# 2. Nam Programming

# 2. NAM Programming

## 2.1 Switching the NAM(Numeric Assignment Module) writing mode

If you performs NAM writing mode, you have to enter the password, '4, 7, *, 8, 6, 9, #, 0, 8, #, 9'.

Keypads using in NAM writing mode are as follows :

0~9 : numberic keys

* , # : Use to specify the variable which include several value.

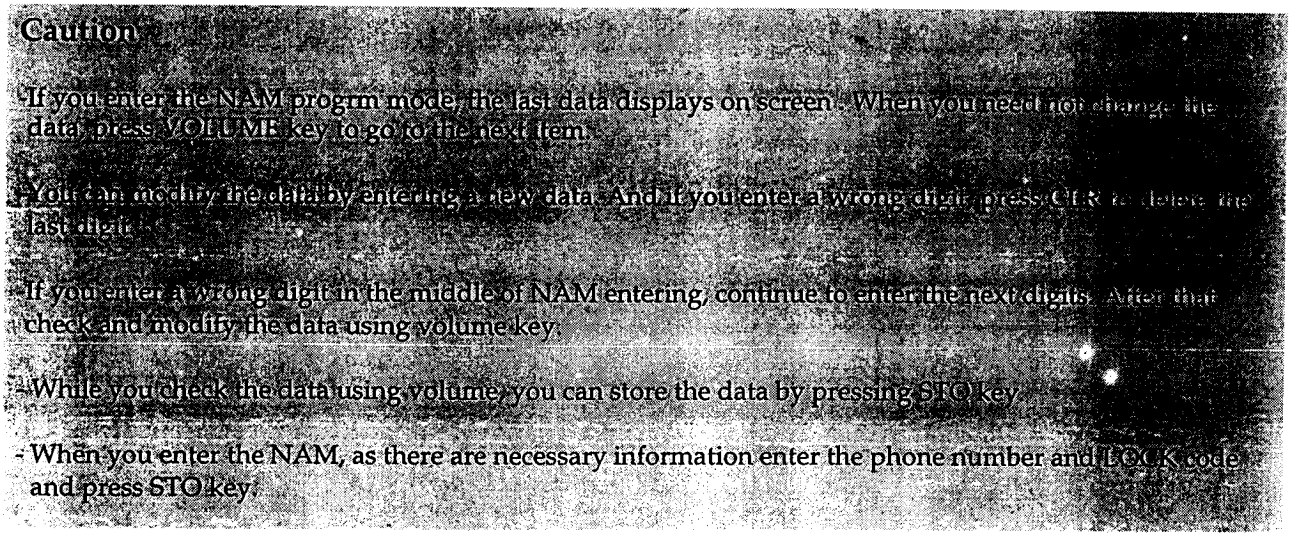
**VOLUME** KEY : Use to switch the next item

**CLR** : Use to retouch a wrong digit

**HOOK ON** : Use to end a NAM writing mode

**STO** : Use to store data and switching the next function

**RCL** : Use to swich the last menu




When you enter NAM programming, display following three items.

1 GENERAL ; Display the variable used commonly NAM.

2 Setup NAM ; Display the variable of CDMA used commonly when you select NAM.

If you don't store the data by pressing STO key after modifying as explains, the data does not change.
You can check the data by pressing VOLUME key without changing the data.

# 2-2 Explaination about each item

## 2-2-1 GENERAL

When swiching the next item, press volume or STO key. (When you press STO key, store entered data.)

ESN ( Electronic serial number) : In Service Program, current ESN cannot be modifyed and entered but displayed. If you want to modify ESN, special ESN Write Program is needed. For more details, refer to 'ESN Writer manual'

**CAI version** (common Air Interface version) : The version of the Common Air Interface supported by the mobile. Default setting is 2, CAI Version is not reset by user.

**SCM** (Station Class Mark) : Station Class Mark(SCM) displays the power class, transmission, slotted, dual mode. SCM is not reset by user.

**Lock Code** : Default lock cord is 0000. It can be entered from 0000 to 9999.

**SLOT Mode** : Determine the slot mode of the mobile (using Yes-slot mode)
When changing 'YES' or 'NO', press * ◄ or ► #.

**Slot Index** : Determine the solt mode index on slot mode the mobile.
The extent of index is from 0 to 9. The bigger the index of set, the longer sleeping time. The sleeping time is longer the more power is saved. Default setting is 2.

## 2-2-2 Setup NAM

When you swich the next item, press volume or STO key. (If you press STO key, store the entered variable).

**IMSI_MCC** : Enter Mobile Country Code Default setting is 000.

**IMSI_MNC** : Enter Mobile Network Code Default setting is 00.

**CDMA TEL NO** : It is telephone number for CDMA

**CDMA Pref** : Select preferred system in using CDMA.
Home only, A only, A pref, B only, B pref.

**CDMA ACCOLC** : CDMA ACCESS OVERLOAD CLASS Default setting is 0.

**Pchn Sys A** : This is preferred system in using A system. OOO set 779, OOO set 0.

**Pchn Sys B** : This is preferred system in using B system. Default setting of OOO is 779 channel. Default setting of OOO is 486 channel.

**Schn Sys A** : This is the second preferred system in using A system. OOO set 738, OOO set 0.

**Schn Sys B** : This is the second preferred system in using B system. Default setting of OOO is 738 channel. Default setting of OOO is 568 channel.

**CD Acq SID 1~CD Acq SID 6** : CDMA Acquisition SID. Enables you to set up to six SIDs. Default setting is 0, ranges from 0 to 32,767.

