SXT-2080 CDMA 1XRTT

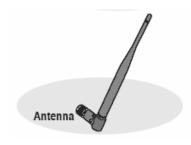
FIXED WIRELESS TERMINAL 800 MHz CDMA



User Guide

VOICE COMMUNICATION and PCO/PTB Application







Before installing your **SXT-2080**, carefully remove the contents from the shipping carton and check for evidence of shipping damage. **If damage is found, contact your Authorized Sungil Distributor or shipping agent immediately**.

SAFE OPERATION INSTRUCTIONS

IMPORTANT! Before installing or operating this product, read the **SAFETY AND GENERAL INFORMATION** section of this guide.

- ✓ Install the unit indoors.
- ✓ Install the unit on a hard, flat surface for proper ventilation.
- ✓ Do not expose the unit to rain or moisture
- ✓ Do not place the unit on or close to sources of heat.

IMPORTANT NOTICES

TERMS AND CONDITIONS FOR USE OF SXT-2080 PRODUCTS ("Product")

These Terms and Conditions are a legal contract between you and Sungil Corporation for the title to and use of the Product.

BY RETAINING AND USING THE PRODUCT AFTER RECEIPT OF IT, YOU AGREE TO THE TERMS AND CONDITIONS INCLUDING WARRANTY DISCLAIMERS, LIMITATIONS OF LIABILITY AND INDEMNIFICATION PROVISIONS BELOW. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS, DO NOT USE THE PRODUCT AND IMMEDIATELY RETURN THE UNUSED PRODUCT FOR A COMPLETE REFUND. You agree to accept sole responsibility for any misuse of the Product by you; and, in addition, any negligent or illegal act or omission of your or your agents, contractors, servants, employees, or other users of the Product so long as the Product was obtained from you, in the use and operation of the Product.

Sungil Telecom Ltd. Corporate Headquarters

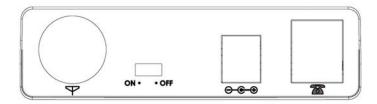
321 Gongdan-dong, Gumi City, Kyongbuk 730-030, Korea

Sales and Technical Support

Tel: +82-31-714-0038 · Fax: +82-31-714-9174 E-mail: sales@sungiltel.com · http://www.sungiltel.com 2005 Sungil Telecom Co. Ltd., All Rights Reserved

Emergency Battery Backup Checking the Battery

Each Subscriber Unit Terminal comes with a standard internal battery inside, and can be replaced at your local After-Service Centers.



Plug in Your Telephone

- 1) Locate the modular line port on your telephone and plug in one end of a standard phone cord
- 2) Connect the other end of the phone cord to the telephone port on the side of the Unit.

NOTE: The SXT-2080 does not support direct computer modem (data) operation through the phone port or fax port.

SXT-2080 OPERATION

Use the LED Status Indicators

- 1) Power-on the unit
- 2) The LED indicators on the front of the will turn ON. The following tables describe the modes and operation of the indicators.

Power Status LED

| 0.00.00.00.00.00.00.00.00.00.00.00.00.0 | | | | | |
|---|--------------|-------------|--|--|--|
| LED Color | LED Activity | Description | | | |
| GREEN | Continuous | Power ON | | | |
| NONE(DARK) | Off | No Power | | | |

Signal Strength Indicator

Battery Strength Indicator

Basic Phone Operation

Placing a Call

1) Pick up the handactivate and listen for a dial tone. 2) Dial the phone number.

Receiving a Call

When your telephone rings, pick up the handactivate and begin talking.

NOTE: If you hear an incoming call while picking up the handactivate, you can receive the call by hanging up (placing the handactivate on the cradle) immediately. This will cause the phone to start ringing.

Ending a Call

Hang up the phone (place the handactivate onto the cradle).

Important Tones and Alerts

Normal Dial Tone - When cellular service is available, the receiver emits a standard (steady) dial tone.

No Service Tone - A fast beeping tone indicates that no cellular service is available.

Outgoing Call Restriction - A slower beeping is an indication that calls may be received, but not made, from this particular phone.

I. Entering User Menu

- Pick up the handactivate
- Press Entry code : '##XX' ('XX' is 2 digit code) Now you entered User Menu.

