GO! DIGITAL RADIO
PROGRAMMING INSTRUCTIONS

blackbox

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800.959.2899
WWW.USA2WAY.COM
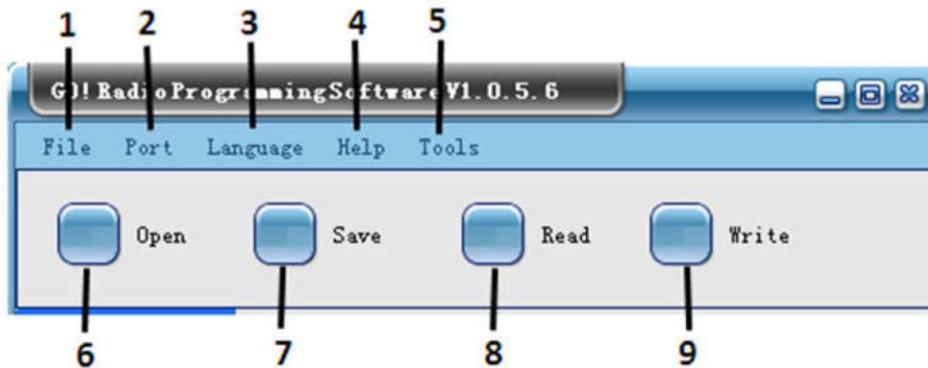
1. File
  → Open
     Save
     Exit

2. Port (Computer Port)
  → COM1

3. Language
  → English

4. Help
  → About

5. Tools
  → MCU Update
     Program Password

6. Open
  → To open the default you saved before.

7. Save
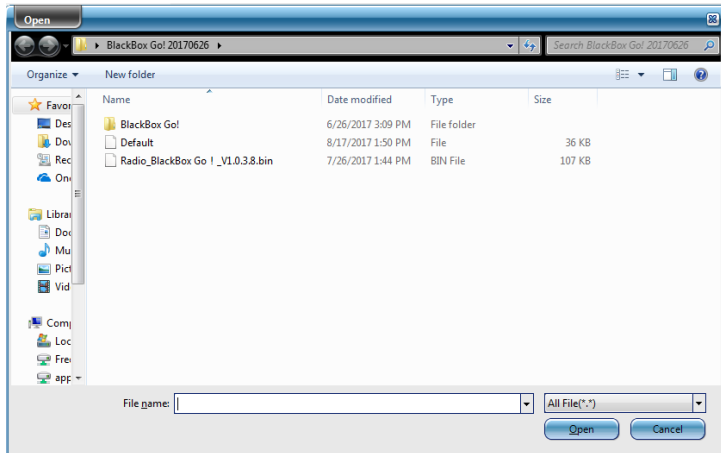 →**To save the current settings.**

8. Read
  → To read the setup of your radio.
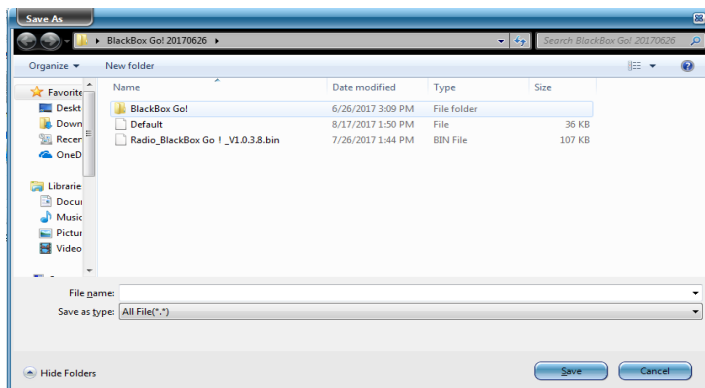
9. Write
 → To write the setup into your radio.

1. File

Open – When clicking this option you will see the window below. Select your previously saved file, then press "Open" to open the data in the software.

Save – When clicking this option you will see the window below. You can select the folder you want to save the file in, then press "Save".

Exit – When quitting the software, you will see the window below. "Yes" to exit the software, "No" to keep the programming software open.
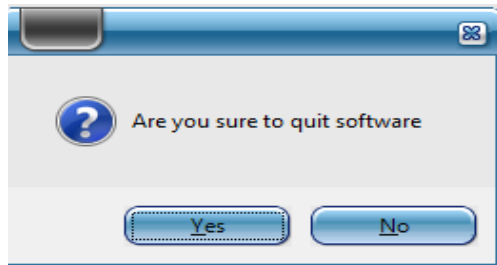

2. Port COM1- Normally when you plug in the programming cable, the computer will automatically find the COM for it. If not, please check your device manager to determine the comport.

