

## DMR Programming Tips by Radioddity

This guidance works for GD-77/RD-5R/GD-77S/MD-380/MD-390

### Version Note

#### GD-77:

Firmware V2.6.6 is compatible with software V1.1.3-1.1.6

Firmware V3.0.1-3.0.8 is compatible with software V2.0.1-2.0.8

Firmware after V3.1.1 is compatible with software after V3.1.1

#### RD-5R:

Firmware V1.0.0.1 is compatible with software V1.0.0.1

Firmware V1.0.0.2-V2.00.09 is compatible with software V1.0.0.2

#### GD-77S:

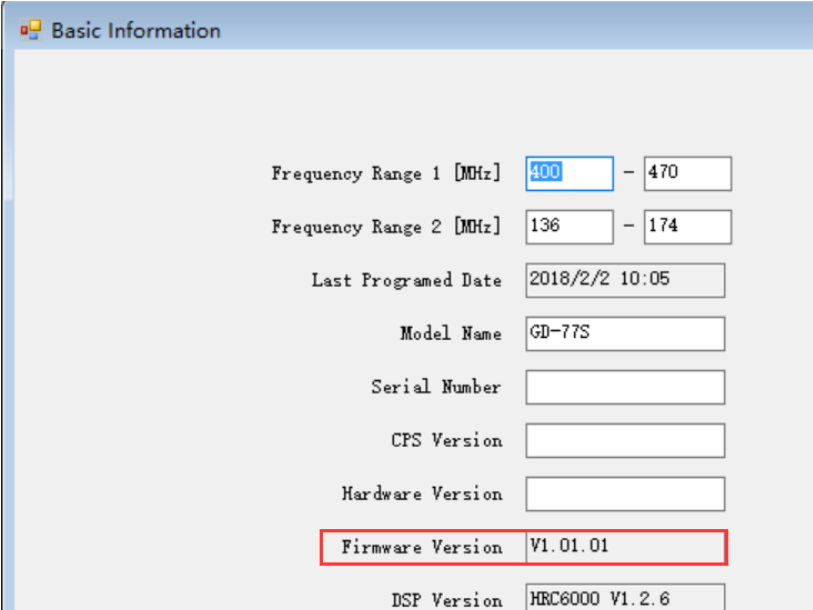
Firmware V1.1.5 is compatible with software V1.1.7

### How to find out firmware version:

GD-77---turn on---menu---set---radio info---dev.info---soft-version: V X.X.X.

RD-5R---turn on---menu---set---radio info---dev.info---soft-version: V X.X.X.

GD-77S---operate via software---Basic information: Firmware version



Frequency Range 1 [MHz]	400	-	470
Frequency Range 2 [MHz]	136	-	174
Last Programed Date	2018/2/2 10:05		
Model Name	GD-77S		
Serial Number			
CPS Version			
Hardware Version			
Firmware Version	V1.01.01		
DSP Version	HRC6000 V1.2.6		

**Confirm software version:** software--- About:



**Compatibility:**

1. Software of different models are not compatible with each other.  
You can't use software of GD-77s to program GD-77 or RD-5R.
2. Programming cable compatibility  
The same cable works for DG-77, GD-77S, MD-380, MD-390  
RD-5R can only use RD-5R programming cable

**Before Program:**

What you need: a correct cable, radio with enough battery power, a PC / laptop with Windows system

**For RD-5R/GD-77/GD-77S:**

1. Turn on your PC: install the corresponding software. (Software should be compatible with firmware)

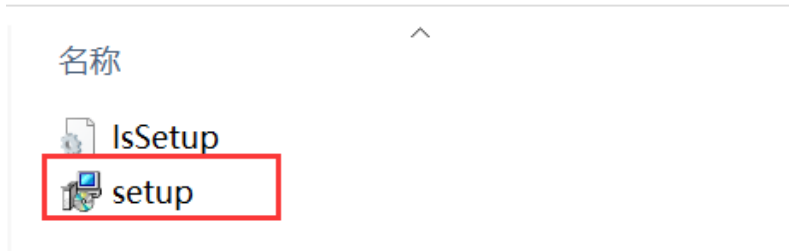
There are 2 kinds of installation package (both work)