Ex) '01' - SIO '02' - Emergency etc

- Select sub menu and input user data.

| User Menu Table | | | |
|-----------------|----------------------|--|--|
| | 1. Ring Type | | |
| 1. Ring / Sound | 2. Volume | | |
| | 3. DTMF | | |
| | 4. 1Min Alert | | |
| | 5. Service Alert | | |
| 2.Tools | 1. Caller ID | | |
| 2.10015 | 2. Dial Tone | | |
| | 1. Alarm | | |
| 3. Time | 2. Auto Send Time | | |
| | 3. Flash Time | | |
| | 4. On Hook Time | | |
| 4. Activating | 1. New Code | | |
| | Outgoing Restrict | | |
| | 3. Reactivate Phone | | |
| | 4. Voice Privacy | | |
| | 5. Auto Gain Control | | |

II. Ring / Sound Menu

Ring Type '##11'

- In the Ring type menu, you can select 9-way ring type.
- Select '1~9' and press '*' to store ring type.
- If you choose zero '0' instead of '*', It will be canceled.
- If you press '#' to deactivate.

Ex

##11+0: Canceled what you did. it will make a terminal idle.

##11+1 → assigned ring tone → * : Index 1's ring tone will be selected.

Volume Type '##12'

- In the Volume menu, you can control FWT ring volume.
- Press '1' to increase the volume, press '2' to decrease.
- After selecting the volume level, press '*' to save, but if you press '#', don't save the volume value and exit.

DTMF '##13'

- In the DTMF menu, you can select DTMF tone length.
- Press '*' to select "long" DTMF tone, press '#' to select short DTMF tone.

One Minute Alert '##14'

- In the 1 Min Alert menu, you can activate/deactivate to One Minute alert notify.
- Press '*' to activate the alert. The phone will notify an alert exactly one minute later in conversation.
- If you want to cancel this alert, press '#'.

Service Alert '##15'

- In the Service Alert menu you can activate the Service alert.
- Press '*' to activate the alert. The phone will notify an alert to you when there's no operator service, which will be alerted every minute.
- If you want to deactivate this option, press '#'.

III. Tools Menu

Caller ID **'##21'**

- In the Caller ID menu, you can select CID type for your phone type.
- There are 3-types of caller ID. Please select one of the following and press '*' to activate.
- If you want to deactivate the caller ID feature, press '#'.

<Caller ID types>

- 1. BELLCORE
- V.23
 DTMF
- 4. None CID (same as '#'key)

Dial Tone '##22'

- In the Dial tone menu, you can select dial tone for your country.
- There are 4-types of dial tone type, as specified below.
- Press '★' to activate. Press '#' to cancel.

<Dial tone types>

- 1. Default
- 2. Latin America
- 3. East Europe
- 4. China / Siria
- 5. Australia
- 6. India

Ex)

##22 + 1 + *: to activate a dial tone as a default dial tone.

##22 + 6 + \star : to activate a dial tone as an india dial tone.

IV. Time Menu

'##31' Alarm

- In the alarm menu, you can activate the alarm time.
- Enter 4-digits for alarm time as 'HH-MM' type.
- If you want to activate alarm time, press '*'.
- When you press '#', alarm deactivate.

Auto send time **'##32'**

- In the Auto send time menu, you can select and control auto send time.

Auto Send Time controls the length of time that FWT waits before any dialed call is made to the Network.

- There are Ten Selections (1sec~10sec). Press '★' to activate.
- If you press '#', set time will be deactivated, and activate the Default time (1sec)

<Time table>

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
|------|------|------|------|------|------|------|------|------|-------|
| 1sec | 2sec | 3sec | 4sec | 5sec | 6sec | 7sec | 8sec | 9sec | 10sec |

Flash time '##33'

- In the Flash time menu, you can determine flash time in the range of 50~800 ms.
- If the designated flash time exceeds 800 ms, then such inputs will be ignored.
- Press '**★**' to activate. Or press '#' to deactivate.

Ex)

##3 + 300 + * : to activate a flash time to 300 ms

Flash time '##33

- In the Flash time menu, you can change flash time from 50 to 999 ms.(default: 100 ms)
- If entered time is out of ranges, it will be ignored.
- And if entered time is more than the on hook time, it will be ignored as well
- You can not set bigger value than on-hook time.

If you want to do so, please first adjust on-hook time and then, set a flash time

- Press '*' to set. Or press '#' to release.

Ex)

##33 + 300 + * : to set the flash time to 300 ms

On Hook time

- In the On Hook Time menu, you can change the on hook time from 101 to 1000ms (default: 500 ms)
- If entered time is out of ranges, it will be ignored
- And if entered time is below than the flash time, the time will be ignored as well
- You can not set smaller value than the flash time.
- If you want to do so, please adjust a flash time first, and then, set an on-hook time
- Press '*' to set, Or press '#' to release.

