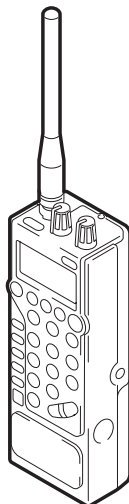


# ICF-SC1/SC1PC

## SERVICE MANUAL

Ver 1.0 1998.03

US Model



### SPECIFICATIONS

**Circuit system :**

Triple conversion superheterodyne

**Frequency range :**

25.000 – 1300.000MHz  
(excluding cellular phone band : 823.980 – 849.020 MHz and  
868.980 – 894.020 MHz)

**Detection mode :**

AM, NFM, WFM

**Speaker :** Approx. 36 mm (1 <sup>7</sup>/<sub>16</sub> inches) dia., 8 ohms

**Power output :**

150mW(at 10% harmonic distortion)

**Output :** Ⓢ jack (monaural minijack)

**Power requirements :**

DC 6V, four size AA (R6) batteries

**External power source :**

DC 6V

**Dimensions :**

Approx. 64 x 177 x 44.3 mm (w/h/d) (2 <sup>5</sup>/<sub>8</sub> x 7 x 1 <sup>3</sup>/<sub>4</sub> inches)  
incl. projecting parts and controls, not including the helical  
antenna and the belt holder

**Mass :** Approx. 252g (8.9 oz)

Approx. 382g (13.5 oz) incl. alkaline batteries, helical  
antenna, and the belt holder

**Supplied Accessories**

AC power adaptor (1)  
Earphone (1)  
Belt holder (1)  
Helical antenna (1)  
Frequency guidebook (1)  
CD-ROM (1) (ICF-SC1PC only)  
Serial port connecting cable (1) (ICF-SC1PC only)  
Clamp filter (1) (ICF-SC1PC only)

Design and specifications are subject to change without notice.

## PLL SYNTHESIZED SCANNING RECEIVER



# SONY®

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### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.

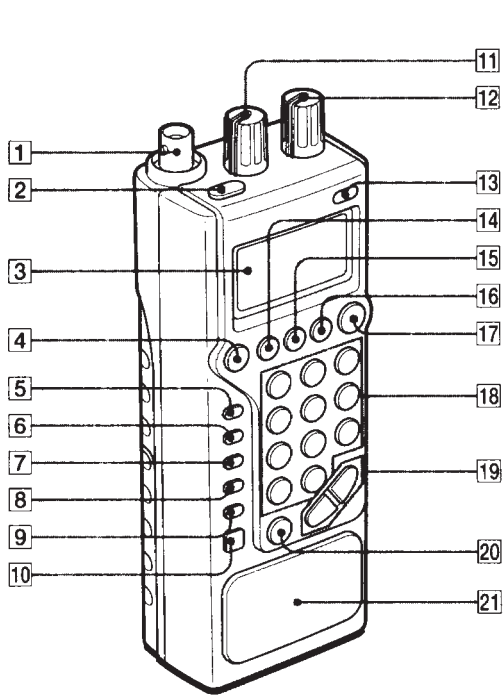
REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# SECTION 1 GENERAL

This section is extracted from instruction manual.

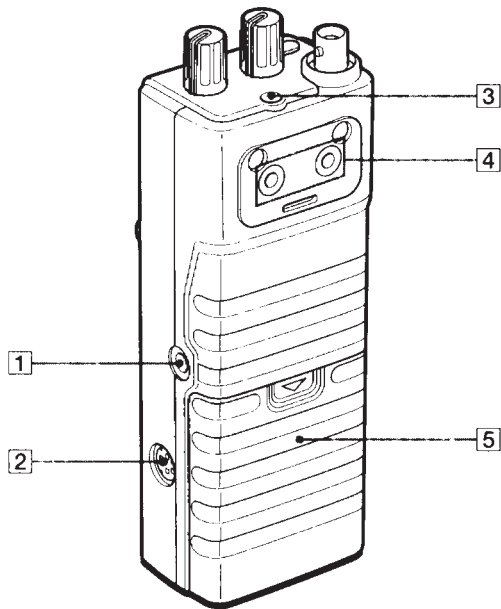
## LOCATION AND FUNCTION OF CONTROLS

### FRONT



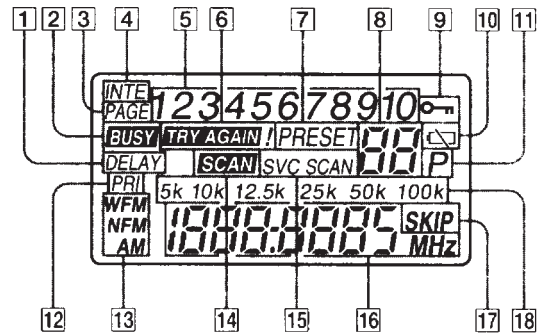
- 1 Antenna connector (BNC type)
- 2 POWER button
- 3 Display window
- 4 SVC (service) button
- 5 PRI (priority)/DELAY button
- 6 SKIP button
- 7 MODE (detection mode) button
- 8 STEP (frequency step) button
- 9 ERASE button
- 10 ENTER button
- 11 SQL (squelch) control
- 12 VOL (volume) control
- 13 LIGHT/☐ (key protect) button  
Switches between Scanning Mode and Manual Mode.
- 14 BAND button
- 15 PAGE button
- 16 PRESET button
- 17 SCAN button
- 18 Number keys  
Inputs numbers for frequency (Direct Tuning), page and channel (Preset Tuning), or selects service band (Service Scanning).  
The "10/0" key functions as "10" for page number selection, and as "0" for any other purpose.
- 19 +/- (up/down) keys
- 20 EXE•INTE (execute•Intelligent Memory) button
- 21 Speaker

## SIDE/REAR



- 1 DC IN 6 V jack
- 2 Serial IOIOI jack (ICF-SC1PC only)  
Connects to the serial port (RS232C) on a personal computer using the supplied cable (refer to the Operating Instructions of the PC control software Sony Scanning Receiver Controller for more details).
- 3 Ⓜ (earphone) jack
- 4 Screw holes to attach belt holder
- 5 Battery compartment

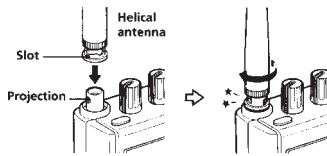
## DISPLAY



- 1 DELAY indication  
Appears when the receiver is in the 2-second delay mode.
- 2 **BUSY** indication  
Appears when there is reception (i.e., when the squelch is open).
- 3 PAGE indication
- 4 INTE (Intelligent Memory) indication
- 5 Page number/Intelligent Memory number indication
- 6 **TRY AGAIN !** indication  
Appears when you have input a frequency that is outside the frequency range of this receiver.
- 7 PRESET indication  
Appears when displaying the preset channel number (i.e., when presetting memory, running Memory Scanning, or Preset tuning).
- 8 Preset channel number/service band number indication
- 9 **Ⓚ** (key protect) indication
- 10 Battery warning indication
- 11 P (priority channel) indication  
Appears when displaying the priority channel.
- 12 PRI (priority) indication  
Appears when running Priority Scanning.
- 13 Detection mode indication
- 14 **SCAN** indication  
Appears during Scanning Mode.
- 15 SVC SCAN (Service Scanning) indication
- 16 Frequency display
- 17 SKIP indication
- 18 Frequency step indication

## Attaching/detaching the antenna

Fit the supplied helical antenna so that the projection on the connector of the main unit fits the slot on the antenna. Hold the antenna by the connector and turn it clockwise until the connector clicks.



### To detach the antenna

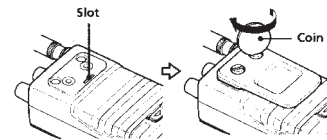
Turn the antenna counterclockwise to release the lock of the connector.

### Note

When detaching the antenna, hold the antenna by the connector. Do not hold the antenna rod itself.

## Attaching/detaching the belt holder

Place the holder so that the projection on the holder fits the slot on the main unit. Turn the screws clockwise with a coin.

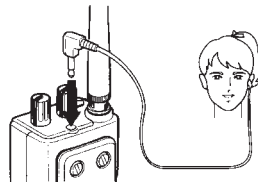


### To detach the belt holder

Turn the screws counterclockwise.

## Using the earphone

To listen through the earphone, plug in the earphone to the jack as shown in the illustration.



### NOTICE

Be sure to adjust VOL (volume) to a moderate level before turning on the power or plugging in the earphone. There will be no sound when there is no reception (squelch closed). Sudden reception (opening of the squelch) may cause unexpected loud sound and may cause hearing damage.

## ► Reception

### Various ways of reception

The scanning receiver offers a variety of scanning and tuning options. Refer to the pages in the parenthesis for details.

#### Scanning Mode

**Band Scanning** (page 10)

scans one of the predefined frequency bands

**Memory Scanning** (page 13)

scans the frequencies you have preset in the memory

**Programmable Scanning** (page 15)

scans a frequency range that you have defined

**Service Scanning** (page 17)

scans one of the 9 pre-programmed Public Service Bands of your choice

**Intelligent Memory Scanning** (page 19)

scans the 10 recent reception frequencies (memorized automatically)

#### Manual Mode

**Direct Tuning** (page 20)

tune in by inputting the frequency digits

**Manual Tuning** (page 21)

tune in by adjusting the frequency step by step with the +/- keys

**Preset Tuning** (page 22)

tune in by recalling a frequency you have preset in the memory

**Priority Scanning** (page 26)

checks every 5 seconds if there is reception in a priority frequency (works in either modes)

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8

9

## Receiving in the Scanning Mode

### Band Scanning

The receiver divides its frequency range (25.0 MHz to 1300.0 MHz) into 17 bands. Band Scanning scans one of these bands step by step.

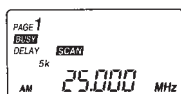
1 Set the SQL control to MIN.

2 Press POWER to turn the receiver on.

3 Turn VOL to adjust the volume.

4 Press BAND repeatedly to choose a band.

With each press, the lowest frequency of the next band will be displayed. Press repeatedly until the display shows the lowest frequency of the band of your choice.



5 Adjust the SQL control (see page 11).

Scanning will start.

When the receiver receives a signal, **BUSY** will light up and the receiver will go into scanning pause. When the signal breaks off, the receiver will resume scanning automatically.

### To turn off the power

Press POWER.

### Frequency range of the bands

Frequency range (MHz)	Step	Detection Mode
25.0 ~ 29.0	5kHz	AM
29.0 ~ 54.0	5kHz	NFM
54.0 ~ 72.0	50kHz	WFM
72.0 ~ 76.0	5kHz	NFM
76.0 ~ 88.0	50kHz	WFM
88.0 ~ 108.0	100kHz	WFM
108.0 ~ 137.0	12.5kHz	AM
137.0 ~ 148.0	5kHz	NFM
148.0 ~ 174.0	5kHz	NFM
174.0 ~ 216.0	50kHz	WFM
216.0 ~ 225.0	5kHz	NFM
225.0 ~ 400.0	12.5kHz	AM
400.0 ~ 470.0	12.5kHz	NFM
470.0 ~ 512.0	12.5kHz	NFM
512.0 ~ 806.0	50kHz	WFM
806.0 ~ 1000.0 (excluding cellular phone band)	12.5kHz	NFM
1000.0 ~ 1300.0	12.5kHz	NFM

(AM: Amplitude Modulation; NFM: Narrow Band Frequency Modulation; WFM: Wide Band Frequency Modulation)

### Note

The frequency steps and the detection modes in the list are the default for each band. You can adjust the frequency step and the detection mode when you are in Manual Mode. You cannot adjust them when you are in Scanning Mode.

### To resume scanning manually during scanning pause

Press + or -.

### To change scanning direction

Press + or -.

Scanning will restart in ascending direction if you press +, and in descending direction if you press -.

### Note

When you start scanning a new band, scanning will always start in ascending direction.

### To exit Scanning Mode

Press SCAN.

**SCAN** will disappear from the display and the receiver enters the Manual Mode. Press again to re-enter the Scanning Mode.

If you press SCAN for 1 second or longer, the scanning pause time will go into the 5-second pause mode (see page 30).

## Adjusting the SQL control

Adjustment of the SQL control applies to all modes of reception.

### What the SQL control does

The SQL (squelch) control adjusts the threshold of the signal intensity that opens the squelch. When the receiver receives a signal above the threshold, the squelch will open, **BUSY** will appear in the display, and you will hear the transmission sound. When the squelch opens during scanning, the receiver stops scanning. This is called a "scanning pause".

As you turn the SQL control counterclockwise to MIN, the receiver will pause scanning on weaker signals. But this may cause the receiver to pause scanning on unwanted noise signals.

As you turn the SQL control clockwise to MAX, the receiver will cut off the weaker signals and receive only stronger signals. If it is turned too far clockwise, on the other hand, there may be no signal strong enough to cause a scanning pause.

### Adjusting the SQL control

Start from the MIN position and turn it clockwise towards MAX to the point the **BUSY** indication disappears in the display.



When there is a signal above the squelch threshold, **BUSY** will light up and the receiver pauses scanning. Scanning will resume automatically when the signal breaks off.

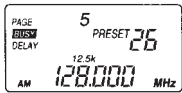
### NOTICE

If you wish to listen to transmission continuously (such as when listening to FM broadcast, TV sound, or Weather broadcast, etc.), be sure to set SQL to MIN so that the squelch does not close when the signal gets weak.

## Memory Scanning

Memory Scanning scans the frequencies you have preset in the memory. (To preset a station in the memory, see page 22). Choose one or more target pages to run Memory Scanning.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 Recall any preset channel (see "Recalling a preset channel", page 23). The preset number will appear in the display.



- 4 Press SCAN. The receiver will enter the Memory Scanning mode. The page number(s) for the target page(s) will appear in the display.



- 5 Here, the receiver is scanning page 1.
- 6 Adjust the SQL control (see page 11).
- 6 Select the target page. With each press of the number key, the page number will appear and disappear alternately in the display.



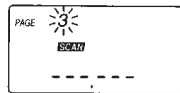
Here, you have pressed 2 and 6 (to add these pages), and 1 (to discard the page). The receiver is currently pausing scanning on preset channel number 12 of page 6.

### Notes

- The number for the current target page will flash in the display.
- When there is only one page in the display, you cannot discard the page from the scanning target.

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- When the current target page has no occupied channel (i.e., the page has no channel with a preset frequency), the display will be as follows.



In this case, first add a valid target page if this is the only target page, then, discard this page from the target page.

- If all the preset channels in a current target page are SKIP-designated frequencies, the display will be as follows.



In this case, first add a valid page to the scanning target page if this is the only target page, then, discard this page.

### To change scanning direction

Press + or -.

### To resume scanning manually during scanning pause

Press + or -.

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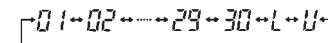
## Programmable Scanning

Programmable Scanning scans a frequency range you have defined step by step. You can also specify the frequency step and the detection mode.

### Defining the frequency range

Define the range by specifying the lower and the upper limits of the range. The preset channels for the upper and lower limits are located after channel 30 of page 10. You cannot use any other channel for this purpose.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 Tune in, by any way, to a frequency to be specified as the lower limit of the range.
- 4 Adjust the frequency step and the detection mode. Press STEP repeatedly to select a frequency step of your choice. Press MODE repeatedly to select a detection mode of your choice (see "Adjusting frequency step and detection mode", page 31). Skip this step to select the default step and detection mode.
- 5 While holding down ENTER, press "10/0", then EXE. "PRESET" and the preset number will flash in the display. (Do not release ENTER).
- 6 While holding down ENTER, press + or - repeatedly until "PRESET L" appears for the preset number display. With each press, the preset number display will change as follows.



- 7 "L" ("Lower limit") comes after preset channel 30. (Do not release ENTER).
- 7 While holding down ENTER, press EXE again. The lower limit frequency has been memorized in preset L.
- 8 Repeat steps 3 to 7 to memorize the upper limit frequency in preset U. "U" ("Upper limit") comes after preset L. Select the same frequency step and detection mode as you did for the lower limit frequency.

### Notes

- You can specify either frequency first.
- If you have selected a different frequency step or detection mode for the upper and lower limits, the one(s) memorized later will take precedence.
- The delay setting is not saved for preset channel L or U.

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## Running Programmable Scanning

- 1 Hold down ENTER and press SCAN lightly (i.e., less than 1 second). Scanning will start from the lower limit frequency.
- 2 Adjust the SQL control (see page 11).

Once you have defined a scanning range, you do not need to define it again as long as you are scanning the same frequency range.

### Notes

- Do not press SCAN for 1 second or longer while holding down ENTER. If you do, the receiver will enter the 5-second pause mode and the decimal point will flash in the display. See "Adjusting scanning pause time", (page 30).
- If you try to run Programmable Scanning with an invalid range definition (i.e., the specified upper and lower limits are the same frequency, or, either or both limits have not been specified), the receiver will display the memory content of the two frequencies and then return to the previous status.
- During Programmable Scanning, the receiver will start scanning from the lower of the two specified frequencies. Thus, if, for example, the frequency memorized under PRESET L is higher than the frequency memorized for PRESET U, scanning will start from the frequency in PRESET U.
- Although the upper and lower limit frequencies are located after channel 30 in page 10, they do not belong to this page; they will not be scanned when page 10 is targeted in Memory Scanning.

### To display the current scanning range

Press PAGE, then "10/0", then EXE. Page 10 will appear in the display. Press PRESET, then + or - repeatedly until "PRESET L" or "PRESET U" appears for the preset number display.

### To change scanning direction

Press + or -.

### To resume scanning manually during scanning pause

Press + or -.

### Note

When presetting or recalling a frequency in preset L or U, you can also recall these channels by pressing "31" (for preset L) or "32" (for preset U) and then EXE.

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## Service Scanning

Service Scanning scans one of the 9 pre-programmed Public Service Bands of your choice. A button is assigned to each of the bands for instant access.

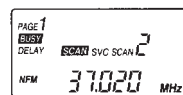
### Pre-programmed Public Service Bands

Service Band	Key number
WX (NOAA WEATHER broadcast)	1
POLICE	2
FIRE/EMG (Fire and emergency)	3
MARINE	4
AIR(V) (Aircraft[VHF])	5
AIR(U) (Aircraft[UHF])	6
FM broadcast	7
TV(V) (TV sound[VHF])	8
TV(U) (TV sound[UHF])	9

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 Press SVC. The receiver will enter the Service Scanning mode. "SVC SCAN" will flash in the display.



- 4 Press the number key for the Public Service Band of your choice. 2 (POLICE band) is shown here as an example.