**3. Language –** Note that English is the only language option.

4. Help About – This section simply shows information about the radio.

5. Tools- MCU Update – Enables software version upgrade / update. Also allows for password management.

6. Open- Select your previously saved file, then press "Open" to open the data in the software.
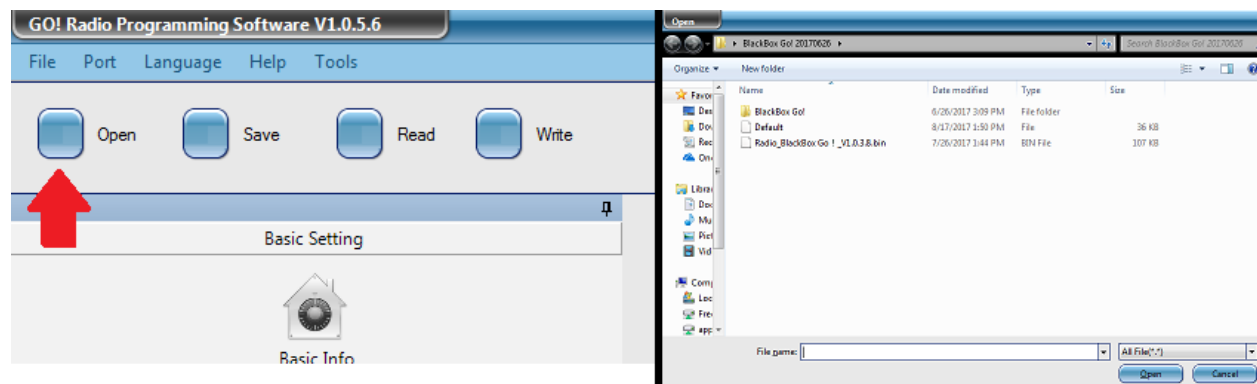
7. Save- When clicking the SAVE button, the window on the right will appear. You can select the folder you want to save the file in, then press "Save".
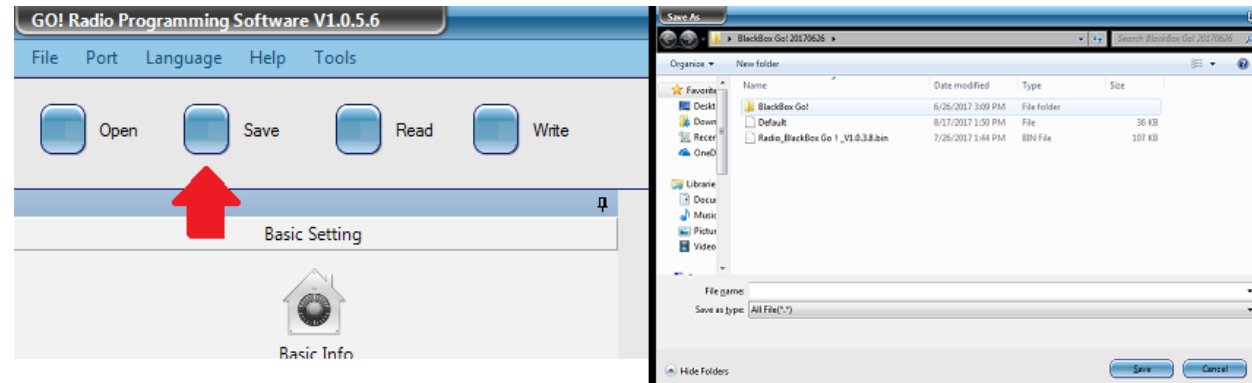
8. Read – When pressing the "Read" Button, the window below will appear. Click "OK" to start reading the data from the radio.

