Any Time, Anywhere
Unication is committed to Provide You the Best Solution

G4/G5 Voice Pager Supports P25 Radio Systems Now!

Analog / Digital / Multi-Protocol

Voice Pager Specially Designed for Public Safety

▰ Advanced Radio Performance
▰ Mission Critical Applications
▰ Optional GSM Features Available

Unication

If you have any questions, please call our main line: 817-303-9320.
www.Unication.com

I N D E X

G4 Digital Trunking and Analog Voice Pager Specification & Feature

A1 Operating Environment			
a	Physical Operating Environment	Operating Temperature Range	-30 to + 60°C
		ESD (Electrostatic Discharge)	contact ± 8KV Air ± 15KV
b	System Operating Environment	Available Modulation Type	Analog (AM / FM)
			Digital (TDMA / FDMA)
			Digital and Analog identify modulation type and decode protocol automatically at the same time. (on same channels and same frequencies)
		Available Support Protocol	Analog : 2-Tone / 5-Tone / MDC 1200 / CTCSS / CDCSS
			Digital : P25 Conventional
		Available Support Frequency Range	VHF Band : 136MHz~174MHz
			UHF Band : 406MHz~512MHz
			700 / 800 MHz Band : 764MHz~870MHz
c	Apply to (Group)		
A2 Hardware Specification			
a	Mechanical	Fixed and Carry Style	Belt Clip
		Size	102 x 61 x 31.5 (L*W*H /mm)
		Weight (g)	Without Battery(g) : ≤ 220 (g)
		Dust / Waterproof	According to specification of MIL-810 & Ingress Protection Rating is IP 67
		Special Requirement	Drop Protection Pad
			Display UV Protection
b	Operation Buttons	Fixed Function Key	13
		Soft Key	4
		Navigation Key	1
		Power	
		Volume Control	
		Channel Switch	8
c	Display	Display Type	LCD
		Saturation (grayscale / full color)	full color
		Size (length x wide)	2.0 inches (30.6x40.8/mm)
		Number of Dots	220 x 176
		Characters & Length	9 lines x 22 characters
d	Backlights	Type (LED / EL ...) : LED	
e	LED	LED Type (monochrome / multicolor) : red / green / blue / orange	Power LED: No Brightness – Power off / Power on completed

G4 Digital Trunking and Analog Voice Pager Specification & Feature

A2 Hardware Specification				
e	LED	LED Type (monochrome / multicolor) : red / green / blue / orange	Blue - Power on / Connected with USB cable / Charging completed Flash Blue - Charging Message LED: No Brightness – No signal Red - Receiving voice call or data call	
f	Frequency / Channel Specification	Frequency Setting	Channel Spacing	Wied Band : 20/25k
				Narrow Band :10/12.5k
				Scan : 2.5k
		Number of Channels	Hardware : 8 (do not need to switch via software)	
			Software : 64 (8 Ch / 8 Zone) (switch via software)	
			Total : 64	
		Capcodes (Addresses) Frequency / Channel Specification of each channel	Analog	
			Digital	
g	Type of Alert	Tone : Buzzer and speaker are the main device to be used as message alert and reminder		
		Vibration : Motor and vibration speaker device are useful in meeting		
		Tone and Vibration : Alert tone and vibration remind users as the same time		
		Vibration then Tone : Vibrate first, then alert after few seconds		
		Blacklight : Coloured backlights indicate users to identify the important level of each message, such as different colors, flashing backlights, different brightness		
		LED : Different LED colors, flashing LED, different indicators		
h	External Port	Power Interface : 5V/1.5A DC Internal Power Supply / Battery input interface		
		Data recording streaming interface (PPS)	Mini USB	
		Wireless data streaming interface: (Bluetooth, WiFi…)		
i	Power Supply	Battery type : (Alkaline battery, Lithium Ion battery)	1. Lithium Ion Rechargeable Battery：3.7V / 2450mA 2. LiIon Rechargeable Battery：3.7V / 2450mA	
		Battery Life : (Average bettery life at 5/5/90 duty cycle, 3 paging per day)	> 24 hrs 2-Tone protocol continuous using 24 hrs per day Receiving 5 mins of 2-Tone voice message per hour	
j	Storage Memory	Built-in Storage Memory: (including voice, text & saving time of data)	Voice	
			Text	
			Others (Photos / Profiles…)	
A3 Electrical Characteristics				
a	Audio Performance	Audio quality : Audio input in 1KHz, then modulated by system	Receive	Hum & Noise Ratio	> 34 dB
				Squelch Level	< -57 dBw
				Audio Distortion	< 2 % (Electrical) < 3 % (Acoustic)
			Play Back	Audio Distortion	< 3 % (Electrical) < 4 % (Acoustic)
		SPL (12") : Alert tone loudness at 12 inches	Alert Output	96 +/- 2 dB SPL	