- 5 Adjust the SQL control (see page 11).

### To exit Service Scanning

Press SVC when the "SVC SCAN" indication is flashing in the display. The receiver will return to the previous status.

### Notes

- If you skipped step 4 (pressed EXE when the "SVC SCAN" indication is flashing in the display), scanning will start on the Service Band number displayed at that point.
- If the "SVC SCAN" indication is left flashing for about 5 seconds, scanning will start on the Service Band number displayed at that point.

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- When the receiver pauses scanning at a NOAA WEATHER broadcast channel, it will not resume scanning automatically, since all NOAA WEATHER channels transmit continuously. To resume scanning manually, press + or -.
- The NOAA WEATHER broadcast may be difficult to receive in some areas. Try listening in a higher location.
- To run Service Scanning in the 5-second pause mode, press SCAN for 1 second or longer in any other scanning mode (such as Band Scanning) to enter the 5-second pause mode, and then start Service Scanning.

### To change scanning direction

Press + or -.

### To resume scanning manually during scanning pause

Press + or -.

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## Intelligent Memory Scanning

When the receiver receives a station continuously for 5 seconds or longer, the frequency is memorized automatically in the Intelligent Memory. The Intelligent Memory holds the 10 most recently received frequencies. Intelligent Memory Scanning scans the frequencies in the Intelligent Memory.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 In the Scanning Mode, press INTE (Intelligent Memory).

In the Manual Mode, press INTE, then press SCAN.



"INTE" will appear in the display and the receiver starts Intelligent Memory Scanning. Here the receiver is pausing scanning on channel 1 of the Intelligent Memory.

- 4 Adjust the SQL control (see page 11).

### To recall the frequencies in the Intelligent Memory one by one

Press INTE while Intelligent Memory Scanning is pausing scanning, or in Manual Mode. With each press, the Intelligent Memory channels will be recalled in ascending order.

#### Notes

- The Intelligent Memory always holds the 10 most recently received frequencies. Thus, the older ones will be erased one by one as there is a new reception. Store the frequency in the Preset memory if it needs to be stored (see page 22).
- If the receiver receives a frequency that is already in the Intelligent Memory, this will not create a second memory entry of the same frequency but will only change the order.
- The INTE indication will disappear if you tune manually by pressing + or - when the Intelligent Memory is recalled.
- You cannot change the detection mode or frequency step when the Intelligent Memory is recalled.
- The delay setting is not saved for the Intelligent Memory. If the DELAY indication is present when running Intelligent Memory Scanning, DELAY is effective for all Intelligent Memory frequencies.
- If you try to run Intelligent Memory Scanning with all the Intelligent Memory frequencies designated a SKIP frequency, "ALL SKIP" will appear in the display and the receiver will return to the previous condition.

### To change scanning direction

Press + or -.

### To resume scanning manually during scanning pause

Press + or -.

## Receiving in the Manual Mode

### Direct Tuning

If you know the frequency of a station, tune in directly by inputting the frequency digits on the number keys.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 If you are in the Scanning Mode, press SCAN to enter the Manual Mode.  
SCAN will disappear from the display.
- 4 Tune in by pressing the number keys for the frequency digits.
- 5 Press EXE.

Example: to tune in directly to 128.6375 MHz  
Press ①→②→⑥→③→⑦→⑧→③→⑦→⑤→EXE

### To cancel Direct Tuning input

Press ERASE before pressing EXE.

#### Notes

- The frequency steps and detection modes will be set to default (see "Frequency range of the bands", page 10). To change the frequency step or detection mode, press STEP or MODE after you have tuned in a frequency (see "Adjusting frequency step and detection mode", page 31).
- If the frequency you have input is not a step frequency, the frequency will automatically change to a step frequency.
- If you tune in directly (i.e., input frequency digits and press EXE) in the Scanning Mode, the receiver will go into the Manual Mode. However, this is not the case during Memory Scanning; pressing the number keys will add/delete scanning target pages.
- If the frequency is a round figure above the decimal point, you do not need to input the digits below the decimal point.  
Example: to tune in directly to 128.000 MHz  
Press ①→②→⑧→④→EXE
- If you take more than 10 seconds between key input, Direct Tuning will be cancelled and the receiver returns to the previous condition.

### Note on band border frequencies in Direct Tuning or Manual Tuning

The highest frequency of a band is the same as the lowest frequency of the next band (except for that of the highest band). For these frequencies, the default frequency steps and detection modes are set as the lowest frequencies of the next band.

## Manual Tuning

Tune in by adjusting the frequency step by step with the +/- keys.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 If you are in the Scanning Mode, press SCAN to enter the Manual Mode.  
SCAN will disappear from the display.
- 4 Tune in by pressing the +/- keys.  
The + key will move the frequency up and the - key will move the frequency down. One press will move the frequency one step. Hold down the key to move up or down continuously.

#### Note

- The changes you have made in frequency step or detection mode are effective only in the current band. When you have entered a different band while pressing the +/- keys, the frequency step and detection mode will return to the default for that band (see "Frequency range of the bands", page 10).
- If you press + at 1300 MHz, the frequency display will change to 25 MHz. If you press - at 25 MHz, the frequency display will change to 1300 MHz.

## Preset Tuning

The receiver has 10 preset pages, each with 30 channels; thus the receiver can memorize a total of 300 frequencies.

### Presetting stations in the memory

When you preset a frequency to a channel, the frequency step, detection mode and the DELAY setting for each frequency is memorized as well.

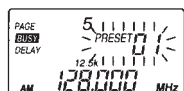
- 1 Press POWER to turn the receiver on.
- 2 Tune in to the frequency you wish to preset.
- 3 If you are in the Scanning Mode, turn SQL to MIN to pause scanning, or press SCAN to enter the Manual Mode.  
You cannot preset a station when the receiver is scanning.
- 4 Preset the frequency to the preset channel of your choice.  
While holding down ENTER, press the number key for the page of your choice, then EXE, then the number key for the preset channel number of your choice, then EXE. Do not release ENTER until you have completed presetting.

Example: presetting 128.000 MHz to preset channel 26 of page 5.  
Hold down ENTER...



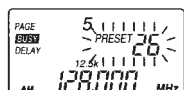
The current page number will flash in the display.

...press 5, then EXE (without releasing ENTER) ...



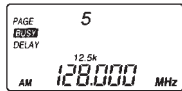
Page 5 has been entered and the preset channel number will flash in the display.

...then press 2, then 6 (without releasing ENTER)...



"PRESET 26" will flash in the display.

...then press EXE (without releasing ENTER).



Channel 26 has been entered and presetting is complete. The display returns to the reception display.

### To cancel presetting input

Release ENTER.



- To change the page number and channel number input, you can also use the +/- keys when the number is flashing in the display (i.e., while holding down ENTER).
- If the page number flashing in the display is already the one of your choice when you hold down ENTER, you do not need to press the page number again; press EXE to enter.
- After the page number has been entered, the receiver will first display the number of the lowest unoccupied channel. Therefore, when you are presetting stations the first time around on a particular page, the receiver will automatically start from channel number 1 and move up in order every time you preset a station, without having to input the channel number manually.

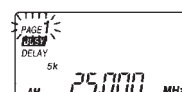
#### Notes

- The "10/0" key functions as 10 for the page number, but as 0 for anything else. To input page number 10, press the "10/0" key. To input channel number 10, press "1" and then "10/0".
- If there is no unoccupied preset channel on the page you have chosen, "PRESET -" will flash in the display.
- If you preset a frequency on a channel that already has a preset frequency, the older frequency will be overwritten by the new one.
- When you preset a frequency, the DELAY setting (see "Adjusting scanning pause time", page 30) for the particular frequency is memorized as well.  
To change the DELAY setting for a preset frequency, first recall the preset frequency (see "Recalling a preset channel" below), then press PRI/DELAY for one second or longer. The new DELAY setting will be memorized along with the preset frequency (DELAY will turn on if it had been off, vice versa).
- You cannot preset a station you have received with Memory Scanning, whether or not the receiver is in scanning pause.
- You cannot preset a priority channel frequency you have received with Priority Scanning.

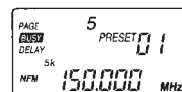
### Recalling a preset channel

- 1 Press POWER to turn the receiver on.
- 2 If you are in the Scanning Mode, press SCAN to enter the Manual Mode.  
SCAN will disappear from the display.
- 3 Press PAGE, then the number key for the page number you wish to recall, then EXE.
- 4 Press PRESET, then the number key for the preset channel number you wish to recall, then EXE.

Example: recalling preset channel 26 on page 5.  
Press PAGE.

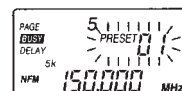


The page number will flash in the display.  
Press 5, then EXE.

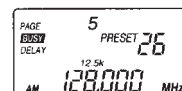


The page number has been entered. "PAGE" and "5" will stop flashing in the display. A preset channel will appear in the display (in this case, 1).

Press PRESET.



The preset number will flash in the display.  
Press 2, then 6, then EXE.



The preset number has been entered. The preset number will stop flashing.

If you press PAGE again while the PAGE indication is flashing in the display, or press PRESET again while the PRESET indication is flashing in the display, the receiver will return to previous status.

### To recall a preset channel in the same page

Repeat step 4. You do not have to choose the page again.



To change the page number and channel number input, you can also use the +/- keys when the number is flashing in the display.



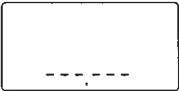
**Notes**

- If you recall a page or a preset channel when you are in the Scanning Mode, the receiver goes into the Manual Mode and the **SCAN** indication will disappear.
- If a page number or a preset channel number is left flashing for 5 seconds or longer, the number will be entered (without having to press EXE).
- If you change the frequency by tuning manually (i.e. by pressing +/-) after you have recalled a station, or if you change the frequency step or the detection mode of the frequency, the preset number indication will disappear in the display.
- If you recall an unoccupied channel, "-----" will appear for the frequency display, and the sound will go out.
- If you recall a page with no occupied channels, "-----" will appear for the frequency display momentarily, and then the receiver will return to previous status.

**Erasing preset memory**

**To erase a channel preset**

- 1 Recall the preset channel you want to erase.
- 2 Press ERASE until the frequency display changes to "-----".



The channel preset has been erased and the display returns to Manual Tuning (without the preset number).

**Notes**

- You cannot erase a channel preset in the Scanning Mode.
- You cannot erase the priority channel preset while receiving a priority channel with Priority Scanning.
- You cannot retrieve a preset memory you have erased. Make sure of the channel you are erasing.

**To erase all preset memory at once**

- 1 Press EXE, -, and PRESET simultaneously. "DEL ALL PRESET" will flash in the display.



Hold the buttons down for 3 seconds or longer. The flashing will stop and all the preset memory will be erased.

**Notes**

- You cannot retrieve preset memory you have erased. Make sure of the channels you are erasing.
- This operation will also revert the Intelligent Memory contents to the factory preset.

25

**Priority Scanning**

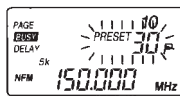
**Priority Scanning**

Specify a priority frequency of your choice to the priority channel. With Priority Scanning, the receiver checks the priority channel every 5 seconds and switches to this channel if there is reception. If reception is broken, the receiver will return to previous status. You can run Priority Scanning during any scanning or tuning modes.

**Specifying the priority frequency**

The priority channel is preset channel 30 on page 10. You cannot use any other channel for this purpose.

- 1 Set the SQL control to MIN.
- 2 Press POWER to turn the receiver on.
- 3 Tune in, by any way, to a frequency you wish to specify as the priority frequency.
- 4 Select the detection mode and the DELAY setting of your choice. Press MODE repeatedly to select a detection mode of your choice (see "Adjusting frequency step and detection mode", page 31). Press PRI/DELAY for 1 second or longer to select the DELAY setting of your choice (see "Adjusting scanning pause time", page 30). Skip this step to select the default detection mode and DELAY setting.
- 5 Preset the frequency to preset channel 30 ("Priority channel") on page 10 (see "Presetting stations in the memory", page 22).



**Running Priority Scanning**

- 1 Press PRI/DELAY lightly (i.e., less than a second). "PRI" will appear in the display and the Priority Scanning is in effect. The receiver will check the priority channel every 5 seconds and switches to this channel if there is reception.
- 2 Adjust the SQL control (see page 11).

**To cancel Priority Scanning**

Press PRI/DELAY lightly (i.e., less than a second) again.

**Notes**

- You can run Priority Scanning during any scanning or tuning modes.

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- All tuning key operation becomes ineffective when receiving the priority channel with Priority Scanning (except for that using + or -). To switch to other scanning or tuning modes, exit Priority Scanning first by pressing PRI/DELAY.
- Though the frequency step setting is memorized for the priority channel, it has no effect on Priority Scanning.
- If you try to run Priority Scanning with no priority frequency (i.e., there is no frequency preset for the priority channel, preset channel 30 on page 10), the following will be displayed momentarily, and then the receiver will return to previous status.



- If you try to run Priority Scanning with the priority frequency designated as a SKIP frequency, the following will be displayed momentarily, and then the receiver will return to previous status.



- You cannot assign the priority frequency to any other channel than channel 30 on page 10.

27

**Other useful functions**

**SKIP function**

You can designate any frequency as a SKIP-frequency (up to 100). The receiver will skip this frequency during scanning. Designate any unwanted frequency (interference signals, etc.) as a SKIP-frequency.

**Designating a SKIP-frequency**

- 1 If you are in the Scanning Mode, press SCAN to enter the Manual Mode. **SCAN** will disappear from the display.
- 2 Tune in, by any way, to a frequency you wish to specify as a SKIP-frequency.
- 3 Press SKIP. The frequency is designated as a SKIP-frequency.



**To cancel SKIP designation**

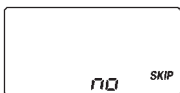
Press SKIP again.

• SKIP-frequency designation is effective for any of the Scanning Modes.

**To display the SKIP-frequencies**

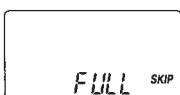
Press +/- while holding down SKIP. The SKIP-frequencies will be displayed one by one in ascending/descending order.

When there is no SKIP-frequency, the following display will appear momentarily, and then the receiver will return to the previous status.



**Note**

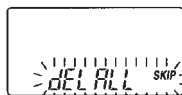
You can designate up to 100 SKIP-frequencies. If you try to designate a SKIP-frequency when there is already 100, the following display will appear momentarily, and then the receiver will return to the previous status.



28 In this case, cancel a previously designated SKIP-frequency first.

**To erase all SKIP memory at once**

Press EXE, -, and SKIP simultaneously. "DEL ALL SKIP" will flash in the display.



Hold the buttons down for 3 seconds or longer. The flashing will stop and all the SKIP memory is erased. The receiver will automatically enter the Band Scanning mode in the lowest band.

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**Adjusting scanning pause time**

**DELAY**

DELAY is turned on by default. DELAY is indicated in the display, and scanning will not restart unless there is a reception break of 2 seconds. This is convenient, for example, when receiving a 2-way transmission, where there is a short break between the transmission.

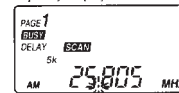
**To cancel DELAY**

Press PRI/DELAY for 1 second or longer. DELAY will disappear, and the receiver resumes scanning the moment signal reception is broken during scanning pause.

Press PRI/DELAY for 1 second or longer again to turn DELAY on again.

**Limiting scanning pause to 5 seconds (5-second pause mode)**

- 1 If you are in the Scanning Mode, press SCAN to enter the Manual Mode (**SCAN** disappears).
- 2 Press SCAN for 1 second or longer. **SCAN** will be displayed and the decimal point of the frequency display will flash.



Normally, the receiver will remain in scanning pause until signal reception is broken or scanning is resumed manually.

In the 5-second pause mode, the receiver will pause scanning only for 5 seconds and automatically resume scanning at every step.

**To cancel the 5-second pause mode**

Press SCAN to return to the Manual Mode. Then press SCAN lightly (less than 1 second) to re-enter the Scanning Mode.

**Notes**

- You can run Programmable Scanning in the 5-second pause mode by pressing SCAN for 1 second or longer while holding down ENTER.
- DELAY and the 5-second pause can be set individually.
- If the signal breaks in less than 5 seconds, the receiver resumes scanning in 2 seconds (with DELAY on) or at that moment (with DELAY off).
- If the signal is received for 5 seconds in the 5-second pause mode, the receiver will resume scanning at that moment regardless of the DELAY setting.
- To run Service Scanning in the 5-second pause mode, see "Service Scanning", page 17.

30



## Adjusting frequency step and detection mode

You can adjust the frequency step and the detection mode when you are in the Manual Mode.

### Adjusting the frequency step

**1** If you are in the Scanning Mode, press SCAN to enter the Manual Mode.

**2** Press STEP.

With each press, the frequency step changes as follows.

AM, NFM:

→ 5k → 10k → 12.5k → 25k → 50k → 100k

WFM:

→ 50k → 100k

### Adjusting the detection mode

**1** If you are in the Scanning Mode, press SCAN to enter the manual mode.

**2** Press MODE.

With each press, the detection mode changes as follows.

→ AM → NFM → WFM

#### Notes

- You cannot adjust the frequency step and the detection mode when you are in the Scanning Mode.
- The changes you have made in frequency step or detection mode are effective only in the current band. When you switch to a different band, the frequency step and detection mode will return to default (see "Frequency range of the bands", page 10).
- If the current frequency is not a step frequency when you change the frequency step, the frequency will automatically change to a step frequency.
- If you have changed the detection mode to WFM when you are in AM or NFM with the frequency step set to 25 kHz or less, the frequency step will automatically change to 50 kHz. If the current frequency is not a step frequency, it will automatically change to a step frequency.

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## Key protection

Press LIGHT/☉ for 1 second or longer. "☉" will light in the display and all keystrokes will be neutralized. Use this feature to avoid operation by inadvertent keystrokes.

### To cancel key protection

Press LIGHT/☉ again for 1 second or longer.

## Turning on the light

Press LIGHT/☉ lightly (less than 1 second).

The light in the display window will light for about 10 seconds.

If you press any operation button while the light is on, the light will be lit for another 10 seconds.

### To turn off the light

Press LIGHT/☉ again.


#### Notes

- The light is lit continuously when the receiver is run on external power (i.e., AC power adaptor or the car battery cord).
- To turn off the light, press LIGHT/☉. Press again to turn the light on again.
- Pressing LIGHT/☉ will not light the window while the power is turned off.

## Turning off the beep

You can turn the beep sound off.