9. Write - When pressing the "Write" Button, the window below will appear. Click "OK" to start writing the data to the radio.
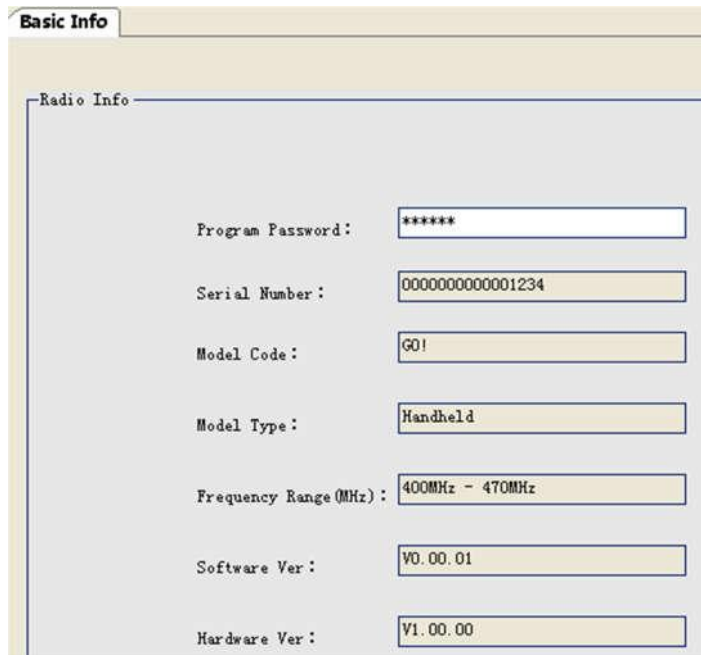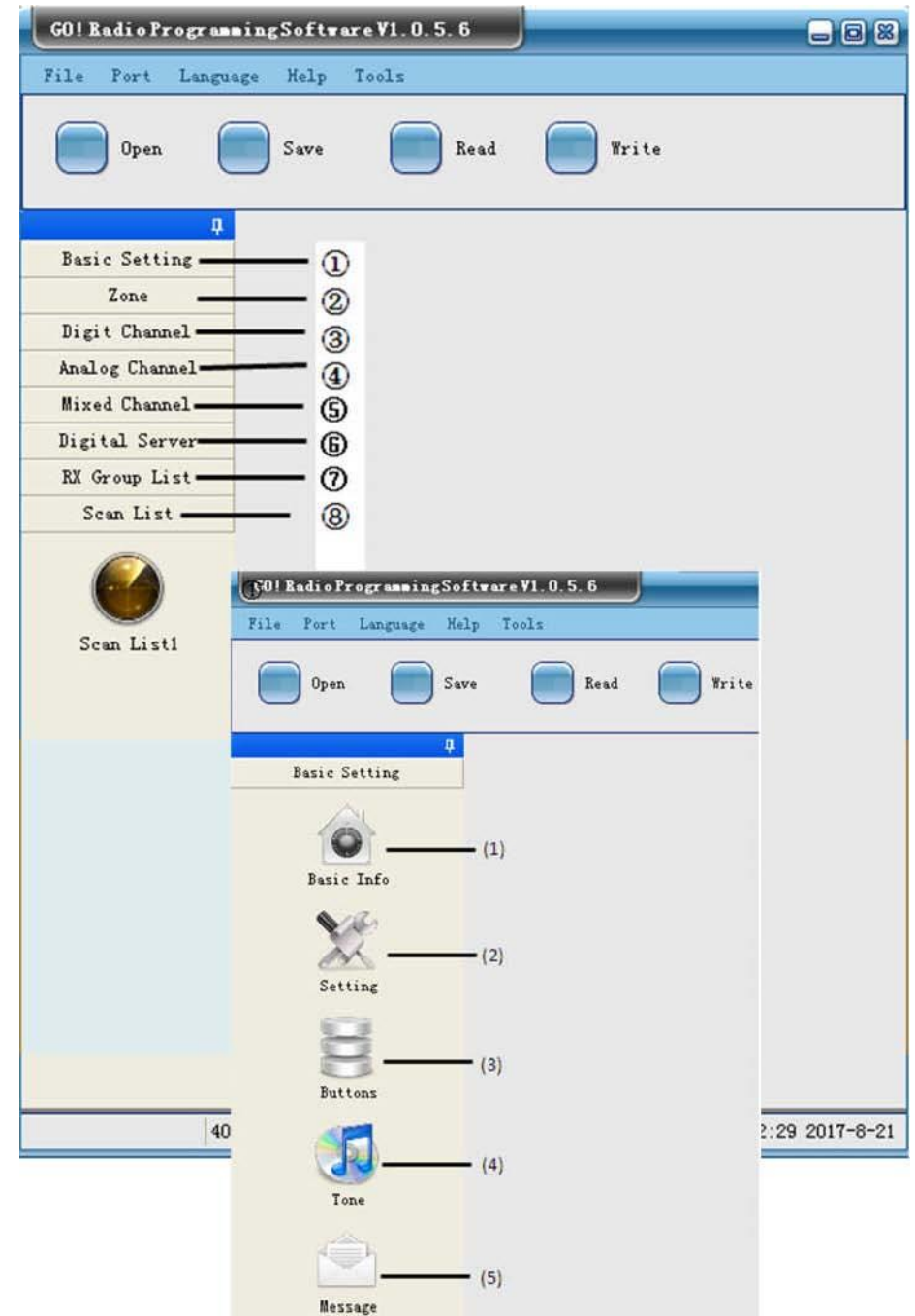
Functions Overview

Ⓑ Basic Setting

(1) Basic Info:
Program Password, Serial Number, Model Code, Model Type, Frequency Range, Software Version, and Hardware Version listed for the radio.

(2)Setting

Change the basic settings of the radio here.

Setting

Basic Setting

Radio Name :	RADIO
Language :	English
Default Zone :	Zone1
Power Saving Mode :	OFF
Enter Low-Power Wating Time(s) :	6
Vox Level :	3
Radio Disable :	☐
Remote Monitor :	☐
Enable Remote Alerts :	☐
Recall Times of Remote Emergency :	3

(3)Buttons

Users can change the programmable buttons on the side of the radios here.

