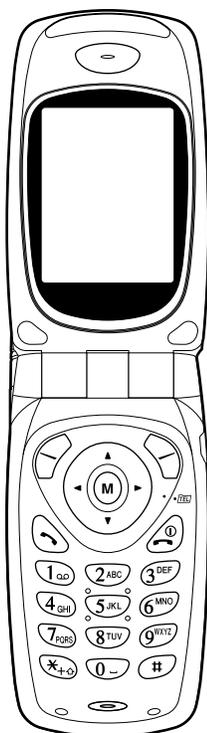


SHARP SERVICE MANUAL

No. SX204TQGX13//

DIGITAL MOBILE PHONE



MODEL GX13

(INTERNAL MODEL NAME: TQ-GX13)

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

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PARTS GUIDE

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT,
PLEASE REFER TO THE OPERATION MANUAL.

CHAPTER 1. GENERAL DESCRIPTION

[1] Specifications

General: Dual band (GSM 900 MHz/DCS 1800 MHz)
GPRS-enabled
WAP, MMS, SMS

Dimensions (folded, excluding the aerial)

(H x W x D): 94 x 49 x 27 mm

Weight: 110 g

Battery operating

temperature: 0°C - 40°C

Main-screen

display:

Display dimensions: 160 x 120 dots
LCD display: TFT 65,536 colours with backlight
LCD backlight: LED backlight white colour LEDs

Sub-screen

display:

Display dimensions: 26 x 96 dots
LCD display: STN monochrome LCD with backlight

Camera:

CMOS 110K pixels built-in camera
Zoom: Wide and zoom mode
(Supported 2x zoom)
Lens: F2.0, f = 1.8 mm

Sound: 16-polyphonic ring melodies

Status LED: Green and red

External DC

supply voltage: 5.2 V

Battery: 3.7 V, 720 mAh, Li-Ion

Standby time: Up to 250 hours

Talk time: Up to 3.5 hours

SAR value: 0.56 w/kg

Others:

Side key
Infrared port 1.2 L/P (maximum distance 20 cm)
Connector for AC charger and data cable
Standard hands free connector (ø2.5)

Battery running time depends on the battery and SIM card as well as the network conditions and usage.

Specifications for this model are subject to change without prior notice.

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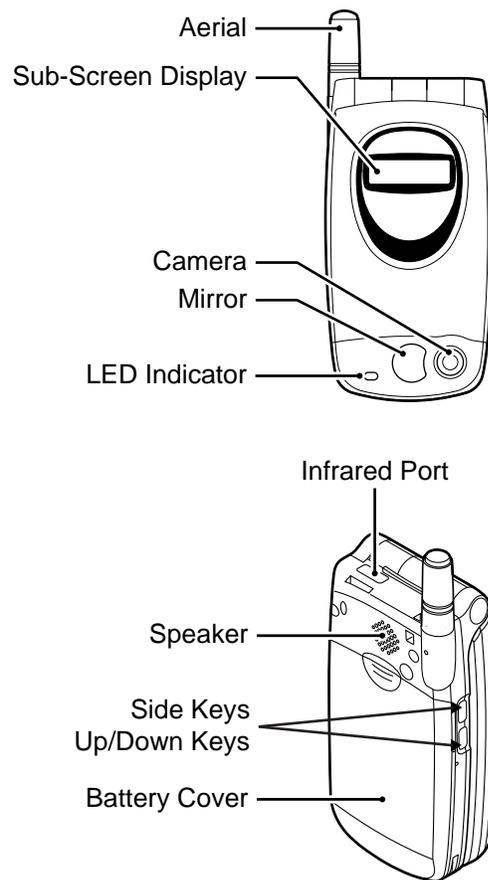
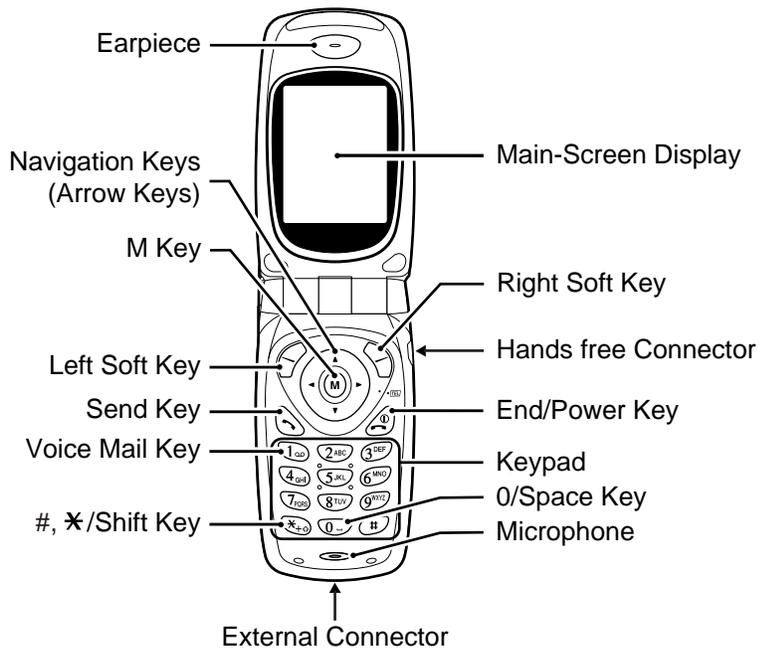
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T9 Text Input is covered by the United Kingdom Pat. No.2238414B, Euro. Pat. No. 0 842 463 (96927260.8) and other patents pending.