G4 Digital Trunking and Analog Voice Pager Specification & Feature

A3 Electrical Characteristics					
a	Audio Performance	SPL (12") : Alert tone loudness at 12 inches	Speech Output	94 +/- 2 dB SPL	
b	RF RX Performance	Frequency Stability : at the normal atmospheric temperature (25°C)	Low band	+/- 1 ppm	
			VHF		
			UHF		
		Channel Spacing : at (25 °C)	Low band	10/12.5/20/25 kHz	
			VHF		
			UHF		
		Alert Sensitivity 20 paging : at (25 °C)	Low band	≦-121dBm	
			VHF		
			UHF		
		Alert Probability VS RF Level: at (25 °C)	Low band	100% @ Paging Sensitivity + 3 dB	
			VHF		
			UHF		
		Message Sensitivity 20 paging : (Voice Pager @ 12dB SINAD) (Alpha Pager 3 Non-error) : at (25 °C)	Low band	≦ 4.0 uv/m	
			VHF	≦ 2.5 uv/m	
			UHF	≦ 3.5 uv/m	
		Message Probability VS RF Level : (Voice Pager @ 12dB SINAD) (Alpha Pager 3 Non-error) : at (25 °C)	Low band	≦ 4.0 uv/m	
			VHF	≦ 2.5 uv/m	
			UHF	≦ 3.5 uv/m	
		Adjacent Channel Selectivity : at (25 °C)	Low band	≧65 dB @ ±25 KHz	
			VHF		
			UHF		
		Co - Channal Rejection : at (25 °C)	Low band	> -8 dB	
			VHF		
			UHF		
		Intermodulation Rejection : at (25 °C)	Low band	≧ 70dB @ Alert ≧ 70dB @12dB SINAD	
			VHF		
			UHF		
		Intermodulation High Level Third Order Rejection : at (25 °C)	Low band	≧ 35 dB @PS.+60dB	
			VHF		
			UHF		
		Spurious & Image Rejection : at (25 °C)	Low band	≧ 70 dB	
			VHF		
			UHF		
		Blocking Rejection : at (25 °C)	Low band	≧ 90 dB	
			VHF		
			UHF		

A4 CERTIFICATION			
a	Certification	FCC : Part 15 Subpart B / ICES-003	
		CE : EN55022 / EN55024 / EN61000-3-2 / EN61000-3-3	
		RoHS	
		UL	Division 1, Class I, Group C, D, / Class II, Group E, F, G
		MIL-STD	

B. Additional Function with unique accessaries		
a	Audio Amplification / Enhance receiving signal / LED Display / Relay / Remote control (OTAC)	

Part B. Pager Overview

B1. Pager Appearance

Front View

Side View

Rear View

Top View

Accessories

▼ Belt Clip   ▼ USB Cable

◄ Lithium Ion Battery Pack

NO.	Description
1	LED Indicator
2	Navigation Key
3	Soft Key (K1~K4)
4	Back Key (F2)
5	Home Key (F1)
6	Speaker
7	Microphone
8	Receive Antenna
9	Channel Knob
10	Play Key
11	Power on/off & Volume Knob
12	Reset Key
13	Function Status on/off Key (S1)
14	Mini USB Port
15	Belt Clip
16	Battery Cover

