SANCHAR
WIRELESS COMMUNICATIONS LTD.

G6U
License Free
Walkie - Talkie
ETA-SD-20200201124

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INSTRUCTION MANUAL

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1 SAFETY INFO

Notices To The User

■ Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.

■ Illegal operation is punishable by fine or imprisonment or both.

■ Refer service to qualified technicians only.

■ License free radio should be used as programmed by manufacturer.

■ Do not change frequencies.

Safety

■ It is important that the operator is aware of and understands hazards common to the operation of any transceiver.

■ We do not guarantee the safety and operation of the transceiver when using accessories and /or attachments not sold by us.

Warning

Explosive atmospheres(gases,dust,fumes,etc.)

■ Turn off your transceiver while taking on fuel or while parked in gasoline service stations.

⚠ Precautions

Observe the following precautions to prevent fire,personal injury and transceiver damage.

■ Do not modify or attempt to adjust this transceiver for any reason.

1 SAFETY INFO

■ Do not expose the transceiver to long periods of direct sunlight,nor place it close to heating appliances.

■ Do not place the transceiver in excessively dusty, humid,and / or wet areas, nor on unstable surfaces.

■ If an abnormal odor or smoke is detected coming from the transceiver,switch OFF the power immediately and remove the optional battery pack from the transceiver,Contact your dealer.

2 UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

Supplied Accessories

Item	Quantity
Antenna	1
Charger	1
Adaptor	1
Li-ion Battery Pack	1
Belt clip	1
User manual	1
Hand Strap	1

3 BATTERIES

Charging Warnings
Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity. After repeating the charge / discharge cycle two or three times, the operating capacity will increase to normal. Please replace or charge the battery pack while low power alarm.

Available Batteries
Please use our special battery to charge transceiver, if using other brand batteries, it may explode and damage nearby subiects or people.
Note:
1. Do not short the battery terminals or dispose of the battery by fire. Never attempt to remove the casing from the battery pack.
2. The ambient temperature should be between 5 and 40℃ while charging is in progress. Out of the range, the battery may not be charged fully.
3. Always switch OFF the transceiver equipped with a battery pack before charging. Using the transceiver while charging its battery pack will interfere with correct charging.
4. Do not plug/unplug the AC adaptor and battery during charging, to avoid interference charging program.
5. The battery pack life is over when its operating time decrease

3 BATTERIES

even though it is fully and correctly charged. Replace the battery pack.

6. Do not recharge the battery pack if it is already fully charged. It would shorten the life of the battery pack or the battery pack may be damaged.

7. Do not charge transceiver while the battery or units were wet. Ought to dry it with cloth before charging, avoid damaging the unit.

Note: All batteries can cause property damage and/or bodily injury such as burns if conductive materials such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Carefully handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

Charge Operation

When installing the battery, the transceiver lights red. If three beeps sound each 30 seconds, it means low power, please start to charge the transceiver.

Please use our special charger for battery charging, the charger LED display charging status.

LED appears	Status
Red	Charging
Green	Fully charged

3 BATTERIES

To charge battery pack, perform the following steps

1. Plug the AC adaptor cable into the adaptor jack located on the rear of the charger.

2. Put the battery pack or transceiver with a battery pack into the charger.

3. Plug the AC adaptor into AC outlet.

4. Make sure the battery pack contacts are in contact with the charging terminals, the charger LED lights red and charging begins.

5. The supplied charger LED lights green, complete charged. Remove it or the transceiver equipped with it from the charger.
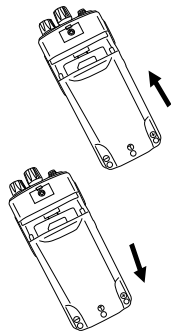
Note:

1. The charger's LED flashing before unplugging battery pack, it is normal.

2. When replace a battery pack to charge, please charging after LED is steady.

3. The charger lights red while charging after plugging the battery, flashing means defective battery or the temperature is too high or low.

4 PREPARATION

Installing / Removing The Battery Pack

The battery pack is not charged at the factory. Charge it before use.

1. Match two bulges of the battery pack with the corresponding socket on the back of the transceiver.
2. Press the battery pack and the transceiver firmly together until the release latches locks.
3. Press the release latches and take out the battery pack from the transceiver.

