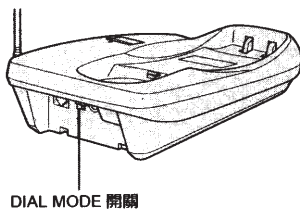
提示

如果您的電話插座不是模塊式的，請與電話公司聯絡，取得幫助。



選擇撥號方式

要正常使用電話機，必須選擇適當的撥號方式（音調或脈衝）。



根據您的撥號系統，按下述方法設定 DIAL MODE 開關：

如果撥號系統為	將開關設定於
音調	T
脈衝	P

如果無法確定撥號系統

將 DIAL MODE 開關設定於 T 位置，試著打個電話。

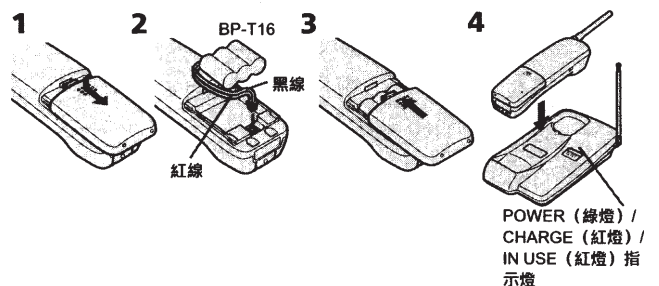
如果電話通了，就將此開關留在該位置，否則就把開關設定於 P 位置。

準備充電式電池

開始使用電話之前，先將電池裝入手機並對它充電。

- 1 推開手機的電池室蓋。
- 2 按正確的極性連接電池連接器（黑線在右側，紅線在左側）。
- 3 裝入電池，然後關上蓋。
- 4 把手機放在基座上。

手機在基座的充電端子上放妥後，CHARGE（充電）指示燈（紅燈）亮起。對充電式電池充電 12 小時以上，以保證完全充電。充電結束後 CHARGE 指示燈（紅燈）仍亮著。



電池使用時間

一個完全充電的電池大約可使用：

- 連續使用手機時為 6 小時。
- 手機處於待機狀態時為 14 天。

註

- 即使未使用，電池在一段時間後也會逐漸放電。
- 如果將充電式電池放在手機中而不充電，充電式電池會完全放電。可能需要對電池充電幾次後才能將其恢復完全充電。
- 如果電池完全耗盡，則快速撥號碼和數字密碼會被刪除。這時，請將電池放在基座上充電 12 小時，然後重新編製快速撥號碼，並指定新的數字密碼（參見“重新設定數字密碼”）。可能需要對電池充電幾次後才能將其恢復完全充電。

為獲得電池的最佳性能

請勿在每次打完電話後將手機放回基座。打過兩三次電話後再將手機放回基座可以使電池獲得最佳性能。但是，請勿將手機長時間拿離基座而使充電式電池完全耗盡。

何時購買新的充電電池

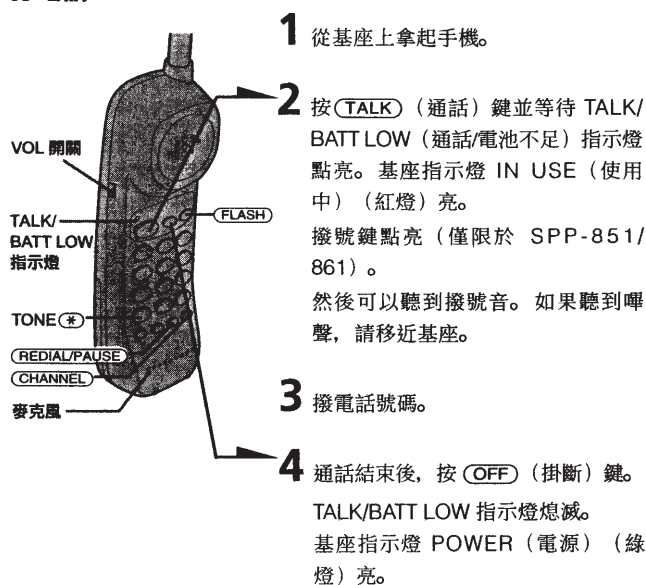
即使充電了 12 小時，電池也祇能維持幾分鐘。這說明該電池的使用壽命已經結束，需要更換。請與當地的 Sony 授權經銷商或維修中心聯絡，求購 Sony BP-T16（DC 電壓 3.6V）充電式電池。

註

電池壽命隨使用條件和環境溫度而變化。

打電話和接電話

打電話



附加功能

要	操作
調節手機音量	將 VOL 開關設定於 H (高)、M (中) 或 L (低) 位置。
暫時切換到音調撥號	接通後按 TONE (*) 鍵。在電話掛斷前，線路將保持在音調狀態。

如果手機上出現干擾

按 **(TALK)** 鍵時，手機自動尋找接收最好的頻道。如果是在通話中發生干擾，請移近基座。

如果干擾仍然存在，按 **(CHANNEL)** 鍵切換到另一個頻道以改善通話的音質。

註

在按 **(CHANNEL)** 鍵時，如果聽到五聲短促的嗶聲，請移近基座。

如果在通話中手機電池變弱

手機會每 3 秒發出一聲嗶音。同時 TALK/BATT LOW 指示燈閃爍。請結束通話並給電池充電。

注意

在這種情況下，如果不充電 1 分鐘以上，無法使用手機。

重撥

1 按 **(TALK)** 鍵，並等到 TALK/BATT LOW 指示燈點亮。基座指示燈 IN USE (紅燈) 亮。

撥號鍵點亮 (僅限於 SPP-851/861)。

2 按 **(REDIAL/PAUSE)** 鍵，重撥最後撥過的號碼。

註

如果最後撥過的號碼超過 32 位，會響起嗶聲警告您不能重撥該號碼。

要刪除最後撥的號碼

按兩次 **(REDIAL/PAUSE)** 鍵。

該號碼從記憶體中被刪除時，可以聽到一聲表示確認的長嗶聲。

接電話

1 聽到電話鈴聲時：

- 按 **(TALK)** 鍵 (或除 **(OFF)** 鍵外的任何鍵)
- 或

- 如果手機放在基座上，從基座上拿起手機。

TALK/BATT LOW 指示燈點亮。基座指示燈 IN USE (紅燈) 亮。撥號鍵點亮。(僅限於 SPP-851/861)。

2 通話完畢後，將手機放回基座或按 **(OFF)** 鍵。

TALK/BATT LOW 指示燈熄滅。基座指示燈 CHARGE (紅燈) 亮。或，POWER (綠燈) 亮。

附加功能

要	操作
切換到另一個電話 (“電話等待”服務*)	按 (FLASH) 鍵。 再按一下此鍵回到第一個電話。

* 需要向電話公司申請此服務。

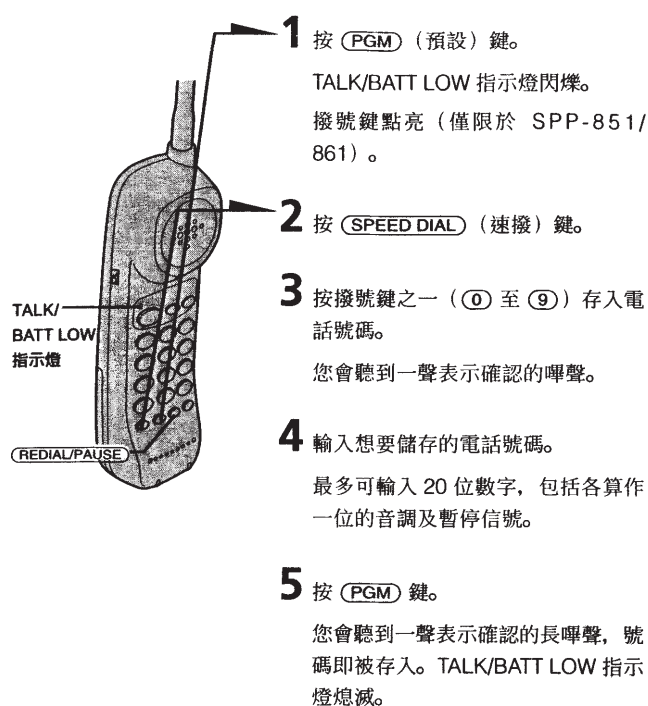
註

- 在通話中請勿蓋住麥克風，否則對方聽不到您的聲音。
- 如果在通話中聽到嗶聲，請移近基座。否則電話將在 15 秒鐘後被切斷。但注意，如果手機中的聲音太噪雜，您可能會聽不到嗶聲。

快速撥號

將電話號碼儲存在撥號鍵上，您就可以按數個鍵進行撥號。

儲存電話號碼



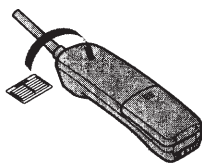
(待續)

註

各操作步驟間的時間不得超過 20 秒鐘。

提示

- 如果輸入號碼有錯，按 (PGM) 鍵後再重新開始。
- 請將提供的電話號碼錄貼在手機上。
- 在儲存號碼期間無法接電話。



要儲存通過專用交換網 (PBX) 撥打的電話號碼時

在步驟 4 中輸入電話號碼之前，請進行下述操作：

1 輸入外線接續號碼（如 9）。

2 按 (REDIAL/PAUSE) 鍵。

要改變已儲存的號碼時

按前面的說明儲存一個新的號碼。

用快速撥號打電話

1 按 (TALK) 鍵並等待 TALK/BATT LOW 指示燈點亮。基座指示燈 IN USE（紅燈）亮。撥號鍵點亮（僅限於 SPP-851/861）。

2 按 (SPEED DIAL) 鍵。

3 輸入所需的速撥號碼（(0) 至 (9)）。

自動撥儲存在鍵上的號碼。

註

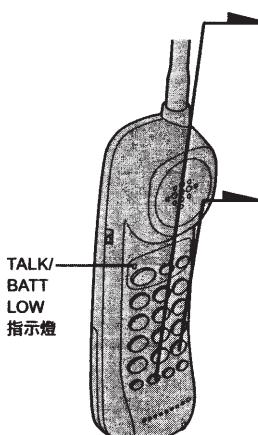
如果手機中的充電式電池完全放電或從手機中取出數秒鐘以上，數字密碼會被抹消。在這種情況下，請對電池充電。一個新的密碼會被自動分配。

提示

本步驟同時改變基座和手機的密碼。可以隨時更改密碼。

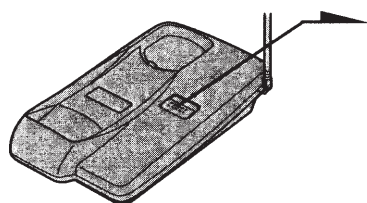
重新設定數字密碼

第一次對充電式電池充電時，本機會自動給基座和手機分配一個隨機密碼。祇有具備該密碼的手機才能通過基座打電話。此系統防止其他無線電話的手機通過您的基座打電話。一般情況下不必重設密碼。但在特別的情況下，比如您懷疑有另一臺無線手機與您使用同樣的密碼的話，就可以手動更改密碼。從基座上拿起手機並進行以下操作：

- 
- 1 按 (PGM) 鍵。
TALK/BATT LOW 指示燈閃爍。
撥號鍵點亮（僅限於 SPP-851/861）。
- 2 按 (#) 鍵。
可以聽到一聲表示確認的嗶聲。
- 3 按三個撥號鍵（001 到 999）存入新的密碼。
- 4 按 (PGM) 鍵。
可以聽到一聲表示確認的長嗶聲，並且 TALK/BATT LOW 指示燈熄滅。
- 5 立刻把手機放回基座。
可以聽到一聲表示確認的長嗶聲，並且新的密碼被儲存。

