ORDER NO. KM40602997CE
F12

Service Manual

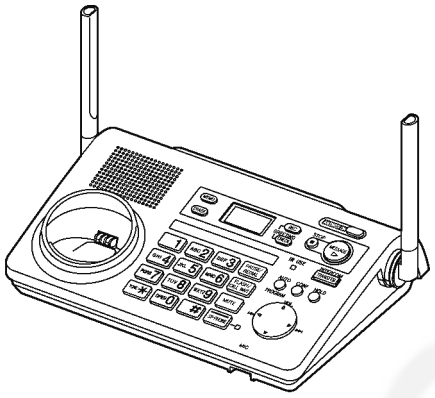
Telephone Equipment

Caller ID Compatible

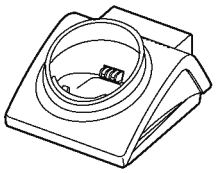
KX-TG5776S
KX-TG5777S
KX-TGA571S

5.8 GHz Expandable Digital Cordless Answering System
5.8 GHz Expandable Digital Cordless Answering System with Two Handsets
Silver Version
(for U.S.A.)

(Handset)



(Base Unit)



(Charger Unit)

Configuration for each model

Model No	Base Unit	Handset	Charger Unit	Expandable
KX-TG5776	1	1 (TGA571)		Expandable to 8
KX-TG5777	1	2 (TGA571)	1	Expandable to 8
KX-TGA571*		1	1	

* KX-TGA571 is also an optional accessory, which contains a handset and a charger.

Panasonic®

⚠ 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.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these cirtical parts should be replaced with manufactuer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

IMPORTANT INFORMATION ABOUT LEAD FREE, (PbF), SOLDERING

If lead free solder was used in the manufacture of this product the printed circuit boards will be marked PbF. Standard leaded, (Pb), solder can be used as usual on boards without the PbF mark.
When this mark does appear, please read and follow the special instructions described in this manual on the use of PbF and how it might be permissible to use Pb solder during service and repair work.

- When you note the serial number, write down all 11 digits. The serial number may be found on the bottom of the unit.
- The illustrations in this Service Manual may vary sllightly from the actual product.

Note for TABLE OF CONTENTS:
Because TABLE OF CONTENTS 5, 6 and 7 are the extracts from the Operating Instructions of this model, it is subject to change without notice. You can download and refer to the original Operating Instructions on TSN Server for further information.

TABLE OF CONTENTS

1 Safety Precautions

1.1. For Service Technicians

ICs and LSIs are vulnerable to static electricity.

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

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

2 Warning

2.1. Battery Caution

1. Danger of explosion if battery is incorrectly replaced.
2. Replace only with the same or equivalent type recommended by the manufacturer.
3. Dispose of used batteries according to the manufacturer's Instructions.

2.2. About Lead Free Solder (Pbf: Pb free)

Note:

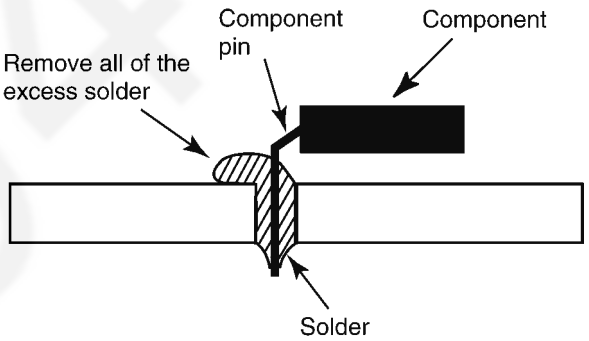
In the information below, Pb, the symbol for lead in the periodic table of elements, will refer to standard solder or solder that contains lead.

We will use PbF solder when discussing the lead free solder used in our manufacturing process which is made from Tin (Sn), Silver (Ag), and Copper (Cu).

This model, and others like it, manufactured using lead free solder will have PbF stamped on the PCB. For service and repair work we suggest using the same type of solder.

Caution

- PbF solder has a melting point that is 50°F ~ 70° F (30°C ~ 40°C) higher than Pb solder. Please use a soldering iron with temperature control and adjust it to 700°F ± 20° F (370°C ± 10°C).
- Exercise care while using higher temperature soldering irons.:
  Do not heat the PCB for too long time in order to prevent solder splash or damage to the PCB.
- PbF solder will tend to splash if it is heated much higher than its melting point, approximately 1100°F (600°C).
- When applying PbF solder to double layered boards, please check the component side for excess which may flow onto the opposite side (See the figure below).

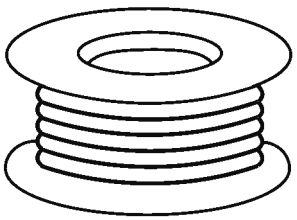
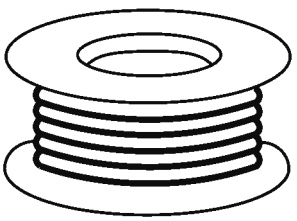
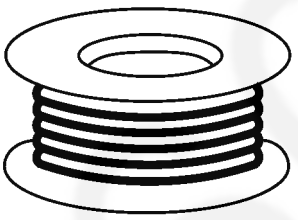


(Slice View)

2.2.1. Suggested PbF Solder

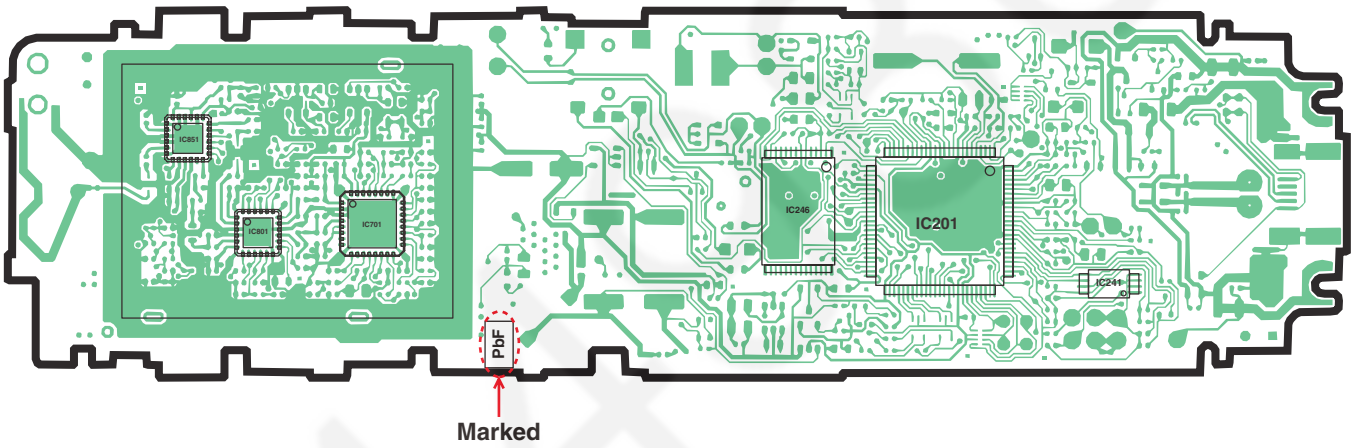
There are several types of PbF solder available commercially. While this product is manufactured using Tin, Silver, and Copper (Sn+Ag+Cu), you can also use Tin and Copper (Sn+Cu), or Tin, Zinc, and Bismuth (Sn+Zn+Bi). Please check the manufacturer's specific instructions for the melting points of their products and any precautions for using their product with other materials.

The following lead free (PbF) solder wire sizes are recommended for service of this product: 0.3 mm, 0.6 mm and 1.0 mm.

0.3 mm X 100 g	0.6 mm X 100 g	1.0 mm X 100 g
		

2.2.2. How to Recognize that Pb Free Solder is Used

(Example: Handset P.C.B.)



(Component View)

Note:

The location of the "PbF" mark is subject to change without notice.

3 Specifications

	Base Unit	Handset	Charger
Power Supply	AC Adaptor (PQLV207Z, 120 V AC, 60 Hz)	Rechargeable Ni-MH battery (2.4 V, 830 mAh) HHR-P105	AC Adaptor (PQLV207Z, 120 V AC, 60 Hz)
Receiving/Transmitting Frequency	89 channels within 5.76 GHz-5.84 GHz	89 channels within 5.76 GHz-5.84 GHz	——
Receiving Method	Super Heterodyne	Super Heterodyne	——
Oscillation Method	PLL synthesizer	PLL synthesizer	——
Detecting Method	Quadrature Discriminator	Quadrature Discriminator	——
Tolerance of OSC Frequency	13.824 MHz±270 Hz	13.824 MHz±100 Hz	——
Modulation Method	Frequency Modulation	Frequency Modulation	——
Spread spectrum Method	Frequency Hopping Spread spectrum	Frequency Hopping Spread spectrum	——
ID Code	19 bit	22 bit	——
Security Codes	——	1,000,000	——
Ringer Equivalence No. (REN)	0.1B	——	——
Dialing Mode	——	Tone (DTMF)/Pulse	——
Redial	——	Up to 48 digits	——
Speed Dialer	Up to 32 digits (10 stations)	Up to 32 digits (Phonebook)	——
Power Consumption	Standby: Approx. 2.1 W, Maximum: Approx. 5.2 W	7 days at Standby, 5 hours at Talk	Standby: Approx. 1.1 W, Maximum: Approx. 3.4 W
Power Output	200 mW (max.)	200 mW (max.)	——
Operating Environment	5 °C - 40 °C (41 °F - 104 °F)	5 °C - 40 °C (41 °F - 104 °F)	5 °C - 40 °C (41 °F - 104 °F)
Dimensions (H x W x D)	Approx. 55 mm × 230 mm × 140 mm ($2^{5}/_{32}$" × $9^{1}/_{16}$" × $5^{1}/_{2}$")	Approx. 156 mm × 49 mm × 35 mm ($6^{1}/_{8}$" × $1^{15}/_{16}$" × $1^{3}/_{8}$")	Approx. 58 mm × 87 mm × 95 mm ($2^{9}/_{32}$" × $3^{7}/_{16}$" × $3^{3}/_{4}$")
Mass (Weight)	Approx. 420 g (0.93 lb.)	Approx. 150 g (0.33 lb.)	Approx. 90 g (0.20 lb.)

- Optional Headset: KX-TCA60, KX-TCA86, KX-TCA88HA, KX-TCA91, KX-TCA92, or KX-TCA98
- Design and specifications are subject to change without notice.

4 Technical Descriptions

4.1. FHSS Description

4.1.1. Frequency

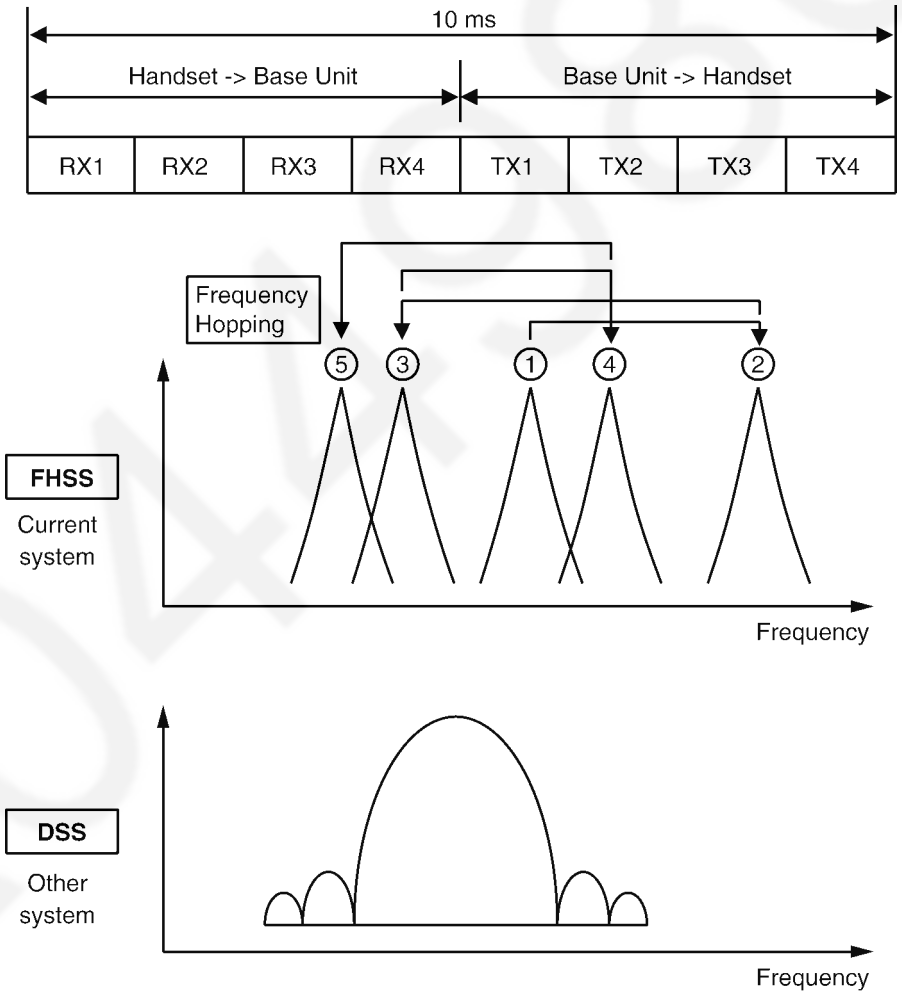
The frequency range of 5.76 GHz-5.84 GHz is used. Transmitting and receiving channel between Base Unit and Handset is same frequency. Refer to **Frequency Table** (P.88).

4.1.2. FHSS (Frequency Hopping Spread Spectrum)

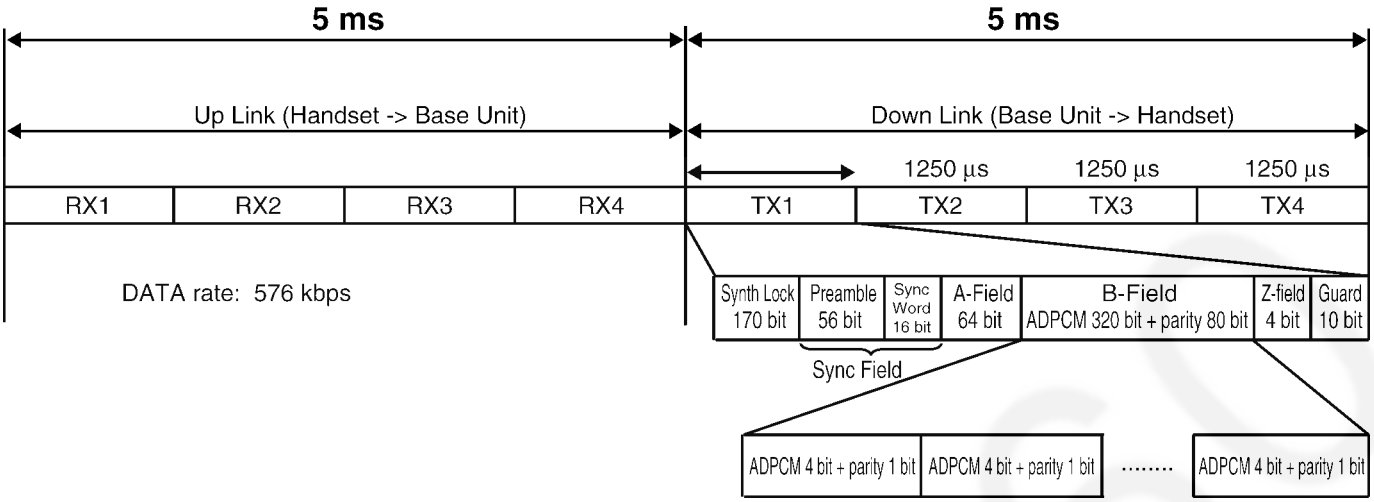
This telephone is using an IC chip which has similar specification to WDCT (World Digital Cordless Telephone) and is the telephone system that can use multiple portable unit simultaneously. The explanation of this system is mentioned below. This system uses a Time Division Multiple Access/Time Division Duplex (**TDMA**/**TDD**) scheme:

transmitting and receiving frequencies of the Base Unit and Handset are shared in the same frequency. The construction of RX/TX frequency data is shown below. It consists of 4 slots from the Base Unit to the Handset, and 4 slots from the Handset to the Base Unit, total 8 slots in 10 ms. By this slot system, simultaneous air link and communication between 4 Handsets and the Base Unit can be realized. One communication between Handset and the Base Unit is done by one slot from the Base Unit to Handset, and another slot from Handset to the Base Unit.

DSS makes spectrum spread by multiplying carrier signal by PN code. The purpose to make spectrum spread is to reduce power density per time and per band. On the other hand, **FHSS** makes spectrum spread by changing channel every 10 ms according to Hopping table. Also the purpose to make spectrum spread is to reduce power density per time and per band.



4.1.2.1. TDD Frame Format

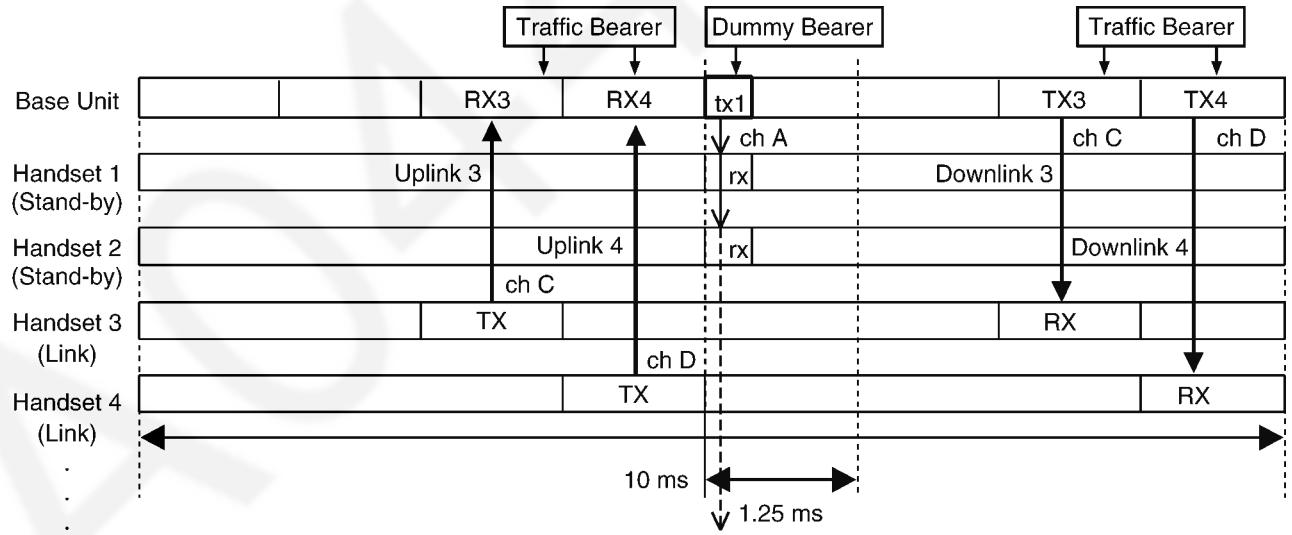


Sync Field (72 bit): Preamble 56 bit + SyncWord 16 bit
Base Unit (Handset) adjusts the timing of reception so that reception of Base Unit (Handset) can correspond to transmission of Handset (Base Unit).
It is necessary for sync-field that Handset gets synchronization.
A - field (64 bit): Each kinds of DATA: ch data, line condition, etc.
B - field (320 bit + 80 bit): Sound data + parity
Z - field (4 bit): Parity Check

4.1.2.2. TDMA system

This system is the cycles of 10 ms, and has four duplex paths,
so it is possible to perform four duplex communications simultaneously.
(Up to eight Handsets can be registered)
In 1 slot 1.25 ms, the 10 ms of voice data is transmitted.
Each slot makes every frame frequency hop. (100 hops/sec.)
Although each slot (UpLink3 and UpLink4) uses different frequency, UpLink3 and DownLink3 use the same frequency.

• **2 - Handsets Link**



Traffic Bearer

A link is established between Base Unit and Handset.
The state where duplex communication is performed.
The hopping pattern of a 3000 hops (30 seconds) cycle.

Dummy Bearer

The Base Unit sends Dummy-data to the all stand-by state Handsets.
The Handsets receive that data for keeping synchronization and monitoring request from the Base Unit.
Dummy Bearer doesn't contain B-field (sound) data.

4.1.3. Signal Flowchart in the Whole System

Reception

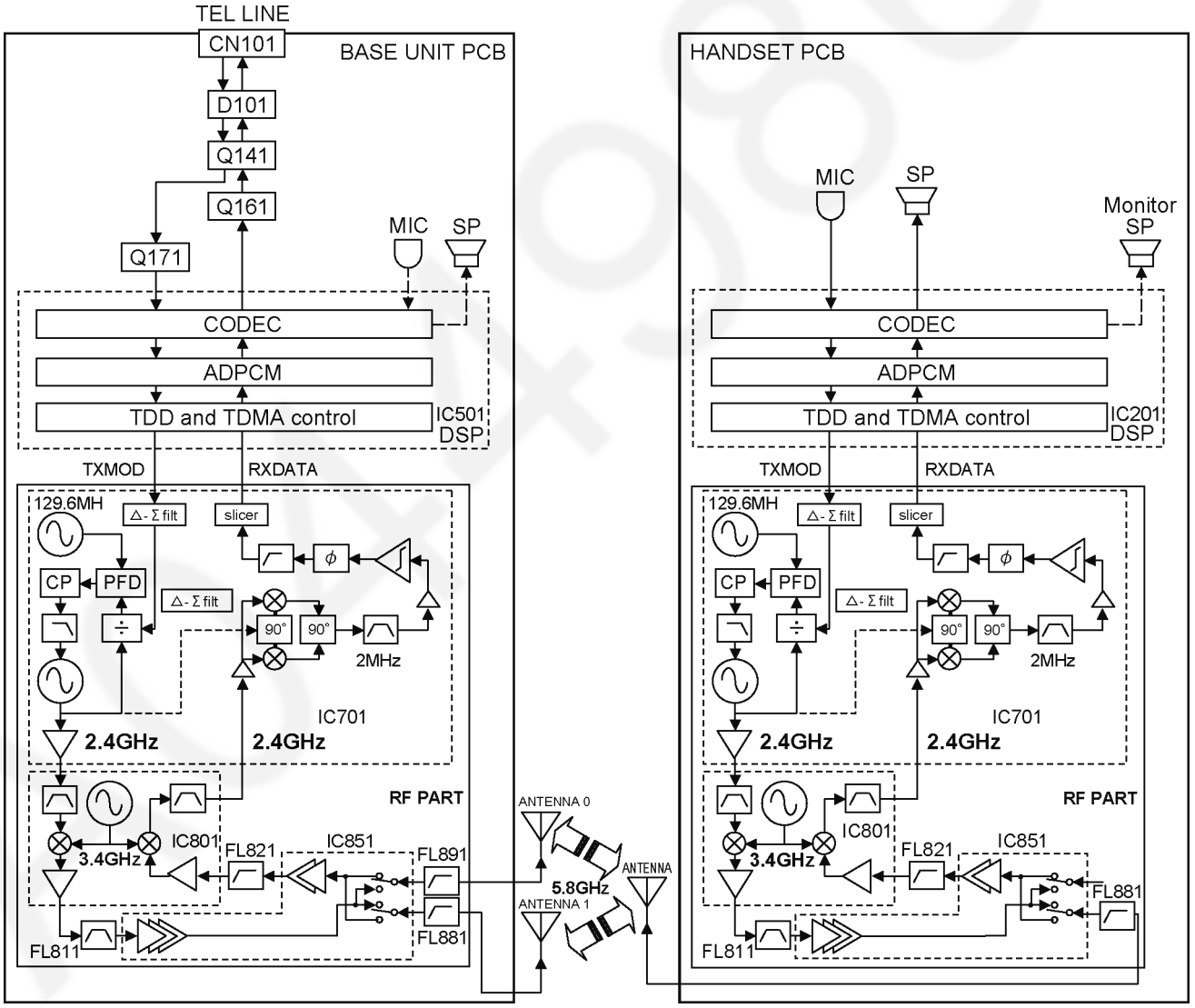
CN101 of the Base Unit is connected to the TEL line, and signal is enter through the bridge diode D101. While talking, the relay (Q141) is turned ON and amplified at the Q171, then led to DSP (IC501). The DSP encodes ADPCM and TDD/TDMA with FHSS to TXMOD. The TXMOD signal is enter to IC701 of RF PART, and modulated to 2.4 GHz. The 2.4 GHz signal is up-converted to 5.8 GHz RF signal by IC801. The RF signal is amplified by the power amplifier (IC851) and fed to Antennas.

As for the Handset, RF signal from the antenna is amplified by LNA (IC851). The amplified signal is down-converted to 2.4 GHz signal by IC801 and led to IC701. The 2.4 GHz is down-converted to IF signal in IC701. The IF signal passing through internal filter is demodulated into RXDATA, then enter to DSP (IC201). The DSP performs TDD/TDMA and ADPCM decoding to convert the RXDATA into the voice signal, then it is output to the speaker.

Transmission

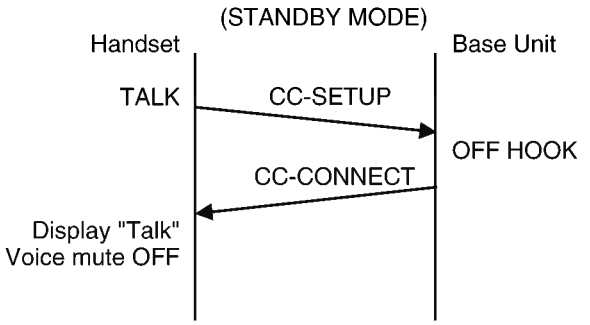
The voice signal entering from the Handset microphone is led to DSP (IC201). The DSP encodes ADPCM and TDD/TDMA with FHSS to TXMOD. The TXMOD signal is enter to IC701 of RF PART, and modulated to 2.4 GHz. The 2.4 GHz signal is up-converted to 5.8 GHz RF signal by IC801. The RF signal is amplified by the power amplifier (IC851) and fed to Antenna.

As for the Base Unit, RF signal from the Antennas is amplified by LNA (IC851). The amplified signal is down-converted to 2.4 GHz signal by IC801 and led to IC701. The 2.4 GHz is down-converted to IF signal in IC701. The IF signal passing through internal filter is demodulated into RXDATA, then enter to DSP (IC501). The DSP performs TDD/TDMA and ADPCM decoding to convert the RXDATA into the voice signal. The voice signal is amplified at the TX amplifier (Q161), then output to the TEL line CN101 through the relay (Q141) and bridge (D101).



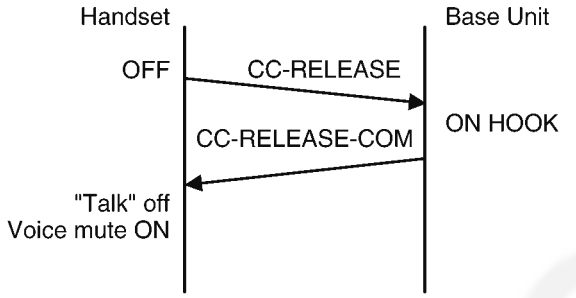
4.2. Explanation of Link Data Communication

4.2.1. Calling



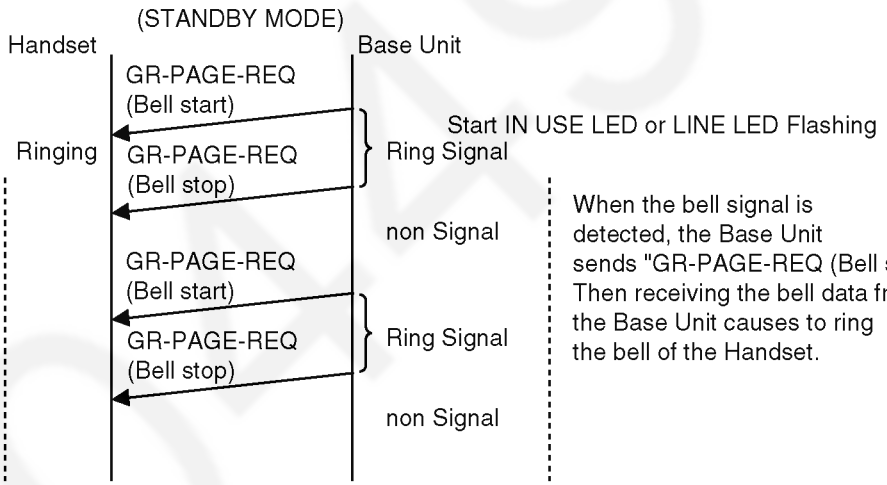
When calling, a communication request DATA (CC-SETUP) is transmitted from the Handset, and a permitting DATA (CC-CONNECT) is returned from the Base Unit to it. At that time the audio path opens.

4.2.2. To Terminate Communication



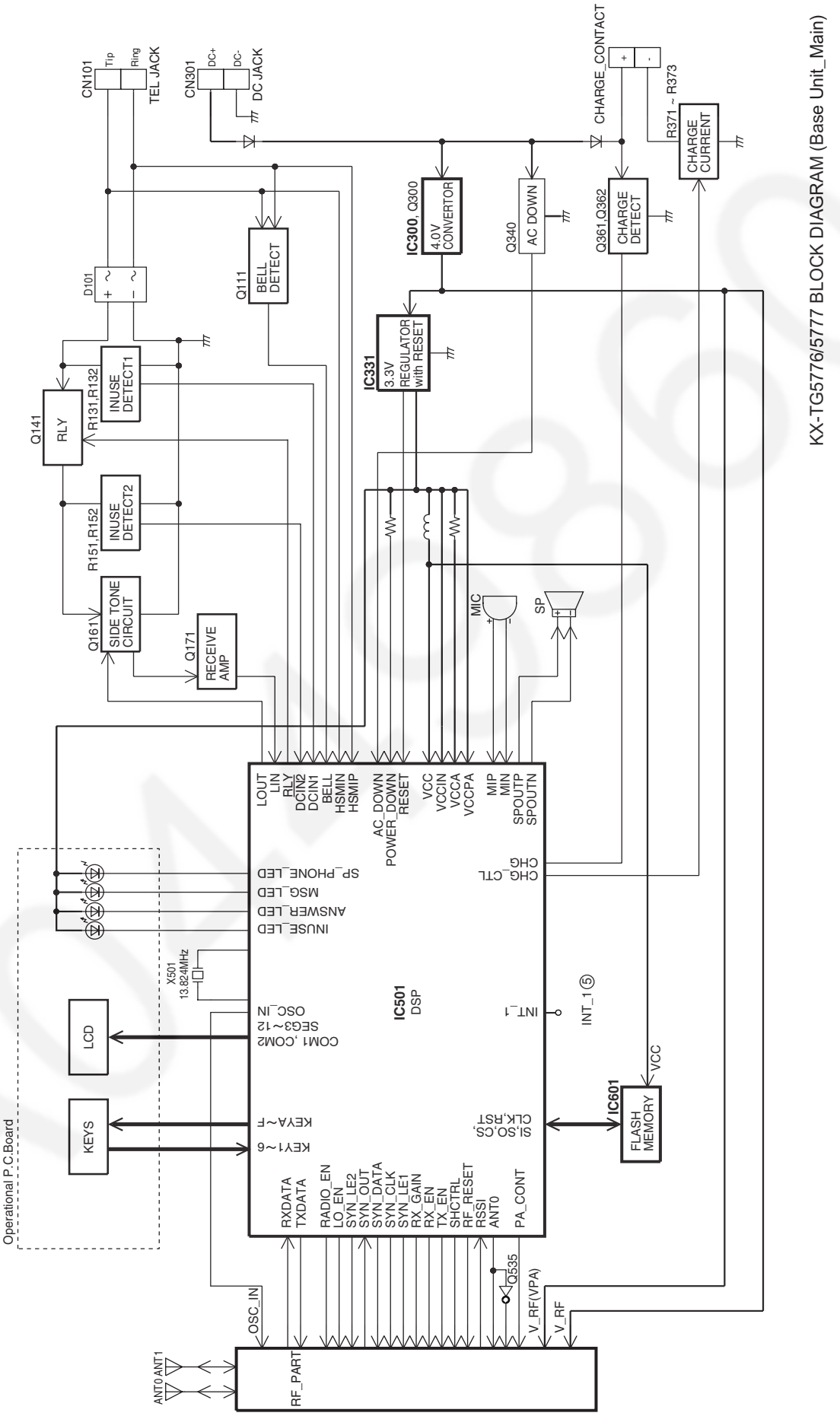
When the OFF button on the Handset is pressed during communication, a LINK terminating DATA (CC-RELEASE) is sent to terminate the communication. Then DATA (CC-RELEASE-COM) is returned from Base Unit.
Handset receives it and reset the link.

4.2.3. Ringing

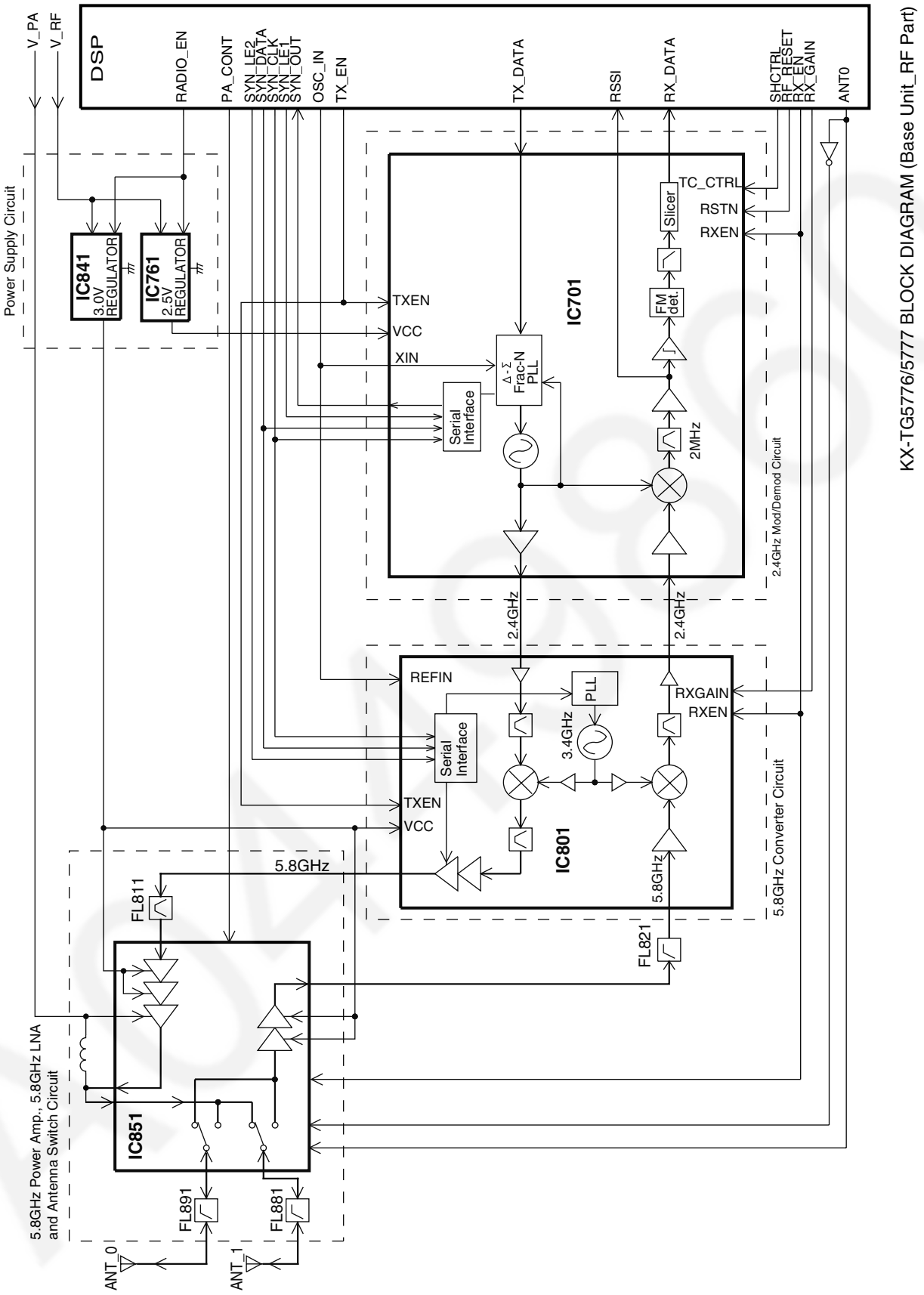


When the bell signal is detected, the Base Unit sends "GR-PAGE-REQ (Bell start)". Then receiving the bell data from the Base Unit causes to ring the bell of the Handset.

4.3. Block Diagram (Base Unit_Main)



4.4. Block Diagram (Base Unit_RF Part)

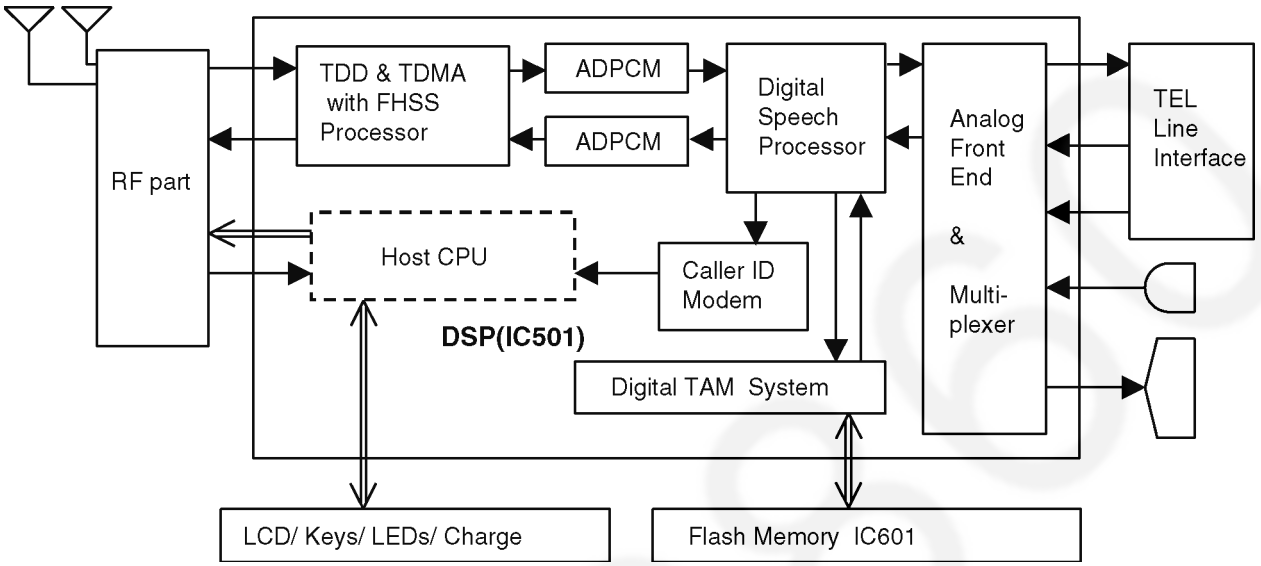


4.5. Circuit Operation (Base Unit)

General Description:

(DSP, Flash Memory) is a digital speech/signal processing system that implements all the functions of speech compression, record and playback, and memory management required in a digital telephone answering machine.

The DSP system is fully controlled by a host processor DSP. The host processor provides activation and control of all that functions as follows.



4.5.1. DSP (Digital Speech/Signal Processing: IC501)

- **Voice Message Recording/Play back**

  The DSP system use a proprietary speech compression technique to record and store voice message in Flash Memory. An error correction algorithm is used to enable playback of these messages from the Flash Memory.
- **DTMF Detection/Generator**

  The DTMF detection is implemented by the DSP system in software. The DTMF detection is performed during Record, Play back, and Line Monitoring modes of operation.

  When the DTMF data from the Handset is received, the DTMF signal is output.
- **Synthesized Voice (Pre-recorded message)**

  The DSP implements synthesized Voice, utilizing the built in speech detector and a Flash Memory, which stored the vocabulary.
- **Caller ID and Call Waiting CID demodulation**

  The DSP implements monitor and demodulate the FSK signals that provide CID information from the Central Office.
- **Analog Switching**

  The voice signal from telephone line is transmitted to the speaker or the voice signal from speakerphone microphone is transmitted to the Telephone line, etc. They are determined by the signal path route operation of voice signal.
- **Block Interface Circuit**

  RF part, LED, Key scan, Speaker, Microphone, Telephone line, LCD.

4.5.2. Flash Memory (IC601)

Following information data is stored.

- **Voice signal**

  ex: Pre-recorded Greeting message, Incoming message, Talking Caller ID announcement
- **Settings**

  ex: message numbers, ID code, Flash Time, Tone/Pulse

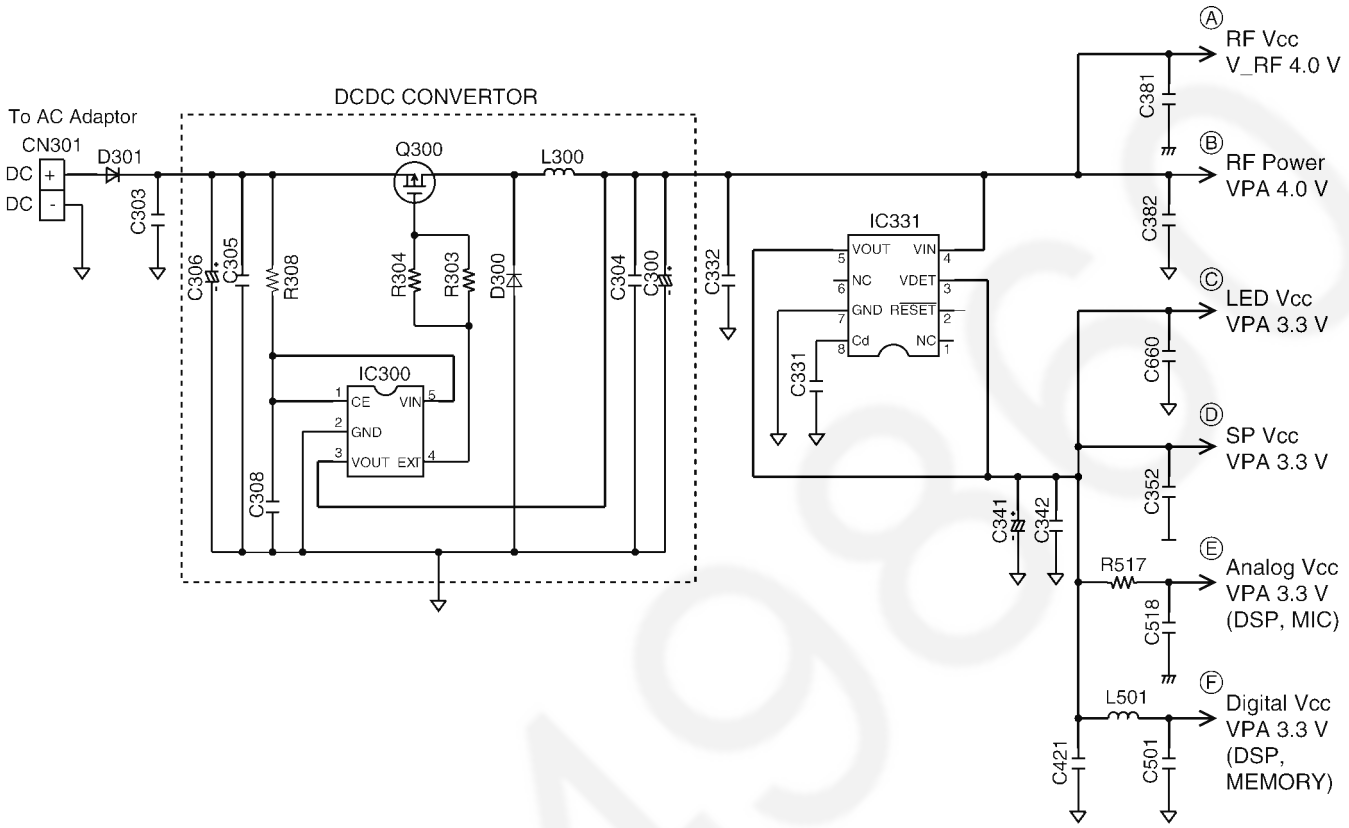
4.5.3. Power Supply Circuit

Function:

The power supply voltage from AC adaptor is converted to the desired voltage of each block.

Circuit Operation:

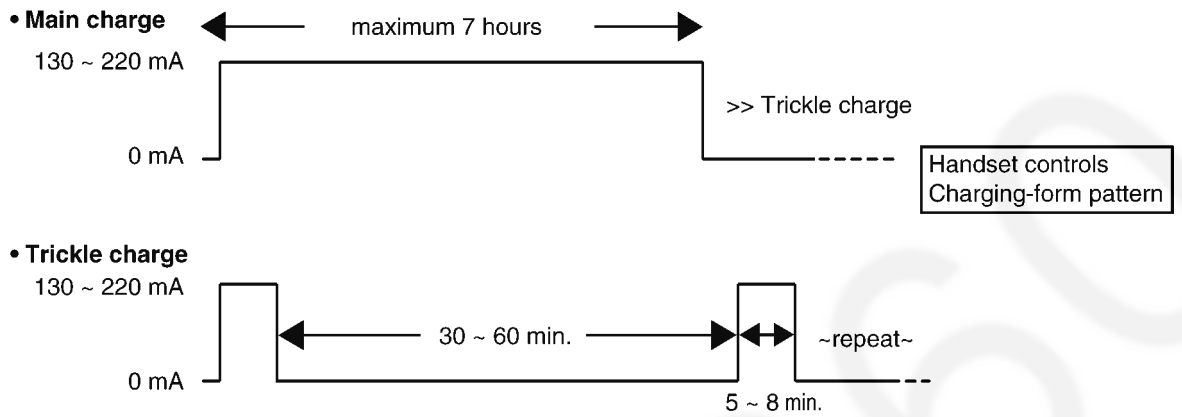
- Q300 and IC300: 4.0 V DCDC Converter
- IC331: 3.3 V Regulator



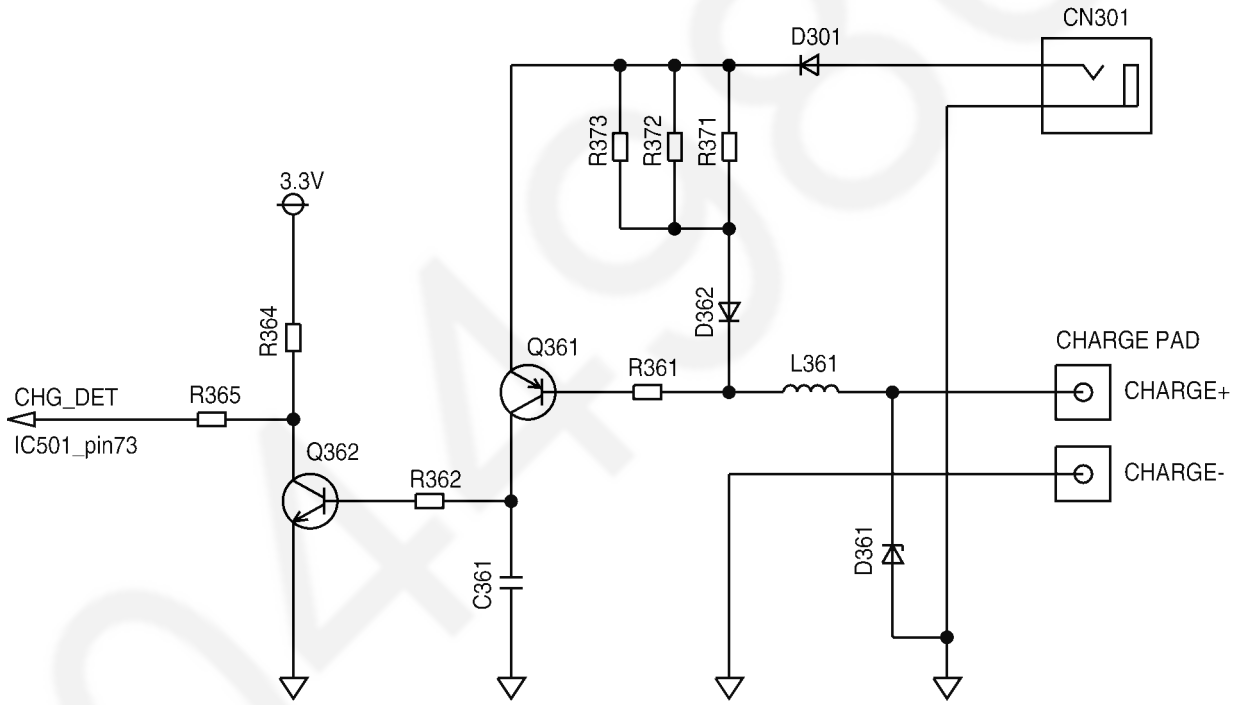
4.5.3.1. Charge Circuit

The voltage from the AC adaptor is supplied to the charge circuits. Main charge (130 ~ 220 mA at the Battery) of maximum 7-hours is started soon after the Handset is placed on the Base Unit. Then it changes to Trickle charge to prevent from overcharging.

Charging-form



Q361 and Q362 detect the ON-HOOK state (Handset is placed on Base Unit).



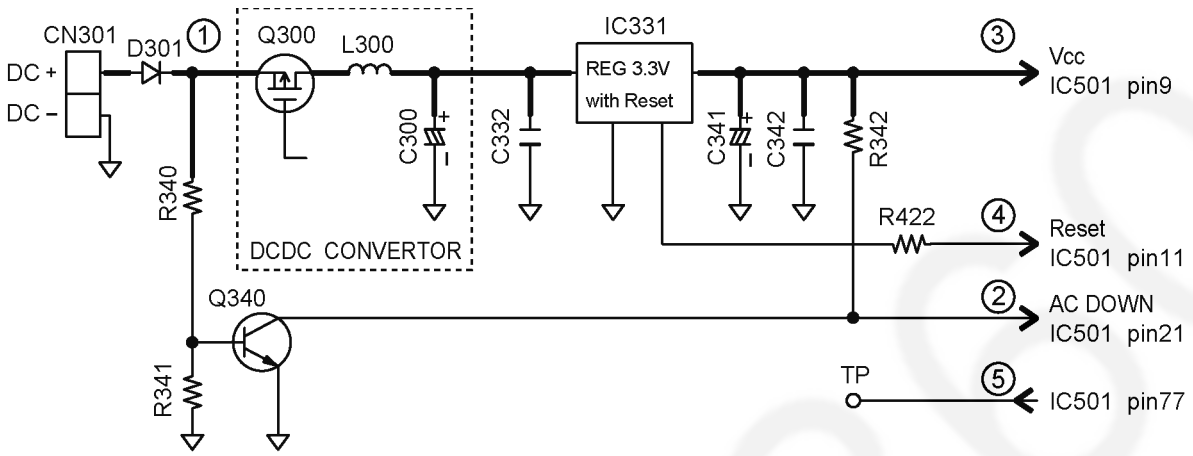
4.5.4. Reset Circuit

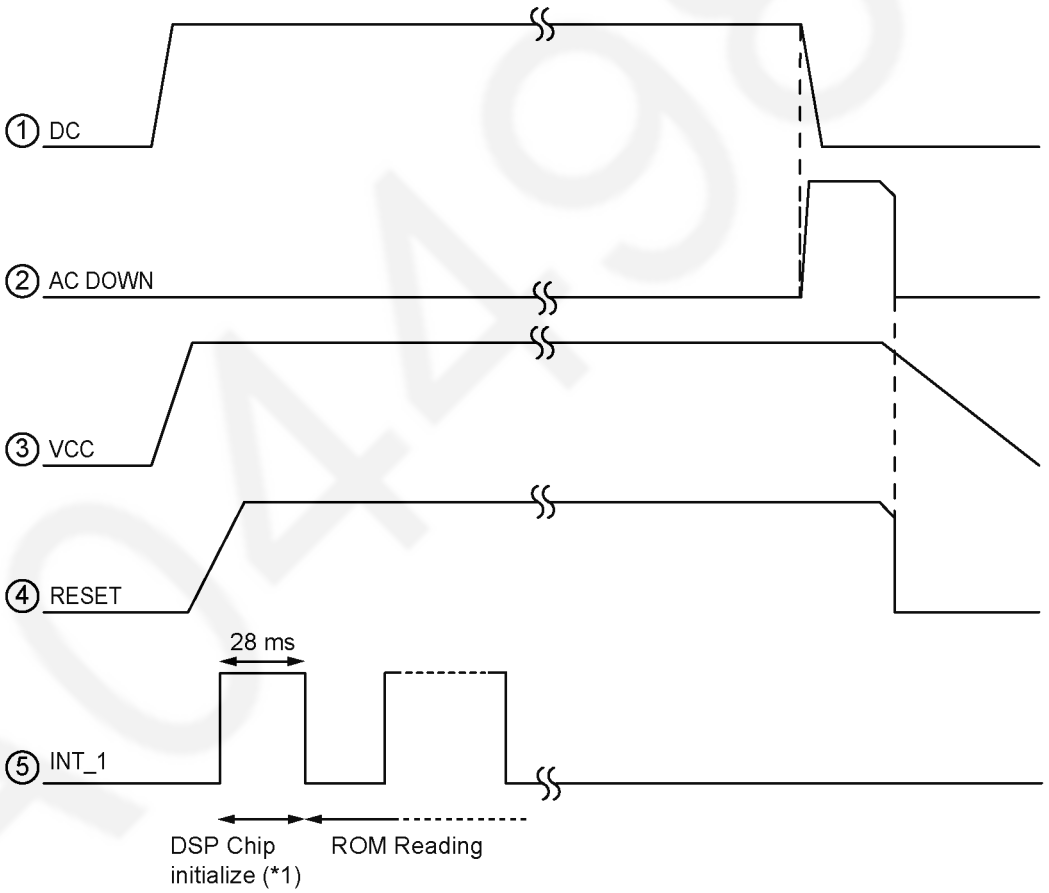
Function:

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

Circuit Operation:

When the AC Adaptor is inserted into the unit, then the voltage is shifted by IC331 and power is supplied to the DSP. The set starts to operate when VCC goes up to 3.0 V or more in the circuit voltage diagram.





Note:

(*1) The initializing time of the DSP chip is 28 ms under normal conditions.

4.5.5. Telephone Line Interface

Telephone Line Interface Circuit:

Function

- Bell signal detection
- ON/OFF hook and pulse dial circuit
- Side tone circuit

Bell signal detection and OFF HOOK circuit:

In the idle mode, Q141 is open to cut the DC loop current and decrease the ring load. When ring voltage appears at the Tip (T) and Ring (R) leads (When the telephone rings), the AC ring voltage is transferred as follows:

T → L101 → R111 → C111 → Q111 → DSP pin 3 [BELL]

When the CPU (DSP) detects a ring signal, Q141 turns on, thus providing an off-hook condition (active DC current flow through the circuit). Following signal flow is the DC current flow.