[2] Names of parts



— MEMO —

CHAPTER 2. ADJUSTMENTS

[1] Adjustments

SHARP Program Support Tool (SPST)

1. Outline

This document provides user information required to install and use GX13 Program Support Tool (SPST).

2. System requirements

- IBM PC compatible personal computer (standard COM1 serial port (115,200 bps) and USB required)
Supporting OS: Windows 98/98SE/2000/XP (except for Windows 95/ME/NT)
(English, German, Italian, Spanish, French and Chinese versions)
- Data cable
- Full charged battery

<During RF adjustment>

- RF test instrument: CMU200, CMD55
- GPIB interface: National Instruments USB-GPIB cable
Model No.: NI GPIB-USB-B
- The battery should be fully charged.

3. Introduction

3.1 Functions

SPST offers five key functions:

1. Software download
2. User data transfer (processes all data at once but not individually)
3. RF calibration
4. Default setting
5. Identification

SPST functions as **a launcher for these independent software programs.**

3.2 Installation

The SPST software is distributed in CD-ROM format.

- (1) Use Windows Explorer and copy "UpgradingTool.zip" and "SPST.zip" to the desktop.
- (2) Unzip and install "UpgradingTool.zip" following the procedures below.
- (3) Unzip the "SPST.zip".

Hereinafter, procedures are carried out in the SPST folder.

3.2.1 Starting up

Connect GX13 to an operable serial port of the PC with the supplied data cable. Connect the AC charger to the data cable. Execute the GX13 SPST.exe program in the SPST folder.

- (1) The SPC input screen appears. Input SPC (2968) and press "OK".
If you do not know SPC, press "Cancel" to close.



Figure 1

(2) If SPC is correct, the following screen appears.



Figure 2

The software for each function is independent and thus multi-bootable. However, you can only activate single software at a time. To start another software, exit the current one.

3.3. Functions

3.3.1 Identification

SPST downloads and displays the main data configured in GX13.

<Operation>

(1) On the SPST startup screen, press "Identity".

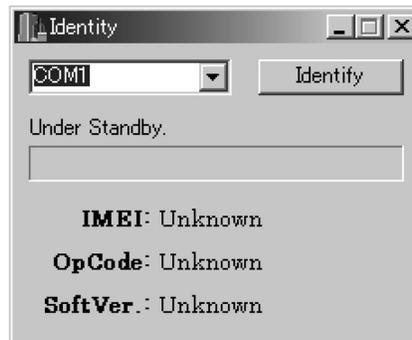


Figure 3

- (2) Connect PC and MS with a Data cable.
- (3) Remove the SIM card and turn on the phone. → Regular display.
- (4) Select the COM port.
- (5) Press "Get Identity". → The information will be displayed.
- (6) IMEI will be displayed, and the following dialog box appears.