呼叫

可以從基座呼叫手機。請注意，手機正在使用時不能呼叫。

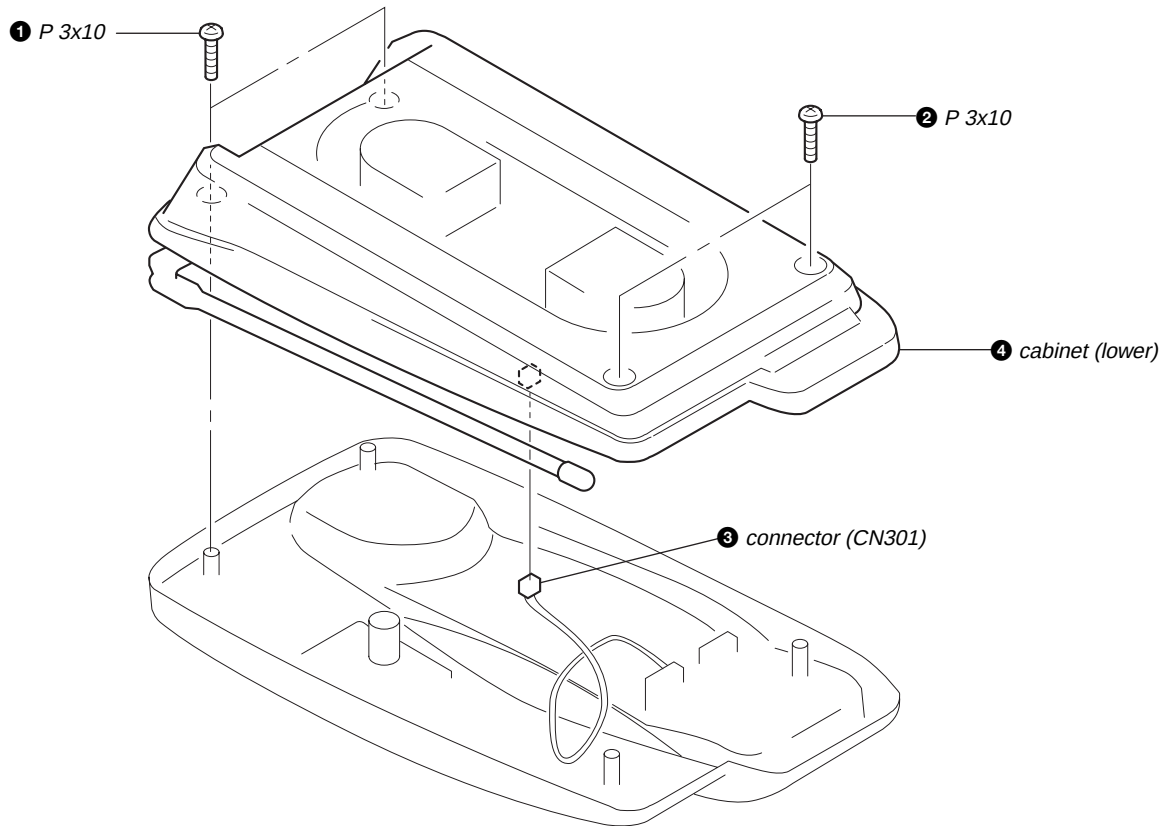


- 按 (HANDSET LOCATOR) 鍵。
手機響鈴約 1 分鐘。
要結束呼叫時，按手機上的 (OFF) 鍵。

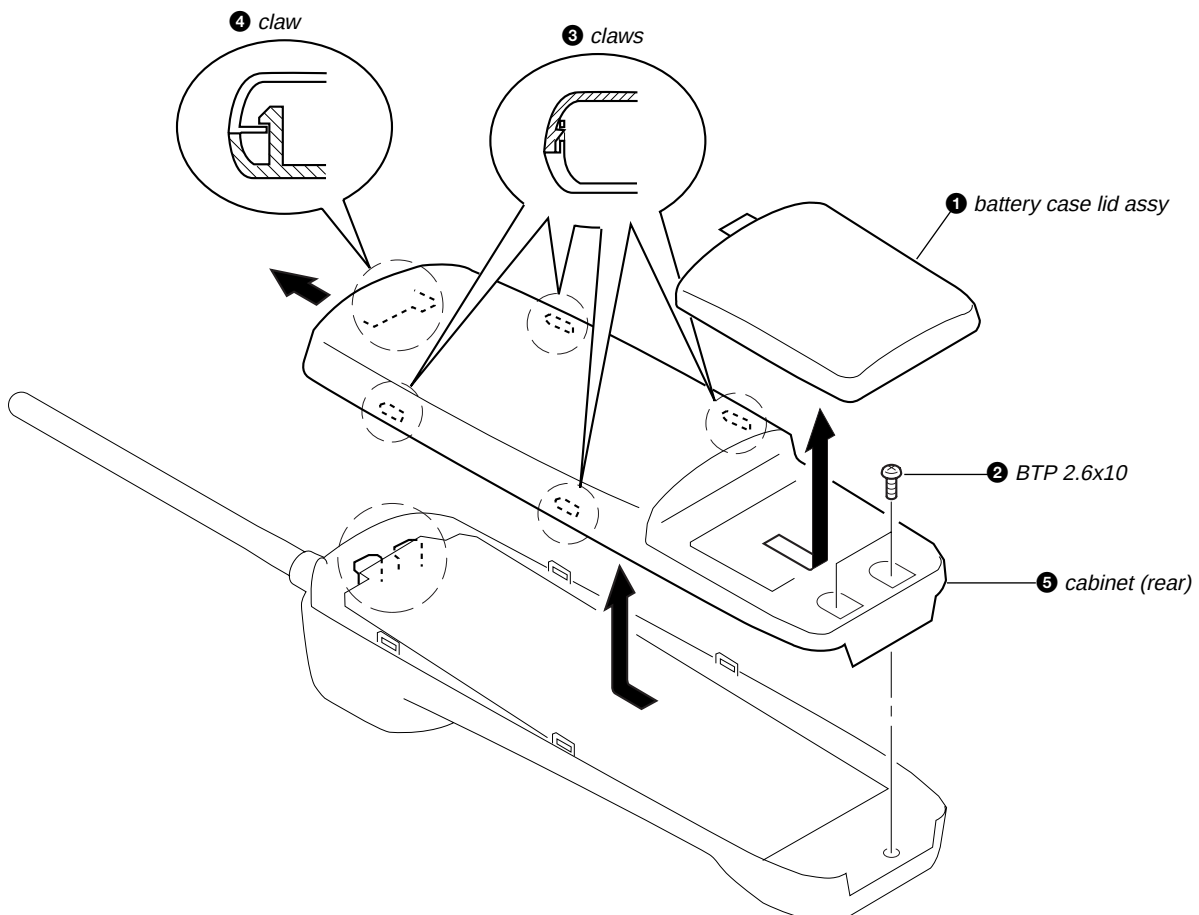
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

2-1. CABINET (LOWER) (BASE UNIT)



2-2. CABINET (REAR) (HANDSET)



SECTION 3 TEST MODE

BASE UNIT SECTION

MANUAL TEST MODE

Set the Test Mode:

1. Set the **DIAL MODE** switch to “P” (pulse).
2. While pressing the **HANDSET LOCATOR** key, insert the AC adaptor (Reset start).
3. With the **HANDSET LOCATOR** key, still held down, switch the **DIAL MODE** switch “P” (pulse) → “T” (tone) → “P” (pulse).
4. When the **HANDSET LOCATOR** key is released, test mode starts.
5. Firstly, “0” will be dialled out at 10 pps. Then “1”, “4”, “8” and “#” will be sent out by DTMF.
6. Set to TX ON. Goes to external line state in 1 CH.

Release the Test Mode:

1. Pull out the AC adaptor or turn off the power.

MACHINE TEST MODE

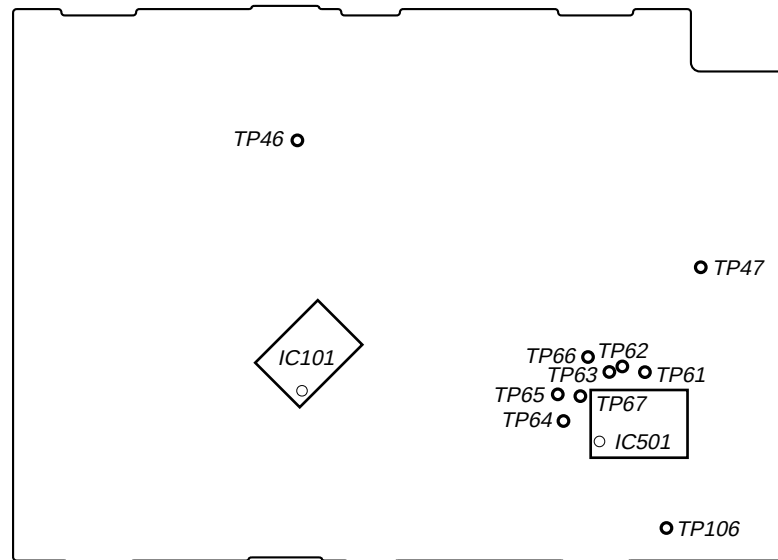
Set the Test Mode:

1. With one of the CH setting terminals in “H” input state, cause Reset of Power ON. Equipment enters machine test mode.
2. Setting of CH according to logic input with CH setting terminal.
3. ON/OFF of TX is according to the input logic of the DIAL MODE terminal.

Release the Test Mode:

1. Pull out the AC adaptor or turn off the power.
2. Remove the short plug and turn on the power again.

– base main board (conductor side) –



Channel Setting:

During startup in machine test mode, make the following channel settings by loading the terminal input data.

Pin No. Channel	23 M1 (TP61)	24 M2 (TP62)	25 M3 (TP63)	26 M4 (TP64)	TX frequency (MHz)	RX frequency (MHz)
CH1	H	L	L	L	43.720	48.760
CH2	L	H	L	L	43.740	48.840
CH3	H	H	L	L	43.820	48.860
CH4	L	L	H	L	43.840	48.920
CH5					43.920	49.020
CH6					43.960	49.080
CH7					44.120	49.100
CH8					44.160	49.160
CH9					44.180	49.200
CH10					44.200	49.240
CH11					44.320	49.280
CH12					44.360	49.360
CH13					44.400	49.400
CH14	H	L	H	L	44.460	49.460
CH15	L	H	H	L	44.480	49.500
CH16	H	H	H	L	46.610	49.670
CH17	L	L	L	H	46.630	49.845
CH18					46.670	49.860
CH19					46.710	49.770
CH20					46.730	49.875
CH21					46.770	49.830
CH22					46.830	49.890
CH23	H	L	L	H	46.870	49.930
CH24	L	H	L	H	46.930	49.990
CH25	H	H	L	H	46.970	49.970
TEST1	L	L	H	H	43.780	48.800
TEST2	H	L	H	H	43.890	48.970
TEST3	L	H	H	H	46.800	49.910
TEST4	H	H	H	H	46.900	49.950

Machine Test Mode Input / Output:

1. Input (Input ports for other than main tasks)

Pin Name	Pin No.	Function	Logic
M1 (TP61)	23	Setting the CH (channel)	Refer to channel setting
M2 (TP62)	24		
M3 (TP63)	25		
M4 (TP64)	26		
DIAL MODE (TP47)	17	Setting the TX ON/OFF	TONE : open, PULSE : short
HANDSET LOCATOR (TP46)	16	Manual : Channel increment	Incrementing of channels in order from 1 to 10.
		Machine : Dial data "5" is output to DTMF/DP exchange	Key input with "L" input. The first time there is output of "5" with DTMF.

29 TEST1 (TP67)	28 TEST2 (TP66)	27 TEST3 (TP65)	Operation with CHARGE LED	Operation with TX ON
L	L	L	If RSSI (H) is detected : Light ON	If RSSI (H) is detected : Light ON
L	L	H	If RSSI (L) is detected : Light ON	If RSSI (L) is detected : Light ON
L	H	L	If TX LOCK is detected : Light OFF	If TX LOCK is detected : Light OFF
L	H	H	If RX LOCK is detected : Light OFF	If RX LOCK is detected : Light OFF
H	L	L		BEEP output
H	L	H		ID CODE output
H	H	L	If RING is detected : Light ON	If RING is detected : Light ON
H	H	H	If HANDSET LOCATOR key is input : Light ON	If HANDSET LOCATOR key is input : Light ON

2. Output (Output ports for other than main tasks)

Pin Name	Pin No.	Function	H Logic	L Logic
CHARGE DET (TP21)	18	State in section 1. Input	Refer to section 1. Input	

HANDSET SECTION

MANUAL TEST MODE

Set the Test Mode:

1. Enter the test mode by pressing **[0]** key while pressing **[1]** and **[TALK]** keys when in idle condition.
(Key operation **[0] → [1] → [TALK]**)
2. The RINGER will ring for 500 msec. when the test mode is started.
3. Measurement mode of consumption current. (42# state)
4. Use key input to carry out the various settings.
5. Use port inputs to set output from LED terminals.

Release the Test Mode:

1. Press the **[0]**, **[0]** and **[#]** keys.
2. Turn off the power. (Remove the battery and replace them.)

MACHINE TEST MODE

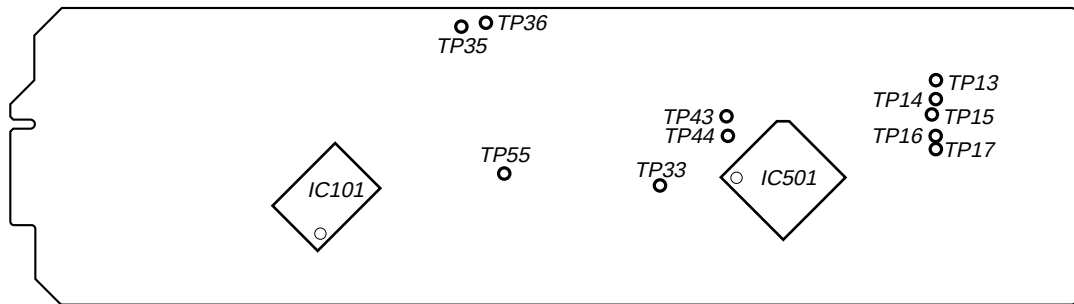
Set the Test Mode:

1. When power on reset is applied while a “H” (high) is input the TEST SW (TP43) terminal (IC501 ④0 pin), the RING (Level H, 500 msec) sounds.
2. Following that, at timing in which the TEST SW terminal has “H” (high) input, there is output of “L” (low) by the CH (channel) setting control terminal. Then there is PLL setting to the CH which was read to with the CH setting terminal according to that “L” (low) output.
3. Set the TX setting to TX OFF.
4. The channel is set by voice not by data.
5. Use port inputs to set output from LED terminals.

Release the Test Mode:

1. Press the **[OFF]** key.
2. Remove the short plug and turn on the power.

– hand main board (side B) –



Channel Setting:

During startup in machine test mode, make the following channel settings by loading the terminal input data.

Pin No. Channel	34 ROW5 (TP13)	33 ROW4 (TP14)	32 ROW3 (TP15)	31 ROW2 (TP16)	29 ROW1 (TP17)	TX frequency (MHz)	RX frequency (MHz)
CH1	H	L	L	L	L	48.760	43.720
CH2	H	L	L	L	H	48.840	43.740
CH3	H	L	L	H	L	48.860	43.820
CH4	H	L	L	H	H	48.920	43.840
CH5	H	L	H	L	L	49.020	43.920
CH6	H	L	H	L	H	49.080	43.960
CH7	H	L	H	H	L	49.100	44.120
CH8	H	L	H	H	H	49.160	44.160
CH9	H	H	L	L	L	49.200	44.180
CH10	H	H	L	L	H	49.240	44.200
CH11	H	H	L	H	L	49.280	44.320
CH12	H	H	L	H	H	49.360	44.360
CH13	H	H	H	L	L	49.400	44.400
CH14	H	H	H	L	H	49.460	44.460
CH15	H	H	H	H	L	49.500	44.480
CH16	L	L	H	H	L	49.670	46.610
CH17	L	L	H	H	H	49.845	46.630
CH18	L	H	L	L	L	49.860	46.670
CH19	L	H	L	L	H	49.770	46.710
CH20	L	H	L	H	L	49.875	46.730
CH21	L	H	L	H	H	49.830	46.770
CH22	L	H	H	L	L	49.890	46.830
CH23	L	H	H	L	H	49.930	46.870
CH24	L	H	H	H	L	49.990	46.930
CH25	L	H	H	H	H	49.970	46.970
TEST1	L	L	L	H	L	48.800	43.780
TEST2	L	L	L	H	H	48.970	43.890
TEST3	L	L	H	L	L	49.910	46.800
TEST4	L	L	H	L	H	49.950	46.900

Machine Test Mode Input / Output:

1. Input (Input ports for other than main tasks)

Pin Name	Pin No.	Function	Logic
ROW1 (TP17)	29	Setting the CH (channel)	Refer to channel setting
ROW2 (TP16)	31		
ROW3 (TP15)	32		
ROW4 (TP14)	33		
ROW5 (TP13)	34		
TEST CH (TP33)	1	Control terminal for setting the CH (channel)	H : OFF, L : ON
TEST SW (TP43)	40	Start up of the test mode	H : Start, L : Not start
TEST ACK (TP44)	44	During the test mode, causes start of intermittent operation with external input.	H : Intermittent start

2. Output (Output ports for other than main tasks)

Pin Name	Pin No.	Function	H Logic	L Logic
TALK LED (TP35)	48	Various input/output monitor output (default : RSSI (H) detection).	No detection	Detection
KEY LED (TP55)	2	During test mode : All light lit. However, does not include measurment of consumption current.	No light	Light

Key Processing (Setting the Manual Test Mode) :

1. (Upper position) (Lower position) Set with #.