- 1** If the power is on, press POWER to turn off power.
- 2** Press POWER while holding down EXE. "bP off" will be displayed before the power turns on.



### To turn on the beep again

Repeat the above.

"bP on" will be displayed before the power turns on.

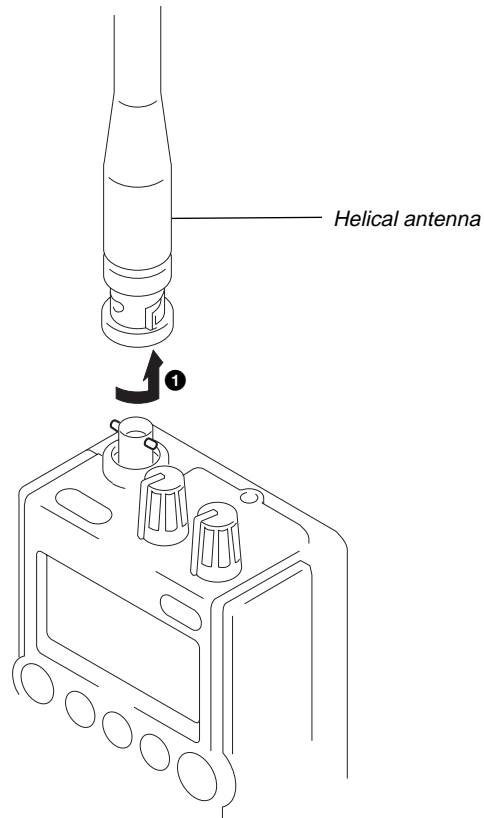


32

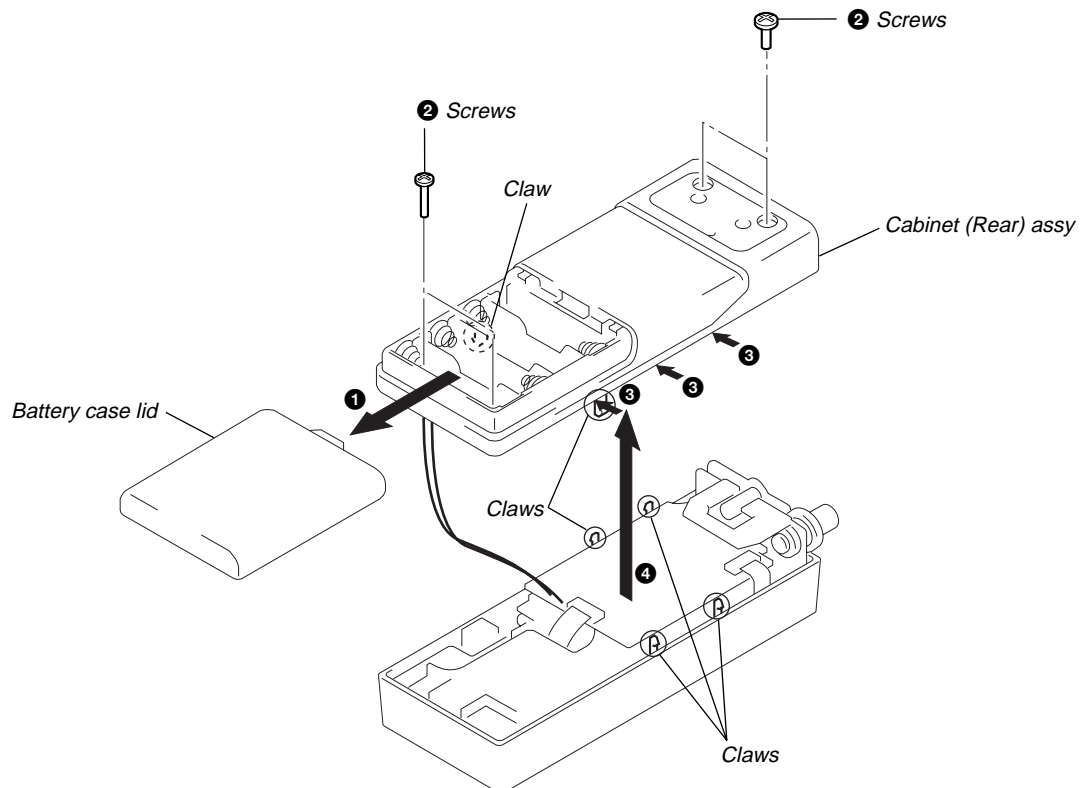
## SECTION 2 DISASSEMBLY

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

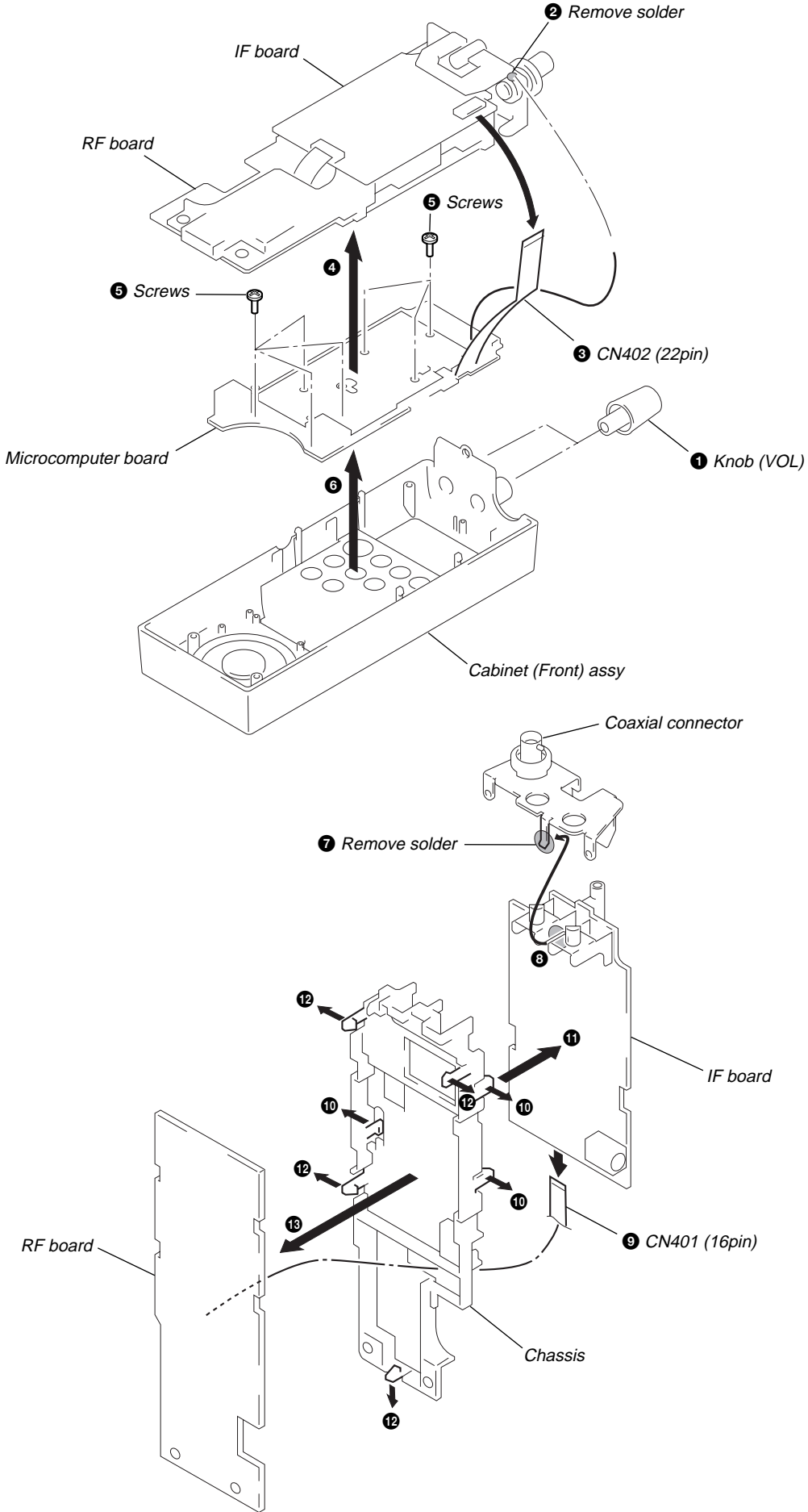
### 2-1. HELICAL ANTENNA REMOVAL



### 2-2. CABINET (REAR) ASSY REMOVAL



**2-3. MICROCOMPUTER BOARD, IF BOARD, RF BOARD REMOVAL**



## SECTION 3 TEST MODE

### Reading the S-Curve voltage for scan-stop

The ICF-SC1 and SC1PC have a scan-stop function used to scan for the correct frequency.

Scanning continues until the squelch turns off (when a signal is received). However, just setting the squelch off as condition does not guarantee that the scan-stop function will always stop at the correct frequency. (It might for instance deviate 1 step to an adjacent frequency.)

So scan-stop is set to trigger only at the correct frequency, by checking the DC voltage component (S-curve voltage) of the FM detector output.

The DC voltage component of the FM detector output may vary however, due to variations in the parts components of the FM detector circuit or deviations in the local oscillator frequency. Therefore, once repair or alignment is complete, read the DC voltage component of the RF detector output while it is input with an IF signal from a signal generator, and use that value as a reference to write data on the EEPROM.

Two types of writing are performed on the EEPROM since there are two types of FM detectors.

WFM → for WFM

NFM → for NFM, AM

Refer to the following for information on the write method and on the signal input method using a signal generator.

### LCD (all lamps on)

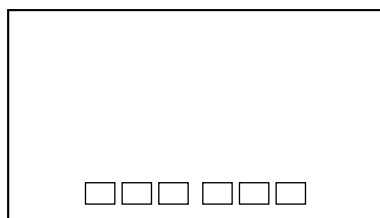
All LCD lamps up when the three [EXE], [ ] and [SCAN] keys are simultaneously held down while the power is off.

### Reading the S-Curve voltage component

1. Input method for S-Curve voltage component read mode

Simultaneously hold down the [MODE], [STEP] and [BAND] keys for at least 1 second while power is off.

The set (ICF-SC1/SC1PC) power turns on and a display as shown below appears.



2. Quitting S-Curve voltage read mode

Press the [POWER] button.

**Note :** When set in S-Curve voltage read mode, do not connect anything to the antenna terminal while the power to the RF section is on. (An unwanted signal might otherwise be received through the antenna.)

However when set, a check can be made that a broadcast RF carrier wave was received.

(1) Turn the power on as usual and receive a broadcast signal.

(2) Turn off the power and set in read mode with [MODE] + [STEP] + [BAND].

(3) Write can be checked with [SVC] or [SCAN] since the broadcast signal received in (1) can be heard.

In the following cases the message "TRY AGAIN" appears and writing is disabled.

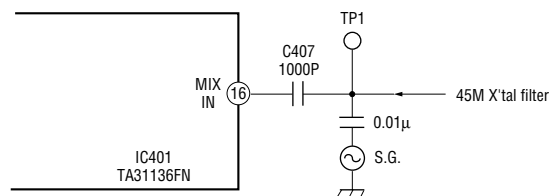
(1) When the Squelch is closed.

(2) When the S-curve voltage that was read, is not within 0.5V to 1.3V.

### S-Curve voltage write method

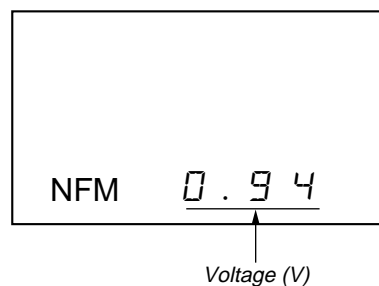
Signal input method using signal generator.

1. In NFM

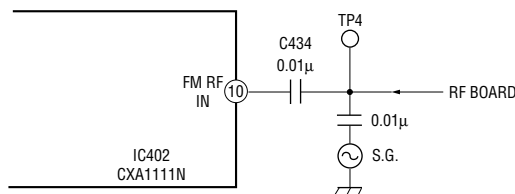


- (1) Connect a signal generator to TP1 by way of a 0.01µF capacitor.
- (2) Receive NFM (Receive frequency does no matter)
- (3) Input 455kHz from the signal generator, 90 to 100dBµ, modulation 30%, mod frequency of 1kHz.
- (4) Write the COMPN terminal voltage onto the ROM.
- (5) Press the [SVC] button.

When data is written, a display as shown below appears.

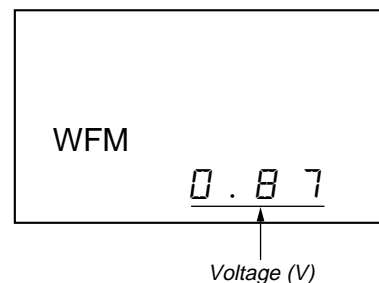


2. In WFM



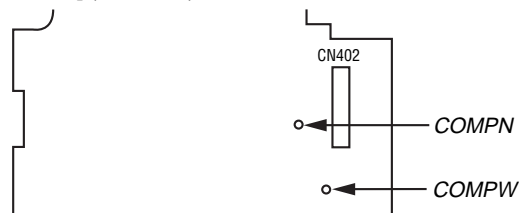
- (1) Connect a signal generator to TP4 by way of a 0.01µF capacitor.
- (2) Receive WFM (Receive frequency does no matter)
- (3) Input 10.7MHz from the signal generator, 90 to 100dBµ, frequency deviation 22.5kHz, mod frequency of 1kHz.
- (4) Write the COMPW terminal voltage onto the ROM.
- (5) Press the [SCAN] button.

When data is written, a display as shown below appears.



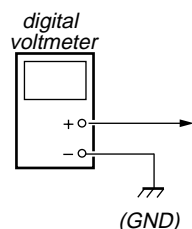
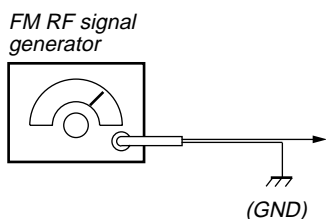
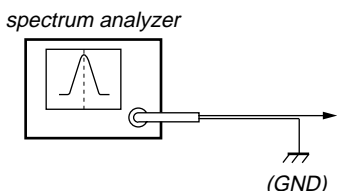
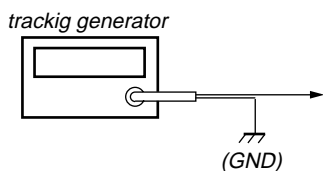
### Adjustment Location :

[ IF BOARD ] (Rear side)



## SECTION 4 ELECTRICAL ADJUSTMENTS

Setting :



### RF BOARD (SINGLE) ADJUSTMENT

#### 1. 2nd local oscillator Adjustment

Procedure :

- (1) Connect a tracking generator to TP10 and a spectrum analyzer to TP6.  
(TG level = -40 to -50dBm, spectrum analyzer span = 200MHz)
- (2) Receive a 600MHz signal.
- (3) Repeatedly adjust CT303, 304 and 305 for an optimal waveform at center frequency of 277.5MHz.
- (4) Receive the 25MHz signal.
- (5) Adjust the 2nd local oscillator to 555MHz with CT302.  
(spectrum analyzer span = 10kHz)

#### 2. 1st local oscillator Adjustment

Procedure :

- (1) Connect a spectrum analyzer to TP5.
- (2) Receive a 767.5MHz signal.
- (3) Adjust the CT301 so that 1st local oscillator = 1000MHz  
(spectrum analyzer span = 10kHz)

#### 3. 1st IF (low) Adjustment

Procedure :

- (1) Connect a tracking generator to TP5 and a spectrum analyzer to TP7.
- (2) Receive a 500MHz signal.
- (3) Repeatedly adjust CT201, 202 and 203 for an optimal waveform (ladder shape) at center frequency of 232.5MHz.  
(TG level = -30 to -40dBm, spectrum analyzer span = 200MHz)

Adjustment Location RF board (see page 14)

### IF BOARD (SINGLE) ADJUSTMENT

#### 1. 3rd local oscillator Adjustment

Procedure :

- (1) Connect a spectrum analyzer to TP2.
- (2) Receive a 49.975MHz signal.
- (3) Adjust the CT401 so that the 3rd local oscillator = 44.5500MHz. (spectrum analyzer span = 10kHz)
- (4) Receive a 50.0125MHz signal.
- (5) Adjust the 3rd local oscillator to 44.5425MHz with RV401.  
(spectrum analyzer span = 10kHz)

Adjustment Location IF board (see page 14)

### RF & IF BOARD (COMBINATION) ADJUSTMENT

#### 1. 2nd IF (narrow) Adjustment

Procedure :

- (1) Connect a tracking generator to RF (RF board) TP6 and connect a spectrum analyzer to IF (IF board) TP1 by way of a 0.5pF capacitor.
- (2) Receive a 29MHz signal.
- (3) Align for an optimal waveform with T206.  
(ladder waveform with minimum ripple)  
(TG level = -50dBm, spectrum analyzer Center freq. = 45MHz, span = 100kHz)

#### 2. 2nd IF (wide) Adjustment

Procedure :

- (1) Connect a tracking generator to RF (RF board) TP6 and connect a spectrum analyzer to IF (IF board) TP3.
- (2) Receive a 70MHz signal.
- (3) Adjust so the 45MHz is at maximum by using CT402 and T205.  
(TG level = -50dBm, spectrum analyzer Center freq. = 45MHz, span = 50MHz)

#### 3. AGC Adjustment

Procedure :

- (1) Connect a FM RF signal generator to the BNC (ANT IN) connector.
- (2) Connect a digital voltmeter to RV403 center tap (COMMON).  
(IF board)
- (3) Receive a 122MHz signal (input level 80dB  $\mu$ EMF, AM, modulation 30%).
- (4) Adjust RV403 so that digital voltmeter reading is at 1.68  $\pm$  0.02V.