**CD lock SID 1~CD lock SID 6** : CDMA lock SID
Enables you to set up to six SIDs.
Default setting is 0, ranges from 0 to 32767

**CDMA Home SID** : CDMA home SID Default setting is 'YES'.
Specify the Autonomous requisition in the home system.

**SID #1** : (SID,NID) This is the first SID in using list.

**NID #1** : (SID,NID) This is the first NID in using list.

**SID #2** : (SID,NID) This is the second SID in using list.

**NID #2** : (SID,NID) This is the second NID in using list.

**SID #3** : (SID,NID) This is the third SID in using list

**SID #3** : (SID,NID) This is the third NID in using list

**SID #4** : (SID,NID) This is the fourth SID in using list

**SID #4** : (SID,NID) This is the fourth NID in using list

**SID #5** : (SID,NID) This is the fifth SID in using list

**SID #5** : (SID,NID) This is the fifth NID in using list

The mobile determines the roaming status.

SID, NID list of OOOO and OOO is follingxzd

**OOO** : (2222, 1) (2222, 2) (2222, 3) (2222, 15) (0, 0)

**OOO** : (1700, 1) (1700, 2) 1700, 3) (1700, 15) (0, 0)

# 2-3 Setting Up NAM

| LCD Display | Key in | Function |
|---|---|---|
| 47*809#08#9 | **47 ∗ 869#08#9** | -selects NAM programming |
| NAM Program<br>1:General<br>2:Setup NAM | **1** | -choose 'GENERAL.' |
| ESN<br>B00000000 | Volume ▲ | Electronic Serial Number of the phone. |
| CAI version<br>2 | Volume ▲ | The version of the Common Air Interface supported by the mobile. |
| SCM<br>01101010 | Volume ▲ | Station Class Mark displays the power class (bit 0~1), transmission (bit2), slotted (bit5), dual mode (bit6). |
| Lock Code<br>0000 | (0000)<br>4-digit code<br>**STO** | Four-digit number supplied by the user which enables electronic locking of the phone. |
| Slot Mode<br>Yes | ∗ or #<br>**STO** | Enables slot mode. |
| Slot Index<br>2 | **0 - 7**<br>**STO** | Slot mode index.<br>Specifies the duration and frequency of times that the mobile checks the paging channel. The higher the value, the less often the mobile looks at the paging channel, and the more power is saved. |
| Pref NAM...<br>Digital pref | ∗ or #<br>**STO** | Preferred system selection for NAM.<br>Up to four NAMs are allowed for the phone. This lists one of the four NAMs and allows you to program both the FM and CDMA settings. |

| LCD Display | Key in | Function |
|---|---|---|
| IMSI_MCC<br>000 | number<br>**STO** | International Mobile Station Identity Mobile Country Code. |
| IMSI_MNC<br>00 | number<br>**STO** | International Mobile Station Identity Mobile Network Code. |
| CDMA TEL NO.<br>9876543210 | phone number<br>**STO** | CDMA phone number. |
| CDMA pref :<br>B only | * or #<br>**STO** | Preferred system selection. |
| CDMA ACCOLC<br>0 | class number<br>**STO** | CDMA Access Overload Class.<br>This two-digit number specifies the level of priority assigned to the mobile for accessing the system.<br>Ranges from 0 to 15. |
| Pchn Sys A<br>0 | channel number<br>**STO** | Primary CDMA channel for the A carrier.<br>Ranges from 0 to 1,023. 0 indicates no channel. |
| Pchn Sys B<br>286 | channel number<br>**STO** | Primary CDMA channel for the B carrier.<br>Ranges from 0 to 1,023. 0 indicates no channel. |
| Schn Sys A<br>0 | channel number<br>**STO** | Secondary CDMA channel for the A carrier.<br>Suggested setting is 0: ranges from 0 to 1,023. |
| Schn Sys B<br>568 | channel number<br>**STO** | Secondary CDMA channel for the B carrier.<br>Suggested setting is 0: ranges from 0 to 1,023. |
| CD Acq SID (1-6)<br>0 | ID number<br>**STO** | CDMA Acquisition System ID.<br>Enables you to set the phone to acquire up to six SIDs in the CDMA mode. If you enter '0' for any SID, the program assumes that you have no more numbers to store.<br>Default setting is 0: ranges from 0 to 32,767: up to six SIDs. |
| CD lockSID (1-6)<br>0 | ID number<br>**STO** | CDMA Lock System ID.<br>Enable you to specify up to six SIDs that the phone will be prohibited from acquiring in CDMA mode. If all six SIDs are set to zero, no lock restrictions will be in effect and the phone can acquire all SIDs.<br>Default setting is 0: ranges from 0 to 32,767 up to six SIDs. |
| CDMA HomeSID<br>Yes | * or #<br>**STO** | CDMA Home System ID.<br>Enables the phone to allow mobile terminated calls while in the home system. Controls the types of registration allowed for the phone. |

| LCD Display | Key in | Function |
|---|---|---|
| CDMA fSID<br>Yes | * or #<br>**STO** | CDMA foreign System ID.<br>Enables the phone to allow mobile terminated calls while in a foreign system. Controls the types of registration allowed for the phone. |
| CDMA fNID<br>Yes | * or #<br>**STO** | CDMA foreign Network ID.<br>Enables the phone to allow mobile terminated calls while in a foreign system and foreign network ID. Controls the types of registration allowed for the phone. |
| SID #1<br>1700 | number<br>**STO** | System Identification Number.<br>Controls how the phone acquires different systems.<br>Determines the roaming status for the mobile.<br>All SIDs range from 0 to 32,767: a 0 setting for the SID signifies that it is not active. |
| NID #1<br>1 | number<br>**STO** | Network Identification Number.<br>Controls how the phone acquires different systems, and is set and specified in conjunction with each SID (e.g., SID #1, NID #1).<br>Determines the roaming status for the mobile.<br>All SIDs range from 0 to 65,535: a 0 setting for one NID signifies that it is not active. |
| SID #2<br>1700 | number<br>**STO** | See SID #1. |
| SID #2<br>1700 | number<br>**STO** | See NID #1. |
| SID #2<br>1700 | number<br>**STO** | See SID #1. |
| NID #3<br>3 | number<br>**STO** | See NID #1. |
| SID #4<br>1700 | number<br>**STO** | See SID #1. |
| NID #4<br>15 | number<br>**STO** | See NID #1. |
| SID #5<br>0 | number<br>**STO** | See SID #1. |
| NID #5<br>0 | number<br>**STO** | See NID #1. |

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# 3. Data Transfer

# 3. Data Transfer program

When the main board of a customer's cellular phone is required to be replaced with a new one, or the customer is needed to use a phone lent from the service center while his phone is serviced, this feature is used to transfer(copy) all the EEPROM data of the customer's phone into the new board or the lent phone to keep the information the customer had stored into his phone personally.