2. 3X# can be substituted with X*.

Upper position Lower position	0	1	2	3	4					7
					TX	RX RF	RX AF	MIC	Lk	
0	QUIT	10 ch	20 ch	Batt Alarm	H	A	L	T	×	KEY TEST
1	1 ch	11 ch	21 ch	CHARGE DET	×	○	×	×	×	
2	2 ch	12 ch	22 ch		×	○	○	×	×	
3	3 ch	13 ch	23 ch		○	○	×	×	×	
4	4 ch	14 ch	24 ch	RX LOCK	○	○	○	×	×	
5	5 ch	15 ch	25 ch	TX LOCK	○	○	○	○	×	
6	6 ch	16 ch	T1 ch	RSSI (H)	○	○	○	○	○	
7	7 ch	17 ch	T2 ch	RSSI (L)	—	—	—	—	—	
8	8 ch	18 ch	T3 ch	DATA TX	—	—	—	—	—	
9	9 ch	19 ch	T4 ch		—	—	—	—	—	
Purpose	CH setting only			SIGOUT control						General operation
Application	The standard is external communication state. State for standard electrical adjustment process.			Condition surveillance with TALK LED.	Measurement mode of consumption current.					

○ : ON, × : OFF

- By pressing the CH key there is increment of the channel.
However, this does not include the test channel.
- Control of the power source during 38# DATA TX is (TX & RX RF & RX AF=ON) in 44# state.
- Control of the power source during the 70# key check mode is 41# state (TX OFF).
- For CH setting, SIGOUT control and power source control (with the exception of above-mentioned 38# state) the state can be set independently.

Example : In 15 ch, the order for carrying out TX modulation level and RSSI (H) sensitivity setting is as follows :

The following are possible : 15# → 44# → 36#

36# → 15# → 44#

44# → 36# → 15#

SECTION 4 ELECTRICAL ADJUSTMENTS

BASE UNIT SECTION

Note:

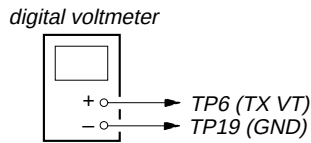
- Apply 9V dc from regulated DC power supply.
- Perform the adjustment at TEST3CH (28CH: 49.910 MHz) as a rule.
- Set to base unit manual test mode. (Refer to page 7)
- Switch position :
S302 (DIAL MODE) : P (pulse)

TX SECTION ADJUSTMENT

- The electrolytic capacitor (10 μ F/10 V) connected TP23 (DET OUT) to TP19 (GND). (Only TX section adjustment)

TX VT Adjustment

Setting :

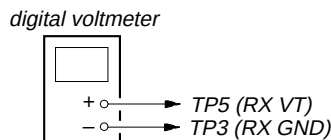


Procedure :

1. The digital voltmeter connected TP6 (TX VT) to TP19 (GND).
2. Adjust the L52 for 2.2 ± 0.05 V reading on the digital voltmeter.

RX VT Adjustment

Setting :



Procedure :

1. The digital voltmeter connected TP5 (RX VT) to TP3 (RX GND).
2. Adjust the L101 for 2.4 ± 0.05 V reading on the digital voltmeter.

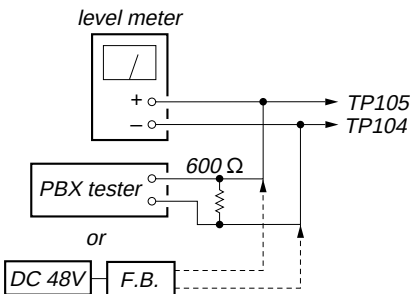
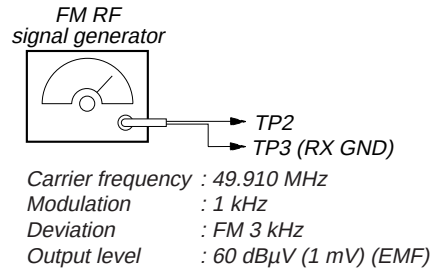
RX SECTION ADJUSTMENT

RX LEVEL Adjustment

Note:

- Perform the adjustment at TEST3CH (28CH: 49.910 MHz) as a rule.

Setting :



Procedure :

1. Adjust the FL101 for the maximum reading on the level meter. Also check that the output level is the specified values.

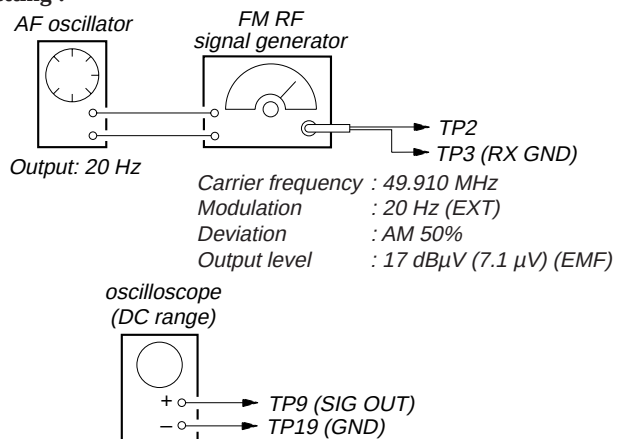
Specified Value : -1.4 to -9.6 dBV

RSSI Hi Adjustment

Note:

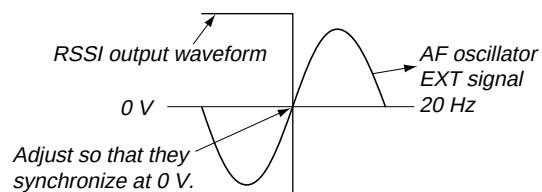
- Perform the adjustment at TEST3CH (28CH: 49.910 MHz) as a rule.

Setting :



Procedure :

1. Use the oscilloscope to confirm the FM RF signal generator input (AF) signal waveform and RSSI signal, and use the RV101 so that they are synchronized (duty is synchronized).

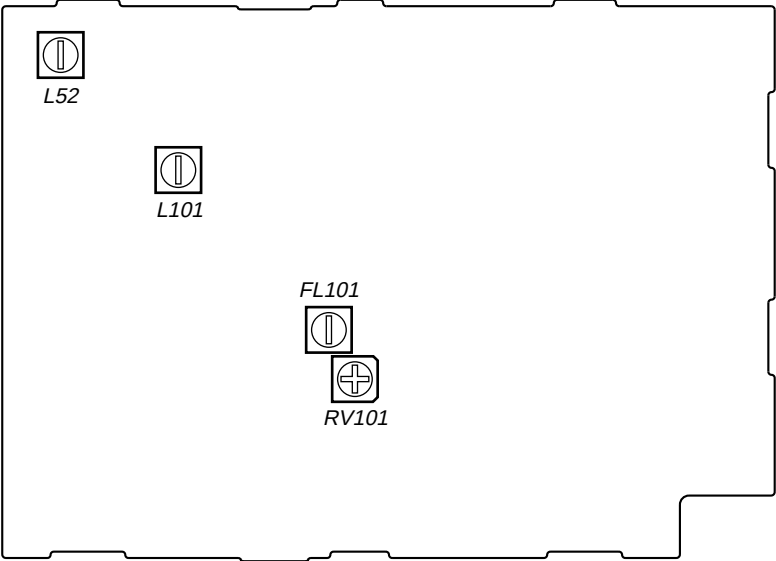


RSSI WAVEFORM

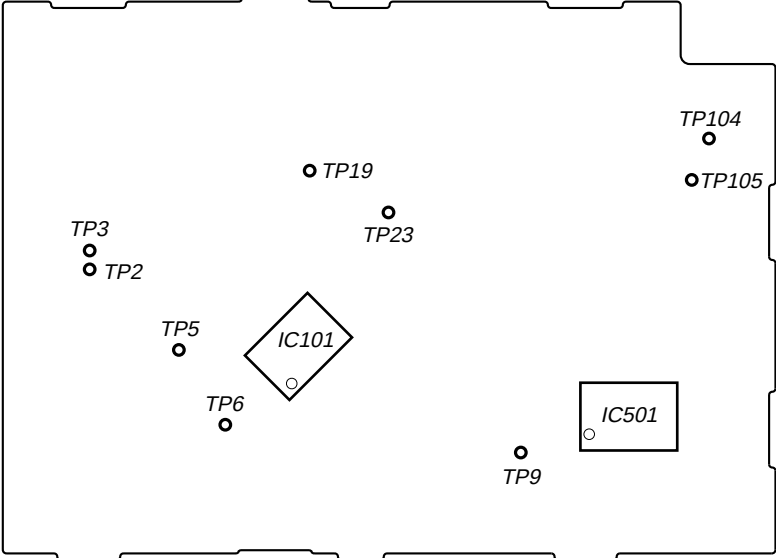
Adjustment Location : base main board (See page 13)

Adjustment Location :

– base main board (component side) –



– base main board (conductor side) –



HANDSET SECTION

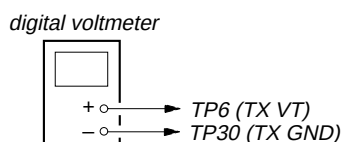
Note:

- Apply 3.6 V dc from regulated DC power supply.
- Perform the adjustment at TEST1CH (26CH: 43.780 MHz) as a rule.
- Set to handset manual test mode. (Refer to page 9)

TX SECTION ADJUSTMENT

TX VT Adjustment

Setting :

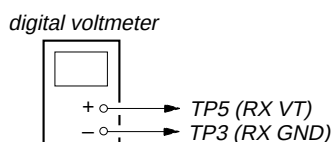


Procedure :

1. The digital voltmeter connected TP6 (TX VT) to TP30 (TX GND).
2. Adjust the L52 for 0.9 ± 0.05 V reading on the digital voltmeter.

RX VT Adjustment

Setting :



Procedure :

1. The digital voltmeter connected TP5 (RX VT) to TP3 (RX GND).
2. Adjust the L102 for 3.0 ± 0.05 V reading on the digital voltmeter.

RX SECTION ADJUSTMENT

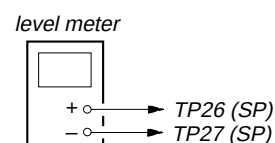
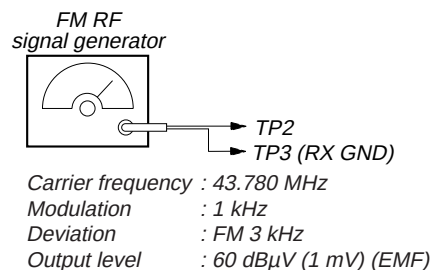
RX LEVEL Adjustment

Note:

- Perform the adjustment at TEST1CH (26CH: 43.780 MHz) as a rule.

Setting :

VOL switch : M



Procedure :

1. Adjust the FL101 for the maximum reading on the level meter. Also check that the output level is the specified values.

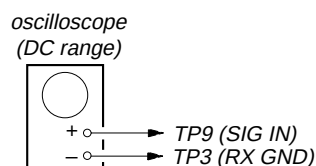
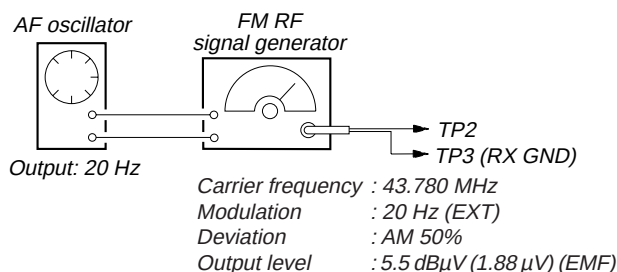
Specified Value : -9.5 to -15.5 dBV

RSSI Hi Adjustment

Note:

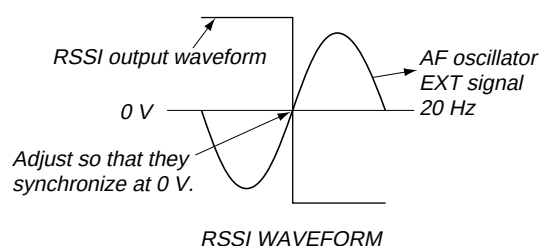
- Perform the adjustment at TEST1CH (26CH: 43.780 MHz) as a rule.

Setting :



Procedure :

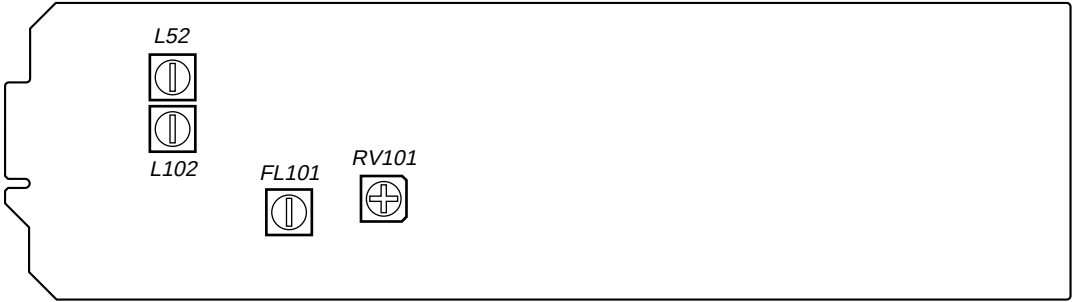
1. Use the oscilloscope to confirm the FM RF signal generator input (AF) signal waveform and RSSI signal, and use the RV101 so that they are synchronized (duty is synchronized).