T → L101 → D101 → Q141 → Q161 → R163 → D101 → L102 → P101 → R

ON HOOK Circuit:

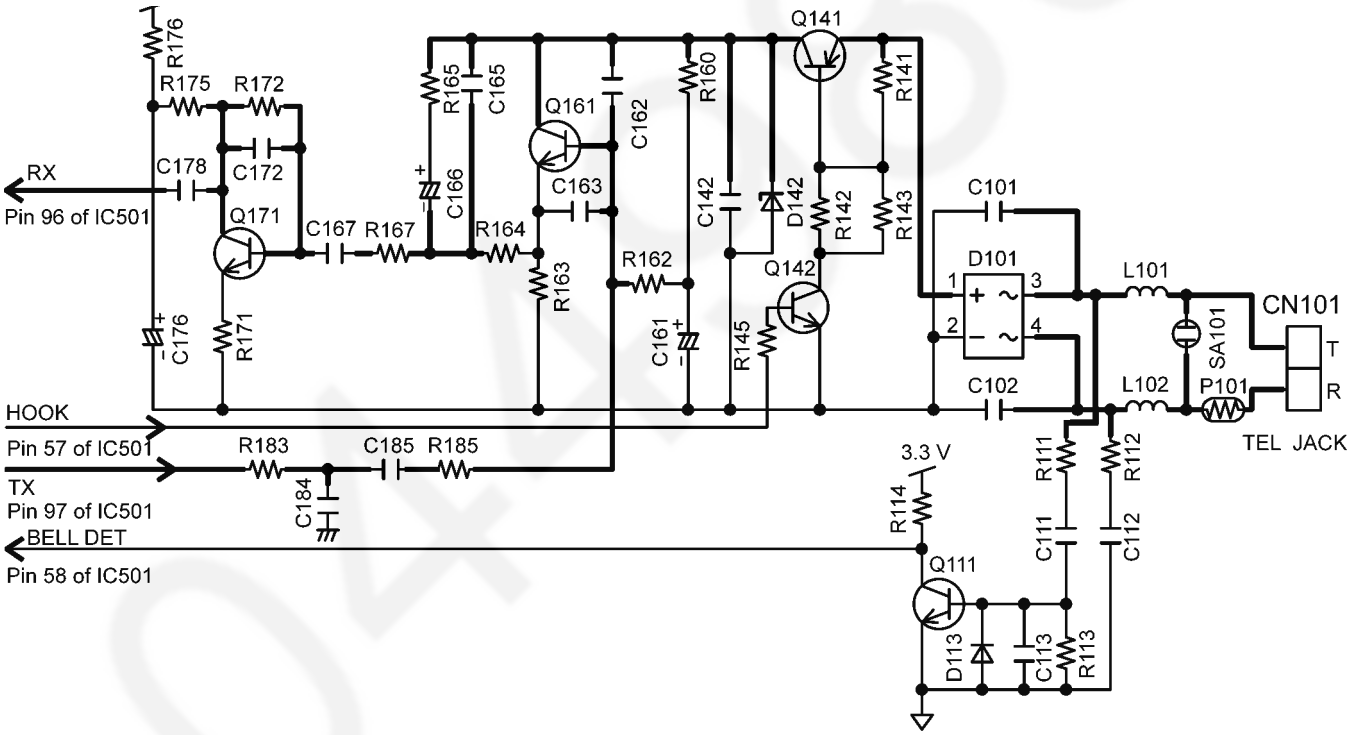
Q141 is open, Q141 is connected as to cut the DC loop current and to cut the voice signal. The unit is consequently in an on-hook condition.

Pulse Dial Circuit:

Pin 59 of DSP turns Q141 ON/OFF to make the pulse dialing.

Side Tone Circuit:

Basically this circuit prevents the TX signal from feeding back to RX signal. As for this unit, TX signal feed back from Q161 is canceled by the canceller circuit of DSP.



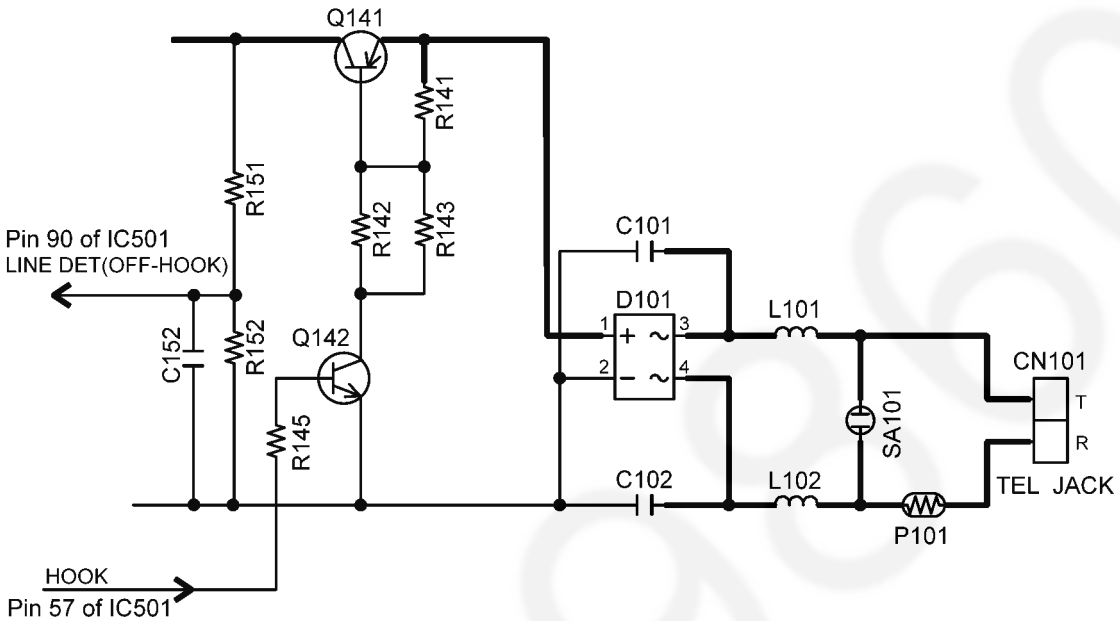
4.5.6. Auto Disconnect circuit

Function:

This circuit is used to detect the fact that another telephone connected to the same line is OFF-HOOK while the unit is in a receiving status or OGM transmitting status.

Circuit Operation:

The voltage of pin 90 of IC501 is monitored. If a parallel-connected telephone is put into OFF-HOOK status, the presence/absence of a parallel connection is determined when the voltage changes by 0.2 V or more. When the set detects the parallel-connected telephone is OFF-HOOK status, the line is disconnected.



You can enable or disable the Auto Disconnect function.

See **Check Record** (P.66)

4.5.7. Parallel Connection Detect Circuit

Function:

In order to disable call waiting and stutter tone functions when using telephones connected in parallel, it is necessary to have a circuit that judges whether a telephone connected in parallel is in use or not. This circuit determines whether the telephone connected in parallel is on hook or off hook by detecting changes in the T/R voltage.

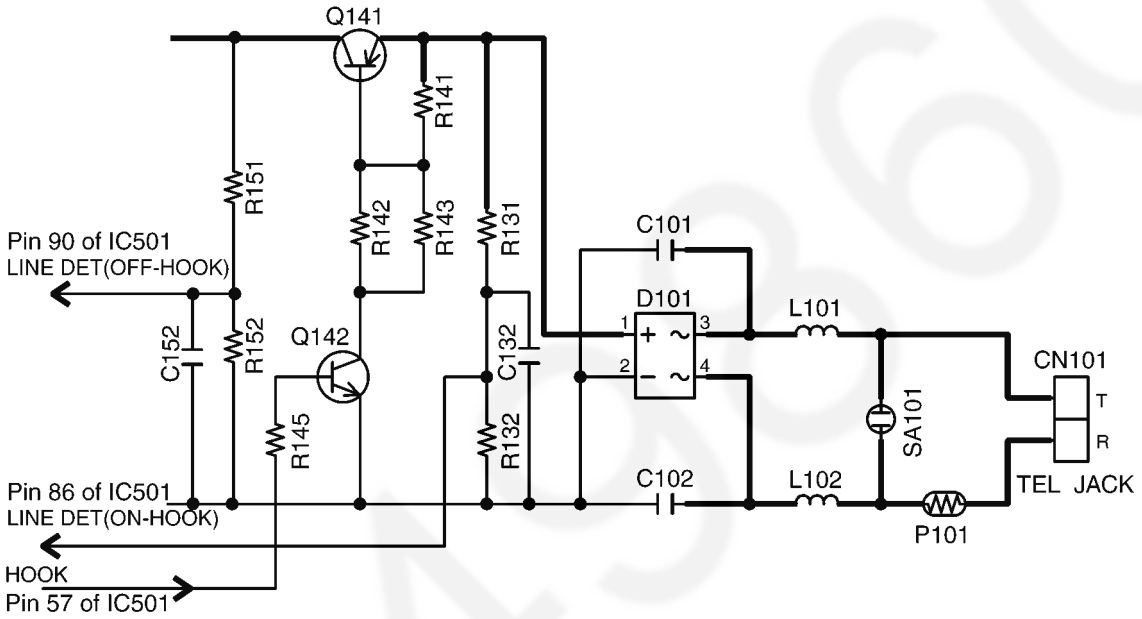
Circuit Operation:

Parallel connection detection when on hook:

When on hook, the voltage is monitored at pin 86 of IC501. There is no parallel connection if the voltage is 1.65 V or higher, while a parallel connection is deemed to exist if the voltage is lower.

Parallel connection detection when off hook:

When off hook, the voltage is monitored at pin 90 of IC501; the presence/absence of a parallel connection is determined when the voltage changes by 0.2 V or more.



4.5.8. Calling Line Identification (Caller ID)/Call Waiting Caller ID

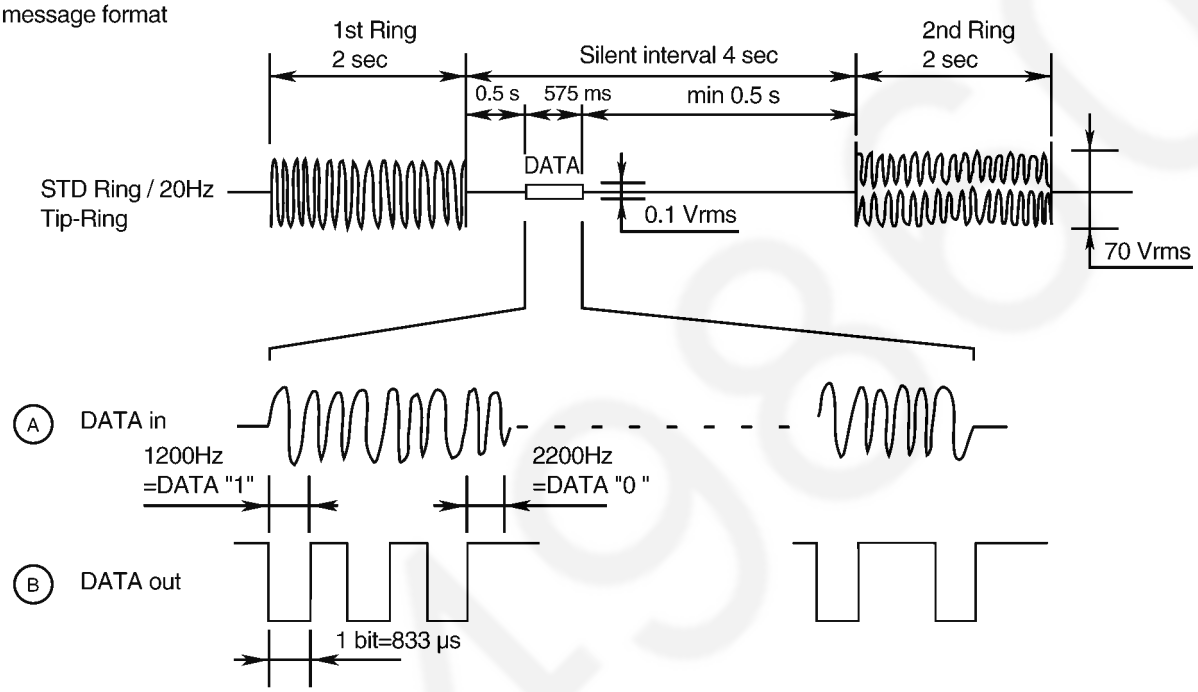
Function:

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.... 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.

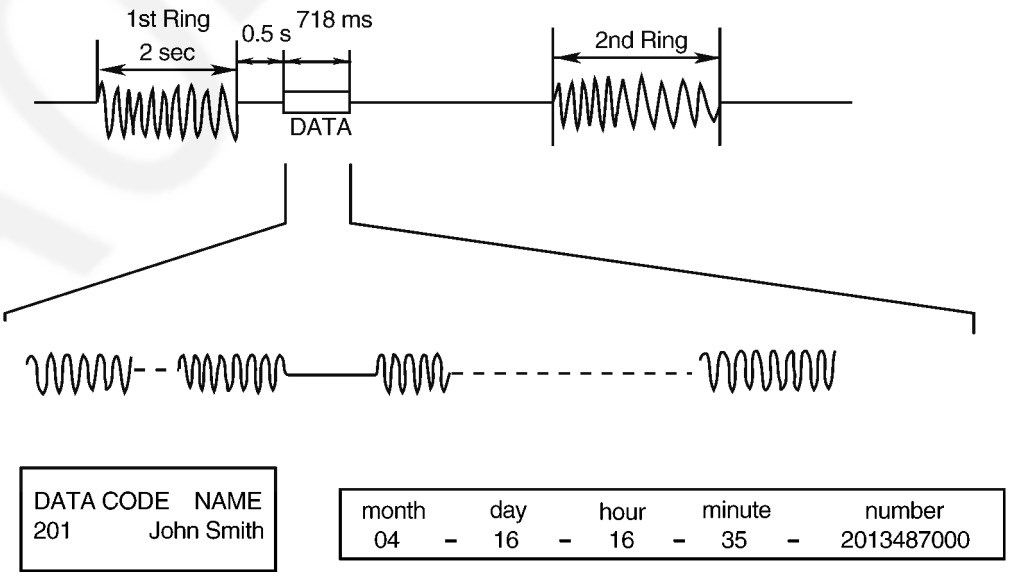
*: Also the telephone exchange service provides other formats.

- Single message format



month		day		hour		minute		number
04	-	15	-	16	-	35	-	2013487000

- Plural message format



DATA CODE	NAME
201	John Smith

month		day		hour		minute		number
04	-	16	-	16	-	35	-	2013487000

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.

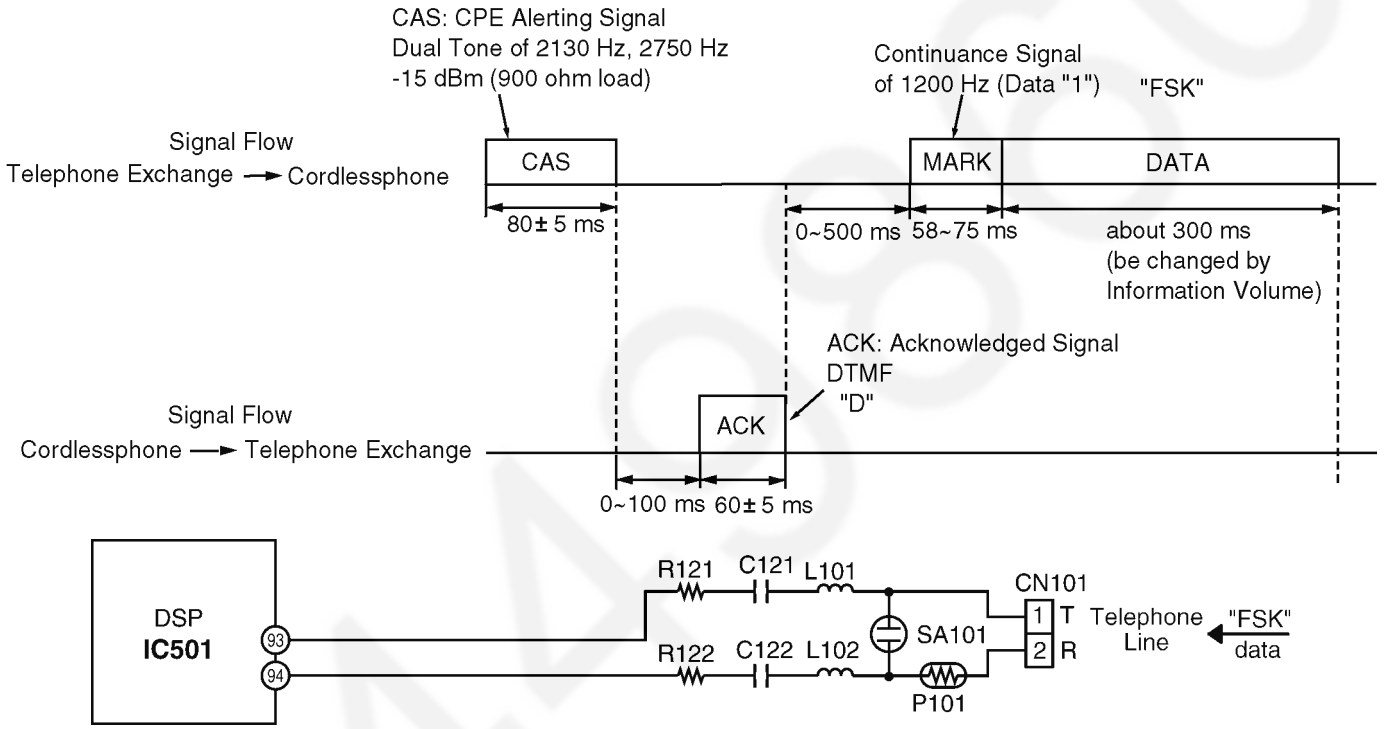
Function:

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.

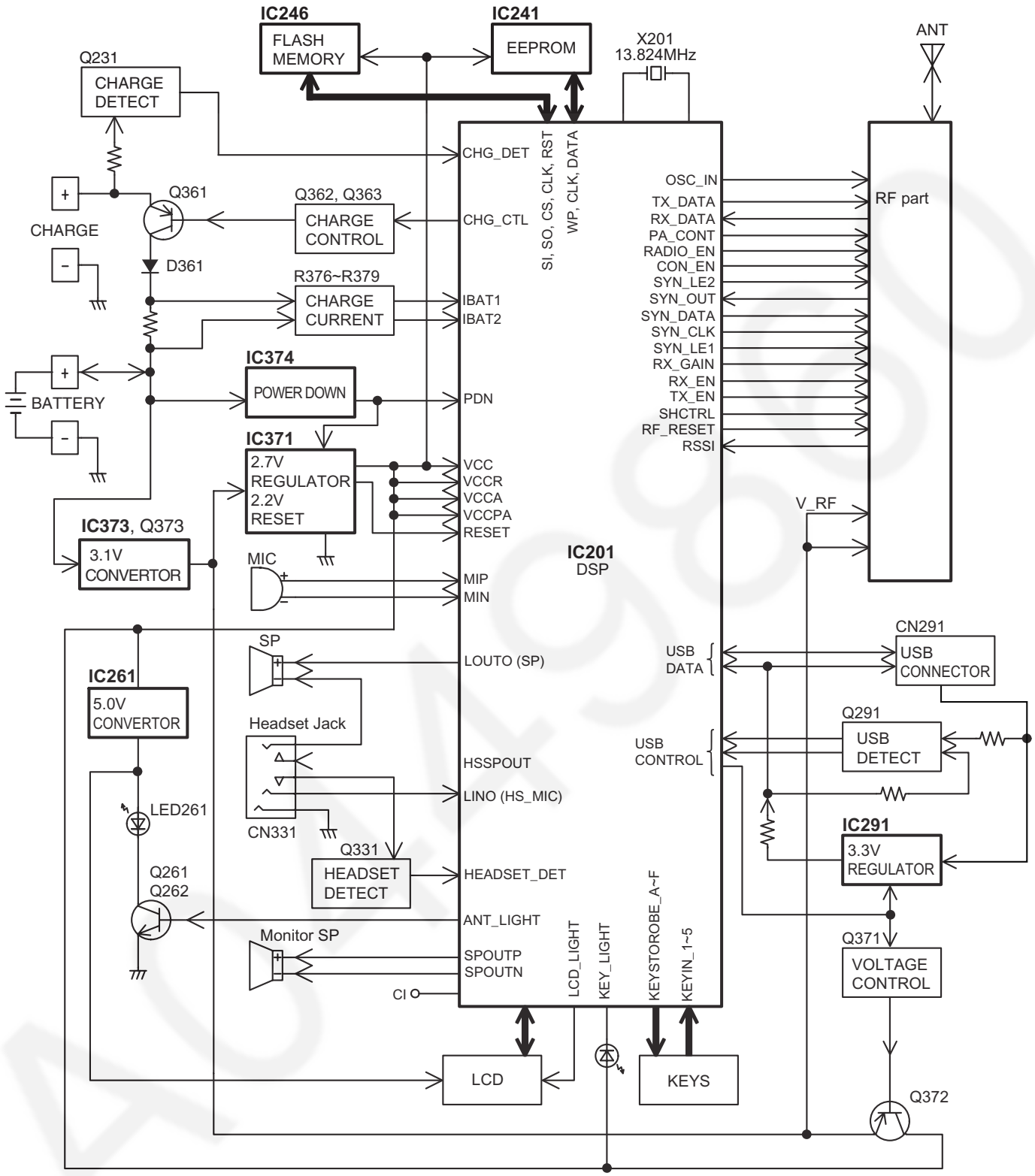
Telephone Line → CN101 (T, R) → C121, C122 → R121, R122 → IC501 (93, 94).

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.

Call Waiting Format

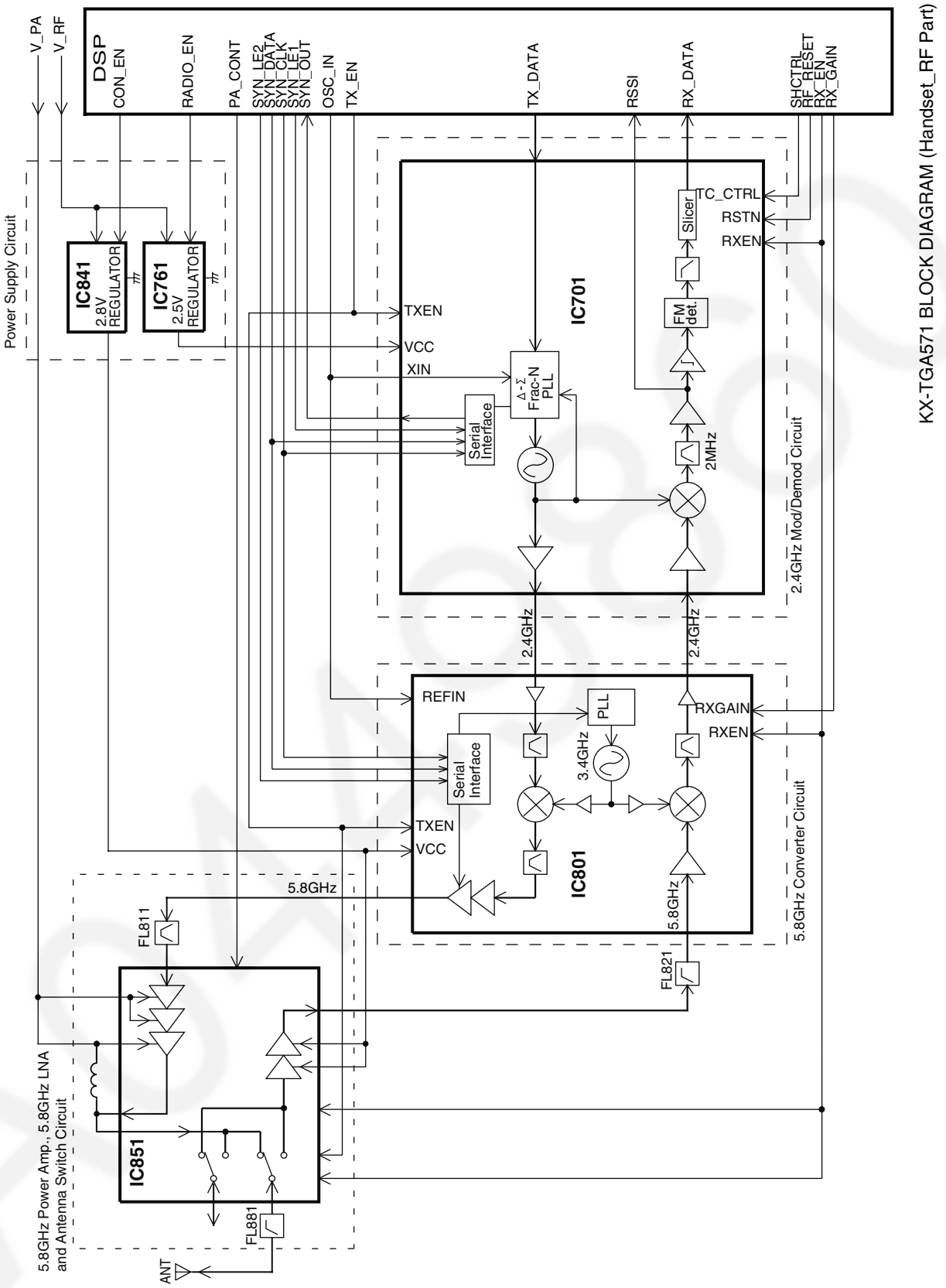


4.6. Block Diagram (Handset_Main)



KX-TGA571 BLOCK DIAGRAM (Handset)

4.7. Block Diagram (Handset_RF Part)



4.8. Circuit Operation (Handset)

4.8.1. Construction

The circuit mainly consists of DSP and RF part as shown in the block diagram.

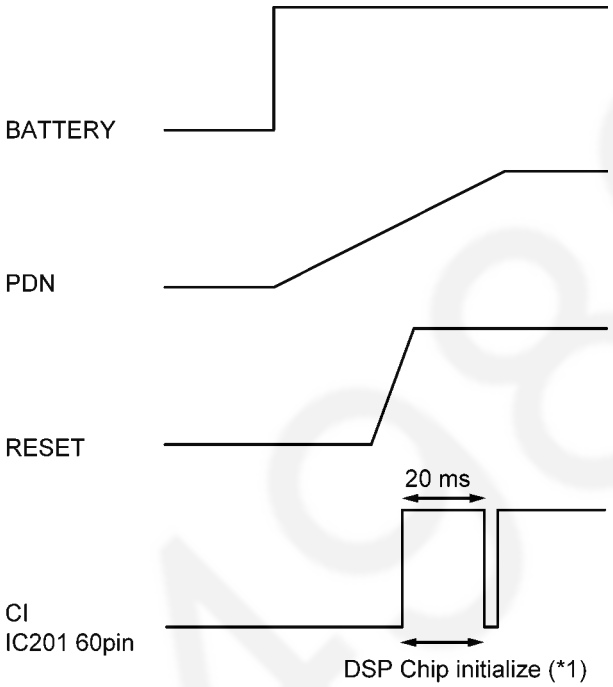
4.8.1.1. DSP: IC201

Function

- Battery Low, Power down detect circuit
- Ringer Generation
- Interface circuit

  RF part, Speaker, Mic, LED, Key scan, LCD, Headset

Initialize



Note:

(*1) The initializing time of the DSP chip is 20 ms under normal conditions.

4.8.1.2. RF part

Mainly voice signal is modulated to RF, or it goes the other way.

4.8.1.3. EEPROM: IC241

All setting data is stored.

ex: ID code, user setting (Phonebook, Caller ID data)

4.8.1.4. FLASH MEMORY: IC246

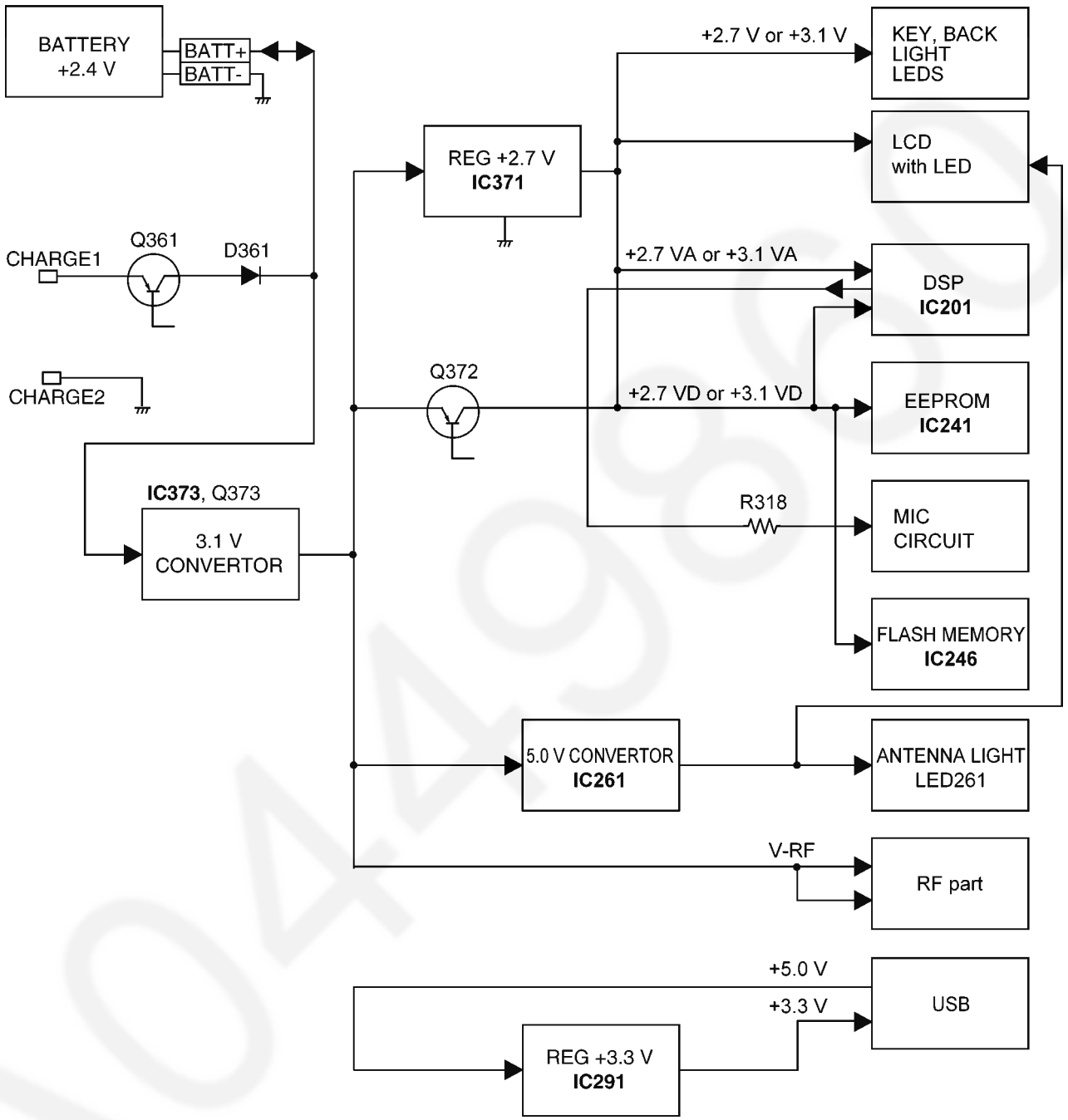
Following information data is stored.

- **Ringer melody**
- **Download wallpaper picture**
- **Picture ID**

4.8.2. Power Supply Circuit

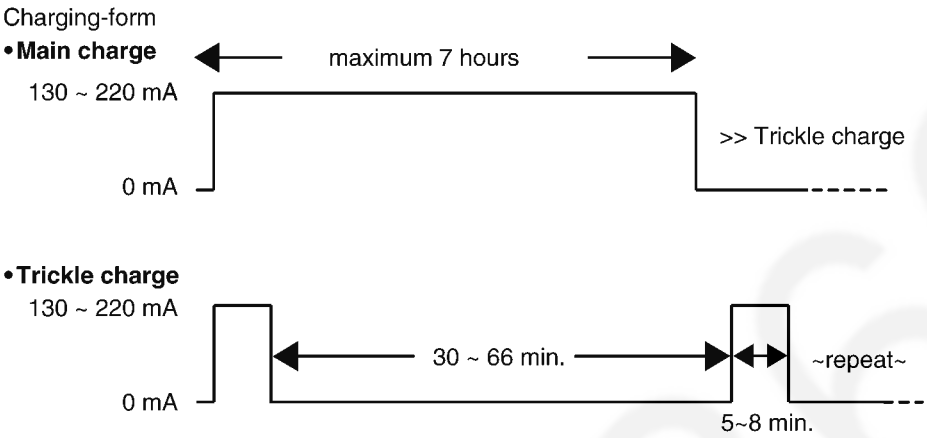
Voltage is supplied separately to each block.

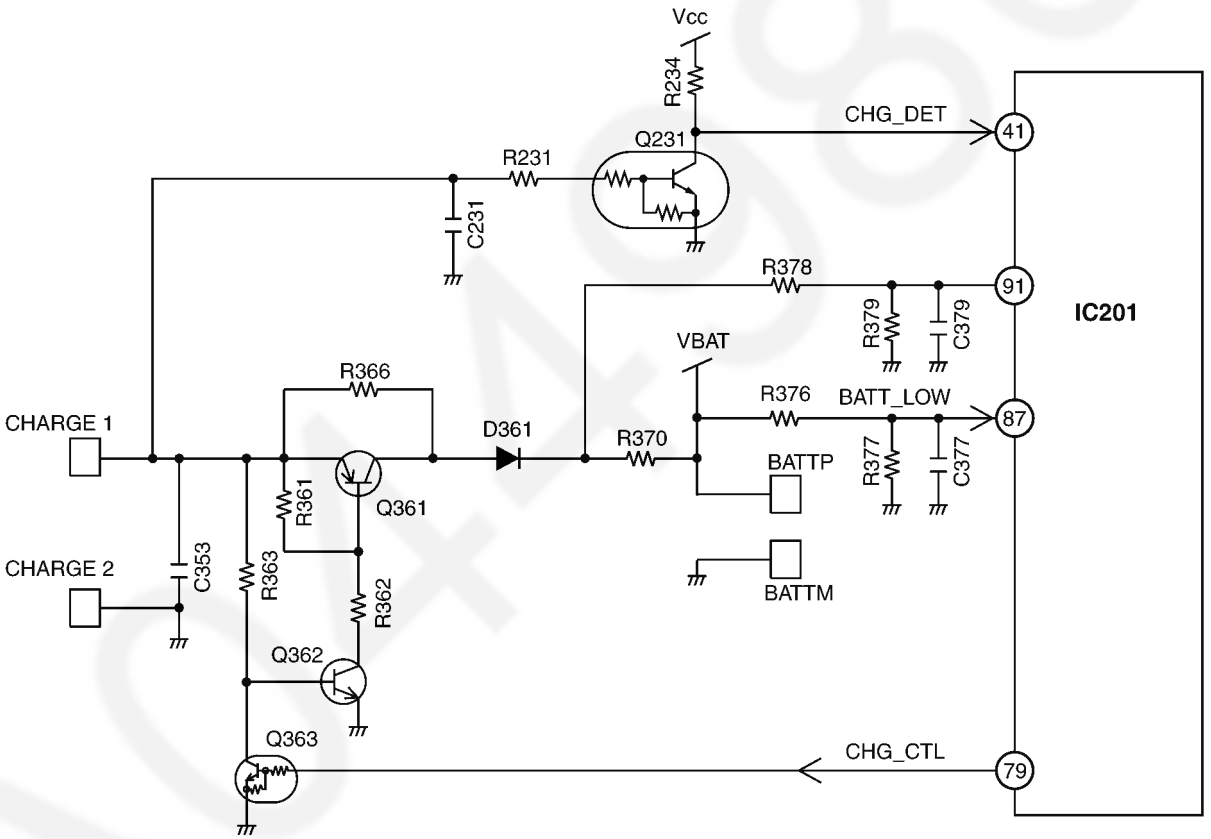
Block Diagram (Handset Power)



4.8.3. Charge Circuit

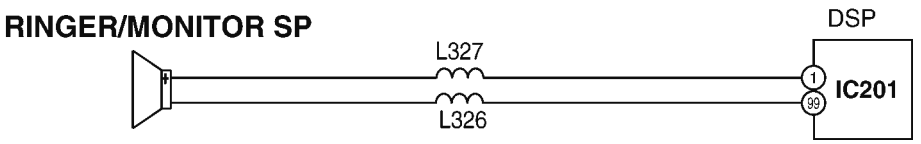
When the Handset is put on the cradle of the Base Unit or the charger, the power is supplied from CHARGE+ and CHARGE- terminals to charge the battery via Q361 or R366, and D361. The voltage between CHARGE+ and CHARGE- flows R231 → Q231 → pin 41 of IC201, where the charge is detected. Then IC201 calculates the battery consumption amount from the previous charge, and it controls Q361/Q362/Q363 by pin 79 of IC201 until charging is complete. When charging is complete, the control pattern is switched to Trickle charging form from Operational charging form.





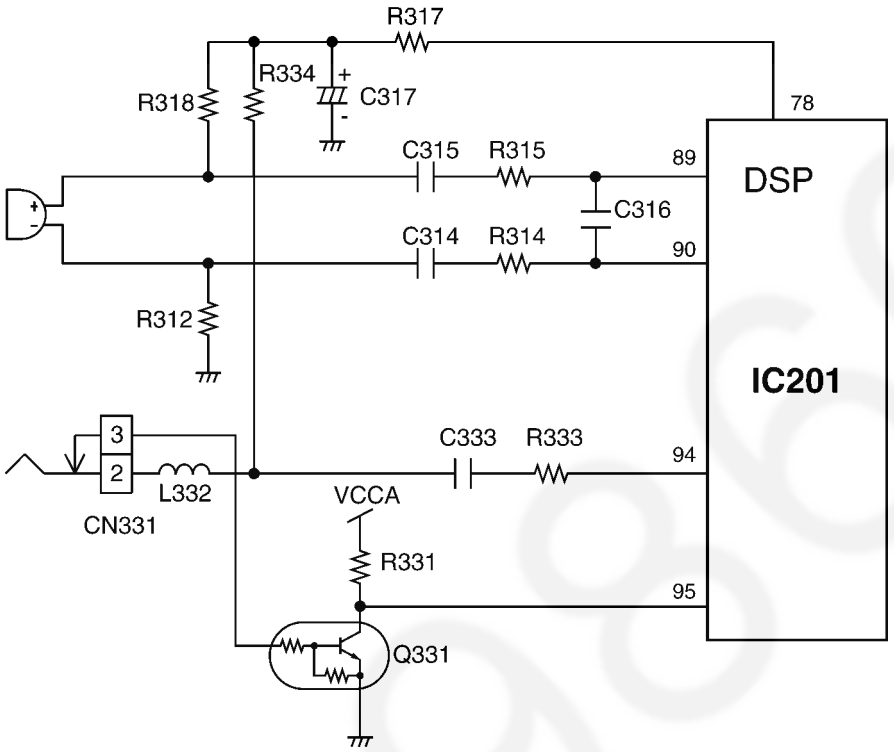
Pin 87 of IC201 monitors the battery voltage and detect BATT LOW at 2.34 V.

4.8.4. Ringer and Handset SP-Phone



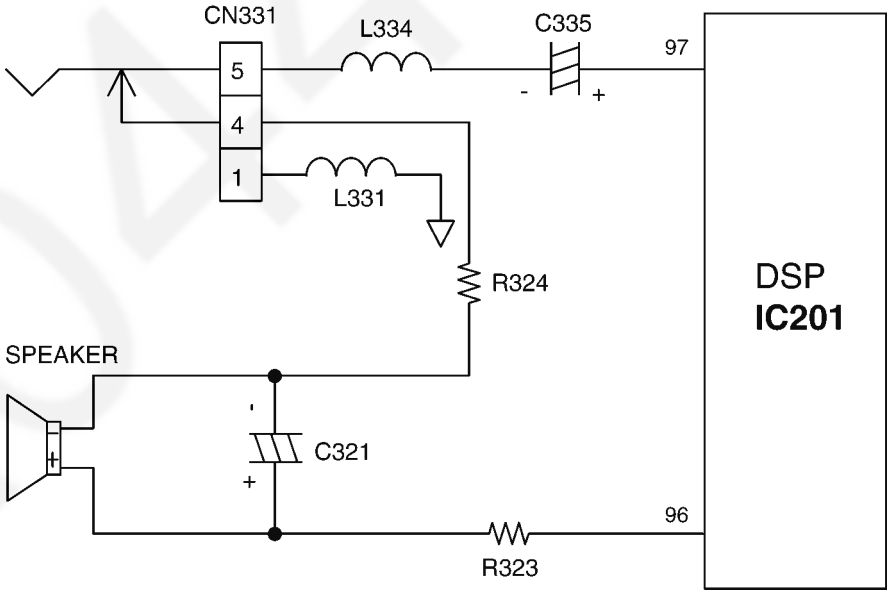
4.8.5. Sending Signal

The voice signal from the microphone is input to DSP (89, 90). CN331 is the headset jack. When the headphone is connected, the Q331 detect it. The input from the microphone of the Handset (MIN, MIP) is cut and the microphone signal from the headset is input to DSP (94). Also the power for the microphone is supplied from DSP (78) and the power is turned OFF on standby.



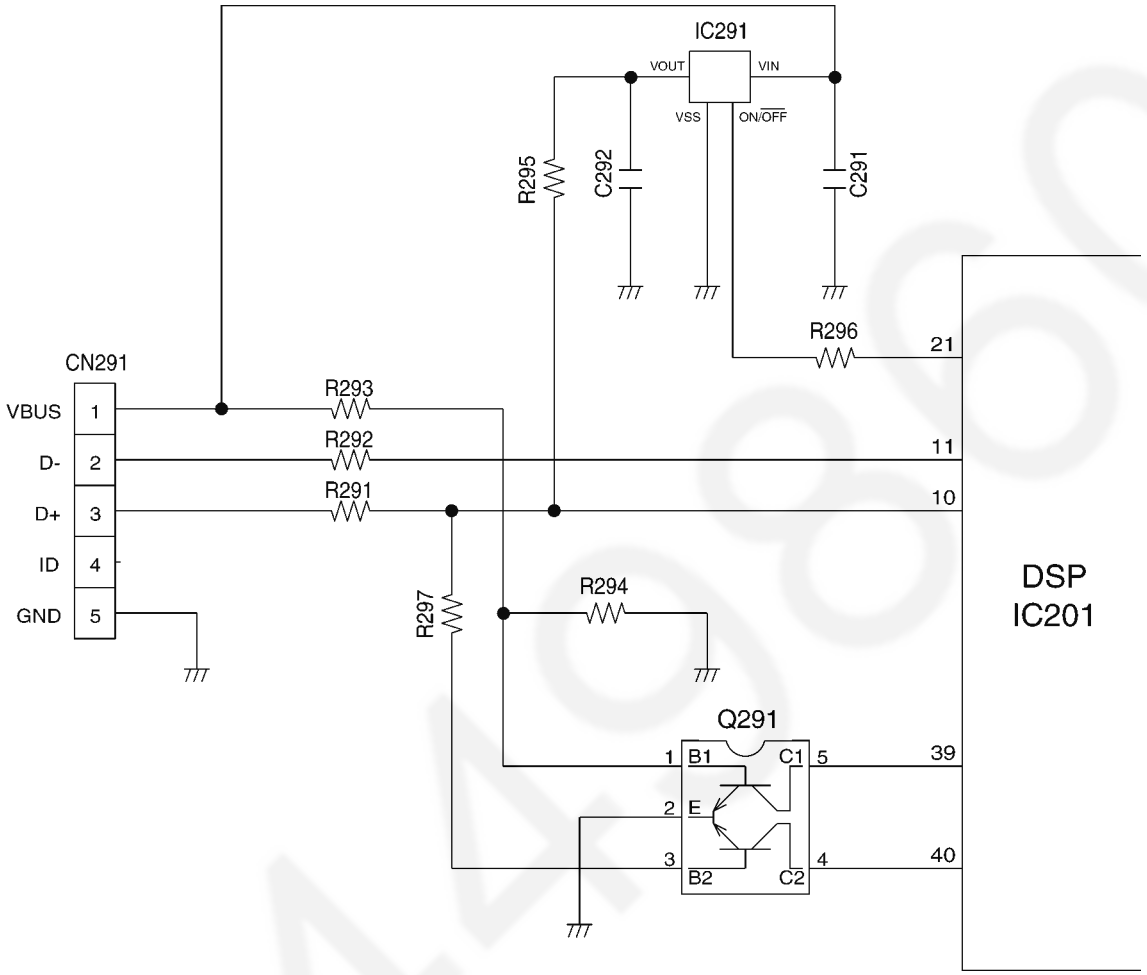
4.8.6. Reception Signal

The voice signal from the Base Unit is output to DSP (97). This signal is led to the headset jack (CN331). The signal through the headset jack and the other signal output from DSP (96) drives the speaker. When the headset is inserted to the jack, the voice signal is cut at the jack, so the sound does not come out from the speaker, but from the headset only.



4.8.7. USB Signal

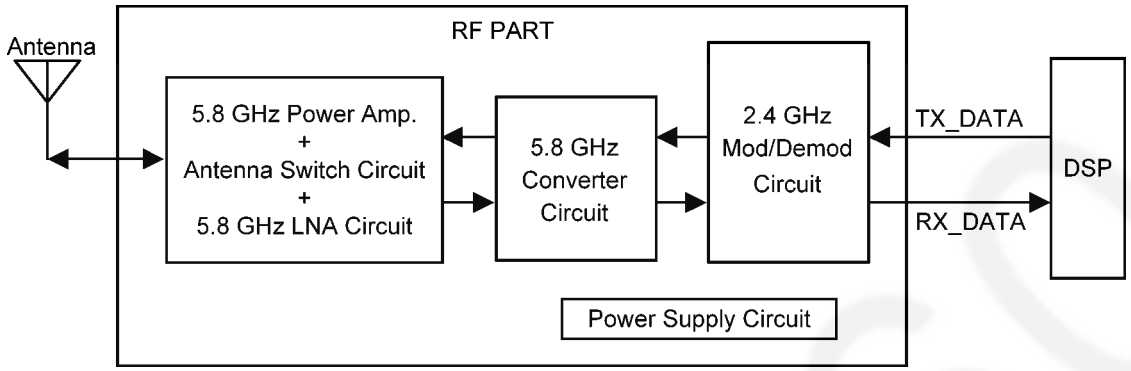
Q291-Base1 detects that USB-cable is connected to the unit, which is recognized by pin 39 of DSP.
Then 3.3 V is made by IC291 under the control of pin 21 of DSP. And a signal is output to inform of the completion of the USB-cable connection.
The USB-data signals (D+, D-) are input/output at pin 10 and 11 of DSP.
Q291-Base2 detects the condition of the USB-data communication, which is recognized by pin 40 of DSP.



4.9. Circuit Operation (RF Part)

General Description:

RF part includes Transmitter and Receiver functions. Digital signals (Mainly voice data) that come from DSP, are modulated and are transmitted. On the other hand, received signals are demodulated and go out to DSP.



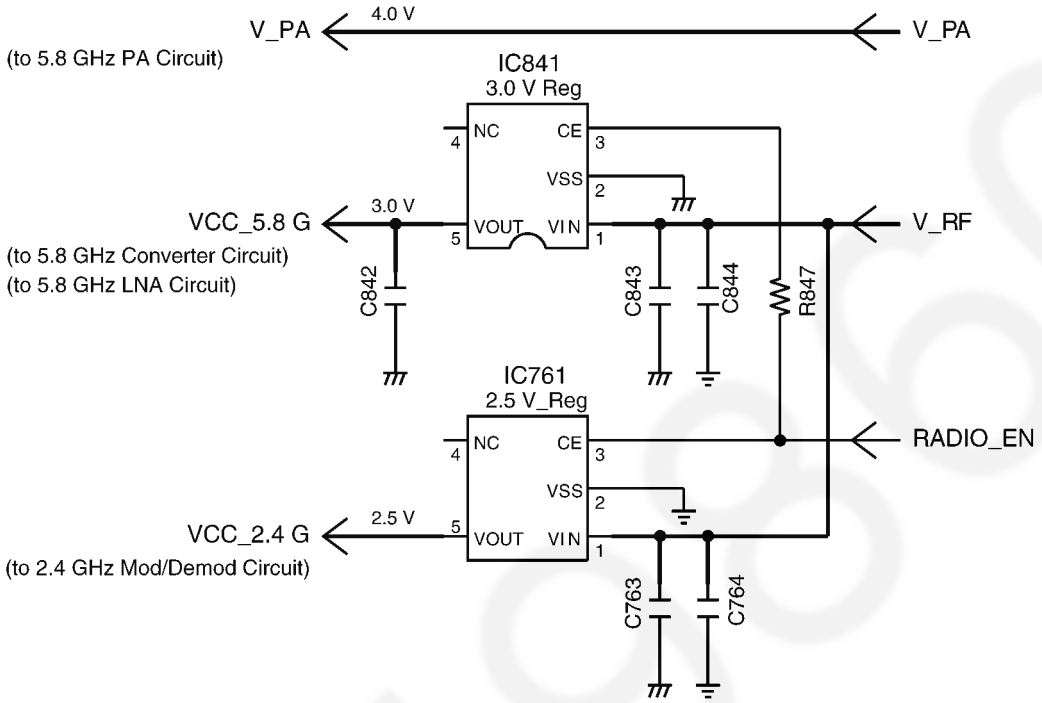
4.9.1. Power Supply Circuit

As indicated below, the various voltages are supplied to each block.

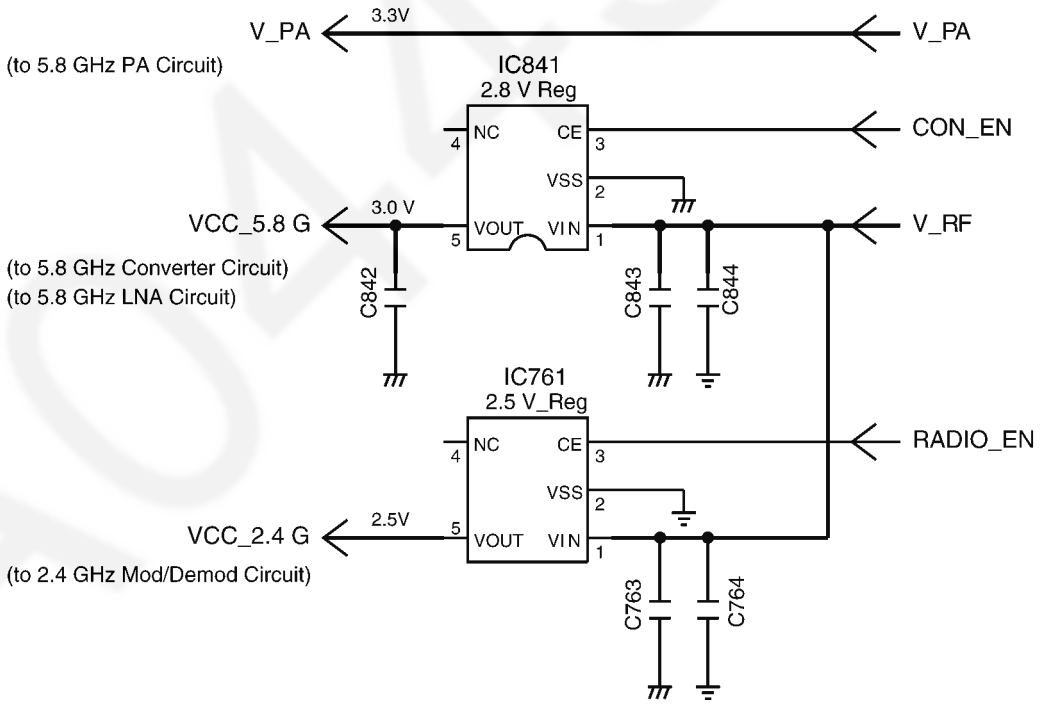
V_PA, about 4.0 V at Base Unit or 3.1 V at Handset, is supplied to the Power amplifier in 5.8 GHz PA circuit.

IC841 is 3.0 V (Base Unit) or 2.8 V (Handset) Regulators, and IC761 is a 2.5 V Regulator. They output Vcc_5.8 GHz, and Vcc_2.4 GHz respectively by order of RADIO_EN signal or CON_EN signal. V_RF is approximately 4.0 V (Base Unit) or 3.1 V (Handset).

<Base Unit>

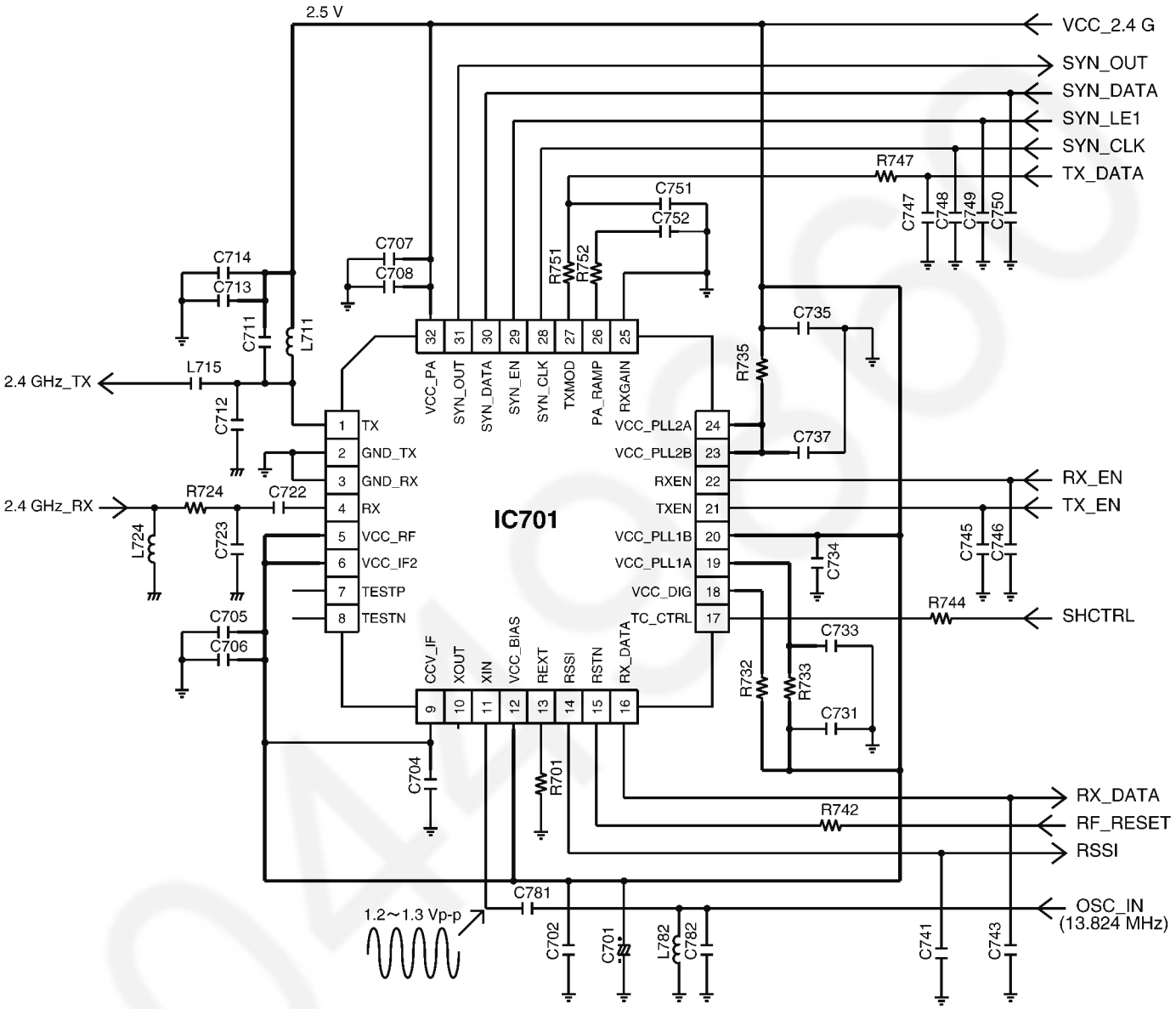


<Handset>



4.9.2. 2.4 GHz Mod/Demod Circuit

IC701 incorporates all of the modulation and demodulation functions. TX Digital data (TX_DATA) from DSP is supplied to pin 27 of IC701, and then 2.4 GHz TX modulated signal is output from pin 1. This TX signal goes into the 5.8 GHz Converter circuit. 2.4 GHz RX signal from 5.8 GHz Converter circuit is passed through matching circuit and supplied to pin 4 of IC701, then demodulated signal (RX_DATA) comes out from pin 16. At the same time, RSSI (Received Signal Strength Indicator) outputs from the pin 14. Reference clock (13.824 MHz) from DSP block is supplied to pin 11 of IC701. VCC_2.4 G supplies 2.5 V regulated voltage.