Buttons

Key's Function Configuration

Key1 :	None
Key2 :	PTT CALL
Key3 :	Quickly Call 2
Key4 :	None

None
SOS
PTT CALL
VOX (ON/OFF)
PA_LEVEL
SQ_OPEN
Radio Disable
Activate Radio
ZONE_SWITCH
MONITOR_RADIO
Talk Around(ON/OFF)
Radio Check
Scan On/OFF
Quickly Call 1
Quickly Call 2
Quickly Call 3
Quickly Call 4
Quickly Call 5

If choose Voice Call, you need to press Button and then press PTT;

Quikly Call Setting

Serial Number	Call Mode :	Call List :	Call Type :	Shor Message :
1		Contact2	Voice Call	Hello!!
2	DMR Call	Contact3	Voice Call	Hello!!
			Voice Call	
			Message Call	
3	None	Contact2	Voice Call	Hello!!
4	None	Contact2	Voice Call	Hello!!
5	None	Contact2	Voice Call	Hello!!

If choose Message Call, just press Button is enough.

(4)Tone

Enables you to Mute all the tones or turn off certain tones. Also change LED light set-up.

Tone

Tones

Mute All Tones :	Mute Off
Digital Individual Call :	☑
Digit Group Call Tone :	☑
Analog Call Tone :	☐
Call Over tone :	☑
Keypad Tone :	☑
Starting-up Tone :	☑
Channel Switching Tone :	☑
Forbidden Tone :	☑
TX Message Successful Tone	☑
Message TX Failed Tone :	☐
Message RX Successful :	☑
Low Battery Alerts :	☑
Low Battery Alerts	8
Remote Alerts[s] :	5

LED/Backlight

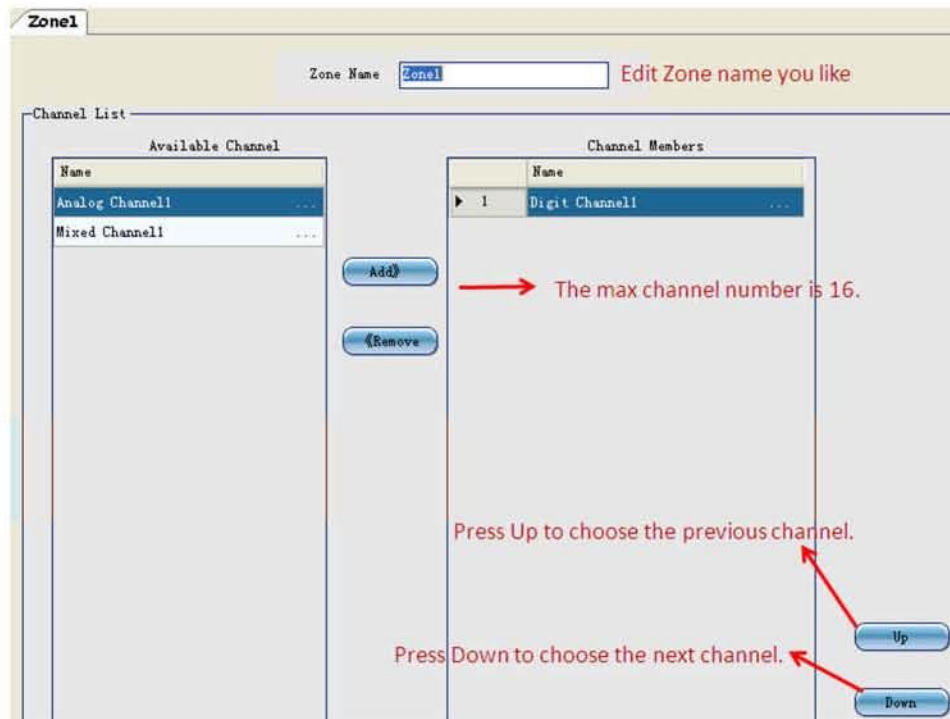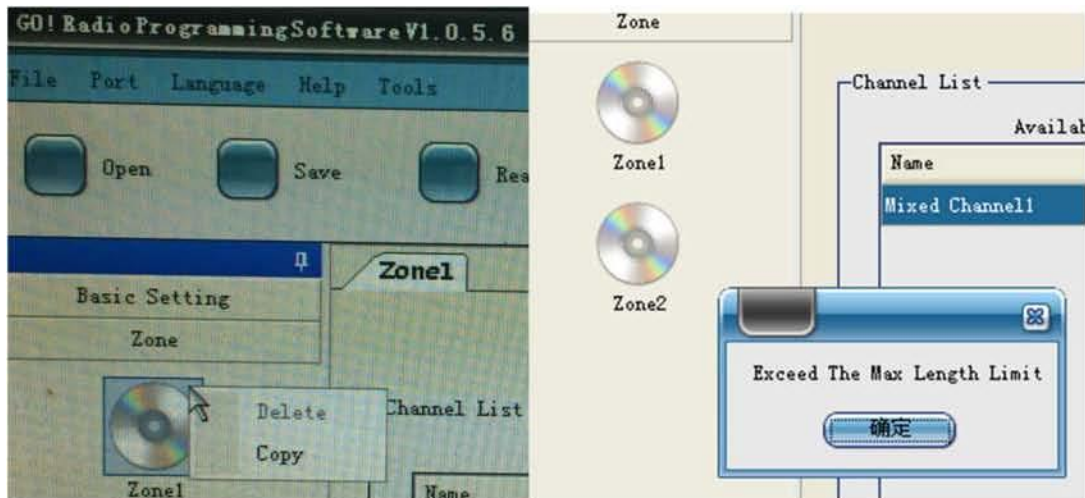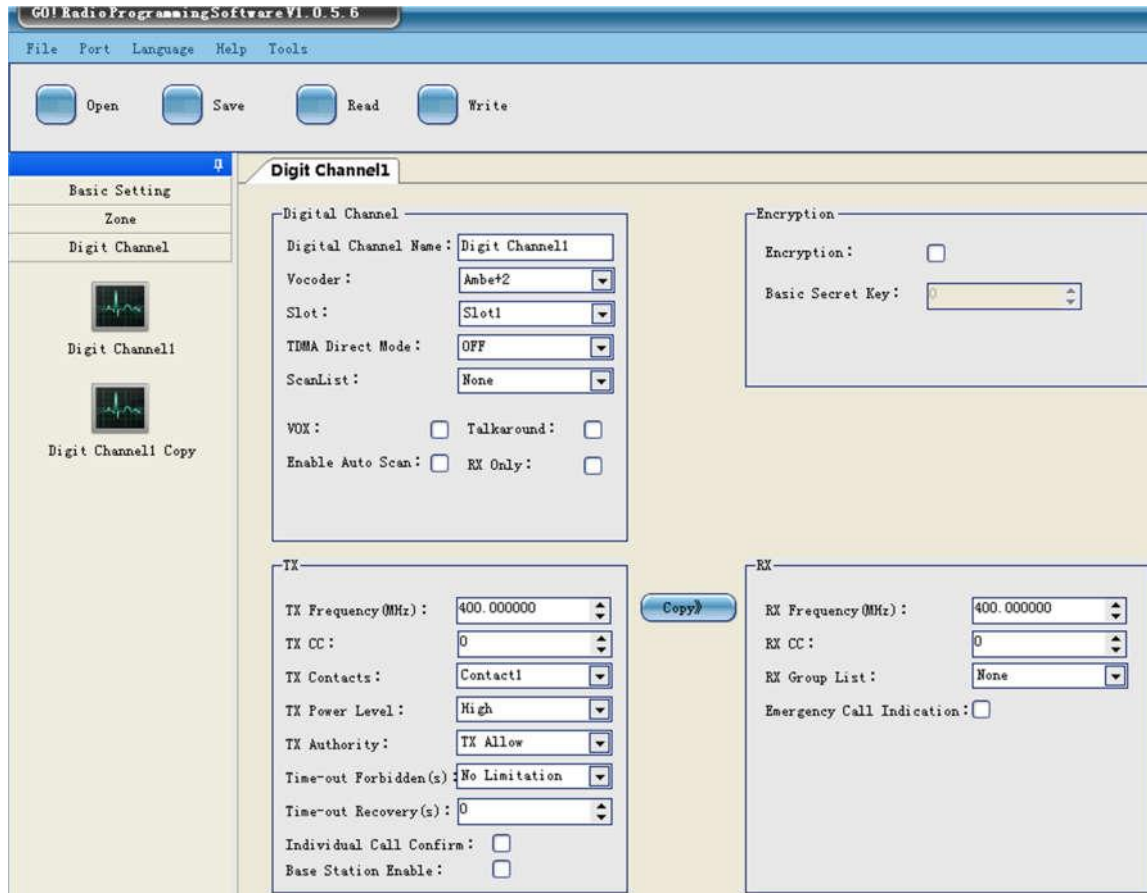|	
TX LED :	☑
Rx LED :	☑
Change Channel LED :	☑
Starting-up LED :	☑
Call Hang Up LED :	☑