B2. LCD Display

Status Bar

Text Area

Tool Bar
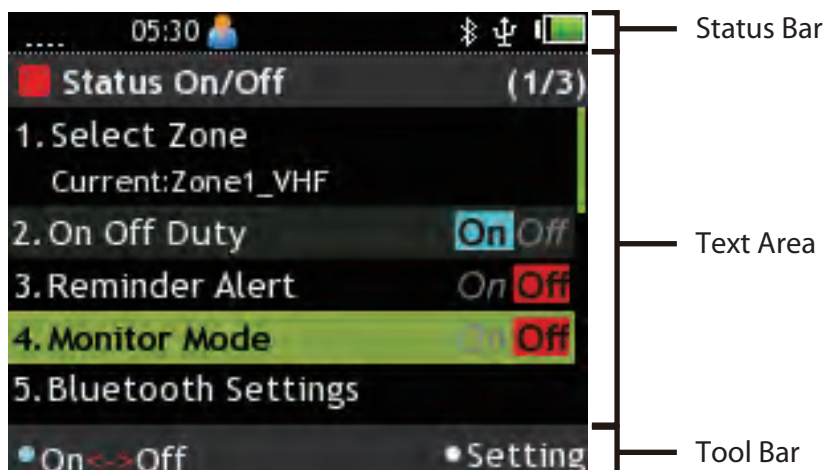
B3. LCD Introduction

Power LED

Message LED

Power LED:

NO.	Entity Key	Description
1	Blue	● Power on process ● USB cable is connected to G4 and charging is completed.
2	Flash Blue	● Charging

Message LED:

NO.	Entity Key	Description
1	Red	● Receiving voice call or data call

B4. Icon Introduction

Status Bar Icon

NO.	Item	Icon	Description
1	RF Strength	▮▮▮	RF signal strength.
2	Out of Range	⊗▮▮	Signal is out of range.
3	Message Hint	💬	Unread message icon indication.
4	Time Display	18:30	Time display (24 hour clock).
5	Off Duty Status	☕	Off duty status.
6	On Duty Status	👷	On duty status.
7	Bluetooth	✳	Bluetooth is activated.
8	Bluetooth Headset	✳🎧	Bluetooth earphone is connected.
9	USB cable	⯊	USB cable is connected.
10	Trunking Status	T	Trunking registered.
		S	Trunking scanning.
11	Clock Alarm	⏰	Clock alarm is activated.
12	Battery Status	🔋 🔋 🔋 🔋 🔋	The battery gauge indicator is located on the status bar and keeps you informed of the batery energy level. The five indicators are:100%, 75%, 50%, less 0% (flashing battery icon).

C1. Initial Use

Install Battery

① Turn the screws and remove the battery cover.

② Insert the battery pack into G4.

③ Replace the battery cover and and tighten the screws.
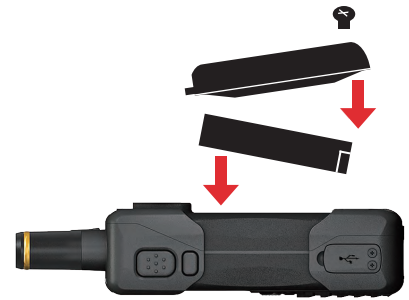
Insert the battery so that the connector pins align with battery contacts of the G4.

Battery Charging

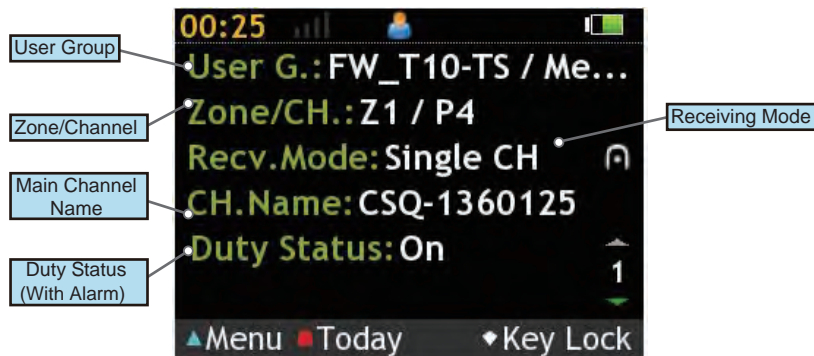G4 has its own customized lithium Ion battery, it can be charged by mini USB cable.

USB power specification: 5V/1A
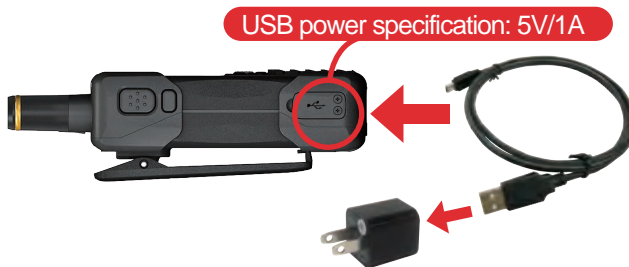
Power On

After the battery installed , turn the volume knob clockwise to turn on G4. You will hear "click" sound and see the word of "Loading" on the display.