- 1) Unzipped---run xxx.exe directly

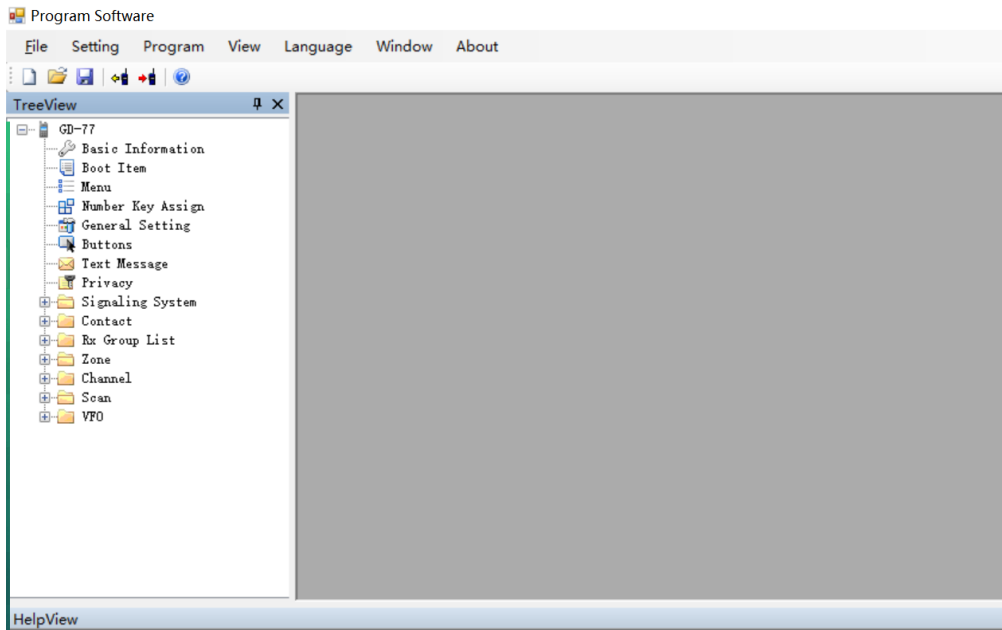
Chinese.chm	62.9 KB	46.6
Chinese.xml	28.4 KB	6.5
Default.dat	128.0 KB	1
DMR.exe	588.0 KB	232.2
DMR.vshost.exe	14.5 KB	6.5
DMR.vshost.exe.manifest	1 KB	1

- 2) Installation Setup---double click to run Setup (Note: Some installation file might be taken as virus by your security software, thus been isolated. Please restore it. We promise all the software downloaded from [www.radioddity.com](http://www.radioddity.com) are well tested.)

GD-77 Firmware And Software ... > Program software V3



2. Run the software:



3. Plug the programming cable into your PC / laptop. (All the digital radios apply the latest programming chip, it will automatically install the driver and support WIN XP/ 7 /8 /8.1 /10) for the first time, it will take 1-3 minutes to install the driver automatically, please be patient.

Note: If fail to install the driver, please try changing a USB port. If it still fail to install: 1) Please check if the USB driver work well. 2) If it's not a PC problem, please contact our customer service.