Figure 4

- (7) Make sure GX13 is turned off and press the power key.
- (8) Press "OK" when **** appears on the GX13 display.
- (9) Make sure "Success!!" appears. Check the data and exit.

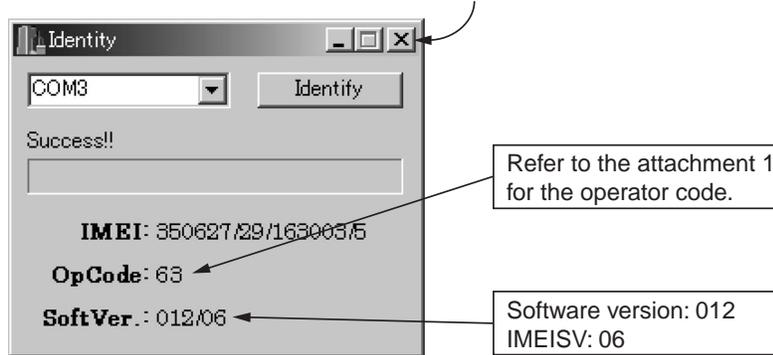


Figure 5

3.3.2 User data transfer

SPST saves and downloads all the following user data.

- (1) Connect PC and MS with a Data cable and turn on MS.
- (2) Activate the software.

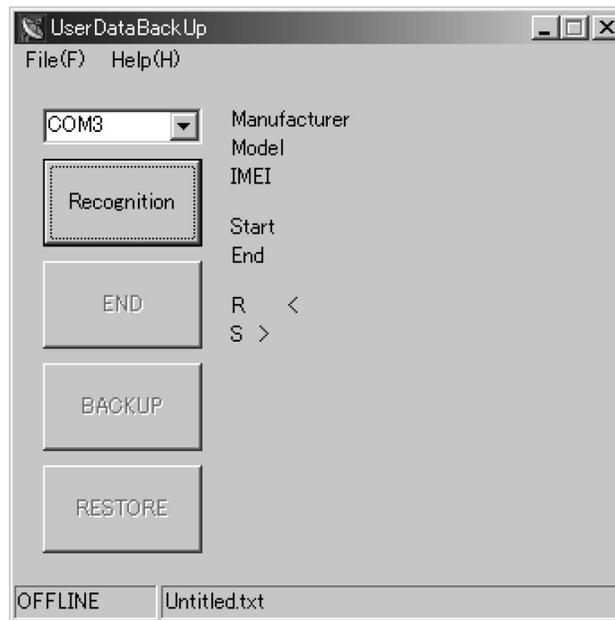


Figure 6

- 1. Select the COM port. You cannot specify the communication protocol. (115 kbps)
- 2. Press "Recognition".
Do not press "Recognition" until "InsertSIM" appears.

(3) Press either “BACKUP”, “RESTORE” or “END”.



Figure 7

(4) If “BACKUP” is pressed, the dialog box for file selection appears. Select the file and press “Save”.

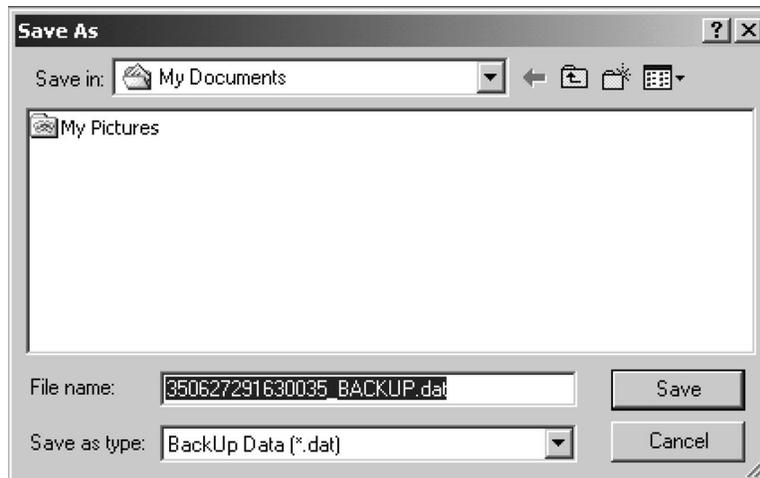


Figure 8

The buttons are grayed out during the process.