Note:

The exposed GND_PLATE on the bottom of the IC701 supplies the circuit ground(s) for the entire chip. It is very important that a good solder connection is made between this GND_PLATE and the ground plane of the PCB underlying the IC701.

4.9.3. 5.8 GHz Converter Circuit

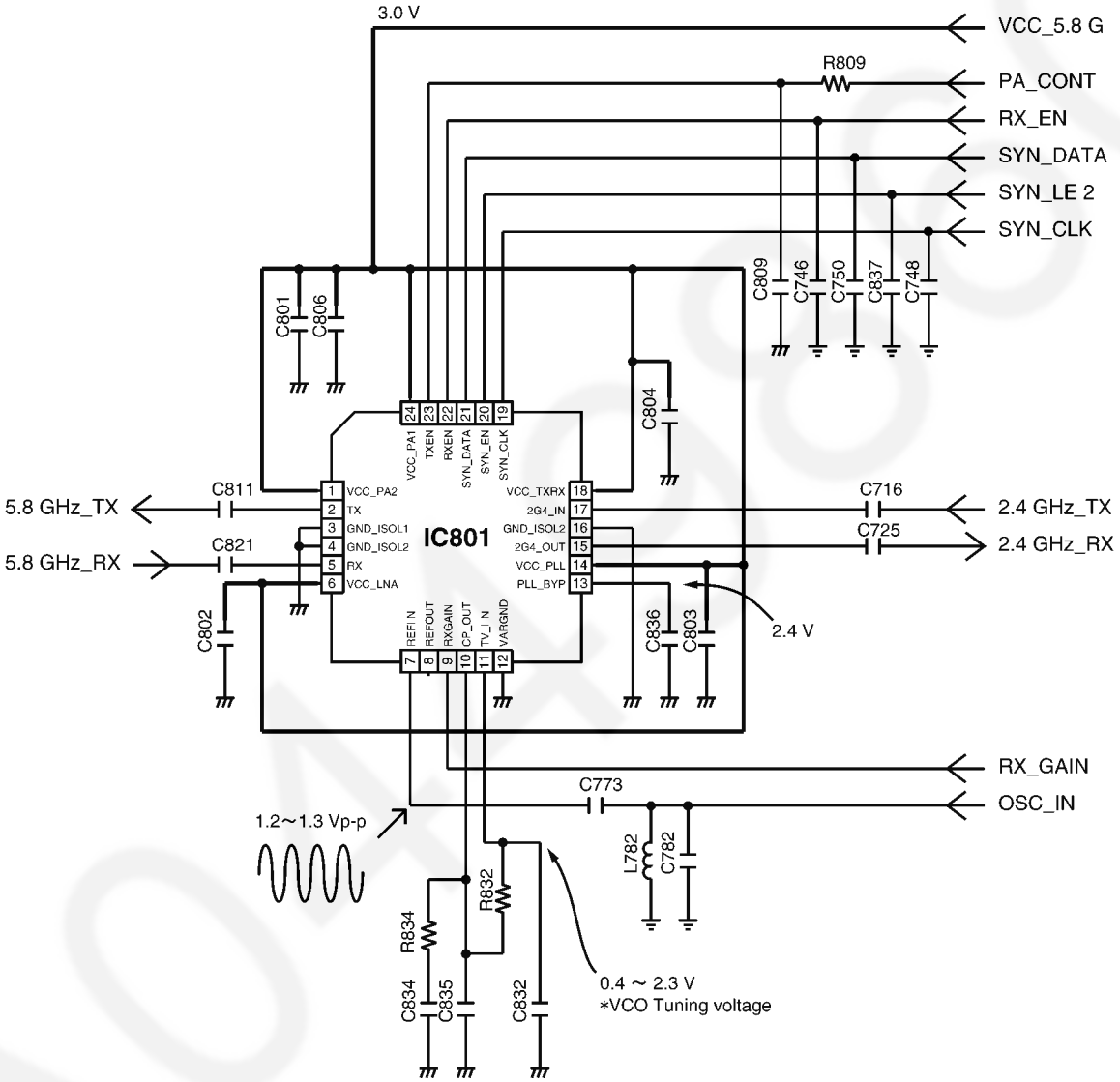
This block converts frequency of TX signal and RX signal.

IC801 includes TX-MIXER, RX-MIXER, PLL and VCO modules internally.

The VCO module is tuned by PLL synthesizer module, and generates 3.4 GHz Local signal. Reference clock (13.824 MHz) from DSP block is supplied to pin 7 of IC701.

2.4 GHz TX signal from 2.4 GHz Mod/Demod circuit is supplied to pin 17 of IC801, and internal TX-MIXER multiplies it by 3.4 GHz Local signal from internal VCO module, and up-converts into 5.8 GHz TX signal. This 5.8 GHz TX signal is output from pin 2, and goes into the 5.8 GHz PA circuit.

5.8 GHz RX signal from 5.8 GHz LNA circuit supplied to pin 5 of IC801, and internal RX-MIXER multiplies it by 3.4 GHz Local signal from internal VCO module, and down-converts into 2.4 GHz RX signal. This 2.4 GHz RX signal is output from pin 15, and goes into the 2.4 GHz Mod/Demod circuits.



Note:

The exposed GND_PLATE on the bottom of the IC801 supplies the circuit ground(s) for the entire chip. It is very important that a good solder connection is made between this GND_PLATE and the ground plane of the PCB underlying the IC801.

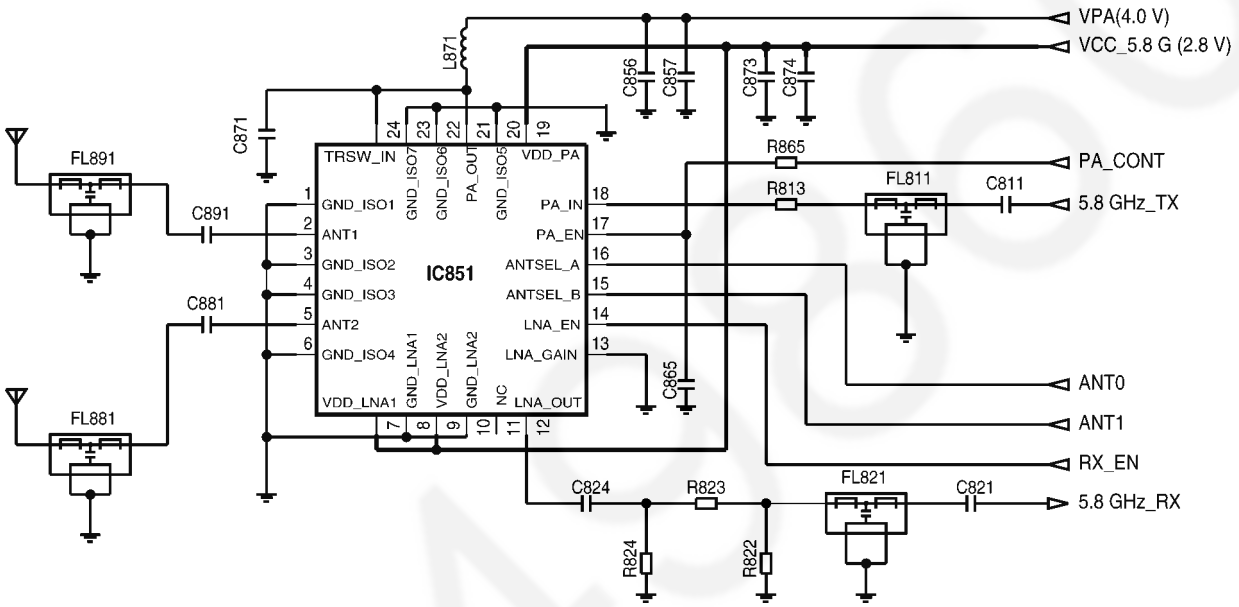
4.9.4. 5.8 GHz PA (Power Amplifier), 5.8 GHz LNA (Low Noise Amplifier) and Antenna Switch Circuit

PA block amplifies power of 5.8 GHz TX signal.
5.8 GHz TX signal from 5.8 GHz Converter circuit is filtered by 5.8 GHz-BPF FL811, and amplified by Power amplifier (PA) block of IC851. After that, it is supplied to Antenna Switch block of IC851. V_PA is approximately 4.0 V at Base Unit, and 3.1 V at Handset.
LNA block amplifies receiving 5.8 GHz signal.
5.8 GHz RX signal from Antenna Switch block of IC851 amplified by LNA (Low Noise Amplifier) block of IC851 and filtered by HPF (FL821), and then supplied to 5.8 GHz Converter circuit.
Antenna Switch block selects the TX 5.8 GHz signal or RX 5.8 G signal, and connect to Antenna terminal.

Note:

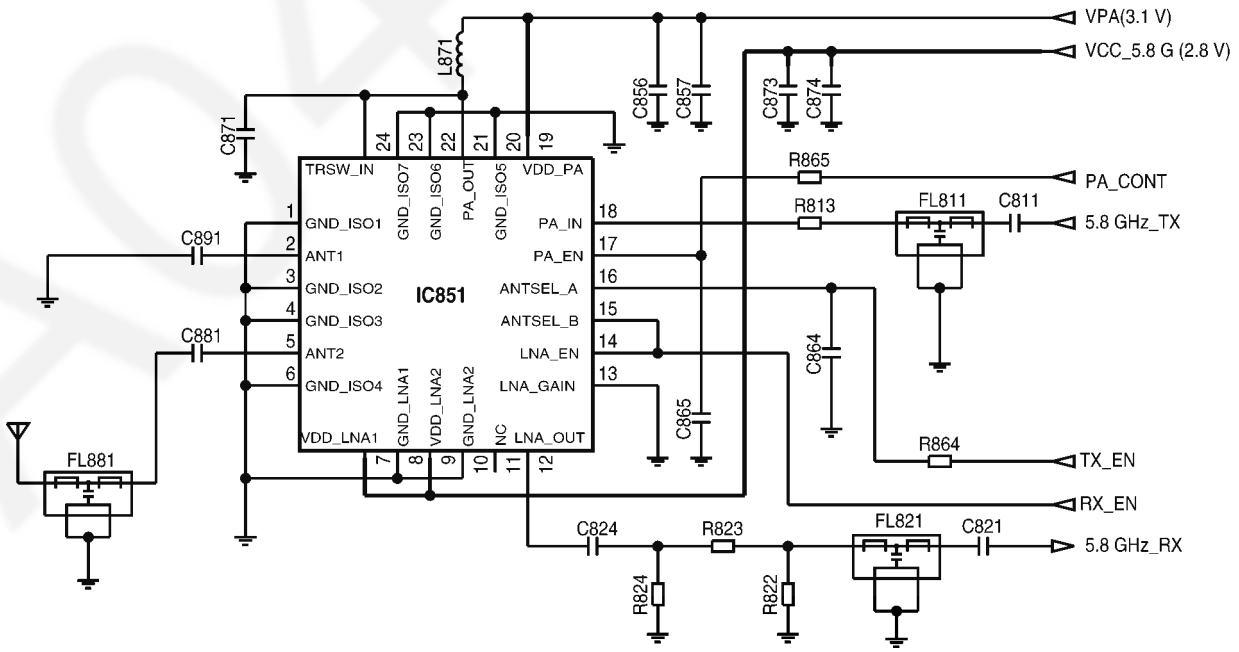
The exposed GND_PLATE on the bottom of the IC851 supplies the circuit ground(s) for the entire chip. It is very important that a good solder connection is made between this GND_PLATE and the ground plane of the PCB underlying the IC851.

<Base Unit>



IC851 includes Switches for High frequency signals, and controlled by ANT0 signal and ANT1 signal from DSP.
DSP is checking RSSI (Received Signal Strength Indicator) signal, and selects better condition Antenna from two antennas.
At the TX mode 5.8 GHz TX signal from 5.8 GHz PA block leads to selected Antenna terminal, at the RX mode 5.8 GHz RX signal from selected Antenna terminal leads to 5.8 GHz LNA block.

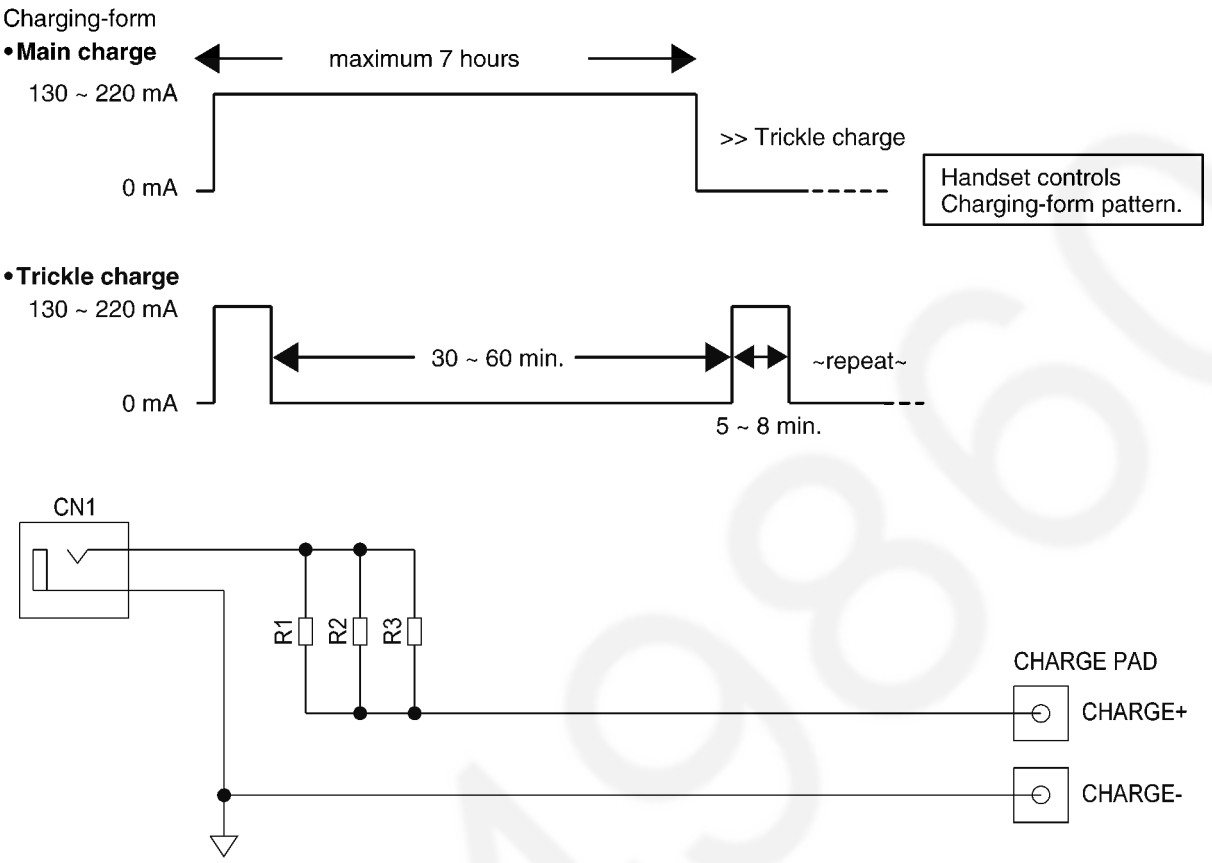
<Handset>



IC851 includes Switch for High frequency signals, and controlled by PA_CONT signal and RX_EN signal from DSP. At the TX mode 5.8 GHz TX signal from 5.8 GHz PA block leads to Antenna terminal, at the RX mode 5.8 GHz RX signal from Antenna terminal leads to 5.8 GHz LNA block.

4.10. Circuit Operation (Charger Unit)

The voltage from the AC adaptor is supplied to the charge circuits. Main charge (130 ~ 220 mA at the Battery) of maximum 7-hours is started soon after the Handset is placed on the Charger Unit. Then it changes to Trickle charge to prevent from overcharging.



The route for this is as follows: DC+pin of CN1→R1 ~ R3→CHARGE+pad→Handset→CHARGE-pad→DC-pin of CN1.

4.11. Signal Route

Each signal route is as follows.

SIGNAL ROUTE	IN → ROUTE → OUT
HANDSET TX	HANDSET MIC - C314/C315 - R314/R315 - IC201(90/89 - 23) - **<HANDSET_RF_TX_ROUTE>** - ANT. ---
	---ANT. - **<BASE_UNIT_RF_RX_ROUTE>** - IC501(34 - 97) - R183- C185 - R185 - Q161 - Q141 - D101 - L101/L102 - CN101(TEL LINE)
HANDSET RX	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 - R178 - IC501(96 - 18) - **<BASE_UNIT_RF_TX_ROUTE>** - ANT. ---
	--- ANT. - **<HANDSET_RF_RX_ROUTE>** - IC201(38 - 97/96) - [C335 - L334 - HEADSET_JACK(5 - 4) - R324]/R323- HANDSET SPEAKER
HEADSET TX	HEADSET_JACK(2) - L332 - C333 - R333 - IC201(94 - 23) - **<HANDSET_RF_TX_ROUTE>** - ANT. ---
	---ANT. - **<BASE_UNIT_RF_RX_ROUTE>** - IC501(34 - 97) - R183 - C185 - R185 - Q161- Q141 - D101 -L101/L102 - CN101(TEL LINE)
HEADSET RX	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 - R178 - IC501(96 - 18) - **<BASE_UNIT_RF_TX_ROUTE>** - ANT. ---
	--- ANT. - **<HANDSET_RF_RX_ROUTE>** - IC201(38 - 97) - C335 - L334 - HEADSET_JACK(5)
HANDSET SP-Phone TX	HANDSET MIC - C314/C315 - R314/R315 - IC201(90/89 - 23) - **<HANDSET_RF_TX_ROUTE>** - ANT. ---
	---ANT. - **<BASE_UNIT_RF_RX_ROUTE>** - IC501(34 - 97) -R183 - C185 -R185 -Q161 -Q141 - D101 - L101/L102 -CN101(TEL LINE)
HANDSET SP-Phone RX	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 -R178 - IC501(96 - 18) - **<BASE_UNIT_RF_TX_ROUTE>** - ANT. ---
	--- ANT. -**<HANDSET_RF_RX_ROUTE>** - IC201(38 - 1/99) - L327/L326 - MONITOR SP
INTERCOM HANDSET TO BASE UNIT	HANDSET MIC - C314/C315 - R314/R315 - IC201(90/89 - 23) - **<HANDSET_RF_TX_ROUTE>** - ANT. ---
	--- ANT. - **<BASE_UNIT_RF_RX_ROUTE>** - IC501(34 - 2/100) - R473/R474 - L473/L474 - SPEAKER
INTERCOM BASE UNIT TO HANDSET	MIC - C457/C458 - R459/R460 - IC501(88/89 - 18) - **<BASE_UNIT_RF_TX_ROUTE>** - ANT. ---
	--- ANT. - **<HANDSET_RF_RX_ROUTE>** - IC201(38 - 97/96) - [C335 - L334 - HEADSET_JACK(5 - 4) - R324]/R323- HANDSET SPEAKER
BASE UNIT SP-Phone TX	MIC - C457/C458 - R459/R460 - IC501(88/89 - 97) - R183 - C185 - R185 - Q161 - Q141 - D101 - L101/L102 -CN101(TEL LINE)
BASE UNIT SP-Phone RX	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 - R178 - IC501(96 - 2/100) - R473/R474 - L473/L474 - SPEAKER
GREETING RECORDING	MIC - C457/C458 - R459/R460 - IC501(88/89 - 13/14) - IC601
GREETING PLAY TO TEL LINE	IC601 - IC501(13/14 - 97) - R183 - C185 - R185 - Q161 - Q141 - D101 - L101/L102 - CN101(TEL LINE)
ICM RECORDING	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 - R178 - IC501(96 - 13/14) - IC601
ICM PLAY TO SPEAKER	IC601 - IC501(13/14 - 2/100) - R473/R474 - L473/L474 - SPEAKER

Note:

[ ]: inside of Handset

Each signal route is as follows.

SIGNAL ROUTE	IN → ROUTE → OUT
DTMF SIGNAL TO TEL LINE	IC501(97) - R183 - C185 - R185 - Q161 - Q141 - D101 - L101/L102 - CN101(TEL LINE)
DTMF DETECTION	CN101(TEL LINE) - L101/L102 - D101 - Q141 - C165 - R167 - C167 - Q171 - C178 - R178 - IC501(96)
CALLER ID	CN101(TEL LINE) - L101/L102 - C121/122 - R121/122 - IC501(93/94)
BELL DETECTION	CN101(TEL LINE) - L101/L102 - R111/R112 - C111/C112 - Q111 - IC501(58)

RF part signal route

SIGNAL ROUTE	IN → ROUTE → OUT
HANDSET RF [TX_ROUTE]	< R747 - R751 - IC701(27 - 1) - L751 - C716 - IC801(17 - 2) - FL811 - R813 - IC851(18 - 5) - C881 - FL881 >
HANDSET RF [RX_ROUTE]	< FL881 - C881 - IC851(5 - 12) - C824 - R823 - FL821 - C821 - IC801(5 - 15) - C725 - R724 - C722 - IC701(4 - 16) >
BASE UNIT RF [TX_ROUTE]	< R747 - R751 - IC701(27 - 1) - L751 - C716 - IC801(17 - 2) - R813 - IC851(18 - 5/2) - C881/C891 - FL881/FL891 >
BASE UNIT RF [RX_ROUTE]	< FL881/FL891 - C881/C891 - IC851(5/2 - 12) - C824 - R823 - FL821 - C821 - IC801(5 - 15) - C725 - R724 - C722 - IC701(4 - 16) >

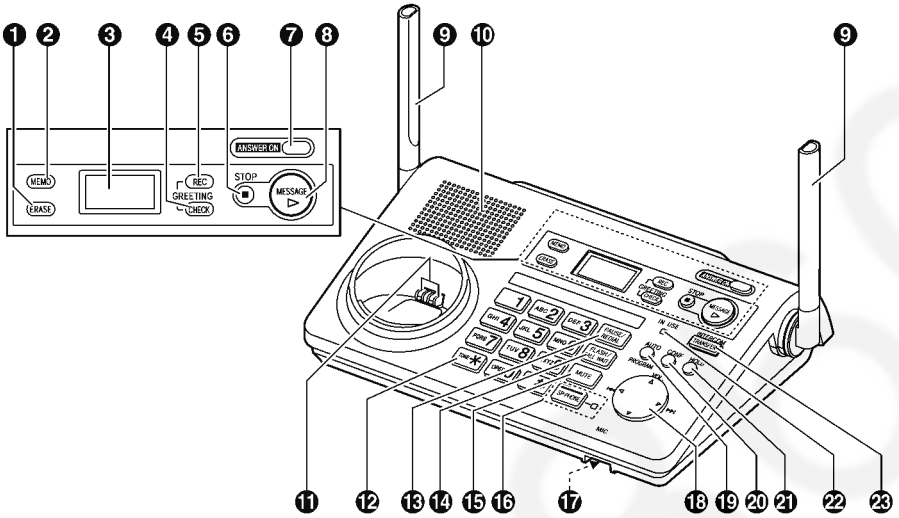
Note:

[ ]: inside of Handset

5 Location of Controls and Components

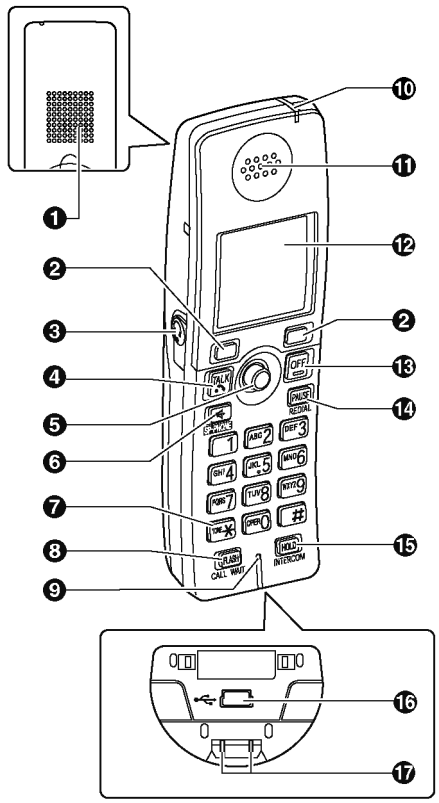
5.1. Controls

5.1.1. Base Unit



❶ 【ERASE】
❷ 【MEMO】
❸ Display
❹ 【GREETING CHECK】
❺ 【GREETING REC】(Recording)
❻ 【STOP】
❼ 【ANSWER ON】
❽ 【MESSAGE】
❾ Antenna
❿ Speaker
⓫ Charge contacts
⓬ 【✳】(TONE)
⓭ 【PAUSE】【REDIAL】
⓮ 【FLASH】【CALL WAIT】
⓯ 【MUTE】
⓰ 【SP-PHONE】(Speakerphone)
SP-PHONE indicator
⓱ MIC (Microphone)
⓲ Navigator key (【▲】【▼】【|◀◀】【▶▶|】)
⓳ 【AUTO】【PROGRAM】
⓴ 【CONF】(Conference)
㉑ 【HOLD】
㉒ IN USE indicator
㉓ 【TRANSFER】【INTERCOM】

5.1.2. Handset



❶ **Speaker**
❷ **Soft keys**
❸ **Headset jack/Audio jack**
❹ **【↷】(TALK)**
❺ **Joystick**
- **【▲】【▼】**: Push the joystick up or down.
- **【◄】【►】**: Push the joystick left or right.
- **Middle soft key**: Push the center of joystick.

❻ **【🔊】(SP-PHONE)**
❼ **【✳】(TONE)**
❽ **【FLASH】【CALL WAIT】**
❾ **Microphone**
❿ **Charge indicator**
Ringer indicator
Message indicator
⓫ **Receiver**
⓬ **Display**
⓭ **【OFF】**
⓮ **【PAUSE】【REDIAL】**
⓯ **【HOLD】【INTERCOM】**
⓰ **USB port**
⓱ **Charge contacts**

5.2. Displays

5.2.1. Base Unit Display Items

Displayed item	Meaning
FULL	Flashes when message memory is full.
RINGER OFF	Base unit ringer is off.
E	Greeting or memo message recording error
go	Answering system is in greeting only mode (caller messages cannot be recorded).
Example: H1	Handset number: displayed when paging, or being paged (example shown here: handset 1).
H	Paging all handsets
P	Base unit is in programming mode.

5.2.2. Handset Display Items

Displayed item	Meaning
--:--	The date and time need to be set.
Y	Within range of the base unit
Y	Handset has no link to base unit (out of range of base unit, handset is not registered to base unit, or no power on base unit).
VE	Voice enhancer is on.
🔋	Battery level
IN USE	Line is in use. When flashing: a call is on hold. When flashing rapidly: a call is being received.
SP	Speaker is on.
PRIV.	Call Privacy mode is on.
Example: 1	The handset's extension number (example shown here: handset 1)
🔕 (displayed in the top center)	Handset ringer is off.

5.2.3. Handset Menu Icons

When in standby mode, pressing **【MENU】** (middle soft key) on the handset reveals the main menu. From here you can access various features and settings.

Note:

- The menu icons shown in this Service Manual vary slightly from the actual icons shown on the display.

Menu icon		Menu/feature
		Answering device
		Ringer setting
		Display setting
		Set date & time
		Initial setting
		Customer support

- Each menu icon on the left changes to the one on the right when selected.

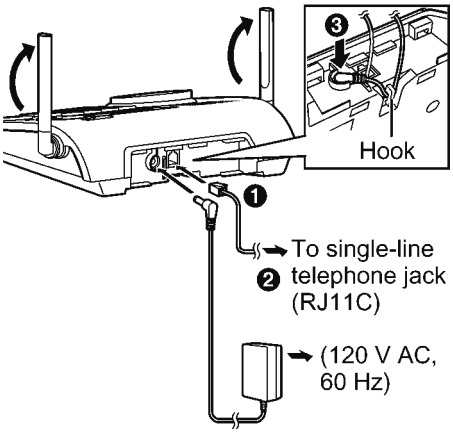
6 Installation Instructions

6.1. Setting Up the Base Unit

6.1.1. Connecting the AC Adaptor and Telephone Line Cord

Connect the telephone line cord until it clicks into the base unit (❶) and telephone line jack (❷). Connect the AC adaptor cord by pressing the plug firmly (❸).

- Use only the included Panasonic AC adaptor PQLV207Z.



Note:

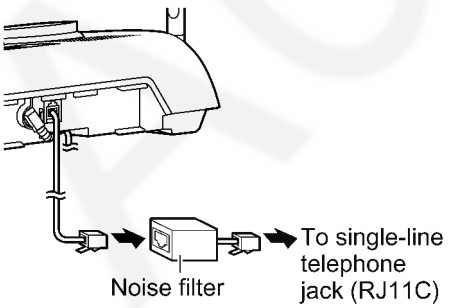
- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The AC adaptor should be connected to a vertically oriented or floor-mounted AC outlet. Do not connect the AC adaptor to a ceiling-mounted AC outlet, as the weight of the adaptor may cause it to become disconnected.
- The unit will not work during a power failure. We recommend connecting a corded telephone to the same telephone line or to the same telephone jack using a Panasonic T-adaptor.

6.1.1.1. If you subscribe to a DSL service

Please attach a noise filter (contact your DSL provider) to the telephone line between the base unit and the telephone line jack in the event of the following:

– Noise is heard during conversations.

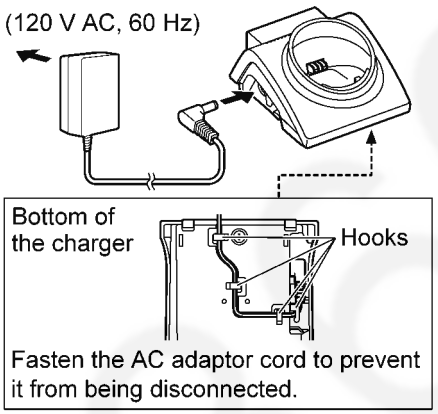
– Caller ID features do not function properly.



6.2. Setting Up the Handset

6.2.1. Connecting the Charger (KX-TG5777/KX-TGA571 only)

- Use only the included Panasonic AC adaptor PQLV207Z.



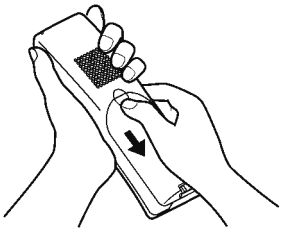
Note:

- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The AC adaptor should be connected to a vertically oriented or floor-mounted AC outlet. Do not connect the AC adaptor to a ceiling-mounted AC outlet, as the weight of the adaptor may cause it to become disconnected.

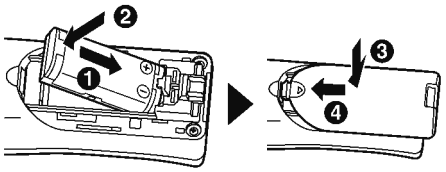
6.3. Battery Installation/Replacement

1 Press the notch of the handset cover firmly, and slide it in the direction of the arrow.

- If necessary, remove the old battery.



2 Insert the battery (❶), and press it down until it snaps into position (❷). Then close the handset cover (❸, ❹).



Important:

- Use only the rechargeable Panasonic battery HHR-P105.

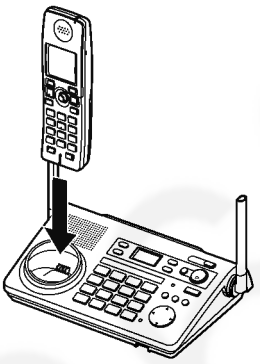
Attention:

A nickel metal hydride battery that is recyclable powers the product you have purchased.
Please call 1-800-8-BATTERY (1-800-822-8837) for information on how to recycle this battery.

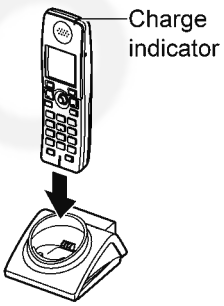
6.4. Battery Charge

Place the handset on the base unit or charger for **7 hours** before initial use. While charging, the charge indicator on the handset lights in amber. When the battery is fully charged, the indicator lights in green.

Base unit



Charger (KX-TG5777/KX-TGA571 only)



Note:

- If you want to use the handset immediately, charge the battery for at least 15 minutes.
- To ensure that the battery charges properly, clean the charge contacts of the handset, base unit, and charger with a soft, dry cloth. Clean if the unit is subject to the exposure of grease, dust, or high humidity.

Note for service:

The battery strength may not be indicated correctly if the battery is disconnected and connected again, even after it is fully charged. In that case, by recharging the battery as mentioned above, you will get a correct indication of the battery strength.

6.4.1. Battery Level

Battery icon	Battery level
	Fully charged
	Medium
	Low Flashing: needs to be recharged.
	Empty

Note:

- When the battery needs to be charged, the handset beeps intermittently during use.

6.4.2. Panasonic Battery Performance

Operation	Operating time
While in use (talking)	Up to 5 hours
While not in use (standby)	Up to 7 days
While using the clarity booster feature	Up to 3 hours

Note:

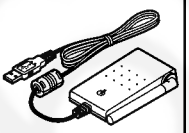
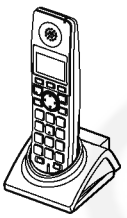
- Battery operating time may be shortened over time depending on usage conditions and surrounding temperature.
- Battery power is consumed whenever the handset is off the base unit or charger, even when the handset is not in use. Hence the longer you leave the handset off the base unit or charger, the less time you may actually talk using the handset.
- After the handset is fully charged, displaying "**Charge completed**", it may be left on the base unit or charger without any ill effect on the battery.
- The battery level may not be displayed correctly after you replace the battery. In this case, place the handset on the base unit or charger and let charge for 7 hours.

6.5. Expanding Your Phone System

You can expand the phone system by registering the following handsets and other devices to a single base unit: **max. 8**

Note for service:

For these handsets and devices, please refer to each Service Manual.

Handsets and other devices: max. 8	
5.8 GHz expandable digital cordless handset KX-TGA570 (Monochrome display type) 	5.8 GHz expandable digital cordless camera KX-TGA573 (For camera monitoring from a color display handset KX-TGA571) max. 7 
5.8 GHz expandable digital cordless handset KX-TGA571 (Color display type with USB support) 	5.8 GHz USB adaptor KX-TGA575 (For calls over the Internet)*1 max. 1 
5.8 GHz expandable digital cordless handset KX-TGA572 (Monochrome display type with amplified volume) 	

*1 By registering the 5.8 GHz USB adaptor KX-TGA575 to your base unit and installing Skype software to your computer, you can make calls with your handset over the Internet via the computer. For operations related to this USB adaptor, refer to the operating instructions included with the USB adaptor.

Trademark

• Skype is a registered brand or trademark of Skype technology in the United States and/or other countries.

7 Operation Instructions

7.1. Symbols Used in These Operating Instructions

Symbol	Meaning
【 】: button name/soft key name **Example:** Unit keys: 【↷】, 【OFF】 Soft keys: 【CID】, 【🕮】	The words in the brackets indicate button names/ soft key names on the handset and base unit.
→	Proceed to the next operation.
Example: "Ringer ID"	The words in quotations indicate the menu on the display.
Example: **1** 【MENU】(middle soft key) → 【⌗】【1】【2】【0】 **2** Select the desired setting. **3** 【SAVE】→ 【OFF】	 **1** Press 【MENU】(middle soft key), then press 【⌗】, 【1】, 【2】, 【0】. **2** Press 【▲】 or 【▼】 to select the desired setting. **3** Press 【SAVE】, then press 【OFF】.
Handset: 【▲】【▼】	Push the joystick up or down.
Handset: 【◄】【►】	Push the joystick left or right.
Base unit: 【▲】【▼】【⏮】【⏭】	Press up, down, left, or right on the base unit navigator key.

7.2. Programmable Settings

You can customize the unit by programming the following features using the handset.
To access the features, there are 2 methods:

– scrolling through the display menus
– using the direct commands

- Mainly the direct command method is used in this Service Manual.

7.2.1. Programming by Scrolling through the Display Menus

1 **[MENU]** (middle soft key)

2 Press **[▲]**, **[▼]**, **[◄]**, or **[►]** to select the desired menu. → **[SELECT]**

- If there are sub-menu(s), press **[▲]** or **[▼]** to select the desired item. → **[SELECT]**

  Example: To access the handset ringer volume setting
  Press **[▲]**, **[▼]**, **[◄]**, or **[►]** to select ♪. → **[SELECT]**
  Then press **[▲]** or **[▼]** to select "Ringer volume". → **[SELECT]**

3 Press **[▲]** or **[▼]** to select the desired setting.

- This step may vary depending on the feature being programmed.

4 **[SAVE]** → **[OFF]**

- When you find "*1" in the following table, refer to the note below.

*1 If you program these settings using one of the handsets, you do not need to program the same item using another handset.

Main menu	Sub-menu 1	Sub-menu 2
Answering device	To play new	–
	To play all	–
	To erase all	–
	Settings	Message alert
		Ring count*1
		Recording time*1
		Remote code*1
		Call screening*1
Ringer setting	Ringer volume	–
	Ringer tone	Tone & Melody
		Custom ring
	Custom ring	Record
		List
		Memory status
	Ring color	–
Display setting	Wallpaper	Turn off
		Set picture
		Memory status
	Appearance	–
	LCD contrast	–
Set date & time	Date and time*1	–
	Time adjustment*1	–

Main menu	Sub-menu 1	Sub-menu 2
Initial setting	Auto Intercom	–
	Talking CallerID	–
	Caller ID edit	–
	Key tone	–
	Auto talk	–
	Set base unit	Talking CallerID*1
		VM tone detect*1
	Set tel line	Set dial mode*1
		Set flash time*1
		Set line mode*1
	Registration	HS registration
		Deregistration
	Set date & time	Date and time*1
		Time adjustment*1
	Change language	–
	Handset name	–
Customer support	–	–

7.2.2. Programming Using the Direct Commands

1 **[MENU]** (middle soft key) → **[⌗]**

2 Enter the desired feature code.

3 Enter the desired setting code.
- This step may vary depending on the feature being programmed.

4 **[SAVE]** → **[OFF]**

Note:
- In the following table, < > indicates the default setting.
- If you make a mistake or enter the wrong code, press **[OFF]**, then start again from step 1.

Feature	Feature code	Setting code	System setting[*1]
Auto talk[*2]	[2][0][0]	[1]: On [0]: <Off>	–
Auto Intercom	[2][7][3]	[1]: On(Ringer On) [2]: On(Ringer Off) [0]: <Off>	–
Call screening	[3][1][0]	[1]: <On> [0]: Off	●
Caller ID edit (Caller ID number auto edit)	[2][1][4]	[1]: <On> [0]: Off	–
Change language (Display language)	[1][1][0]	[1]: <English> [2]: Español	–
Custom ring (Customized ringer tone for handset)	[1][6][6]	–	–
Customer support[*3]	[6][8][0]	www.panasonic.com/phonehelp	–
Date and time	[1][0][1]	–	●
Deregistration	[1][3][1]	–	–
Handset name	[1][0][4]	–	–
HS registration (Handset registration)	[1][3][0]	–	–
Key tone[*4]	[1][6][5]	[1]: <On> [0]: Off	–
LCD contrast (Display contrast)	[1][4][5]	[1]–[6]: Level 1–6 <3>	–
Message alert	[3][4][0]	[1]: On [0]: <Off>	–
Recording time	[3][0][5]	[1]: 1 min [2]: 2 min [3]: <3 min> [0]: Greeting only	●
Remote code	[3][0][6]	Default: 111	●
Ring count	[2][1][1]	[2]–[7]: Rings <4 rings> [0]: Toll saver	●
Ring color (Ringer indicator color)	[2][3][5]	[1]: <Color1> [2]: Color2 [3]: Color3 [4]: Multicolor	–
Ringer tone (Handset)	[1][6][1]	–	–
Ringer volume (Handset)	[1][6][0]	[1]–[6]: Level 1–6 <6> [0]: Off	–
Set dial mode	[1][2][0]	[1]: Pulse [2]: <Tone>	●
Set flash time[*5]	[1][2][1]	[1]: <700 ms> [2]: 600 ms [3]: 400 ms [4]: 300 ms [5]: 250 ms [6]: 110 ms [7]: 100 ms [8]: 90 ms	●

Feature	Feature code	Setting code	System setting*1
Set line mode*6	【1】【2】【2】	【1】: A 【2】: <B>	●
Talking CallerID (Handset)	【1】【6】【2】	【1】: <On> 【0】: Off	–
Talking CallerID (Base unit)	【✳】【1】【6】【2】	【1】: <On> 【0】: Off	●
Time adjustment*7 (Caller ID subscribers only)	【2】【2】【6】	【1】: <Caller ID[auto]> 【2】: Manual	●
To erase all (Erasing all messages)	【3】【2】【5】	–	–
To play all (All message playback)	【3】【2】【4】	–	–
To play new (New message playback)	【3】【2】【3】	–	–
VM tone detect	【3】【3】【2】	【1】: <On> 【0】: Off	●
Appearance (Display color)	【1】【8】【2】	【1】: <Color1> 【2】: Color2 【3】: Color3 【4】: Color4 【5】: Color5	–
Memory status	【6】【7】【0】	–	–
Wallpaper	【1】【8】【1】	–	–

*1 If "System setting" column is checked, you do not need to program the same item using another handset.
*2 If you subscribe to Caller ID service and want to view the caller's information after lifting up the handset to answer a call, turn off this feature.
*3 The handset can display the Internet address where you can download operating instructions or get further information for this product using your computer.
*4 Turn this feature off if you prefer not to hear key tones while you are dialing or pressing any keys, including confirmation tones and error tones.
*5 The flash time depends on your telephone exchange or host PBX. Consult your PBX supplier if necessary. The setting should stay at "700 ms" unless pressing 【FLASH】 fails to pick up the call waiting call.
*6 Generally, the line mode setting should not be adjusted. If IN USE is not displayed or the IN USE indicator on the base unit does not light properly when another phone connected to the same line is in use, you need to change the line mode to "A".
*7 This feature allows the unit to automatically adjust the date and time setting when caller information is received. To use this feature, set the date and time first.

7.3. Error Messages

If the unit detects a problem, one of the following messages is shown on the display.

Display message	Cause/solution
`Busy`	● The called handset or base unit is in use. ● Privacy mode is on for the call you tried to join. ● Other units are in use and the system is busy. Try again later.
`Error!!`	● The handset's registration has failed. Move the handset and base unit away from all electrical appliances and try again. ● 8 handsets have already been registered to the base unit. A previously deregistered handset number may still be retained in the base unit. To register an additional handset, erase the unnecessary handset number using the base unit: Press and hold **[INTERCOM]** until the IN USE indicator flashes. → Press and hold the handset's extension number (**[1]** – **[8]**) that you want to cancel/delete from the base unit until a beep sounds.
`Failed`	● The handset you tried to copy phonebook items to is in use. ● The handset you tried to copy phonebook items to is out of area.
`Incomplete`	● The destination handset's phonebook memory is full. Erase unnecessary items from the destination handset's phonebook.
`Invalid. Please register to the base unit`	● The handset is not registered to the base unit. Register the handset.
`No items stored`	● Your phonebook or redial list is empty. ● "`My pictures`" is empty.
`No link to base. Move closer to base, try again.`	● The handset has lost communication with the base unit. Move closer to the base unit, and try again. ● Confirm that the base unit's AC adaptor is plugged in. ● Raise the base unit antennas. ● The handset's registration may have been canceled. Re-register the handset.
`Phonebook Memory full`	● There is no space to store new items in the phonebook. Erase unnecessary items.
`Please lift up and try again.`	● A handset button was pressed while the handset was on the base unit or charger. Lift the handset and press the button again.

7.4. Troubleshooting

If the handset display shows error messages, see “**Error Messages** (P.49)” for the Cause & Solution.

General use

Problem	Cause/solution
The unit does not work.	● Make sure the battery is installed correctly and fully charged. ● Check the connections. ● Unplug the base unit’s AC adaptor to reset the unit. Reconnect the adaptor and try again. ● The handset has not been registered to the base unit. Register the handset.
I cannot hear a dial tone.	● Confirm the telephone line cord is properly connected. ● Disconnect the unit from the telephone line and connect a known working telephone. If the working telephone operates properly, contact our service personnel to have the unit repaired. If the working telephone does not operate properly, contact your telephone service provider.

Programmable settings

Problem	Cause/solution
I cannot program items.	● While another user is listening to messages, you cannot program items. Try again later.
While programming, the handset starts to ring.	● A call is being received. Answer the call and start again after hanging up.

Battery recharge

Problem	Cause/solution
I fully charged the battery, but continues to flash, or is displayed.	● Clean the charge contacts and charge again. ● The battery may need to be replaced with a new one.
The handset display is blank.	● Confirm that the battery is properly installed. ● Fully charge the battery.

Making/answering calls, intercom

Problem	Cause/solution
Y is displayed, but I cannot make a call.	● The handset and base unit could not communicate for some reason, such as interference from other electrical appliances. Perform the following: – Move the handset and base unit away from other electrical appliances. – Move closer to the base unit. – Raise the base unit antennas.
Static is heard, sound cuts in and out. Interference from other electrical units.	● Move the handset and base unit away from other electrical appliances. ● Move closer to the base unit. ● Raise the base unit antennas. ● Turn on the clarity booster feature. ● If your unit is connected to a telephone line with DSL service, we recommend connecting a noise filter between the base unit and the telephone line jack. Contact your DSL provider for details.
The handset and base unit do not ring.	● The ringer volume is turned off. Adjust it.
I cannot make a call.	● The dialing mode may be set incorrectly. Change the setting. ● The base unit or another handset is in use. Try again later.
I cannot redial by pressing **【REDIAL】**.	● If the last number dialed was more than 48 digits long, the number will not be redialed correctly. Dial the number manually.
I cannot have a conversation using the headset.	● Make sure that an optional headset is connected properly.
I cannot make long distance calls.	● Make sure that you have long distance service.
I cannot page the handset or base unit.	● The called handset is too far from the base unit. ● The called unit is in use. Try again later.
I cannot turn the clarity booster on.	● Another handset is already using this feature.

Caller ID

Problem	Cause/solution
The handset does not display the caller's name and/or phone number.	• You have not subscribed to Caller ID service. Contact your telephone service provider to subscribe. • If your unit is connected to any additional telephone equipment such as a Caller ID box or cordless telephone jack, disconnect the unit from the equipment and plug the unit directly into the wall jack. • If your unit is connected to a telephone line with DSL service, we recommend connecting a noise filter between the base unit and the telephone line jack. Contact your DSL provider for details. • The name display service may not be available in some areas. Contact your telephone service provider for details. • Other telephone equipment may be interfering with this unit. Disconnect the other equipment and try again. • The caller requested not to send caller information. • If a call is being transferred to you, the caller information is not displayed. • Generally, caller information is displayed from the 2nd ring.
The handset or base unit does not announce the displayed caller names.	• The handset or base unit's ringer volume is turned off. Adjust it. • The Talking Caller ID feature is turned off. Turn it on. • The ring count for the answering system is set to "2 rings" or "Toll saver". Select a different setting. • If the base unit and another handset are having an intercom call, your handset does not announce caller information.
The caller list/incoming phone numbers are not edited automatically.	• The Caller ID number auto edit feature is turned off. Turn it on and try again. • You need to call back the edited number to activate Caller ID number auto edit.
I cannot dial the phone number edited in the caller list.	• The phone number you dialed might have an incorrectly edited pattern (for example, the long distance "1" or the area code is missing). Edit the phone number with another pattern.
The 2nd caller's information is not displayed during an outside call.	• In order to use Caller ID, Call Waiting, or Call Waiting Caller ID (CWID), you must first contact your telephone service provider and subscribe to the desired service. After subscribing, you may need to contact your telephone service provider again to activate this specific service, even if you already subscribed to both Caller ID and Call Waiting with Caller ID services (CWID).
I cannot access the caller list.	• Someone is viewing the caller list from another handset.

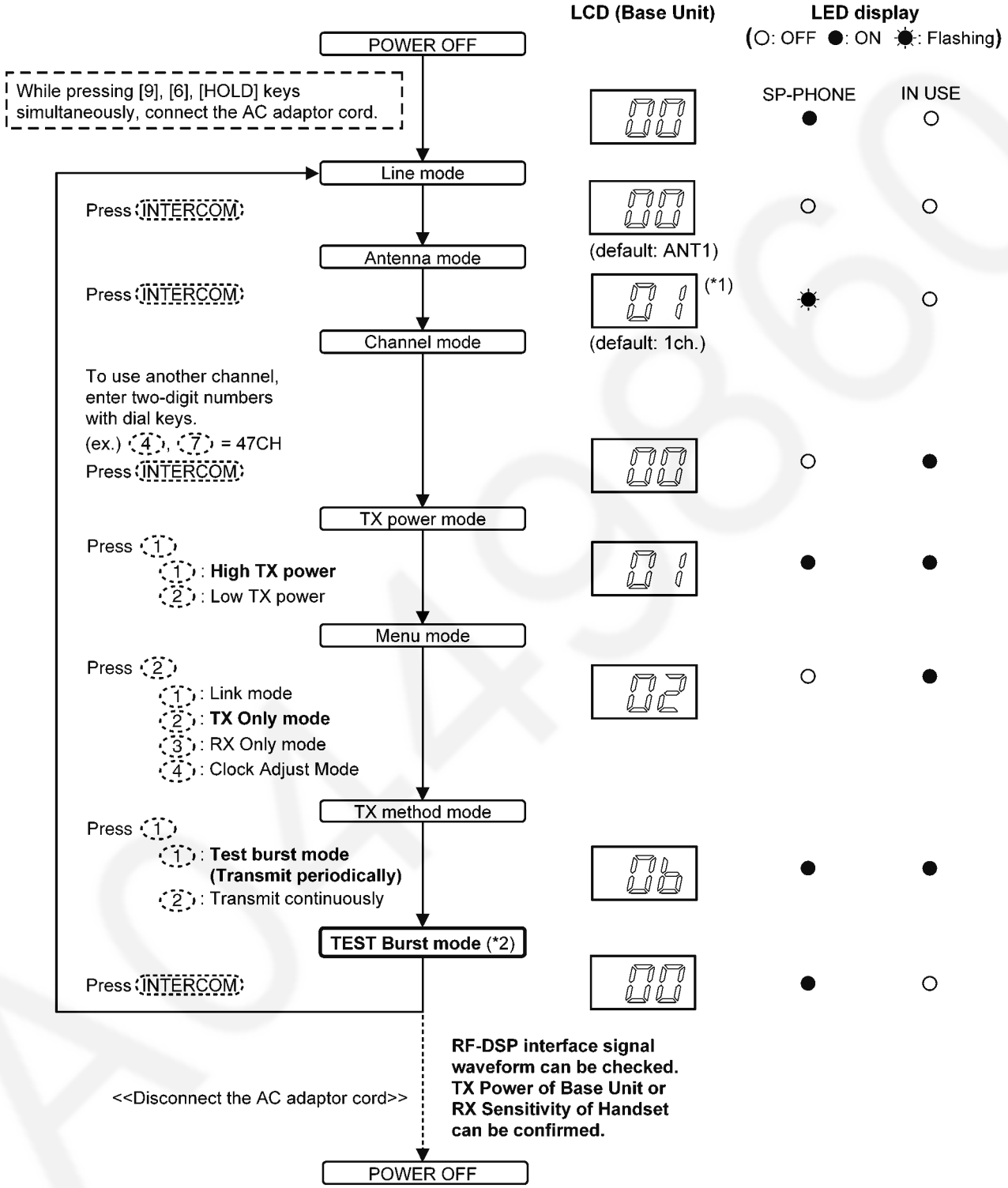
Answering system

Problem	Cause/solution
I cannot listen to messages from a remote location.	● A touch tone phone is required for remote operation. ● Enter the remote code correctly. ● The answering system is off. Turn it on.
The unit does not record new messages.	● The answering system is off. Turn it on. ● The recording time is set to "**Greeting only**". Select a different setting. ● The message memory is full. Erase unnecessary messages. ● If you subscribe to the Voice Mail service, messages are recorded by the telephone service provider not your telephone.
I cannot operate the answering system.	● Someone is operating the answering system. ● If someone is talking on a conference call, you cannot operate the answering system. Try again later.
The message indicator on the handset slowly flashes blue.	● New messages have been recorded. Listen to the new messages.