ZONES.

Right-click the Zone1, uses can add Zone2, there is a maximum of 2 Zones for GO! radios.

Different functions for Zone setup.

Ⓑigital Channel

There is a maximum of 16 Channels for each zone. So a total of 32 channels available (two zones).

-VOX: Allows to initiate a hands-free voice activated call when the user switches to the programmed channel. The radio automatically transmits whenever the microphone detects voice activity. The user can still start voice call through PTT key, even if this feature is not checked.

-RX: This feature prohibits any transmission on the programmed channel, but allows to receive a signal only.

-TX Frequency: Sets transmission frequency for the current channel, this setting is effective on the programmed channel only.

-TX CC: A color code is used to identify the system. Radios in a system should have the same color code to communicate with each other. Radios will ignore any channel activity not containing the matching color code for that system. A radio is able to scan across channels with different codes for roaming between multiple systems. Range: 0-15.

-TX Power Level: Sets the radio's transmission power level for this channel. This feature can be toggled between high or low through a programmable key press (Tx Power) or Power Level (Settings Menu) feature.

-TX Authority: Determines when voice or data is allowed to be transmitted on the channel. This is used to prevent a radio from transmitting on channels that are already being used.

-Time-out Forbidden Time(s): The Time-Out Timer (TOT) is the duration that the radio can continuously transmit before a transmission is automatically terminated. This feature is used to ensure the channel is not monopolized by any one radio.