Power on

Standby Screen

On the standby screen, G4 displays information on the current receiving mode.

User Group

Zone/Channel

Main Channel Name

Duty Status (With Alarm)

Receiving Mode

00:25

User G.: FW_T10-TS / Me...
Zone/CH.: Z1 / P4
Recv.Mode: Single CH
CH.Name: CSQ-1360125
Duty Status: On

▲Menu ■Today ◆Key Lock

Receive Message

G4 displays the information of the incoming call when receives a message.

Protocol

Receiving Channel

Caller ID

Caller ID

Call Duration

Protocol: P25   FER: 0.0%
■ Receive(CH:P25C-1360125)
Type: Voice Call
From: [255]
To: Group01
Listening...
Recording   00:03
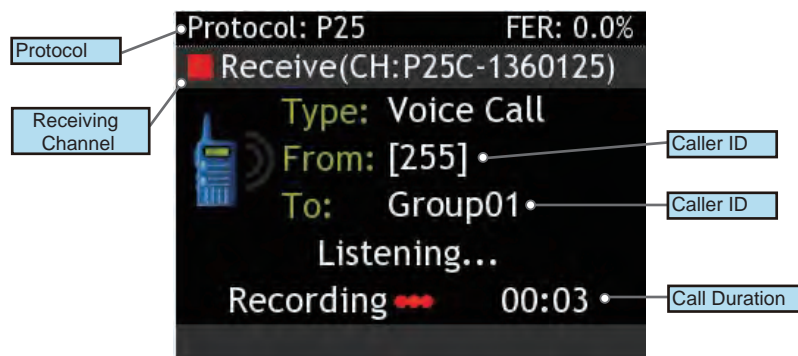
Main Menu

1. In Standby Mode, press the "K1" soft key to enter the Main Menu.

2. Press the "Home" key to go back to Standby Mode.
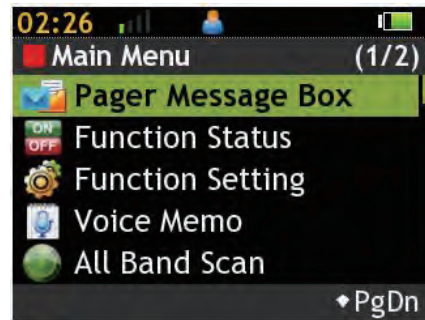
C2. Pager Message Box

● View and Manage Text Message Records in Message Box.

1. Enter Message Box:
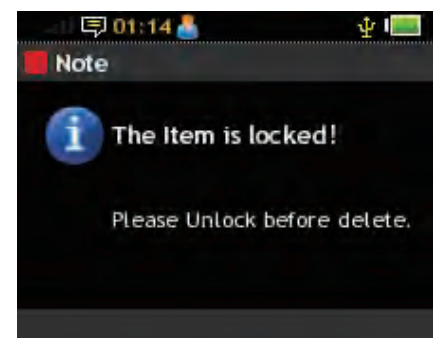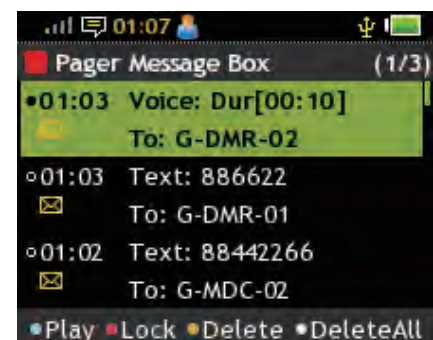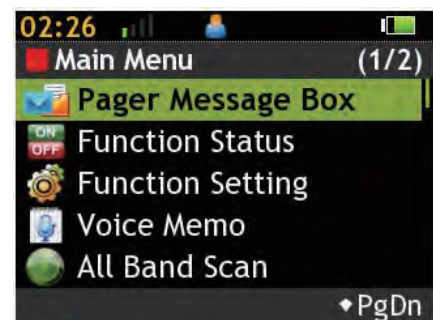Use the Navigation Key to select Message Box in the Main Menu.