8 Test Mode

8.1. Adjustment and Test Mode Flow Chart

8.1.1. Test Burst Mode for Base Unit

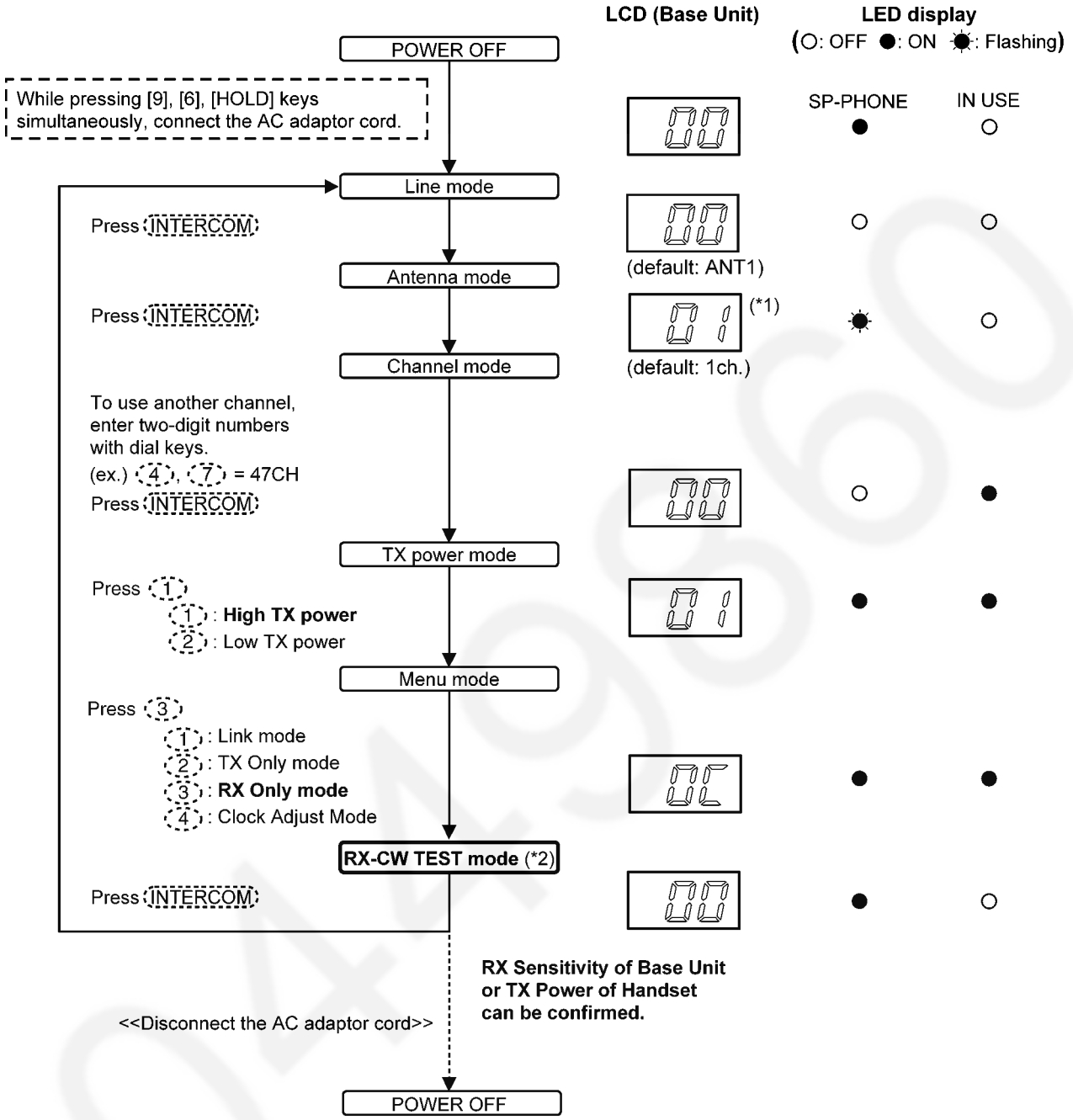


Note:

(*1) LCD displays the Channel number.

(*2) Refer to **Check Table for RF part** (P.72) and **RX-CW Test Mode for Handset** (P.59) for proper Handset settings.

8.1.2. RX-CW Test Mode for Base Unit

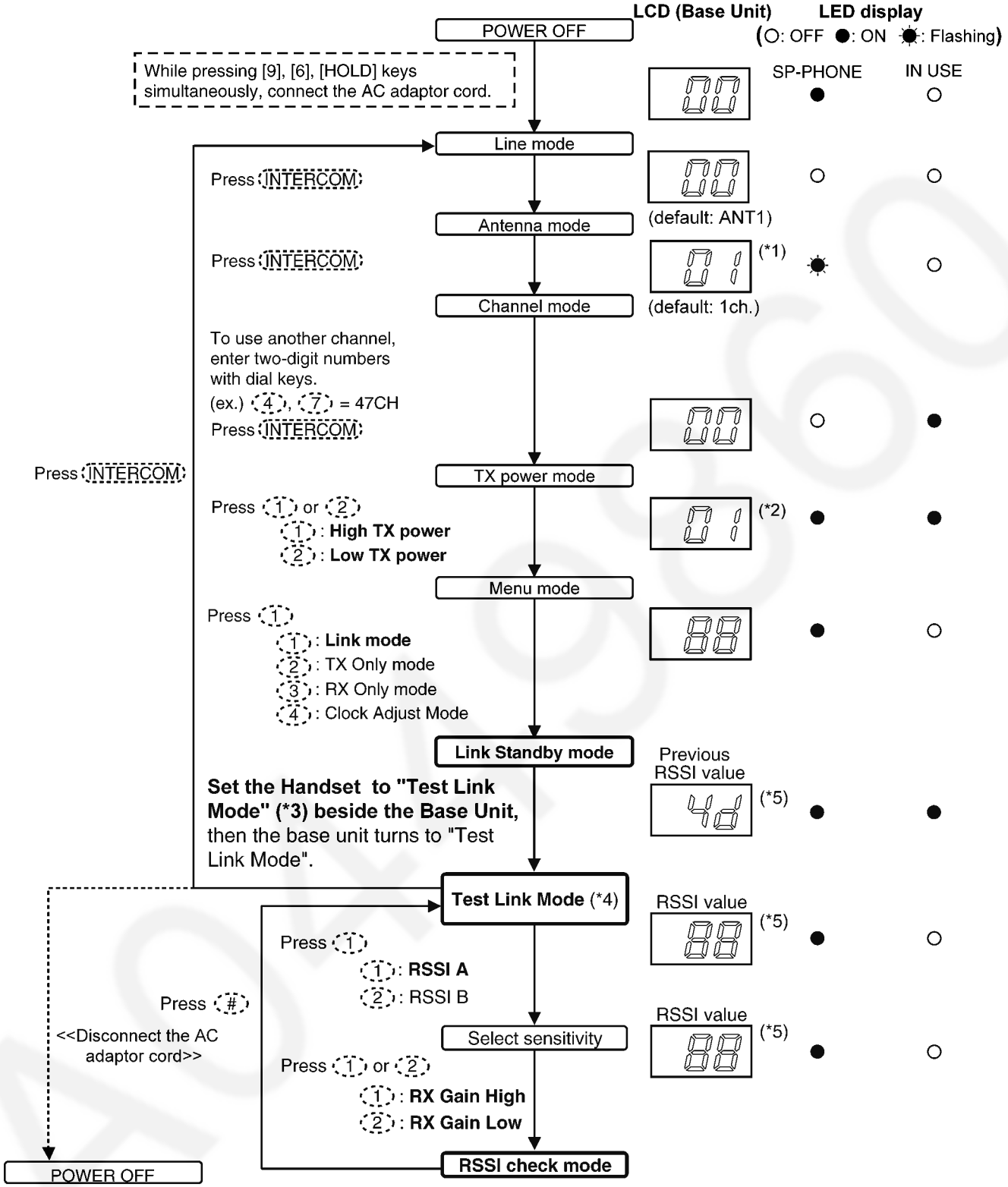


Note:

(*1) LCD displays the Channel number.

(*2) Refer to **Check Table for RF part** (P.72) and **Test Burst Mode for Handset** (P.58) for proper Handset settings.

8.1.3. Test Link Mode for Base Unit



Note:

(*1) LCD displays the Channel number.

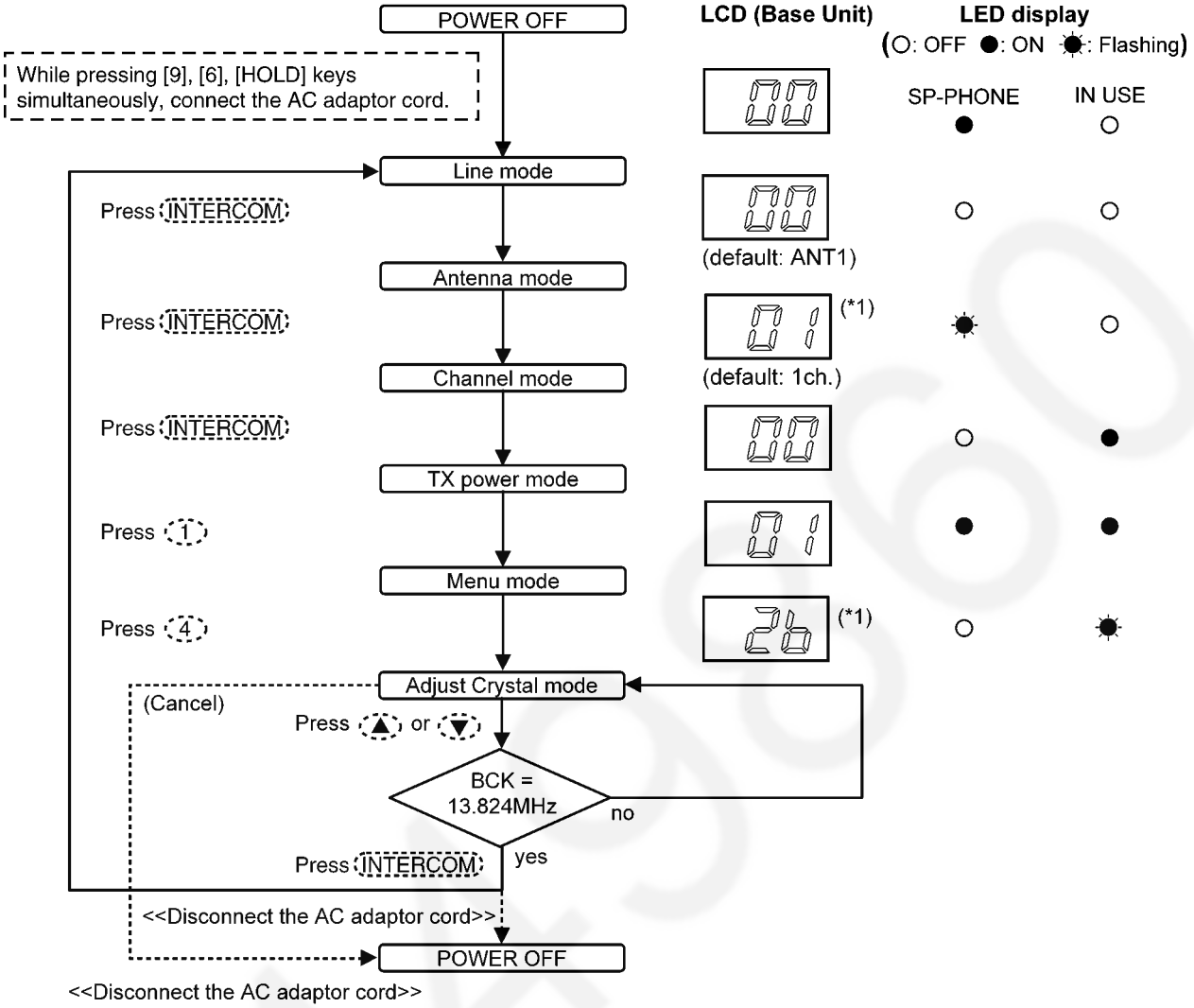
(*2) LCD displays the number of selected power.

(*3) Refer to **Test Link Mode for Handset** (P.60). If can not proceed to the next step, refer to **Registering a Handset** (P.70).

(*4) Refer to **Check Table for RF part** (P.72) and **Test Burst Mode for Handset** (P.58) for proper Handset settings.

(*5) Display may vary according to the receiving sensitivity.

8.1.4. Adjustment Mode for Base Unit



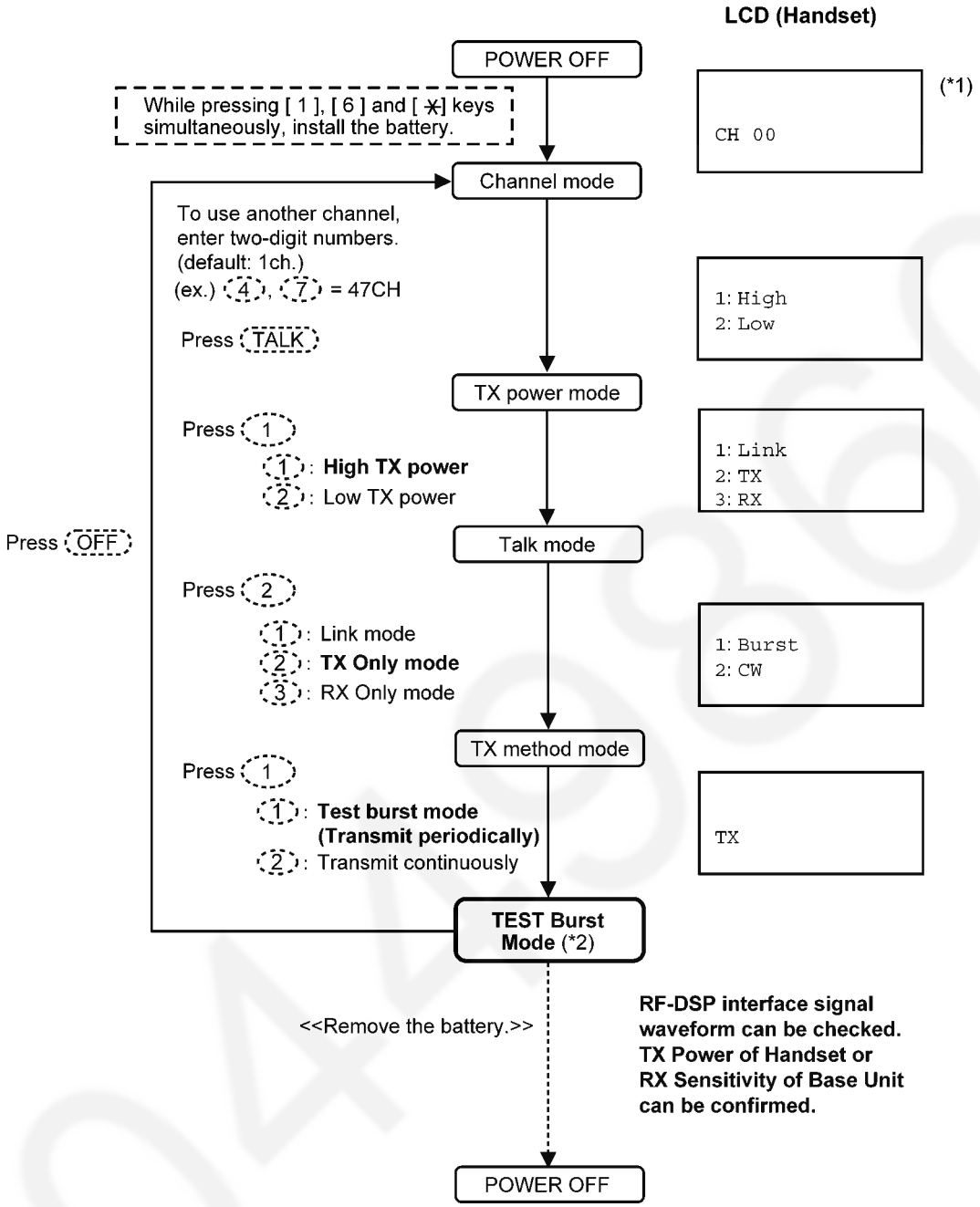
Cross Reference

Check and Adjust X501 (Base Unit) Frequency (P.85)

Note:

(*1) This is an adjustment value (hex.).

8.1.5. Test Burst Mode for Handset

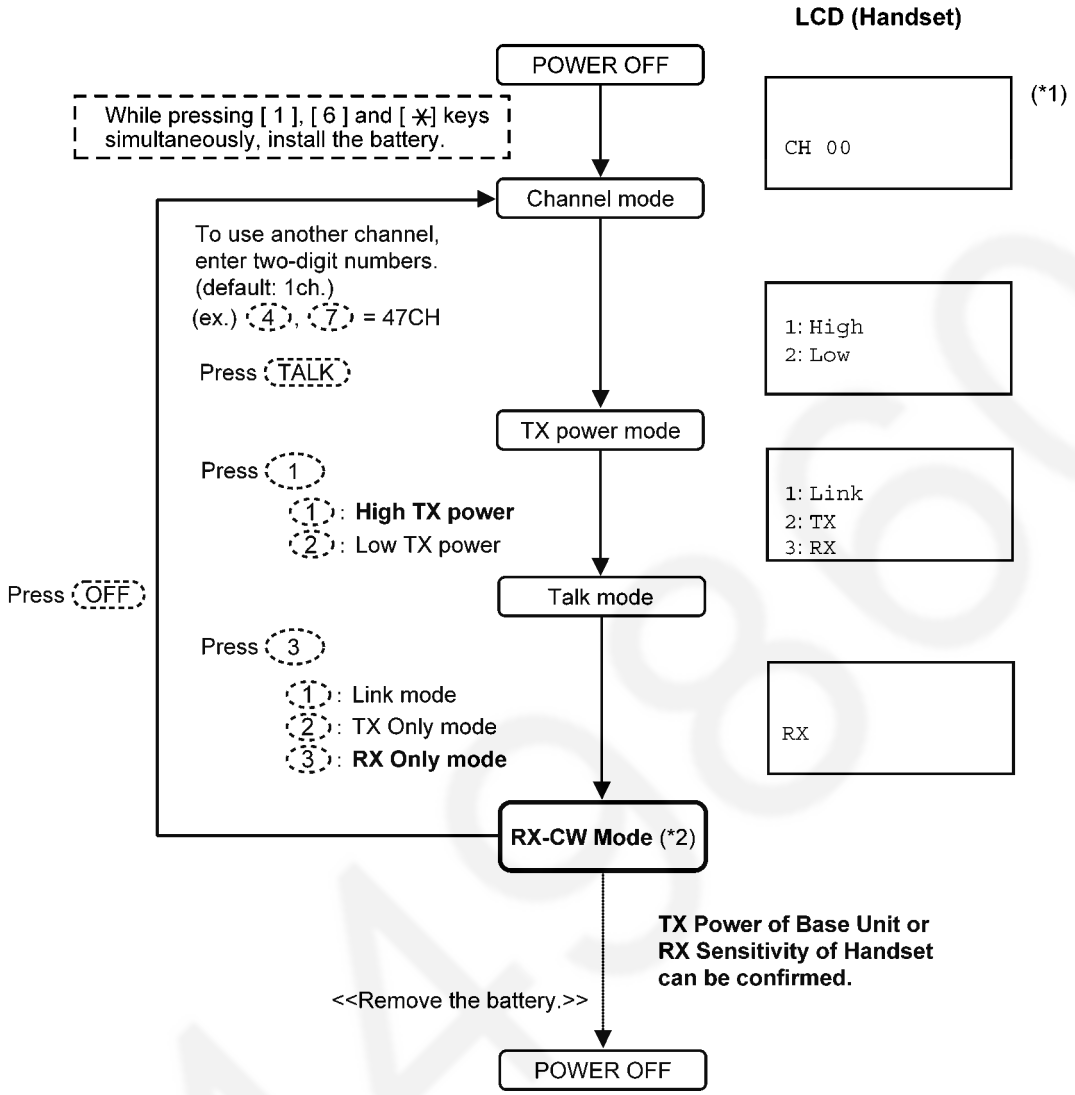


Note:

(*1) LCD displays the Channel number.
(exception: default/ CH00 = 1ch.)

(*2) Refer to **Check Table for RF part** (P.72) and **RX-CW Test Mode for Base Unit** (P.55) for proper Base Unit settings.

8.1.6. RX-CW Test Mode for Handset

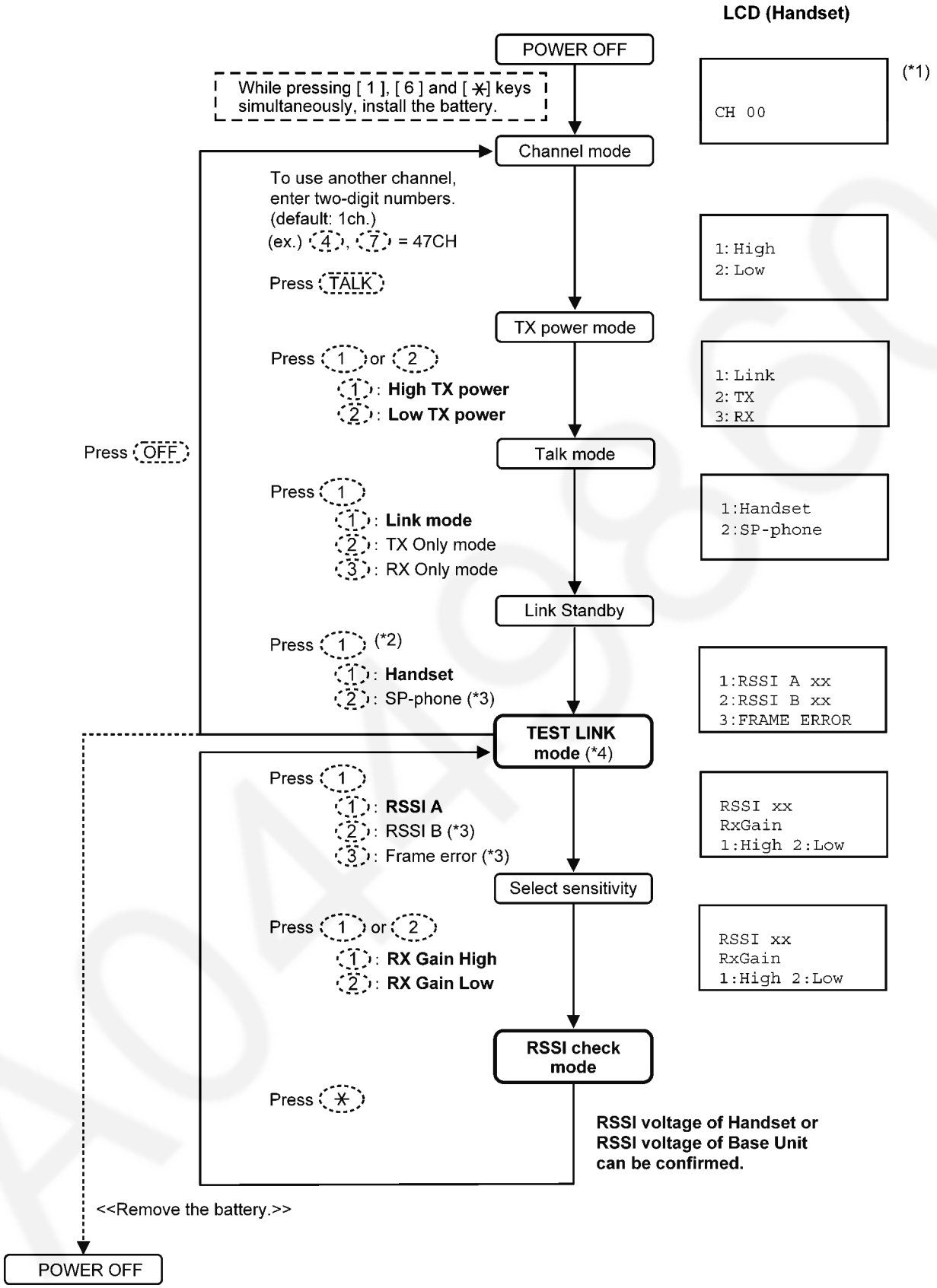


Note:

(*1) LCD displays the Channel number.
(exception: default/ CH00 = 1ch.)

(*2) Refer to **Check Table for RF part** (P.72) and **Test Burst Mode for Base Unit** (P.54) for proper Base Unit settings.

8.1.7. Test Link Mode for Handset



Note:

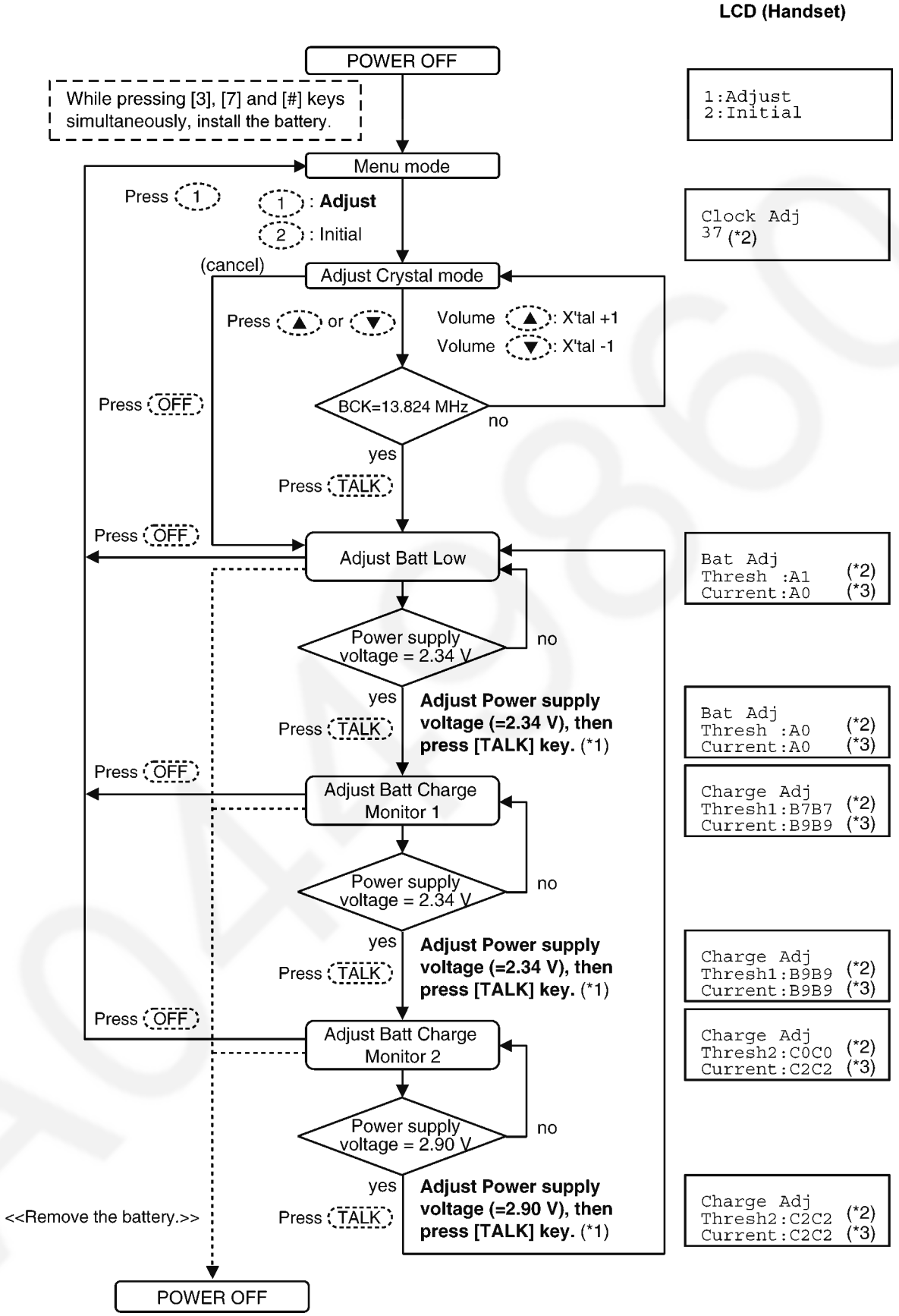
(*1) LCD displays the Channel number.
(exception: default/ CH00 = 1ch.)

(*2) If can not proceed to the next step, refer to **Registering a Handset** (P.70).

(*3) for factory use only.

(*4) Refer to **Check Table for RF part** (P.72) and **Test Link Mode for Base Unit** (P.56) for proper Base Unit settings.

8.1.8. Adjustment Mode for Handset



Cross Reference

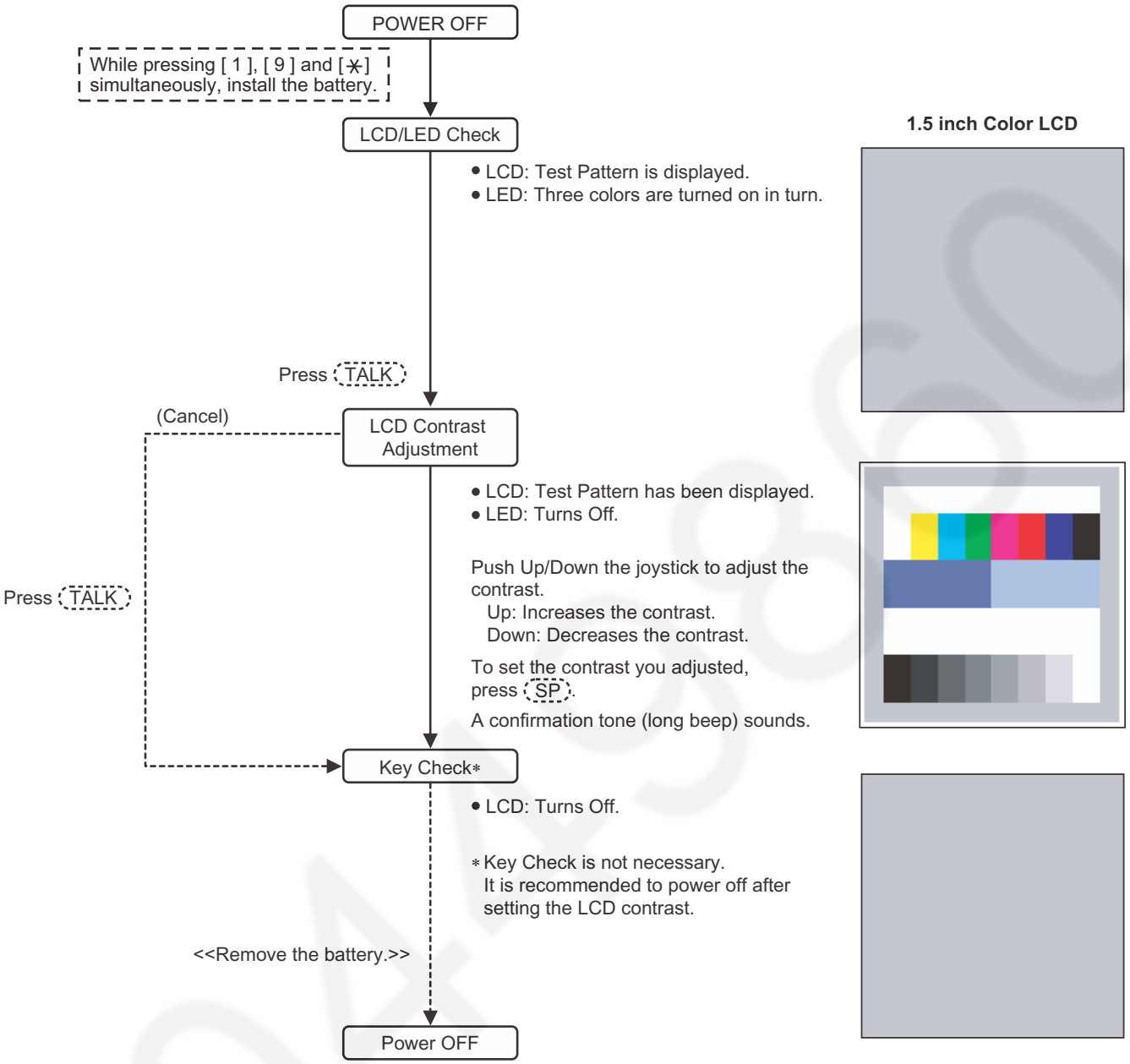
(*1) **Adjust Battery Low Detector Voltage (Handset)** (P.85)

Note:

(*2) These are the default values.

(*3) These values may not be fixed depending on the battery strength.

8.1.9. LCD Contrast Adjustment for Handset



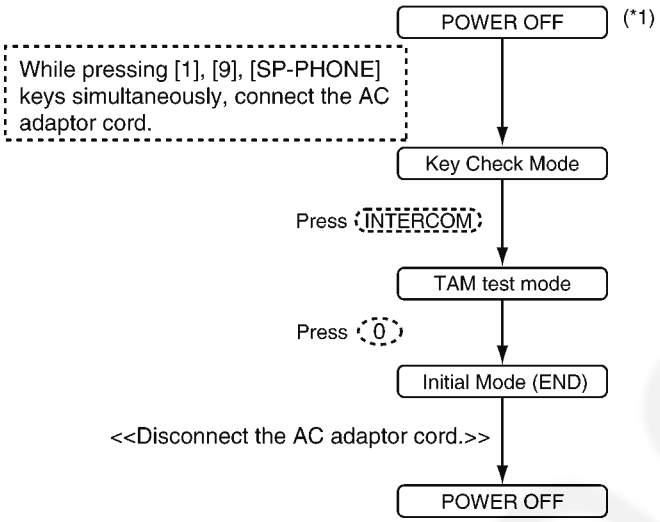
9 Service Mode

9.1. How to Clear User Setting

Units are reset to the Factory settings by this operation (Erase recorded Voice messages, stored Phone numbers, Caller list and etc.).

This operation should not be performed for a usual repair.

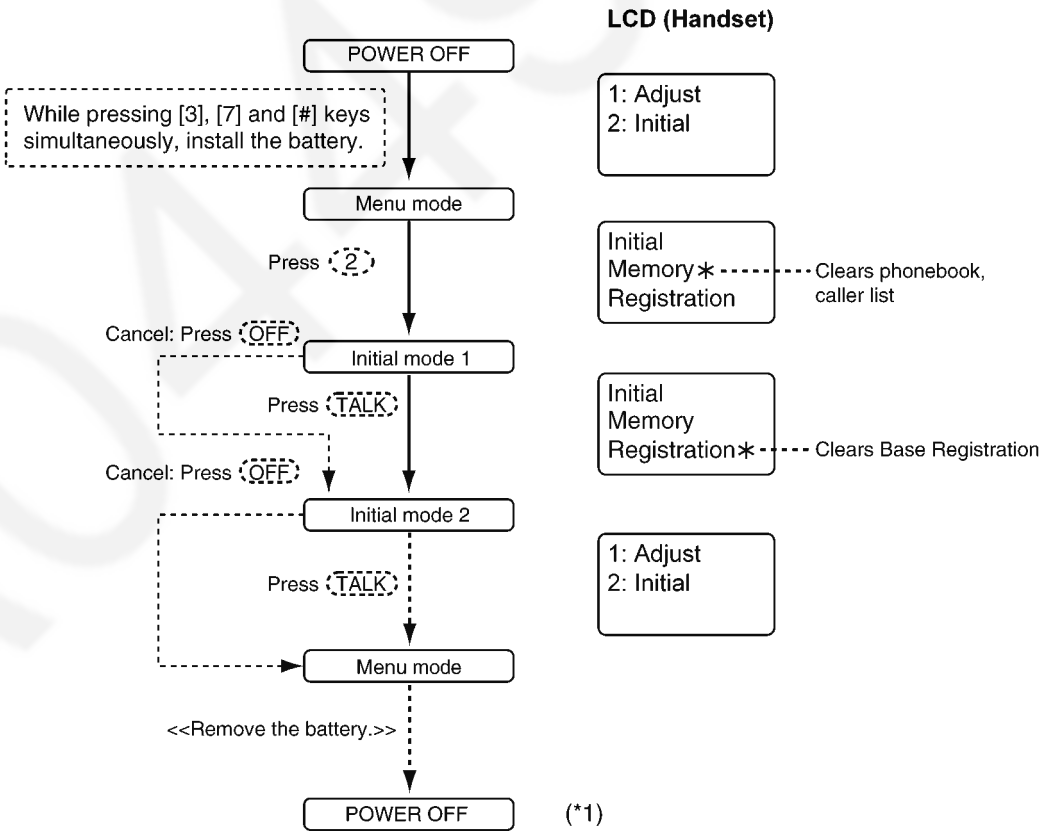
9.1.1. Base Unit



Note:

(*1) Telephone line must be connected.

9.1.2. Handset



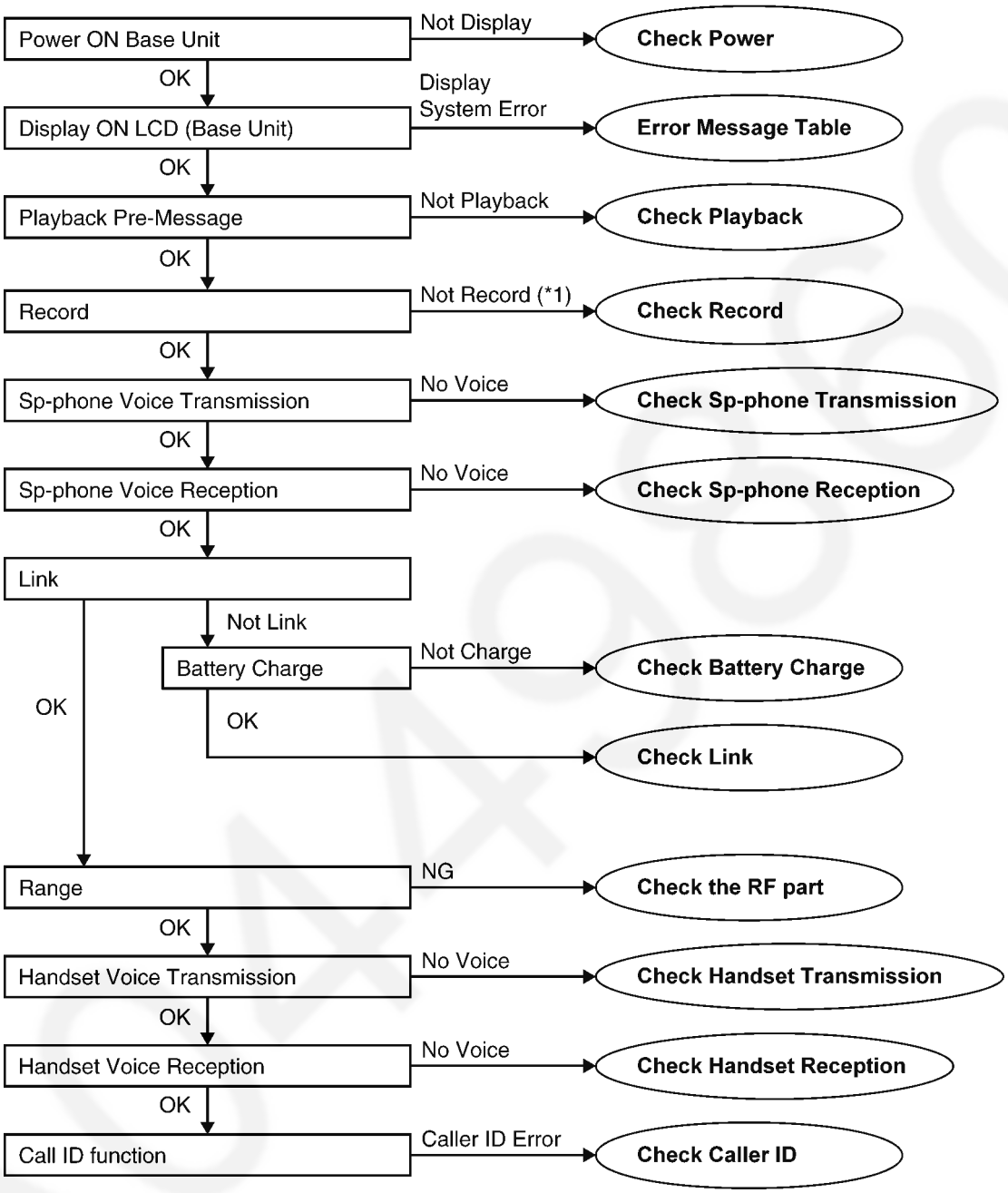
Note:

(*1) Be sure to short the battery terminals of the Handset with a lead wire, etc. for 2 seconds for discharge after removing the battery.

10 Troubleshooting Guide

10.1. Troubleshooting Flowchart

FLOW CHART



Cross Reference:

Check Power (P.65)
Error Message Table (P.65)
Check Playback (P.67)
Check Record (P.66)
Check Sp-phone Transmission (P.67)
Check Sp-phone Reception (P.67)
Check Battery Charge (P.68)
Check Link (P.69)
Check the RF part (P.70)
Check Handset Transmission (P.76)
Check Handset Reception (P.76)
Check Caller ID (P.76)

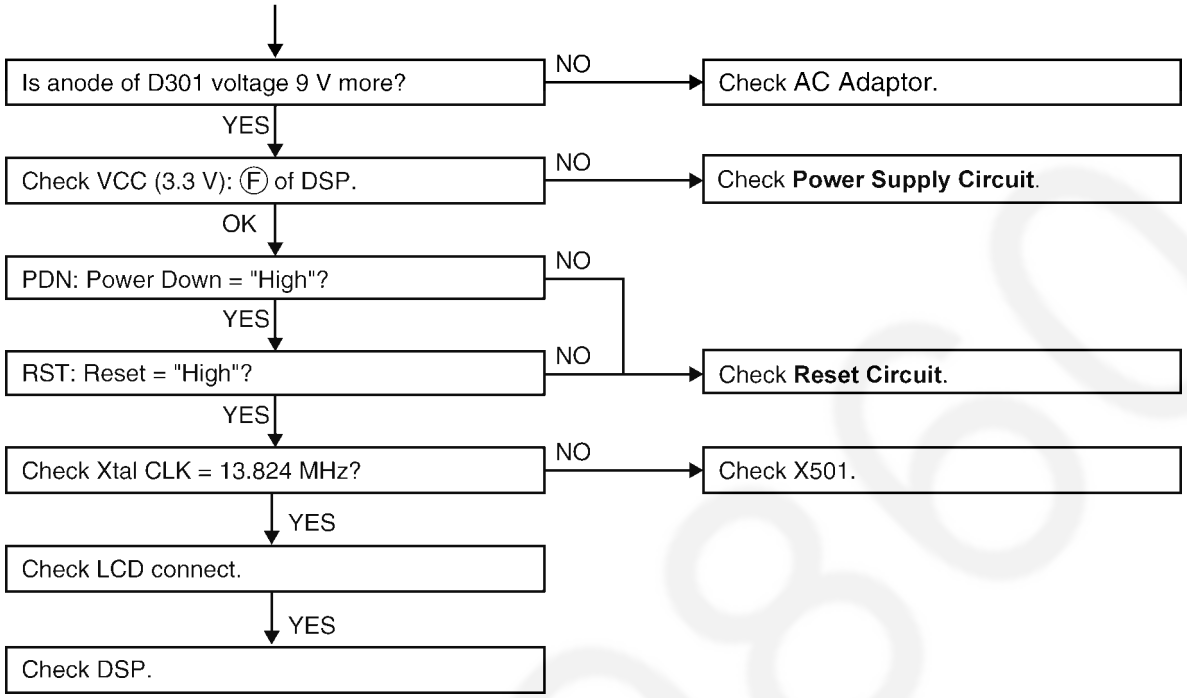
Note:

(*1) When a user claims that the unit disconnects a call right after the greeting message and no incoming messages can be recorded, this symptom can not be reappeared with TEL simulator in the service center. So in that case try **Check Record** (P.66) item (C), (D).

10.1.1. Check Power

BASE UNIT

Is the AC Adaptor inserted into AC outlet? (*1)



Cross Reference:

Power Supply Circuit (P.14)

Reset Circuit (P.16)

Note:

Flash Memory is IC601.

DSP is IC501.

(*1) Refer to **Specifications** (P.6) for part number and supply voltage of AC adaptor.

10.1.2. Error Message Table

Display	Symptom	Remedy
E1	The initialization was tried, but it could not be done.	1. Check the peripheral circuit of Flash Memory visually. 2. Confirm that the voltage is added to the power supply pin. If no voltage is detected, replace the Flash Memory because it might be defect. 3. Solder the Flash Memory again.
E3 E9	When the adjustment data was checked, an error was detected. (The adjustment data may not be written.)	

Note:

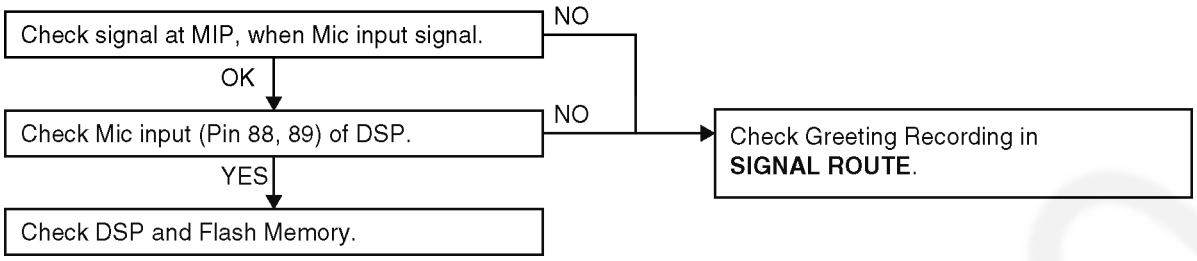
Flash Memory is IC601.

DSP is IC501.

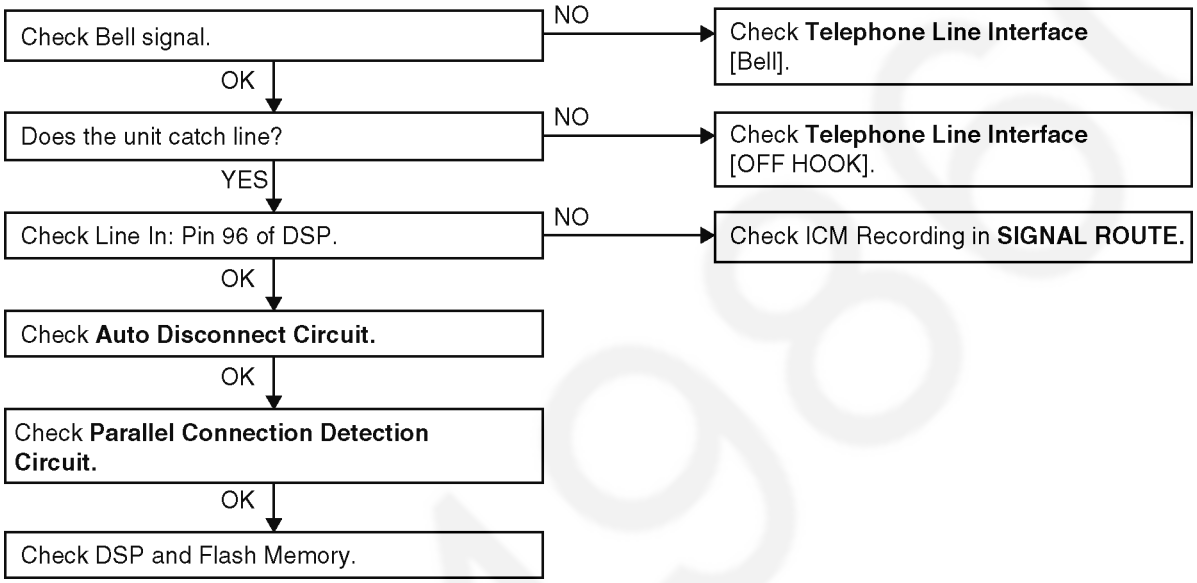
10.1.3. Check Record

BASE UNIT

A) Not record Greeting Message



B) Not record Incoming Message



C) How to change the Auto Disconnect activation (time)

Some Telephone Company lines (fiber or cable) ON Hook and OFF Hook voltages are lower than conventional lines, which may cause a malfunction of Auto Disconnect detection. To solve this problem, try changing the Auto Disconnect activation through the procedures below.

Auto Disconnect detect	CPC detect	PROCEDURE at Stand-by mode
Enable*1		“STOP”+“GREETING CHECK”+“LOCATOR” simultaneously
Enable*1 [default]	Disable	“STOP”+“GREETING CHECK”+“VOL.【∧】” simultaneously
Disable*2		“STOP”+“GREETING CHECK”+“VOL.【∨】” simultaneously

Note:

*1 Both Auto Disconnect and CPC don’t detect for the first 2 seconds.

*2 If the “Disable” is selected, even if the parallel-connected telephone is OFF HOOK, the line isn’t disconnected.

D) How to change the VOX level

It makes easier to detect a small voice (caller) by raising the sensitivity of VOX level. Therefore, the recording of TAM is not turned off during a detection.

VOX Level sensitivity	PROCEDURE
Normal [default]	“STOP”+“LOCATOR”+“VOL.【∧】” simultaneously
10 dB Up	“STOP”+“LOCATOR”+“VOL.【∨】” simultaneously

Cross Reference:

Signal Route (P.35)

Telephone Line Interface (P.17)

Auto Disconnect circuit (P.18)

Parallel Connection Detect Circuit (P.19)

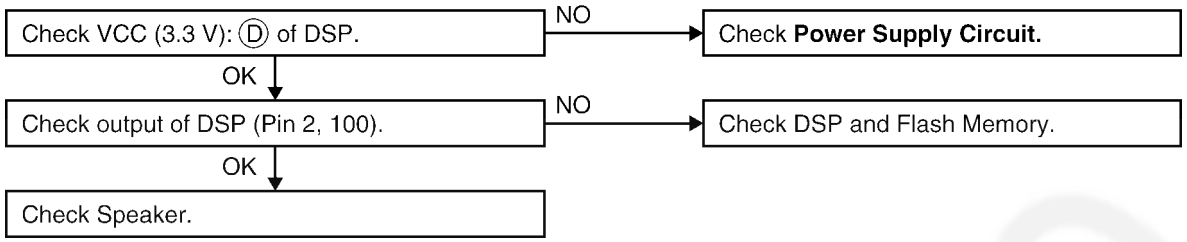
Note:

Flash Memory is IC601.

DSP is IC501.

10.1.4. Check Playback

BASE UNIT

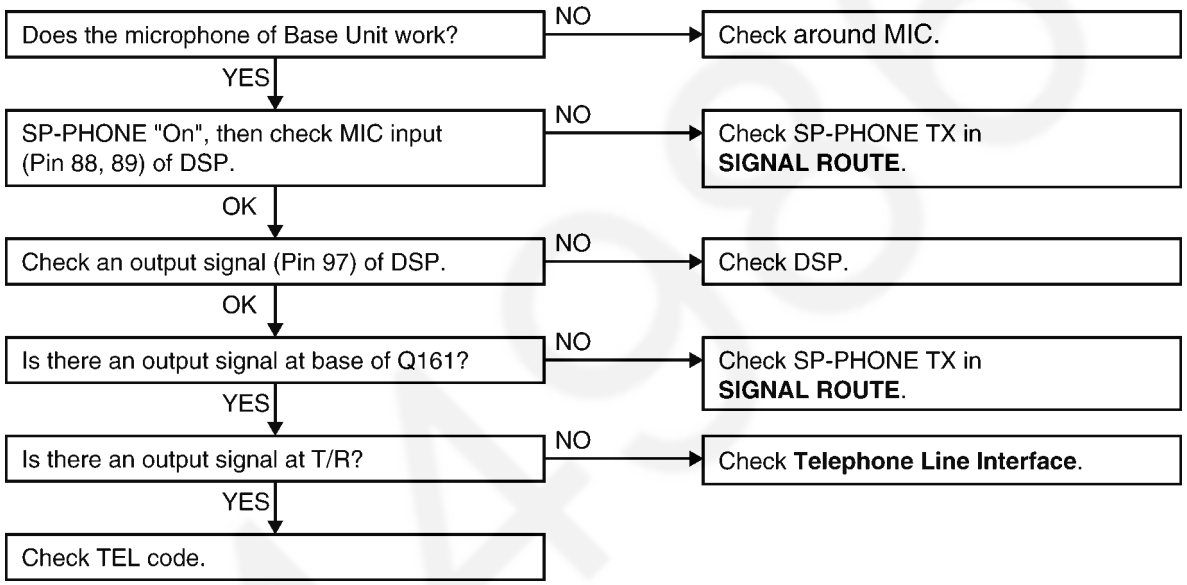


Cross Reference:
Power Supply Circuit (P.14)

Note:
Flash Memory is IC601.
DSP is IC501.

10.1.5. Check Sp-phone Transmission

BASE UNIT

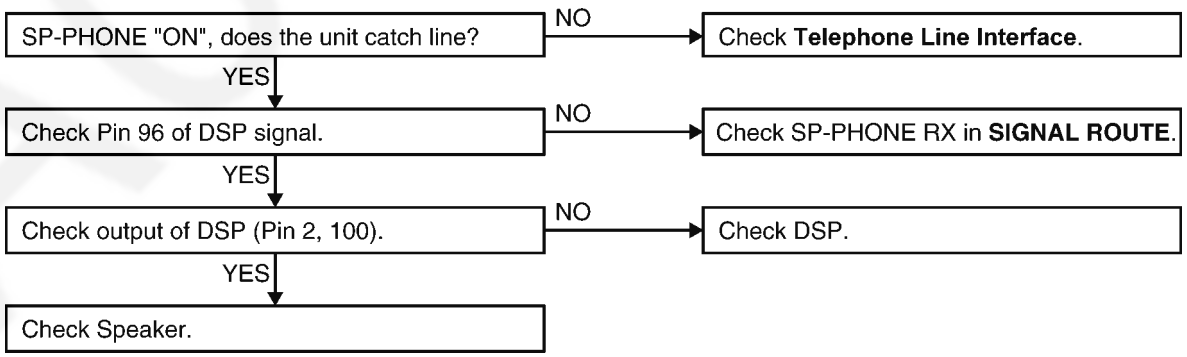


Cross Reference:
Signal Route (P.35)
Telephone Line Interface (P.17)

Note:
Flash Memory is IC601.
DSP is IC501.

10.1.6. Check Sp-phone Reception

BASE UNIT

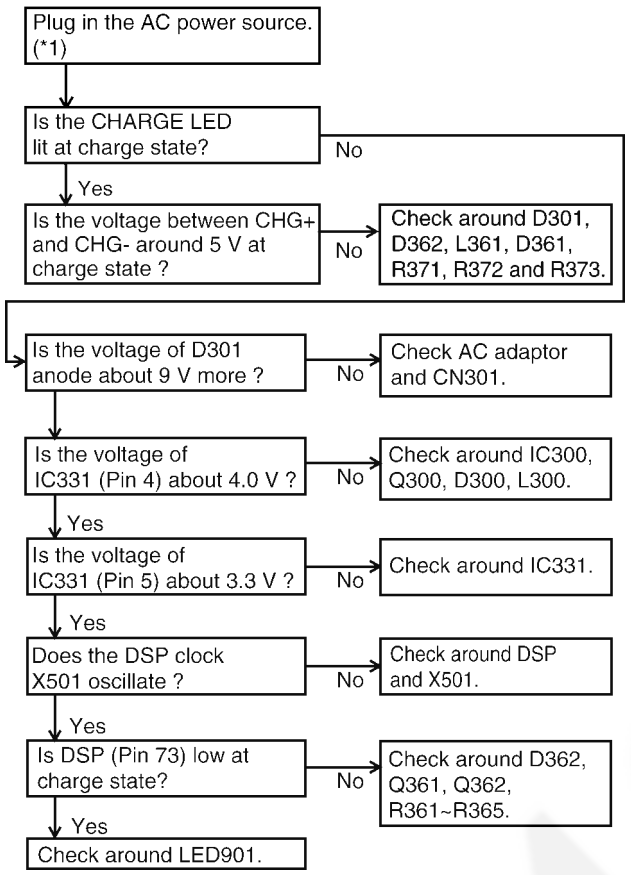


Cross Reference:
Telephone Line Interface (P.17)
Signal Route (P.35)

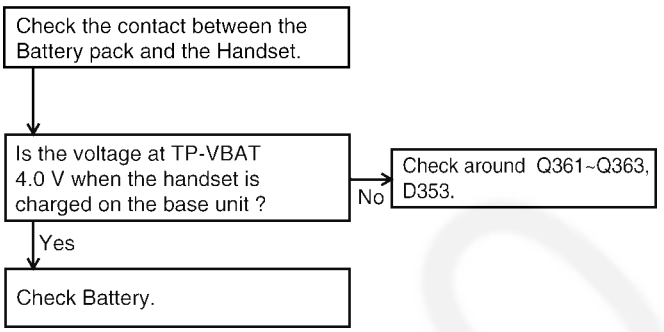
Note:
Flash Memory is IC601.
DSP is IC501.