Installing The Antenna

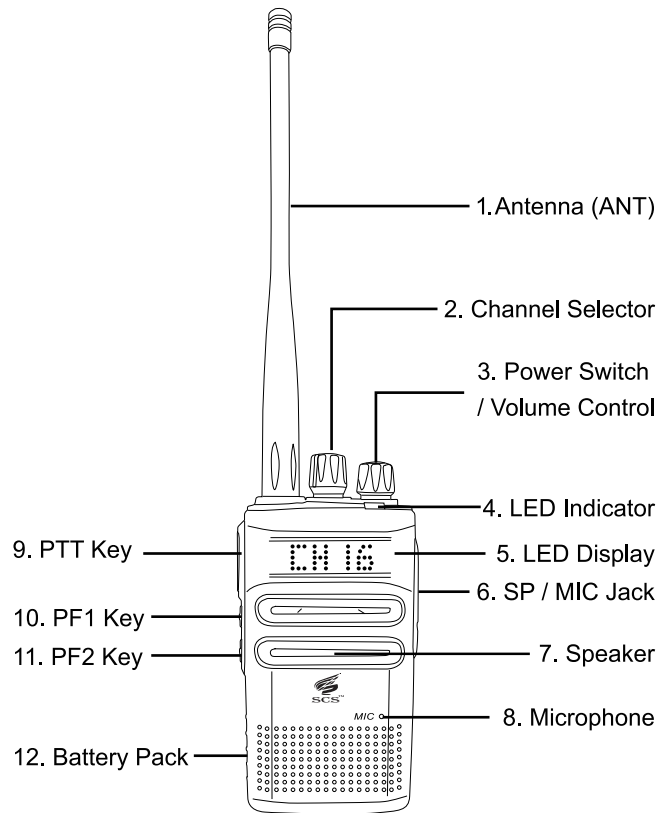Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Note: The antenna is neither a handle, a key ring retainer, nor a speaker / microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.

5 GETTING ACQUAINTED

KEYS AND CONTROLS

1. Antenna (ANT)

2. Channel Selector

3. Power Switch / Volume Control

4. LED Indicator

9. PTT Key

5. LED Display

6. SP / MIC Jack

10. PF1 Key

11. PF2 Key

7. Speaker

8. Microphone

12. Battery Pack

5 GETTING ACQUAINTED

1. Antenna (ANT)
2. Channel Selector
Rotate to select channels from 1 to 16 or work with other functions
3. Power Switch / Volume Control
Turn clockwise to switch ON the transceiver. To switch OFF the transceiver, turn counterclockwise until a click sounds. Rotate to adjust the volume level.
4. LED Indicator
Lights red when transmits. Lights green while receiving a signal. Flashes red while the battery capacity is low in transmitting.
5. LED Display
6. SP / MIC Jack
7. Speaker
8. Microphone
9. PTT (Push-To-Talk) Key
Press and then speak into the microphone to make a call. Release it to receive.
10. Programmable Key (PF1)
Press and hold it to close squelch, background noise is heard. Release it to re-open squelch.
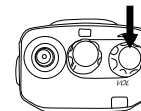11. Programmable Key (PF2)
12. Battery Pack

6 BASIC OPERATIONS

1. Turn the Power Switch /Volume Control clockwise to power on the transceiver.
■ A beep sounds if enabled by your dealer.
2. Press and hold the PF1 side monitor key to hear background noise.
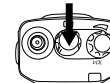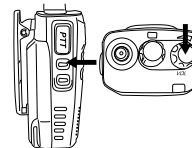The display shows:

Then rotate the Power Switch / Volume Control to adjust the volume.
3. Rotate the channel selector to choose the desired channel.
■ When receive an appropriate signal, a sound from the speaker will be heard.
Note: The radio will stop transmitting and sound an alert tone, when the battery capacity is low.
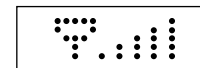Please refer to [Low Battery Alert]

Transmitting (PTT)
1.To transmit, hold the radio 5cm far away from the mouth, and press PTT key to speak into the microphone with normal voice.
The LED lights red and signal strength indicator appears on the LED display.

6 BASIC OPERATIONS

2. After speaking, release the PTT key to receive.

Note: When TOT function is on, if the transmitting time exceeds set time, the inner timeout timer will sound beep alarm and then the radio will stop transmitting. In this case, release the PTT key to have a short rest and then press PTT key to continue to transmit.

Programming Function Keys

The PF1, PF2 key can be defined by programming software. Totally 12 functions can be selected for defining:

1. Monitor
2. Monitor Momentary
3. Scan
4. Alarm
5. Priority Scan
6. VOX
7. Key Lock
8. MENU
9. SQL
10. LED
11. LOCK
12. BATT

Note: In scan mode, once a signal is received, if no operation in 5S, the transceiver will continue to scan.

7 MENU SETUP

What Is A Menu?