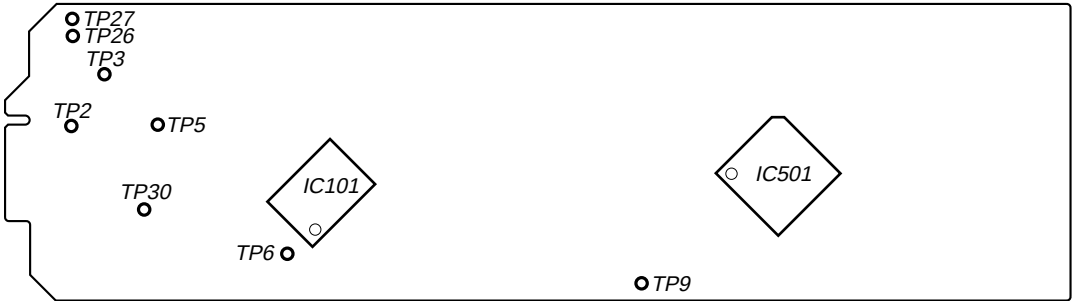
Adjustment Location : hand main board (See page 15)

Adjustment Location :

– hand main board (side A) –



– hand main board (side B) –



SECTION 5

DIAGRAMS

5-1. IC PIN DESCRIPTIONS

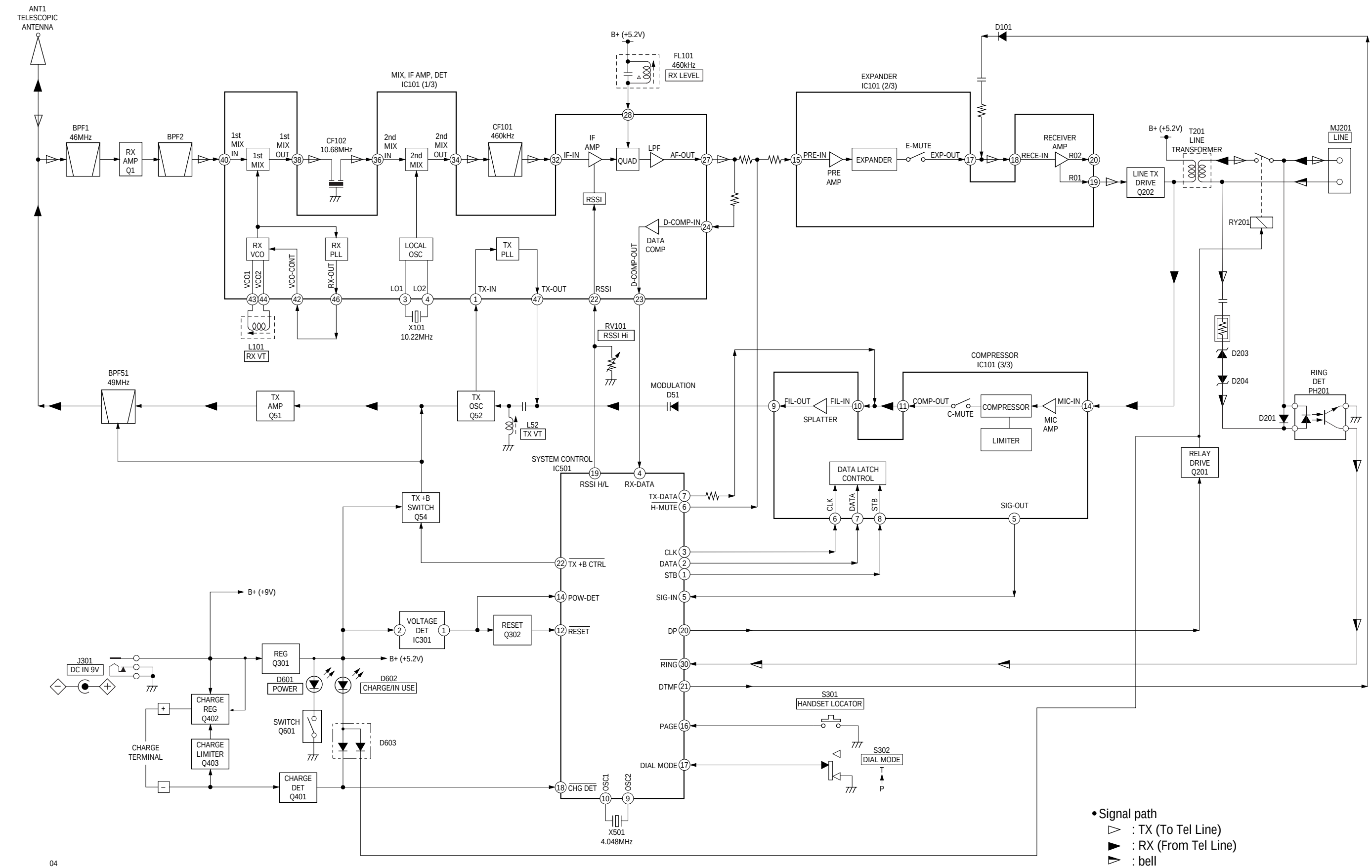
• IC501 SB662104A-4L63-TLM (SYSTEM CONTROL) (BASE UNIT)

Pin No.	Pin Name	I/O	Pin Description
1	STB	O	Strobe signal output to PLL.
2	DATA	O	Serial data output to PLL.
3	CLK	O	Serial clock output to PLL.
4	RX-DATA	I	RX data input
5	SIG-IN	I	RSSI/PLL-LOCK signal input (L: RSSI, H: PLL-LOCK)
6	$\overline{\text{H-MUTE}}$	O	Half mute control output (L: Mute ON)
7	TX-DATA	O	TX data, external system alarm output
8	VSS	—	Ground
9	OSC2	O	Crystal oscillation output (4.048 MHz)
10	OSC1	I	Crystal oscillation input (4.048 MHz)
11	VDD	—	Power supply pin (+3 V)
12	$\overline{\text{RESET}}$	I	System reset input (L: Reset)
13	TEST	I	Test pin (Connect to ground in this set.)
14	POW-DET	I	Power failure detection input (L: Power failure)
15	MBR	I	Make 30/40 (%) select input (H: 30%, L: 40%)
16	PAGE	I	HANDSET LOCATOR input (H: input)
17	DIAL MODE	I	DIAL MODE select input
18	$\overline{\text{CHG-DET}}$	I	Charge detection input (L: Charge)
19	RSSI H/L	O	RSSI sensitivity select output (L: Low sensitivity)
20	DP	O	Dial pulse ON/OFF control output
21	DTMF	O	DTMF generator output
22	$\overline{\text{TX +B CTRL}}$	I	TX B+ ON/OFF control input (L: TX ON)
23 – 26	M1 – 4	I	Channel setting for test mode 1 – 4.
27 – 29	TEST3 – 1	I	Test mode setting 3 – 1
30	RING	I	Ring detection input (L: Ring input)

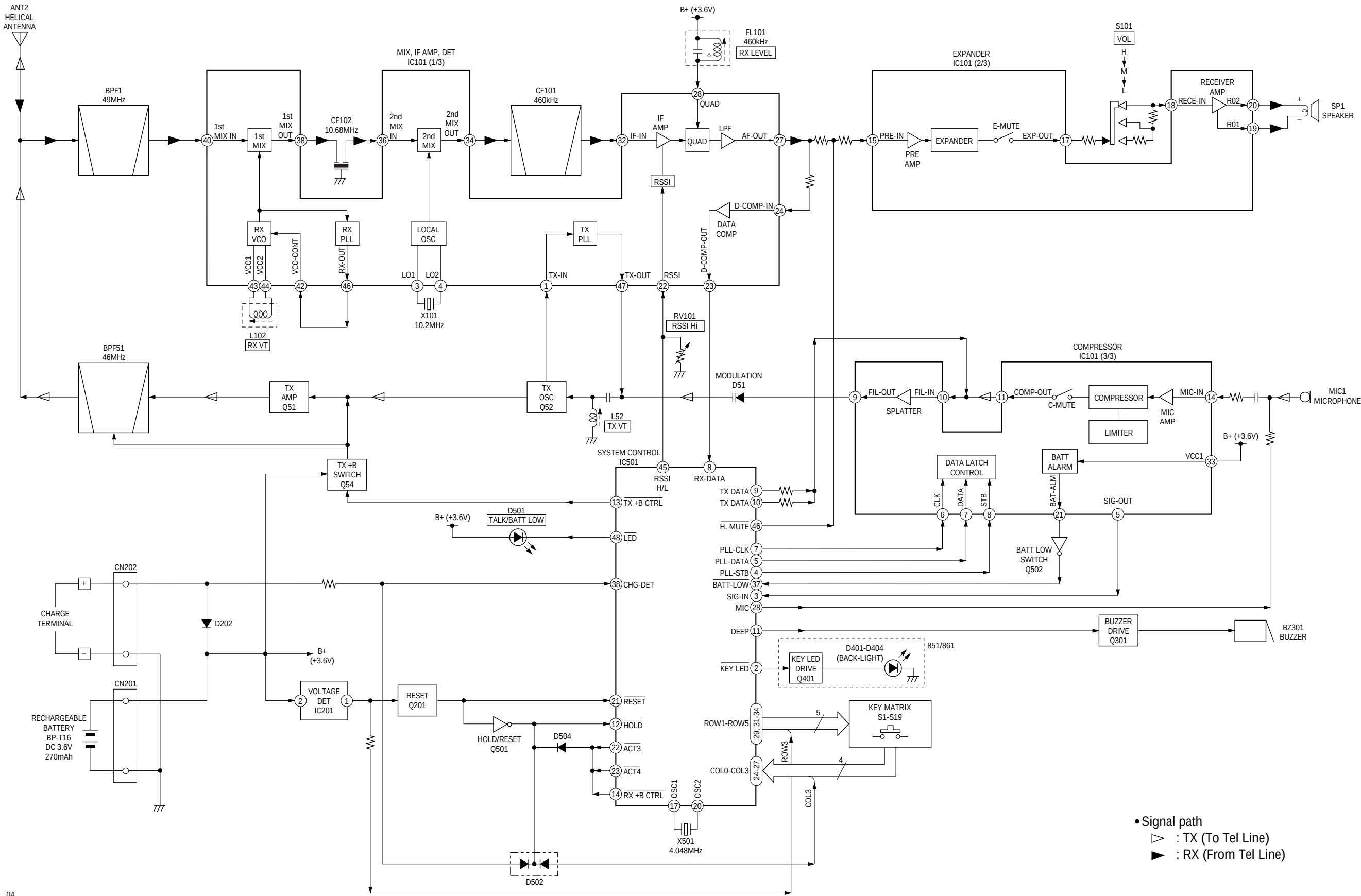
• IC501 SH66356C-4L62 (SYSTEM CONTROL) (HANDSET)

Pin No.	Pin Name	I/O	Pin Description
1	TEST CH	O	Test mode channel control output (L: Active)
2	KEY LED	O	Key LED ON/OFF control output (L: ON) (SPP-851/861 only)
3	SIG-IN	I	RSSI/PLL-LOCK signal input (L: RSSI, H: PLL-LOCK)
4	PLL-STB	O	Strobe signal output to PLL.
5	PLL-DATA	O	Serial data output to PLL.
6	NC	—	Not used. (Open)
7	PLL-CLK	O	Serial clock output to PLL.
8	RX-DATA	I	RX data input
9, 10	TX-DATA	O	TX data output
11	BEEP	O	Beep signal output
12	HOLD	I	Hold control input (L: Hold)
13	TX +B CTRL	O	TX B+ ON/OFF control output (L: TX ON)
14	RX +B CTRL	O	RX B+ ON/OFF control output (L: RX ON)
15	TEST	I	Test pin (Connect to ground in this set.)
16	VSS	—	Ground
17	OSC1	I	Crystal oscillation input (4.048 MHz)
18, 19	NC	—	Not used. (Open)
20	OSC2	O	Crystal oscillation output (4.048 MHz)
21	RESET	I	System reset input (L: Reset)
22, 23	ACT3, 4	O	Intermittent reception activation control (L: Active)
24 – 27	COL0 – 3	I	Key input 0 – 3
28	MIC	O	Microphone bias output control
29	ROW1	O	Key scan output 1
30	NC	—	Not used. (Open)
31 – 34	ROW2 – 5	O	Key scan output 2 – 5
35, 36	—	—	Not used. (Open)
37	BATT-LOW	I	Battery low level detection input
38	CHG-DET	I	Charge detection input (H: Charge)
39	VDD	—	Power supply pin (+3 V)
40	TEST SW	I	Test mode activation input (H: Start)
41	—	—	Not used. (Connect to ground.)
42, 43	NC	—	Not used. (Open)
44	TEST ACT	I	During test mode, causes start of intermittent operation with external input.
45	RSSI H/L	O	RSSI sensitivity select output (L: Low sensitivity)
46	H.MUTE	O	Half mute control output (L: Mute ON)
47	BATT-DET	I	Battery detection input (H: Battery detection)
48	LED	O	TALK/BATT LOW LED control output (L: LED ON)