## 3-1 Getting Started

1. Run the DTRANxx.EXE file. If you run the file for the first time, the message 'INITIAL FILE IS CREATED' appears. Do not delete the created file because the file creates DTRANxx.CFG to store environment setup data. The message does not appear once you have run the program.

2. Press any key to go to next procedure.

**Function Keys**

| | |
|---|---|
| F1 | Reads EEPROM data from the customer's cellular phone. |
| F5 | Writes the data of the customer's phone into the EEPROM on the new board. |
| ALT+X | Exits programming and returns to DOS mode. |

## 3-2 Operation Procedure

1. On standby mode, 'Please check the communication link between your PC and the phone prior to beginning ...' messages appear on the screen. You are ready to transfer data.

2. Switch the phone power on after you have run the program.

3. Press <F1> key to read EEPROM data from the customer's cellular phone. On screen, 'Change the mode of the phone from HANDS-FREE mode to DM mode' message appears. On the LCD display of the phone, 'AUTO TEST' and 'WRITE EEPROM' messages appear. If the phone is already in DM(Diagnostic Monitor) mode, the message does not appear.

4. After the mode is changed to DM, EEPROM data on the cellular phone is read by PC. You can monitor the reading procedure on the screen.

5. When the data reading is completed, 'Replace the source phone with the target phone and press <F5> when ready' message appears on the screen.

6. Press any key to clear the message. The cellular phone displays 'DELETED' and '300-300-3000' instead of greeting and phone number respectively. All the features of the phone including ESN are reset to default status, and the phone can not be operated.

7. Remove the phone from the test jig and connect the new phone to the test jig.

**Caution:** If you try to perform reading again without writing after reading is already done once, the error message 'READING FROM THE PHONE WAS ALREADY BEEN CARRIED OUT, WRITING SHOULD BE CARRIED OUT' appears on the screen.

8. Press <F5> key to perform writing EEPROM data. You can monitor the writing procedure on the screen.

9. When the data writing is completed, the phone will reset. The program returns to standby mode and is ready to read data from another phone. 'WELL DONE, DATA TRANSFER IS COMPLETED' appears on the screen.

10. Check if the transferred EEPROM data is the same.

MEMO

# 4. Setup Method

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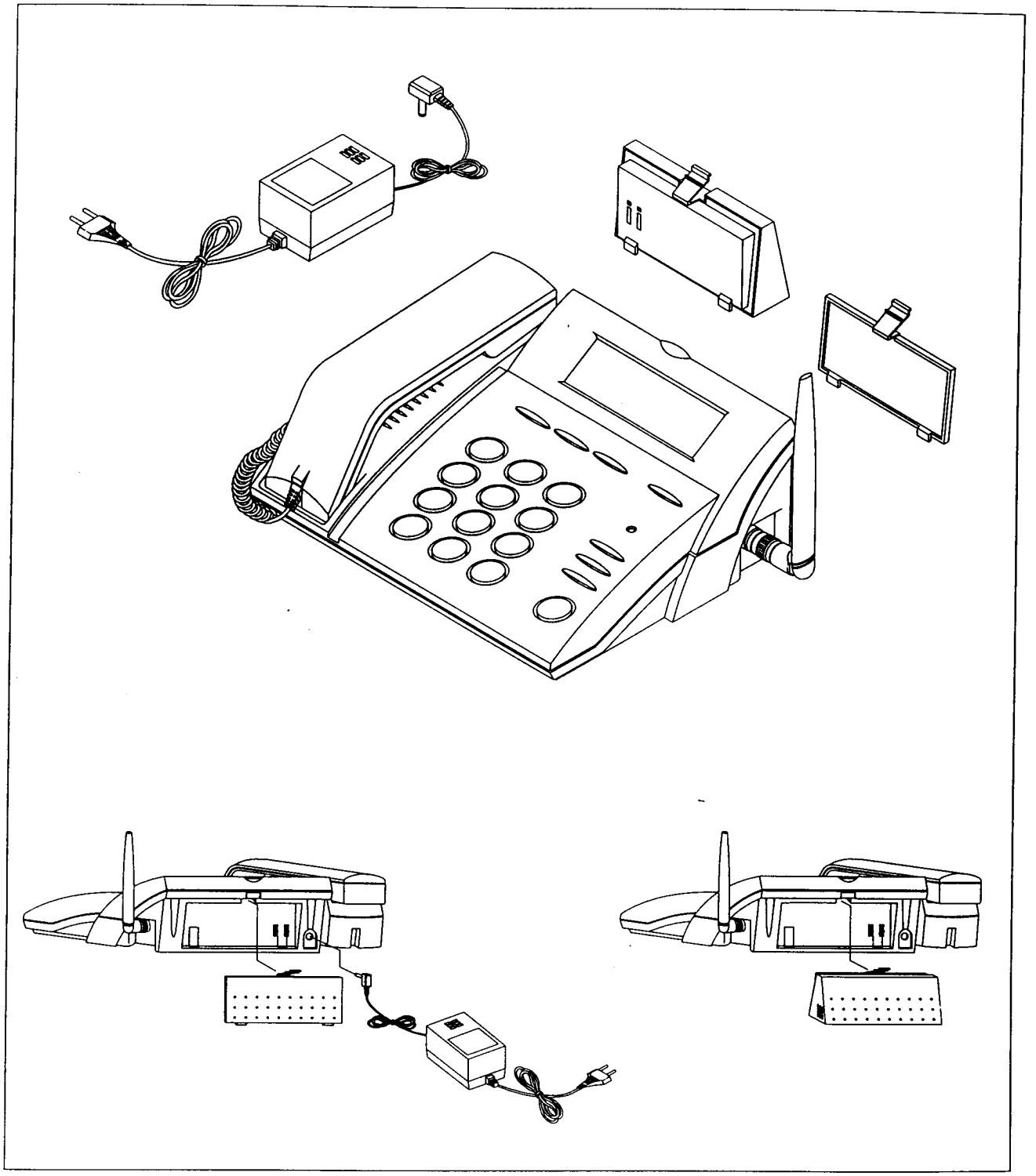

