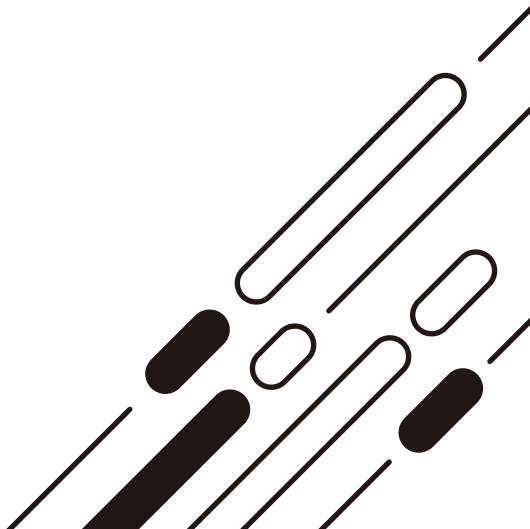
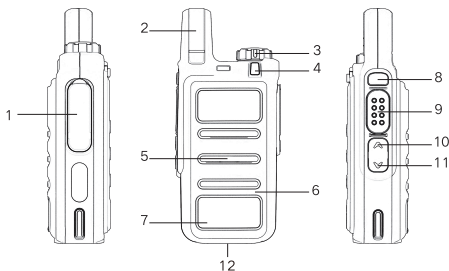


**NOISE CANCELLING  
TWO WAY RADIO  
USER MANUAL**





## Product Overview

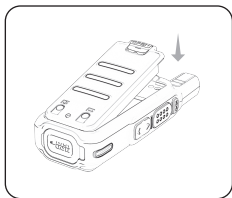


No.	Part Name
1	Speaker/Microphone jacks
2	Antenna
3	Power switch /Volume control
4	LED Indicator
5	Speaker
6	Microphone
7	Noise Cancelling Indicator
8	Press the [NC] button to enable the scan function, then press any button to exit the scan mode; Press and hold the [NC] button for 3 seconds to enable/disable the noise canceling button.
9	PTT Switch(Push-To-Talk)
10	Press the [Channel+] to select channel upward, press and hold the button for 3 seconds to turn on/off the VOX function.

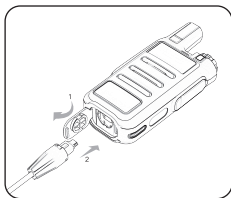


No.	Part Name
11	Press the [Channel-] to select channel downward, press and hold the button for 3 seconds to turn on/off the Monitor function.
12	USB Charging Port

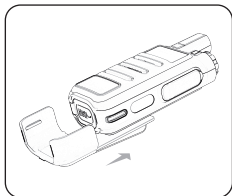
### Installing the Battery



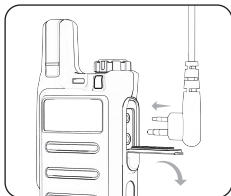
### Charging the Battery Pack



### Installing the Belt Clip



### Installing the Speaker/Microphone





## Functions and Operations

### Powering On/Off

Turn the Power/Volume Knob clockwise to switch the transceiver power ON till a click is heard.

### Selecting a Channel

Press UP/DOWN Key to select a desired channel. Press UP key to increase the channel, press DOWN key to decrease the channel.

### PTT (push to talk) Button

Press this key , then speak into the microphone to call. Release it to receive.

### Squelch Level (Programmable on PC)

You can preprogram the squelch level. When transceiver is in use, the squelch level is adjustable: 10 levels: from 0 (switch on) to 9(deep). Default: 3

### Noise Cancelling (Press and hold the [NC] button to activate)

Long press Noise Cancelling Button for 2 seconds to turn on noise cancelling function until a beep heard and the noise cancelling indicator lights blue when transmitting. This function can also be turned on/off even during a call.

### Monitor (Press and hold the [Channel -] to activate)

Use the Monitor function to check if a channel is currently in use by others.

When an empty channel is located, you will hear continuous static and noise on that channel.