2. Operation:
A. Use the Navigation Key to select Message.
B. Press the "K1" Key to read highlighted message.
C. Press the "K2" Key to lock/unlock highlighted message. A lock icon shows on a locked message.
D. Press the "K3" Key to delete highlighted message.
E. Press the "K4" to delete all messages.

3. Read Message:
A. Use the Navigation Key to scroll the message.
B. Press the "K1" Key to lock/unlock the message.

Note: A locked item cannot be deleted.

C3. Function status

● **Enter Function Status:**
Use the Navigation key to select Function Status in the Main Menu.

● **Basic Operation:**
Use the Navigation Key to select features to set.
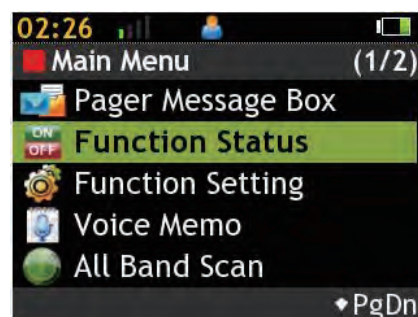
1. Select Zone:
Press the "K1" Key to enter setting screen. Use the Navigation Key to select Zone and then press the "K1" Key to confirm. Press the "K2" Key to save. You can press the "K4" Key to check detailed information of highlighted Zone.

2. On Off Duty:
Press the "K1" Key to enable or disable the feature. If On Off Duty is disabled, the speaker is muted when receiving messages.
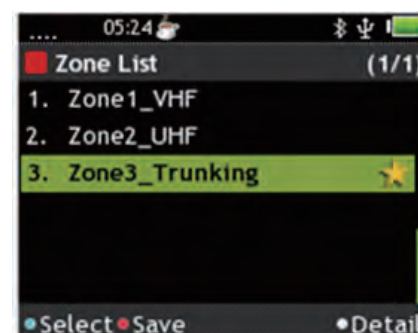
3. Bluetooth:

Bluetooth Device: Press the "K1" Key to enable or disable the feature.

Connect Bluetooth Earphone: Press the "K1" Key to start searching for the Bluetooth Earphone devices.

Connect another Bluetooth Device: Press the "K1" to start searching for Bluetooth devices other than earphone.

If only a Bluetooth device is found, the G4 starts pairing to the device. The G4 shows the pairing status on the screen.

If there are 2 or more devices, use the Navigation Key to select device and press the "K1" Key to start pairing.

Press the "K1" Key to stop Bluetooth pairing.
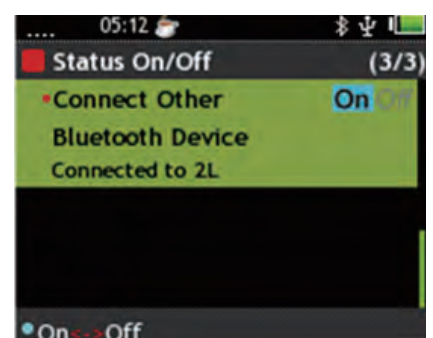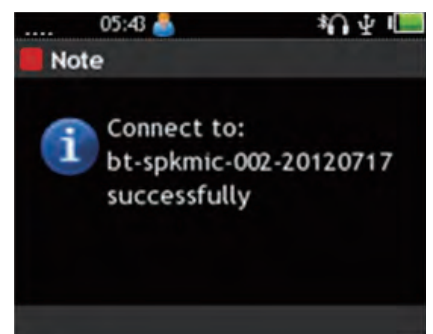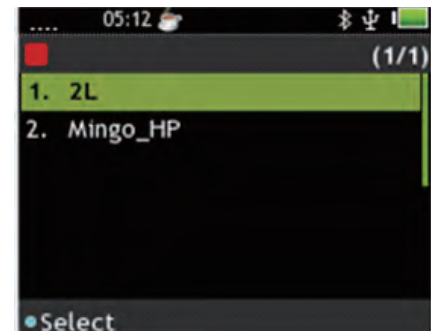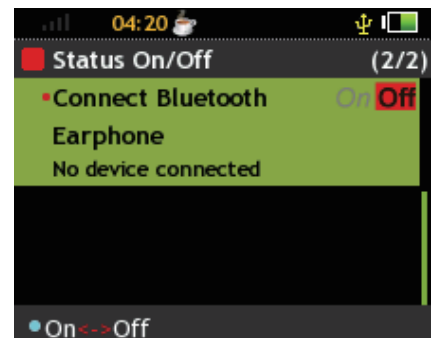
C4. Voice Memo Box

● View and Manage Voice Memo in Voice Memo Box.