10.1.7. Check Battery Charge

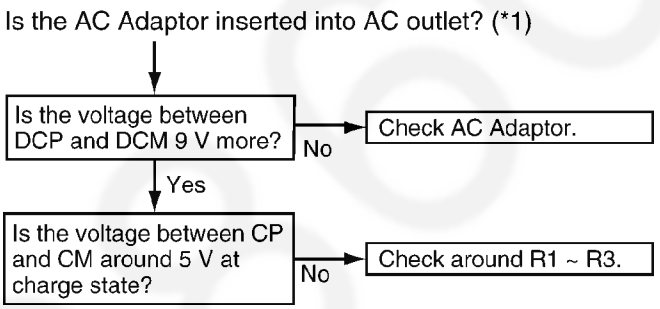
BASE UNIT



HANDSET



CHARGER UNIT



Note:

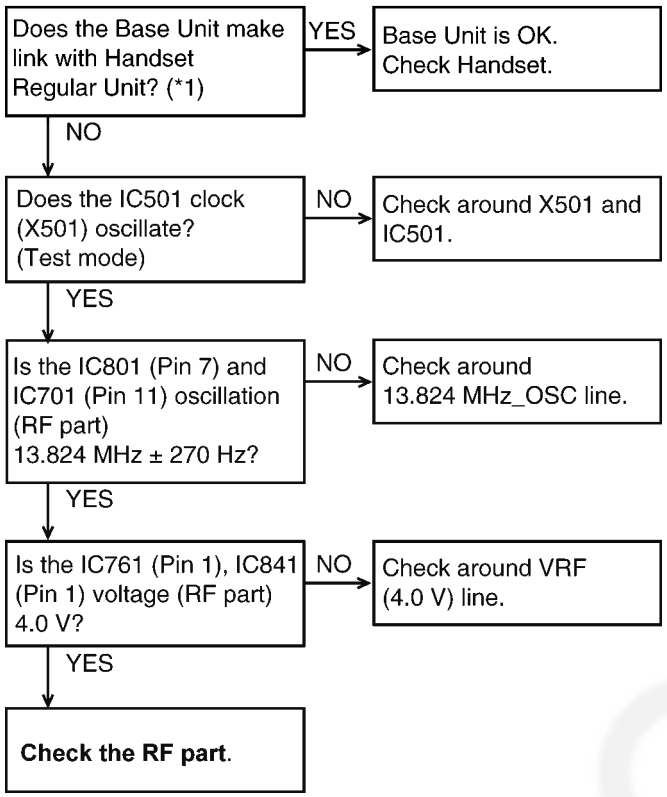
Flash Memory is IC601.

DSP is IC501.

(*1) Refer to **Specifications** (P.6) for part number and supply voltage of AC adaptor.

10.1.8. Check Link

BASE UNIT



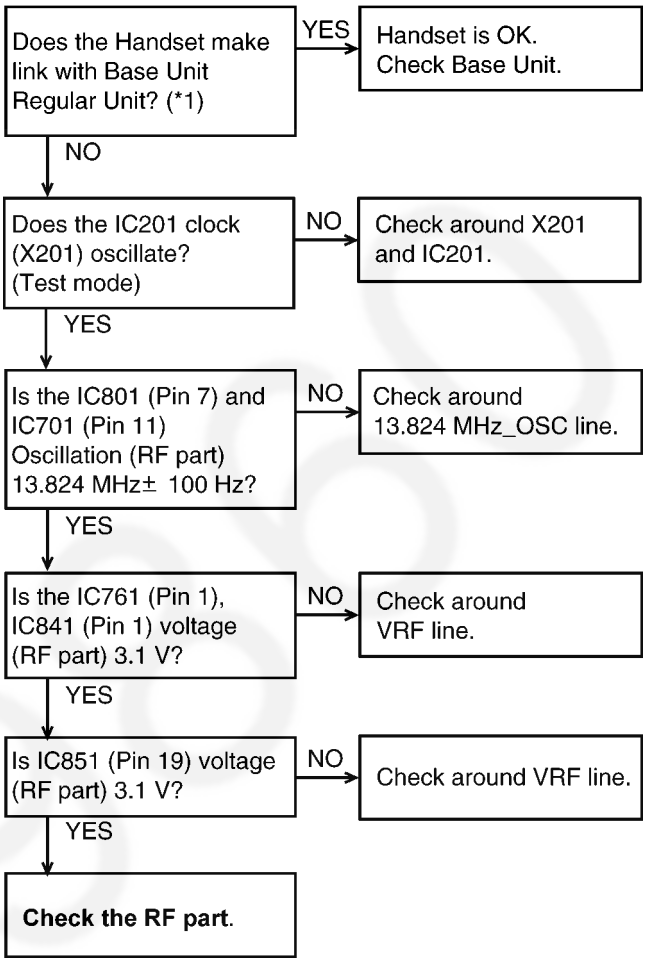
Note:

Flash Memory is IC601.

DSP is IC501.

(*1) Refer to **Finding out the Defective part** (P.70).

HANDSET



Cross Reference:

Check the RF part (P.70)

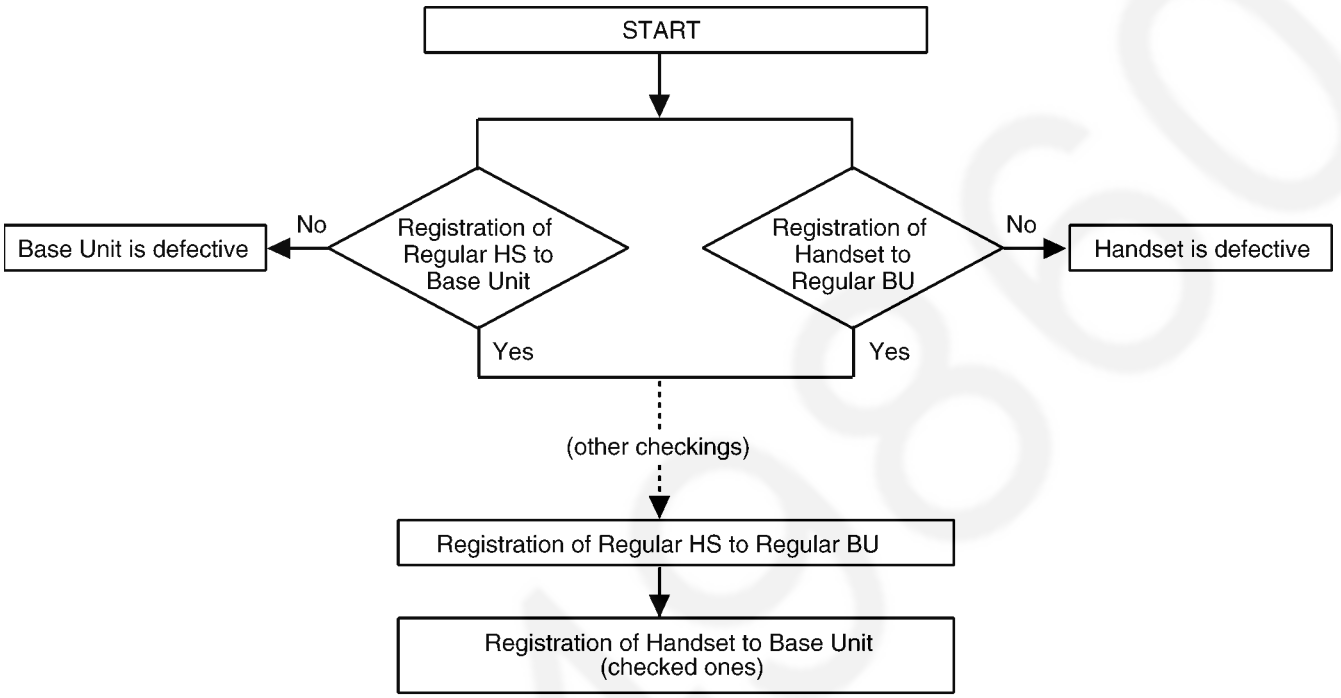
10.1.9. Check the RF part

10.1.9.1. Finding out the Defective part

1. Prepare Regular HS(*1) and Regular BU(*2).
2. a. Re-register regular HS (Normal mode) to Base Unit (to be checked).
   If this operation fails in some ways, the Base Unit is defective.
   b. Re-register Handset (to be checked) to regular BU (Normal mode).
   If this operation fails in some ways, the Handset is defective.

After All the Checkings or Repairing

1. Re-register the checked Handset to the checked Base Unit, and Regular HS to Regular BU.



Note:

(*1) HS: Handset

(*2) BU: Base Unit

10.1.9.1.1. Registering a Handset

The included handset and base unit are preregistered. If for some reason the handset is not registered to the base unit, register the handset.

Important:

- If you have already deregistered the handset, perform steps 2 and 3 only.

1 **Handset:**
【MENU】(middle soft key) → 【#】【1】【3】【0】

2 **Base unit:**
Press and hold 【INTERCOM】 until the IN USE indicator flashes.
- After the IN USE indicator starts flashing, the rest of the procedure must be completed within 90 seconds.

3 **Handset:**
Press 【OK】, then wait until a beep sounds.

If you have not canceled the handset's registration at the previous base unit, the handset number remains in that base unit's memory. To erase the handset number from the previous base unit, follow the next procedure.
For the KX-TG5776/KX-TG5777 base unit:
(1) Press and hold **[INTERCOM/TRANSFER]** for 3 seconds.
(2) Press and hold the handset number **[1]** to **[8]** that you do not want for 5 seconds.
A long beep sounds, then the handset number is erased.

10.1.9.1.2. Deregistering a Handset

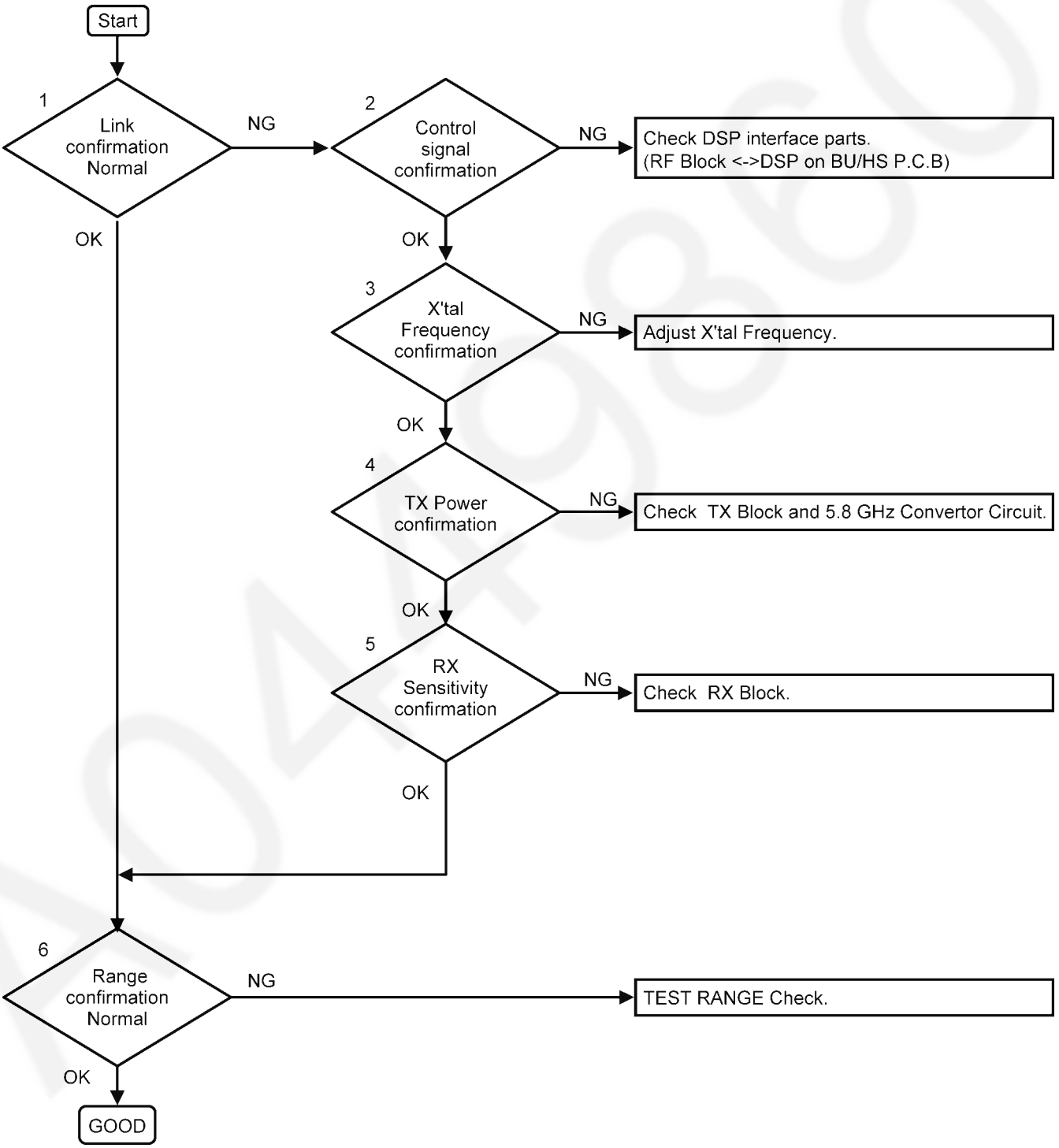
Handset

1 **【MENU】** (middle soft key) → **【#】【1】【3】【1】**

2 **【3】【3】【5】** → **【OK】**

10.1.9.2. RF Check Flowchart

Each item (1 ~ 6) of RF Check Flowchart corresponds to **Check Table for RF part** (P.72).
Please refer to the each item.



10.1.9.3. Check Table for RF part

No.	Item	BU (Base Unit) Check	HS (HandSet) Check
1	Link Confirmation Normal HS, BU Mode [Normal Mode]	1. Register Regular HS to BU (to be checked). 2. Press [Talk] key of the Regular HS to establish link.	1. Register HS (to be checked) to Regular BU. 2. Press [Talk] key of the HS to establish link.
2	Control signal confirmation HS, BU Mode: [Test Burst Mode] (*1)	Check DSP interface. (*2)	Check DSP interface. (*2)
3	X'tal Frequency confirmation (*7) HS, BU Mode: [Adjustment] (*3)	Check X'tal Frequency. (13.824000 MHz ±270 Hz)	Check X'tal Frequency. (13.824000 MHz ±100 Hz)
4	TX Power confirmation Regular HS, BU Mode: [RX-CW Mode.] (*4) HS, BU (to be checked) Mode: [Test Burst Mode.] (*1)	1. Place the Regular HS about 15 cm away from the BU. 2. Confirm that RSSI of the Regular HS is approximately 2 V by Oscilloscope. (*5)	1. Place the HS about 15 cm away from the Regular BU. 2. Confirm that RSSI of the Regular BU is approximately 2 V by Oscilloscope. (*6)
5	RX Sensitivity confirmation Regular HS, BU Mode: [Test Burst Mode.] (*1) HS, BU (to be checked) Mode: [RX-CW Mode.] (*4)	1. Place the Regular HS about 15cm away from the BU. 2. Confirm that RSSI of the BU is approximately 2 V by Oscilloscope. (*5)	1. Place the HS about 15 cm away from the Regular BU. 2. Confirm that RSSI of the HS is approximately 2 V by Oscilloscope. (*6)
6	Range Confirmation Normal HS, BU Mode: [Normal Mode]	1. Register Regular HS to BU (to be checked). 2. Press [Talk] key of the Regular HS to establish link. 3. Compare the range of the BU (being checked) with that of the Regular BU.	1. Register HS (to be checked) to Regular BU. 2. Press [Talk] key of the HS to establish link. 3. Compare the range of the HS (being checked) with that of the Regular HS.

Note:

(*1)(*3)(*4) **Adjustment and Test Mode Flow Chart** (P.54)

(*2) **RF-DSP Interface Signal Wave Form** (P.74)

(*5) **Base Unit Reference Drawing** (P.86)

(*6) **Handset Reference Drawing** (P.87)

(*7) **X501 (Base Unit), X201 (Handset) Check** (P.85)

10.1.9.4. TEST RANGE Check

Circuit block which range is defective can be found by the following check.

Item	BU (Base Unit) Check	HS (HandSet) Check
Range Confirmation TX TEST (TX Power check) HS, BU Mode: [Test Link Mode] (*1)	1. Register Regular HS to BU (to be checked). 2. Set BU to “Test Link mode”. 3. Set Regular HS to “Test Link mode”. *Set TX Power and RX Sensitivity of the BU and the Regular HS by CHART1. * At distance of about 20 m between HS and BU, Link OK = TX Power of the BU is OK. No Link = TX Power of the BU is NG.	1. Register HS (to be checked) to Regular BU. 2. Set Regular BU to “Test Link mode”. 3. Set HS to “Test Link mode”. *Set TX Power and RX Sensitivity of the HS and the Regular BU by CHART1. * At distance of about 20 m between HS and BU, Link OK = TX Power of the HS is OK. No Link = TX Power of the HS is NG.
Range Confirmation RX TEST (RX sensitivity check) HS, BU Mode: [Test Link Mode] (*1)	1. Register Regular HS to BU (to be checked). 2. Set BU to “Test Link mode”. 3. Set Regular HS to “Test Link mode”. *Set TX Power and RX Sensitivity of the BU and Regular HS by CHART1. * At distance of about 20 m between HS and BU, Link OK= RX Sensitivity of the BU is OK. No Link = RX Sensitivity of the BU is NG.	1. Register HS (to be checked) to Regular BU. 2. Set Regular BU to “Test Link mode”. 3. Set HS to “Test Link mode”. * Set TX Power and RX Sensitivity of Checking_HS and Regular_BU by CHART1. * At distance of about 20 m between HS and BU, Link OK= RX Sensitivity of the HS is OK. No Link = RX Sensitivity of the HS is NG

CHART1: Setting of TX Power and RX Sensitivity in Range Confirmation TX TEST, RX TEST

	BU (to be checked)		Regular_HS	
	TX Power	RX Sens.	TX Power	RX Sens.
BU (Base Unit) TX Power Check	High	High	High	**Low**
BU (Base Unit) RX Sensitivity Check	High	High	**Low**	High

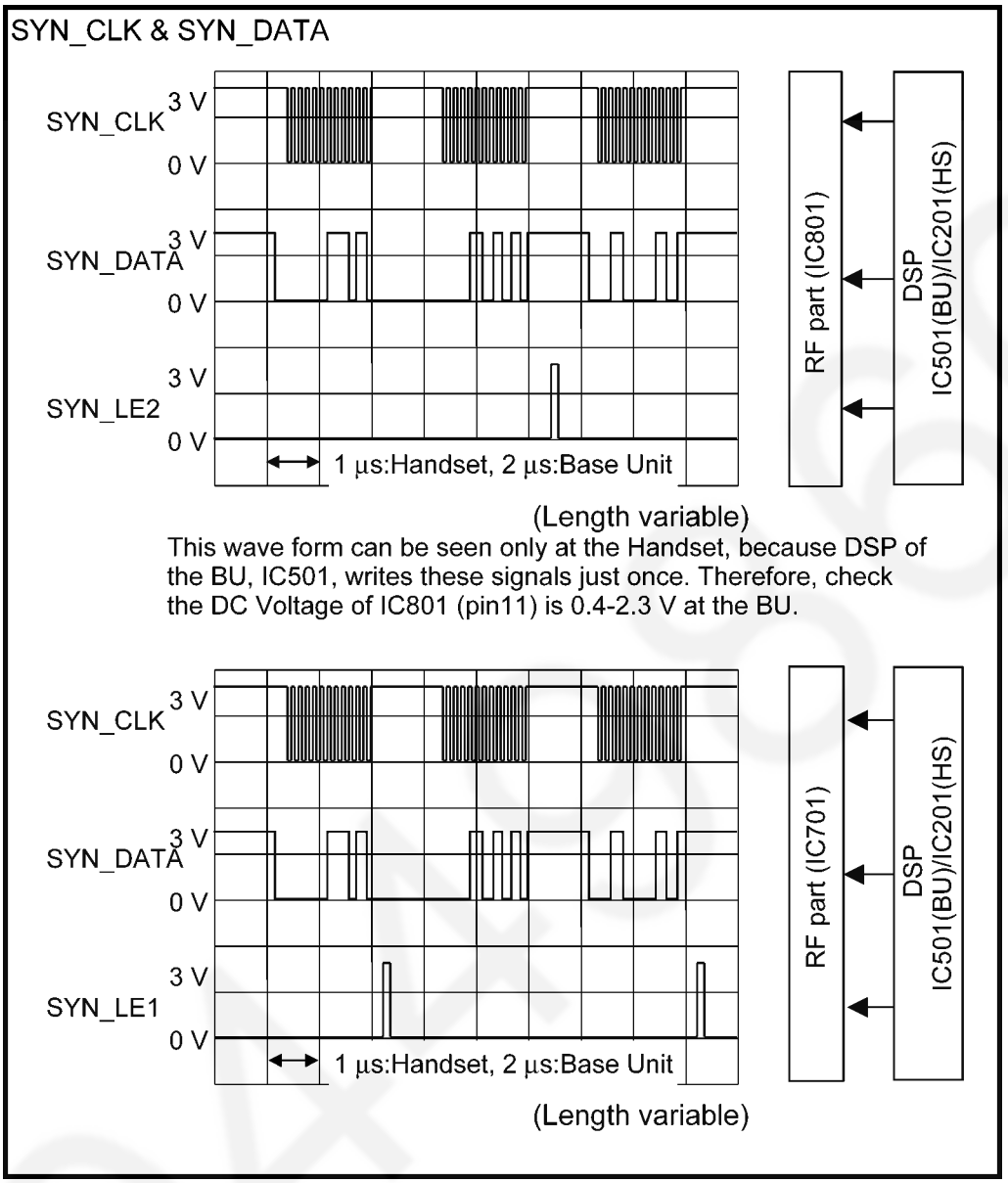
	HS (to be checked)		Regular_BU	
	TX Power	RX Sens.	TX Power	RX Sens.
HS (Handset) TX Power Check	High	High	High	**Low**
HS (Handset) RX Sensitivity Check	High	High	**Low**	High

Note:

(*1) **Adjustment and Test Mode Flow Chart** (P.54)

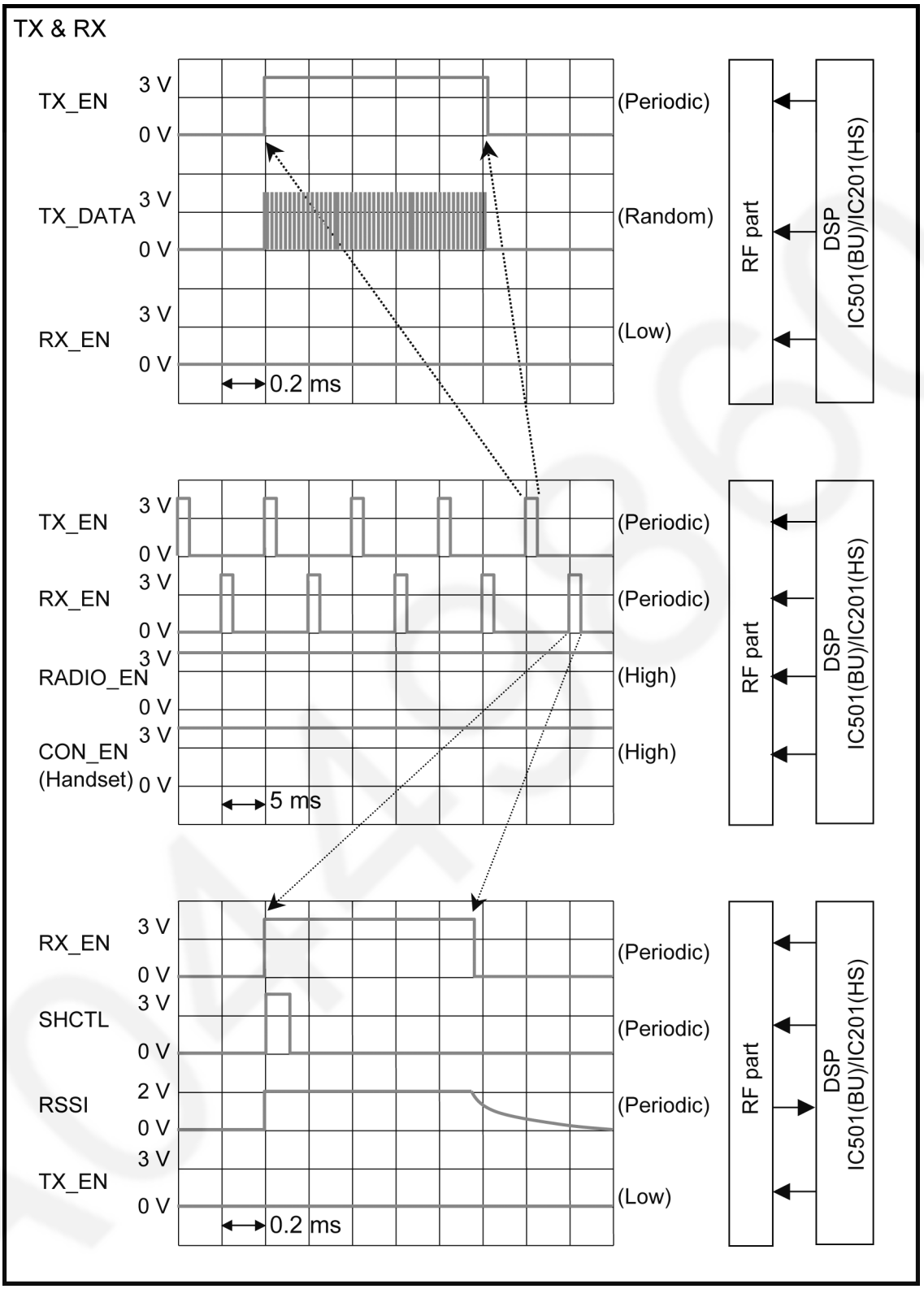
10.1.9.5. RF-DSP Interface Signal Wave Form

Test Burst Mode:

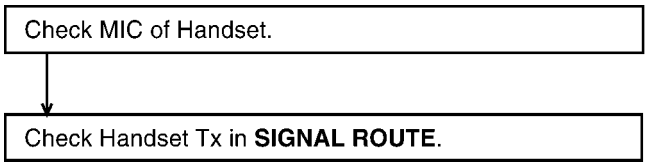


This wave form can be seen only at the Handset, because DSP of the BU, IC501, writes these signals just once. Therefore, check the DC Voltage of IC801 (pin11) is 0.4-2.3 V at the BU.

Test Burst Mode:



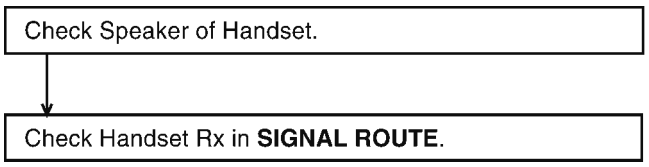
10.1.10. Check Handset Transmission



Cross Reference:

Signal Route (P.35).

10.1.11. Check Handset Reception



Cross Reference:

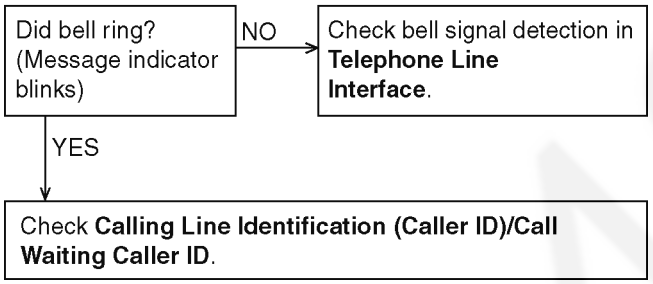
Signal Route (P.35).

Note:

When checking the RF part, Refer to **Check the RF part** (P.70)

10.1.12. Check Caller ID

BASE UNIT



Cross Reference:

Telephone Line Interface (P.17).

Calling Line Identification (Caller ID)/Call Waiting Caller ID (P.20).

Note:

- Make sure the format of the Caller ID or Call Waiting Caller ID service of the Telephone company that the customer subscribed to.
- Also we recommend to confirm that the customer is really a subscriber of the service.

10.2. How to Replace the Flat Package IC

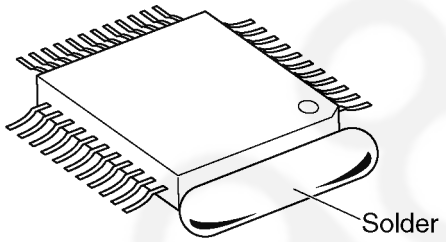
Even if you do not have the special tools (for example, a spot heater) to remove the Flat IC, with some solder (large amount), a soldering iron and a cutter knife, you can easily remove the ICs that have more than 100 pins.

10.2.1. Preparation

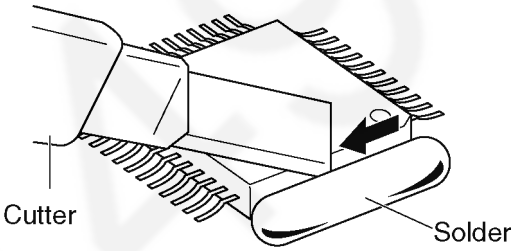
- PbF (: Pb free) Solder
- Soldering Iron
  Tip Temperature of 700 °F ± 20 °F (370 °C ± 10 °C)
  Note: We recommend a 30 to 40 Watt soldering iron. An expert may be able to use a 60 to 80 Watt iron where someone with less experience could overheat and damage the PCB foil.
- Flux
  Recommended Flux: Specific Gravity → 0.82.
  Type → RMA (lower residue, non-cleaning type)
  Note: See **About Lead Free Solder (Pbf: Pb free)** (P.4)

10.2.2. How to Remove the IC

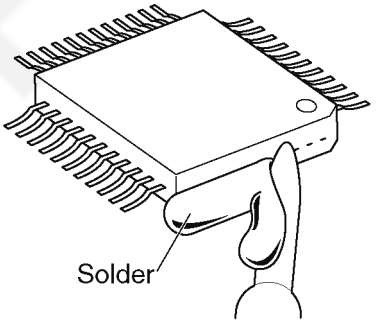
1. Put plenty of solder on the IC pins so that the pins can be completely covered.
   Note:
   If the IC pins are not soldered enough, you may give pressure to the P.C. board when cutting the pins with a cutter.



2. Make a few cuts into the joint (between the IC and its pins) first and then cut off the pins thoroughly.



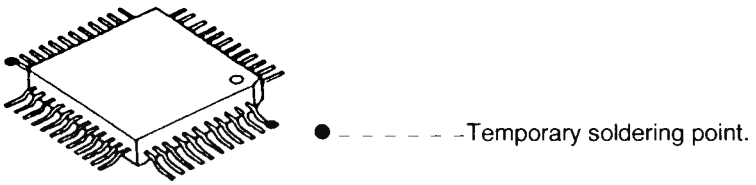
3. While the solder melts, remove it together with the IC pins.



When you attach a new IC to the board, remove all solder left on the land with some tools like a soldering wire. If some solder is left at the joint on the board, the new IC will not be attached properly.

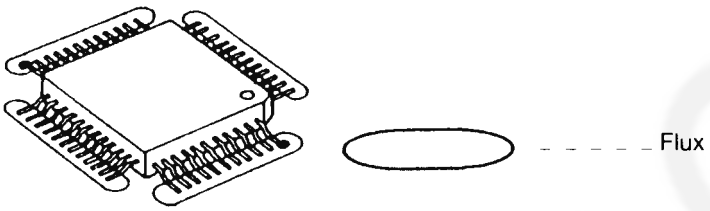
10.2.3. How to Install the IC

1. Temporarily fix the FLAT PACKAGE IC, soldering the two marked pins.

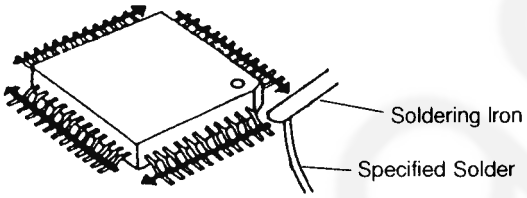


*Check the accuracy of the IC setting with the corresponding soldering foil.

2. Apply flux to all pins of the FLAT PACKAGE IC.

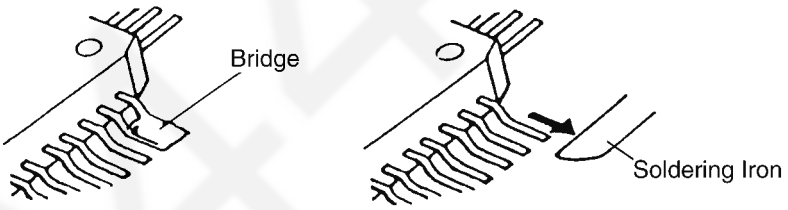


3. Solder the pins, sliding the soldering iron in the direction of the arrow.



10.2.4. How to Remove a Solder Bridge

1. Lightly resolder the bridged portion.
2. Remove the remaining solder along the pins using a soldering iron as shown in the figure below.



10.3. How to Replace the LLP (Leadless Leadframe Package) IC

10.3.1. Preparation

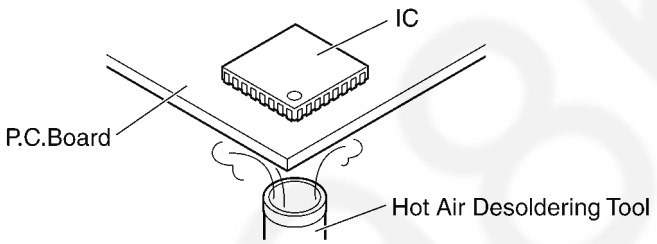
- PbF (: Pb free) Solder
- Soldering Iron
  Tip Temperature of 700°F ± 20°F (370°C ± 10°C)
  Note:
  We recommend a 30 to 40 Watt soldering iron. An expert may be able to use a 60 to 80 Watt iron where someone with less experience could overheat and damage the PCB foil.
- Hot Air Desoldering Tool
  Temperature: 608°F ± 68°F (320°C ± 20°C)

10.3.2. Caution

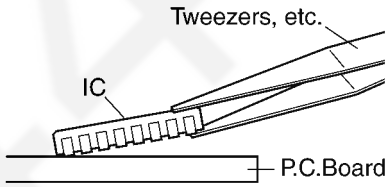
- To replace the IC efficiently, choose the right sized nozzle of the hot air desoldering tool that matches the IC package.
- Be careful about the temperature of the hot air desoldering tool not to damage the PCB and/or IC.

10.3.3. How to Remove the IC

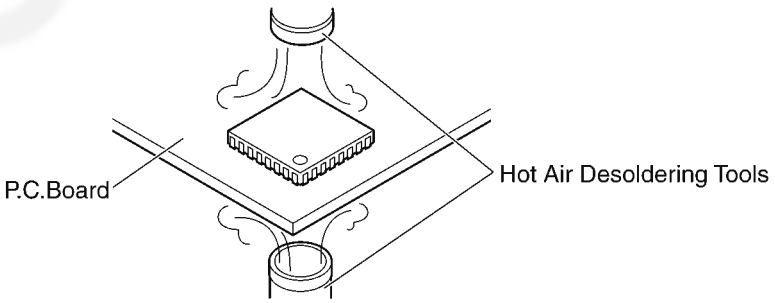
1. Heat the IC with a hot air desoldering tool through the P.C.Board.



2. Pick up the IC with tweezers, etc. when the solder is melted completely.
   Note:
   - Be careful not to touch the peripheral parts with tweezers, etc. They are unstable.



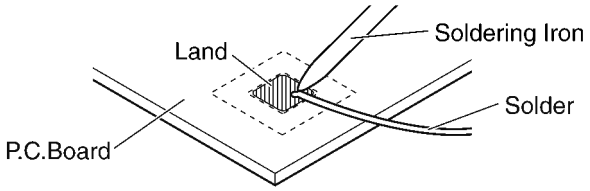
When it is hard to melt the solder completely, heat it with a hot air desoldering tool through the IC besides through the P.C.Board.



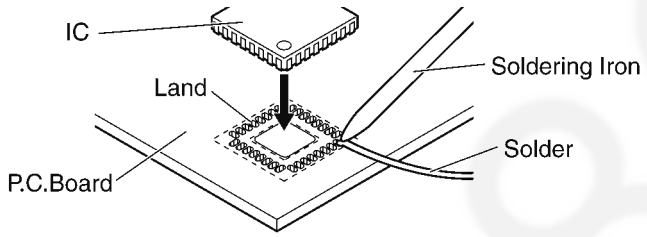
3. After removing the IC, clean the P.C.Board of residual solder.

10.3.4. How to Install the IC

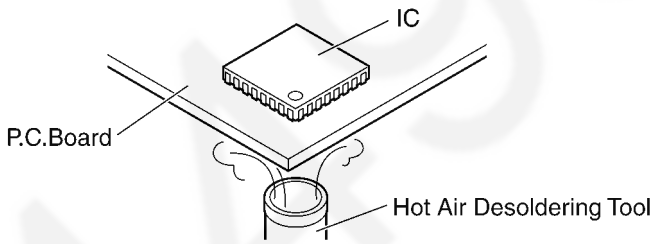
1. Place the solder a little on the land where the radiation GND pad on IC bottom is to be attached.



2. Place the solder a little on the land where IC pins are to be attached, then place the IC.
   Note:
   • When placing the IC, the positioning should be done very carefully.



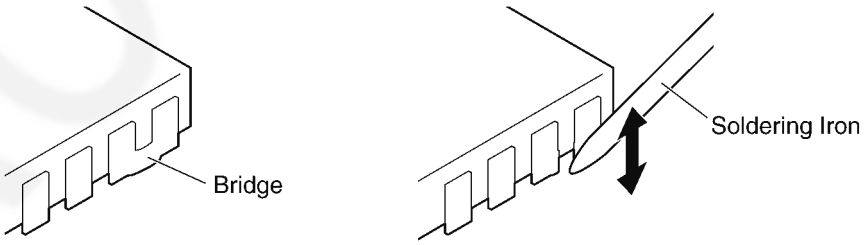
3. Heat the IC with a hot air desoldering tool through the P.C.Board until the solder on IC bottom is melted.
   Note:
   • Be sure to place it precisely, controlling the air volume of the hot air desoldering tool.



4. After soldering, confirm there are no short and open circuits with visual inspection.

10.3.5. How to Remove a Solder Bridge

When a Solder Bridge is found after soldering the bottom of the IC, remove it with a soldering iron.



11 Disassembly and Assembly Instructions

11.1. Disassembly Instructions

11.1.1. Base Unit

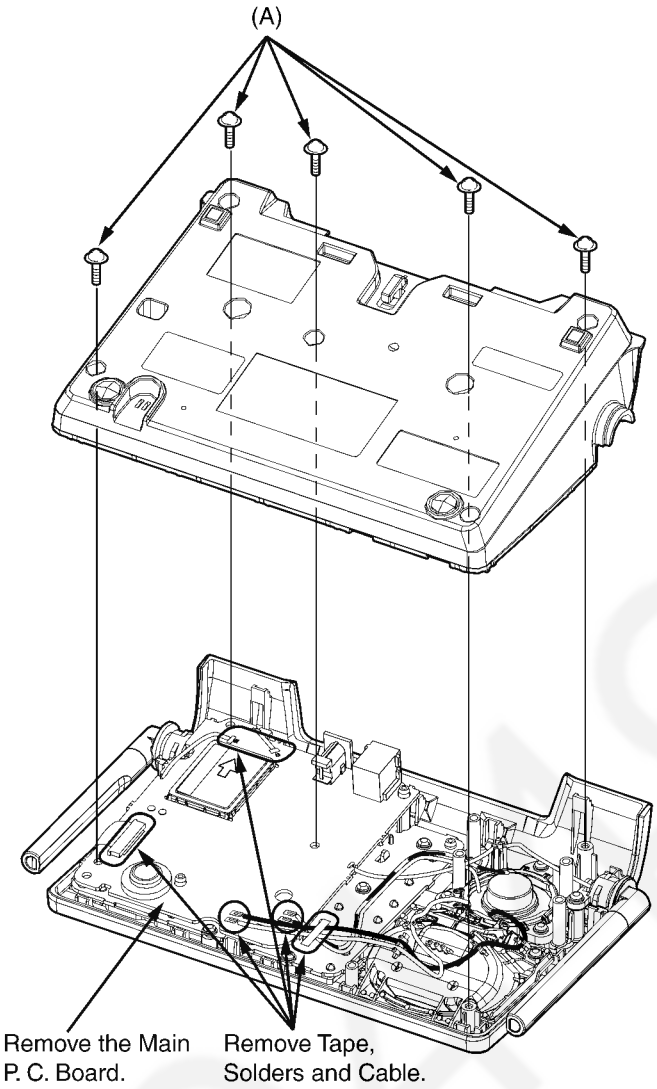


Fig. 1

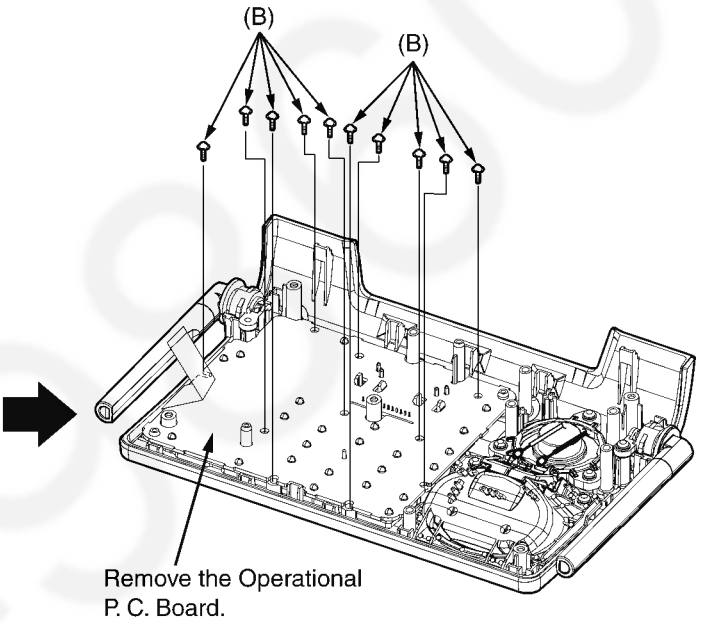


Fig. 2

Shown in Fig.-	To Remove -	Remove -
1	Cabinet Cover	Screws (2.6 × 14).....(A) × 5
	Main P. C. Board	Tape, Solders and Cable
		Main P. C. Board
2	Operational P. C. Board	Screws (2.6 × 8).....(B) × 10
		Operational P. C. Board

11.1.2. Handset

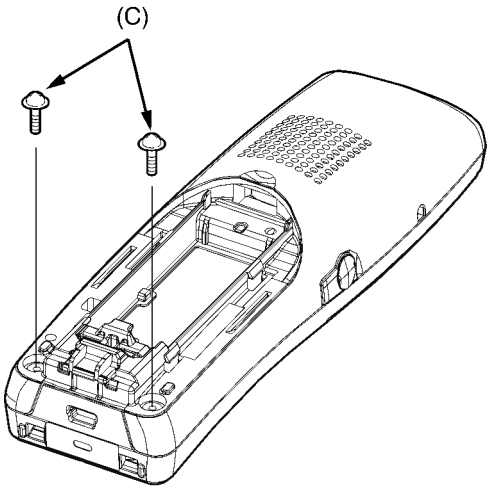


Fig. 3

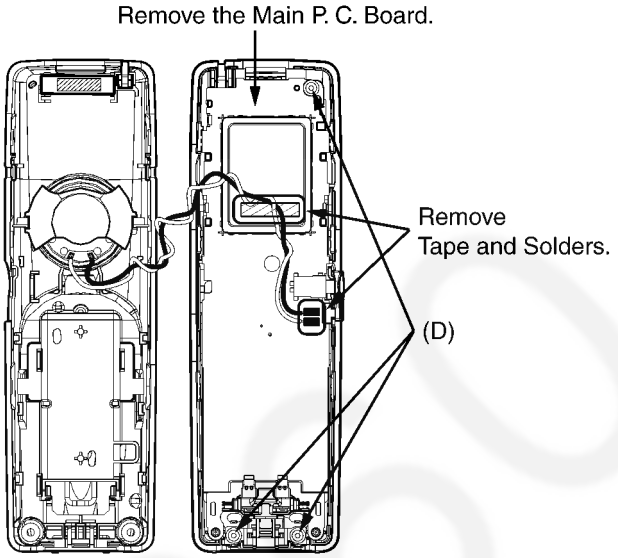
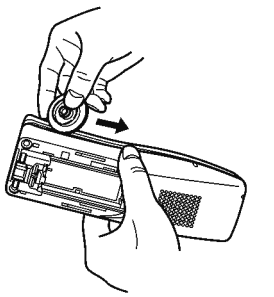
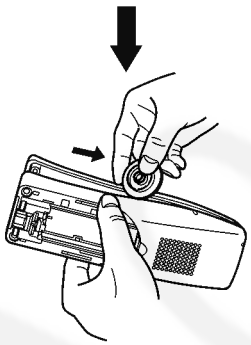
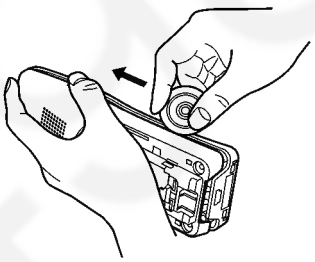


Fig. 5

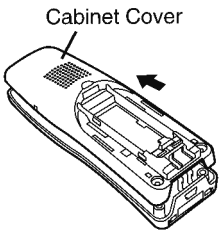


Insert a JIG (PQDJ10006Y) between the Cabinet Body and the Cabinet Cover, then pull it along the gap to open the Cabinet.





Likewise, open the other side of the Cabinet.



Remove the Cabinet Cover by pushing it upward.

Fig. 4

Shown in Fig.-	To Remove -	Remove -
3	Cabinet Cover	Screws (2 × 10).....(C) × 2
4		Follow the procedure.
5	Main P. C. Board	Tape and Solders
		Screws (2 × 10).....(D) × 3
		Main P. C. Board

11.1.3. Charger Unit

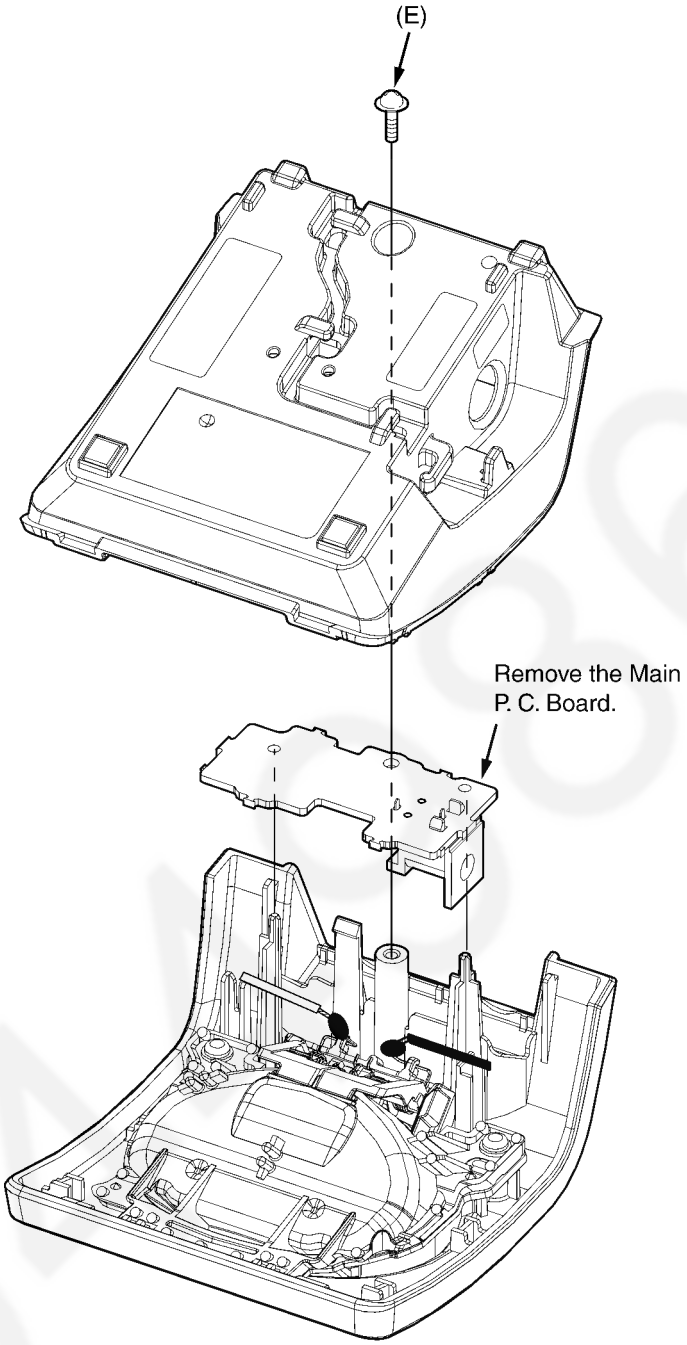
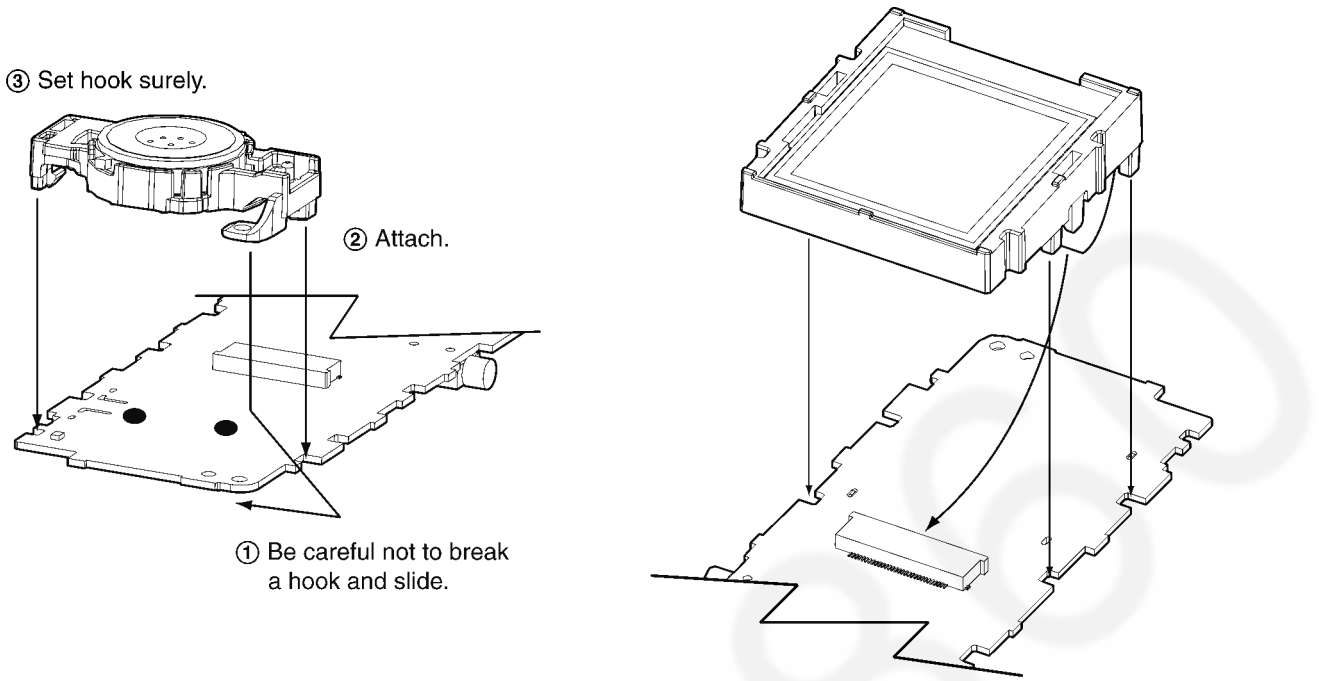
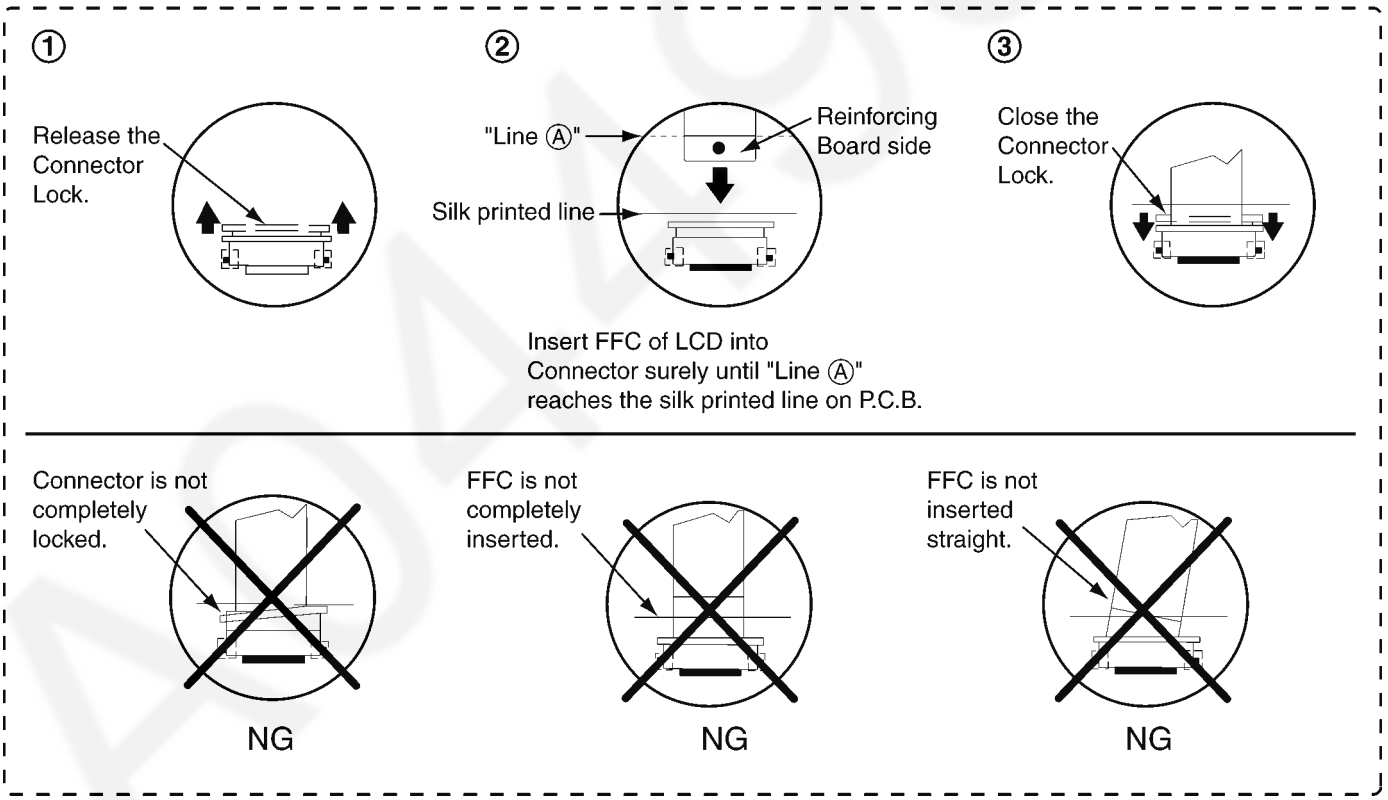


Fig. 6

Shown in Fig.-	To Remove -	Remove -
6	Cabinet Cover	Screws (2.6 × 10).....(E) × 1
	Main P.C.Board	Main P.C.Board

11.2. Fix the LCD and the Receiver Guide to the Main P.C. Board (Handset)





12 Measurements and Adjustments

12.1. Things to Do after Replacing IC

12.1.1. X501 (Base Unit), X201 (Handset) Check

Equipment: Frequency counter
Check Point for measurement: BCK
Checking tolerance: 13.824 MHz ± 270 Hz (Base Unit)/13.824 MHz ± 100 Hz (Handset)

12.1.1.1. Check and Adjust X501 (Base Unit) Frequency

1. Set up Base Unit in TEST mode.
2. Press following keys in order to Adjust Crystal mode. [INTERCOM], [INTERCOM], [INTERCOM], [1], [4]. Check BCK frequency.
3. If the BCK frequency is out of the checking tolerance (± 270 Hz), adjust to Adjustment tolelance (± 30 Hz) by pressing [▲] or [▼] key.
   Adjustment Tolerance: 13.824 MHz ± 30 Hz
4. Press [INTERCOM] key to write the new frequency factor in Memory.
5. Turn the power off. Then this value is available.