# MEMO

# 6. Troubleshooting

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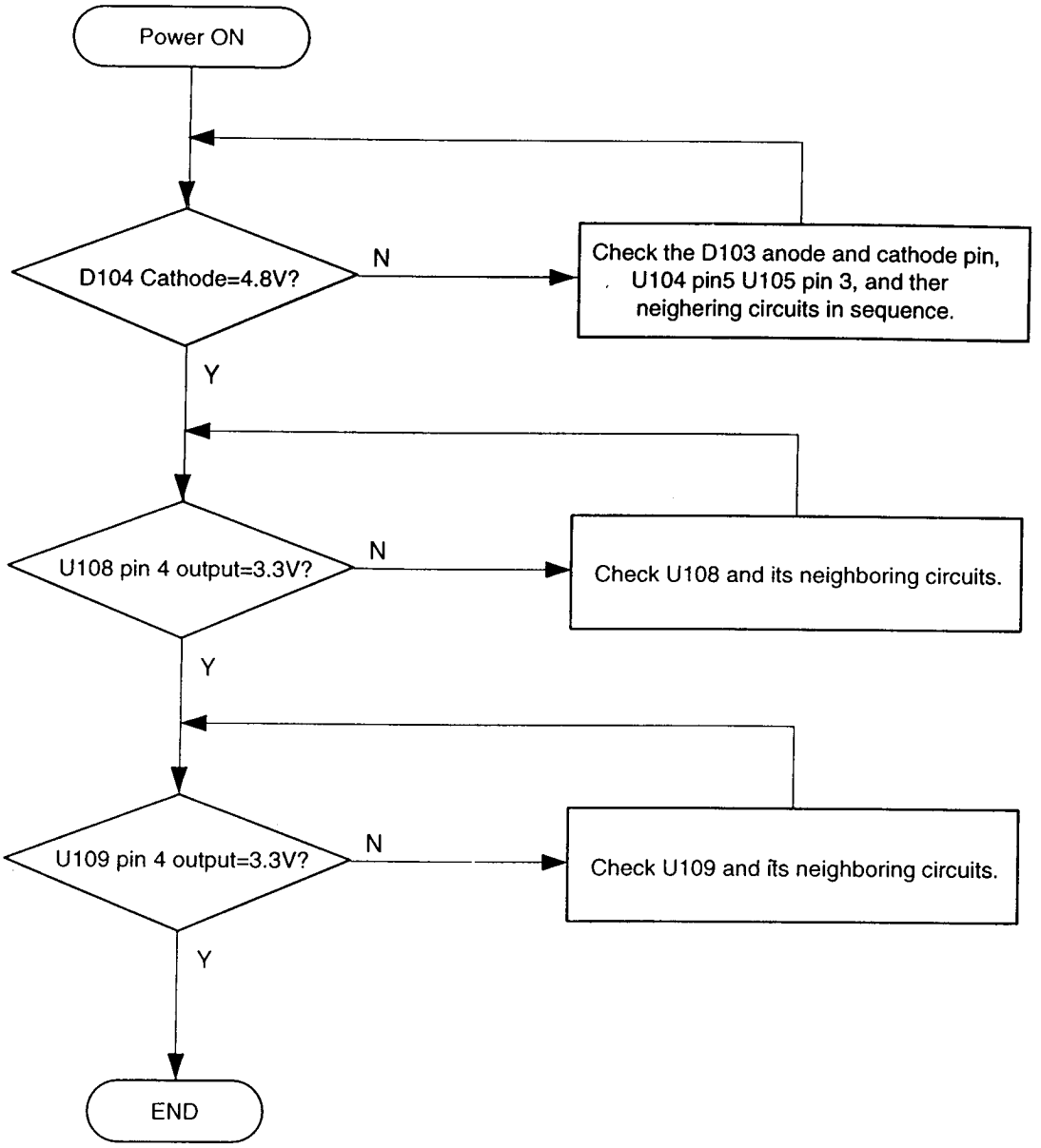
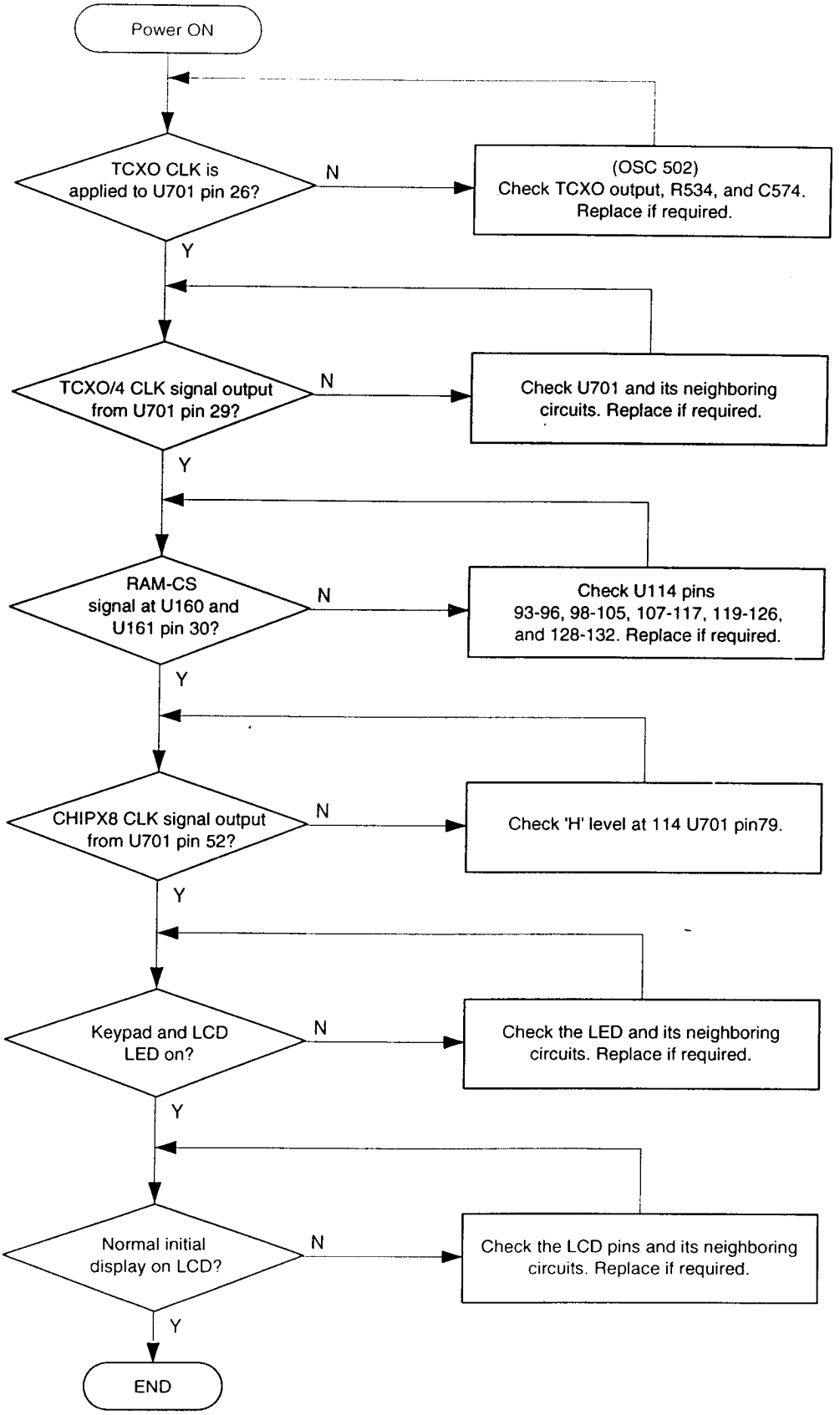
## 6-1 Logic Section