Ex)

##34 + 500 + * : to set the on hook time to 500 ms

V. Activateting Menu

New Code '##41'

- You can change a lock code '0000' is the factory default value.
- Press '##41', to enter the lock code menu and a prompt sound will be heard immediately.
- Press the default value or previously programmed code to confirm the current security setting.
- If the lock code input is correct, then a confirmation tone will be heard.
- -. First, you have to enter new lock code and press '*' key and second, you have to enter that lock code again to make a double check and press '*'.
- If first code and second code is a match, a confirmation tone will be heard. If the codes are different, you will need to input them again from the beginning. Simply put down the receiver and try again.
- Or press '#' to cancel to cancel this procedure.
- Ex) Suppose a current lock code is '7777', and the user wants to change this to '8888'.

##41 → a lock-code prompt sound → 7777 → a confirmation tone → 8888 → Press * → a confirmation tone

Restrict outgoing

'##42'

- You can restrict outgoing call to protect someone from call outgoing without your permit.
- You can activate a restriction on by pressing '*'.
- Press '#' to cancel what you did.

Master Clearing the phone

##/13

- You can clear all parameter values of this terminal to factory values.
- Press '*' and a FWT will be cleared to default values.
- Press '#' to cancel.

Voice privacy

'##44'

- You can activate the option of Voice privacy to protect your voice from being tapped.

But It is possible only if the operator supports this feature..

- You can change the option by doing follows.
 - Press '*' for changing a current value to 'Standard' option
 - Press '#' for changing a current value to 'Enhanced' option.

NOTE: If you want to change Voice privacy's option on conversation, you press "* * 0*" for standard mode or "* * 1*" for enhanced mode.

Ex) Suppose a current lock code '7777'

##44 → a lock-code prompt sound → 7777 → a confirmation tone → Press '#': Enhanced → a lock-code prompt sound → 7777 → a confirmation tone → Press * : Standard

Auto Gain Control

'##45'

- You can activate AGC which is able to adjust volume level according to the order from BTS.
- After entering a command of ##45,
- Press '*' to make it enable
- Or press '#' to make it disable

SUPPLEMENTARY FEATURES (NETWORK DEPENDENT)

Call Waiting

Call Waiting enables you to be alerted to an incoming call while you are already on a call. You have the option of responding to the second call while putting the first call on hold. You can also disable the call waiting option during a particular call. Contact your service provider to activate Call Waiting.

Three-Way Calling

Three-Way Calling enables you to activate up a three-way conversation with two other different-numbered users. Contact your service provider to activate Three-Way Calling. To use Three-Way calling, use the following steps:

- 1. Call 1st party
- 2. While in call with 1st party, dial the number of the 2nd party
- 3. Press hook switch (or flash button)
- 4. When connected to 2nd party, press hook switch (or flash button) again to connect all parties.

Call Forwarding

Call Forwarding enables you to forward all your incoming calls to another phone number, even if your telephone is turned off. You can continue to make calls from your telephone when Call Forwarding is activated. Contact your service provider to activate Call Forwarding.

Caller ID

Caller ID notifies you who is calling by displaying the caller's number on the telephone's display when an incoming call comes through with a ring. This feature is available only with a telephone that has an LCD display on it. Contact your service provider to activate Caller ID.

SXT-2080 TROUBLESHOOTING

Telephone Service is Not Working

If the telephone service is not working, first check the operation of the telephone equipment and wiring connected to your SXT-2080. Test the equipment on a different service or piece of equipment to ensure proper operation, or connect a known good telephone device to the phone port on the SXT-2080 unit. This will verify the condition of the telephone equipment and the internal wiring of the telephone service to ensure that it's working properly. If the telephone system or wiring is not working properly, replace or repair the equipment as required. Otherwise, contact your cellular provider or your authorized Sungil distributor.

Unable to Receive Incoming Calls

If more than one telephone or telephone device is connected to your SXT-2080, make sure that all devices are "on-hook" (hung up). If one extension is "off-hook" (off its cradle), none of the extensions on your phone line will ring when an incoming call occurs.

Moisture or Ventilation Problems

Visually inspect your SXT-2080's unit enclosure. Moisture can damage the equipment. Ventilation is also very important. If there are moisture or ventilation problems, move your SXT-2080 to correct as necessary. See the Temperature Environment section of this Guide.

No Power

The power LED lamp on the front of your SXT-2080 indicates the unit's power condition. If the LED is GREEN, your SXT-2080 is receiving power. If the power cord is connected and the LED lamp is not lit, the SXT-2080 is not receiving power. Verify that the AC power source and its corresponding circuit breaker are functioning properly.