When you have replaced IC501 and IC601, adjust X501 by the procedure above.

Cross Reference:
Adjustment Mode for Base Unit (P.57)

12.1.1.2. Check and Adjust X201 (Handset) Frequency

1. Set DC power supply to 2.6 V.
2. Set up Handset in TEST mode (Adjustment flow).
3. Press [1] key to Adjust Crystal mode (“Clock Adj.” is displayed on LCD). Check BCK frequency.
4. If the BCK frequency is out of the checking tolerance (± 100 Hz), adjust to Adjustment tolelance (± 30 Hz) by pressing [▲] or [▼] key.
   Adjustment Tolerance: 13.824 MHz ± 30 Hz
5. Press [TALK] key to write the new frequency factor in EEPROM.
6. Turn the power off. Then this value is available.

When you have replaced IC201 and IC241, adjust X201 by the procedure above.

Cross Reference:
Adjustment Mode for Handset (P.61)

12.1.2. Adjust Battery Low Detector Voltage (Handset)

After Handset's DSP (IC201) or EEPROM (IC241) replacement, Re-writing Battery Low voltage to EEPROM is required.
With following Handset Adjustment Flow, adjust DC power supply and DC voltmeter by the procedure below.

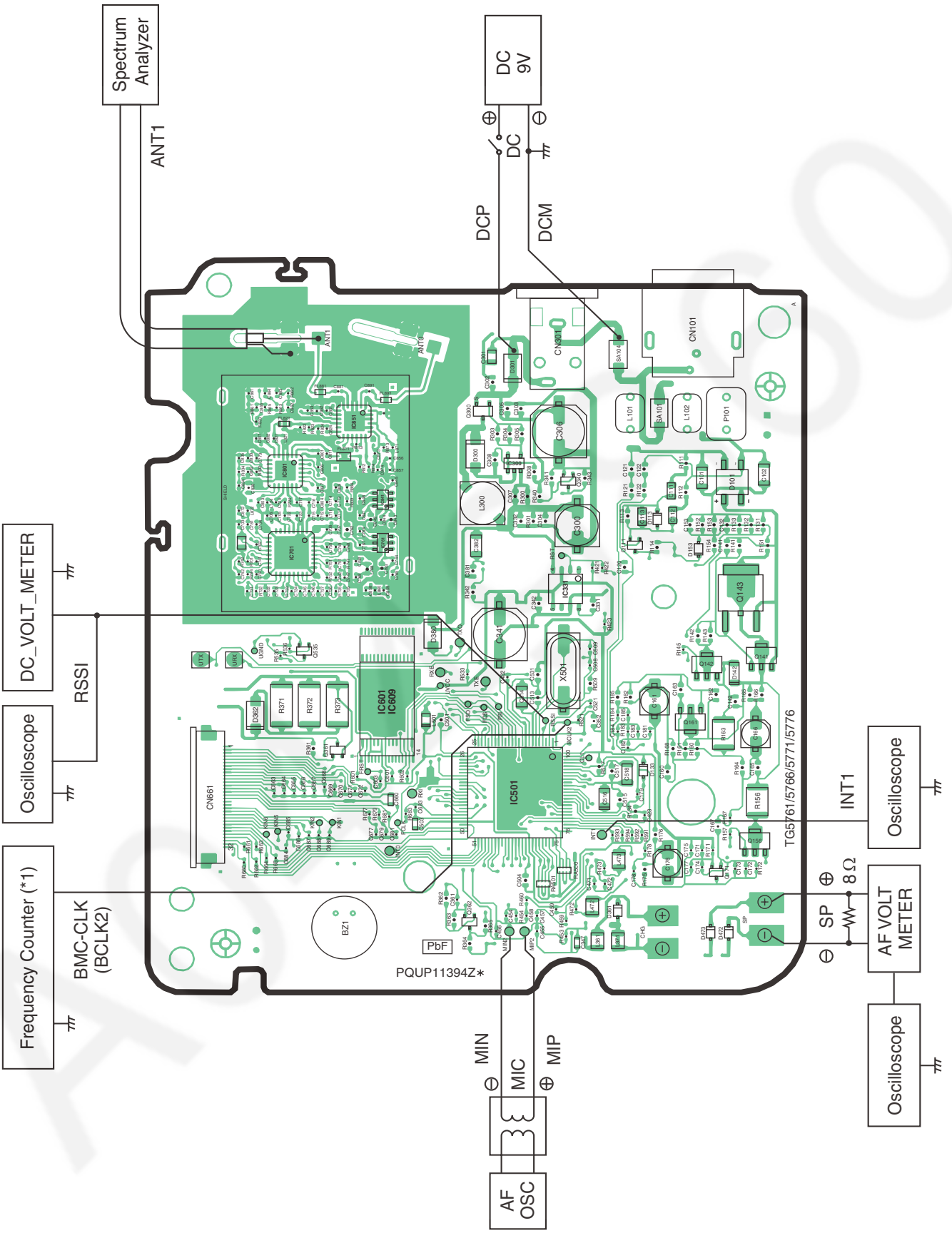
1. Set DC power supply to 2.6 V.
2. Set up Handset in TEST mode (Adjustment flow).
3. Press [1] key and [OFF] key to Adjust Batt Low mode. (“Bat Adj.” is displayed on LCD)
4. Change the voltage of the DC power supply to 2.34 V accurately. Check the voltage at P.C. board pads because some voltage drops occur due to the usage of long or thin cables.
5. Press [TALK] key to write voltage value in EEPROM.
6. Press [TALK] key to write charge value 1 in EEPROM.
7. Change the voltage of the DC power supply to 2.90 V accurately.
8. Press [TALK] key to write charge value 2 in EEPROM.
9. Turn the power off. Then this value is available.

Note:
Refer to **Handset Reference Drawing** (P.87) for connection of DC power supply and voltmeter.

Cross Reference:
Adjustment Mode for Handset (P.61)

12.2. Base Unit Reference Drawing

When connecting the Simulator Equipment for checking, please refer to below.

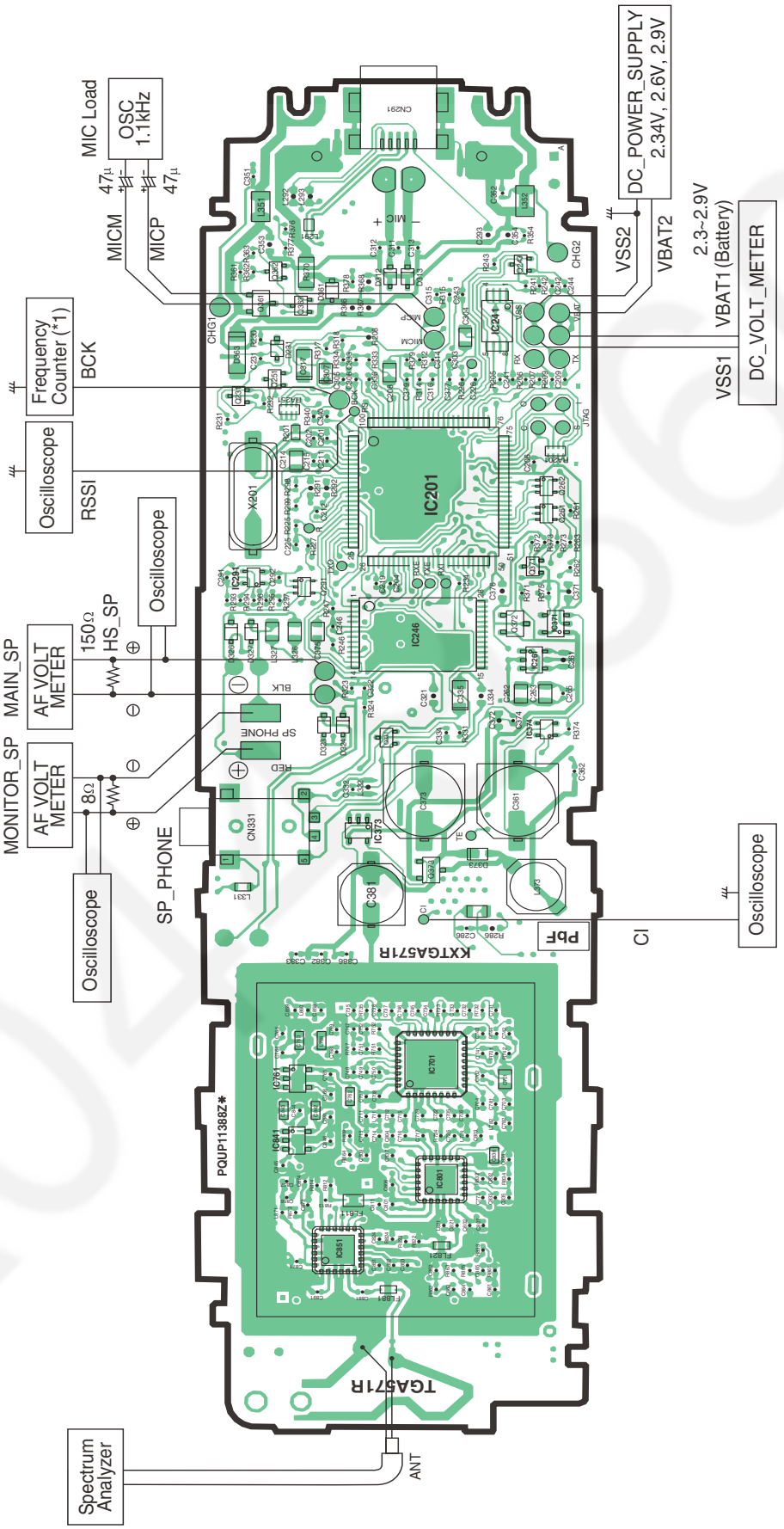


Note:

(***1***) is referred to No.3 of **Check Table for RF part** (P.72)

12.3. Handset Reference Drawing

When connecting the Simulator Equipment for checking, please refer to below.



Note: (*1) is referred to No.3 of **Check Table for RF part** (P.72)

12.4. Frequency Table

12.4.1. Base Unit

Channel	TX/RX Frequency (MHz)	Channel	TX/RX Frequency (MHz)	Channel	TX/RX Frequency (MHz)
1	5759.702398	33	5788.242242	65	5816.782086
2	5760.592291	34	5789.132135	66	5817.671978
3	5761.486139	35	5790.025982	67	5818.565826
4	5762.376031	36	5790.915875	68	5819.455719
5	5763.269879	37	5791.809723	69	5820.349566
6	5764.159771	38	5792.699615	70	5821.239459
7	5765.053619	39	5793.593463	71	5822.133307
8	5765.943512	40	5794.483355	72	5823.023199
9	5766.837359	41	5795.377203	73	5823.917047
10	5767.727252	42	5796.267096	74	5824.806939
11	5768.621100	43	5797.160943	75	5825.700787
12	5769.510992	44	5798.050836	76	5826.590680
13	5770.404840	45	5798.944684	77	5827.484527
14	5771.294732	46	5799.834576	78	5828.374420
15	5772.188580	47	5800.728424	79	5829.268268
16	5773.078473	48	5801.618316	80	5830.158160
17	5773.972320	49	5802.512164	81	5831.052008
18	5774.862213	50	5803.402057	82	5831.941900
19	5775.756060	51	5804.295904	83	5832.835748
20	5776.645953	52	5805.185797	84	5833.725641
21	5777.539801	53	5806.079644	85	5834.619488
22	5778.429693	54	5806.969537	86	5835.509381
23	5779.323541	55	5807.863385	87	5836.403228
24	5780.213434	56	5808.753277	88	5837.293121
25	5781.107281	57	5809.647125	89	5838.186969
26	5781.997174	58	5810.537018		
27	5782.891021	59	5811.430865		
28	5783.780914	60	5812.320758		
29	5784.674762	61	5813.214605		
30	5785.564654	62	5814.104498		
31	5786.458502	63	5814.998346		
32	5787.348394	64	5815.888238		

12.4.2. Handset

Channel	TX/RX Frequency (MHz)	Channel	TX/RX Frequency (MHz)	Channel	TX/RX Frequency (MHz)
1	5759.700425	33	5788.240269	65	5816.780113
2	5760.594273	34	5789.134117	66	5817.673960
3	5761.484165	35	5790.024009	67	5818.563853
4	5762.378013	36	5790.917857	68	5819.457701
5	5763.267906	37	5791.807749	69	5820.347593
6	5764.161753	38	5792.701597	70	5821.241441
7	5765.051646	39	5793.591490	71	5822.131333
8	5765.945494	40	5794.485337	72	5823.025181
9	5766.835386	41	5795.375230	73	5823.915074
10	5767.729234	42	5796.269078	74	5824.808921
11	5768.619126	43	5797.158970	75	5825.698814
12	5769.512974	44	5798.052818	76	5826.592662
13	5770.402867	45	5798.942710	77	5827.482554
14	5771.296714	46	5799.836558	78	5828.376402
15	5772.186607	47	5800.726451	79	5829.266294
16	5773.080455	48	5801.620298	80	5830.160142
17	5773.970347	49	5802.510191	81	5831.050035
18	5774.864195	50	5803.404039	82	5831.943882
19	5775.754087	51	5804.293931	83	5832.833775
20	5776.647935	52	5805.187779	84	5833.727623
21	5777.537828	53	5806.077671	85	5834.617515
22	5778.431675	54	5806.971519	86	5835.511363
23	5779.321568	55	5807.861412	87	5836.401255
24	5780.215415	56	5808.755259	88	5837.295103
25	5781.105308	57	5809.645152	89	5838.184996
26	5781.999156	58	5810.538999		
27	5782.889048	59	5811.428892		
28	5783.782896	60	5812.322740		
29	5784.672789	61	5813.212632		
30	5785.566636	62	5814.106480		
31	5786.456529	63	5814.996373		
32	5787.350376	64	5815.890220		

13 Schematic Diagram

13.1. For Schematic Diagram

13.1.1. Base Unit (Schematic Diagram (Base Unit_Main))

13.1.1.1. Acoustic Testing Mode

Press “1”, “6” and “ FLASH ” simultaneously, and insert the plug of AC adaptor.
● No beep sound.
It is easier to measure the transmit level with acoustic testing mode.

Notes:

1. DC voltage measurements are taken with voltmeter from the negative voltage line.

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

2. The schematic diagrams may be modified at any time with the development of new technology.

13.1.2. Handset (Schematic Diagram (Handset_Main))

Notes:

1. DC voltage measurements are taken with an oscilloscope or a tester with a ground.
2. The schematic diagrams may be modified at any time with the development of new technology.

13.1.3. Charger Unit (Schematic Diagram (Charger Unit))

Notes:

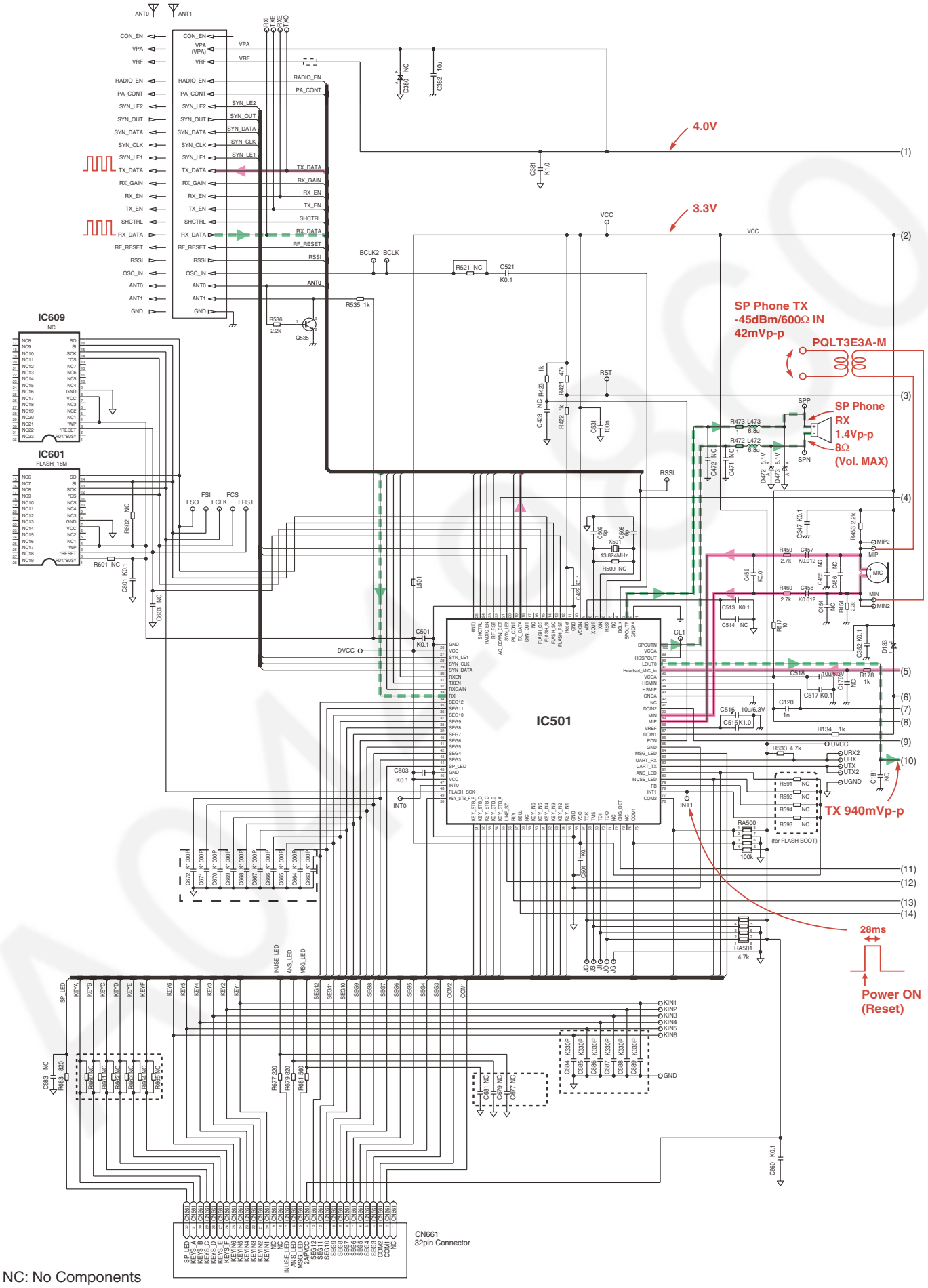
1. DC voltage measurements are taken with voltmeter from the negative voltage line.

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

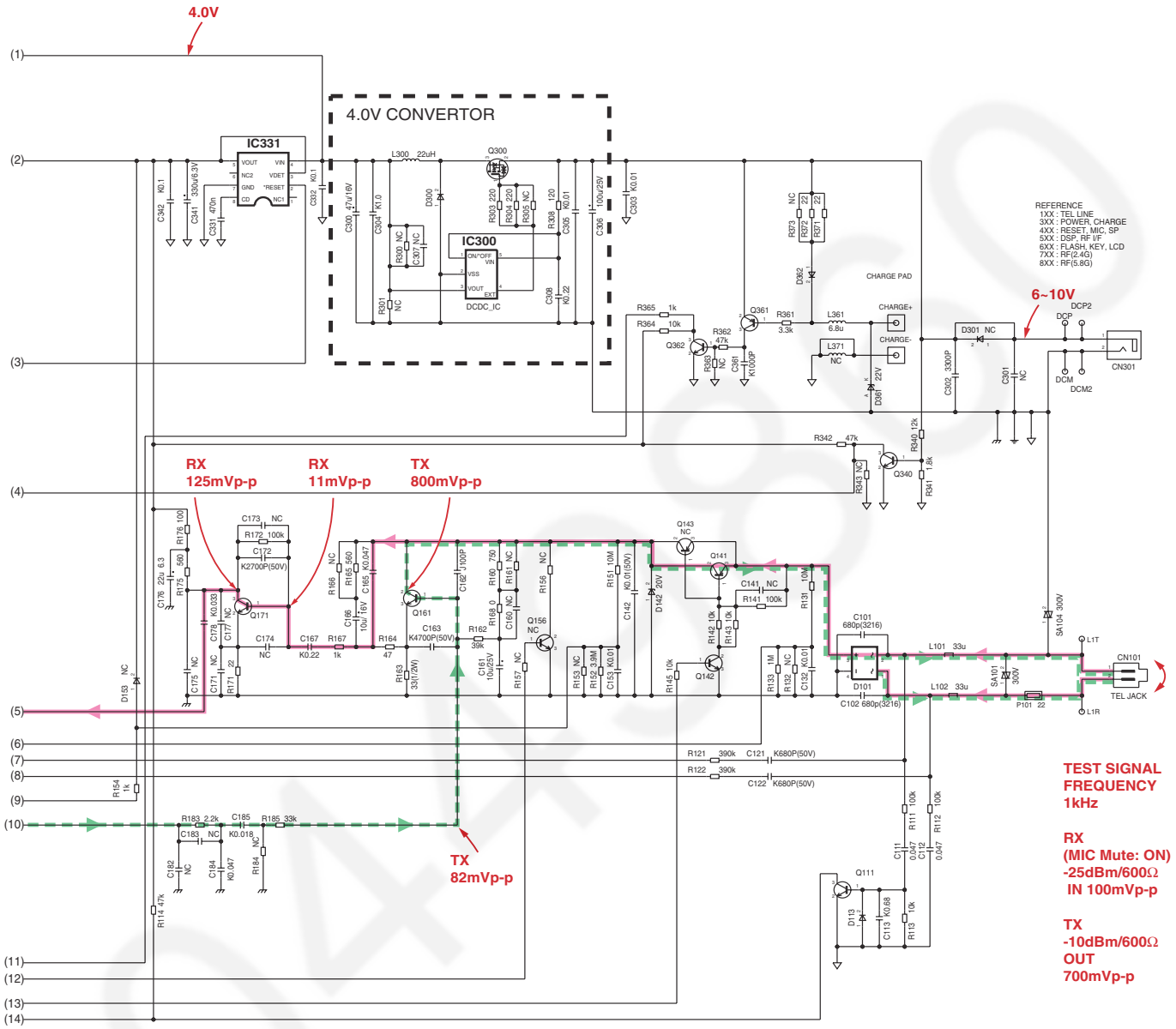
2. The schematic diagram may be modified at any time with the development of new technology.

Memo

13.2. Schematic Diagram (Base Unit_Main)



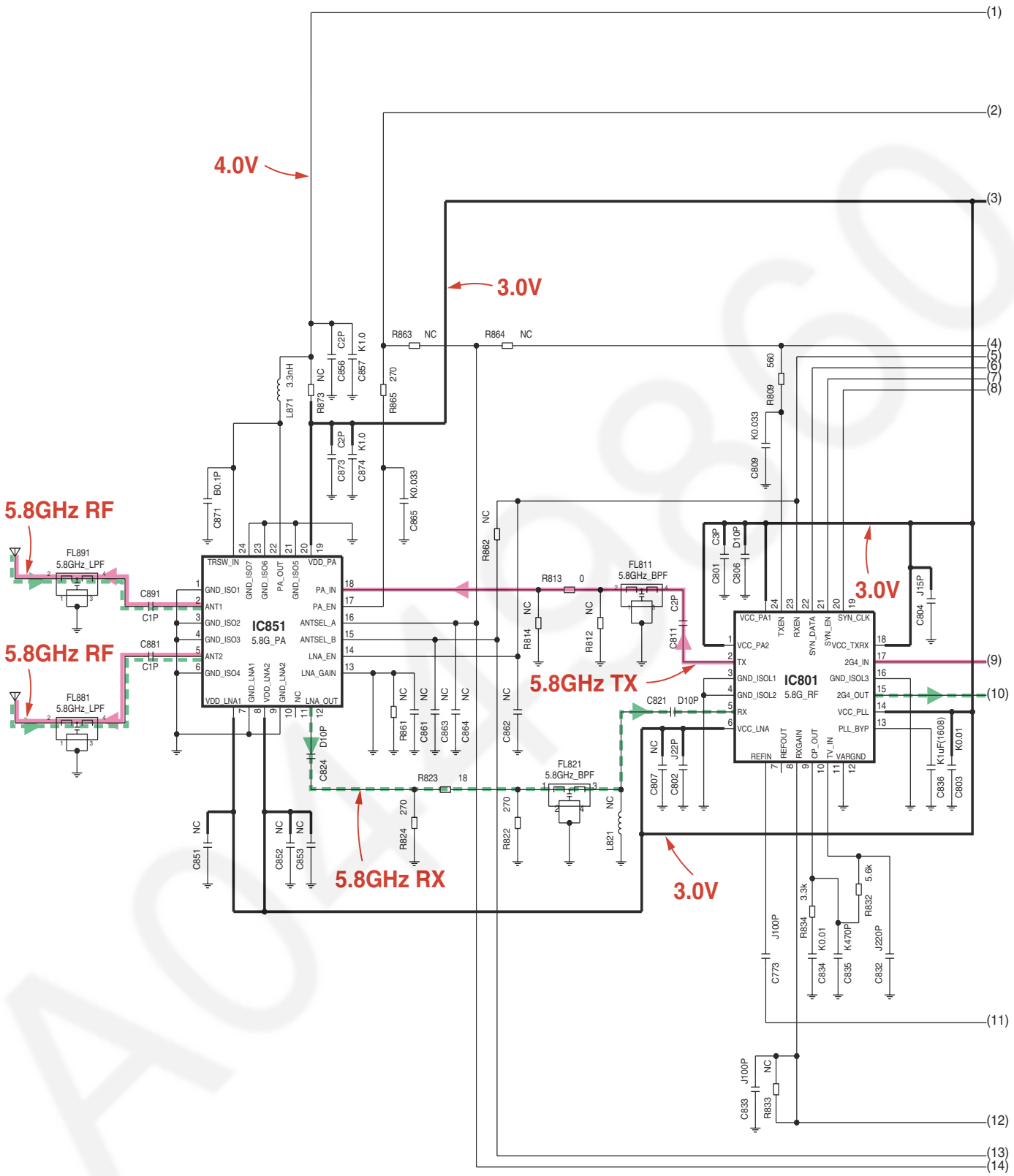
NC: No Components



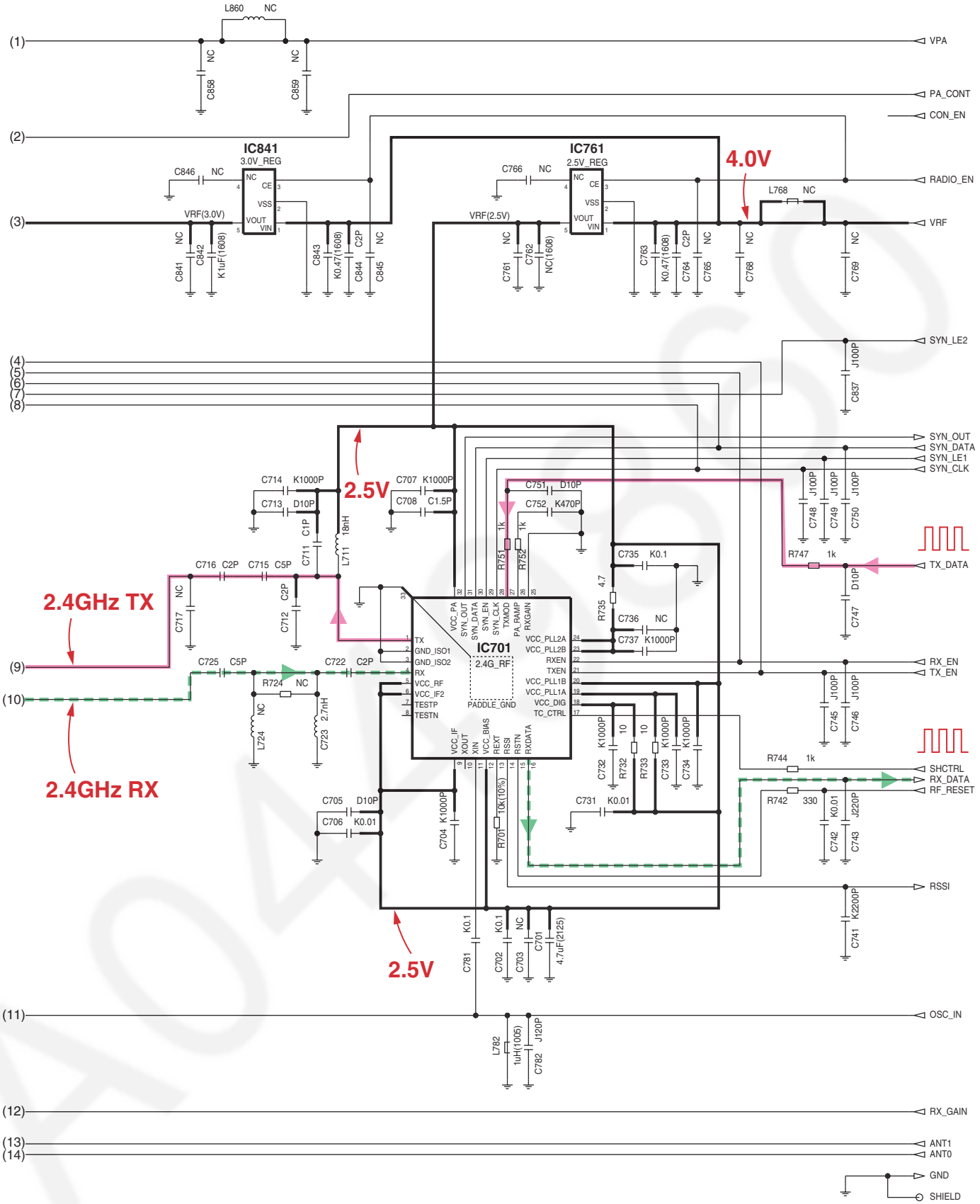
NC: No Components

KX-TG5776/5777 SCHEMATIC DIAGRAM (Base Unit_Main)

13.3. Schematic Diagram (Base Unit_RF Part)



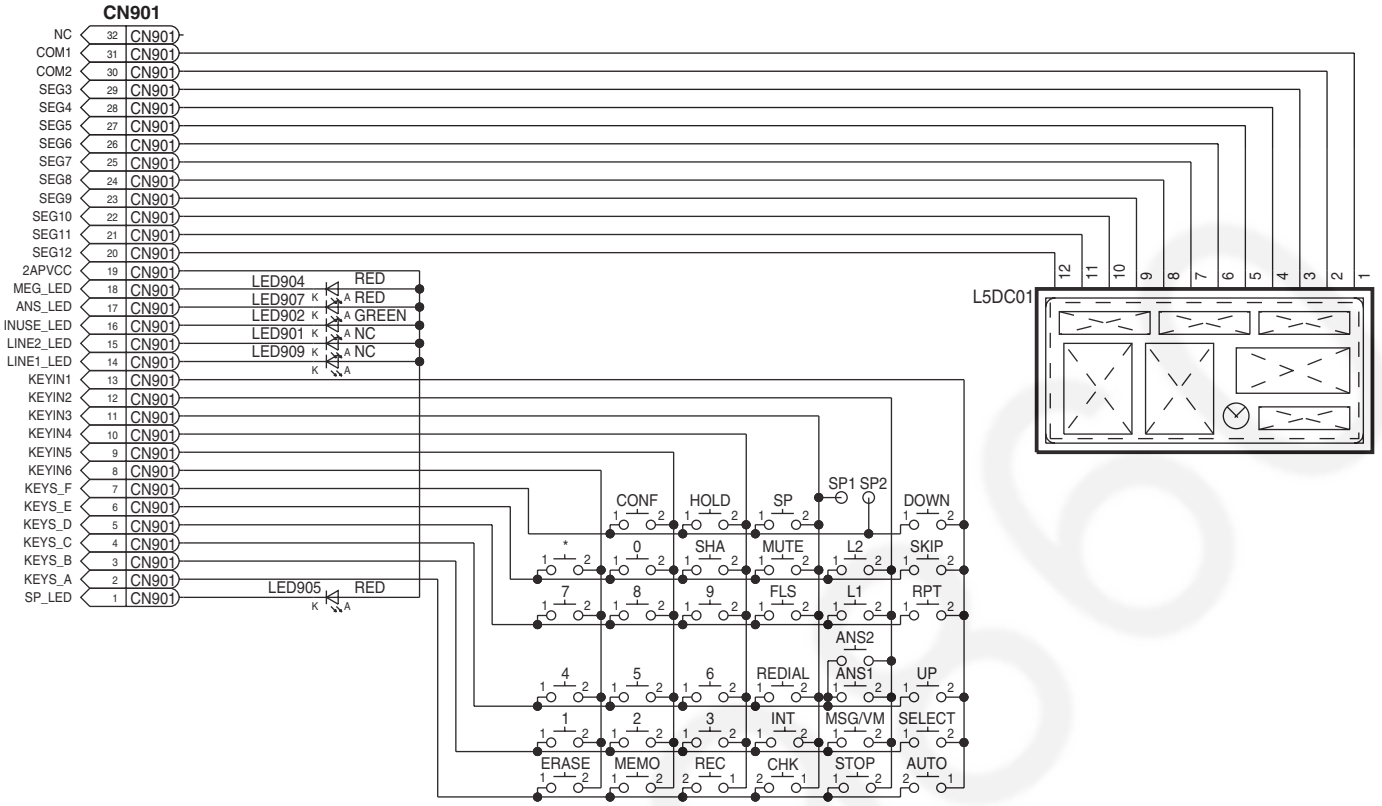
NC: No Components



NC: No Components

KX-TG5776/5777 SCHEMATIC DIAGRAM (Base Unit_RF Part)

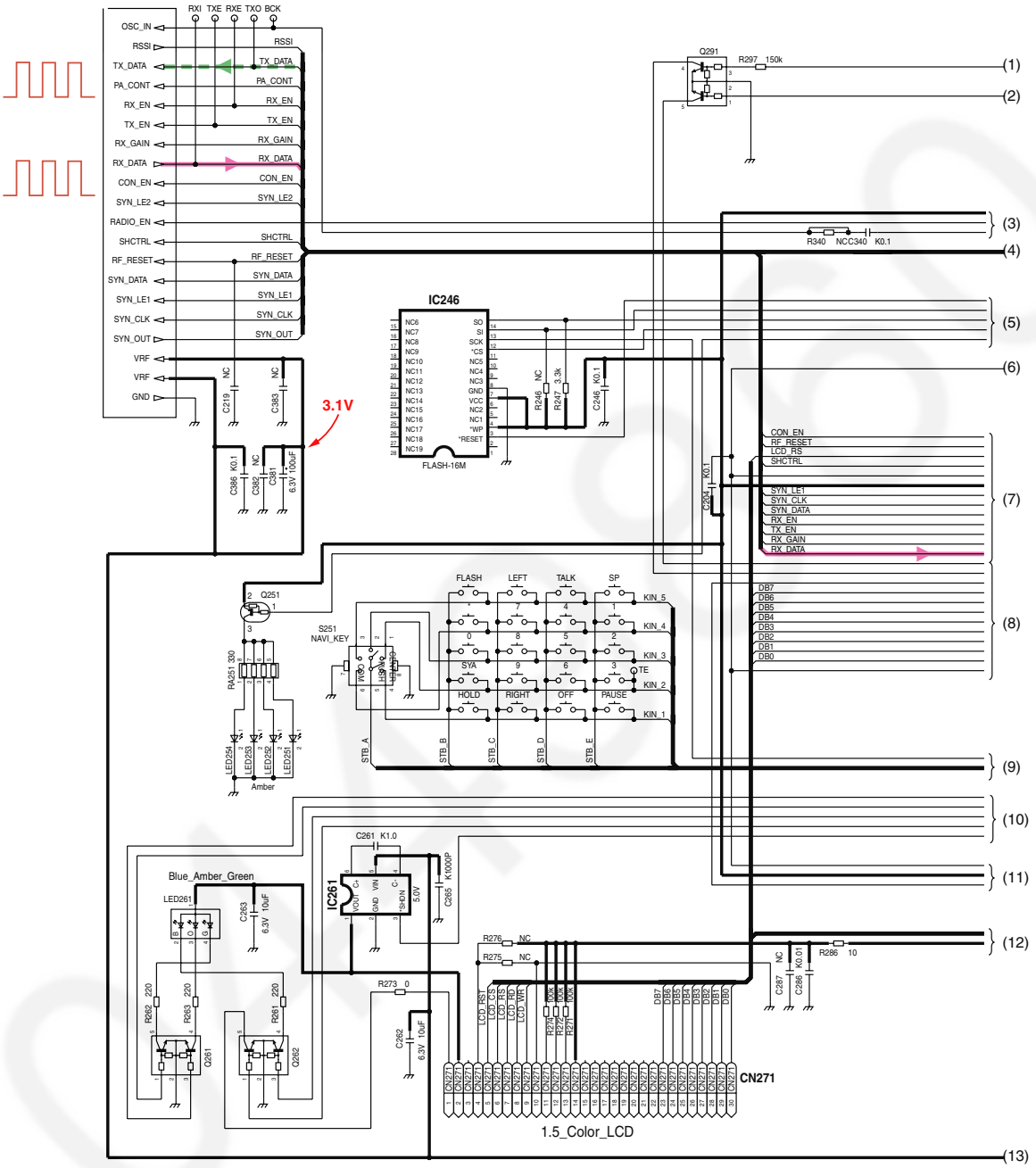
13.4. Schematic Diagram (Base Unit_Operation)



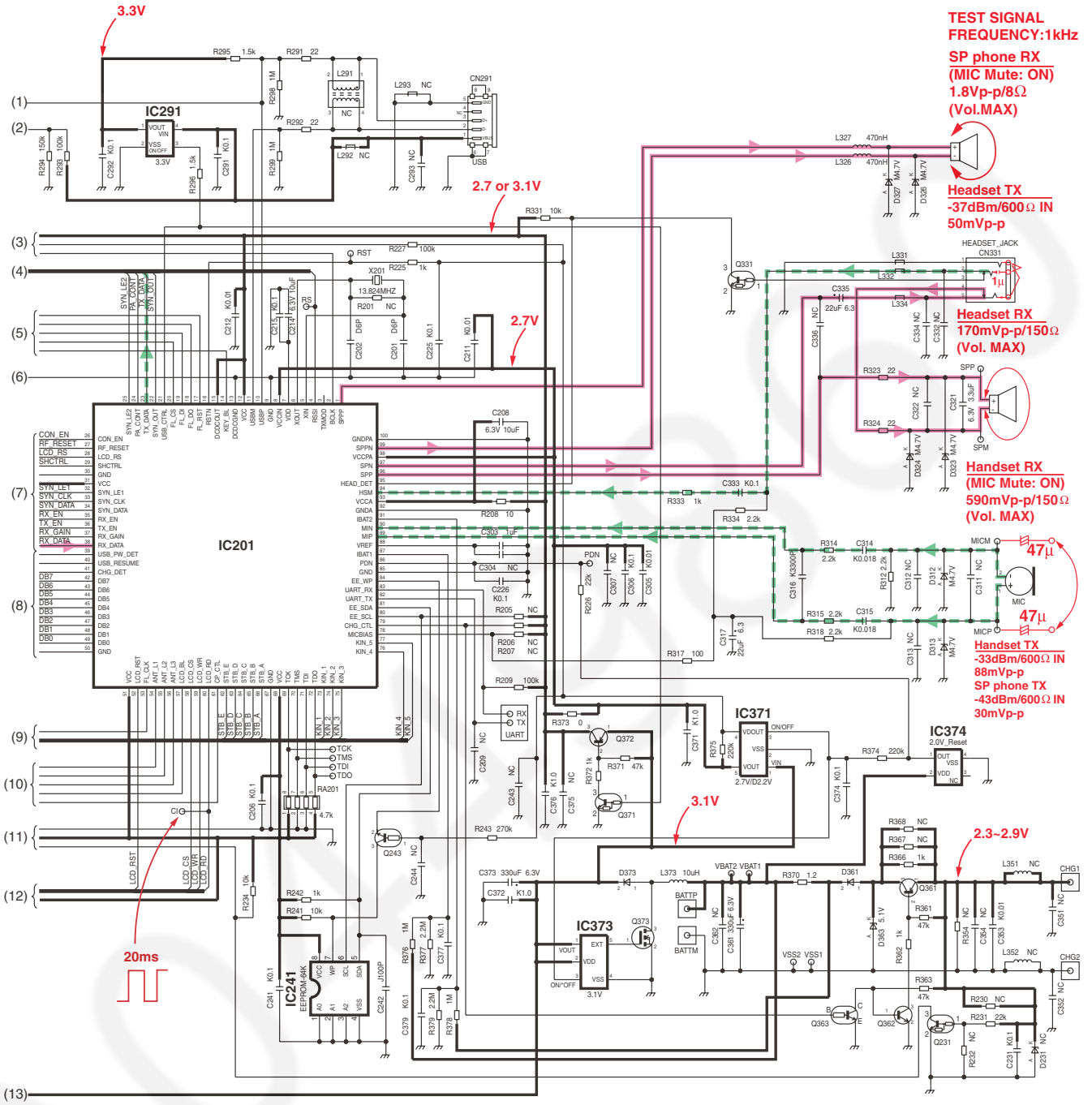
KX-TG5776/5777 SCHEMATIC DIAGRAM (Base Unit_Operation)

Memo

13.5. Schematic Diagram (Handset_Main)



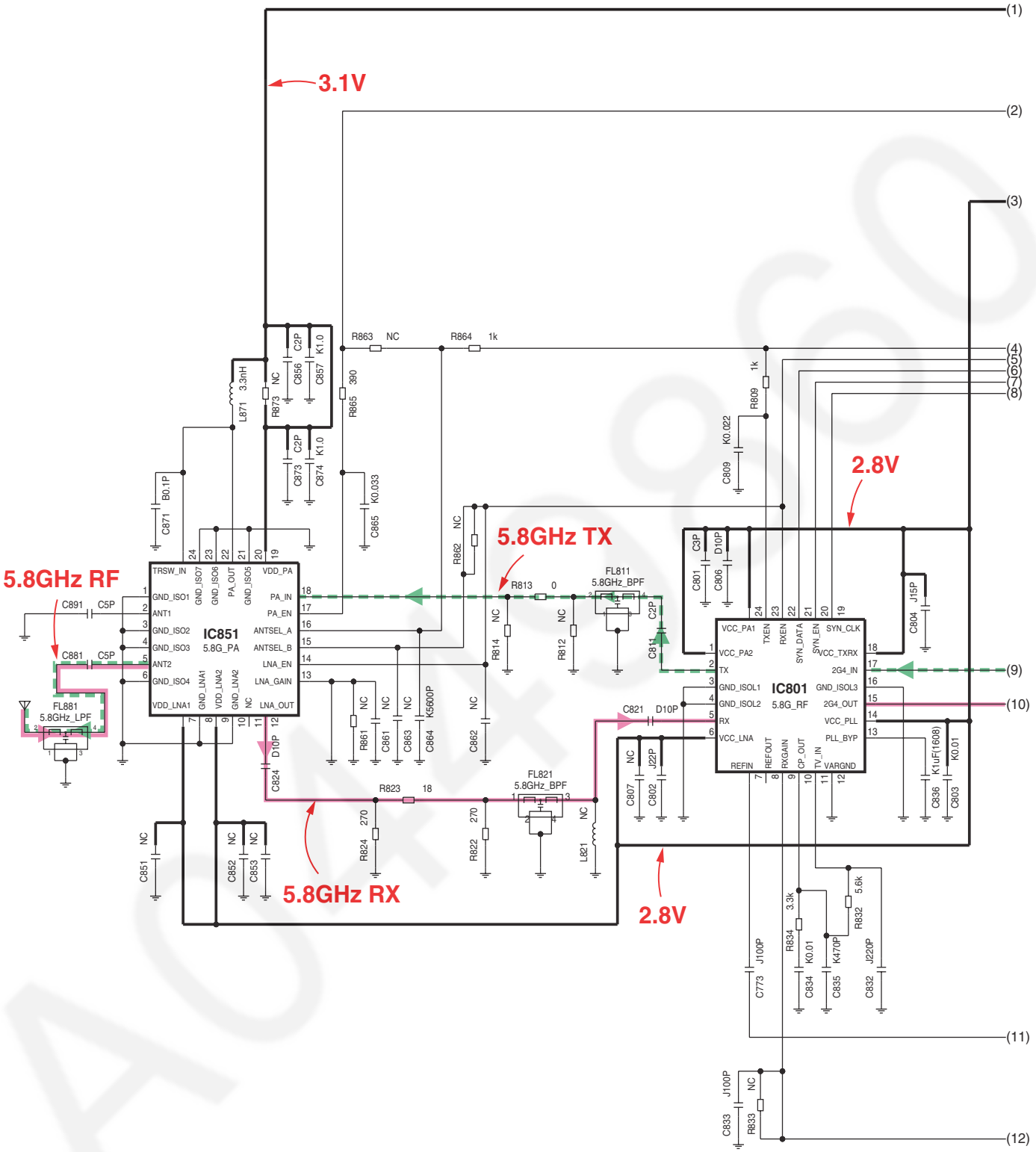
NC: No Components



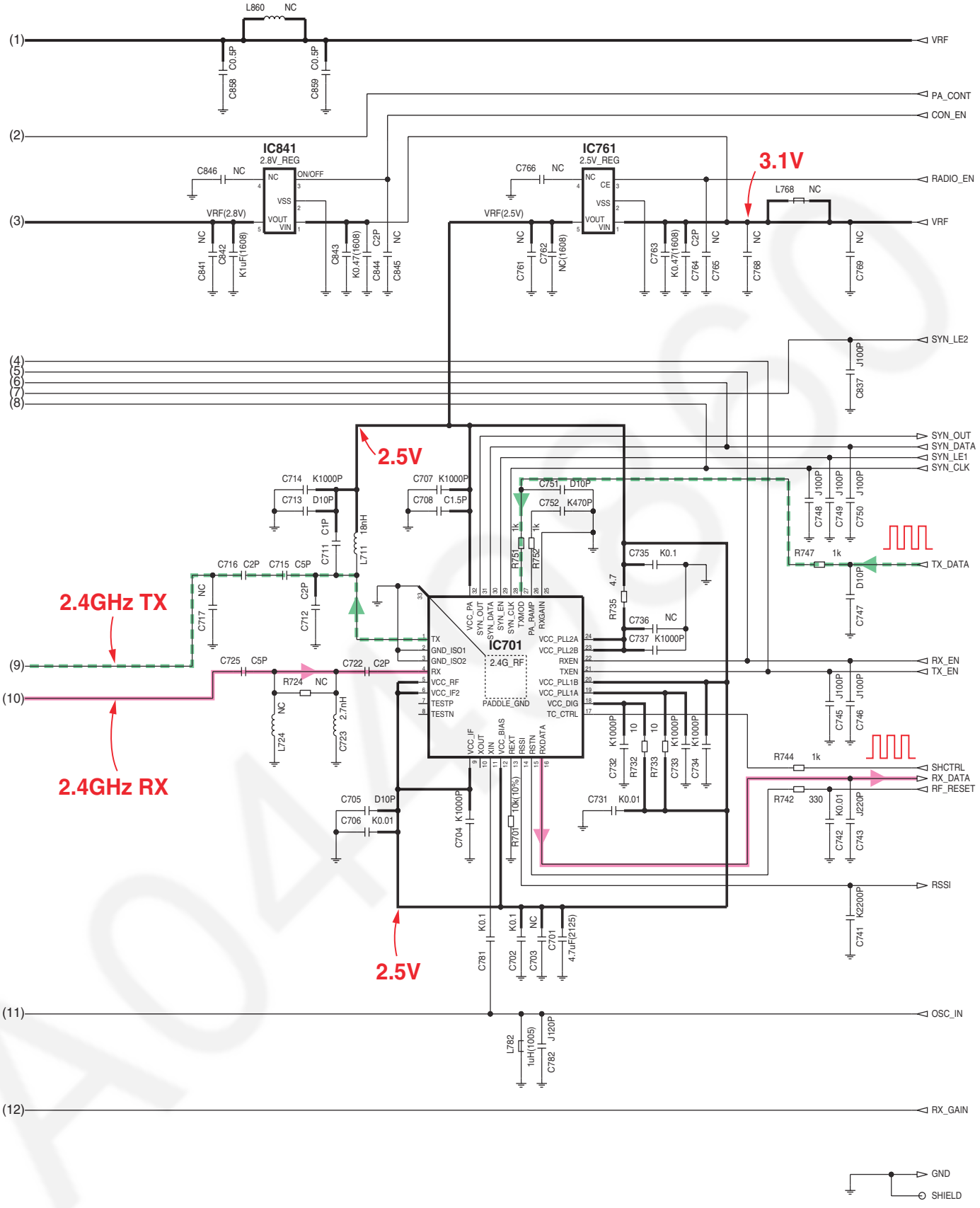
NC: No Components

KX-TGA571 SCHEMATIC DIAGRAM (Handset_Main)

13.6. Schematic Diagram (Handset_RF Part)



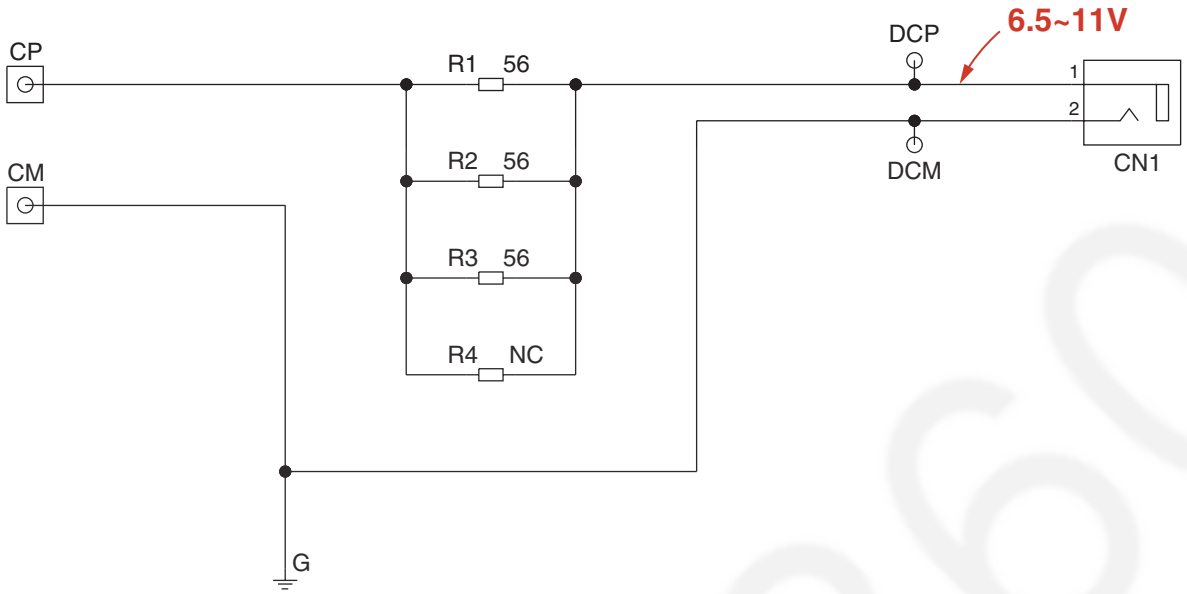
NC: No Components



NC: No Components

KX-TGA571 SCHEMATIC DIAGRAM (Handset_RF Part)