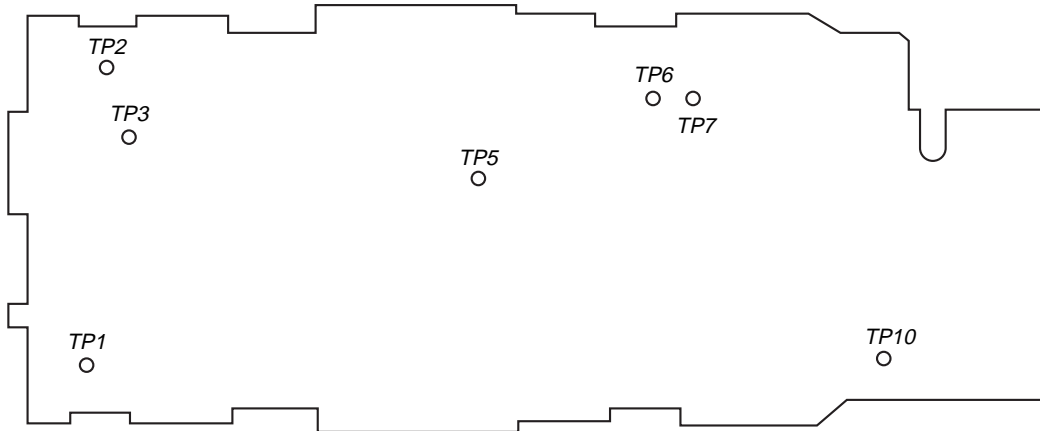
Adjustment Location RF, IF board (see page 14)

\* Use semirigid cable when connecting the tracking generator and spectrum analyzer to the circuit board.

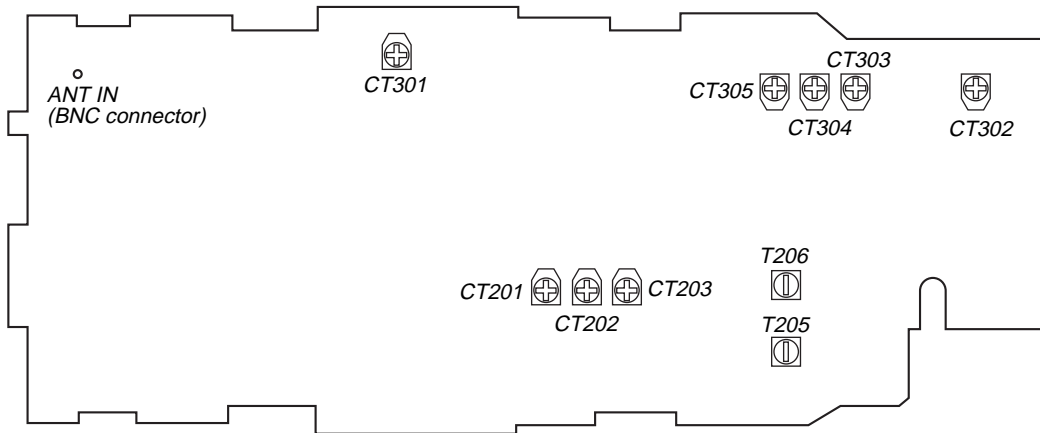
\* Spectrum analyzer settings shown in the ( ) are reference values.

**Adjustmen Location :**

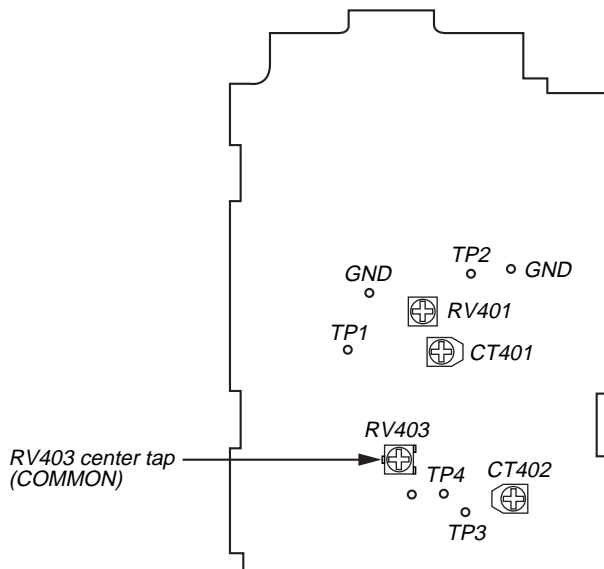
**[RF BOARD] (Front side)**



**[RF BOARD] (Rear side)**



**[ IF BOARD] (Rear side)**



## SECTION 5 DIAGRAMS

### 5-1. EXPLANATION OF IC TERMINALS

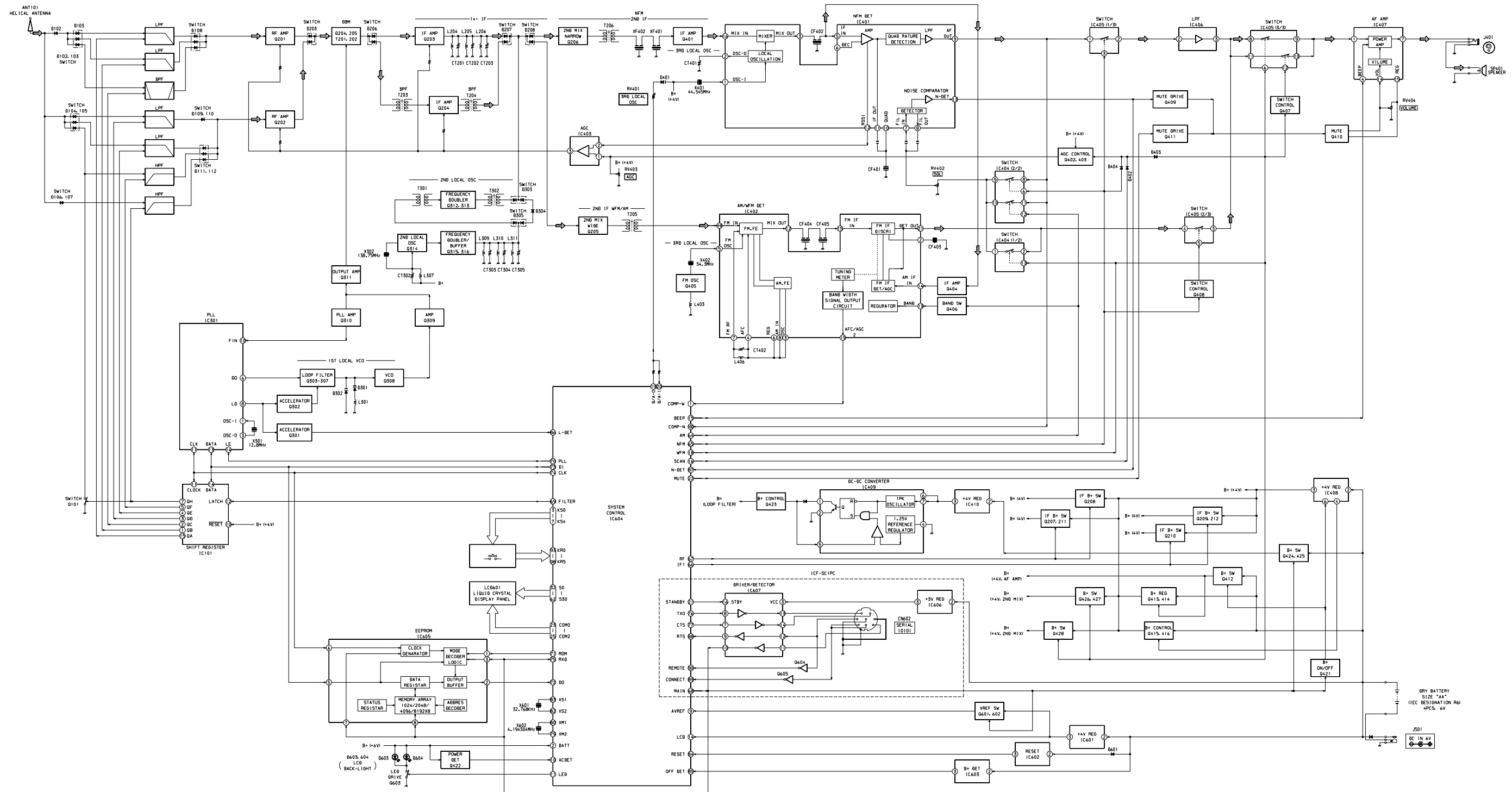
#### IC604 $\mu$ PD78064BGC (SYSTEM CONTROL)

Pin No.	Pin name	I/O	Description
1	COMP-W	I	WFM S-curve voltage input (A/D input).
2	BATT	I	Low battery voltage detection input (A/D input).
3 – 7	KS0 – 4	O	Key matrix output.
8	AVDD	–	Power supply for A/D converter.
9	AVREF	–	Power supply for A/D reference.
10	AC-DET	I	External power supply detect terminal.
11	LED	O	LED drive. “H” : Lighting
12	VSS	–	Ground.
13	TEST	I	Test mode terminal. “H” : Test mode
14	LCD	I	“H” : Normal. (LCD display ON = H during PC operation)
15	BEEP	O	Beep signal output.
16	SCAN	O	Scan signal output. “H” : Scan run
17	DUB	–	Not used (Open).
18	WFM	O	WFM mode select. “H” : WFM mode
19	D/A 0	O	D/A output bit 0 for minute step.
20	D/A 1	O	D/A output bit 1 for minute step.
21	STANDBY	O	Standby signal output. “H” : RS232C interface OFF
22	MUTE	O	Mute signal output. “H” : Mute ON
23 – 25	COM0 – 2	O	LCD common output.
26	COM3	–	Not used (Open).
27	BIAS	–	LCD bias terminal.
28 – 30	VLC0 – 2	–	LCD bias terminal.
31	VSS	–	Ground.
32 – 62	S0 – 30	O	LCD segment output.
63		–	Not used (Open).
64	AM	O	AM mode output. “H” : AM mode
65	NFM	O	NFM mode output. “H” : NFM mode
66	IF 1	O	IF selection output.
67	RF	O	RF selection output.
68	MAIN	O	Main power supply ON/OFF control.
69	FILTER	O	Serial latch output for filter selection.
70	PLL	O	Serial latch output for PLL selection.
71	ROM	O	Clock output for EEPROM.
72	DO	I	Serial data input from EEPROM.
73	DI	O	Serial data output to EEPROM.
74	CLK	O	Serial clock output.
75	RXD	I	RXD input from RS232C interface.
76	TXD	O	TXD output to RS232C interface.
77	CTS	O	CTS output to RS232C interface.
78	IC (GND)	–	Ground.
79	XM2		Main clock oscillator (4.194304MHz).
80	XM1		Main clock oscillator (4.194304MHz).
81	VDD	–	Power supply (+4.0V).
82	XS2		Sub clock oscillator (32.768kHz).
83	XS1		Sub clock oscillator (32.768kHz).
84	RESET	I	System reset terminal.
85	OFF-DET	I	Low power detection OFF input. “L” : OFF



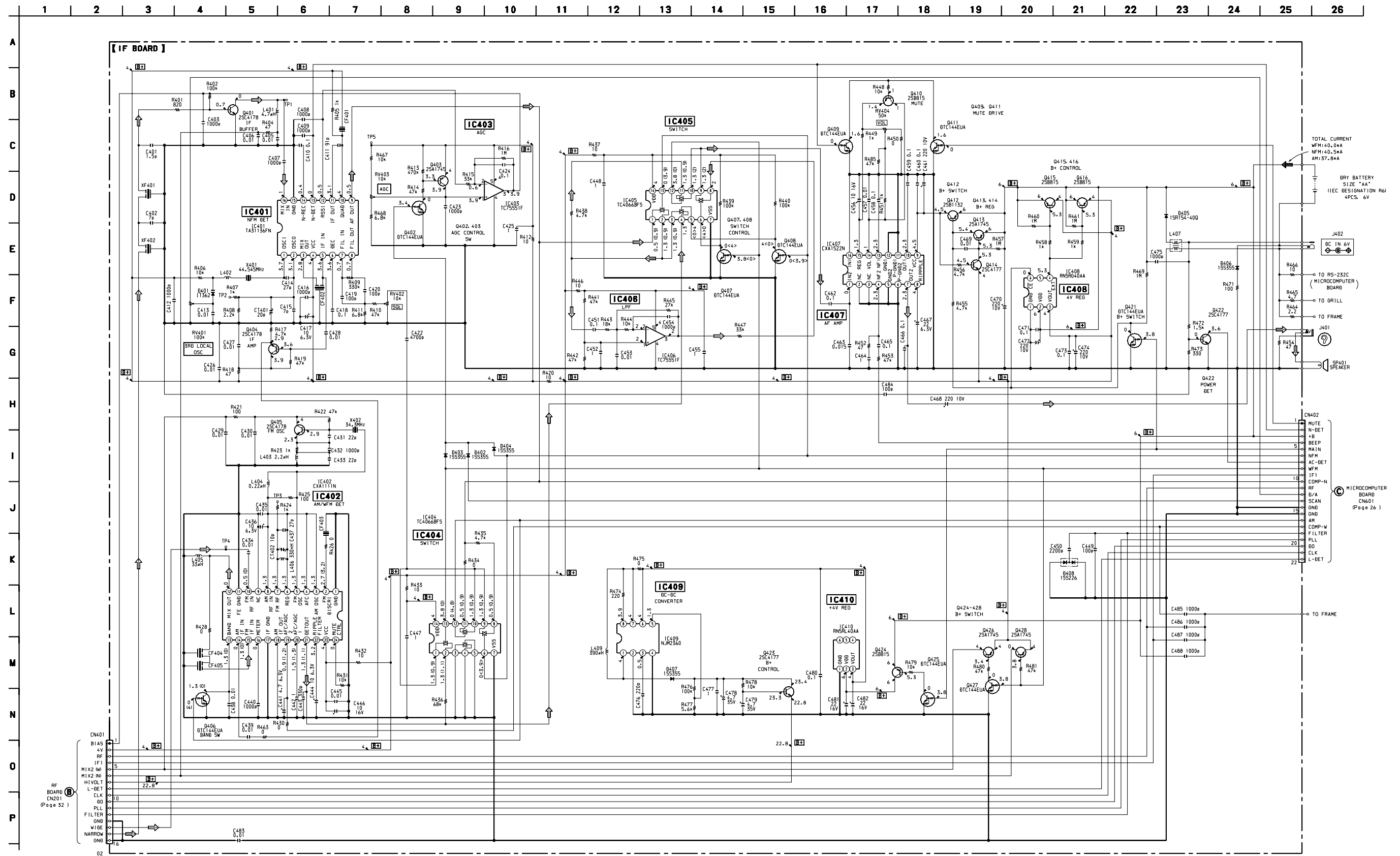
Pin No.	Pin name	I/O	Description
86	L-DET	I	PLL lock detect. “L” : Lock
87	N-DET	I	Squelch detection input. “L” :
88	RTS	I	RTS input from RS232C interface.
89	CONNECT	I	PC connect check signal input.
90	REMOTE	I	PC connect check signal input.
91		–	Not used (Open).
92		–	Not used (Open).
93 – 98	KR5 – 0	I	Key matrix input.
99	VSS	–	Ground.
100	COMP-N	I	NFM (AM) S-curve voltage input (A/D input).

5-2. BLOCK DIAGRAM

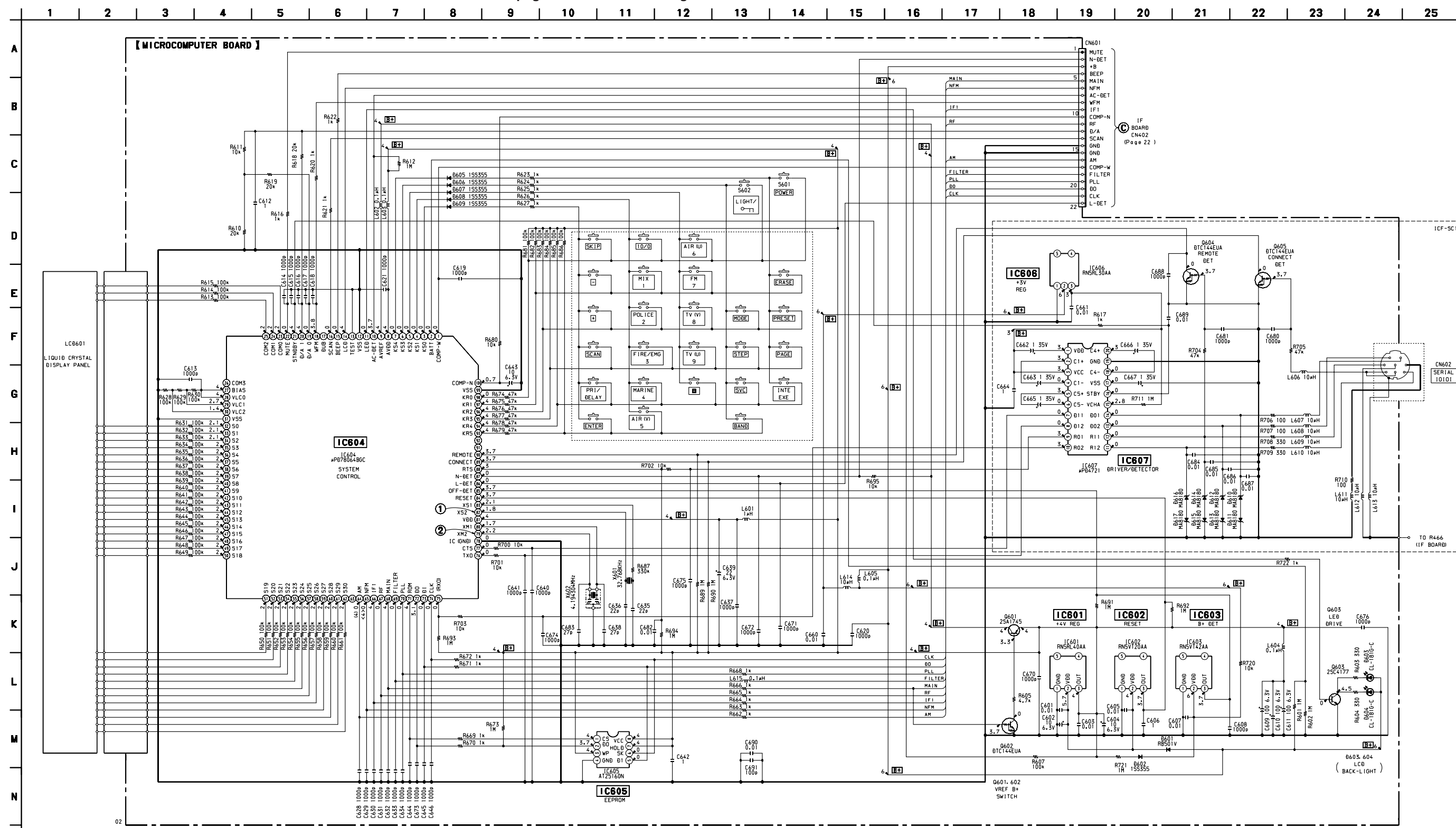


• Signal path.  
➔

5-4. SCHEMATIC DIAGRAM – IF SECTION – Refer to page 33 for IC Block Diagrams.



- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{pF}$  50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $\frac{1}{4}W$  or less unless otherwise specified.
  - **[B+]** : B+ Line.
  - Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack (J402).
  - Voltages are dc with respect to ground under no-signal (detuned) conditions.  
no mark : WFM/AM/NFM  
( ) : AM/NFM  
< > : NFM
  - Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
  - Signal path.



**Note:**

- : parts extracted from the component side.
- : Chip components extracted from the rear side.
- : Through hole.
- ▨ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

**Caution:**

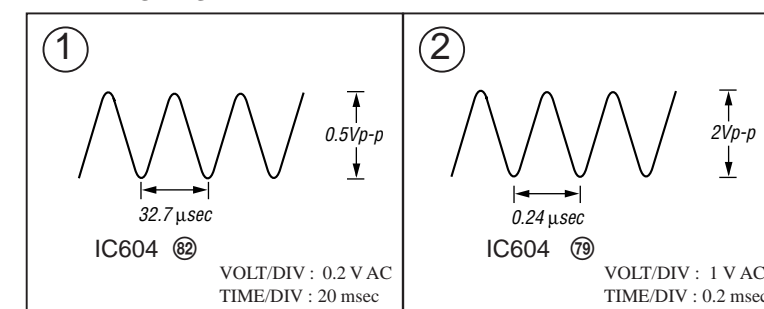
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.  
 Parts face side: Parts on the parts face side seen from the parts face are indicated.

**Note:**

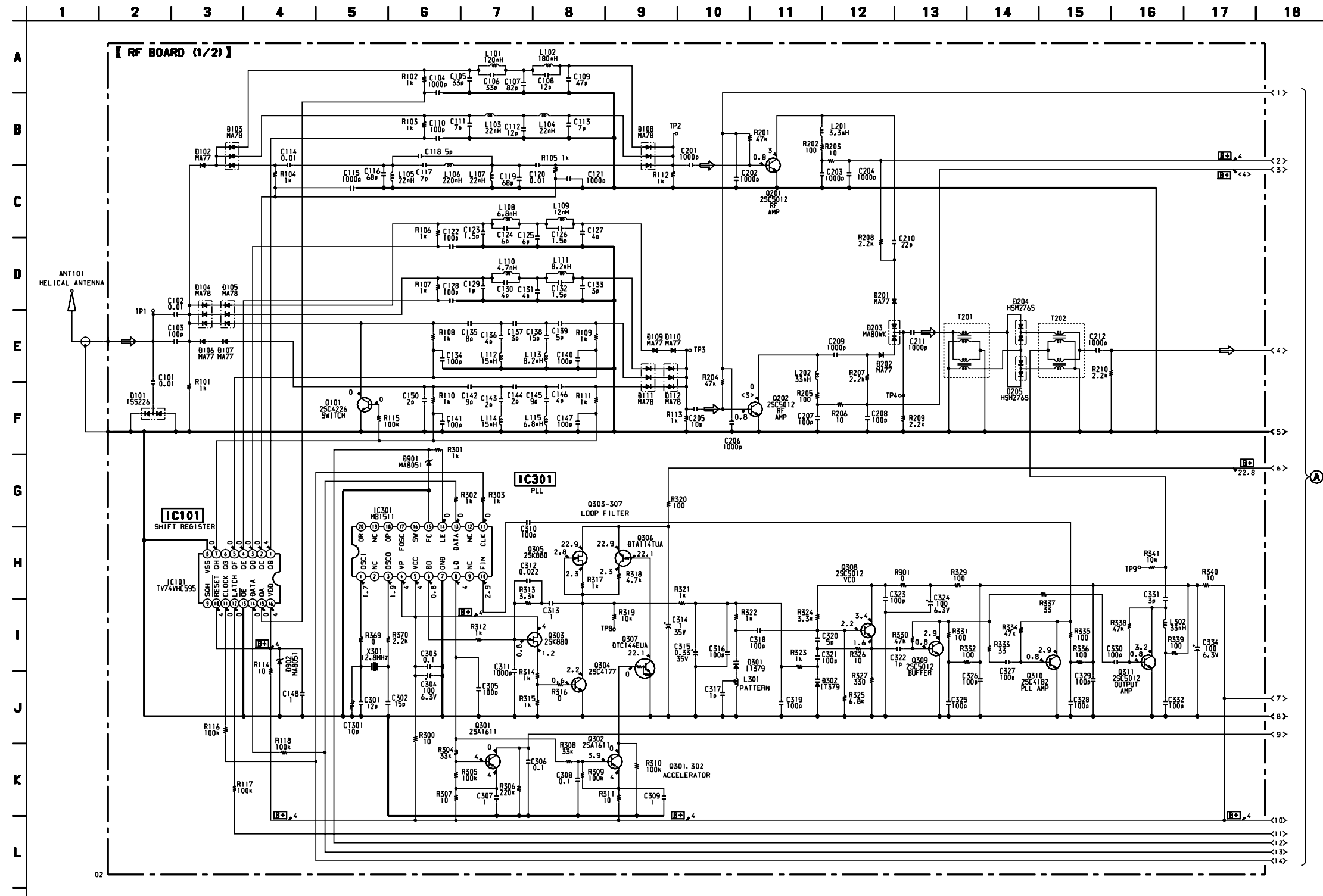
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{mF}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- [B+]: B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack (J402).
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : WFM/AM/NFM  
 ( ) : AM/NFM  
 < > : NFM

- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

• WAVEFORMS



5-8. SCHEMATIC DIAGRAM – RF SECTION (1/2) – Refer to page 33 for IC Block Diagrams.



RF BOARD (2/2) (Page 31)

**Note:**

- : parts extracted from the component side.
- : Chip components extracted from the rear side.
- : Through hole.
- ▨ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

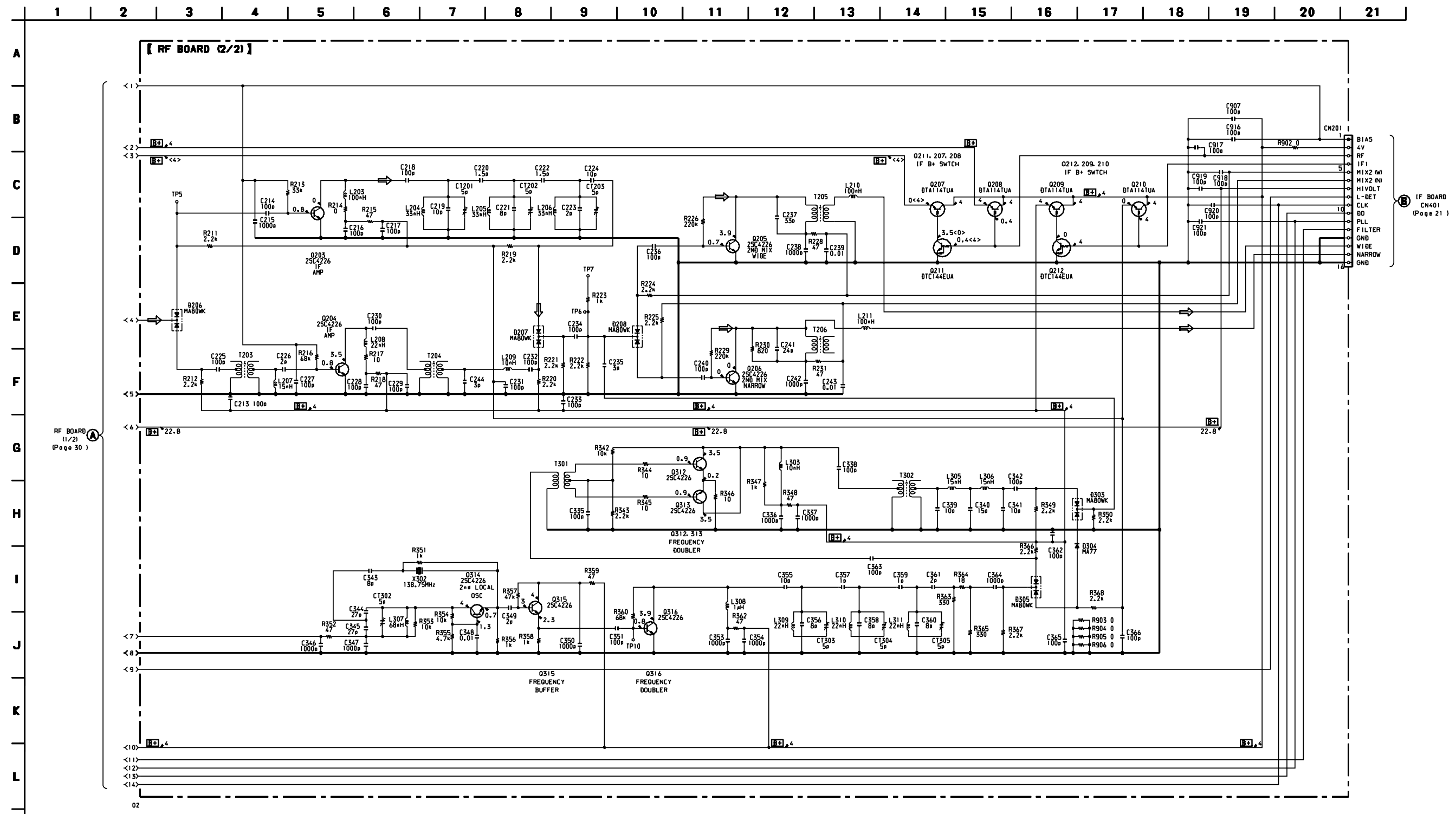
**Caution:**

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

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{pF}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{ W}$  or less unless otherwise specified.
- **B+** : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack (J402).
- Voltages are dc with respect to ground under no-signal (detuned) conditions.  
no mark : WFM/AM/NFM  
( ) : AM/NFM  
< > : NFM
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.

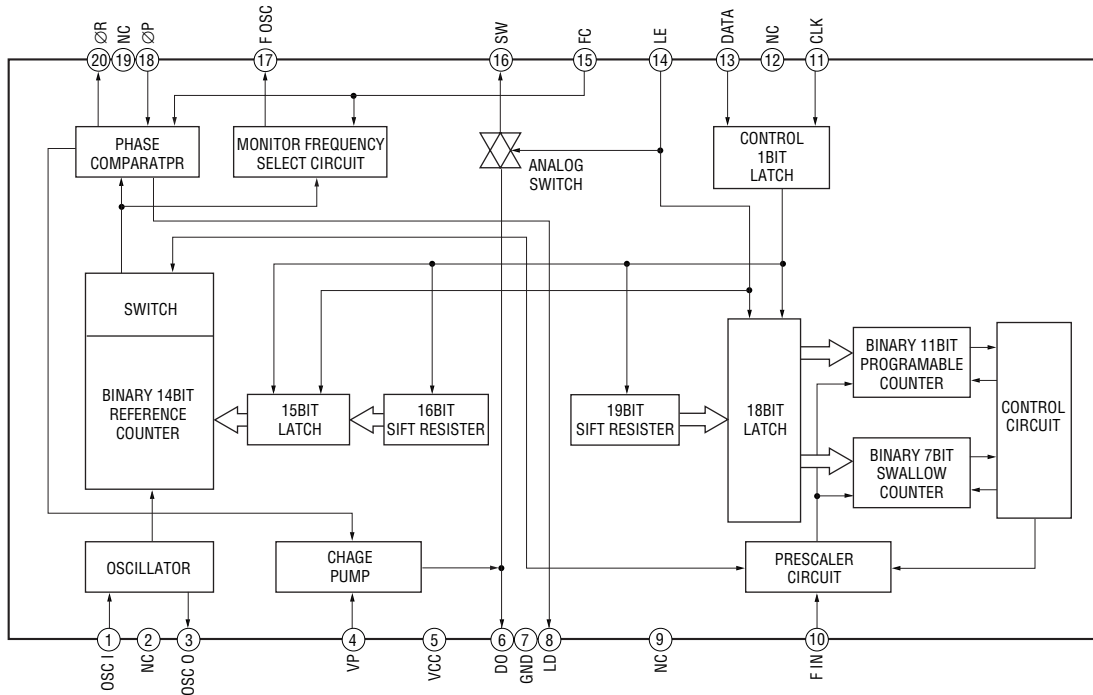
5-9. SCHEMATIC DIAGRAM – RF SECTION (2/2) – • Refer to page 33 for IC Block Diagrams.



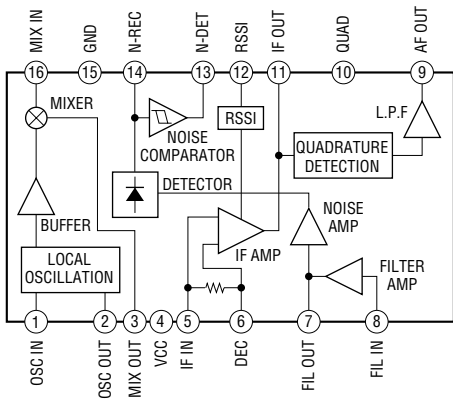
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $1/4\text{ W}$  or less unless otherwise specified.
  - [B+] : B+ Line.
  - Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack (J402).
  - Voltages are dc with respect to ground under no-signal (detuned) conditions.  
no mark : WFM/AM/NFM  
( ) : AM/NFM  
< : NFM  
> : NFM
  - Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
  - Signal path.

● IC BLOCK DIAGRAMS

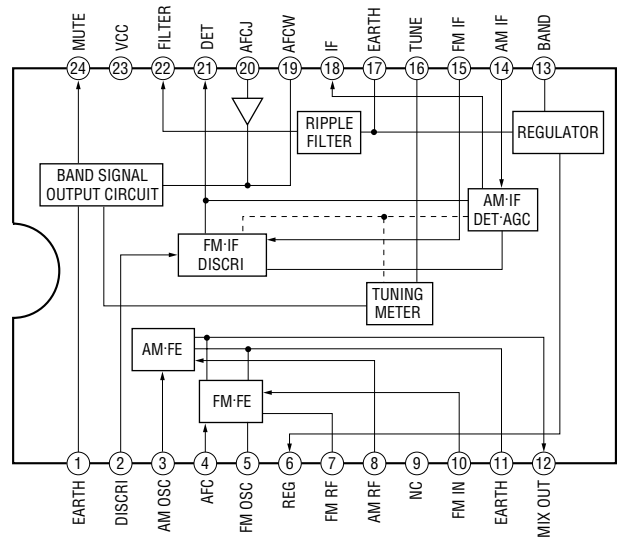
IC301 MB1511-PFV-EF



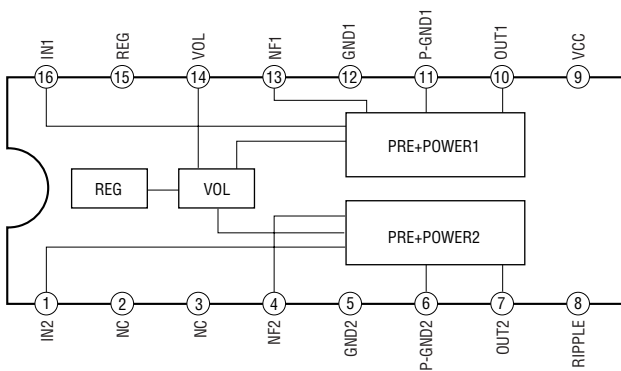
IC401 TA31136FN



IC402 CXA1111N

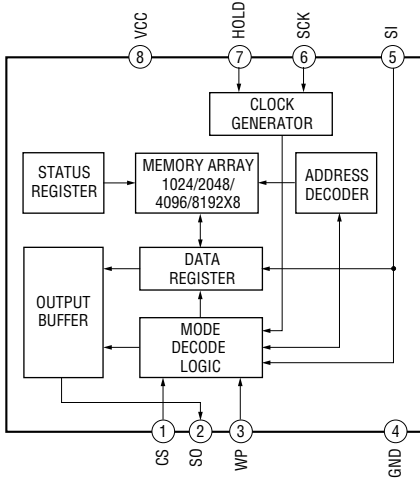


IC407 CXA1522N

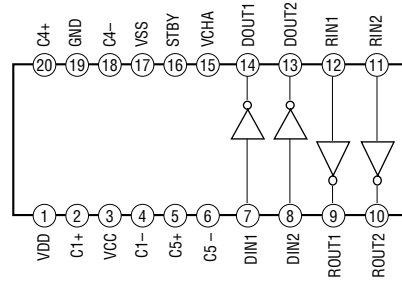




**IC605 AT25160N-10SC2.7T2.5**



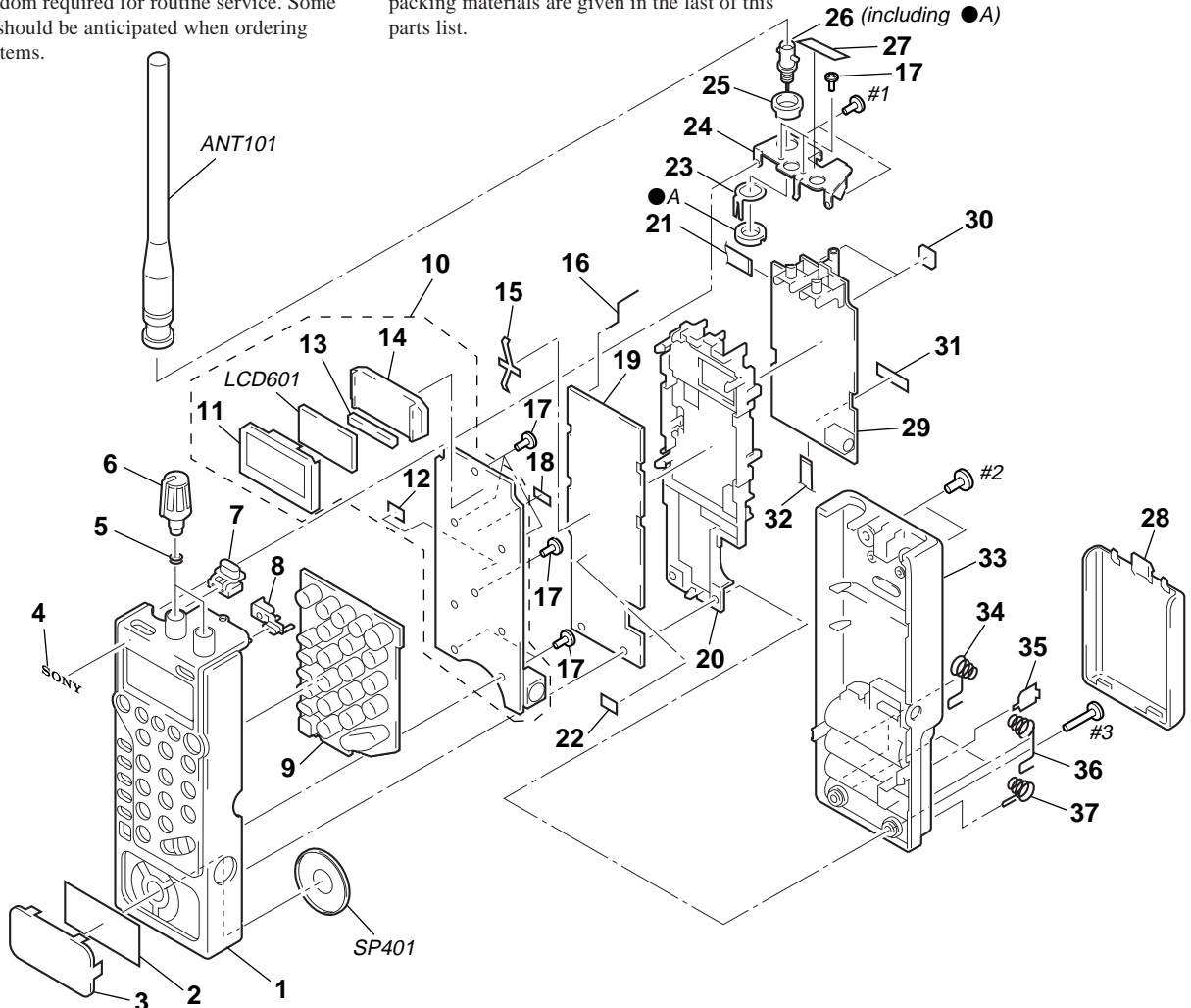
**IC607  $\mu$  PD4721GS-GJG-E2 (ICF-SC1PC)**