Battery Backup Failure

If you're using the battery, the unit must be connected to AC power for at least ___hours to fully charge the battery before it will provide back-up power to your SXT-2080. Verify that the battery has been charged for at least 15 hours and that the power source and its corresponding circuit breaker are functioning properly. Then, examine the battery for physical damage and corrosion. Replace the battery if necessary.

| Item | Description | | | |
|------------------------|--------------------------------|--|--|--|
| Capacity | 3.7V Li-ion(Nominal) / 1700mAh | | | |
| Talk Time Duration | 2 Hours (Min) | | | |
| Standby Time Duration | ? | | | |
| Charging Time Duration | 3 Hours (Max) | | | |

GENERAL INFORMATION AND SAFETY

Your SXT-2080 Fixed Wireless Terminal (FWT) functions as both a radio transmitter and receiver. When it is ON, the FWT receives and sends out radio frequency (RF) energy. The CDMA 800 unit operates in the frequency range between 824 and 894 MHz, and the CDMA 1900 between 1850 MHz and 1990 MHz. Both employ commonly used phase/frequency modulation techniques. When you use your SXT-2080, the cellular system handling your call controls the power level at which your unit transmits. Nominal power output is 350 mW. (Conducted)

WARNING!

Your SXT-2080 must be placed or mounted on a flat surface to allow proper ventilation. Do not block the air vents or the space beneath your SXT-2080 as this could cause the unit to overheat and fail.

WARNING

Only Authorized Service Personnel should remove the cover of your SXT-2080. For further assistance, contact your Authorized Sungil Representative. Please have your unit's model and serial number ready. The duration of your calls and operate your phone in the most power-efficient manner.

Temperature Environment

Operating Temperature: From -20°C to +60°C; Up to 95% relative humidity (non-condensing). **Storage Temperature**: From -25°C to +75°C; Up to 95% relative humidity (non-condensing).

Antenna Care and Replacement

Do not use the SXT-2080 with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Have your antenna replaced by a qualified technician immediately. Use only a manufacturer-approved antenna. Unauthorized antennas, modifications, or attachments could damage the SXT-2080.

Driving

Check the laws and regulations on the use of cellular products in the areas where you drive. Some jurisdictions prohibit your using a cellular device while driving a vehicle. Even if your jurisdiction does not have such a law, we strongly suggest that, for safety reasons, the driver use extreme caution when operating the cellular device

while the vehicle is in motion. Always obey the law.

Exposure to electronic Devices

Most modern electronic equipment is shielded from RF energy. However, RF energy from cellular devices may affect inadequately shielded electronic equipment.

RF energy may affect improperly installed or inadequately shielded electronic operating and entertainment systems in motor vehicles. Check with the manufacturer or its representative to determine

if these systems are adequately shielded from external RF energy. You should also check with the manufacturer of any equipment that has been added to your vehicle.

Consult the manufacturer of any personal medical devices (such as pacemakers, hearing aids, etc.) to determine if they are adequately shielded from external RF energy.

Turn your SXT-2080 OFF in health care facilities when any regulations posted in the areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy. **Aircraft**

Turn OFF your SXT-2080 before boarding any aircraft.

- Use it on the ground only with crew permission.
- Do not use it in the air.

To prevent possible interference with aircraft systems, U.S. Federal Aviation Administration (FAA) regulations require you to have permission from a crew member to use your cellular phone (or any other cellular product) while the plane is on the ground. To prevent interference with aircraft systems,

FCC regulations prohibit using your cellular device while the plane is in the air.

Children

Do not allow children to play with your SXT-2080 to prevent damage to the unit.

Blasting Areas

Construction crews often use remote control RF devices to activate off explosives. Therefore, to avoid interfering with blasting operations, turn your SXT-2080 OFF when in a "blasting area" or in areas posted: "Turn off two-way radio."

Regulatory Information

FCC compliance Information

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received.

Including interference that may cause undesired operation.

Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio Frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

RF Exposure Guidelines: During transmitter operation, in order to meet RF Maximum Permissible Exposure Safety Guidelines, a minimum distance of 20cm shall be maintained between antenna and personnel.

Licensed by QUALCOMM Incorporated under one or more of the following Patents: U.S. Patent No. 4,901,307 U.S. Patent No. 5,056,109 U.S. Patent No. 5,099,204 U.S. Patent No. 5,101, 501 U.S. Patent No. 5,103,459 U.S. Patent No. 5,107,225