1. Enter Voice Record Box:
Use the Navigation Key to select the Voice Memo Box in the Main Menu.

2. Record a New Voice Memo:
If there is no voice memo, press the "K1" Key to start recording.
A. Press the "K1" Key to pause.
B. Press the "K4" Key to save the voice memo.
C. Press the "K1" Key to set the voice memo as Alarm.
D. Press the "F2" Key to back to Voice Memo box.

3. Voice Memo:
View and manage the voice memos.
Features page 1:
A. Press the "K1" Key to play highlighted voice memo.
B. Press the "K2" Key to set highlighted voice memo as Alarm.
C. Press the "K3" Key to record a new voice memo.
D. Press the "K4" Key to switch to features page 2.
Features page 2:
E. Press the "K1" Key to lock/unlock the highlighted item.
F. Press the "K2" Key to delete the highlighted item.
G. Press the "K4" Key to switch to features page 1.

4. Set Alarm:
A. Use the Navigation Key to move.
B. Press the "K1" Key to make highlighted value +5.
C. Press the "K2" Key to make highlighted value +1.
D. Press the "K3" Key to make highlighted value -1.
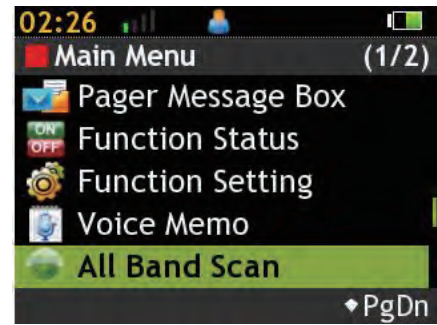E. Press the "K4" Key to save.
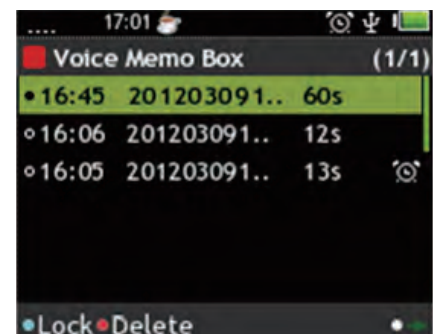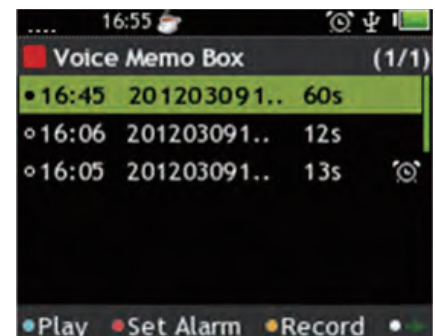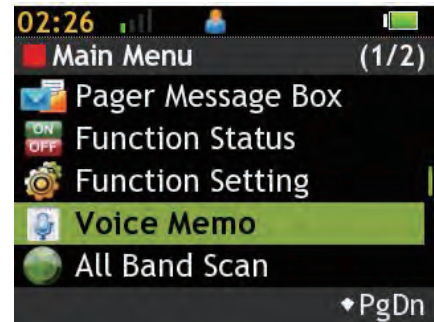
C5. All Band Scan

● Set a range to scan, or view the scanned channel list.

1. Enter Voice Record Box:
A. Use the Navigation Key to select All Band Scan in the Main Menu.
B. Use the Navigation Key to select a feature, and press the "K1" key to enter.
C. Press the "K1" Key to set the voice memo as Alarm.
D. Press the "F2" Key to back to Voice Memo box.