13.7. Schematic Diagram (Charger Unit)

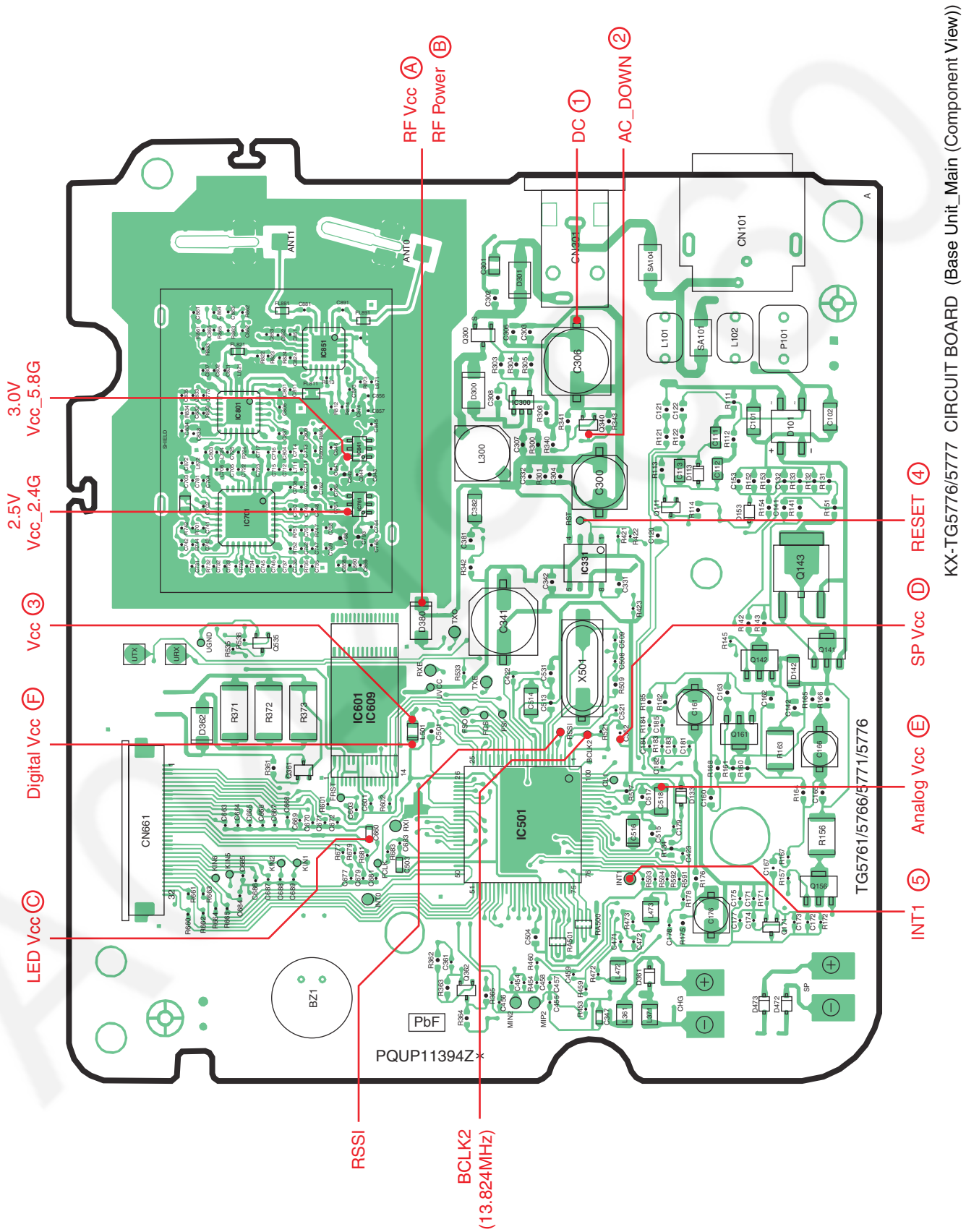


NC: No Components
SCHEMATIC DIAGRAM (Charger Unit)

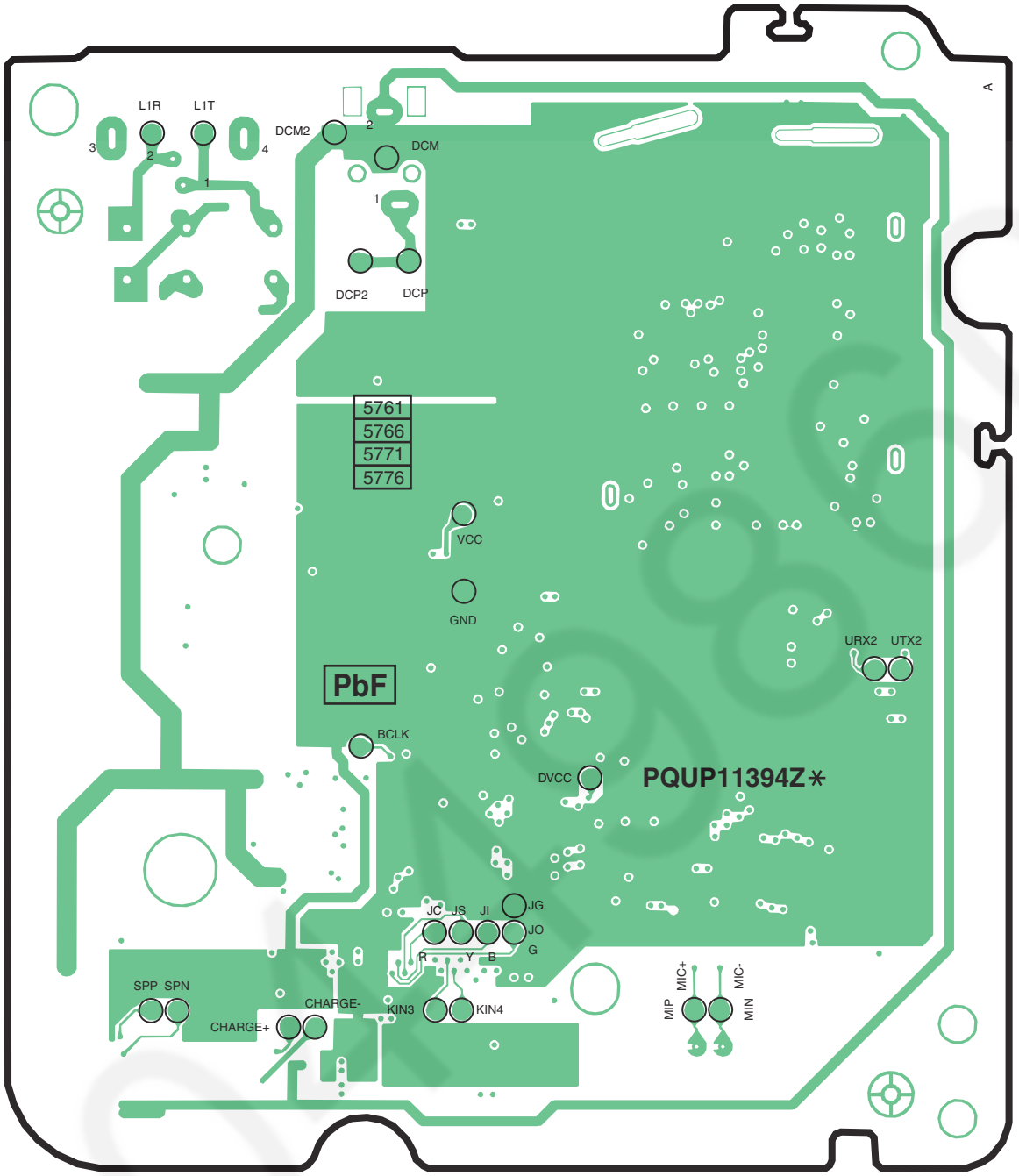
14 Printed Circuit Board

14.1. Circuit Board (Base Unit_Main)

14.1.1. Component View

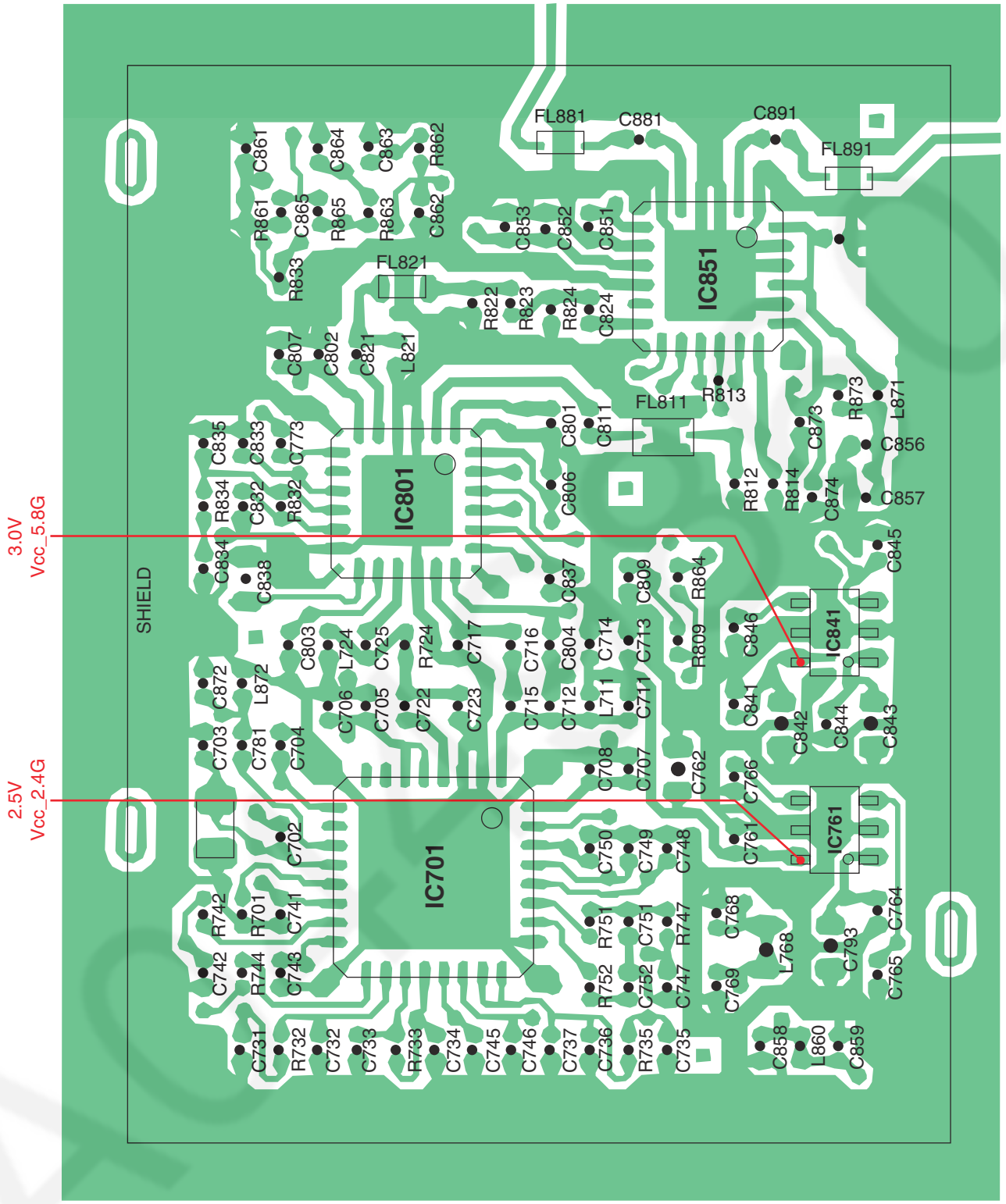


14.1.2. Flow Solder Side View



KX-TG5776/5777 CIRCUIT BOARD (Base Unit_Main (Flow Solder Side View))

14.2. Circuit Board (Base Unit_RF Part)

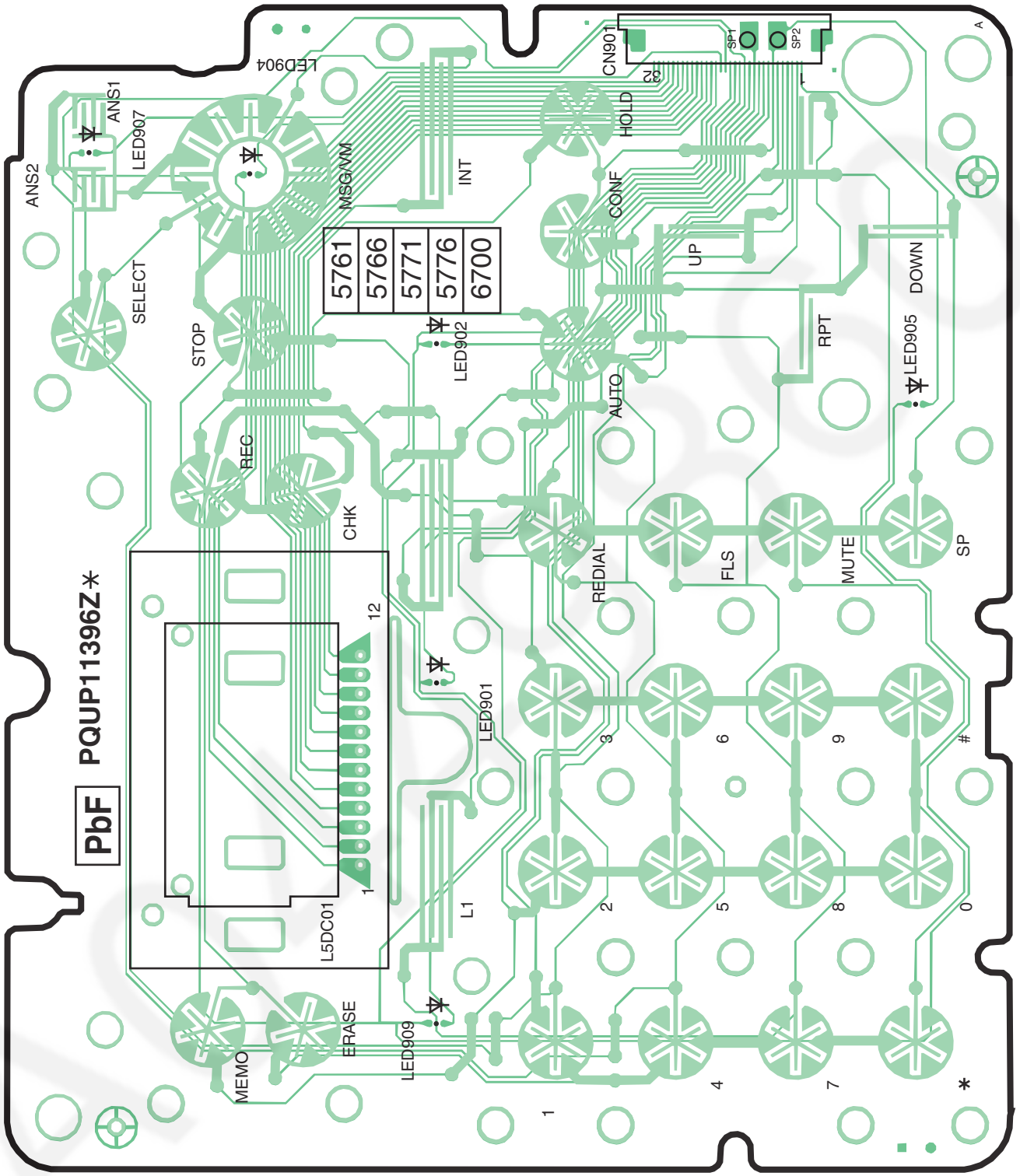


KX-TG5776/5777 CIRCUIT BOARD (Base Unit_RF Part (Component View))

Memo

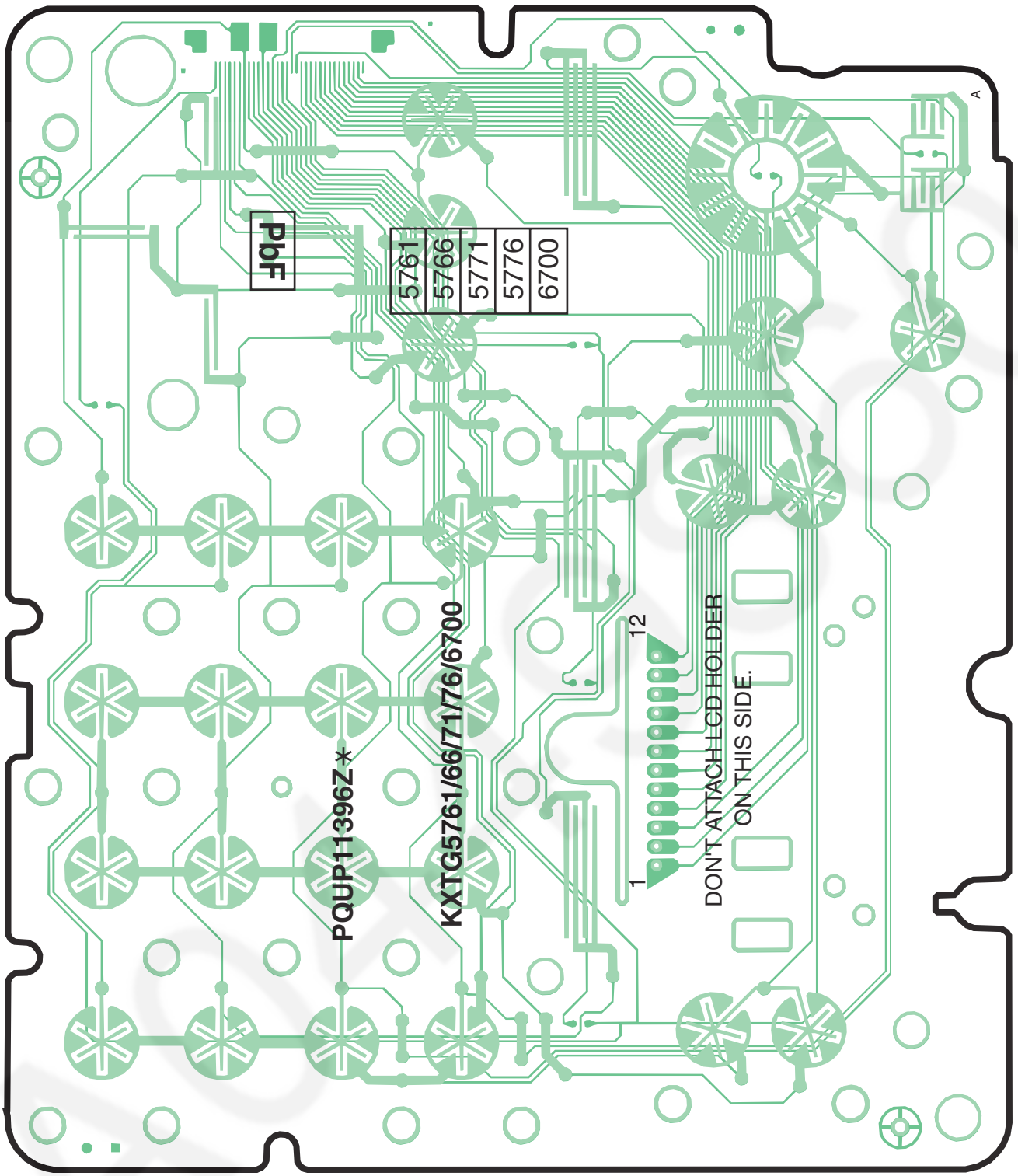
14.3. Circuit Board (Base Unit_Operation)

14.3.1. Component View



KX-TG5776/5777 CIRCUIT BOARD (Base Unit_Operation (Component View))

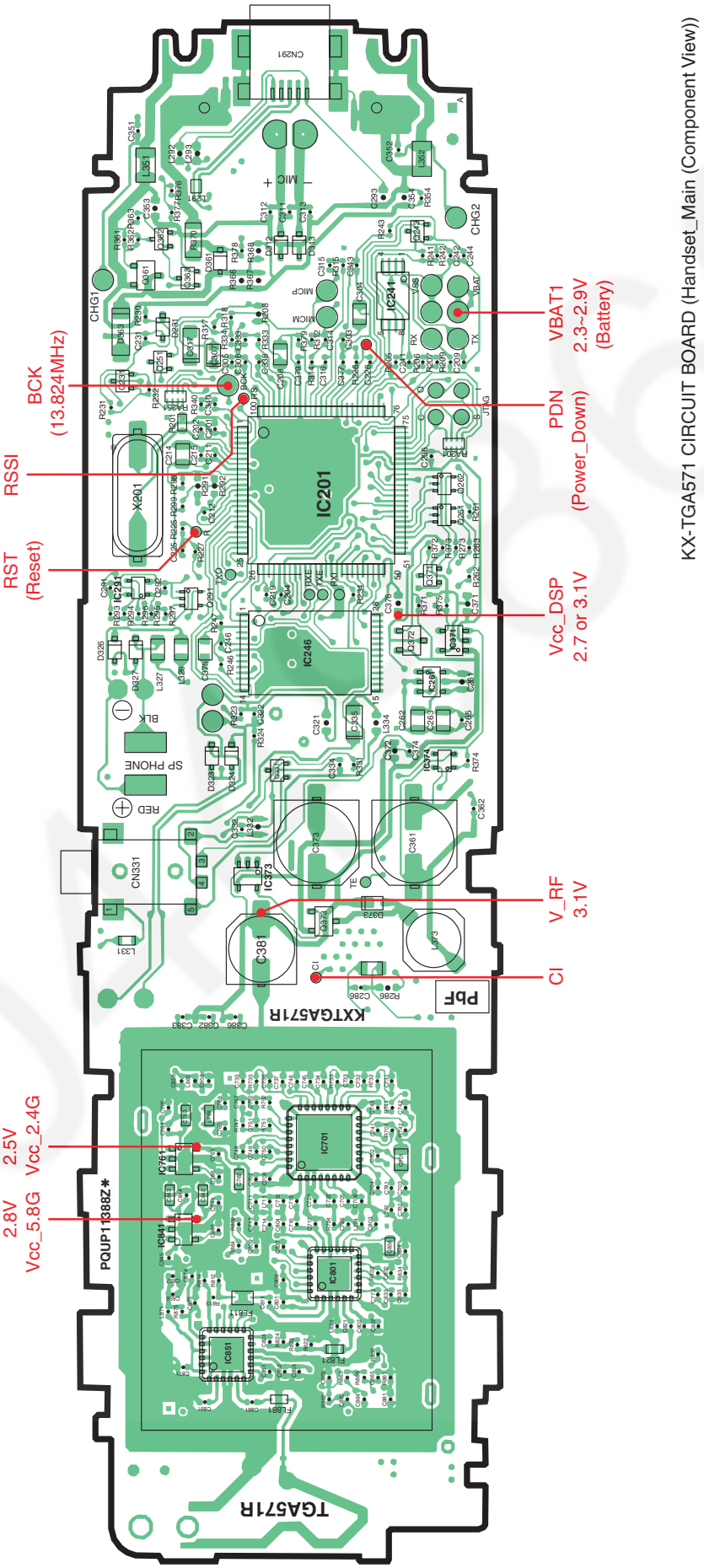
14.3.2. Flow Solder Side View



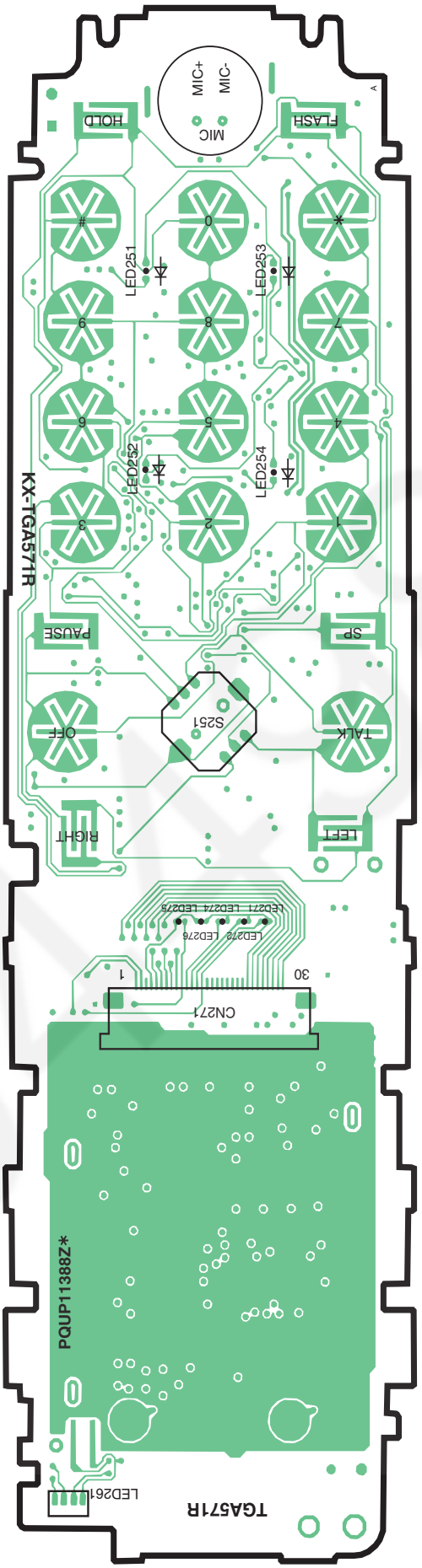
KX-TG5776/5777 CIRCUIT BOARD (Base Unit_Operation (Flow Solder Side View))

14.4. Circuit Board (Handset_Main)

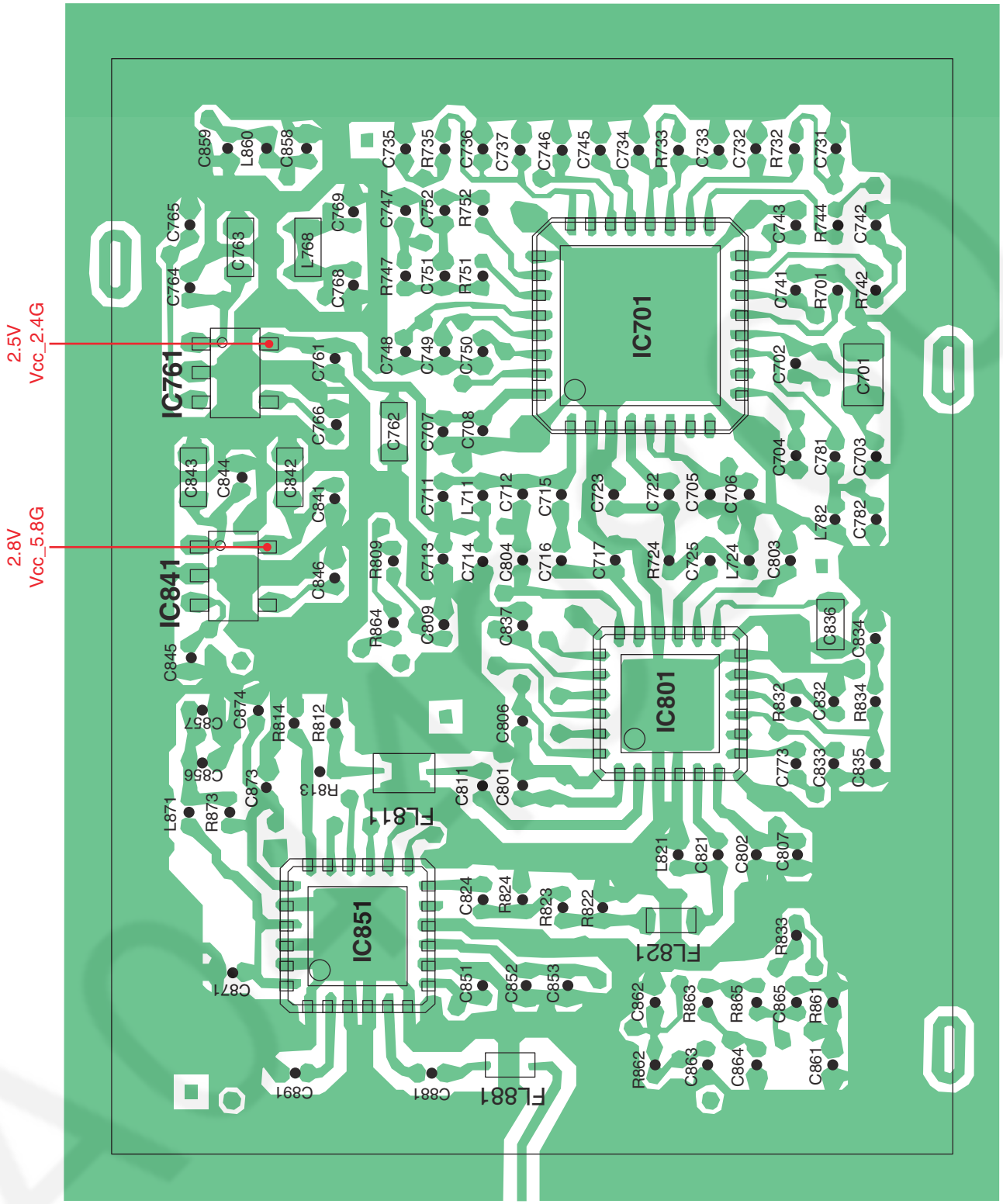
14.4.1. Component View



14.4.2. Flow Solder Side View



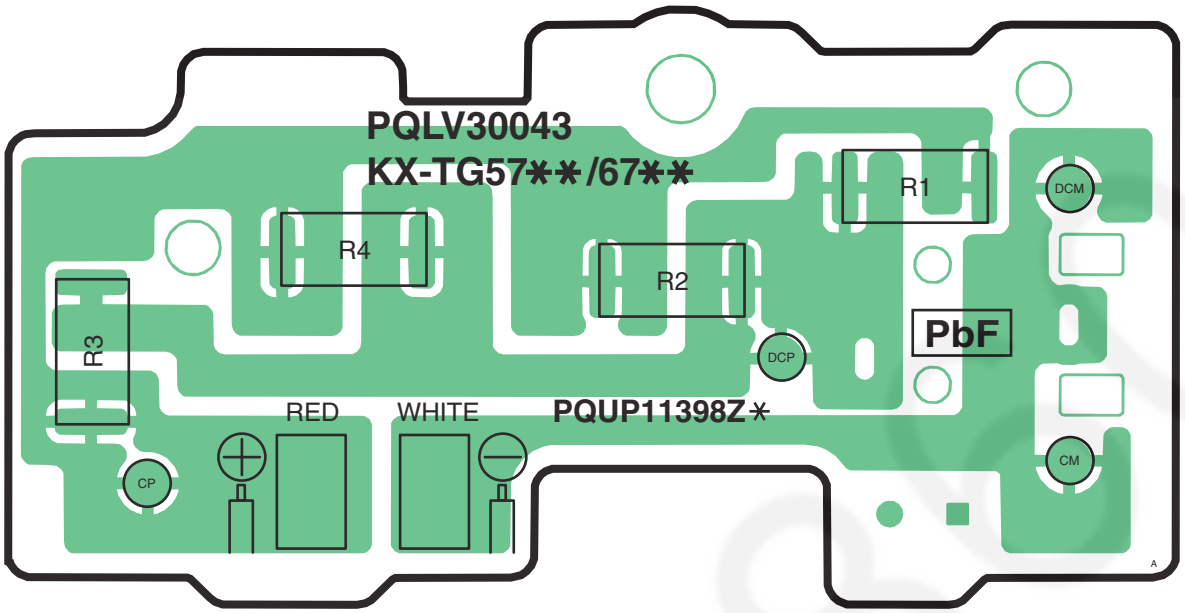
14.5. Circuit Board (Handset_RF Part)



KX-TGA571 CIRCUIT BOARD (Handset_RF Part (Component View))

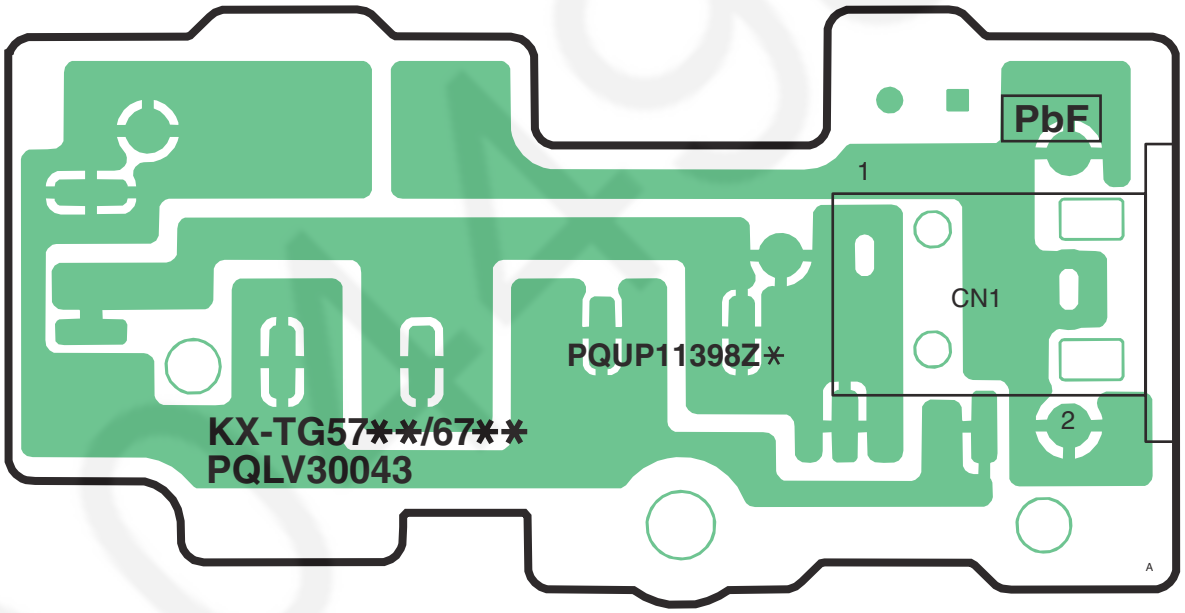
14.6. Circuit Board (Charger Unit)

14.6.1. Component View



CIRCUIT BOARD (Charger Unit (Component View))

14.6.2. Flow Solder Side View



CIRCUIT BOARD (Charger Unit (Flow Solder Side View))

15 Appendix Information of Schematic Diagram

15.1. CPU Data (Base Unit)

15.1.1. IC501

PIN	Description	I/O	High	High_Z	Low
1	GNDPA	GND			
2	SPOUTP	A.O			
3	BCLK	A.O			
4	TXMOD	A.O			
5	RSSI	A.I			
6	XIN	A.I			
7	XOUT	A.O			
8	VDD	VDD			
9	VCCIN	VCC			
10	GND	GND	--	--	GND
11	Reset	D.I	Normal	--	Reset
12	FLASH_RST	D.O	High	--	Low
13	FLASH_SO	D.O	High	--	Low
14	FLASH_SI	D.I	High	--	Low
15	FLASH_CS	D.O	High	--	Low
16	NC	D.O	--	--	--
17	SYN_OUT	D.I	High	--	Low
18	TX_DATA	D.O	High	--	Low
19	PA_CONT	D.O	High	--	Low
20	SYN_LE2	D.O	Latch	--	Normal
21	AC_DOWN_DET	D.I	High	--	Low
22	RF_RST	D.O	Normal	--	Reset
23	RADIO_EN	D.O	Active	--	Not
24	SHCTRL	D.O	Active	--	Not
25	ANT0	D.O	On	--	Off
26	GND	GND	--	--	GND
27	VCC	VCC	VCC	--	--
28	SYN_LE1	D.O	Latch	--	Normal
29	SYN_CLK	D.O	High	--	Low
30	SYN_DATA	D.O	High	--	Low
31	RXEN	D.O	Active	--	Off
32	TXEN	D.O	Active	--	Off
33	RXGAIN	D.O	High	--	Low
34	RXI	D.I	High	--	Low
35	SEG12	D.O	High	--	Low
36	SEG11	D.O	High	--	Low
37	SEG10	D.O	High	--	Low
38	SEG9	D.O	High	--	Low
39	SEG8	D.O	High	--	Low
40	SEG7	D.O	High	--	Low
41	SEG6	D.O	High	--	Low
42	SEG5	D.O	High	--	Low
43	SEG4	D.O	High	--	Low
44	SEG3	D.O	High	--	Low
45	SP_LED	D.I.O	--	Off	On
46	GND	GND	--	--	GND
47	VCC	VCC	VCC	--	--
48	INT0(NC)	D.I.O	--	--	--
49	FLASH_SCK	D.O	High	--	Low
50	KEY_STB_F	D.O	--	Not	Active
51	KEY_STB_E	D.O	--	Not	Active
52	KEY_STB_D	D.O	--	Not	Active
53	KEY_STB_C	D.O	--	Not	Active
54	KEY_STB_B	D.O	--	Not	Active
55	KEY_STB_A	D.O	--	Not	Active
56	LINE_SZ	D.O	On	--	Off
57	RLY	D.O	Off Hook	--	On Hook
58	BELL	D.I	OFF	--	ON
59	NC	D.O	Off Hook	--	On Hook
60	KEY_IN6	D.I	Non	--	Key In
61	KEY_IN5	D.I	Non	--	Key In
62	KEY_IN4	D.I	Non	--	Key In
63	KEY_IN3	D.I	Non	--	Key In
64	KEY_IN2	D.I	Non	--	Key In
65	KEY_IN1	D.I	Non	--	Key In
66	GND	GND	--	--	GND
67	VCC	VCC	VCC	--	--
68	TCK	D.I	--	--	--
69	TMS	D.I	--	--	--
70	TDI	D.I	--	--	--
71	TD0	D.O	--	--	--
72	NC	D.O	--	--	--
73	CHG_DET	D.I	Off Charge	--	On Charge
74	NC	D.I.O	--	--	--
75	COM1	D.I.O	High	Middle	Low
76	COM2	D.I.O	High	Middle	Low
77	INT1	D.O	High	--	Low
78	NC	D.I.O	--	--	--
79	INUSE_LED	D.I.O	--	Off	On
80	ANS_LED	D.I.O	--	Off	On
81	UART_TX	D.O	--	--	--
82	UART_RX	D.I	--	--	--
83	MSG_LED	D.I.O	--	Off	On
84	GND	GND	--	--	GND
85	PDN	A.I			
86	IBAT	A.I			
87	VREF	A.O			
88	MIP	A.I			
89	MIN	A.I			
90	DCIN2	A.I			
91	NC	D.O			
92	GNDA	GND			
93	HSMIP	A.I			
94	HSMIN	A.I			
95	VCCA	VCC			
96	Headset_MIC_in	A.I			
97	LOUT0	A.O			
98	HSSPOUT	A.O			
99	VCCA	VCC			
100	SPOUTN	A.O			

Note:

- Data in the blank colums are omitted because of the Analog I/O.

15.2. CPU Data (Handset)

15.2.1. IC201

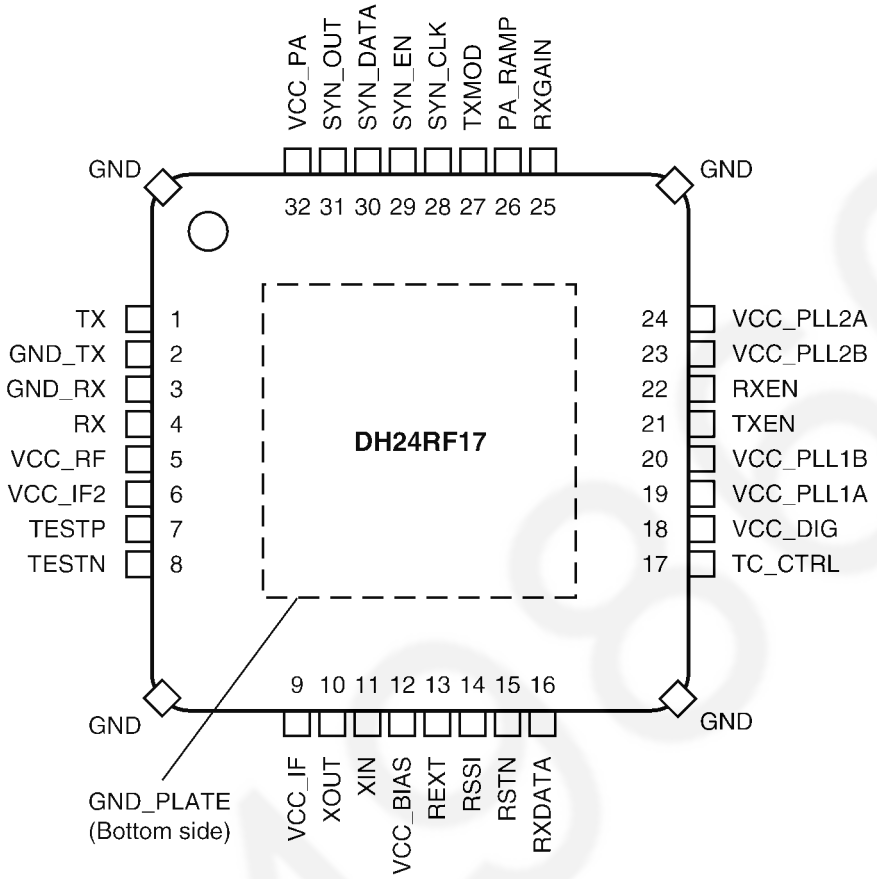
PIN	Description	I/O	High	High_Z	Low
1	SPOUTP	A.O			
2	BCLK	A.O			
3	NC	A.O			
4	RSSI	A.I			
5	XIN	A.I			
6	XOUT	A.O			
7	VDD	VDD	--	--	VDD
8	VCC	VCC	VCC	--	--
9	GND	GND	--	--	GND
10	USBP	I/O	High	--	Low
11	USBM	I/O	High	--	Low
12	VCC	VCC	VCC	--	--
13	DCDCGND	A.O			
14	KEY_BL	A.O	--	On	Off
15	DCDCOUT	A.O			
16	RSTN	D.I	Normal	--	Reset
17	FLASH_RESET	D.O	High	--	Low
18	FLASH_DO	D.O	High	--	Low
19	FLASH_DI	D.I	High	--	Low
20	FLASH_CS	D.O	High	--	Low
21	USB_CTRL	D.O	High	--	Low
22	SERIAL_DI	D.I	High	--	Low
23	TXOUT	D.O	High	--	Low
24	PA_CTRL	D.O	High	--	Low
25	SYN_LE2	D.O	Latch	--	Normal
26	CON_EN	D.O	High	--	Low
27	RF_RESET	D.O	Normal	--	Reset
28	LCD D/C	D.O	High	--	Low
29	SHCTRL	D.O	On	--	Off
30	GND	GND	--	--	GND
31	VCC	VCC	VCC	--	--
32	SERIAL_LE	D.O	Latch	--	Normal
33	SERIAL_CLK	D.O	High	--	Low
34	SERIAL_DATA	D.O	High	--	Low
35	RXEN	D.O	Active	--	Off
36	TXEN	D.O	Active	--	Off
37	RXGAIN	D.O	High	--	Low
38	RXI	D.I	High	--	Low
39	USB_PWR_DET	D.I	Off	--	Active
40	USB_RESUM_DET	D.I	Active	--	Off
41	CHG_DET	D.I	Off Charge	--	On Charge
42	LCD_DB0	D.O	High	--	Low
43	LCD_DB1	D.O	High	--	Low
44	LCD_DB2	D.O	High	--	Low
45	LCD_DB3	D.O	High	--	Low
46	LCD_DB4	D.O	High	--	Low
47	LCD_DB5	D.O	High	--	Low
48	LCD_DB6	D.O	High	--	Low
49	LCD_DB7	D.O	High	--	Low
50	GND	GND	--	--	GND
51	VCC	VCC	VCC	--	--
52	LCD_RESET	D.O	Normal	--	Reset
53	FLASH_CLK	D.O	High	--	Low
54	ANT_LED1	D.O	On	--	Off
55	ANT_LED2	D.O	On	--	Off
56	ANT_LED3	D.O	On	--	Off
57	LCD_BL	D.O	On	--	Off
58	LCD_CS	D.O	High	--	Low
59	LCD_WR	D.O	High	--	Low
60	LCD_RD	D.O	High	--	Low
61	LED_CTRL	D.O	High	--	Low
62	STB_E	D.O	--	Not	Active
63	STB_D	D.O	--	Not	Active
64	STB_C	D.O	--	Not	Active
65	STB_B	D.O	--	Not	Active
66	STB_A	D.O	--	Not	Active
67	GND	GND	--	--	GND
68	VCC	VCC	VCC	--	--
69	TCK	D.I	--	--	--
70	TMS	D.I	--	--	--
71	TDI	D.I	--	--	--
72	TDO	D.O	--	--	--
73	KIN_1	D.I	Non	--	Key In
74	KIN_2	D.I	Non	--	Key In
75	KIN_3	D.I	Non	--	Key In
76	KIN_4	D.I	Non	--	Key In
77	KIN_5	D.I	Non	--	Key In
78	MICPWR	D.O	On	--	Off
79	CHG_CTRL	D.O	Trickle	--	Normal
80	EEP_SCL	D.O	High	--	Low
81	EEP_SDA	D.I.O	High	--	Low
82	UART_TX	D.O	--	--	--
83	UART_RX	D.I	--	--	--
84	EEP_WP	D.O	WP	--	Write
85	GND	GND	--	--	GND
86	PDN	A.I			
87	IBAT	A.I			
88	VREF	A.O			
89	MIP	A.O			
90	MIN	A.O			
91	MPWR	A.I.O			
92	GNDA	GNDA	--	--	GNDA
93	VCCA	VCCA	VCCA	--	--
94	HEADSET_MIN	A.I			
95	HEADSET_DET	A.I			
96	HSSPOUTN	A.O			
97	HSSPOUTP	A.O			
98	VCCPA	VCCPA	VCCPA	--	--
99	SPOUTN	A.O			
100	GNDPA	GNDPA	--	--	GNDPA

Note:

- Data in the blank colums are omitted because of the Analog I/O.

15.3. Explanation of IC Terminals (RF Part)

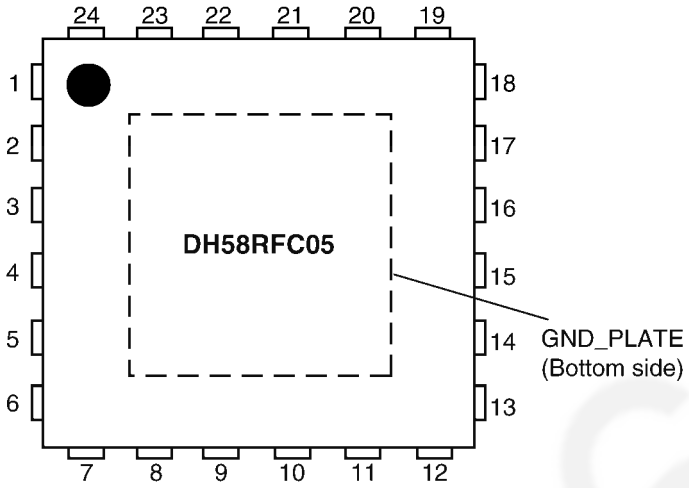
15.3.1. IC701



Pin	Description	I/O
1	TX	O & VCC
2	GND_TX	GND
3	GND_RX	GND
4	RX	I
5	VCC_RF	VCC
6	VCC_IF2	VCC
7	TESTP	O
8	TESTN	O
9	VCC_IF	VCC
10	XOUT	XI/XO
11	XIN	XI/XO
12	VCC_BIAS	VCC
13	REXT	I
14	RSSI	O
15	RSTN	I
16	RXDATA	O
17	TC_CTRL	I

Pin	Description	I/O
18	VCC_DIG	VCC
19	VCC_PLL1A	VCC
20	VCC_PLL1B	VCC
21	TXEN	I
22	RXEN	I
23	VCC_PLL2B	VCC
24	VCC_PLL2A	VCC
25	RXGAIN	I
26	PA_RAMP	I
27	TXMOD	I
28	SYN_CLK	I
29	SYN_EN	I
30	SYN_DATA	I
31	SYN_OUT	O
32	VCC_PA	VCC
GND_PLATE		GND

15.3.2. IC801

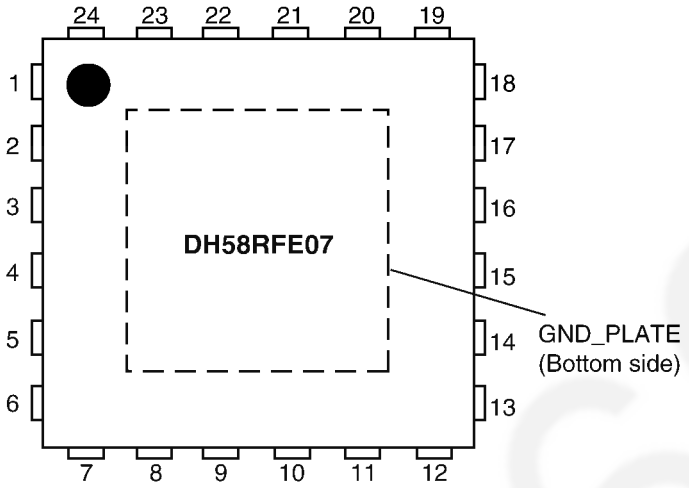


Pin	Description	I/O
1	VCC_PA2	VCC
2	TX	O
3	GND_ISOL1	GND
4	GND_ISOL2	GND
5	RX	I
6	VCC_LNA	VCC
7	REFIN	I
8	REFOUT	O
9	RXGAIN	I
10	CP_OUT	O
11	TV_IN	I
12	VARGND	GND
13	PLL_BYP	O

Pin	Description	I/O
14	VCC_PLL	VCC
15	2G4_OUT	O
16	GND_ISOL3	GND
17	2G4_IN	I
18	VCCTXRX	VCC
19	SYN_CLK	I
20	SYN_EN	I
21	SYN_DATA	I
22	RXEN	I
23	TXEN	I
24	VCC_PA1	VCC
GND_PLATE		GND

Backside Terminal: GND

15.3.3. IC851



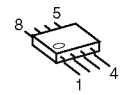
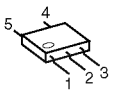
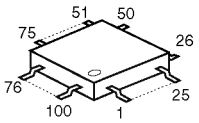
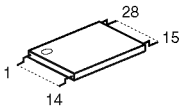
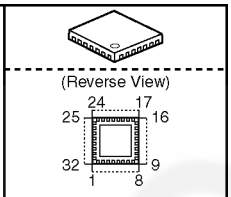
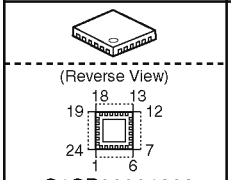
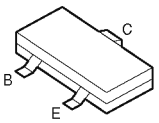
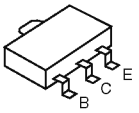
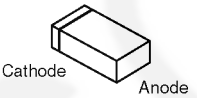
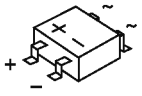
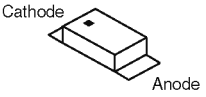
Pin	Description	I/O
1	GND_ISO	GND
2	ANT1	I/O
3 & 4	GND_ISO	GND
5	ANT2	I/O
6	GND_ISO	GND
7	VDD_LNA1	VDD
8	GND_LNA1	GND
9	VDD_LNA2	VDD
10	GND_LNA2	GND
11	NC	-
12	LNA_OUT	O
13	LNA_GAIN	I

Pin	Description	I/O
14	LNA_EN	I
15	ANTSEL_B	I
16	ANTSEL_A	I
17	PA_EN	I
18	PA_IN	I
19	VDD_PA	VDD
20	GND_ISO	GND
21	PA_OUT	VDD/O
22 & 23	GND_ISO	GND
24	TRSW_IN	I
GND_PLATE		GND

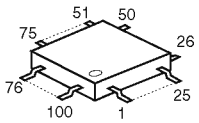
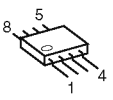
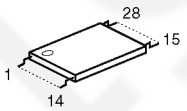
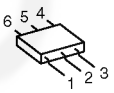
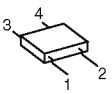
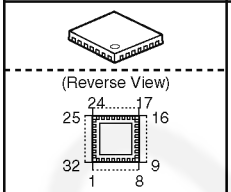
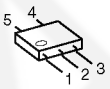
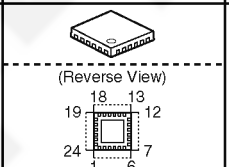
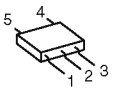
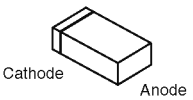
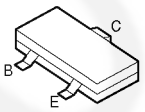
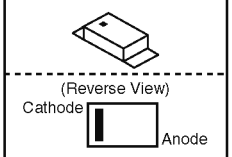
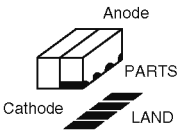
Backside Terminal: GND

15.4. Terminal Guide of the ICs, Transistors and Diodes

15.4.1. Base Unit

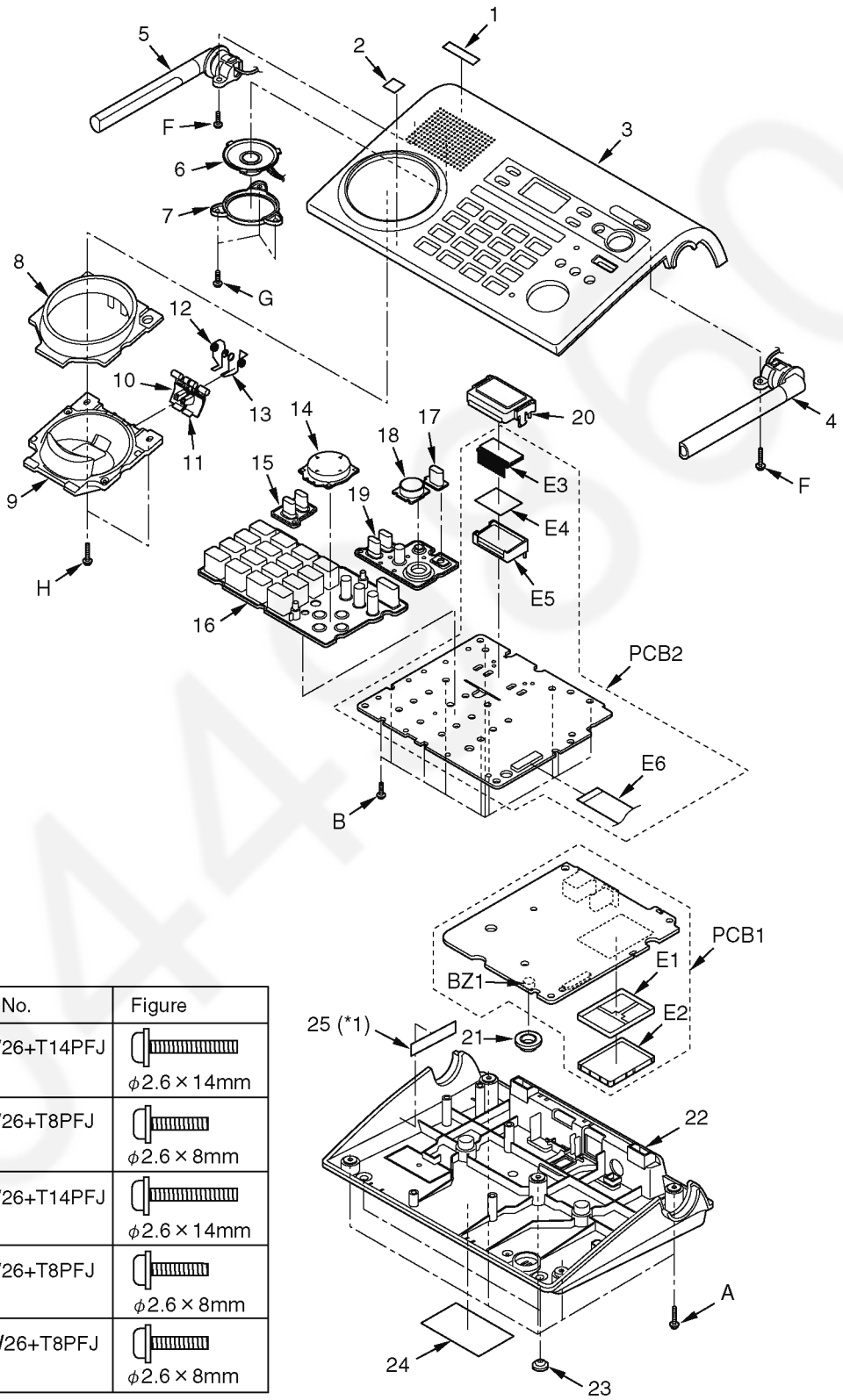
 C0DBFGD00017	 C0DBAGZ00023 C0CBAAC00083 C0CBABE00029	 C2HBBY000020	 PQWITG5771SH	 C1CB00001657
 C1CB00001682 C1CB00002281	 B1CHND000004, 2SD1819A, 2SB1218A		 B1ADGP000008 2SD0874AS B1BBAP000021	 MA111, MA8220 B0JCME000035 B0ECKM000008
 MAZ805100L PQVDMD5S	 PQVDRLZ20A	 LNJ326W83RA LNJ826W83RA		

15.4.2. Handset

 C2HBBY000047	 PQWI1TG5776R	 PQWI2TG5776R	 C0DBZHC00039	 C0CBCBC00076 C0EBD0000355
 C1CB00001657	 C0CBCAC00253 C0EBY0000115 C0DBAYY00067 C0CBAAC00083	 C1CB00001682 C1CB00002281	 PSVTUMG11NTR	 MA8047 MA2ZD0200L MA21D3400L B0BC5R400010
 UN521, PQVTDTC143E, 2SD1819A PQVTDTC144TU, 2SB1197KQ PQVTDTC114TU, PQVTDTC123JU PQVTXP151A13		 B3ACB0000115	 B3AZB0000033	

16 Exploded View and Replacement Parts List

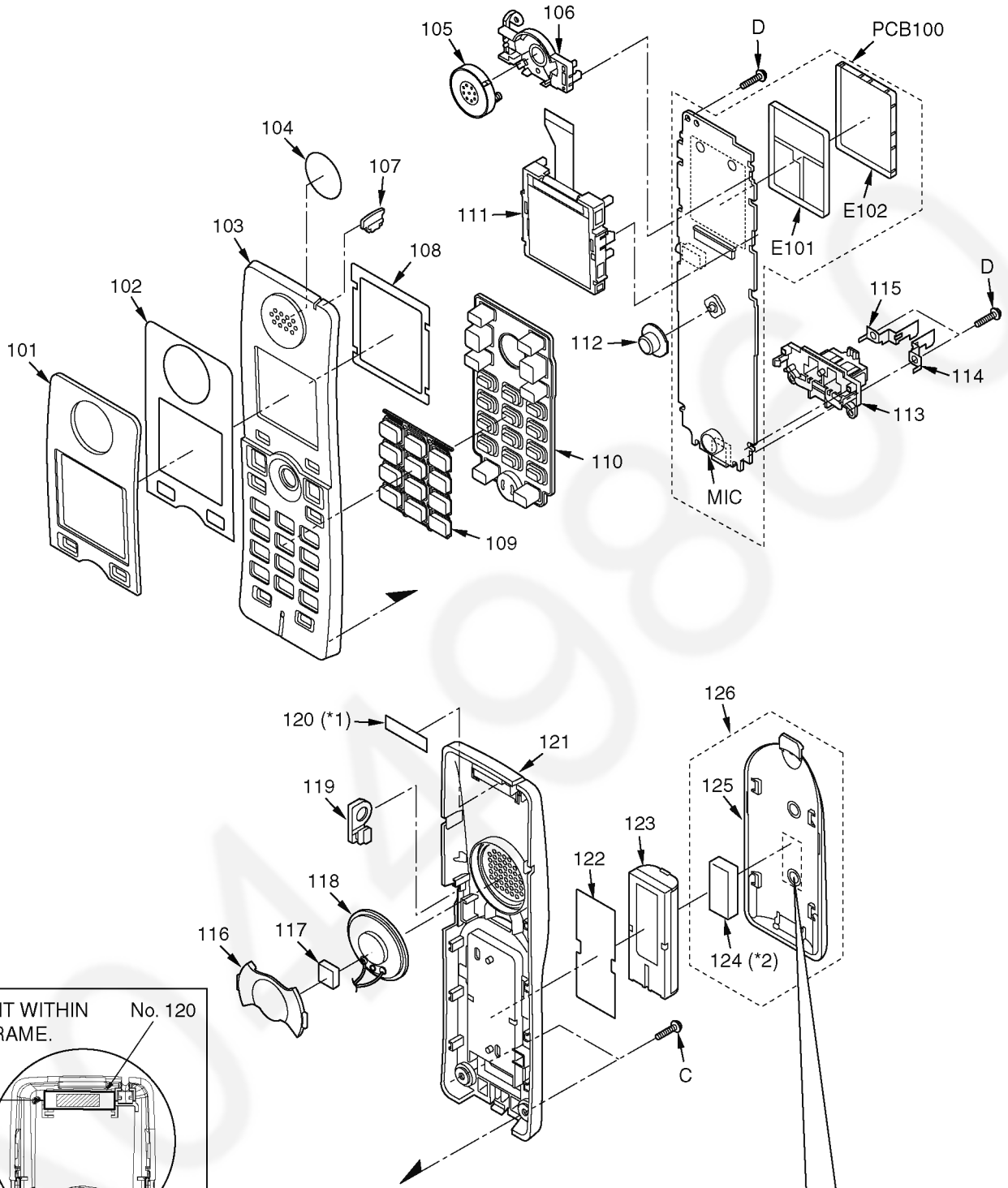
16.1. Cabinet and Electrical Parts (Base Unit)



Ref.No.	Part No.	Figure
A	XTW26+T14PFJ	ϕ2.6 × 14mm
B	XTW26+T8PFJ	ϕ2.6 × 8mm
F	XTW26+T14PFJ	ϕ2.6 × 14mm
G	XTW26+T8PFJ	ϕ2.6 × 8mm
H	XTW26+T8PFJ	ϕ2.6 × 8mm

Note:
(*1) for KX-TG5776

16.2. Cabinet and Electrical Parts (Handset)



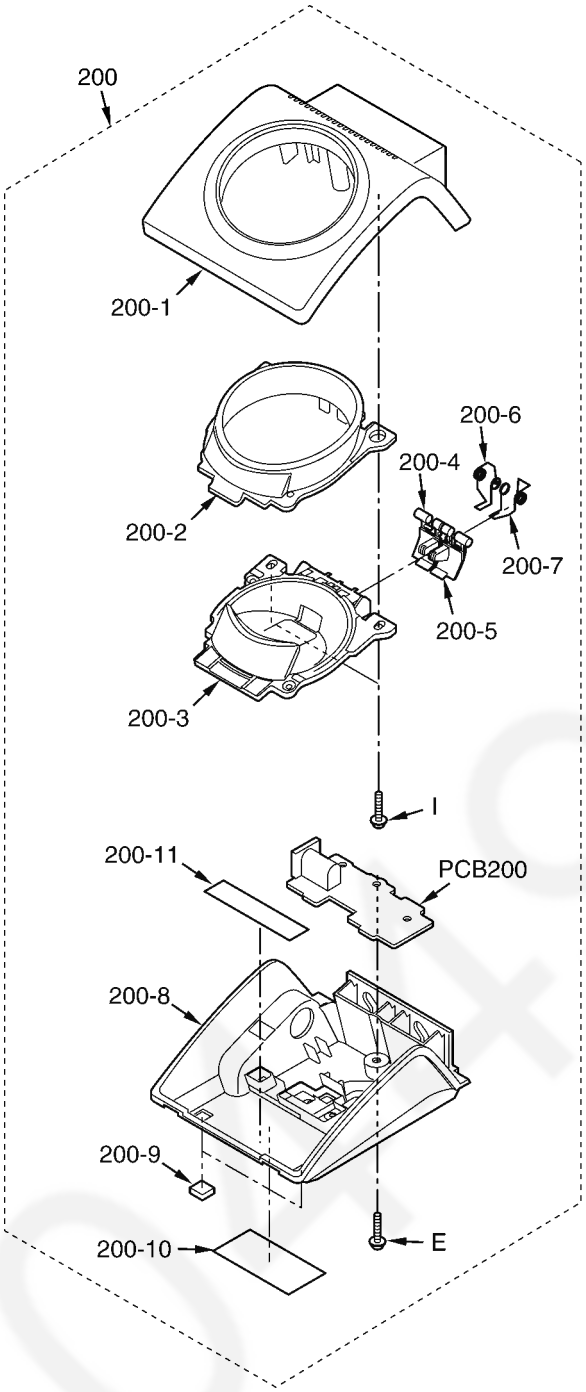
Ref.No.	Part No.	Figure
C	XTW2+R10PFJ	ϕ2 × 10mm
D	XTW2+R10PFJ	ϕ2 × 10mm

Note:

(*1) Stick the magnetic shield (No. 120) to the exact location described above.