Figure 9

When they return to black, the process is complete. Press "END" to exit.



Figure 10

(5) If “RESTORE” is pressed, the following confirmation dialog box appears. Press “OK” to confirm.

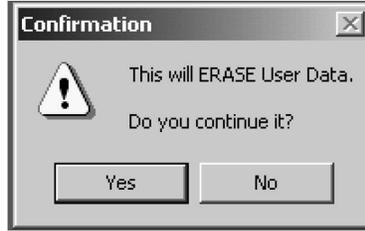


Figure 11

The dialog box for file selection appears. Select the file and press “Open”.

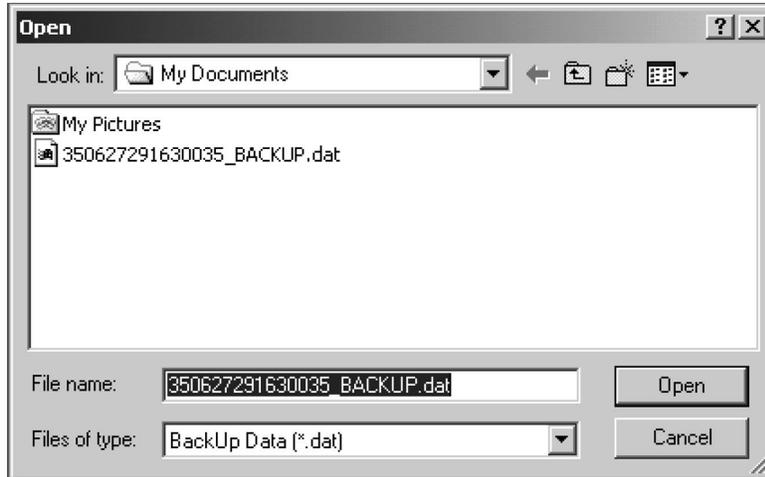


Figure 12

The buttons are grayed out during the process.
The process is complete when the buttons turn black.

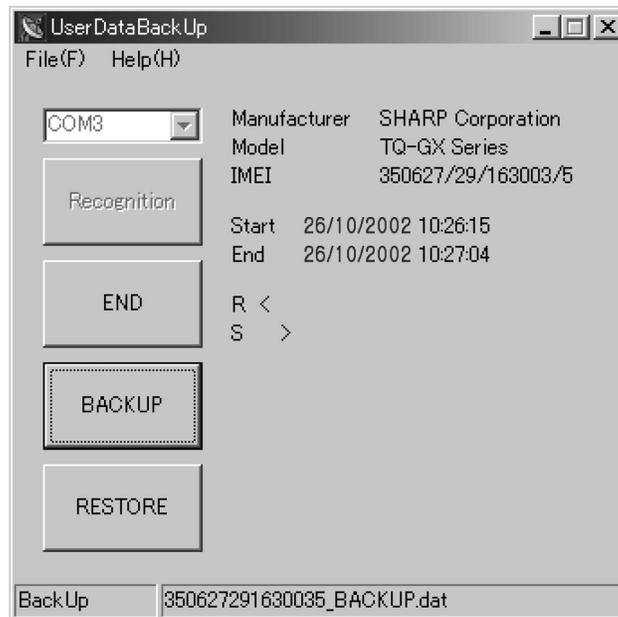


Figure 13

3.3.3 Default setting

SPST can restore the factory settings by default setting.

This function

- 1. deletes all user data in the file system;
- 2. restores the values set by the user to default;
- 3. restores all WAP settings to default; and
- 4. restores all MEP_LOCK to default.