## SECTION 6 EXPLODED VIEW

**NOTE :**

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3375-048-1	CABINET (FRONT) ASSY (SC1)		21	1-783-379-11	CABLE, FLEXIBLE FLAT (22 CORE)	
1	X-3375-049-1	CABINET (FRONT) ASSY (SC1PC)		22	3-025-928-01	CUSHION (A)	
2	3-020-649-01	SHEET (SPEAKER)		23	3-020-636-01	LUG (BNC)	
3	3-020-631-01	GRILLE (SPEAKER) (SC1)		24	3-020-637-01	FRAME	
3	3-020-631-11	GRILLE (SPEAKER) (SC1PC)		25	3-020-635-01	RING (BNC) (SC1)	
4	4-942-636-01	EMBLEM (NO.3.5), SONY		25	3-020-635-11	RING (BNC) (SC1PC)	
5	3-907-103-11	SPRING, RING		26	1-784-075-11	CONNECTOR, COAXIAL (BNC TYPE)	
6	3-020-641-01	KNOB (VOL)		27	3-025-438-01	SPACER (C)	
7	3-020-629-01	BUTTON (POWER)		28	3-020-640-01	LED, BATTERY CASE (SC1)	
8	3-020-628-01	BUTTON (LIGHT)		28	3-020-640-11	LED, BATTERY CASE (SC1PC)	
9	1-771-359-11	SWITCH, RUBBER KEY		* 29	A-3679-951-A	IF BOARD, COMPLETE	
* 10	A-3679-948-A	MICROCOMPUTER BOARD, COMPLETE (SC1PC)		* 30	3-026-273-01	CUSHION (B)	
* 10	A-3679-949-A	MICROCOMPUTER BOARD, COMPLETE (SC1)		31	4-860-518-00	CUSHION	
11	3-020-633-01	CASE (LCD)		32	1-783-378-11	CABLE, FLEXIBLE FLAT (16 CORE)	
* 12	3-025-927-01	SPACER (B)		33	3-020-639-01	CABINET (REAR) (SC1)	
13	1-694-377-11	CONDUCTIVE BOARD, CONNECTION		33	3-020-639-11	CABINET (REAR) (SC1PC)	
14	3-020-632-01	PLATE, LIGHT GUIDE		34	3-907-747-01	SPRING (+/-B), BATTERY	
15	3-024-792-01	PLATE, CONTACT		35	3-919-944-01	TERMINAL (+), BATTERY	
16	1-783-112-11	CORD		36	3-907-746-01	SPRING (+/-A), BATTERY	
17	3-713-790-21	SCREW (M2X6), TAPPING, P3		37	3-020-638-01	TERMINAL (-), BATTERY	
* 18	3-026-576-01	CUSHION (D)		ANT101	1-501-969-11	ANTENNA, HELICAL	
* 19	A-3679-950-A	RF BOARD, COMPLETE		LCD601	1-803-003-11	DISPLAY PANEL, LIQUID CRYSTAL	
* 20	3-020-634-01	CHASSIS		SP401	1-505-872-11	SPEAKER (3.6cm)	

## SECTION 7 ELECTRICAL PARTS LIST

## NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE :Metal oxide-film resistor  
F : nonflammable
- Items marked “ \* ”are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example :  
uA..... :  $\mu$  A....., uPA..... :  $\mu$  PA.....  
uPB..... :  $\mu$  PB....., uPC..... :  $\mu$  PC.....  
uPD..... :  $\mu$  PD.....
- CAPACITORS  
uF :  $\mu$  F
- COILS  
uH :  $\mu$  H

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-3679-951-A	IF BOARD, COMPLETE *****		C442	1-115-156-11	CERAMIC CHIP 1uF	10V
		< CAPACITOR >		C443	1-162-959-11	CERAMIC CHIP 330PF	5% 50V
C401	1-162-906-11	CERAMIC CHIP 1.5PF	0.25PF 50V	C444	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C402	1-162-912-11	CERAMIC CHIP 7PF	0.5PF 50V	C445	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C403	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C446	1-124-779-00	ELECT CHIP 10uF	20% 16V
C405	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C447	1-115-156-11	CERAMIC CHIP 1uF	10V
C406	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C448	1-115-156-11	CERAMIC CHIP 1uF	10V
C407	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V	C449	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C408	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C450	1-162-966-11	CERAMIC CHIP 0.0022uF	10% 50V
C409	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C451	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C410	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C452	1-115-156-11	CERAMIC CHIP 1uF	10V
C411	1-164-382-11	CERAMIC CHIP 91PF	5% 50V	C453	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C412	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C454	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V
C413	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C455	1-115-156-11	CERAMIC CHIP 1uF	10V
C414	1-162-920-11	CERAMIC CHIP 27PF	5% 50V	C456	1-124-779-00	ELECT CHIP 10uF	20% 16V
C415	1-162-912-11	CERAMIC CHIP 7PF	0.5PF 50V	C457	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C416	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C458	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C417	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V	C459	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C418	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C460	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C419	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C461	1-128-394-11	ELECT CHIP 220uF	20% 10V
C420	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C462	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C422	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V	C463	1-164-245-11	CERAMIC CHIP 0.015uF	10% 25V
C423	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C464	1-164-346-11	CERAMIC CHIP 1uF	16V
C424	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C465	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C425	1-115-156-11	CERAMIC CHIP 1uF	10V	C466	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C426	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C467	1-124-778-00	ELECT CHIP 22uF	20% 6.3V
C427	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C468	1-128-394-11	ELECT CHIP 220uF	20% 10V
C428	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C469	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C429	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C470	1-128-394-11	ELECT CHIP 220uF	20% 10V
C430	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C471	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C431	1-162-919-11	CERAMIC CHIP 22PF	5% 50V	C472	1-128-394-11	ELECT CHIP 220uF	20% 10V
C432	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V	C473	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C433	1-162-919-11	CERAMIC CHIP 22PF	5% 50V	C474	1-128-394-11	ELECT CHIP 220uF	20% 10V
C434	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C475	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C435	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C476	1-162-957-11	CERAMIC CHIP 220PF	5% 50V
C436	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V	C477	1-162-611-00	CERAMIC CHIP 1uF	25V
C437	1-162-920-11	CERAMIC CHIP 27PF	5% 50V	C478	1-126-603-11	ELECT CHIP 4.7uF	20% 35V
C438	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C479	1-126-603-11	ELECT CHIP 4.7uF	20% 35V
C439	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C480	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C440	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C481	1-126-395-11	ELECT 22uF	20% 16V
C441	1-135-181-21	TANTAL. CHIP 4.7uF	20% 6.3V	C482	1-126-395-11	ELECT 22uF	20% 16V
				C483	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C484	1-162-927-11	CERAMIC CHIP 100PF 5%	50V			< TRANSISTOR >	
C485	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V				
C486	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V				
C487	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V				
C488	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V				
		< FILTER >					
CF401	1-767-848-11	FILTER, CERAMIC(DISCRIMINATOR)		Q401	8-729-117-72	TRANSISTOR 2SC4178-F13	
CF402	1-767-751-11	FILTER, CERAMIC		Q402	8-729-029-14	TRANSISTOR DTC144EUA-T106	
CF403	1-767-414-71	FILTER, CERAMIC		Q403	8-729-823-86	TRANSISTOR 2SA1745	
CF404	1-767-750-71	FILTER, CERAMIC		Q404	8-729-117-72	TRANSISTOR 2SC4178-F13	
CF405	1-767-750-71	FILTER, CERAMIC		Q405	8-729-117-72	TRANSISTOR 2SC4178-F13	
		< CONNECTOR >		Q406	8-729-029-14	TRANSISTOR DTC144EUA-T106	
CN401	1-764-370-11	HOUSING, FPC CONNECTOR(ZIF)16P		Q407	8-729-029-14	TRANSISTOR DTC144EUA-T106	
CN402	1-784-208-11	HOUSING, FPC CONNECTOR(ZIF)22P		Q408	8-729-029-14	TRANSISTOR DTC144EUA-T106	
		< TRIMMER >		Q409	8-729-029-14	TRANSISTOR DTC144EUA-T106	
CT401	1-141-322-11	CAP, CHIP TYPE TRIMMER 20PF		Q410	8-729-800-71	TRANSISTOR 2SB815B7-TB	
CT402	1-141-327-11	CAP, CHIP TYPE TRIMMER 10PF		Q411	8-729-029-14	TRANSISTOR DTC144EUA-T106	
		< DIODE >		Q412	8-729-106-60	TRANSISTOR 2SB1115A	
D401	8-713-100-11	DIODE 1T362		Q413	8-729-823-86	TRANSISTOR 2SA1745	
D402	8-719-988-62	DIODE 1SS355		Q414	8-729-117-32	TRANSISTOR 2SC4177	
D403	8-719-988-62	DIODE 1SS355		Q415	8-729-800-71	TRANSISTOR 2SB815B7-TB	
D404	8-719-988-62	DIODE 1SS355		Q416	8-729-800-71	TRANSISTOR 2SB815B7-TB	
D405	8-719-053-18	DIODE 1SR154-400TE-25		Q421	8-729-029-14	TRANSISTOR DTC144EUA-T106	
D406	8-719-988-62	DIODE 1SS355		Q422	8-729-117-32	TRANSISTOR 2SC4177	
D407	8-719-988-62	DIODE 1SS355		Q423	8-729-117-32	TRANSISTOR 2SC4177	
D408	8-719-800-76	DIODE 1SS226		Q424	8-729-800-71	TRANSISTOR 2SB815B7-TB	
		< IC >		Q425	8-729-029-14	TRANSISTOR DTC144EUA-T106	
IC401	8-759-249-18	IC TA31136FN		Q426	8-729-823-86	TRANSISTOR 2SA1745	
IC402	8-752-065-30	IC CXA1111N		Q427	8-729-029-14	TRANSISTOR DTC144EUA-T106	
IC403	8-759-330-32	IC TC75S51F-TE85L		Q428	8-729-823-86	TRANSISTOR 2SA1745	
IC404	8-759-075-68	IC TC4066BFS				< RESISTOR >	
IC405	8-759-075-68	IC TC4066BFS		R401	1-216-820-11	METAL CHIP 820 5%	1/16W
IC406	8-759-330-32	IC TC75S51F-TE85L		R402	1-216-845-11	METAL CHIP 100K 5%	1/16W
IC407	8-752-065-32	IC CXA1522N		R404	1-216-805-11	METAL CHIP 47 5%	1/16W
IC408	8-759-493-63	IC RN5RG40AA-TL		R405	1-216-821-11	METAL CHIP 1K 5%	1/16W
IC409	8-759-337-67	IC NJM2360AM(TE2)		R406	1-216-833-11	METAL CHIP 10K 5%	1/16W
IC410	8-759-168-49	IC RN5RL40AA-T1		R407	1-216-821-11	METAL CHIP 1K 5%	1/16W
		< JACK >		R408	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
J401	1-563-836-21	JACK (◎)		R409	1-216-851-11	METAL CHIP 330K 5%	1/16W
J402	1-778-153-21	JACK,DC(POLARITY UNIFIED TYPE)	(DC IN 6V)	R410	1-216-841-11	METAL CHIP 47K 5%	1/16W
		< COIL >		R411	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
L401	1-412-987-31	INDUCTOR 4.7uH		R412	1-216-797-11	METAL CHIP 10 5%	1/16W
L402	1-416-508-11	COIL (WITH CORE)		R413	1-216-853-11	METAL CHIP 470K 5%	1/16W
L403	1-412-983-11	INDUCTOR 2.2uH		R414	1-216-841-11	METAL CHIP 47K 5%	1/16W
L404	1-412-971-31	INDUCTOR 0.22uH		R415	1-216-839-11	METAL CHIP 33K 5%	1/16W
L405	1-412-997-11	INDUCTOR 33uH		R416	1-216-857-11	METAL CHIP 1M 5%	1/16W
L406	1-412-933-11	INDUCTOR 0.33uH		R417	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
L407	1-411-312-11	FILTER, COMMON MODE		R418	1-216-805-11	METAL CHIP 47 5%	1/16W
L409	1-414-923-11	INDUCTOR 390uH		R419	1-216-841-11	METAL CHIP 47K 5%	1/16W
				R420	1-216-797-11	METAL CHIP 10 5%	1/16W
				R421	1-216-809-11	METAL CHIP 100 5%	1/16W
				R422	1-216-841-11	METAL CHIP 47K 5%	1/16W
				R423	1-216-821-11	METAL CHIP 1K 5%	1/16W
				R424	1-216-821-11	METAL CHIP 1K 5%	1/16W
				R425	1-216-809-11	METAL CHIP 100 5%	1/16W
				R426	1-216-864-11	METAL CHIP 0 5%	1/16W
				R428	1-216-864-11	METAL CHIP 0 5%	1/16W
				R430	1-216-864-11	METAL CHIP 0 5%	1/16W
				R431	1-216-833-11	METAL CHIP 10K 5%	1/16W
				R432	1-216-797-11	METAL CHIP 10 5%	1/16W
				R433	1-216-797-11	METAL CHIP 10 5%	1/16W

**IF MICROCOMPUTER**

Ref. No.	Part No.	Description	Remark
R434	1-216-864-11	METAL CHIP 0	5% 1/16W
R435	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R436	1-216-843-11	METAL CHIP 68K	5% 1/16W
R437	1-216-797-11	METAL CHIP 10	5% 1/16W
R438	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R439	1-216-845-11	METAL CHIP 100K	5% 1/16W
R440	1-216-845-11	METAL CHIP 100K	5% 1/16W
R441	1-216-841-11	METAL CHIP 47K	5% 1/16W
R442	1-216-841-11	METAL CHIP 47K	5% 1/16W
R443	1-216-836-11	METAL CHIP 18K	5% 1/16W
R444	1-216-833-11	METAL CHIP 10K	5% 1/16W
R445	1-216-838-11	METAL CHIP 27K	5% 1/16W
R446	1-216-797-11	METAL CHIP 10	5% 1/16W
R447	1-216-839-11	METAL CHIP 33K	5% 1/16W
R448	1-216-833-11	METAL CHIP 10K	5% 1/16W
R449	1-216-821-11	METAL CHIP 1K	5% 1/16W
R450	1-216-864-11	METAL CHIP 0	5% 1/16W
R451	1-216-821-11	METAL CHIP 1K	5% 1/16W
R452	1-216-805-11	METAL CHIP 47	5% 1/16W
R453	1-216-841-11	METAL CHIP 47K	5% 1/16W
R454	1-216-805-11	METAL CHIP 47	5% 1/16W
R455	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R456	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R457	1-216-857-11	METAL CHIP 1M	5% 1/16W
R458	1-216-821-11	METAL CHIP 1K	5% 1/16W
R459	1-216-821-11	METAL CHIP 1K	5% 1/16W
R460	1-216-857-11	METAL CHIP 1M	5% 1/16W
R461	1-216-857-11	METAL CHIP 1M	5% 1/16W
R463	1-216-864-11	METAL CHIP 0	5% 1/16W
R464	1-216-789-11	METAL CHIP 2.2	5% 1/16W
R465	1-216-793-11	RES,CHIP 4.7	5% 1/16W
R466	1-216-797-11	METAL CHIP 10	5% 1/16W
R467	1-216-833-11	METAL CHIP 10K	5% 1/16W
R468	1-216-831-11	METAL CHIP 6.8K	5% 1/16W
R469	1-216-857-11	METAL CHIP 1M	5% 1/16W
R471	1-216-809-11	METAL CHIP 100	5% 1/16W
R472	1-216-823-11	METAL CHIP 1.5K	5% 1/16W
R473	1-216-815-11	METAL CHIP 330	5% 1/16W
R474	1-216-813-11	METAL CHIP 220	5% 1/16W
R475	1-216-864-11	METAL CHIP 0	5% 1/16W
R476	1-216-845-11	METAL CHIP 100K	5% 1/16W
R477	1-216-830-11	METAL CHIP 5.6K	5% 1/16W
R478	1-216-833-11	METAL CHIP 10K	5% 1/16W
R479	1-216-833-11	METAL CHIP 10K	5% 1/16W
R480	1-216-841-11	METAL CHIP 47K	5% 1/16W
R481	1-216-841-11	METAL CHIP 47K	5% 1/16W
R485	1-216-841-11	METAL CHIP 47K	5% 1/16W
		< VARIABLE RESISTOR >	
RV401	1-225-208-11	RES, ADJ, CERMET 100K (3rd LOCAL OSCILLATOR)	
RV402	1-225-575-11	RES, VAR, CARBON 10K (SQL)	
RV403	1-225-205-11	RES, ADJ, CERMET 10K (AGC)	
RV404	1-223-738-11	RES, VAR, CARBON 50K (VOL)	
		< VIBRATOR >	
X401	1-767-754-11	VIBRATOR, CRYSTAL (44.545MHz)	
X402	1-767-752-11	VIBRATOR, CRYSTAL (34.3MHz)	