-Time-out Recovery Time(s): Sets the amount of time that the radio waits on a channel after the Time-Out Timer(TOT) expires (which stops the radio transmission) before allowing the user to transmit again.

-Individual Call Confirm: Sets Individual calls on the current digital channel as confirmed.

-Emergency Call Indication: Sets audio indication once receives an emergency call.

-Encryption: This feature enables encryption on a selected channel. The Basic encryption key is used to scramble and unscramble voice calls and data transmissions on privacy-enabled channels. Receiving radio(s) must have the same Basic encryption key as the transmitting radio in order to unscramble the privacy-enabled voice call or to receive the privacy-enabled data transmission.

Analog Channel

By right-clicking the Analog Channel1, uses can add Analog Channel2, there is a maximum of 16 Channels for one Zone. 32 total.

-Analog Channel: The user can set a name for the channel. The user may enter up to a maximum of 16 characters.

Note: 15 digits or up to 16 alphabet characters for a channel name.

-Analog Bandwidth: Sets the channel bandwidth 12.5KHz or 25KHz for the Transmit and Receive frequencies.

-Tail Degree: CTCSS sends the tone code when Push-to-Talk (PTT) button is pressed. On PTT dekey, the tone signal is stopped, and CTCSS 'reverse burst' is generated and sent to indicate the end of the transmission to the receiving radio. This sub-audible code causes the receiving radio to mute its speaker before the loss of a carrier is detected to eliminate unwanted noise (squelch tail).

-Scan List: This feature is linked to an existing scan list of DMR digital channel. A radio scans for voice activity by cycling through the channel sequence specified in the scan list for the current channel. A radio can support up to 10 scan lists, with a maximum of 16 members in a list. Each scan list supports a mixture of both analog and digital entries.

-VOX: Allows initiating a hands-free voice activated call when the user switches to the programmed channel. The radio automatically transmits whenever the microphone detects voice activity. The user can still start voice call through PTT key even if this feature is not checked.

-RX Only: This feature prohibits any transmission on the programmed channel, but allows receiving signal only.

-TX Voice Type: four options below, note: The RX Only feature must be disabled. Voice Only: Do not set CTCSS/DCS Tone

CTCSS: Set the designated frequency encoded into the transmitted signal for this channel

DCS code: Set the code representing a specific tone. This tone is encoded into transmissions on this channel.

Reverse CTCSS/DCS code: Set the code representing a specific tone. The reverse tone is encoded into transmissions on this channel.

-TX Power Level: Sets the radio's transmission power level for this channel. This feature can be toggled between high or low through a programmable key press (Tx Power) or Power Level (Settings Menu).

TX Allow: The radio will transmit when the Push-to-Talk (PTT) key is pressed.
Channel Free: The radio will check for a free channel prior to allowing a transmission.
CTCSS/DCS Match: The radio will check if the specified tone is matched prior to allowing transmission.
CTCSS/DCS Not Match: The radio will check if the specified tone is not matched prior to allowing transmission.

-Time-out Forbidden Time(s)

It is the duration that the radio can continuously transmit before a transmission is automatically terminated. This feature is used to ensure the channel is not monopolized by any one radio. Option: No limitation, 30s, 60s, 90s, 120s.

-Time-out Recovery Time(s)

Sets the amount of time that the radio waits on a channel after the Time-Out Timer (TOT) expires (which stops the radio transmission) before allowing the user to transmit again. Range: 0-255 seconds.

-RX Squelch Level

This feature adjusts the squelch threshold of an incoming transmission. When the user increases the squelch level, the radio can receive a stronger signal and filters incoming signals that are not strong enough to produce a clear transmission, thereby eliminating unwanted noise.

Ⓜixed Channel

-Mixed Channel Name: The user can set a name for the channel. The user may enter up to a maximum of 16 characters. Valid characters are alphanumeric, spaces and special characters. Refer to the below note section.

Note: -If the name length exceeds the maximum length that can be displayed, a radio will cut off some excess automatically, in general, the maximum length of the name at each model is 15 digits or 10 to 16 alphabet characters.

-Digital Available channel: Shows all alternative digital channels associated by the setting of Digital Channel Type. The selected digital channel becomes the digital channel parameter of the current mixed channel. This setting is effective on the programmed channel only.

-Analog Available Channel: Shows all alternative analog channels. The selected analog channel becomes the analog channel parameter of the current mixed channel. This setting is effective on the programmed channel only.

-Mixed Channel Hang Time(s): Sets the duration the radio keeps the digital communication at the mixed channel after the end of a digital call transmission. During this time, all members of the call that the channel is reserved can still transmit. This is to avoid setting up the different channel mode again each time the user presses the PTT to transmit, and produces smoother. The range is 0-10seconds.

-Mix Channel Transmit Mode: Sets the channel type of the mixed channel when transmitting a call.