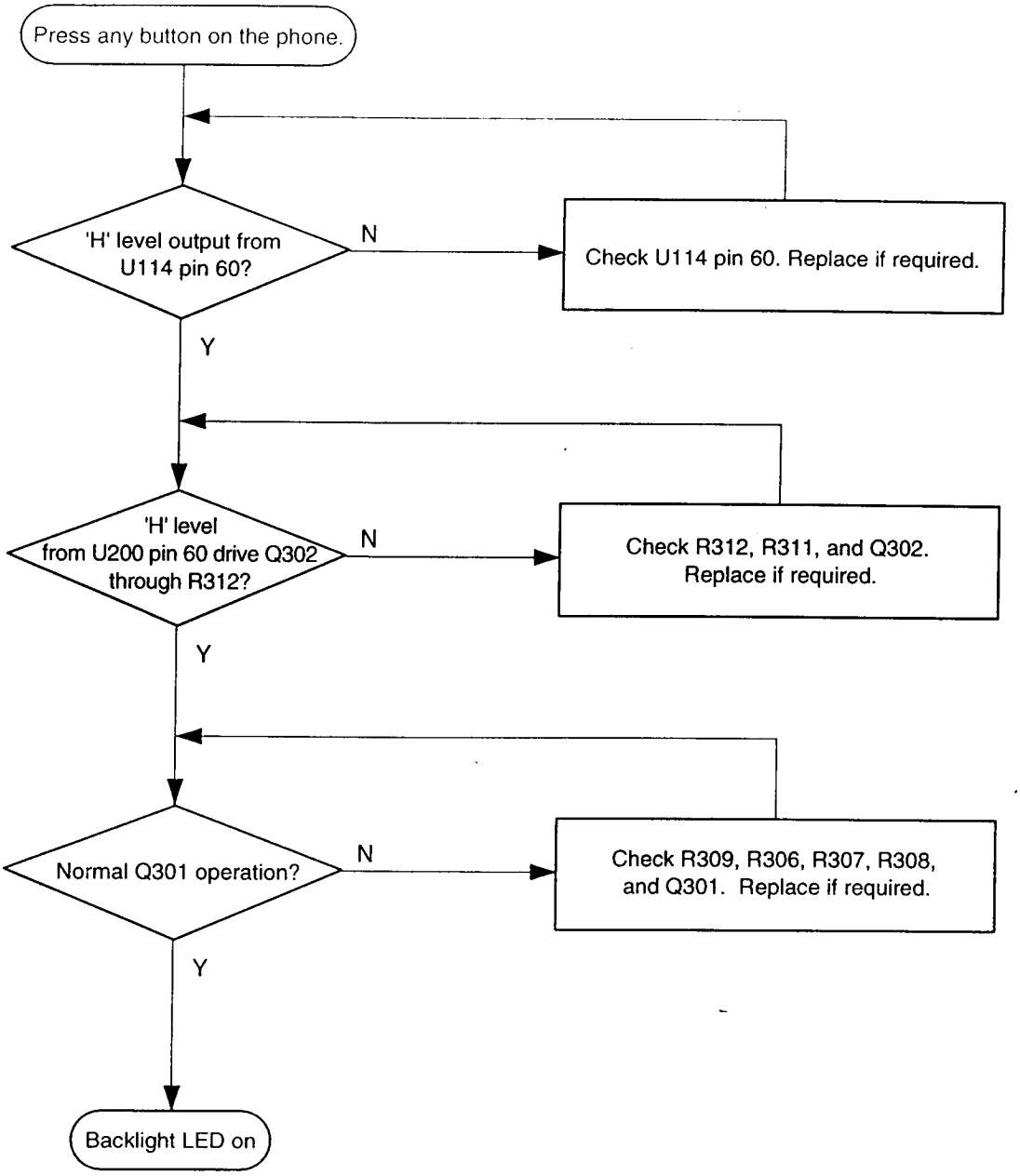
### 6-1-1 No Power



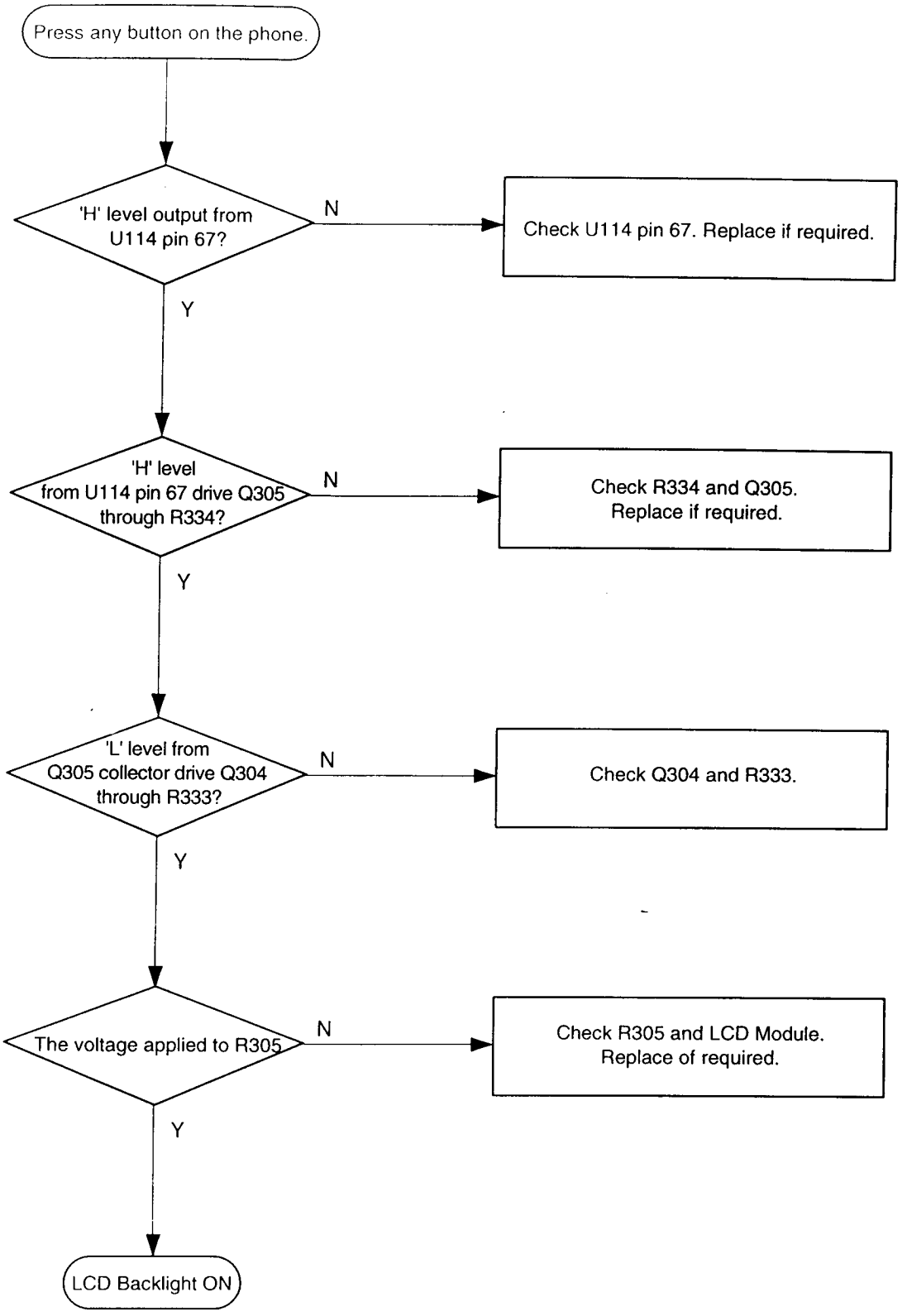
## 6-1-2 Abnormal Initial Operation (Normal +3.3V voltage source)