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
XF401	1-767-753-11	FILTER, CRYSTAL	
XF402	1-767-753-11	FILTER, CRYSTAL	
*****			
*	A-3679-948-A	MICROCOMPUTER BOARD, COMPLETE (SC1PC)	
*	A-3679-949-A	MICROCOMPUTER BOARD, COMPLETE (SC1) *****	
	1-694-377-11	CONDUCTIVE BOARD, CONNECTION	
	3-020-632-01	PLATE, LIGHT GUIDE	
	3-020-633-01	CASE (LCD)	
*	3-025-927-01	SPACER (B)	
		< CAPACITOR >	
C601	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C602	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C603	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C604	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C605	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C606	1-115-156-11	CERAMIC CHIP 1uF	10V
C607	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C608	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C609	1-111-253-11	TANTAL. CHIP 100uF	20% 6.3V
C610	1-111-253-11	TANTAL. CHIP 100uF	20% 6.3V
C611	1-111-253-11	TANTAL. CHIP 100uF	20% 6.3V
C612	1-115-156-11	CERAMIC CHIP 1uF	10V
C613	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C614	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C615	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C616	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C617	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C618	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C619	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C620	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C621	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C622	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C623	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C624	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C625	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C626	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C627	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C628	1-162-920-11	CERAMIC CHIP 27PF	5% 50V
C629	1-104-929-11	TANTAL. CHIP 22uF	20% 6.3V
C630	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C631	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C632	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C633	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C634	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C635	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C636	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C637	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C638	1-162-920-11	CERAMIC CHIP 27PF	5% 50V
C639	1-104-929-11	TANTAL. CHIP 22uF	20% 6.3V
C640	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C641	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C642	1-115-156-11	CERAMIC CHIP 1uF	10V
C643	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C644	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C645	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C646	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C660	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C661	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	D612	8-719-017-94	DIODE MA8180 (SC1PC)
C662	1-107-689-21	TANTAL. CHIP	1uF 20%	35V (SC1PC)	D613	8-719-017-94	DIODE MA8180 (SC1PC)
C663	1-107-689-21	TANTAL. CHIP	1uF 20%	35V (SC1PC)	D614	8-719-017-94	DIODE MA8180 (SC1PC)
C664	1-115-156-11	CERAMIC CHIP	1uF	10V (SC1PC)	D615	8-719-017-94	DIODE MA8180 (SC1PC)
C665	1-107-689-21	TANTAL. CHIP	1uF 20%	35V (SC1PC)	D616	8-719-017-94	DIODE MA8180 (SC1PC)
C666	1-107-689-21	TANTAL. CHIP	1uF 20%	35V (SC1PC)	D617	8-719-017-94	DIODE MA8180 (SC1PC)
C667	1-107-689-21	TANTAL. CHIP	1uF 20%	35V (SC1PC)	< IC >		
C670	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC601	8-759-168-49	IC RN5RL40AA-T1
C671	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC602	8-759-526-80	IC RN5VT20AA-TL
C672	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC603	8-759-526-81	IC RN5VL42AA-TL
C673	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC604	8-759-541-37	IC uPD78064BGC-A08-8EU
C674	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC605	8-759-495-14	IC AT25160N-10SC2.7T2.5
C675	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC606	8-759-492-58	IC RN5RL30AA-TL (SC1PC)
C676	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	IC607	8-759-495-15	IC uPD4721GS-GJG-E2 (SC1PC)
C680	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V (SC1PC)	< COIL >		
C681	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V (SC1PC)	L601	1-412-979-21	INDUCTOR 1uH
C682	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V	L602	1-412-967-31	INDUCTOR 0.1uH
C683	1-162-920-11	CERAMIC CHIP	27PF 5%	50V	L603	1-412-967-31	INDUCTOR 0.1uH
C684	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	L604	1-412-967-31	INDUCTOR 0.1uH
C685	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	L605	1-412-967-31	INDUCTOR 0.1uH
C686	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	L606	1-412-991-11	INDUCTOR 10uH (SC1PC)
C687	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	L607	1-412-991-11	INDUCTOR 10uH (SC1PC)
C688	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V (SC1PC)	L608	1-412-991-11	INDUCTOR 10uH (SC1PC)
C689	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V (SC1PC)	L609	1-412-991-11	INDUCTOR 10uH (SC1PC)
C690	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V	L610	1-412-991-11	INDUCTOR 10uH (SC1PC)
C691	1-162-927-11	CERAMIC CHIP	100PF 5%	50V	L611	1-412-991-11	INDUCTOR 10uH (SC1PC)
< CONNECTOR >				L612	1-412-991-11	INDUCTOR 10uH (SC1PC)	
CN601	1-784-207-11	CONNECTOR, FFC/FPC (ZIF) 22P			L613	1-412-991-11	INDUCTOR 10uH (SC1PC)
CN602	1-784-280-11	CONNECTOR, MINIATURE DIN 8P (SERIAL IOIO) (SC1PC)			L614	1-412-991-11	INDUCTOR 10uH
< DIODE >				L615	1-412-967-31	INDUCTOR 0.1uH	
D601	8-719-058-24	DIODE RB501V-40TE-17			< LIQUID CRYSTAL DISPLAY >		
D602	8-719-988-62	DIODE 1SS355			LCD601	1-803-003-11	DISPLAY PANEL, LIQUID CRYSTAL
D603	8-719-037-71	DIODE CL-181G-C			< TRANSISTOR >		
D604	8-719-037-71	DIODE CL-181G-C			Q601	8-729-823-86	TRANSISTOR 2SA1745
D605	8-719-988-62	DIODE 1SS355			Q602	8-729-029-14	TRANSISTOR DTC144EUA-T106
D606	8-719-988-62	DIODE 1SS355			Q603	8-729-117-32	TRANSISTOR 2SC4177
D607	8-719-988-62	DIODE 1SS355			Q604	8-729-029-14	TRANSISTOR DTC144EUA-T106 (SC1PC)
D608	8-719-988-62	DIODE 1SS355			Q605	8-729-029-14	TRANSISTOR DTC144EUA-T106 (SC1PC)
D609	8-719-988-62	DIODE 1SS355			< RESISTOR >		
D610	8-719-017-94	DIODE MA8180 (SC1PC)			R601	1-216-857-11	METAL CHIP 1M 5% 1/16W
D611	8-719-017-94	DIODE MA8180 (SC1PC)			R602	1-216-857-11	METAL CHIP 1M 5% 1/16W
					R603	1-216-815-11	METAL CHIP 330 5% 1/16W
					R604	1-216-815-11	METAL CHIP 330 5% 1/16W
					R605	1-216-829-11	METAL CHIP 4.7k 5% 1/16W
					R607	1-216-845-11	METAL CHIP 100K 5% 1/16W
					R610	1-218-723-11	METAL CHIP 20K 0.50% 1/16W
					R611	1-218-716-11	METAL CHIP 10K 0.50% 1/16W
					R612	1-216-857-11	METAL CHIP 1M 5% 1/16W
					R613	1-216-845-11	METAL CHIP 100K 5% 1/16W
					R614	1-216-845-11	METAL CHIP 100K 5% 1/16W
					R615	1-216-845-11	METAL CHIP 100K 5% 1/16W
					R616	1-216-821-11	METAL CHIP 1K 5% 1/16W



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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R617	1-216-821-11	METAL CHIP	1K	5%	1/16W (SC1PC)	R674	1-216-841-11	METAL CHIP	47K	5%	1/16W
R618	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	R675	1-216-841-11	METAL CHIP	47K	5%	1/16W
R619	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	R676	1-216-841-11	METAL CHIP	47K	5%	1/16W
R620	1-216-821-11	METAL CHIP	1K	5%	1/16W	R677	1-216-841-11	METAL CHIP	47K	5%	1/16W
R621	1-216-821-11	METAL CHIP	1K	5%	1/16W	R678	1-216-841-11	METAL CHIP	47K	5%	1/16W
R622	1-216-821-11	METAL CHIP	1K	5%	1/16W	R679	1-216-841-11	METAL CHIP	47K	5%	1/16W
R623	1-216-821-11	METAL CHIP	1K	5%	1/16W	R680	1-216-833-11	METAL CHIP	10K	5%	1/16W
R624	1-216-821-11	METAL CHIP	1K	5%	1/16W	R681	1-216-845-11	METAL CHIP	100K	5%	1/16W
R625	1-216-821-11	METAL CHIP	1K	5%	1/16W	R682	1-216-845-11	METAL CHIP	100K	5%	1/16W
R626	1-216-821-11	METAL CHIP	1K	5%	1/16W	R683	1-216-845-11	METAL CHIP	100K	5%	1/16W
R627	1-216-821-11	METAL CHIP	1K	5%	1/16W	R684	1-216-845-11	METAL CHIP	100K	5%	1/16W
R628	1-216-845-11	METAL CHIP	100K	5%	1/16W	R685	1-216-845-11	METAL CHIP	100K	5%	1/16W
R629	1-216-845-11	METAL CHIP	100K	5%	1/16W	R686	1-216-845-11	METAL CHIP	100K	5%	1/16W
R630	1-216-845-11	METAL CHIP	100K	5%	1/16W	R687	1-216-851-11	METAL CHIP	330K	5%	1/16W
R631	1-216-845-11	METAL CHIP	100K	5%	1/16W	R688	1-216-857-11	METAL CHIP	1M	5%	1/16W
R632	1-216-845-11	METAL CHIP	100K	5%	1/16W	R689	1-216-857-11	METAL CHIP	1M	5%	1/16W
R633	1-216-845-11	METAL CHIP	100K	5%	1/16W	R690	1-216-857-11	METAL CHIP	1M	5%	1/16W
R634	1-216-845-11	METAL CHIP	100K	5%	1/16W	R691	1-216-857-11	METAL CHIP	1M	5%	1/16W
R635	1-216-845-11	METAL CHIP	100K	5%	1/16W	R692	1-216-857-11	METAL CHIP	1M	5%	1/16W
R636	1-216-845-11	METAL CHIP	100K	5%	1/16W	R693	1-216-857-11	METAL CHIP	1M	5%	1/16W
R637	1-216-845-11	METAL CHIP	100K	5%	1/16W	R694	1-216-857-11	METAL CHIP	1M	5%	1/16W
R638	1-216-845-11	METAL CHIP	100K	5%	1/16W	R695	1-216-833-11	METAL CHIP	10K	5%	1/16W
R639	1-216-845-11	METAL CHIP	100K	5%	1/16W	R700	1-216-833-11	METAL CHIP	10K	5%	1/16W
R640	1-216-845-11	METAL CHIP	100K	5%	1/16W	R701	1-216-833-11	METAL CHIP	10K	5%	1/16W
R641	1-216-845-11	METAL CHIP	100K	5%	1/16W	R702	1-216-833-11	METAL CHIP	10K	5%	1/16W
R642	1-216-845-11	METAL CHIP	100K	5%	1/16W	R703	1-216-833-11	METAL CHIP	10K	5%	1/16W
R643	1-216-845-11	METAL CHIP	100K	5%	1/16W	R704	1-216-841-11	METAL CHIP	47K	5%	1/16W (SC1PC)
R644	1-216-845-11	METAL CHIP	100K	5%	1/16W	R705	1-216-841-11	METAL CHIP	47K	5%	1/16W (SC1PC)
R645	1-216-845-11	METAL CHIP	100K	5%	1/16W	R706	1-216-809-11	METAL CHIP	100	5%	1/16W (SC1PC)
R646	1-216-845-11	METAL CHIP	100K	5%	1/16W	R707	1-216-809-11	METAL CHIP	100	5%	1/16W (SC1PC)
R647	1-216-845-11	METAL CHIP	100K	5%	1/16W	R708	1-216-815-11	METAL CHIP	330	5%	1/16W (SC1PC)
R648	1-216-845-11	METAL CHIP	100K	5%	1/16W	R709	1-216-815-11	METAL CHIP	330	5%	1/16W (SC1PC)
R649	1-216-845-11	METAL CHIP	100K	5%	1/16W	R710	1-216-809-11	METAL CHIP	100	5%	1/16W (SC1PC)
R650	1-216-845-11	METAL CHIP	100K	5%	1/16W	R711	1-216-857-11	METAL CHIP	1M	5%	1/16W (SC1PC)
R651	1-216-845-11	METAL CHIP	100K	5%	1/16W	R720	1-216-833-11	METAL CHIP	10K	5%	1/16W
R652	1-216-845-11	METAL CHIP	100K	5%	1/16W	R721	1-216-857-11	METAL CHIP	1M	5%	1/16W
R653	1-216-845-11	METAL CHIP	100K	5%	1/16W	R722	1-216-821-11	METAL CHIP	1K	5%	1/16W
R654	1-216-845-11	METAL CHIP	100K	5%	1/16W	< SWITCH >					
R655	1-216-845-11	METAL CHIP	100K	5%	1/16W	S601	1-572-499-11	SWITCH, TACTIL (POWER)			
R656	1-216-845-11	METAL CHIP	100K	5%	1/16W	S602	1-571-760-11	SWITCH, KEY BOARD (LIGHT/☐)			
R657	1-216-845-11	METAL CHIP	100K	5%	1/16W	< VIBRATOR >					
R658	1-216-845-11	METAL CHIP	100K	5%	1/16W	X601	1-579-844-21	VIBRATOR, CRYSTAL (32.768kHz)			
R659	1-216-821-11	METAL CHIP	1K	5%	1/16W	X602	1-767-192-11	VIBRATOR, CERAMIC (4.194304MHz)			
R660	1-216-845-11	METAL CHIP	100K	5%	1/16W	*****					
R661	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R662	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R663	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R664	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R665	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R666	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R668	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R669	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R670	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R671	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R672	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R673	1-216-857-11	METAL CHIP	1M	5%	1/16W						