Digital Server

(1) Basic Setting

-Own ID: Sets an individual ID that uniquely identifies the radio. This ID is used by other calling radios when addressing the radio, for instance, when making a private call or sending a text message. Range 1~16,776,415

-OACSU Waiting Time(s): Sets the duration of waiting for the confirmation from the receiving radio, when the user initiates an individual voice call that the receiving radio should respond with confirmation on receiving the call. Range: 0-10 seconds.

-Resend Times of OACSU Failed: Sets the number of retry Off Air Call Setup (OACSU) that the transmitting radio attempts a presence check of the receiving radio. When the transmitting radio failed to receive the response from the receiving radio and OACSU Waiting Timer expires, it retries to initiate the same individual call. Even after retrying to initiate the same individual call as many as times specified by this feature, if the transmitting radio failed to receive the response from the receiving radio, this individual call would be considered as the failure of setup. Range 1-10 seconds.

-Message Call Waiting Time(s): Sets the duration of waiting for the confirmation from the receiving radio, when the user sends an individual message that the receiving radio should respond with confirmation on receiving the message. Range 1-10 seconds.

-Resend Time After Message Call Failed: Sets the times of retry to send an individual message. When the transmitting radio failed to receive the confirmation from the receiving radio and Message Waiting Timer expires, it retries to send the same individual message. Even after retrying to send the same individual message as many as times specified by this feature, if the transmitting radio failed to receive the confirmation from the receiving radio, this individual message would be considered as the failure of sending. Range 1-10 seconds.

-Voice Delay (ms): Sets the overall delay on initiating voice call. Range: 0-4800ms.

-Feature ID: Configures the default Feature ID of the radio, range 0-255.

(2) Contact
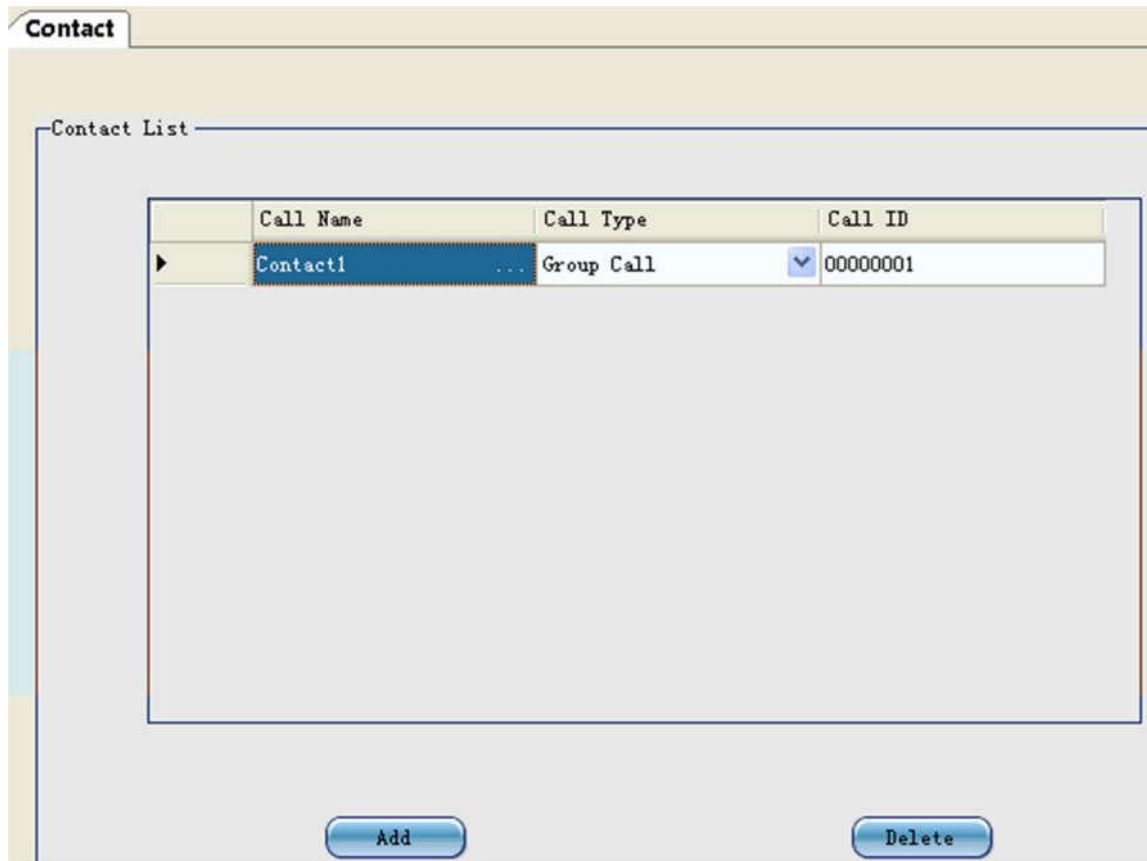
Contact list provides "address-book" capabilities of the radio and sets a list of call ID for digital call members.

Each entry corresponds to a call alias or call ID that you can use to initiate a call and associates with one of 3 call types (Group Call, Private Call, All Call).

The meaning of the call type is explained as follows;

Group Call – This is the ID of Group that the user wishes to subscribe to.