(*2) Attach the spacer (No. 124) to the exact location described above.

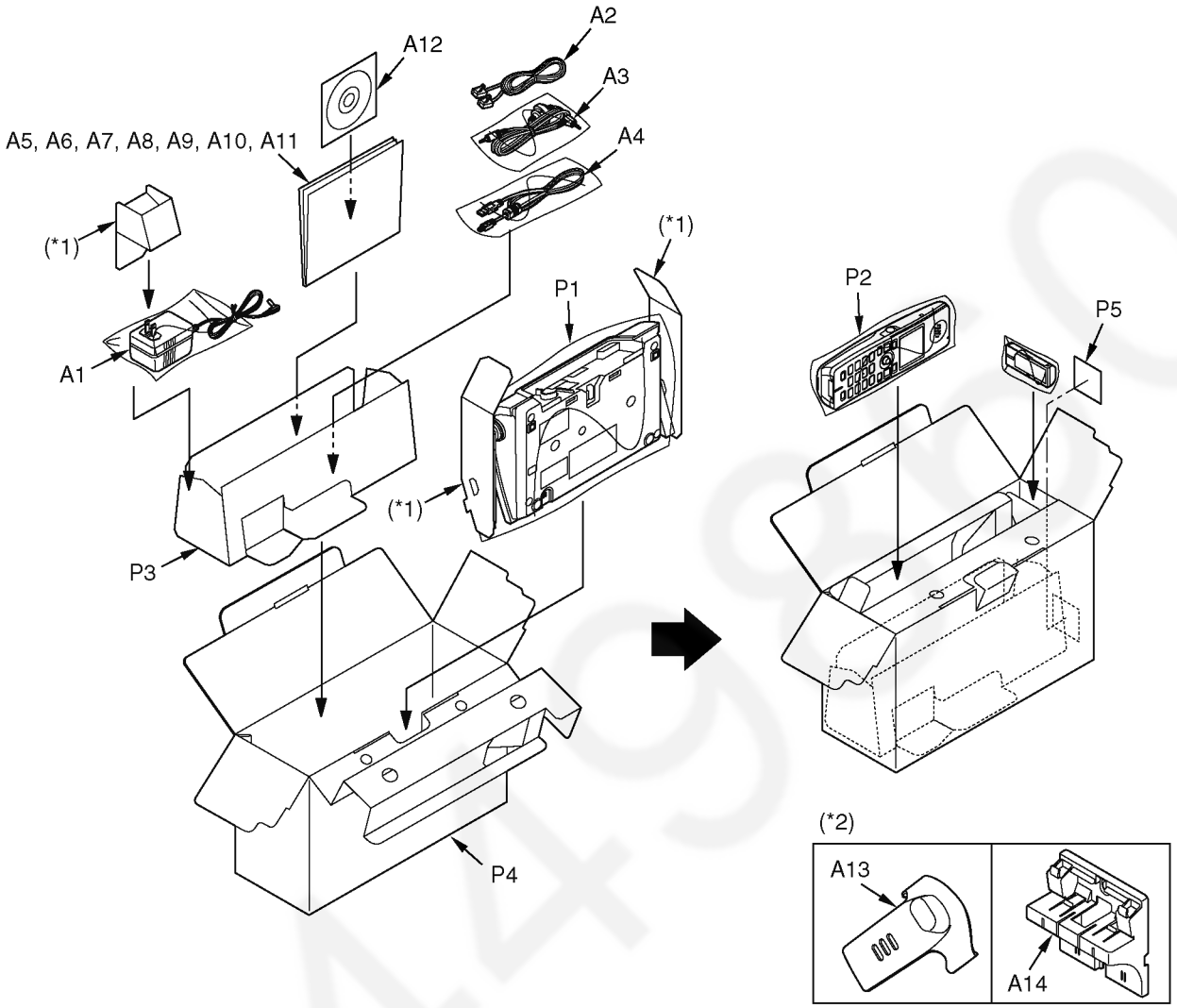
16.3. Cabinet and Electrical Parts (Charger Unit)



Ref.No.	Part No.	Figure
E	XTW26+T10PFJ	ϕ2.6 × 10mm
I	XTW26+T10PFJ	ϕ2.6 × 10mm

16.4. Accessories and Packing Materials

16.4.1. KX-TG5776S

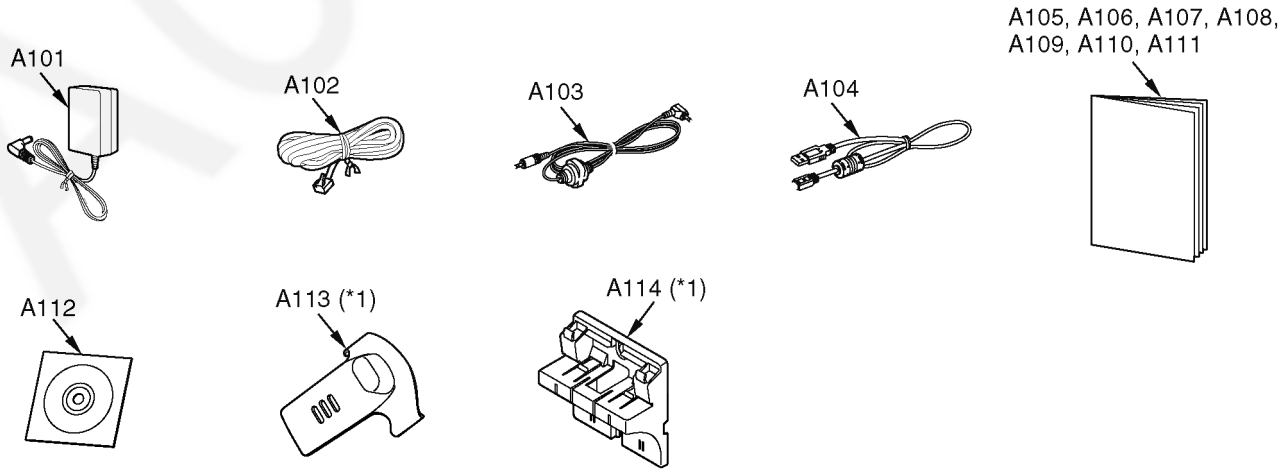


Note:

(*1) These pads are pieces of Ref No. P3 (CUSHION).

(*2) for Service

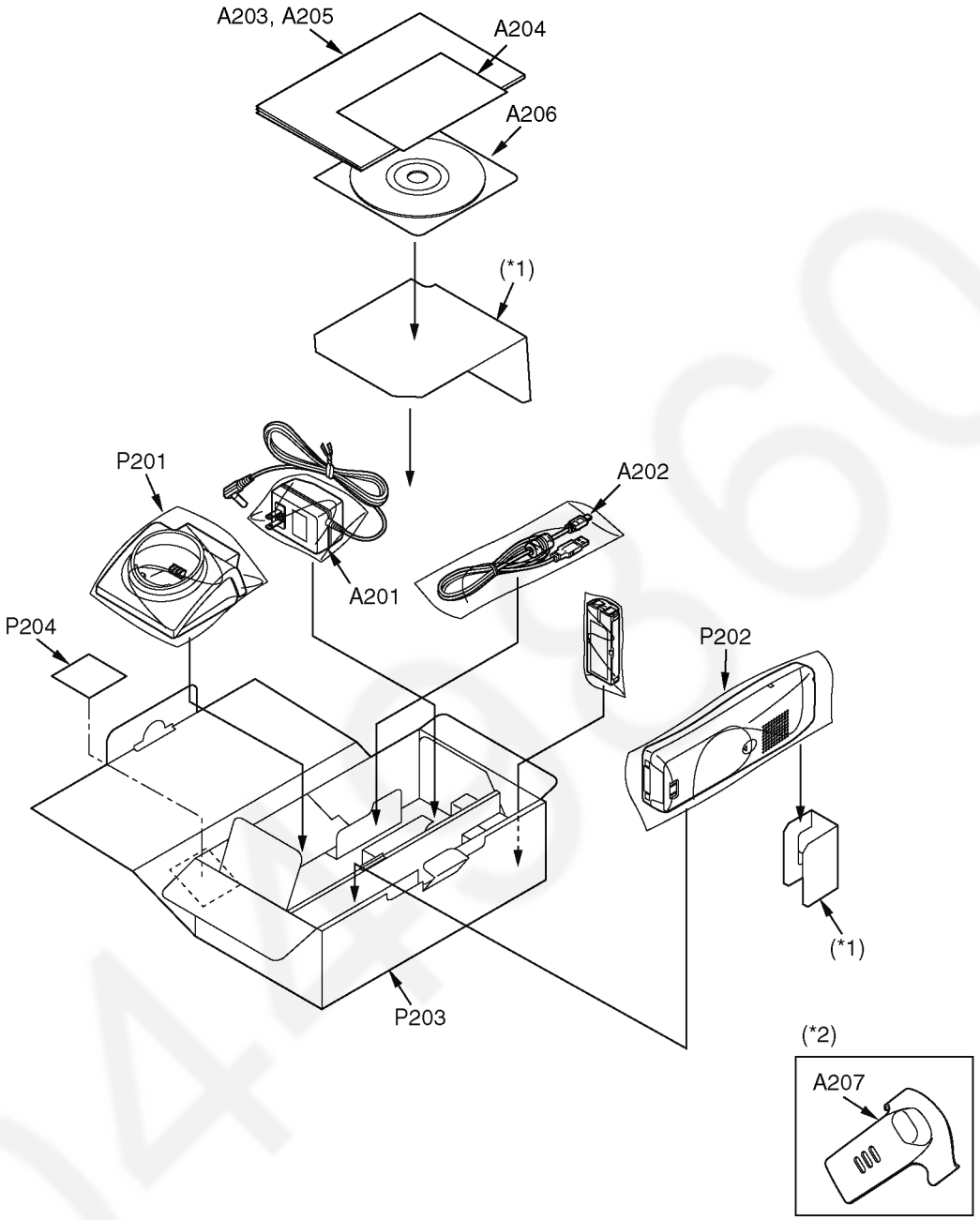
16.4.2. KX-TG5777S



Note:

(*1) for Service

16.4.3. KX-TGA571S



Note:

(*1) These pads are pieces of Ref No. P203 (GIFT BOX).

(*2) for Service

16.5. Replacement Parts List

Note:

1. RTL (Retention Time Limited)
   The marking (RTL) indicates that the Retention Time is limited for this item.
   After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability depends on the type of assembly and the laws governing parts and product retention.
   At the end of this period, the assembly will no longer be available.
2. Important safety notice
   Components identified by the ⚠ mark indicates special characteristics important for safety. When replacing any of these components, only use specified manufacture's parts.
3. The S mark means the part is one of some identical parts. For that reason, it may be different from the installed part.
4. ISO code (Example: ABS-94HB) of the remarks column shows quality of the material and a flame resisting grade about plastics.
5. RESISTORS & CAPACITORS
   Unless otherwise specified;
   All resistors are in ohms (Ω) K=1000Ω, M=1000kΩ
   All capacitors are in MICRO FARADS (μF) P=μμF
   *Type & Wattage of Resistor

Type

ERC:Solid ERDS:Carbon ERJ:Chip	ERX:Metal Film ERG:Metal Oxide ER0:Metal Film	PQ4R:Chip ERS:Fusible Resistor ERF:Cement Resistor

Wattage

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

*Type & Voltage Of Capacitor

Type

ECFD:Semi-Conductor ECQS:Styrol ECUV,PQCUV, ECUE:Chip ECQMS:Mica	ECCD,ECKD,ECBT,F1K,ECUV:Ceramic ECQE,ECQV,ECQG:Polyester ECEA,ECST,EEE:Electlytic ECQP:Polypropylene

Voltage

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

16.5.1. Base Unit

16.5.1.1. Cabinet and Electrical Parts

Ref. No.	Part No.	Part Name & Description	Remarks
1	PQQT23130Z	LABEL, URL	
2	PQQT23193Z	LABEL, CHARGE	
3	PQKM10717Z1	CABINET BODY (for KX-TG5776S)	PS-HB
3	PQKM10717M1	CABINET BODY (for KX-TG5777S)	PS-HB
4	PFSA1049Z	ANTENNA (R)	
5	PFSA1050Z	ANTENNA (L)	
6	L0AA04A00028	SPEAKER	
7	PQHR11082Z	GUIDE, SP HOLDER	POM-HB
8	PQGG10411Z1	GRILLE, CRADLE	ABS-HB
9	PQKE10440Z1	CASE, CHARGE TERMINAL	PS-HB
10	PQKE10437Z1	HOLDER, CHARGE TERMINAL (L)	POM-HB
11	PQKE10438Z1	HOLDER, CHARGE TERMINAL (R)	POM-HB
12	PQJT10241Z	CHARGE TERMINAL (L)	
13	PQJT10242Z	CHARGE TERMINAL (R)	
14	PQBC10473Y2	BUTTON, NAVI KEY	ABS-HB
15	PQSX10322Z	KEYBOARD SWITCH, MEMO	
16	PQSX10320Z	KEYBOARD SWITCH, DIAL	
17	PQBC10471Z1	BUTTON, ANSWER ON	ABS-HB
18	PQBC10472Z1	BUTTON, MESSAGE	ABS-HB
19	PQSX10321Y	KEYBOARD SWITCH, TAM	
20	PQGP10306Z1	PANEL, LCD	AS-HB
21	PQMG10025Z	RUBBER PARTS, MIC	
22	PQKF10707Z1	CABINET COVER	PS-HB
23	PQHA10011Z	RUBBER PARTS, FOOT CUSHION	
24	PQGT18367Z	NAME PLATE (for KX-TG5776S)	
24	PQGT19064Z	NAME PLATE (for KX-TG5777S)	
25	PQXDZLDRS1	LABEL, SECURITY TAG (for KX-TG5776S)	

16.5.1.2. Main P.C. Board Parts

Note:

(*1) When you have replaced IC501 or IC601, adjust X501. Refer to **Check and Adjust X501 (Base Unit) Frequency** (P.85).

(*2) When replacing IC701, IC801, or IC851, refer to **How to Replace the LLP (Leadless Leadframe Package) IC** (P.79).

Ref. No.	Part No.	Part Name & Description	Remarks
PCB1	PQWP1TG5771H	MAIN P.C.BOARD ASS'Y (RTL)	
		(ICs)	
IC300	C0DBAGZ00023	IC	S
IC331	C0DBFGD00017	IC	
IC501	C2HBBY000020	IC (*1)	
IC601	PQWITG5771SH	IC (*1)	
IC701	C1CB00001657	IC (*2)	
IC761	C0CBAAC00083	IC	
IC801	C1CB00001682	IC (*2)	
IC841	C0CBABE00029	IC	
IC851	C1CB00002281	IC (*2)	
		(TRANSISTORS)	
Q111	2SD1819A	TRANSISTOR(SI)	
Q141	B1ADGP000008	TRANSISTOR(SI)	
Q142	B1BBAP000021	TRANSISTOR(SI)	S
Q161	2SD0874AS	TRANSISTOR(SI)	
Q171	2SD1819A	TRANSISTOR(SI)	
Q300	B1CHND000004	TRANSISTOR(SI)	
Q340	2SD1819A	TRANSISTOR(SI)	
Q361	2SB1218A	TRANSISTOR(SI)	
Q362	2SD1819A	TRANSISTOR(SI)	
Q535	2SD1819A	TRANSISTOR(SI)	
		(DIODES)	
D101	PQVDMD5S	DIODE(SI)	
D113	MA111	DIODE(SI)	S
D133	MA111	DIODE(SI)	S
D142	PQVDRLZ20A	DIODE(SI)	S
D300	B0JCME000035	DIODE(SI)	
D361	MA8220	DIODE(SI)	S
D362	B0ECKM000008	DIODE(SI)	
D472	MAZ805100L	DIODE(SI)	
D473	MAZ805100L	DIODE(SI)	
		(COILS)	
L101	PQLQXF330K	COIL	S
L102	PQLQXF330K	COIL	S
L300	G1C220M00037	COIL	S
L361	G1C6R8MA0072	COIL	
L472	G1C6R8MA0072	COIL	
L473	G1C6R8MA0072	COIL	
L501	PQLQR2KA213	COIL	S
L711	MQLRF18NJFB	COIL	
L782	G1C1R0KA0096	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks
L871	MQLRF3N3DFB	COIL	
C723	MQLRF2N7DFB	COIL	
		(JACKS AND CONNECTOR)	
CN101	K2LB102B0053	JACK	
CN301	K2ECYB000001	JACK	
CN661	K1MY32BA0026	CONNECTOR	
		(LCR FILTERS)	
FL811	J0E5797B0001	LCR FILTER	
FL821	KNCFH165R8Z1	LCR FILTER	
FL881	J0E5797B0002	LCR FILTER	
FL891	J0E5797B0002	LCR FILTER	
		(COMPONENTS PARTS)	
RA500	D1H810440003	RESISTOR ARRAY	S
RA501	D1H84724A013	RESISTOR ARRAY	S
		(VARISTORS)	
SA101	J0LE00000047	VARISTOR (SURGE ABSORBER)	
SA104	J0LE00000047	VARISTOR (SURGE ABSORBER)	
		(RESISTORS)	
R111	ERJ3GEYJ104	100K	
R112	ERJ3GEYJ104	100K	
R113	ERJ3GEYJ103	10K	
R114	ERJ3GEYJ473	47K	
R121	ERJ3GEYJ394	390K	
R122	ERJ3GEYJ394	390K	
R131	ERJ3GEYJ106	10M	
R133	ERJ3GEYJ105	1M	
R134	ERJ3GEYJ102	1K	
R141	ERJ3GEYJ104	100K	
R142	ERJ3GEYJ103	10K	
R143	ERJ3GEYJ103	10K	
R145	ERJ2GEJ103	10K	
R151	ERJ3GEYJ106	10M	
R152	ERJ3GEYJ395	3.9M	
R154	ERJ3GEYJ102	1K	
R160	ERJ3GEYJ751	750	
R162	ERJ3GEYJ393	39K	
R163	ERJ12YJ330	33	
R164	ERJ3GEYJ470	47	
R165	ERJ3GEYJ561	560	
R167	ERJ2GEJ102	1K	
R168	ERJ3GEY0R00	0	
R171	ERJ2GEJ220	22	
R172	ERJ2GEJ104	100K	
R175	ERJ3GEYJ561	560	
R176	ERJ3GEYJ101	100	
R178	ERJ2GEJ102	1K	
R183	ERJ2GEJ222	2.2K	
R185	ERJ3GEYJ333	33K	
R303	ERJ3GEYJ221	220	
R304	ERJ3GEYJ221	220	
R308	ERJ3GEYJ121	120	
R340	ERJ3GEYJ123	12K	
R341	ERJ3GEYJ182	1.8K	
R342	ERJ3GEYJ473	47K	
R361	ERJ3GEYJ332	3.3K	
R362	ERJ3GEYJ473	47K	
R364	ERJ3GEYJ103	10K	
R365	ERJ3GEYJ102	1K	
R371	ERJ1TYJ220	22	
R372	ERJ1TYJ220	22	
R421	ERJ2GEJ473	47K	
R422	ERJ2GEJ102	1K	
R423	ERJ2GEJ102	1K	
R453	ERJ2GEJ222	2.2K	
R454	ERJ2GEJ222	2.2K	
R459	ERJ2GEJ272	2.7K	
R460	ERJ2GEJ272	2.7K	
R472	ERJ2GEJ1R0	1	
R473	ERJ2GEJ1R0	1	
R517	ERJ3GEYJ100	10	
R533	ERJ2GEJ472X	4.7K	
R535	ERJ2GEJ102	1K	
R536	ERJ2GEJ222	2.2K	

Ref. No.	Part No.	Part Name & Description	Remarks
R677	ERJ2GEJ221	220	
R679	ERJ2GEJ821	820	
R681	ERJ2GEJ561	560	
R683	ERJ2GEJ821	820	
R701	ERJ2RKF103X	10K	
R732	ERJ2GEJ100	10	
R733	ERJ2GEJ100	10	
R735	ERJ2GEJ4R7	4.7	
R742	ERJ2GEJ331	330	
R744	ERJ2GEJ102	1K	
R747	ERJ2GEJ102	1K	
R751	ERJ2GEJ102	1K	
R752	ERJ2GEJ102	1K	
R809	ERJ2GEJ561	560	
R813	ERJ2GE0R00	0	
R822	ERJ2GEJ271	270	
R823	ERJ2GEJ180	18	
R824	ERJ2GEJ271	270	
R832	ERJ2GEJ562X	5.6K	
R834	ERJ2GEJ332	3.3K	
R865	ERJ2GEJ271	270	
		(CAPACITORS)	
C101	F1K2J681A006	680P	
C102	F1K2J681A006	680P	
C111	F1J2A473A024	0.047	
C112	F1J2A473A024	0.047	
C113	PQCUV1A684KB	0.68	S
C120	ECUV1H102KBV	0.001	
C121	ECUV1H681JCV	680P	S
C122	ECUV1H681JCV	680P	S
C132	ECUV1H103KBV	0.01	
C142	ECUV1H103KBV	0.01	
C153	ECUV1H103KBV	0.01	
C161	EEE1EA100WR	10	
C162	ECUV1H101JCV	100P	
C163	ECUV1H472KBV	0.0047	
C165	ECUV1C473KBV	0.047	
C166	EEE1CA100SR	10	
C167	ECUV1A224KBV	0.22	
C172	F1G1H272A571	0.0027	
C176	EEE0JA220SR	22	
C178	ECUE1A333KBQ	0.033	S
C184	ECJ0EB1A473K	0.047	
C185	ECJ0EB1C183K	0.018	
C300	EEEFK1C470P	47	
C302	ECUV1H332KBV	0.0033	
C303	ECUV1H103KBV	0.01	
C304	ECUV1A105KBV	1	
C305	ECUV1H103KBV	0.01	
C306	F2G1E1010011	100	S
C308	ECUV1C224KBV	0.22	
C331	ECUV1C474KBV	0.47	
C332	ECUV1C104KBV	0.1	
C341	EEE0JA331P	330	
C342	ECUV1C104KBV	0.1	
C347	ECUV1C104KBV	0.1	
C352	ECUV1C104KBV	0.1	
C361	ECJ0EB1H102K	0.001	
C381	ECUV1A105KBV	1	
C382	F1K0J1060020	10	
C422	ECJ0EB1A104K	0.1	
C457	ECJ0EB1C123K	0.012	
C458	ECJ0EB1C123K	0.012	
C459	ECJ0EB1C103K	0.01	
C501	ECUV1C104KBV	0.1	
C503	ECUV1C104KBV	0.1	
C504	ECUV1C104KBV	0.1	
C508	ECJ0EC1H060C	6P	
C509	ECJ0EC1H060C	6P	
C513	ECUV1C104KBV	0.1	
C515	ECUV1A105KBV	1	
C516	ECST0JY106	10	S
C517	ECUV1C104KBV	0.1	

Ref. No.	Part No.	Part Name & Description	Remarks
C518	ECST0JY106	10	S
C521	ECJ0EB1A104K	0.1	
C531	ECUV1C104KBV	0.1	
C601	ECJ0EB1A104K	0.1	
C660	ECUV1C104KBV	0.1	
C663	ECJ0EB1H102K	0.001	
C664	ECJ0EB1H102K	0.001	
C665	ECJ0EB1H102K	0.001	
C666	ECJ0EB1H102K	0.001	
C667	ECJ0EB1H102K	0.001	
C668	ECJ0EB1H102K	0.001	
C669	ECJ0EB1H102K	0.001	
C670	ECJ0EB1H102K	0.001	
C671	ECJ0EB1H102K	0.001	
C672	ECJ0EB1H102K	0.001	
C684	ECJ0EB1H331K	330P	
C685	ECJ0EB1H331K	330P	
C686	ECJ0EB1H331K	330P	
C687	ECJ0EB1H331K	330P	
C688	ECJ0EB1H331K	330P	
C689	ECJ0EB1H331K	330P	
C701	PQCUV0J475MB	4.7	
C702	ECJ0EB1A104K	0.1	
C704	ECJ0EB1H102K	0.001	
C705	ECJ0EC1H100D	10P	
C706	ECJ0EB1C103K	0.01	
C707	ECJ0EB1H102K	0.001	
C708	ECJ0EC1H1R5C	1.5P	
C711	ECJ0EC1H010C	1P	
C712	ECJ0EC1H020C	2P	
C713	ECJ0EC1H100D	10P	
C714	ECJ0EB1H102K	0.001	
C715	ECJ0EC1H050C	5P	
C716	ECJ0EC1H020C	2P	
C722	ECJ0EC1H020C	2P	
C725	ECJ0EC1H050C	5P	
C731	ECJ0EB1C103K	0.01	
C732	ECJ0EB1H102K	0.001	
C733	ECJ0EB1H102K	0.001	
C734	ECJ0EB1H102K	0.001	
C735	ECJ0EB1A104K	0.1	
C737	ECJ0EB1H102K	0.001	
C741	ECJ0EB1H222K	0.0022	
C742	ECJ0EB1C103K	0.01	
C743	ECJ0EC1H221J	220P	
C745	ECJ0EC1H101J	100P	
C746	ECJ0EC1H101J	100P	
C747	ECJ0EC1H100D	10P	
C748	ECJ0EC1H101J	100P	
C749	ECJ0EC1H101J	100P	
C750	ECJ0EC1H101J	100P	
C751	ECJ0EC1H100D	10P	
C752	ECJ0EB1H471K	470P	
C763	ECUV1A474KBV	0.47	
C764	ECJ0EC1H020C	2P	
C773	ECJ0EC1H101J	100P	
C781	ECJ0EB1A104K	0.1	
C782	ECJ0EC1H121J	120P	
C801	ECJ0EC1H030C	3P	
C802	ECJ0EC1H220J	22P	
C803	ECJ0EB1C103K	0.01	
C804	ECJ0EC1H150J	15P	
C806	ECJ0EC1H100D	10P	
C809	ECUE1A333KBQ	0.033	S
C811	ECJ0EC1H020C	2P	
C821	ECJ0EC1H100D	10P	
C824	ECJ0EC1H100D	10P	
C832	ECJ0EC1H221J	220P	
C833	ECJ0EC1H101J	100P	
C834	ECJ0EB1C103K	0.01	
C835	ECJ0EB1H471K	470P	
C836	ECUV1A105KBV	1	
C837	ECJ0EC1H101J	100P	
C842	ECUV1A105KBV	1	
C843	ECUV1A474KBV	0.47	
C844	ECJ0EC1H020C	2P	
C856	ECJ0EC1H020C	2P	
C857	ECJ0EB0J105K	1	
C865	ECUE1A333KBQ	0.033	S
C871	F1G1HR10A561	0.1P	
C873	ECJ0EC1H020C	2P	
C874	ECJ0EB0J105K	1	
C881	ECJ0EC1H010C	1P	
C891	ECJ0EC1H010C	1P	
		(OTHERS)	
BZ1	L0CBAB000052	MICROPHONE	
E1	PQMC10492Z	MAGNETIC SHIELD, FRAME	
E2	PQMC10491Z	MAGNETIC SHIELD, COVER	
P101	PFRT002	THERMISTOR (POSISTOR)	S
X501	H0J138500003	CRYSTAL OSCILLATOR	

16.5.1.3. Operational P.C. Board Parts

Ref. No.	Part No.	Part Name & Description	Remarks
PCB2	PQWP2TG5771H	OPERATIONAL P.C.BOARD ASS'Y (RTL)	
		(DIODES)	
LED902	LNJ326W83RA	LED	
LED904	LNJ826W83RA	LED	
LED905	LNJ826W83RA	LED	
LED907	LNJ826W83RA	LED	
		(CONNECTOR)	
CN901	K1MY32BA0026	CONNECTOR	
		(OTHERS)	
E3	L5DCBCB00016	LIQUID CRYSTAL DISPLAY	
E4	PQHS10327Z	TAPE, LCD	
E5	PQHR11211Z	GUIDE, LCD	PS-HB
E6	PQJE10172X	LEAD WIRE, FFC	

16.5.2. Handset

16.5.2.1. Cabinet and Electrical Parts

Ref. No.	Part No.	Part Name & Description	Remarks
101	PQGP10305Z1	PANEL, LCD	AS-HB
102	PQHS10725Z	TAPE, DOUBLE SIDED	
103	PQKM10716Z1	CABINET BODY	ABS-HB
104	PQHS10658Z	SPACER, RECEIVER	
105	L0AD02A00035	RECEIVER	
106	PQHR11197Z	GUIDE, RECEIVER	ABS-HB
107	PQHR11196Z	OPTIC CONDUCTIVE PARTS, LED LENS	PS-HB
108	PQHS10726Z	SPACER, CUSHION LCD	
109	PQBX10390Z1	BUTTON, 12KEY	PMMA-HB
110	PQSX10319Z	KEYBOARD SWITCH	
111	L5DZDYY00002	LIQUID CRYSTAL DISPLAY	
112	PQBC10470Z1	BUTTON, CURSOR	ABS-HB
113	PQWE10044Z	BATTERY TERMINAL	ABS-HB
114	PQJT10239Z	CHARGE TERMINAL (L)	
115	PQJT10240Z	CHARGE TERMINAL (R)	
116	PQHR11198Z	GUIDE, SP HOLDER	ABS-HB
117	PQHG10729Z	RUBBER PARTS, SPEAKER	
118	L0AD02A00026	SPEAKER	
119	PQKE10439Z1	COVER, E/P CAP	
120	PQMC10496Z	MAGNETIC SHIELD, ANTENNA	
121	PQKF10705Z1	CABINET COVER	ABS-HB
122	PQGT19057Z	NAME PLATE	
123	HHR-P105	BATTERY	
124	PQHG10734Z	SPACER, BATTERY	
125	PQKK10594Z1	LID, BATTERY COVER	ABS-HB
126	PQYNTG5771SR	LID, BATTERY COVER ASS'Y	ABS-HB

16.5.2.2. Main P.C. Board Parts

Note:

(*1) When you have replaced IC201 or IC241, adjust X201. Refer to **Check and Adjust X201 (Handset) Frequency** (P.85) and **Adjust Battery Low Detector Voltage (Handset)** (P.85).

(*2) When replacing IC701, IC801, or IC851, refer to **How to Replace the LLP (Leadless Leadframe Package) IC** (P.79).

Ref. No.	Part No.	Part Name & Description	Remarks
PCB100	PQWPTG5776SR	MAIN P.C.BOARD ASS'Y (RTL)	
		(ICs)	
IC201	C2HBBY000047	IC (*1)	
IC241	PQWI1TG5776R	IC (*1)	
IC246	PQWI2TG5776R	IC	
IC261	C0DBZHC00039	IC	
IC291	C0CBCBC00076	IC	
IC371	C0EBY0000115	IC	
IC373	C0DBAYY00067	IC	
IC374	C0EBD0000355	IC	
IC701	C1CB00001657	IC (*2)	
IC761	C0CBAAC00083	IC	
IC801	C1CB00001682	IC (*2)	
IC841	C0CBCAC00253	IC	
IC851	C1CB00002281	IC (*2)	
		(TRANSISTORS)	
Q231	UN521	TRANSISTOR(SI)	S
Q243	PQVTDTC114TU	TRANSISTOR(SI)	S
Q251	PQVTDTC123JU	TRANSISTOR(SI)	S
Q261	PSVTUMG11NTR	TRANSISTOR(SI)	S
Q262	PSVTUMG11NTR	TRANSISTOR(SI)	S
Q291	PSVTUMG11NTR	TRANSISTOR(SI)	S
Q331	PQVTDTC143E	TRANSISTOR(SI)	S
Q361	2SB1197KQ	TRANSISTOR(SI)	S
Q362	2SD1819A	TRANSISTOR(SI)	
Q363	PQVTDTC144TU	TRANSISTOR(SI)	S
Q371	UN521	TRANSISTOR(SI)	S
Q372	2SB1197KQ	TRANSISTOR(SI)	S
Q373	PQVTXP151A13	TRANSISTOR(SI)	S
		(DIODES)	
D312	MA8047	DIODE(SI)	S
D313	MA8047	DIODE(SI)	S
D323	MA8047	DIODE(SI)	S
D324	MA8047	DIODE(SI)	S
D326	MA8047	DIODE(SI)	S
D327	MA8047	DIODE(SI)	S
D361	MA2ZD0200L	DIODE(SI)	
D363	B0BC5R400010	DIODE(SI)	
D373	MA21D3400L	DIODE(SI)	
LED251	B3ACB0000115	LED	
LED252	B3ACB0000115	LED	
LED253	B3ACB0000115	LED	
LED254	B3ACB0000115	LED	
LED261	B3AZB0000033	LED	
		(COILS)	
L326	G1CR47J00005	COIL	
L327	G1CR47J00005	COIL	
L331	PQLQR2KB113T	COIL	S
L332	PQLQR2KB113T	COIL	S
L334	PQLQR2KB113T	COIL	S
L373	G1C100MA0176	COIL	
L711	MQLRF18NJFB	COIL	
L782	G1C1R0KA0096	COIL	
L871	MQLRF3N3DFB	COIL	
C723	MQLRF2N7DFB	COIL	
		(CONNECTORS AND JACK)	
CN271	K1MY30BA0112	CONNECTOR	
CN291	K1FA105E0003	CONNECTOR	
CN331	K2HD103D0001	JACK	
		(LCR FILTERS)	
FL811	J0E5797B0001	LCR FILTER	
FL821	KNCFH165R8Z1	LCR FILTER	
FL881	J0E5797B0002	LCR FILTER	
		(COMPONENTS PARTS)	
RA201	D1H84724A013	RESISTOR ARRAY	S
RA251	D1H83314A013	RESISTOR ARRAY	S
		(RESISTORS)	
R208	ERJ3GEYJ100	10	
R209	ERJ2GEJ104	100K	
R225	ERJ2GEJ102	1K	
R226	ERJ2GEJ223	22K	
R227	ERJ2GEJ104	100K	
R231	ERJ2GEJ223	22K	
R234	ERJ2GEJ103	10K	
R241	ERJ2GEJ103	10K	
R242	ERJ2GEJ102	1K	
R243	ERJ2GEJ274	270K	
R247	ERJ2GEJ332	3.3K	
R261	ERJ2GEJ221	220	
R262	ERJ2GEJ221	220	
R263	ERJ2GEJ221	220	
R271	ERJ2GEJ104	100K	
R272	ERJ2GEJ104	100K	
R273	ERJ2GE0R00	0	
R274	ERJ2GEJ104	100K	
R286	ERJ3GEYJ100	10	
R291	ERJ3GEYJ220	22	
R292	ERJ3GEYJ220	22	
R293	ERJ2GEJ104	100K	
R294	ERJ2GEJ154	150K	
R295	ERJ2GEJ152	1.5K	
R296	ERJ2GEJ152	1.5K	
R297	ERJ2GEJ154	150K	
R298	ERJ2GEJ105X	1M	
R299	ERJ2GEJ105X	1M	
R312	ERJ2GEJ222	2.2K	
R314	ERJ2GEJ222	2.2K	
R315	ERJ2GEJ222	2.2K	
R317	ERJ2GEJ101	100	
R318	ERJ2GEJ222	2.2K	
R323	ERJ2GEJ220	22	
R324	ERJ2GEJ220	22	
R331	ERJ2GEJ103	10K	
R333	ERJ2GEJ102	1K	
R334	ERJ2GEJ222	2.2K	
R361	ERJ2GEJ473	47K	
R362	ERJ2GEJ102	1K	
R363	ERJ2GEJ473	47K	
R366	ERJ3GEYJ102	1K	
R370	ERJ8GEYJ1R2	1.2	
R371	ERJ2GEJ473	47K	
R372	ERJ2GEJ102	1K	
R373	ERJ2GE0R00	0	
R374	ERJ2GEJ224	220K	
R375	ERJ2GEJ224	220K	
R376	ERJ2GEJ105X	1M	
R377	ERJ2GEJ225	2.2M	
R378	ERJ2GEJ105X	1M	
R379	ERJ2GEJ225	2.2M	
R701	ERJ2RKF103X	10K	
R732	ERJ2GEJ100	10	
R733	ERJ2GEJ100	10	
R735	ERJ2GEJ4R7	4.7	
R742	ERJ2GEJ331	330	
R744	ERJ2GEJ102	1K	
R747	ERJ2GEJ102	1K	
R751	ERJ2GEJ102	1K	
R752	ERJ2GEJ102	1K	
R809	ERJ2GEJ102	1K	
R813	ERJ2GE0R00	0	
R822	ERJ2GEJ271	270	
R823	ERJ2GEJ180	18	
R824	ERJ2GEJ271	270	
R832	ERJ2GEJ562X	5.6K	

Ref. No.	Part No.	Part Name & Description	Remarks
R834	ERJ2GEJ332	3.3K	
R864	ERJ2GEJ102	1K	
R865	ERJ2GEJ391	390	
		(CAPACITORS)	
C201	ECJ0EC1H060D	6P	
C202	ECJ0EC1H060D	6P	
C204	ECJ0EB1A104K	0.1	
C206	ECJ0EB1A104K	0.1	
C208	PQCUV0J106KB	10	
C211	ECJ0EB1C103K	0.01	
C212	ECJ0EB1C103K	0.01	
C214	PQCUV0J106KB	10	
C215	ECJ0EB1A104K	0.1	
C225	ECJ0EB1A104K	0.1	
C226	ECJ0EB1A104K	0.1	
C231	ECJ0EB1A104K	0.1	
C241	ECJ0EB1A104K	0.1	
C242	ECJ0EC1H101J	100P	
C246	ECJ0EB1A104K	0.1	
C261	ECUV1A105KBV	1	
C262	PQCUV0J106KB	10	
C263	PQCUV0J106KB	10	
C265	ECJ0EB1H102K	0.001	
C286	ECJ0EB1C103K	0.01	
C291	ECJ0EB1A104K	0.1	
C292	ECJ0EB1A104K	0.1	
C303	ECJ0EB0J105K	1	
C305	ECJ0EB1C103K	0.01	
C306	ECJ0EB1A104K	0.1	
C314	ECJ0EB1C183K	0.018	
C315	ECJ0EB1C183K	0.018	
C316	ECJ0EB1H332K	0.0033	
C317	ECST0JY226	22	
C321	F1H0J335A005	3.3	
C333	ECJ0EB1A104K	0.1	
C335	ECST0JY226	22	
C340	ECJ0EB1A104K	0.1	
C353	ECUV1H103KBV	0.01	
C361	EEEFK0J331P	330	
C371	ECUV1A105KBV	1	
C372	ECUV1A105KBV	1	
C373	EEEFK0J331P	330	
C374	ECJ0EB1A104K	0.1	
C376	ECUV1A105KBV	1	
C377	ECJ0EB1A104K	0.1	
C379	ECJ0EB1A104K	0.1	
C381	EEE0JA101SP	100	
C386	ECJ0EB1A104K	0.1	
C701	PQCUV0J475MB	4.7	
C702	ECJ0EB1A104K	0.1	
C704	ECJ0EB1H102K	0.001	
C705	ECJ0EC1H100D	10P	
C706	ECJ0EB1C103K	0.01	
C707	ECJ0EB1H102K	0.001	
C708	ECJ0EC1H1R5C	1.5P	
C711	ECJ0EC1H010C	1P	
C712	ECJ0EC1H020C	2P	
C713	ECJ0EC1H100D	10P	
C714	ECJ0EB1H102K	0.001	
C715	ECJ0EC1H050C	5P	
C716	ECJ0EC1H020C	2P	
C722	ECJ0EC1H020C	2P	
C725	ECJ0EC1H050C	5P	
C731	ECJ0EB1C103K	0.01	
C732	ECJ0EB1H102K	0.001	
C733	ECJ0EB1H102K	0.001	
C734	ECJ0EB1H102K	0.001	
C735	ECJ0EB1A104K	0.1	
C737	ECJ0EB1H102K	0.001	
C741	ECJ0EB1H222K	0.0022	
C742	ECJ0EB1C103K	0.01	
C743	ECJ0EC1H221J	220P	
C745	ECJ0EC1H101J	100P	
C746	ECJ0EC1H101J	100P	
C747	ECJ0EC1H100D	10P	
C748	ECJ0EC1H101J	100P	
C749	ECJ0EC1H101J	100P	
C750	ECJ0EC1H101J	100P	
C751	ECJ0EC1H100D	10P	
C752	ECJ0EB1H471K	470P	
C763	ECUV1A474KBV	0.47	
C764	ECJ0EC1H020C	2P	
C773	ECJ0EC1H101J	100P	
C781	ECJ0EB1A104K	0.1	
C782	ECJ0EC1H121J	120P	
C801	ECJ0EC1H030C	3P	
C802	ECJ0EC1H220J	22P	
C803	ECJ0EB1C103K	0.01	
C804	ECJ0EC1H150J	15P	
C806	ECJ0EC1H100D	10P	
C809	ECJ0EB1C223K	0.022	
C811	ECJ0EC1H020C	2P	
C821	ECJ0EC1H100D	10P	
C824	ECJ0EC1H100D	10P	
C832	ECJ0EC1H221J	220P	
C833	ECJ0EC1H101J	100P	
C834	ECJ0EB1C103K	0.01	
C835	ECJ0EB1H471K	470P	
C836	ECUV1A105KBV	1	
C837	ECJ0EC1H101J	100P	
C842	ECUV1A105KBV	1	
C843	ECUV1A474KBV	0.47	
C844	ECJ0EC1H020C	2P	
C856	ECJ0EC1H020C	2P	
C857	ECJ0EB0J105K	1	
C858	ECJ0EC1H0R5C	0.5P	
C859	ECJ0EC1H0R5C	0.5P	
C864	F1G1E562A086	0.0056	
C865	ECUE1A333KBQ	0.033	S
C871	F1G1HR10A561	0.1P	
C873	ECJ0EC1H020C	2P	
C874	ECJ0EB0J105K	1	
C881	ECJ0EC1H050C	5P	
C891	ECJ0EC1H050C	5P	
		(OTHERS)	
MIC	L0CBAB000052	MICROPHONE	
E101	PQMC10492Z	MAGNETIC SHIELD, FRAME	
E102	PQMC10491Z	MAGNETIC SHIELD, COVER	
S251	K0C115A00006	SEESAW SWITCH	
X201	H0J138500003	CRYSTAL OSCILLATOR	

16.5.3. Charger Unit

16.5.3.1. Cabinet and Electrical Parts

Ref. No.	Part No.	Part Name & Description	Remarks
200	PQLV30043ZS	CHARGER UNIT	
200-1	PQKM10721Z1	CABINET BODY	PS-HB
200-2	PQGG10410Z1	GRILLE, CRADLE	ABS-HB
200-3	PQKE10436Y1	CASE, CHARGE TERMINAL	PS-HB
200-4	PQKE10437Z1	HOLDER, CHARGE TERMINAL (L)	POM-HB
200-5	PQKE10438Z1	HOLDER, CHARGE TERMINAL (R)	POM-HB
200-6	PQJT10241Z	CHARGE TERMINAL (L)	
200-7	PQJT10242Z	CHARGE TERMINAL (R)	
200-8	PQKF10709Y1	CABINET COVER	ABS-HB
200-9	PQHA10023Z	RUBBER PARTS, FOOT CUSHION	
200-10	PQGT19061Z	NAME PLATE	
200-11	PQXDZLDRS1	LABEL, SECURITY	

16.5.3.2. Main P.C. Board Parts

Ref. No.	Part No.	Part Name & Description	Remarks
PCB200	PQWPTGA570CH	MAIN P.C.BOARD ASS'Y (RTL)	

Ref. No.	Part No.	Part Name & Description	Remarks
		(RESISTORS)	
R1	ERJ1TYJ560	56	
R2	ERJ1TYJ560	56	
R3	ERJ1TYJ560	56	
		(OTHERS)	
CN1	K2ECYB000001	JACK	

16.5.4. Accessories and Packing Materials

Note:

(*1) You can download and refer to the Operating Instructions (Instruction book) on TSN Server.

16.5.4.1. KX-TG5776S

Ref. No.	Part No.	Part Name & Description	Remarks
A1	PQLV207Z	AC ADAPTOR	⚠
A2	PQJA10075Z	CORD, TELEPHONE	
A3	PQJA10165Z	CORD, AUDIO CABLE	⚠
A4	PQJA10166Z	CORD, USB CABLE	
A5	PQQX14980Z	INSTRUCTION BOOK (*1)	
A6	PQQW15055Z	QUICK GUIDE (for English)	
A7	PQQW15056Z	QUICK GUIDE (for Spanish)	
A8	PQQW15135Z	LEAFLET, PC	
A9	PQQW15384Z	LEAFLET, OPTION MODELS	
A10	PQQW15403Z	LEAFLET, Skype	
A11	PQQV10308Z	CARD, CCP	
A12	PQJKTG5776Z	MEMORY PARTS, CD-R WITH DATA	
A13	PQKE10457Z1	HANGER, BELT CLIP (for Service)	PC+ABS-HB
A14	PQKL10078Z1	STAND, WALL MOUNT (for Service)	ABS-HB
P1	XZB21X35A03	PROTECTION COVER (for Base Unit)	
P2	XZB10X35A02	PROTECTION COVER (for Handset)	
P3	PQPD10716Z	CUSHION	
P4	PQPK15036Z	GIFT BOX	
P5	PQXDDS400-8	PHOTO ELECTRIC TRANSDUCER, SECURITY TAG	

16.5.4.2. KX-TG5777S

Ref. No.	Part No.	Part Name & Description	Remarks
A101	PQLV207Z	AC ADAPTOR	⚠
A102	PQJA10075Z	CORD, TELEPHONE	
A103	PQJA10165Z	CORD, AUDIO CABLE	⚠
A104	PQJA10166Z	CORD, USB CABLE	
A105	PQQX14980Z	INSTRUCTION BOOK (*1)	
A106	PQQW15055Z	QUICK GUIDE (for English)	
A107	PQQW15056Z	QUICK GUIDE (for Spanish)	
A108	PQQW15135Z	LEAFLET, PC	
A109	PQQW15384Z	LEAFLET, OPTION MODELS	
A110	PQQW15403Z	LEAFLET, Skype	
A111	PQQV10308Z	CARD, CCP	
A112	PQJKTG5776Z	MEMORY PARTS, CD-R WITH DATA	
A113	PQKE10457Z1	HANGER, BELT CLIP (for Service)	PC+ABS-HB
A114	PQKL10078Z1	STAND, WALL MOUNT (for Service)	ABS-HB

16.5.4.3. KX-TGA571S

Ref. No.	Part No.	Part Name & Description	Remarks
A201	PQLV207Z	AC ADAPTOR	⚠
A202	PQJA10166Z	CORD, USB CABLE	
A203	PQQX15022Z	INSTRUCTION BOOK (*1)	
A204	PQQW12560Z	LEAFLET	
A205	PQQW15135Z	LEAFLET, PC	
A206	PQJKTG5776Z	MEMORY PARTS, CD-R WITH DATA	
A207	PQKE10457Z1	HANGER, BELT CLIP (for Service)	PC+ABS-HB
P201	XZB15X25A04	PROTECTION COVER (for Charger Unit)	
P202	XZB10X35A02	PROTECTION COVER (for Handset)	
P203	PQPK15277Y	GIFT BOX	
P204	PQXDDS400-8	PHOTO ELECTRIC TRANSDUCER, SECURITY TAG	

G/N
KXTG5776S
KXTG5777S
KXTGA571S