<Operation>

- (1) Connect the phone to a cable.
- (2) Turn on the phone and wait until it enters the idle mode.
- (3) Press "Set to Default".

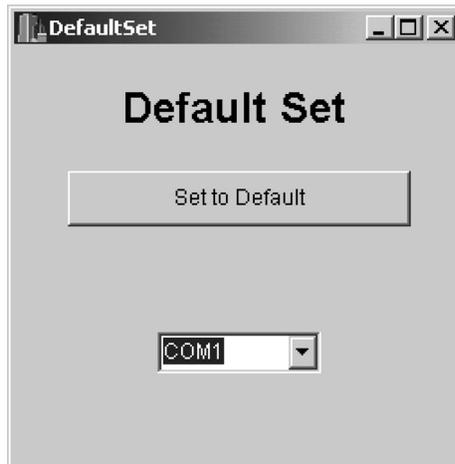


Figure 14

- (4) The phone turns off and the following message appears.

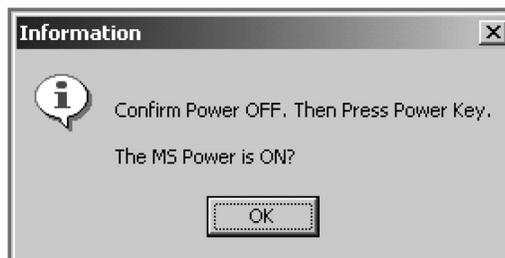


Figure 15

- (5) When the power key is pressed, the screen display will display "*****".
- (6) When "OK" is pressed on the PC screen, the following confirmation message appears.

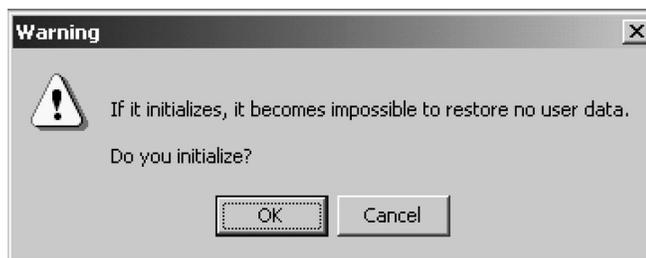


Figure 16

(7) Press "OK". You will see the following display on the screen display.

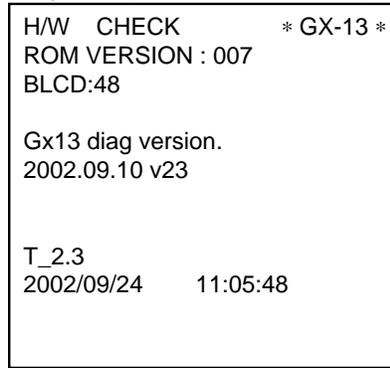


Figure 17

Check the version. Initialization takes approx. 35 seconds.



Figure 18

(8) When initialization is complete, the following message appears and the phone turns off.

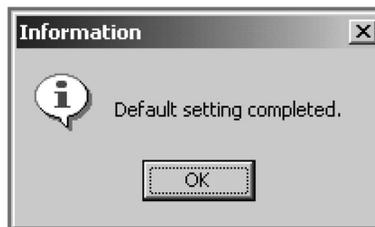


Figure 19

(9) Press "OK" to proceed. Disconnect the cable.

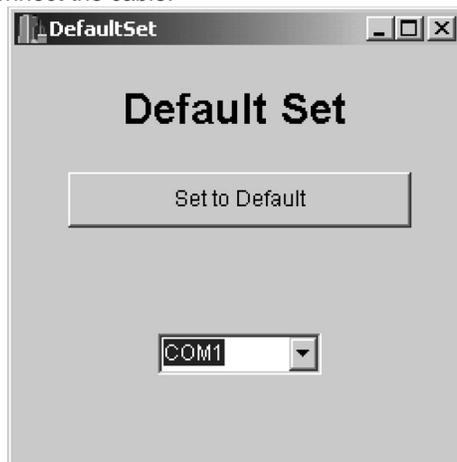


Figure 20

The process is now completed.