Individual Call – This is the radio ID of the target radio.

All Call -This has a fixed ID of 16777215 (value is not editable).

After creating the Contacts list, the user can access the Contacts list via the contact menu. From Contacts list the user can initiate a call or initiate other radio services supported and can add and delete Contacts member.

RX Group List, Right-click the Group List1, uses can add group list 2
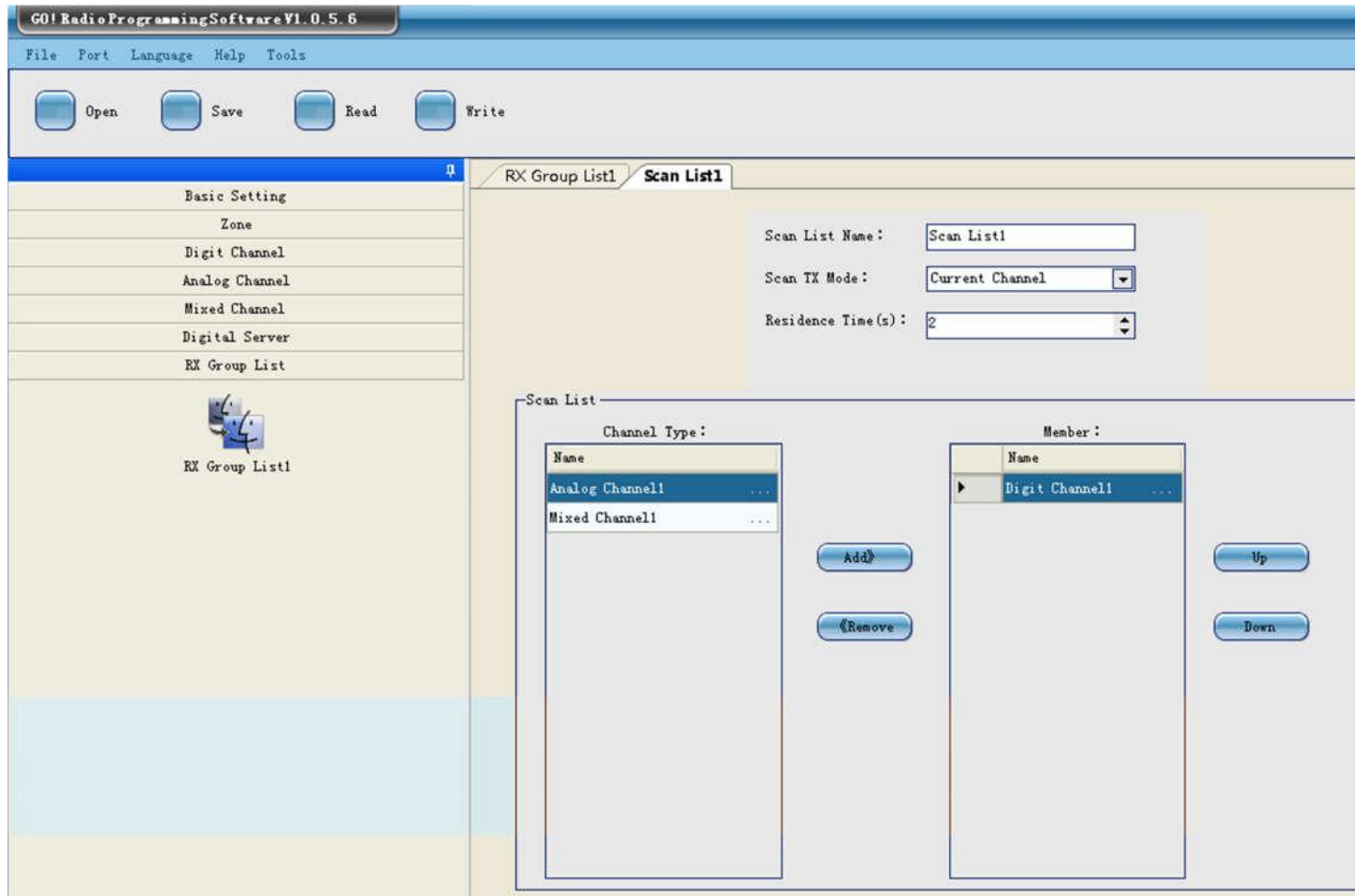
-RX Group Name: Sets a name for the Rx Group List. The user may enter up to a maximum of 16 characters. Valid characters are alphanumeric, spaces and special characters.

-Available Contact: This list shows all alternative Rx Group ID associated by the setting of DPMR Contacts. The selected Group ID becomes the member of the current DPMR Group List by clicking Add button.

-Group Member: This list shows all Group ID members in the current Group list, which come from the left "Available Contacts" list. When the radio receives a group call that is addressed to any one of the group members, the radio will participate in that group call. The user can add up to a maximum of 10 Group ID to the Rx Group List. This function is only valid in digital mode.

Scan List 1 Right-click the Scan List1, uses can add Scan list 2