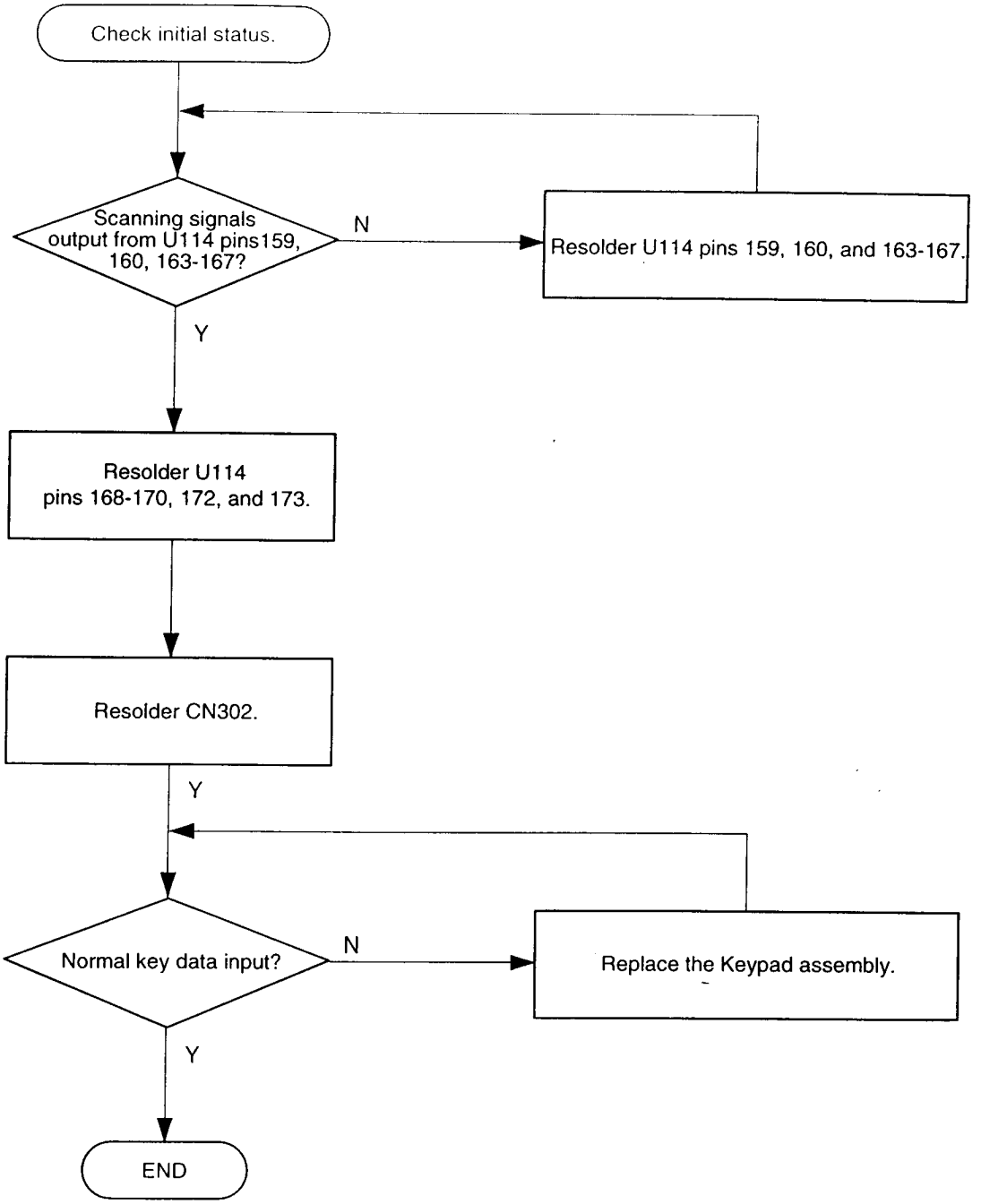
## 6-1-3 Abnormal Keypad Backlight Operation