Many functions on this transceiver are selected or configured via a software-controlled Menu rather than through the physical controls of the transceiver. Once become familiar with the Menu system, its versatility will be appreciated. The various timings, settings, and programming functions on this transceiver can be customized to meet common needs without using many controls and switches.

Menu Function list

On the display	Menu No.	Function	Selections	Default	Description
SQL	1	Squelch Setting	0~9	5	5 level
POW	2	TX power selection	H/L	H	High power
SMO	3	Scan mode operation	TO/CO/SE	TO	Time
SCN	4	Scan ON/OFF	ON/OFF	OFF	Off
LED	5	LED display mode setting	LE-Y/LE-A	LE-Y	Always on
SCP	6	Scan channel priority	01~99	01	Channel 01
LCK	7	Lock mode setting	MANU/AUTO	MANU	Manual
CAT	8	Call tone selection	C-T1/2/3/4/5	1	1
TOT	9	Time-out timer	OFF/10S./180S	30S	30S
BCL	10	Busy channel lockout	BL-N /BL-Y	BL-N	Off
CALL	11	Call reminder setting	ON /OFF	OFF	Off
BATT	12	Battery voltage checking	5V to 8.6V	7.4V	7.4V

8 MISCELLANEOUS FUNCTION

Adjusting The Squelch

The purpose of squelch is to mute the speaker when no signal is received. With the squelch level correctly set, only sound is heard when receiving signals. The higher the selected squelch level is, the stronger the signal must be to be received. The approximate squelch level set should depend on the ambient RF noise conditions.

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.1 [SQL].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to adjust the squelch level.
■ Select the right level at which the background noise is just eliminated when no signal is received.
■ The higher the level, the stronger the signals must be to be received.
■ 9 different levels can be set (0: minimum, 9: maximum, Default value: 5).
5. After setting, press [MENU] key to store new setting and continue other menu operations.
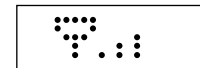
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8 MISCELLANEOUS FUNCTION

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
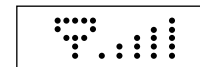2. Rotate the channel selector to select sub-menu No.2 [POW].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose desired output power between "PO-L" (low power) and "PO-H" (high power).

■ If "PO-L" low power is selected, the LED display shows as following in transmitting:

■ If "PO-H" high power is selected, the LED display shows as following in transmitting:

5. After setting, press [MENU] key to store new setting and continue other menu operations.

Scan Mode Operation

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.3 [SMO].

8 MISCELLANEOUS FUNCTION

3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose desired scan mode in "TO" (Time-Operated), "CO" (Carrier-Operated), and "SE" (Seek).
■ Time-Operated Mode (Default)
The transceiver remains on a busy frequency (or memory channel) for approximately 5 seconds, and then continues to scan even if the signal is still present.
■ Carrier-Operated Mode
The transceiver remains on a busy frequency (or memory channel) until the signal drops out. There is a 5-second delay between signal dropout and scan resumption.
■ Seek Mode
The transceiver moves to a frequency or memory channel where s signal is received and stops.
5. After setting, press [MENU] key to store new setting and continue other menu operations.

Scan ON/OFF
1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
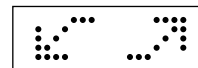2. Rotate the channel selector to select sub-menu No.4 [SCN].
3. Press [MENU] key (programmable key) to confirm the

8 MISCELLANEOUS FUNCTION

selection.
4. Rotate the channel selector to turn on or off the scan function.
■ If SCAN is on, the LED display shows:

5. After setting, press [MENU] key to store new setting and continue other menu operations.
Note: Once a signal is received, if no operation in 5 seconds, the transceiver will continue to scan.

Display Mode Setting
1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.5 [LED].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose the display mode between "LE-Y"(always on) and "LE-A" (auto).
■ LE-A: auto (will automatic be off in 10 seconds without any operation)
■ LE-Y: always on
5. After setting, press [MENU] key to store new setting and continue other menu operations

8 MISCELLANEOUS FUNCTION

Priority Scan Channel Setting

Sometimes it is needed to detect some priority channel activity while monitoring other channels. In this case, *Priority Scan* function can be set to meet the requirement, where the transceiver will detect the priority channel activity every 5 seconds. The priority channel will be priority if a signal is detected on it.

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.6 [SCP].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose the desired channel from 01~09 to set to priority channel.
■ The transceiver checks for a signal on the Priority Channel by the set time.
■ If no operations in 3 seconds after the signal disappears, the transceiver will return back to previous channel and resumes Priority Scan
5. After setting, press [MENU] key to store new setting and continue other menu operations.