5-2. BLOCK DIAGRAM — BASE UNIT SECTION —



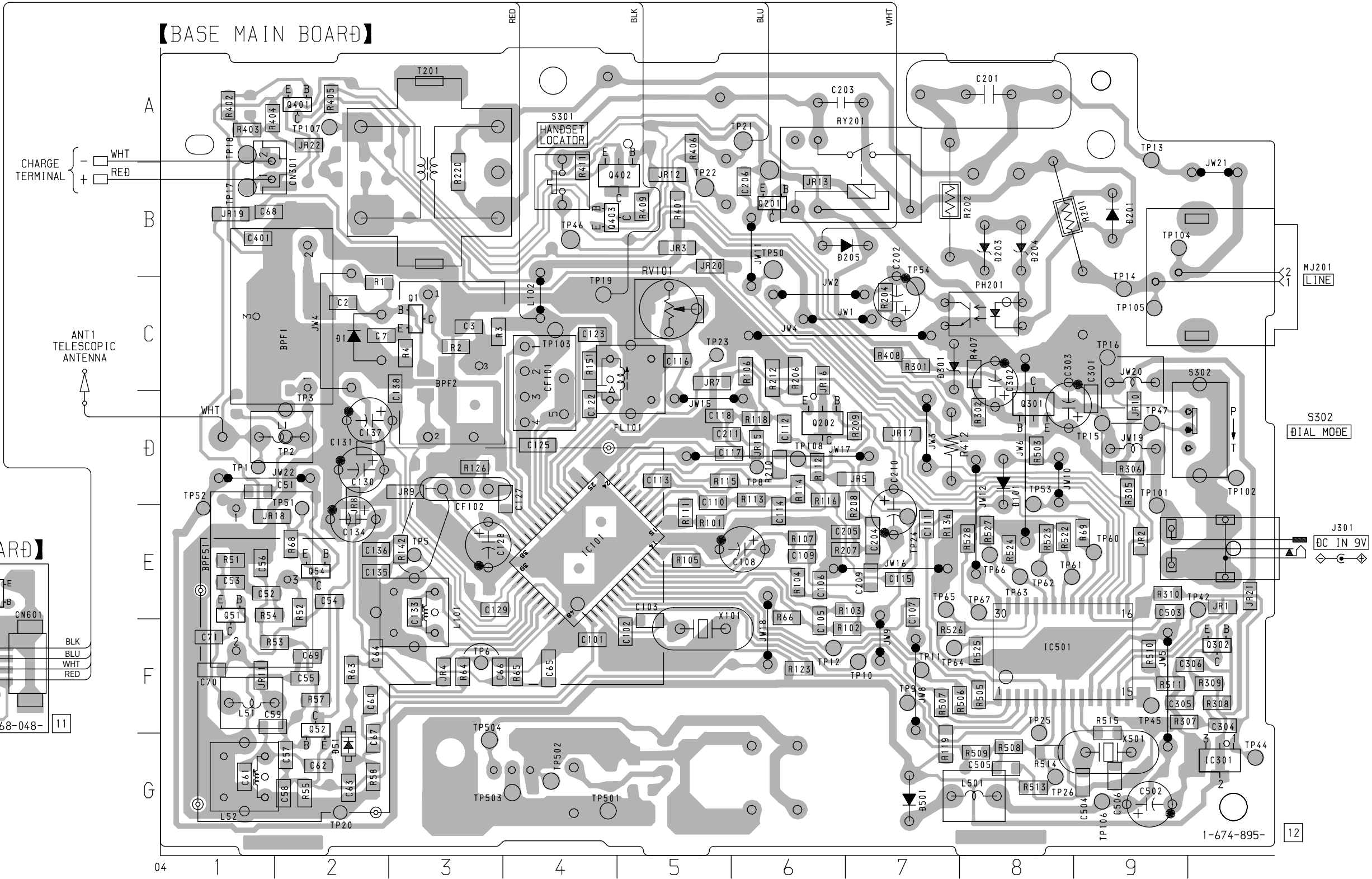
5-3. BLOCK DIAGRAM — HANDSET SECTION —



• Signal path
▷ : TX (To Tel Line)
◁ : RX (From Tel Line)

5-4. PRINTED WIRING BOARD — BASE UNIT SECTION —

Ref. No.	Location
D1	C-2
D51	G-2
D101	D-8
D201	B-9
D203	B-8
D204	B-8
D205	B-7
D301	C-7
D501	G-7
IC101	E-4
IC301	G-10
IC501	F-8
PH201	C-8
Q1	C-3
Q51	E-1
Q52	F-2
Q54	E-2
Q201	B-6
Q202	D-6
Q301	D-8
Q302	F-10
Q401	A-2
Q402	B-4
Q403	B-4



-  : parts extracted from the component side.
-  : parts extracted from the conductor side.
-  : internal component.
-  : Pattern from the side which enables seeing.

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{ W}$ or less unless otherwise specified.
-  : internal component.
-  : nonflammable resistor.
-  : panel designation.
-  : B+ Line.

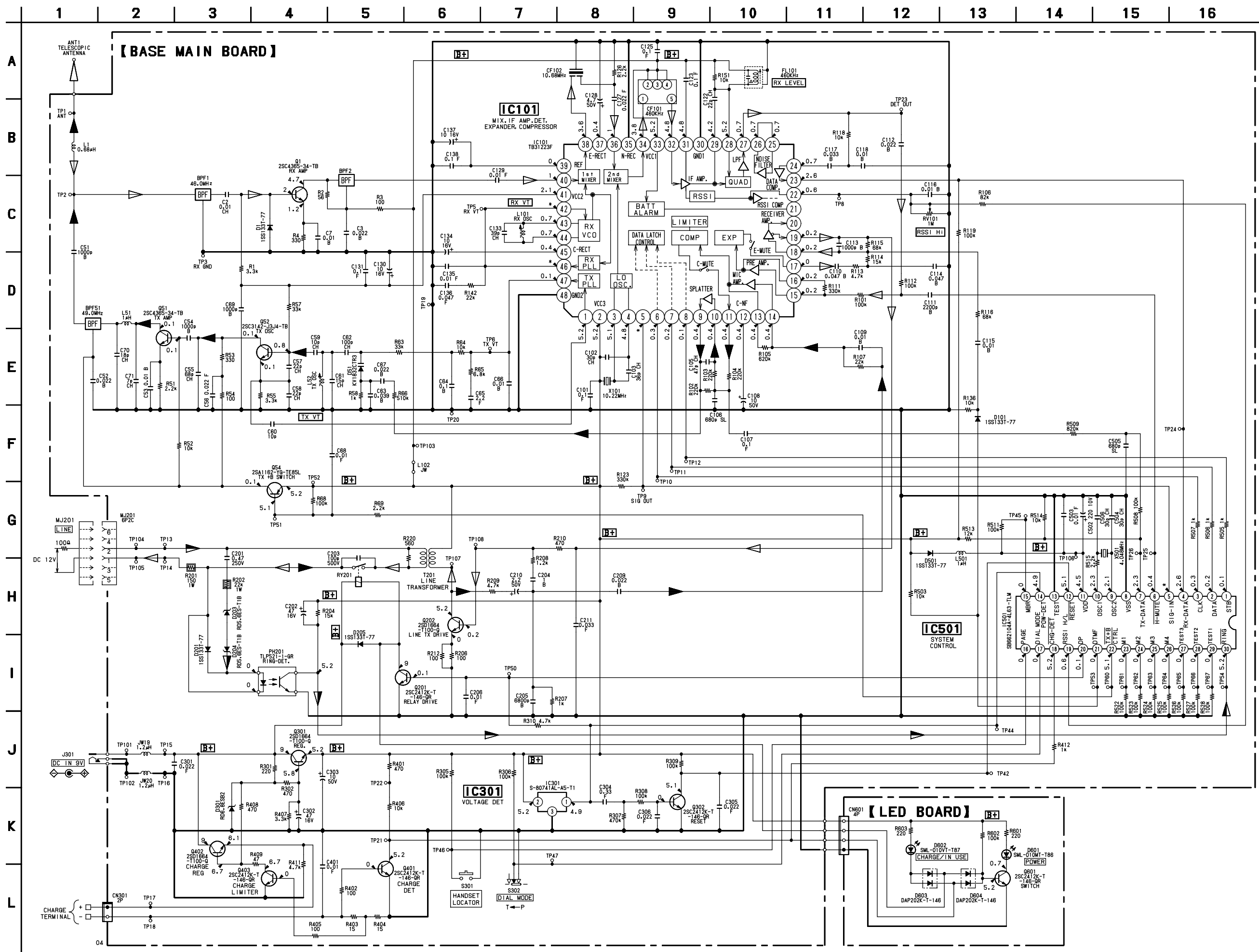
-  : adjustment for repair.
- Power voltage is dc 9 V and fed with regulated dc power supply from external power voltage jack.
- Power voltage is dc 12 V and fed with regulated dc power supply from MJ201 with 100 Ω in series.
- Voltage is dc with respect to ground under no-signal condition.

no mark : TALK

* : Impossible to measure

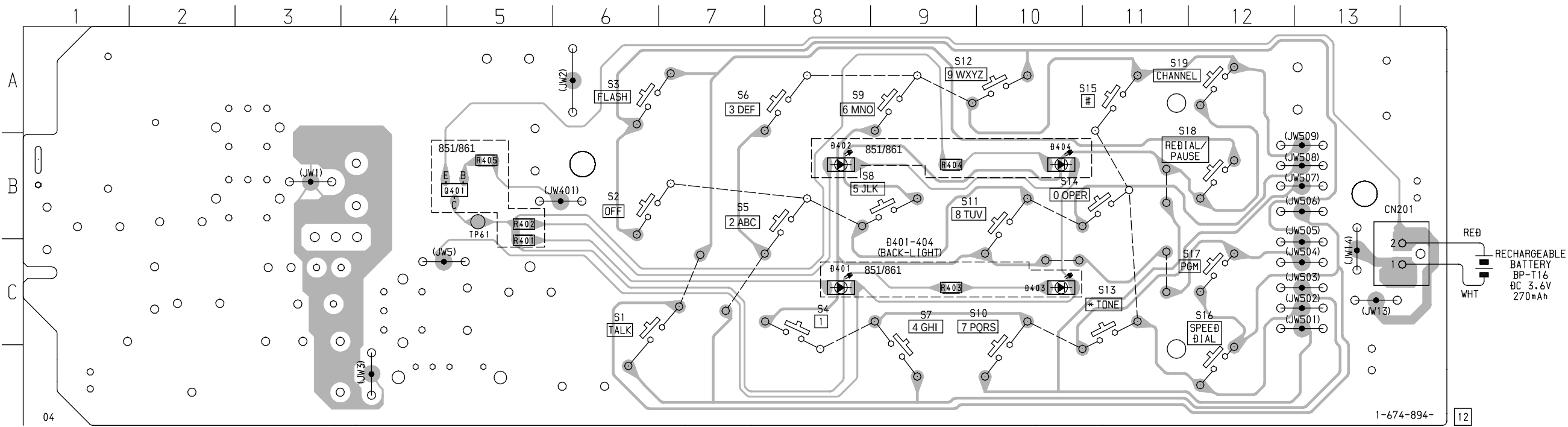
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - ▷ : TX (To Tel Line)
 - ◀ : RX (From Tel Line)
 - ◁ : bell

5-5. SCHEMATIC DIAGRAM — BASE UNIT SECTION —

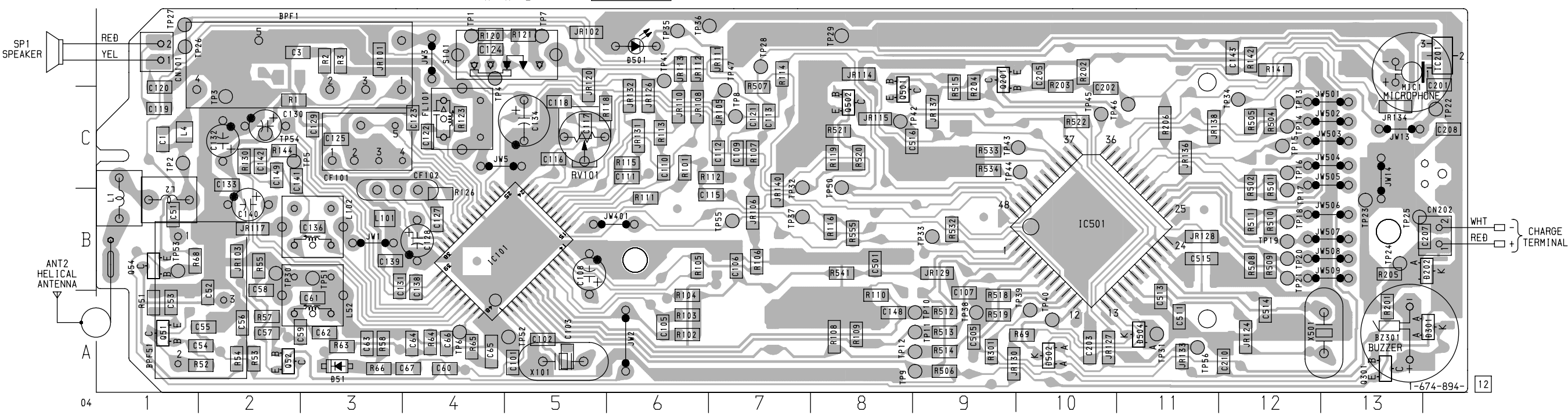


5-6. PRINTED WIRING BOARD — HANDSET SECTION —

【HAND MAIN BOARD】(SIDE A)



【HAND MAIN BOARD】(SIDE B)



• Semiconductor Location					
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D51	A-3	D502	A-10	Q52	A-2
D202	B-14	D504	A-11	Q54	B-1
D301	A-14			Q201	D-9
(D401)	C-8	IC101	B-5	Q301	A-13
(D402)	B-8	IC201	D-14	(Q401)	B-5
(D403)	C-10	IC501	B-10	Q501	C-8
(D404)	B-10			Q502	C-8
D501	D-6	Q51	A-1		

() : SIDE A, SPP-851/861 only

Note:

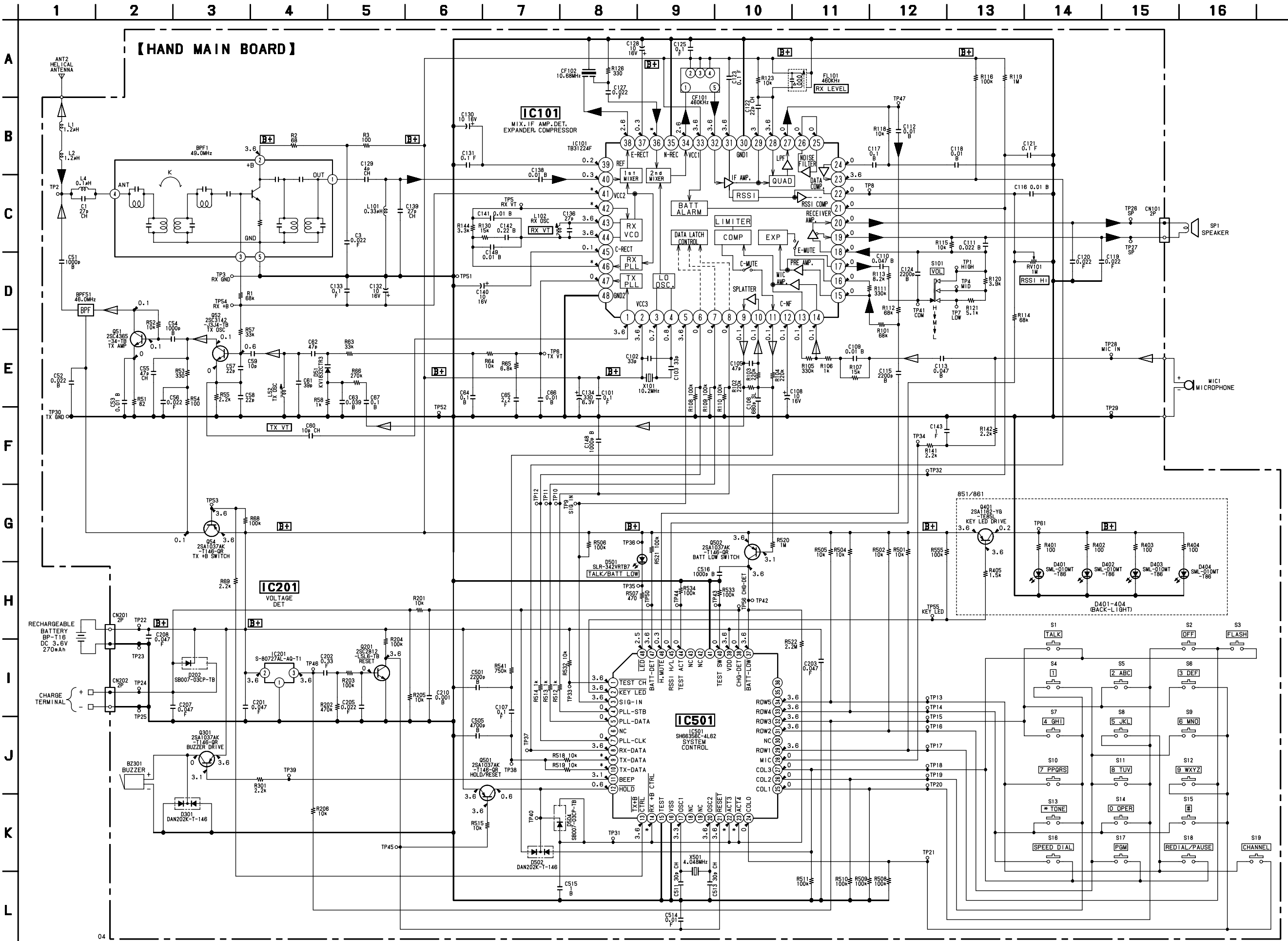
- : parts extracted from the component side.
- - - ○ : Carbon pattern.
- △ : internal component.
- Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.

Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

5-7. SCHEMATIC DIAGRAM — HANDSET SECTION — • Refer to page 24 for Note.



SECTION 6

EXPLODED VIEWS

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4} \text{ W}$ or less unless otherwise specified.
- Δ : internal component.
-  : panel designation.
-  : B+ Line.
-  : adjustment for repair.
- Power voltage is dc 3.6 V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal condition.
- no mark : TALK
- * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 -  : TX (To Tel Line)
 -  : RX (From Tel Line)

NOTE:

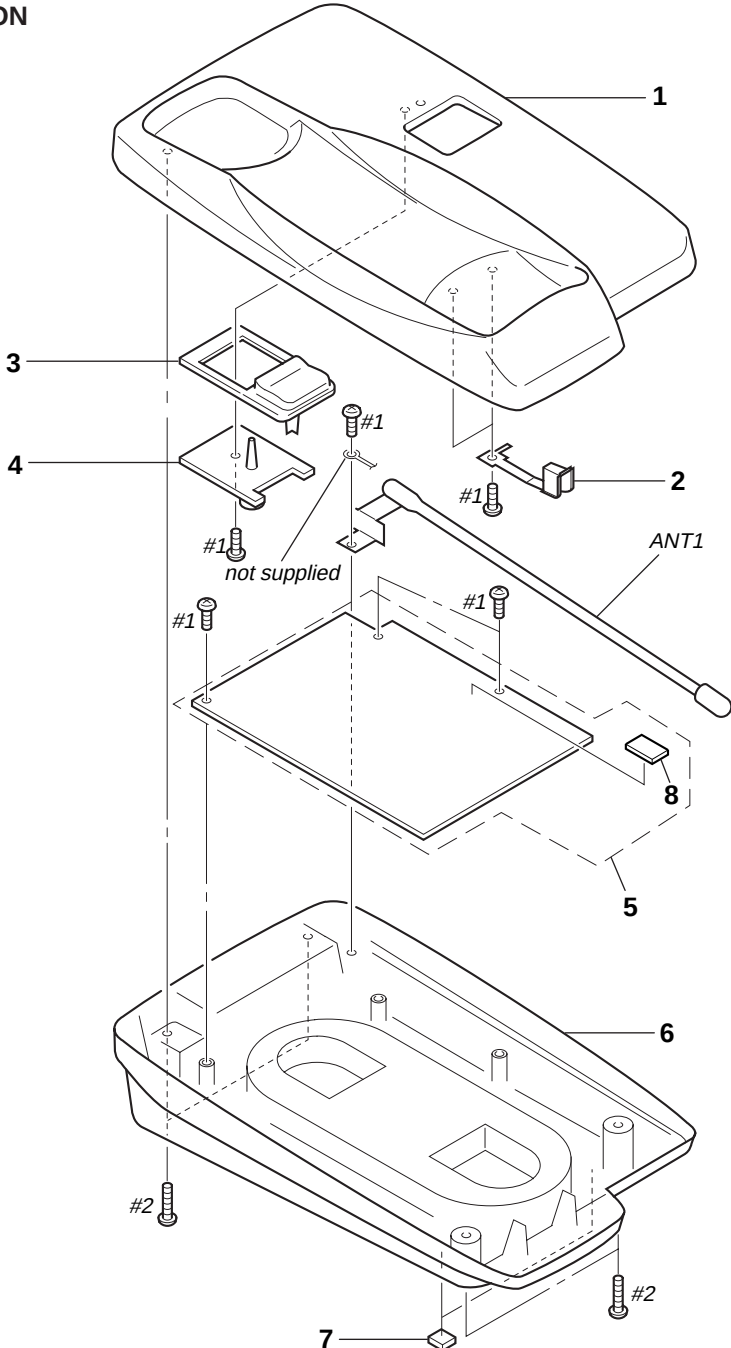
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX and -X mean standardized parts, so they may have some difference from the original one.
 - Color Indication of Appearance Parts
- Example :
- KNOB, BALANCE (WHITE) ... (RED)

- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

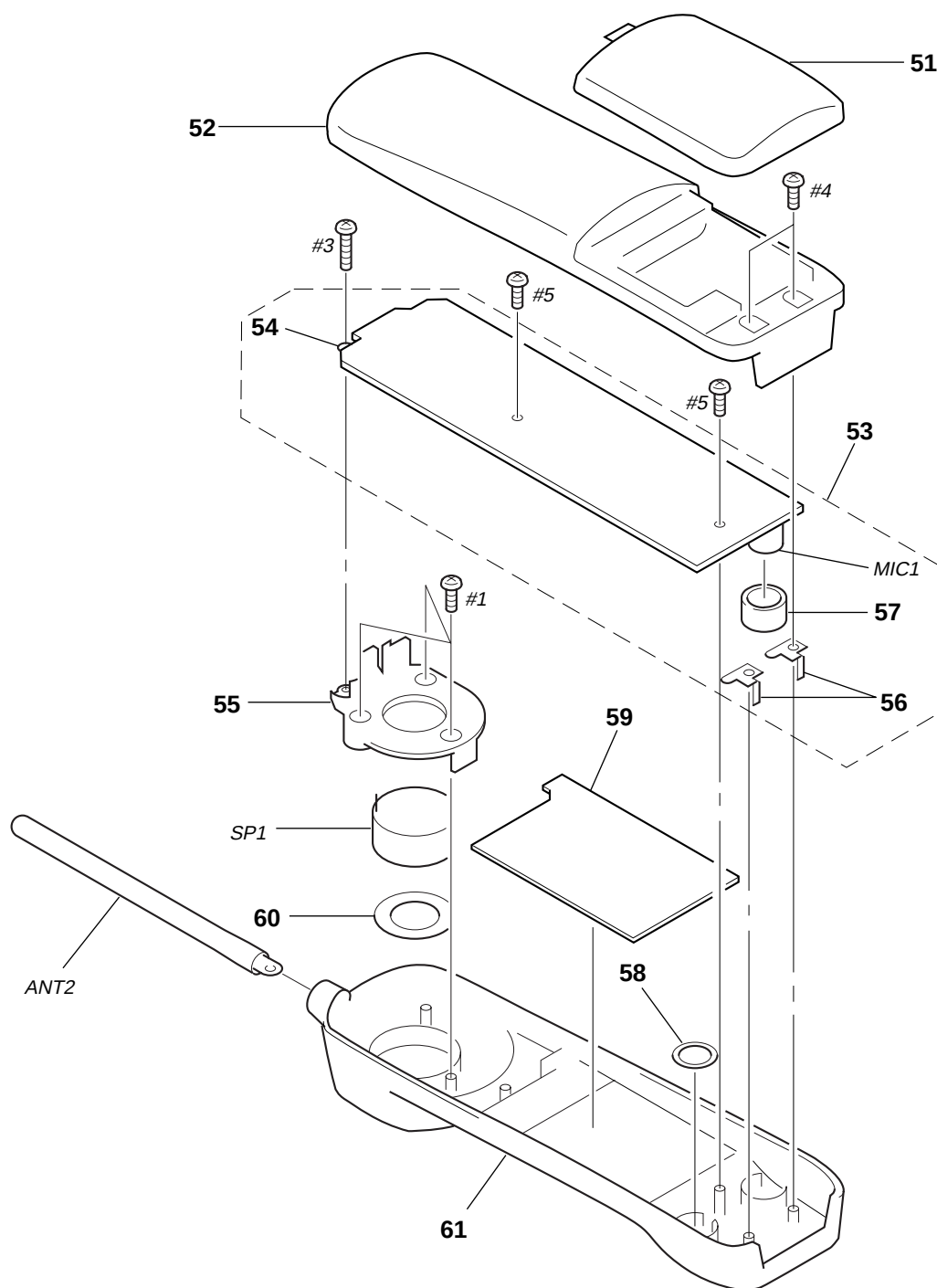
[illegible]

6-1. BASE UNIT SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-038-929-61	CABINET (UPPER) (GRAY) (801)		4	3-038-931-01	LENS	
1	3-038-929-71	CABINET (UPPER) (WHITE) (811)		* 5	A-3622-379-A	BASE MAIN BOARD, COMPLETE	
1	3-038-929-81	CABINET (UPPER) (GRAY) (851)		6	3-038-924-02	CABINET (LOWER) (GRAY) (801,851)	
1	3-038-929-91	CABINET (UPPER) (WHITE) (861)		6	3-038-924-12	CABINET (LOWER) (WHITE) (811,861)	
2	3-038-932-01	TERMINAL (CHARGE), BASE		7	3-936-696-21	FOOT, RUBBER	
3	3-038-930-01	BUTTON (HANDSET LOCATOR) (GRAY) (801,851)		* 8	1-668-048-11	LED BOARD	
				ANT1	1-754-075-11	ANTENNA, TELESCOPIC (WHITE) (811,861)	
3	3-038-930-11	BUTTON (HANDSET LOCATOR) (WHITE) (811,861)		ANT1	1-754-075-21	ANTENNA, TELESCOPIC (GRAY) (801,851)	

6-2. HANDSET SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3377-828-1	LID ASSY (G), BATTERY CASE (GRAY)	(801,851)	59	1-771-708-11	SWITCH, RUBBER KEY (HAND) (GRAY) (801)	
51	X-3377-829-1	LID ASSY (W), BATTERY CASE (WHITE)	(811,861)	59	1-771-708-21	SWITCH, RUBBER KEY (HAND) (GRAY) (851)	
52	3-038-923-01	CABINET (REAR) (GRAY) (801,851)		59	1-771-708-71	SWITCH, RUBBER KEY (HAND) (WHITE) (811)	
52	3-038-923-11	CABINET (REAR) (WHITE) (811,861)		59	1-771-708-81	SWITCH, RUBBER KEY (HAND) (WHITE) (861)	
* 53	A-3622-378-A	HAND MAIN BOARD, COMPLETE (801,811)		60	3-371-005-01	GASKET (RECEIVER) (TWN)	
* 53	A-3622-380-A	HAND MAIN BOARD, COMPLETE (851,861)		61	3-038-925-01	CABINET (FRONT) (GRAY) (801,851)	
54	3-939-070-01	TERMINAL, ANTENNA		61	3-038-925-11	CABINET (FRONT) (WHITE) (811,861)	
55	3-038-926-01	HOLDER (SPEAKER)		ANT2	1-501-839-61	ANTENNA, HELICAL (WHITE) (811,861)	
56	3-038-920-01	TERMINAL (CHARGE,H)		ANT2	1-501-839-71	ANTENNA, HELICAL (GRAY) (801,851)	
57	3-935-518-01	CUSHION (MICROPHONE)		MIC1	1-542-118-11	MICROPHONE, ELECTRET CONDENSER	
* 58	3-033-764-01	CUSHION (BUZZER)		SP1	1-504-829-11	SPEAKER (2.8cm)	