**2. Start a New Scan:**
Set scan range, band and frequency step.
A. Use the Navigation Key to move.
B. Press the "K1" Key to set the highlighted item. Use the Navigation Key to adjust numeric value.
C. Press the "K4" Key to start scanning.
D. Press the "K1" Key to stop scanning.
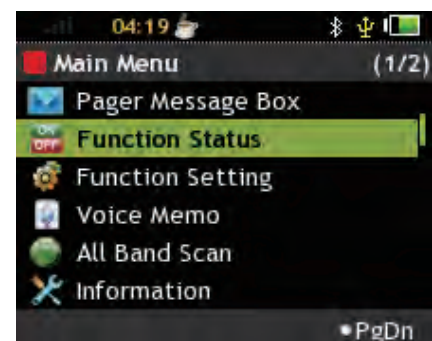
3. Active Frequency List:
View and manage scanned channel list.
A. Use the Navigation Key to move.
B. Press the "K1" Key to monitor the highlighted channel.
C. Press the "K2" Key to lock the highlighted channel.
D. Press the "K3" Key to delete the highlighted channel.
E. Press the "K4" to delete all scanned channels.
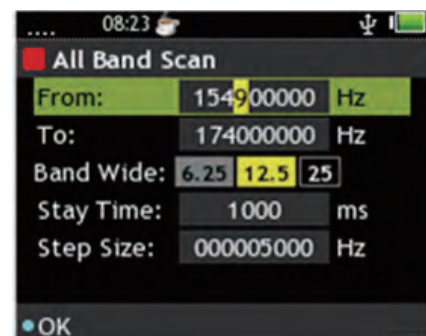
C6. Function Setting

● View and manage pager basic function.

  ■ Enter Function Status:
    Use the Navigation Key to select Function
    Setting in the Main Menu.
  ■ Basic Operation:
    Use the Navigation Key to select function.
    Press "K1" Key to start setting.

1. Zone:
    Please refer C2-1 to get detailed information.

2. Alert Tone Volume:
    Use the "K1" Key to adjust the pager tone volume.
    A. Operation Allowed: Operation successed.
    B. Operation Succeed: Message received.
    C. Operation Failed: Message receiving failed.
    D. Message Arrived: Text message received.
    E. Alarm: Alarm volume

3. Backlight Mode&Level:
    Use the "K1" Key to adjust backlight mode.
    A. Mode: Select the backlight mode. There are 2
       modes: "Manual" or "Auto".
    B. Manual: Night is low level, Day is medium and
       Glare is high level of backlight.
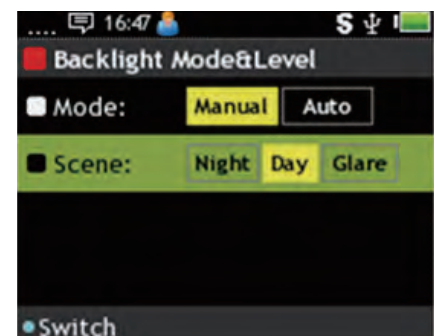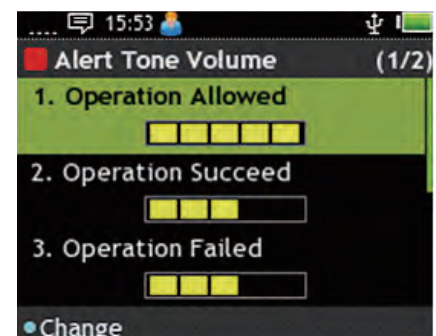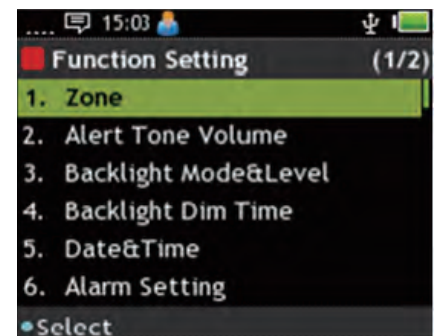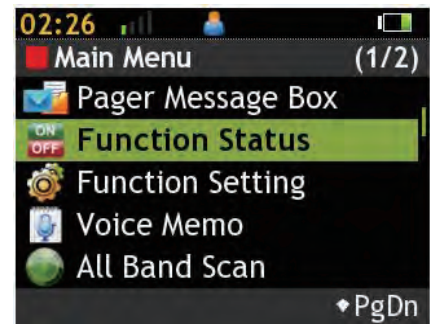
4. Backlight Dim Time:
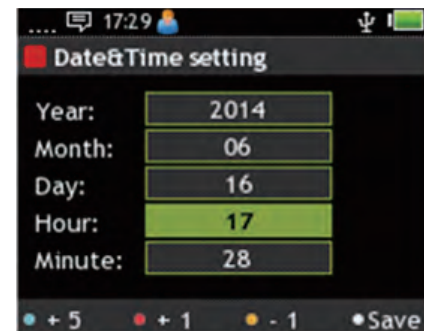
Adjust screen backlight dim time.
A. Use the Navigation Key to move.
B. Press the "K1" Key to make highlighted value +5.
C. Press the "K2" Key to make highlighted value +1.
D. Press the "K3" Key to make highlighted value -1.
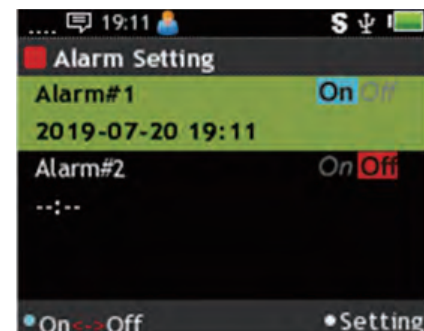E. Press the "K4" Key to save.