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-3679-950-A	RF BOARD, COMPLETE *****		C205	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
		< CAPACITOR >		C206	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C101	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C207	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C102	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C208	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C103	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C209	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C104	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V	C210	1-162-919-11	CERAMIC CHIP 22PF 5%	50V
C105	1-162-921-11	CERAMIC CHIP 33PF 5%	50V	C211	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C106	1-162-921-11	CERAMIC CHIP 33PF 5%	50V	C212	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C107	1-162-926-11	CERAMIC CHIP 82PF 5%	50V	C213	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C108	1-162-916-11	CERAMIC CHIP 12PF 5%	50V	C214	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C109	1-162-923-11	CERAMIC CHIP 47PF 5%	50V	C215	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C110	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C216	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C111	1-162-912-11	CERAMIC CHIP 7PF 0.5PF	50V	C217	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C112	1-162-916-11	CERAMIC CHIP 12PF 5%	50V	C218	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C113	1-162-912-11	CERAMIC CHIP 7PF 0.5PF	50V	C219	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
C114	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C220	1-162-906-11	CERAMIC CHIP 1.5PF 0.25PF	50V
C115	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V	C221	1-162-913-11	CERAMIC CHIP 8PF 0.5PF	50V
C116	1-162-925-11	CERAMIC CHIP 68PF 5%	50V	C222	1-162-906-11	CERAMIC CHIP 1.5PF 0.25PF	50V
C117	1-162-912-11	CERAMIC CHIP 7PF 0.5PF	50V	C223	1-162-907-11	CERAMIC CHIP 2PF 0.25PF	50V
C118	1-162-910-11	CERAMIC CHIP 5PF 0.25PF	50V	C224	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
C119	1-162-925-11	CERAMIC CHIP 68PF 5%	50V	C225	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C120	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C226	1-162-907-11	CERAMIC CHIP 2PF 0.25PF	50V
C121	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V	C227	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C122	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C228	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C123	1-162-906-11	CERAMIC CHIP 1.5PF 0.25PF	50V	C229	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C124	1-162-911-11	CERAMIC CHIP 6PF 0.5PF	50V	C230	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C125	1-162-911-11	CERAMIC CHIP 6PF 0.5PF	50V	C231	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C126	1-162-906-11	CERAMIC CHIP 1.5PF 0.25PF	50V	C232	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C127	1-162-909-11	CERAMIC CHIP 4PF 0.25PF	50V	C233	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C128	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C234	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C129	1-162-905-11	CERAMIC CHIP 1PF 0.25PF	50V	C235	1-162-908-11	CERAMIC CHIP 3PF 0.25PF	50V
C130	1-162-909-11	CERAMIC CHIP 4PF 0.25PF	50V	C236	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C131	1-162-909-11	CERAMIC CHIP 4PF 0.25PF	50V	C237	1-162-921-11	CERAMIC CHIP 33PF 5%	50V
C132	1-162-906-11	CERAMIC CHIP 1.5PF 0.25PF	50V	C238	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C133	1-162-908-11	CERAMIC CHIP 3PF 0.25PF	50V	C239	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C134	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C240	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C135	1-162-913-11	CERAMIC CHIP 8PF 0.5PF	50V	C241	1-162-975-11	CERAMIC CHIP 24PF 5%	50V
C136	1-162-909-11	CERAMIC CHIP 4PF 0.25PF	50V	C242	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C137	1-162-908-11	CERAMIC CHIP 3PF 0.25PF	50V	C243	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C138	1-162-917-11	CERAMIC CHIP 15PF 5%	50V	C244	1-162-908-11	CERAMIC CHIP 3PF 0.25PF	50V
C139	1-162-910-11	CERAMIC CHIP 5PF 0.25PF	50V	C301	1-162-916-11	CERAMIC CHIP 12PF 5%	50V
C140	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C302	1-162-917-11	CERAMIC CHIP 15PF 5%	50V
C141	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C303	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C142	1-162-914-11	CERAMIC CHIP 9PF 0.5PF	50V	C304	1-135-334-11	TANTAL. CHIP 100uF 20%	6.3V
C143	1-162-907-11	CERAMIC CHIP 2PF 0.25PF	50V	C305	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C144	1-162-907-11	CERAMIC CHIP 2PF 0.25PF	50V	C306	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C145	1-162-914-11	CERAMIC CHIP 9PF 0.5PF	50V	C307	1-115-156-11	CERAMIC CHIP 1uF	10V
C146	1-162-909-11	CERAMIC CHIP 4PF 0.25PF	50V	C308	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C147	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C309	1-115-156-11	CERAMIC CHIP 1uF	10V
C148	1-115-156-11	CERAMIC CHIP 1uF	10V	C310	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C150	1-162-907-11	CERAMIC CHIP 2PF 0.25PF	50V	C311	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C201	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V	C312	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C202	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	C313	1-130-834-00	FILM 1uF 5%	63V
C203	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V	C314	1-107-689-21	TANTAL. CHIP 1uF 20%	35V
C204	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	C315	1-135-073-00	TANTALUM CHIP 0.33uF 10%	35V
				C316	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
				C317	1-162-905-11	CERAMIC CHIP 1PF 0.25PF	50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C318	1-162-927-11	CERAMIC CHIP	100PF 5% 50V			< TRIMMER >	
C319	1-162-927-11	CERAMIC CHIP	100PF 5% 50V				
C320	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V	CT201	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C321	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	CT202	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C322	1-162-905-11	CERAMIC CHIP	1PF 0.25PF 50V	CT203	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C323	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	CT301	1-141-327-11	CAP, CHIP TYPE TRIMMER 10PF	
C324	1-111-253-11	TANTAL. CHIP	100uF 20% 6.3V	CT302	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C325	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	CT303	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C326	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	CT304	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C327	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	CT305	1-141-325-11	CAP, CHIP TYPE TRIMMER 5PF	
C328	1-162-927-11	CERAMIC CHIP	100PF 5% 50V			< DIODE >	
C329	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D101	8-719-800-76	DIODE 1SS226	
C330	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D102	8-719-421-40	DIODE MA77	
C331	1-162-908-11	CERAMIC CHIP	3PF 0.25PF 50V	D103	8-719-067-29	DIODE MA78-TX	
C332	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D104	8-719-067-29	DIODE MA78-TX	
C334	1-111-253-11	TANTAL. CHIP	100uF 20% 6.3V	D105	8-719-067-29	DIODE MA78-TX	
C335	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D106	8-719-421-40	DIODE MA77	
C336	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V	D107	8-719-421-40	DIODE MA77	
C337	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	D108	8-719-067-29	DIODE MA78-TX	
C338	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D109	8-719-421-40	DIODE MA77	
C339	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	D110	8-719-421-40	DIODE MA77	
C340	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	D111	8-719-067-29	DIODE MA78-TX	
C341	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	D112	8-719-067-29	DIODE MA78-TX	
C342	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D201	8-719-421-40	DIODE MA77	
C343	1-162-913-11	CERAMIC CHIP	8PF 0.5PF 50V	D202	8-719-421-40	DIODE MA77	
C344	1-162-920-11	CERAMIC CHIP	27PF 5% 50V	D203	8-719-421-45	DIODE MA80WK-TX	
C345	1-162-920-11	CERAMIC CHIP	27PF 5% 50V	D204	8-719-946-33	DIODE HSM276S	
C346	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	D205	8-719-946-33	DIODE HSM276S	
C347	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V	D206	8-719-421-45	DIODE MA80WK-TX	
C348	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	D207	8-719-421-45	DIODE MA80WK-TX	
C349	1-162-907-11	CERAMIC CHIP	2PF 0.25PF 50V	D208	8-719-421-45	DIODE MA80WK-TX	
C350	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V	D301	8-713-103-84	DIODE 1T379-04-T8A	
C351	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D302	8-713-103-84	DIODE 1T379-04-T8A	
C353	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V	D303	8-719-421-45	DIODE MA80WK-TX	
C354	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	D304	8-719-421-40	DIODE MA77	
C355	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	D305	8-719-421-45	DIODE MA80WK-TX	
C356	1-162-913-11	CERAMIC CHIP	8PF 0.5PF 50V	D901	8-719-422-37	DIODE MA8051	
C357	1-162-905-11	CERAMIC CHIP	1PF 0.25PF 50V	D902	8-719-422-37	DIODE MA8051	
C358	1-162-913-11	CERAMIC CHIP	8PF 0.5PF 50V			< IC >	
C359	1-162-905-11	CERAMIC CHIP	1PF 0.25PF 50V	IC101	8-759-080-08	IC TC74VHC595FS(EL)	
C360	1-162-913-11	CERAMIC CHIP	8PF 0.5PF 50V	IC301	8-759-171-01	IC MB1511-PFV-EF	
C361	1-162-907-11	CERAMIC CHIP	2PF 0.25PF 50V			< COIL >	
C362	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L101	1-412-968-11	INDUCTOR 0.12uH	
C363	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L102	1-412-970-11	INDUCTOR 0.18uH	
C364	1-164-357-11	CERAMIC CHIP	1000PF 5% 50V	L103	1-414-725-11	INDUCTOR 22NH	
C365	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L104	1-414-725-11	INDUCTOR 22NH	
C366	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L105	1-414-683-11	INDUCTOR 22NH	
C907	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L106	1-414-695-11	INDUCTOR 220NH	
C916	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L107	1-414-683-11	INDUCTOR 22NH	
C917	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L108	1-414-736-11	INDUCTOR 6.8NH	
C918	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L109	1-414-722-11	INDUCTOR 12NH	
C919	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L110	1-414-734-11	INDUCTOR 4.7NH	
C920	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L111	1-414-737-11	INDUCTOR 8.2NH	
C921	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L112	1-414-723-11	INDUCTOR 15NH	
		< CONNECTOR >					
CN201	1-770-875-11	CONNECTOR, FFC/FPC (ZIF) 16P					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L113	1-414-737-11	INDUCTOR	8.2NH	R102	1-216-821-11	METAL CHIP	1K 5% 1/16W
L114	1-414-723-11	INDUCTOR	15NH	R103	1-216-821-11	METAL CHIP	1K 5% 1/16W
L115	1-414-736-11	INDUCTOR	6.8NH	R104	1-216-821-11	METAL CHIP	1K 5% 1/16W
L201	1-412-985-11	INDUCTOR	3.3uH	R105	1-216-821-11	METAL CHIP	1K 5% 1/16W
L202	1-414-727-11	INDUCTOR	33NH	R106	1-216-821-11	METAL CHIP	1K 5% 1/16W
L203	1-412-967-31	INDUCTOR	0.1uH	R107	1-216-821-11	METAL CHIP	1K 5% 1/16W
L204	1-414-685-11	INDUCTOR	33NH	R108	1-216-821-11	METAL CHIP	1K 5% 1/16W
L205	1-414-685-11	INDUCTOR	33NH	R109	1-216-821-11	METAL CHIP	1K 5% 1/16W
L206	1-414-685-11	INDUCTOR	33NH	R110	1-216-821-11	METAL CHIP	1K 5% 1/16W
L207	1-414-723-11	INDUCTOR	15NH	R111	1-216-821-11	METAL CHIP	1K 5% 1/16W
L208	1-414-725-11	INDUCTOR	22NH	R112	1-216-821-11	METAL CHIP	1K 5% 1/16W
L209	1-414-721-11	INDUCTOR	10NH	R113	1-216-821-11	METAL CHIP	1K 5% 1/16W
L210	1-412-967-31	INDUCTOR	0.1uH	R114	1-216-797-11	METAL CHIP	10 5% 1/16W
L211	1-412-967-31	INDUCTOR	0.1uH	R115	1-216-845-11	METAL CHIP	100K 5% 1/16W
L302	1-414-727-11	INDUCTOR	33NH	R116	1-216-845-11	METAL CHIP	100K 5% 1/16W
L303	1-414-721-11	INDUCTOR	10NH	R117	1-216-845-11	METAL CHIP	100K 5% 1/16W
L305	1-414-723-11	INDUCTOR	15NH	R118	1-216-845-11	METAL CHIP	100K 5% 1/16W
L306	1-414-723-11	INDUCTOR	15NH	R201	1-216-841-11	METAL CHIP	47K 5% 1/16W
L307	1-414-689-11	INDUCTOR	68NH	R202	1-216-809-11	METAL CHIP	100 5% 1/16W
L308	1-412-979-21	INDUCTOR	1uH	R203	1-216-797-11	METAL CHIP	10 5% 1/16W
L309	1-414-683-11	INDUCTOR	22NH	R204	1-216-841-11	METAL CHIP	47K 5% 1/16W
L310	1-414-683-11	INDUCTOR	22NH	R205	1-216-809-11	METAL CHIP	100 5% 1/16W
L311	1-414-683-11	INDUCTOR	22NH	R206	1-216-797-11	METAL CHIP	10 5% 1/16W
		< TRANSISTOR >		R207	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q101	8-729-016-85	TRANSISTOR	2SC4226(R24)	R208	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q201	8-729-043-51	TRANSISTOR	2SC5012(R37)-T1	R209	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q202	8-729-043-51	TRANSISTOR	2SC5012(R37)-T1	R210	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q203	8-729-016-85	TRANSISTOR	2SC4226(R24)	R211	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q204	8-729-016-85	TRANSISTOR	2SC4226(R24)	R212	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q205	8-729-016-85	TRANSISTOR	2SC4226(R24)	R213	1-216-839-11	METAL CHIP	33K 5% 1/16W
Q206	8-729-016-85	TRANSISTOR	2SC4226(R24)	R214	1-216-864-11	METAL CHIP	0 5% 1/16W
Q207	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R215	1-216-805-11	METAL CHIP	47 5% 1/16W
Q208	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R216	1-216-843-11	METAL CHIP	68K 5% 1/16W
Q209	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R217	1-216-797-11	METAL CHIP	10 5% 1/16W
Q210	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R218	1-216-805-11	METAL CHIP	47 5% 1/16W
Q211	8-729-029-14	TRANSISTOR	DTC144EUA-T106	R219	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q212	8-729-029-14	TRANSISTOR	DTC144EUA-T106	R220	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q301	8-729-140-63	TRANSISTOR	2SA1611-M5M6	R221	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q302	8-729-140-63	TRANSISTOR	2SA1611-M5M6	R222	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q303	8-729-231-96	TRANSISTOR	2SK880GR-TE85L	R223	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q304	8-729-117-32	TRANSISTOR	2SC4177	R224	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q305	8-729-231-96	TRANSISTOR	2SK880GR-TE85L	R225	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q306	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R226	1-216-849-11	METAL CHIP	220K 5% 1/16W
Q307	8-729-029-14	TRANSISTOR	DTC144EUA-T106	R228	1-216-805-11	METAL CHIP	47 5% 1/16W
Q308	8-729-043-51	TRANSISTOR	2SC5012(R37)-T1	R229	1-216-849-11	METAL CHIP	220K 5% 1/16W
Q309	8-729-043-51	TRANSISTOR	2SC5012(R37)-T1	R230	1-216-820-11	METAL CHIP	820 5% 1/16W
Q310	8-729-140-53	TRANSISTOR	2SC4182-T2T33	R231	1-216-805-11	METAL CHIP	47 5% 1/16W
Q311	8-729-043-51	TRANSISTOR	2SC5012(R37)-T1	R300	1-216-797-11	METAL CHIP	10 5% 1/16W
Q312	8-729-016-85	TRANSISTOR	2SC4226(R24)	R301	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q313	8-729-016-85	TRANSISTOR	2SC4226(R24)	R302	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q314	8-729-016-85	TRANSISTOR	2SC4226(R24)	R303	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q315	8-729-016-85	TRANSISTOR	2SC4226(R24)	R304	1-216-839-11	METAL CHIP	33K 5% 1/16W
Q316	8-729-016-85	TRANSISTOR	2SC4226(R24)	R305	1-216-845-11	METAL CHIP	100K 5% 1/16W
		< RESISTOR >		R306	1-216-849-11	METAL CHIP	220K 5% 1/16W
R101	1-216-821-11	METAL CHIP	1K 5% 1/16W	R307	1-216-797-11	METAL CHIP	10 5% 1/16W
				R308	1-216-839-11	METAL CHIP	33K 5% 1/16W
				R309	1-216-845-11	METAL CHIP	100K 5% 1/16W

Ref. No.	Part No.	Description	Remark
R310	1-216-845-11	METAL CHIP	100K 5% 1/16W
R311	1-216-797-11	METAL CHIP	10 5% 1/16W
R312	1-216-821-11	METAL CHIP	1K 5% 1/16W
R313	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
R314	1-216-821-11	METAL CHIP	1K 5% 1/16W
R315	1-216-821-11	METAL CHIP	1K 5% 1/16W
R316	1-216-864-11	METAL CHIP	0 5% 1/16W
R317	1-216-821-11	METAL CHIP	1K 5% 1/16W
R318	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R319	1-216-833-11	METAL CHIP	10K 5% 1/16W
R320	1-216-809-11	METAL CHIP	100 5% 1/16W
R321	1-216-821-11	METAL CHIP	1K 5% 1/16W
R322	1-216-821-11	METAL CHIP	1K 5% 1/16W
R323	1-216-821-11	METAL CHIP	1K 5% 1/16W
R324	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
R325	1-216-831-11	METAL CHIP	6.8K 5% 1/16W
R326	1-216-797-11	METAL CHIP	10 5% 1/16W
R327	1-216-815-11	METAL CHIP	330 5% 1/16W
R329	1-216-809-11	METAL CHIP	100 5% 1/16W
R330	1-216-841-11	METAL CHIP	47K 5% 1/16W
R331	1-216-809-11	METAL CHIP	100 5% 1/16W
R332	1-216-809-11	METAL CHIP	100 5% 1/16W
R333	1-216-803-11	METAL CHIP	33 5% 1/16W
R334	1-216-841-11	METAL CHIP	47K 5% 1/16W
R335	1-216-809-11	METAL CHIP	100 5% 1/16W
R336	1-216-809-11	METAL CHIP	100 5% 1/16W
R337	1-216-803-11	METAL CHIP	33 5% 1/16W
R338	1-216-841-11	METAL CHIP	47K 5% 1/16W
R339	1-216-809-11	METAL CHIP	100 5% 1/16W
R340	1-216-797-11	METAL CHIP	10 5% 1/16W
R341	1-216-833-11	METAL CHIP	10K 5% 1/16W
R342	1-216-833-11	METAL CHIP	10K 5% 1/16W
R343	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R344	1-216-797-11	METAL CHIP	10 5% 1/16W
R345	1-216-797-11	METAL CHIP	10 5% 1/16W
R346	1-216-797-11	METAL CHIP	10 5% 1/16W
R347	1-216-821-11	METAL CHIP	1K 5% 1/16W
R348	1-216-805-11	METAL CHIP	47 5% 1/16W
R349	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R350	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R351	1-216-821-11	METAL CHIP	1K 5% 1/16W
R352	1-216-805-11	METAL CHIP	47 5% 1/16W
R353	1-216-833-11	METAL CHIP	10K 5% 1/16W
R354	1-216-833-11	METAL CHIP	10K 5% 1/16W
R355	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R356	1-216-821-11	METAL CHIP	1K 5% 1/16W
R357	1-216-841-11	METAL CHIP	47K 5% 1/16W
R358	1-216-821-11	METAL CHIP	1K 5% 1/16W
R359	1-216-805-11	METAL CHIP	47 5% 1/16W
R360	1-216-843-11	METAL CHIP	68K 5% 1/16W
R362	1-216-805-11	METAL CHIP	47 5% 1/16W
R363	1-216-815-11	METAL CHIP	330 5% 1/16W
R364	1-216-800-11	RES,CHIP	18 5% 1/16W
R365	1-216-815-11	METAL CHIP	330 5% 1/16W
R366	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R367	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R368	1-216-825-11	METAL CHIP	2.2K 5% 1/16W

Ref. No.	Part No.	Description	Remark
R369	1-216-864-11	METAL CHIP	0 5% 1/16W
R370	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R901	1-216-864-11	METAL CHIP	0 5% 1/16W
R902	1-216-864-11	METAL CHIP	0 5% 1/16W
R903	1-216-864-11	METAL CHIP	0 5% 1/16W
R904	1-216-864-11	METAL CHIP	0 5% 1/16W
R905	1-216-864-11	METAL CHIP	0 5% 1/16W
R906	1-216-864-11	METAL CHIP	0 5% 1/16W
< TRANSFORMER >			
T201	1-431-642-11	TRANSFORMER, HIGH-FREQUENCY	
T202	1-431-642-11	TRANSFORMER, HIGH-FREQUENCY	
T203	1-431-640-11	TRANSFORMER, HIGH-FREQUENCY	
T204	1-431-640-11	TRANSFORMER, HIGH-FREQUENCY	
T205	1-431-643-11	TRANSFORMER, IF	
T206	1-431-643-11	TRANSFORMER, IF	
T301	1-431-644-11	TRANSFORMER, HIGH-FREQUENCY	
T302	1-431-641-11	TRANSFORMER, HIGH-FREQUENCY	
< VIBRATOR >			
X301	1-579-614-41	VIBRATOR, CRYSTAL (12.8MHz)	
X302	1-767-748-11	VIBRATOR, CRYSTAL (138.75MHz)	
*****			
MISCELLANEOUS			
*****			
9	1-771-359-11	SWITCH, RUBBER KEY	
13	1-694-377-11	CONDUCTIVE BOARD, CONNECTION	
16	1-783-112-11	CORD	
21	1-783-379-11	CABLE, FLEXIBLE FLAT (22 CORE)	
26	1-784-075-11	CONNECTOR, COAXIAL (BNC TYPE)	
32	1-783-378-11	CABLE, FLEXIBLE FLAT (16 CORE)	
ANT101	1-501-969-11	ANTENNA, HELICAL	
LCD601	1-803-003-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP401	1-505-872-11	SPEAKER (3.6cm)	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
△	1-469-089-11	FILTER, CLAMP (FERRITE CORE) (SC1PC)	
	1-475-527-11	ADAPTOR, AC (AC-S500)	
	1-501-969-11	ANTENNA, HELICAL	
	1-504-116-31	EARPHONE	
	1-783-377-11	CABLE (WITH CONNECTOR) (SC1PC)	
	3-020-642-01	CLIP, BELT	
	3-020-643-01	SCREW, ORNAMENT	
	3-021-661-01	PACKING	
	3-023-743-01	PACK, CD-ROM (SC1PC)	
	3-026-187-01	BOOK, FREQUENCY GUIDE	
	3-861-712-11	MANUAL, INSTRUCTION (ENGLISH) (SC1PC)	
	3-861-713-11	MANUAL, INSTRUCTION (ENGLISH)	
*****			

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		***** HARDWARE LIST *****	
#1	7-685-534-14	SCREW +BTP 2.6X8 TYPE2 N-S	
#2	7-682-547-09	SCREW +B 3X6	
#3	7-685-649-79	SCREW +BTP 3X14 TYPE2 N-S	