BASE MAIN

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-3622-379-A	BASE MAIN BOARD, COMPLETE (INCLUDING LED BOARD, COMPLETE)		C113	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
		*****		C114	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
		< BPF >		C115	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
BPF1	1-239-916-11	FILTER, BAND PASS		C116	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
BPF2	1-233-692-11	FILTER, BAND PASS		C117	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
BPF51	1-239-918-11	FILTER, BAND PASS		C118	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
		< CAPACITOR >		C122	1-163-235-11	CERAMIC CHIP 22PF 5%	50V
C2	1-163-031-11	CERAMIC CHIP 0.01uF	50V	C123	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C3	1-163-033-11	CERAMIC CHIP 0.022uF	50V	C125	1-163-077-00	CERAMIC CHIP 0.1uF 10%	25V
C7	1-163-031-11	CERAMIC CHIP 0.01uF	50V	C127	1-163-033-11	CERAMIC CHIP 0.022uF	50V
C51	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	C128	1-126-963-11	ELECT 4.7uF 20%	50V
C52	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	C129	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C53	1-163-021-11	CERAMIC CHIP 0.01uF	10% 50V	C130	1-126-791-11	ELECT 10uF 20%	16V
C54	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	C131	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C55	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C133	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
C56	1-163-033-11	CERAMIC CHIP 0.022uF	50V	C134	1-126-791-11	ELECT 10uF 20%	16V
C57	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C135	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C58	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C136	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C59	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C137	1-126-791-11	ELECT 10uF 20%	16V
C60	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C138	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C61	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	C201	1-136-193-11	MYLAR 0.47uF 10%	250V
C62	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C202	1-104-664-11	ELECT 47uF 20%	16V
C63	1-162-587-11	CERAMIC CHIP 0.039uF	10% 25V	C203	1-162-117-00	CERAMIC 100PF 10%	500V
C64	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V	C204	1-107-682-11	CERAMIC CHIP 1uF 10%	16V
C65	1-164-337-11	CERAMIC CHIP 2.2uF	16V	C205	1-163-019-00	CERAMIC CHIP 0.0068uF 10%	50V
C66	1-163-021-11	CERAMIC CHIP 0.01uF	10% 50V	C206	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C67	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	C209	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
C68	1-163-031-11	CERAMIC CHIP 0.01uF	50V	C210	1-126-961-11	ELECT 2.2uF 20%	50V
C69	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	C211	1-163-034-00	CERAMIC CHIP 0.033uF	50V
C70	1-163-233-11	CERAMIC CHIP 18PF	5% 50V	C301	1-163-033-11	CERAMIC CHIP 0.022uF	50V
C71	1-163-224-11	CERAMIC CHIP 7PF	0.25PF 50V	C302	1-104-664-11	ELECT 47uF 20%	16V
C101	1-165-319-11	CERAMIC CHIP 0.1uF	50V	C303	1-126-964-11	ELECT 10uF 20%	50V
C102	1-163-104-00	CERAMIC CHIP 30PF	5% 50V	C304	1-164-336-11	CERAMIC CHIP 0.33uF	25V
C103	1-163-106-00	CERAMIC CHIP 36PF	5% 50V	C305	1-163-033-11	CERAMIC CHIP 0.022uF	50V
C105	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C306	1-163-033-11	CERAMIC CHIP 0.022uF	50V
C106	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	C401	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C107	1-165-319-11	CERAMIC CHIP 0.1uF	50V	C502	1-126-934-11	ELECT 220uF 20%	10V
C108	1-126-964-11	ELECT 10uF	20% 50V	C503	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C109	1-163-021-11	CERAMIC CHIP 0.01uF	10% 50V	C504	1-163-104-00	CERAMIC CHIP 30PF	5% 50V
C110	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V	C505	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C111	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	C506	1-163-104-00	CERAMIC CHIP 30PF	5% 50V
C112	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V			< FILTER >	
				CF101	1-760-418-11	FILTER, CERAMIC	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CF102	1-577-070-11	FILTER, CERAMIC		JW20	1-469-456-21	INDUCTOR 1.2uH	
		< CONNECTOR >		L1	1-469-453-21	INDUCTOR 0.68uH	
* CN301	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P		L51	1-469-455-21	INDUCTOR 1uH	
		< DIODE >		L52	1-411-884-11	COIL, OSC	
D1	8-719-991-33	DIODE 1SS133T-77		L101	1-409-798-11	COIL, OSC	
D51	8-719-055-14	DIODE KV1832CTR3					
D101	8-719-991-33	DIODE 1SS133T-77		L501	1-469-455-21	INDUCTOR 1uH	
D201	8-719-991-33	DIODE 1SS133T-77				< JACK >	
D203	8-719-109-89	DIODE MTZJ-T-77-5.6		MJ201	1-766-250-11	JACK, MODULAR (2C) 6P (LINE)	
D204	8-719-109-89	DIODE MTZJ-T-77-5.6				< PHOTO TRANSISTOR >	
D205	8-719-991-33	DIODE 1SS133T-77		PH201	8-719-802-04	PHOTO TRANSISTOR TLP521-1-GR	
D301	8-719-109-97	DIODE MTZJ-T-77-6.8				< TRANSISTOR >	
D501	8-719-991-33	DIODE 1SS133T-77		Q1	8-729-031-85	TRANSISTOR 2SC4365-34-TB	
		< COIL >		Q51	8-729-031-85	TRANSISTOR 2SC4365-34-TB	
FL101	1-409-671-11	COIL, IFT		Q52	8-729-031-86	TRANSISTOR 2SC3142-J3J4-TB	
		< IC >		Q54	8-729-026-49	TRANSISTOR 2SA1037AK-T146-QR	
IC101	8-759-361-65	IC TB31223F		Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC301	8-759-504-40	IC S-80741AL-A5-T1		Q202	8-729-106-68	TRANSISTOR 2SD1664-T100-Q	
IC501	8-759-653-41	IC SB662104A-4L63-TLM		Q301	8-729-106-68	TRANSISTOR 2SD1664-T100-Q	
		< JACK >		Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
J301	1-778-380-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 9V)	Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		< JUMPER RESISTOR >		Q402	8-729-106-68	TRANSISTOR 2SD1664-T100-Q	
JR1	1-216-295-00	SHORT 0		Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
JR2	1-216-295-00	SHORT 0				< RESISTOR >	
JR3	1-216-296-00	SHORT 0		R1	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
JR4	1-216-295-00	SHORT 0		R2	1-216-019-00	METAL CHIP 56 5% 1/10W	
JR5	1-216-296-00	SHORT 0		R3	1-216-025-11	RES,CHIP 100 5% 1/10W	
JR7	1-216-296-00	SHORT 0		R4	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR8	1-216-296-00	SHORT 0		R51	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
JR9	1-216-296-00	SHORT 0		R52	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JR10	1-216-295-00	SHORT 0		R53	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR11	1-216-295-00	SHORT 0		R54	1-216-025-11	RES,CHIP 100 5% 1/10W	
JR12	1-216-296-00	SHORT 0		R55	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
JR13	1-216-295-00	SHORT 0		R57	1-216-085-00	METAL CHIP 33K 5% 1/10W	
JR15	1-216-295-00	SHORT 0		R58	1-216-049-11	RES,CHIP 1K 5% 1/10W	
JR16	1-216-295-00	SHORT 0		R63	1-216-085-00	METAL CHIP 33K 5% 1/10W	
JR17	1-216-296-00	SHORT 0		R64	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JR18	1-216-296-00	SHORT 0		R65	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
JR19	1-216-296-00	SHORT 0		R66	1-216-114-00	RES,CHIP 510K 5% 1/10W	
JR20	1-216-295-00	SHORT 0		R68	1-216-097-11	RES,CHIP 100K 5% 1/10W	
JR21	1-216-295-00	SHORT 0		R69	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
JR22	1-216-295-00	SHORT 0		R101	1-216-097-11	RES,CHIP 100K 5% 1/10W	
		< COIL >		R102	1-216-105-11	RES,CHIP 220K 5% 1/10W	
JW19	1-469-456-21	INDUCTOR 1.2uH		R103	1-216-105-11	RES,CHIP 220K 5% 1/10W	
				R104	1-216-105-11	RES,CHIP 220K 5% 1/10W	
				R105	1-208-849-11	RES,CHIP 620K 5% 1/10W	
				R106	1-216-095-00	METAL CHIP 82K 5% 1/10W	
				R107	1-216-081-00	METAL CHIP 22K 5% 1/10W	
				R111	1-216-109-00	METAL CHIP 330K 5% 1/10W	

BASE MAIN

HAND MAIN

Ref. No.	Part No.	Description	Remark		
R112	1-216-097-11	RES,CHIP	100K	5%	1/10W
R113	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R114	1-216-077-11	RES,CHIP	15K	5%	1/10W
R115	1-216-093-11	RES,CHIP	68K	5%	1/10W
R116	1-216-093-11	RES,CHIP	68K	5%	1/10W
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W
R119	1-216-246-00	RES,CHIP	100K	5%	1/8W
R123	1-216-109-00	METAL CHIP	330K	5%	1/10W
R126	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W
R201	1-215-864-00	METAL OXIDE	150	5%	1W F
R202	1-215-877-11	METAL OXIDE	22K	5%	1W F
R204	1-216-077-11	RES,CHIP	15K	5%	1/10W
R206	1-216-174-00	RES,CHIP	100	5%	1/8W
R207	1-216-049-11	RES,CHIP	1K	5%	1/10W
R208	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R209	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R210	1-216-041-00	METAL CHIP	470	5%	1/10W
R212	1-216-174-00	RES,CHIP	100	5%	1/8W
R220	1-216-192-00	RES,CHIP	560	5%	1/8W
R301	1-216-033-00	METAL CHIP	220	5%	1/10W
R302	1-216-041-00	METAL CHIP	470	5%	1/10W
R305	1-216-097-11	RES,CHIP	100K	5%	1/10W
R306	1-216-097-11	RES,CHIP	100K	5%	1/10W
R307	1-216-113-00	METAL CHIP	470K	5%	1/10W
R308	1-216-097-11	RES,CHIP	100K	5%	1/10W
R309	1-216-097-11	RES,CHIP	100K	5%	1/10W
R310	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R401	1-216-190-00	RES,CHIP	470	5%	1/8W
R402	1-216-025-11	RES,CHIP	100	5%	1/10W
R403	1-216-005-00	METAL CHIP	15	5%	1/10W
R404	1-216-005-00	METAL CHIP	15	5%	1/10W
R405	1-216-025-11	RES,CHIP	100	5%	1/10W
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W
R407	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R408	1-216-041-00	METAL CHIP	470	5%	1/10W
R409	1-216-017-11	RES,CHIP	47	5%	1/10W
R411	1-216-065-11	RES,CHIP	4.7K	5%	1/10W
R412	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-049-11	RES,CHIP	1K	5%	1/10W
R506	1-216-049-11	RES,CHIP	1K	5%	1/10W
R507	1-216-049-11	RES,CHIP	1K	5%	1/10W
R508	1-216-097-11	RES,CHIP	100K	5%	1/10W
R509	1-216-119-00	METAL CHIP	820K	5%	1/10W
R510	1-216-246-00	RES,CHIP	100K	5%	1/8W
R513	1-216-075-00	METAL CHIP	12K	5%	1/10W
R514	1-216-073-00	METAL CHIP	10K	5%	1/10W
R515	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R522	1-216-097-11	RES,CHIP	100K	5%	1/10W
R523	1-216-097-11	RES,CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R524	1-216-097-11	RES,CHIP	100K	5%	1/10W
R525	1-216-097-11	RES,CHIP	100K	5%	1/10W
R526	1-216-097-11	RES,CHIP	100K	5%	1/10W
R527	1-216-097-11	RES,CHIP	100K	5%	1/10W
R528	1-216-097-11	RES,CHIP	100K	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-770-11	RES, ADJ, CARBON	1M		
		< RELAY >			
RY201	1-755-150-11	RELAY			
		< SWITCH >			
S301	1-571-977-11	SWITCH, TACTILE (HANDSET LOCATOR)			
S302	1-692-991-11	SWITCH, SLIDE (DIAL MODE)			
		< TRANSFORMER >			
T201	1-429-648-11	TRANSFORMER, LINE			
		< VIBRATOR >			
X101	1-760-325-11	VIBRATOR, CRYSTAL (10.22MHz)			
X501	1-760-324-11	VIBRATOR, CRYSTAL (4.048MHz)			

*	A-3622-378-A	HAND MAIN BOARD, COMPLETE (801,811)			
*	A-3622-380-A	HAND MAIN BOARD, COMPLETE (851,861)			