5. Date & Time:

Adjust Time of pager.
A. Use the Navigation Key to move.
B. Press the "K1" Key to make highlighted value +5.
C. Press the "K2" Key to make highlighted value +1.
D. Press the "K3" Key to make highlighted value -1.
E. Press the "K4" Key to save.

6. Alarm Setting:

Set up to 2 sets of Alarm.
A. Use the Navigation Key to move.
B. Press the "K1" Key to activate the Alarm.
C. Press the "K4" Key to set.

Alarm setting:
A. Use the Navigation Key to move.
B. Press the "K1" Key to make highlighted value +5.
C. Press the "K2" Key to make highlighted value +1.
D. Press the "K3" Key to make highlighted value -1.
E. Press the "K4" Key to save.

7. Monitor Mode:

Please refer to C2-4 for more detailed information.
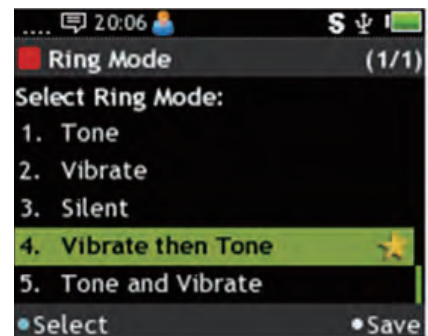
8. Ring Mode:

Select Ring mode.

There are 5 modes:

- Tone: Tone only.
- Vibrate: Vibrate only.
- Silent: Mute mode.
- Vibrate then tone: Vibrate first then tone.
- Tone and Vibrate: Both.
- A. Use the Navigation Key to move.
- B. Press the "K1" Key to select.
- C. Press the "K4" Key to save.

C7. Information

- View the Pager information.

1. Enter Information:

Use the Navigation Key to select Information in the Main Menu.
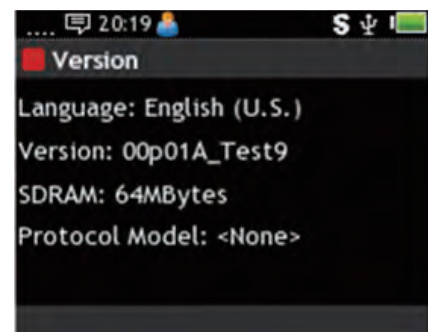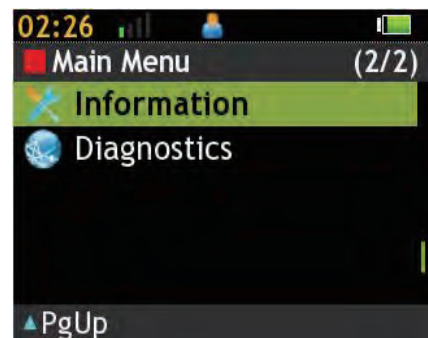
2. Read:

Language: Display language

- Language: Display language
- Version: Firmware version.
- SDRAM: SDRAM size.
- Protocol Model: Device model type.

C8. Diagnostic

● View the radio signal strength.

1. Enter Message Box:
Use the Navigation Key to select Message Box in the Main Menu.

2. Read Information:
A. Rpt Name: Name of repeater
B. RSSI(dBm): Radio Signal Strength Indicator.
C. Protocol: Using Protocol of current channel.
D. Frame Error: Received signal error radio.
E. Others: Refer to channel setting.