8 MISCELLANEOUS FUNCTION

Lock Mode Setting

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.7 [LCK].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose the desired lock mode.
■ MANU: lock manually (Press the MENU key for more than 3 seconds).
■ AUTO: lock automatically (If no operation in 8 seconds, the transceiver will lock automatically).
5. After setting, press [MENU] key to store new setting and continue other menu operations.

Call Tone Selection

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.8 [CAT].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose the desired call tone (Tone 1~5).
5. After setting, press [MENU] key to store new setting and continue other menu operations.

8 MISCELLANEOUS FUNCTION

Time-out Timer

The Time-out Timer limits the time of each transmission. The built-in Time-out Timer limits each transmission time to OFF, 10S (shortest), 180S (longest). Before the transceiver stops transmitting, a warning beep sounds. This function is necessary to protect the transceiver from thermal damage due to overheat, and therefore it is recommended not to be turned OFF.

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.9 [TOT].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose the desired transmitting limitation: OFF, 10S, 20S, 30S (Default), 40S, 50S...180S.
5. After setting, press [MENU] key to store new setting and continue other menu operations.

Busy Channel Lockout (Bcl)

This function is used in order to prevent transmitting on a channel or frequency that is currently using. When it is turned ON, an error beep sounds and unable to transmit by pressing [PTT] key.

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.

8 MISCELLANEOUS FUNCTION

2. Rotate the channel selector to select sub-menu No.10 [BCL].
3. Press [MENU] key (programmable key) to confirm the selection.
4. Rotate the channel selector to choose "BL-N" or "BL-Y".
■ "BL-N" means the transceiver can normal transmit while in receiving.
■ "BL-Y" means the transceiver can't transmit while in receiving.
■ Busy channel lockout function on each effective channel can be turned on or off by programming software.
  (1). If QT or DQT signal is not set, the transceiver is forbidden to transmit when receiving a signal.
  (2). If QT or DQT signal is set, the transceiver is able to transmit when receiving a signal and QT or DQT signal; it is forbidden to transmit when receiving a signal but without QT or DQT signal.
5. After setting, press [MENU] key to store new setting and continue other menu operations.

Call Reminder Setting

1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.11 [CALL].
3. Press [MENU] key (programmable key) to confirm the selection.

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4. Rotate the channel selector to choose turn on or off call reminder.
5. After setting, press [MENU] key to store new setting and continue other menu operations.

Battery Voltage Checking
1. In standby mode, press [MENU] key (programmable key) to enter into MENU.
2. Rotate the channel selector to select sub-menu No.12 [BATT].
3. Press [MENU] key (programmable key) to confirm the selection.
4. The current battery voltage will show on the LED display.
5. After setting, press [MENU] key to store new setting and continue other menu operations.

VOX
Following functions can be programmed in programming software.
■ VOX Function On/Off
■ VOX Gain: the level is from 1~10, the higher it is set, the higher the sensitivity will be.
■ VOX Delay: if the transceiver reverts to receiving mode after transmitting immediately, the last part of transmission may not be transmitted successfully. This problem can be avoided by

8 MISCELLANEOUS FUNCTION

programming VOX delay time in the software. If VOX is on, when press PTT key, VOX function is turned off automatically. Turn on the transceiver again to restore VOX function.

CTCSS (QT-50 Codes) /DCS (DQT -107 Codes)
The seller or manufacturer can use the programming software to set QT or DQT code. If a channel is set QT or DQT code, the squelch function will turn on only when receiving a signal with same QT or DQT code. Similarly, only when the QT/DQT signal mode for the transmitter is same as the receiver, can the radio receive the signal successfully. If the other makes a call at same channel with different QT/DQT code, the squelch is unable to turn on, and the LED lights yellow to remind.
Note: For the way to set QT or DQT code please refer to the programming software.

Voice Annunciation
1. Turning on the transceiver or rotating the channel selector to change channel, the transceiver has a voice annunciation.
2. The dealer or distributor can program the voice annunciation to be "OFF" or "English".
If it is programmed to be "OFF", no voice annunciation will be heard.

9 LICENSE FREE FREQUENCY TABLE

Channel	RX Frequency	TX Frequency
1	446.00000	446.00000
2	446.01250	446.01250
3	446.02500	446.02500
4	446.03750	446.03750
5	446.05000	446.05000
6	446.06250	446.06250
7	446.07500	446.07500
8	446.08750	446.08750
9	446.10000	446.10000
10	446.11250	446.11250
11	446.12500	446.12500
12	446.13750	446.13750
13	446.15000	446.15000
14	446.16250	446.16250
15	446.17500	446.17500
16	446.18750	446.18750