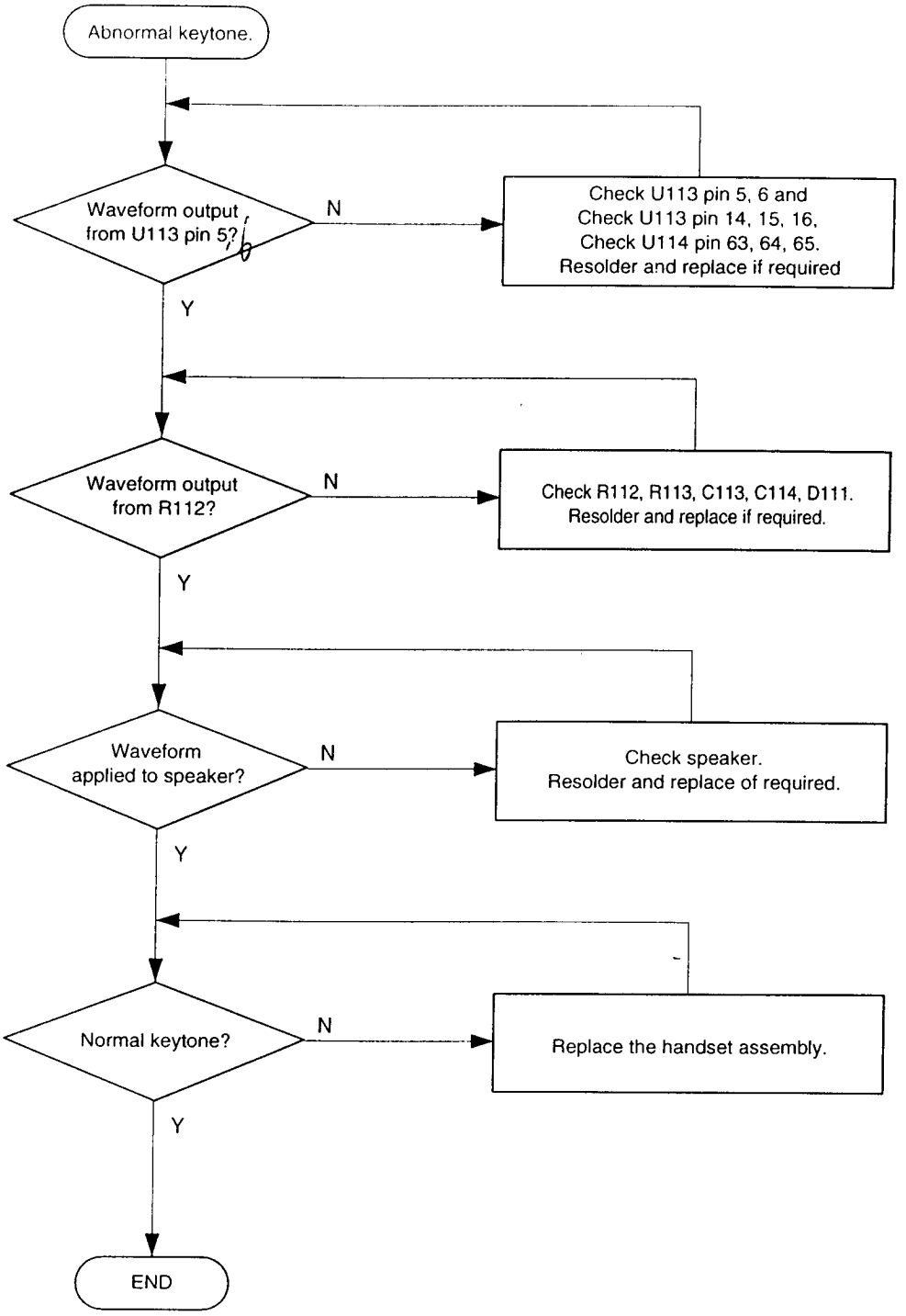


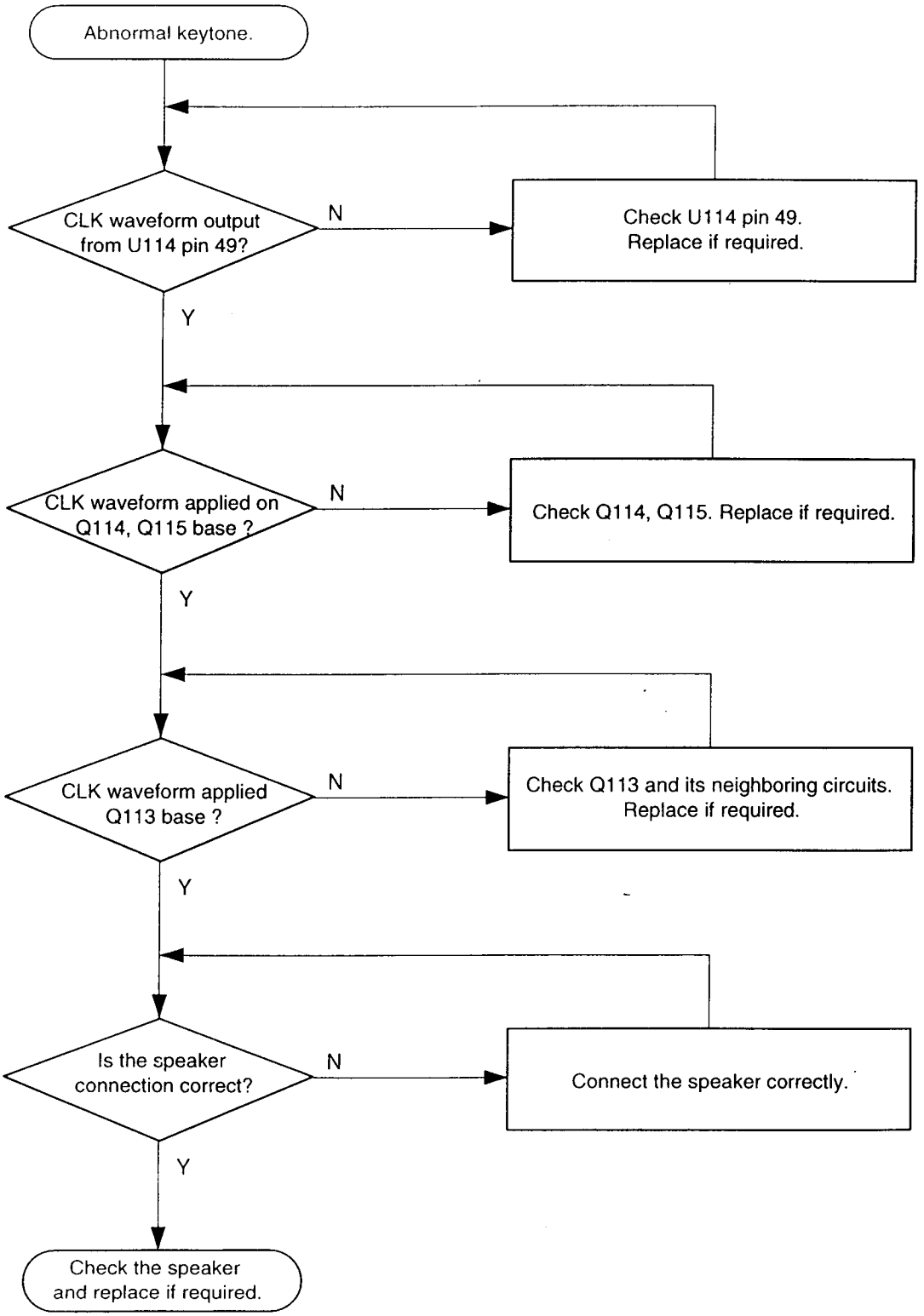
## 6-1-4 Abnormal LCD Backlight oparation



## 6-1-5 Abnormal Key Data Input




Abnormal keytone.
Waveform output from U113 pin 5?
N
Check U113 pin 5, 6 and
Check U113 pin 14, 15, 16,
Check U114 pin 63, 64, 65.
Resolder and replace if required
Y
Waveform output from R112?
N
Check R112, R113, C113, C114, D111.
Resolder and replace if required.
Y
Waveform applied to speaker?
N
Check speaker.
Resolder and replace of required.
Y
Normal keytone?
N
Replace the handset assembly.
Y
END


Abnormal keytone.
CLK waveform output from U114 pin 49?
N
Check U114 pin 49. Replace if required.
Y
CLK waveform applied on Q114, Q115 base ?
N
Check Q114, Q115. Replace if required.
Y
CLK waveform applied Q113 base ?
N
Check Q113 and its neighboring circuits. Replace if required.
Y
Is the speaker connection correct?
N
Connect the speaker correctly.
Y
Check the speaker and replace if required.