	3-038-920-01	TERMINAL (CHARGE,H)			
	3-935-518-01	CUSHION (MICROPHONE)			
	3-939-070-01	TERMINAL, ANTENNA			
		< BPF >			
BPF1	1-234-163-41	FILTER, BAND PASS			
BPF51	1-239-916-11	FILTER, BAND PASS			
		< BUZZER >			
BZ301	1-544-603-11	BUZZER			
		< CAPACITOR >			
C1	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C3	1-163-033-11	CERAMIC CHIP	0.022uF		50V
C51	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C52	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C53	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C54	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C55	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C56	1-163-033-11	CERAMIC CHIP	0.022uF		50V
C57	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C58	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C59	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C60	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C61	1-163-241-11	CERAMIC CHIP	39PF	5%	50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C62	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	C501	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C63	1-162-587-11	CERAMIC CHIP	0.039uF 10% 25V	C505	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C64	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C511	1-163-104-00	CERAMIC CHIP	30PF 5% 50V
C65	1-164-337-11	CERAMIC CHIP	2.2uF 10% 16V	C513	1-163-104-00	CERAMIC CHIP	30PF 5% 50V
C66	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	C514	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C67	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C515	1-107-682-11	CERAMIC CHIP	1uF 10% 16V
C101	1-165-319-11	CERAMIC CHIP	0.1uF 50V	C516	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C102	1-163-239-11	CERAMIC CHIP	33PF 5% 50V	< FILTER >			
C103	1-163-239-11	CERAMIC CHIP	33PF 5% 50V	CF101	1-760-418-11	FILTER, CERAMIC	
C105	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	CF102	1-577-070-11	FILTER, CERAMIC	
C106	1-163-137-00	CERAMIC CHIP	680PF 5% 50V	< CONNECTOR >			
C107	1-165-319-11	CERAMIC CHIP	0.1uF 50V				
C108	1-126-791-11	ELECT	10uF 20% 16V	* CN101	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
C109	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	CN201	1-766-180-11	PIN, CONNECTOR (PC BOARD) 2P	
C110	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V	* CN202	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
C111	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	< DIODE >			
C112	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V				
C113	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V	D51	8-719-055-14	DIODE KV1832CTR3	
C115	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	D202	8-719-941-04	DIODE SB007-03CP-TB	
C116	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	D301	8-719-914-43	DIODE DAN202K-T-146	
C117	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	D401	8-719-059-94	LED SML-010MT-T86 (851,861)	
C118	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	D402	8-719-059-94	LED SML-010MT-T86 (851,861)	
C119	1-163-033-11	CERAMIC CHIP	0.022uF 50V	D403	8-719-059-94	LED SML-010MT-T86 (851,861)	
C120	1-163-033-11	CERAMIC CHIP	0.022uF 50V	D404	8-719-059-94	LED SML-010MT-T86 (851,861)	
C121	1-165-319-11	CERAMIC CHIP	0.1uF 50V	D501	8-719-059-87	LED SLR-342VRTB7 (TALK/BATT LOW)	
C122	1-163-235-11	CERAMIC CHIP	22PF 5% 50V	D502	8-719-914-43	DIODE DAN202K-T-146	
C123	1-165-319-11	CERAMIC CHIP	0.1uF 50V	D504	8-719-941-04	DIODE SB007-03CP-TB	
C124	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	< COIL >			
C125	1-165-319-11	CERAMIC CHIP	0.1uF 50V				
C127	1-163-033-11	CERAMIC CHIP	0.022uF 50V	FL101	1-409-671-11	COIL, IFT	
C128	1-126-791-11	ELECT	10uF 20% 16V	< IC >			
C129	1-163-087-00	CERAMIC CHIP	4PF 50V				
C130	1-126-791-11	ELECT	10uF 20% 16V	IC101	8-759-462-29	IC TB31224F	
C131	1-165-319-11	CERAMIC CHIP	0.1uF 50V	IC201	8-759-082-66	IC S-80727AL-AQ-T1	
C132	1-126-791-11	ELECT	10uF 20% 16V	IC501	8-759-653-39	IC SH66356C-4L62	
C133	1-165-319-11	CERAMIC CHIP	0.1uF 50V	< JUMPER RESISTOR >			
C134	1-126-924-11	ELECT	330uF 20% 6.3V				
C136	1-163-237-11	CERAMIC CHIP	27PF 5% 50V	JR101	1-216-296-00	SHORT	0
C138	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	JR102	1-216-296-00	SHORT	0
C139	1-163-237-11	CERAMIC CHIP	27PF 5% 50V	JR103	1-216-296-00	SHORT	0
C140	1-126-791-11	ELECT	10uF 20% 16V	JR105	1-216-295-00	SHORT	0
C141	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	JR106	1-216-296-00	SHORT	0
C142	1-164-489-11	CERAMIC CHIP	0.22uF 10% 16V	JR108	1-216-296-00	SHORT	0
C143	1-162-638-11	CERAMIC CHIP	1uF 16V	JR110	1-216-296-00	SHORT	0
C148	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	JR111	1-216-295-00	SHORT	0
C149	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	JR112	1-216-295-00	SHORT	0
C201	1-163-035-00	CERAMIC CHIP	0.047uF 50V	JR113	1-216-295-00	SHORT	0
C202	1-164-336-11	CERAMIC CHIP	0.33uF 25V	JR114	1-216-296-00	SHORT	0
C203	1-163-075-00	CERAMIC CHIP	0.047uF 50V	JR115	1-216-296-00	SHORT	0
C205	1-163-033-11	CERAMIC CHIP	0.022uF 50V	JR117	1-216-296-00	SHORT	0
C207	1-163-035-00	CERAMIC CHIP	0.047uF 50V	JR120	1-216-296-00	SHORT	0
C208	1-163-035-00	CERAMIC CHIP	0.047uF 50V	JR124	1-216-296-00	SHORT	0
C210	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V				

HAND MAIN

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
JR126	1-216-296-00	SHORT	0				R101	1-216-093-11	RES,CHIP	68K	5%	1/10W	
JR127	1-216-296-00	SHORT	0				R102	1-216-105-11	RES,CHIP	220K	5%	1/10W	
JR128	1-216-296-00	SHORT	0				R103	1-216-105-11	RES,CHIP	220K	5%	1/10W	
JR129	1-216-296-00	SHORT	0				R104	1-216-105-11	RES,CHIP	220K	5%	1/10W	
JR130	1-216-296-00	SHORT	0				R105	1-216-109-00	METAL CHIP	330K	5%	1/10W	
JR131	1-216-296-00	SHORT	0				R106	1-216-049-11	RES,CHIP	1K	5%	1/10W	
JR132	1-216-296-00	SHORT	0				R107	1-216-077-11	RES,CHIP	15K	5%	1/10W	
JR133	1-216-295-00	SHORT	0				R108	1-216-246-00	RES,CHIP	100K	5%	1/8W	
JR134	1-216-296-00	SHORT	0				R109	1-216-097-11	RES,CHIP	100K	5%	1/10W	
JR136	1-216-296-00	SHORT	0				R110	1-216-097-11	RES,CHIP	100K	5%	1/10W	
JR137	1-216-296-00	SHORT	0				R111	1-216-109-00	METAL CHIP	330K	5%	1/10W	
JR138	1-216-296-00	SHORT	0				R112	1-216-093-11	RES,CHIP	68K	5%	1/10W	
JR140	1-216-296-00	SHORT	0				R113	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
< COIL >							R114	1-216-093-11	RES,CHIP	68K	5%	1/10W	
L1	1-469-456-21	INDUCTOR	1.2uH				R115	1-216-073-00	METAL CHIP	10K	5%	1/10W	
L2	1-469-456-21	INDUCTOR	1.2uH				R116	1-216-097-11	RES,CHIP	100K	5%	1/10W	
L4	1-469-547-21	INDUCTOR	0.1uH				R118	1-216-073-00	METAL CHIP	10K	5%	1/10W	
L52	1-411-883-11	COIL, OSC					R119	1-216-121-11	RES,CHIP	1M	5%	1/10W	
L101	1-469-548-21	INDUCTOR	0.33uH				R120	1-216-063-11	RES,CHIP	3.9K	5%	1/10W	
L102	1-409-670-11	COIL, OSC					R121	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	
< MICROPHONE >							R123	1-216-073-00	METAL CHIP	10K	5%	1/10W	
MIC1	1-542-118-11	MICROPHONE, ELECTRET CONDENSER					R126	1-216-037-00	METAL CHIP	330	5%	1/10W	
< TRANSISTOR >							R130	1-216-077-11	RES,CHIP	15K	5%	1/10W	
Q51	8-729-031-85	TRANSISTOR	2SC4365-34-TB				R141	1-216-206-00	RES,CHIP	2.2K	5%	1/8W	
Q52	8-729-031-86	TRANSISTOR	2SC3142-J3J4-TB				R142	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
Q54	8-729-026-49	TRANSISTOR	2SA1037AK-T146-QR				R144	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
Q201	8-729-120-28	TRANSISTOR	2SC1623-L5L6				R201	1-216-073-00	METAL CHIP	10K	5%	1/10W	
Q301	8-729-026-49	TRANSISTOR	2SA1037AK-T146-QR				R202	1-216-113-00	METAL CHIP	470K	5%	1/10W	
Q401	8-729-026-49	TRANSISTOR	2SA1037AK-T146-QR (851,861)				R203	1-216-097-11	RES,CHIP	100K	5%	1/10W	
Q501	8-729-026-49	TRANSISTOR	2SA1037AK-T146-QR				R204	1-216-097-11	RES,CHIP	100K	5%	1/10W	
Q502	8-729-026-49	TRANSISTOR	2SA1037AK-T146-QR				R205	1-216-073-00	METAL CHIP	10K	5%	1/10W	
< RESISTOR >							R206	1-216-222-00	RES,CHIP	10K	5%	1/8W	
R1	1-216-093-11	RES,CHIP	68K	5%	1/10W		R301	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R2	1-216-021-00	METAL CHIP	68	5%	1/10W		R401	1-216-025-11	RES,CHIP	100	5%	1/10W	(851,861)
R3	1-216-025-11	RES,CHIP	100	5%	1/10W		R402	1-216-025-11	RES,CHIP	100	5%	1/10W	(851,861)
R51	1-216-023-00	METAL CHIP	82	5%	1/10W		R403	1-216-025-11	RES,CHIP	100	5%	1/10W	(851,861)
R52	1-216-073-00	METAL CHIP	10K	5%	1/10W		R404	1-216-025-11	RES,CHIP	100	5%	1/10W	(851,861)
R53	1-216-037-00	METAL CHIP	330	5%	1/10W		R405	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(851,861)
R54	1-216-025-11	RES,CHIP	100	5%	1/10W		R501	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R55	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R502	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R57	1-216-085-00	METAL CHIP	33K	5%	1/10W		R504	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R58	1-216-049-11	RES,CHIP	1K	5%	1/10W		R505	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R63	1-216-085-00	METAL CHIP	33K	5%	1/10W		R506	1-216-097-11	RES,CHIP	100K	5%	1/10W	
R64	1-216-073-00	METAL CHIP	10K	5%	1/10W		R507	1-216-041-00	METAL CHIP	470	5%	1/10W	
R65	1-216-069-00	METAL CHIP	6.8K	5%	1/10W		R508	1-216-097-11	RES,CHIP	100K	5%	1/10W	
R66	1-216-107-00	METAL CHIP	270K	5%	1/10W		R509	1-216-097-11	RES,CHIP	100K	5%	1/10W	
R68	1-216-097-11	RES,CHIP	100K	5%	1/10W		R510	1-216-097-11	RES,CHIP	100K	5%	1/10W	
R69	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R511	1-216-097-11	RES,CHIP	100K	5%	1/10W	
							R512	1-216-049-11	RES,CHIP	1K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
R513	1-216-049-11	RES,CHIP 1K 5%	1/10W
R514	1-216-049-11	RES,CHIP 1K 5%	1/10W
R515	1-216-073-00	METAL CHIP 10K 5%	1/10W
R518	1-216-073-00	METAL CHIP 10K 5%	1/10W
R519	1-216-073-00	METAL CHIP 10K 5%	1/10W
R520	1-216-121-11	RES,CHIP 1M 5%	1/10W
R521	1-216-097-11	RES,CHIP 100K 5%	1/10W
R522	1-216-129-00	METAL CHIP 2.2M 5%	1/10W
R532	1-216-073-00	METAL CHIP 10K 5%	1/10W
R533	1-216-097-11	RES,CHIP 100K 5%	1/10W
R534	1-216-097-11	RES,CHIP 100K 5%	1/10W
R541	1-216-118-00	RES,CHIP 750K 5%	1/10W
R555	1-216-097-11	RES,CHIP 100K 5%	1/10W
< VARIABLE RESISTOR >			
RV101	1-241-770-11	RES, ADJ, CARBON 1M	
< SWITCH >			
S101	1-692-989-11	SWITCH, SLIDE (VOL)	
< VIBRATOR >			
X101	1-760-326-11	VIBRATOR, CRYSTAL (10.2MHz)	
X501	1-760-324-11	VIBRATOR, CRYSTAL (4.048MHz)	

*	1-668-048-11	LED BOARD (SUPPLIED WITH BASE MAIN BOARD, COMPLETE)	

< CONNECTOR >			
CN601	1-691-742-11	PIN, CONNECTOR (PC BOARD) 4P	
< DIODE >			
D601	8-719-059-94	LED SML-010MT-T86 (POWER)	
D602	8-719-051-89	LED SML-010VT-T87 (CHARGE/IN USE)	
D603	8-719-914-44	DIODE DAP202K-T-146	
D604	8-719-914-44	DIODE DAP202K-T-146	
< TRANSISTOR >			
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
< RESISTOR >			
R601	1-216-182-00	RES,CHIP 220 5%	1/8W
R602	1-216-097-11	RES,CHIP 100K 5%	1/10W
R603	1-216-182-00	RES,CHIP 220 5%	1/8W

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			

59	1-771-708-11	SWITCH, RUBBER KEY (HAND) (GRAY) (801)	
59	1-771-708-21	SWITCH, RUBBER KEY (HAND) (GRAY) (851)	
59	1-771-708-71	SWITCH, RUBBER KEY (HAND) (WHITE) (811)	
59	1-771-708-81	SWITCH, RUBBER KEY (HAND) (WHITE) (861)	
ANT1	1-754-075-11	ANTENNA, TELESCOPIC (WHITE) (BASE UNIT)	(811,861)
ANT1	1-754-075-21	ANTENNA, TELESCOPIC (GRAY) (BASE UNIT)	(801,851)
ANT2	1-501-839-61	ANTENNA, HELICAL (WHITE) (HANDSET)	(811,861)
ANT2	1-501-839-71	ANTENNA, HELICAL (GRAY) (HANDSET)	(801,851)
SP1	1-504-829-11	SPEAKER (2.8cm) (HANDSET)	

ACCESSORIES & PACKING MATERIALS			

△	1-418-505-11	ADAPTOR, AC (AC-T56) (GRAY) (801,851)	
△	1-418-505-21	ADAPTOR, AC (AC-T56) (WHITE) (811,861)	
	1-528-709-31	BATTERY, NICKEL CADMIUM (BP-T16)	
	1-696-454-11	CORD (WITH MODULAR PLUG) (LINE) (215cm)	
	3-026-932-01	LABEL (ADDRESS,B)	
	3-867-032-61	MANUAL, INSTRUCTION	(TRADITIONAL CHINESE)
	X-3368-367-1	SCREW ASSY (for WALL HOOK)	

HARDWARE LIST			

#1	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#2	7-685-647-79	SCREW +P 3X10 TYPE2 NON-SLIT	
#3	7-685-136-19	SCREW +BTP 2.6X12 TYPE2 N-S	
#4	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S	
#5	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