### **Time-out Timer(TOT) (Programmable on PC)**

The purpose of the Time-out Timer is to prevent any caller from using a channel for an extended period of time. If you continuously transmit for a period of time that exceeds the programmed time set by programming software, the transceiver will stop transmitting and an alert tone will sound. To stop the tone, release the PTT key.

### **Scan (Press [NC] button to get into scan mode)**

When a transceiver is set by programmable software as scannable, press the channel select key to channel 16, the transceiver will automatically detect the activities of scannable channels from 1 to 16, (programmable software can define different channels to be scannable or unscannable). When a scanned channel has signals, transceiver will automatically stay in this channel for talking.

Note:

Transceiver will stay in a channel having signals, 5 seconds after the signals disappear, it will continue scanning next channels.

When there are less than 2 scannable channels, it can not scan.

### **Battery Save**

Battery Save function will decrease the amount of power used when a signal is not being received and no operations are being performed(no keys are being pressed, and no switches are being turned). While the channel is not busy and no operation is performed for 5 seconds, battery save turns ON. When a signal is received or an operation is performed, battery save turns OFF.



## **Busy Channel Lockout(BCL)**

When activated, BCL prevents you from interfering with other parties who may be using the same channel that you selected. Pressing the PTT switch while the channel is in use will cause your transceiver to emit an alert tone and transmission will be inhibited(you cannot transmit).

Release the PTT switch to stop the tone and return to receive mode.

Note: Busy Channel Lockout shall be setup in PC software.

## **High/Low Power Output**

Switch the power output between high and low in PC software. Default: High Power.

## **Wide/Narrow Band (25KHz/12.5KHz)**

You can select wide band and narrow band in PC software. Default: Wide Band

## **VOX (Press the [Channel+] to turn the VOX on/off)**

VOX operation allows you to transmit hands-free. VOX function shall be setup in PC software. When operating VOX, you must set a VOX Gain level. This setting allows the transceiver to recognize sound levels. If the microphone is too sensitive, it will begin transmitting when there is noise in the background. If it is not sensitive enough, it will not pick up your voice when you begin speaking. Be sure to adjust the VOX Gain level to an appropriate sensitivity to allow smooth transmission.

Note: If a speaker/microphone is connected to the transceiver while the VOX function is switch ON and the VOX Gain level is configured to a higher, more sensitive



level, louder received signals may cause the transceiver to start transmission.

### **DCS Mode**

You can setup DCS mode on each channel in PC software. There are two options: Normal and Special.

When you choose special one, even you have the same DCS with other radio, you cannot hear others and others also cannot hear you, this function will guarantee privacy of your talk.

Default: Normal.

### **QT/DQT**

A QT tone/DQT code is a sub-audible tone/code which allows you to ignore (not hear) calls from other parties who are using the same channel.

When a channel is set up with a QT tone or DQT code, squelch will only open when a call containing a matching tone or code is received. Likewise, signals that you transmit will only be heard by parties whose QT/DQT signaling matches your transceiver.

If a call containing a different tone or code is made on the same channel you are using, squelch will not open and you will not hear the call. This allows you to ignore(not hear) these calls. Although it may seem like you have your own private channel while using QT/DQT, other parties can still hear your calls if they set up their transceiver with the same tone or code.



## Appendix - TechniacI specifications

### General specifications

Model	GM-N1
Frequency range (MHz)	GMRS
Memory channels	30
Frequency stability	2.5ppm
Antenna impedance	50 Ohm
Operating temperature	-10°C to +50°C
Mode of operation	same frequency simplex

### Transmitter specifications

RF power (W)	0.5/3W
Type of modulation	FM
Maximum deviation (kHz)	$\leq \pm 5.0$
Spurious emissions (dB)	$< -60\text{dB}$
Emission current (mA)	$\leq 1000$

### Receiver specifications

Receiver sensitivity	0.16 $\mu\text{V}$ (12dB SINAD)
Intermodulation	65 dB
Audio Output	$\geq 380\text{mW}$
Squelch sensitivity	$< 0.2\mu\text{V}$
Receiver Current	$\leq 380\text{mW}$