4. Turn on radio to a standby status.

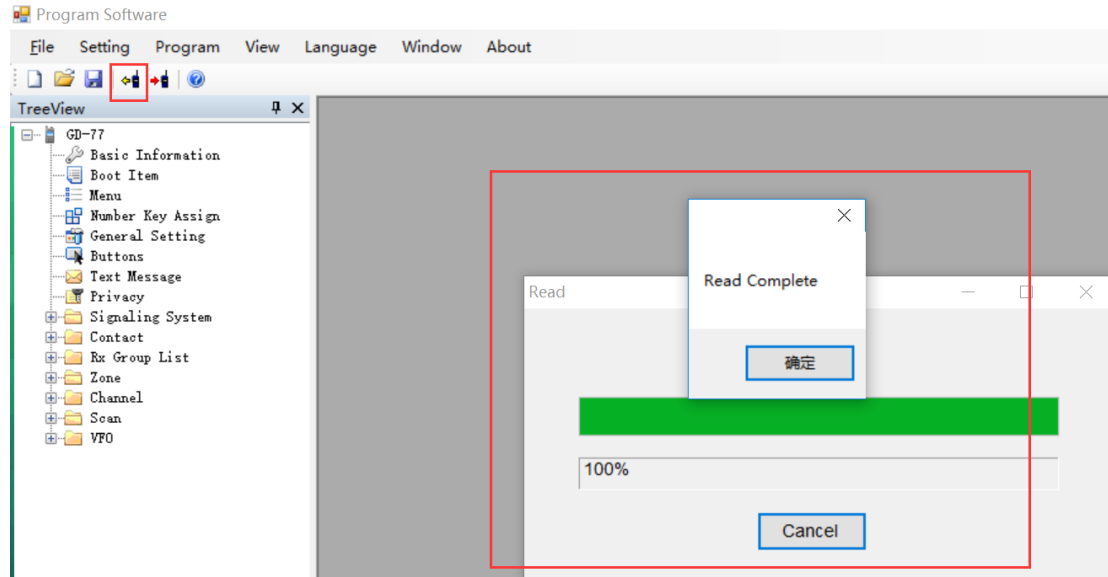


5. Plug the programming cable into the radio.

## Start to Program

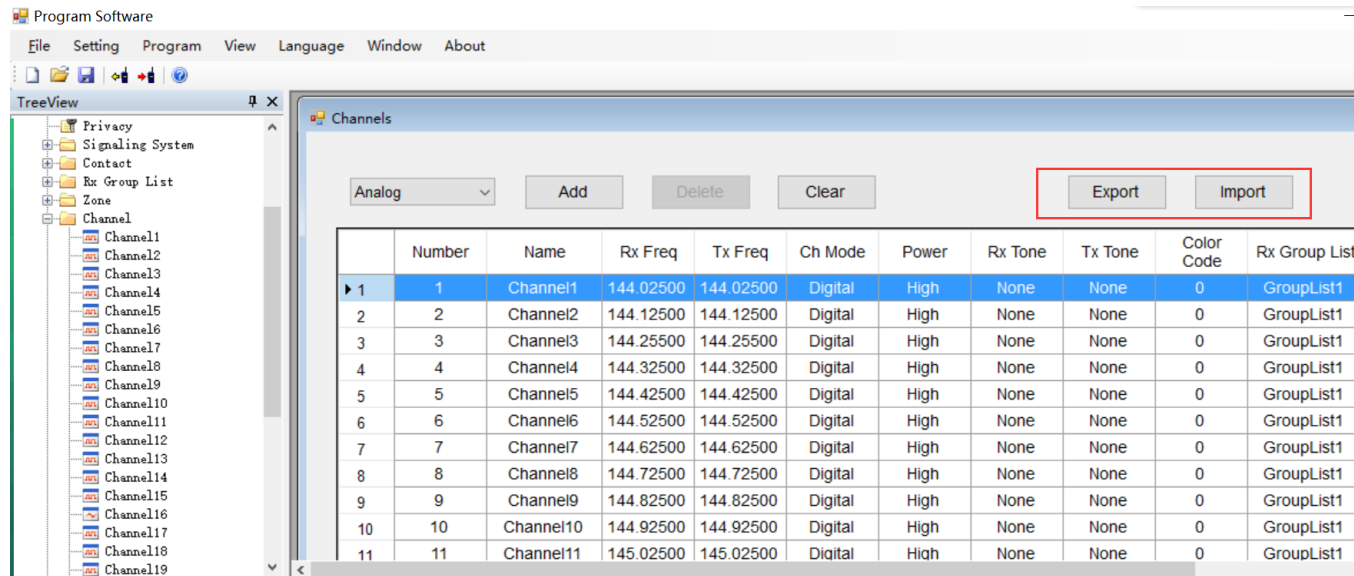
### Analog Mode – Channel Mode Setting

1. Read frequency; click read data icon

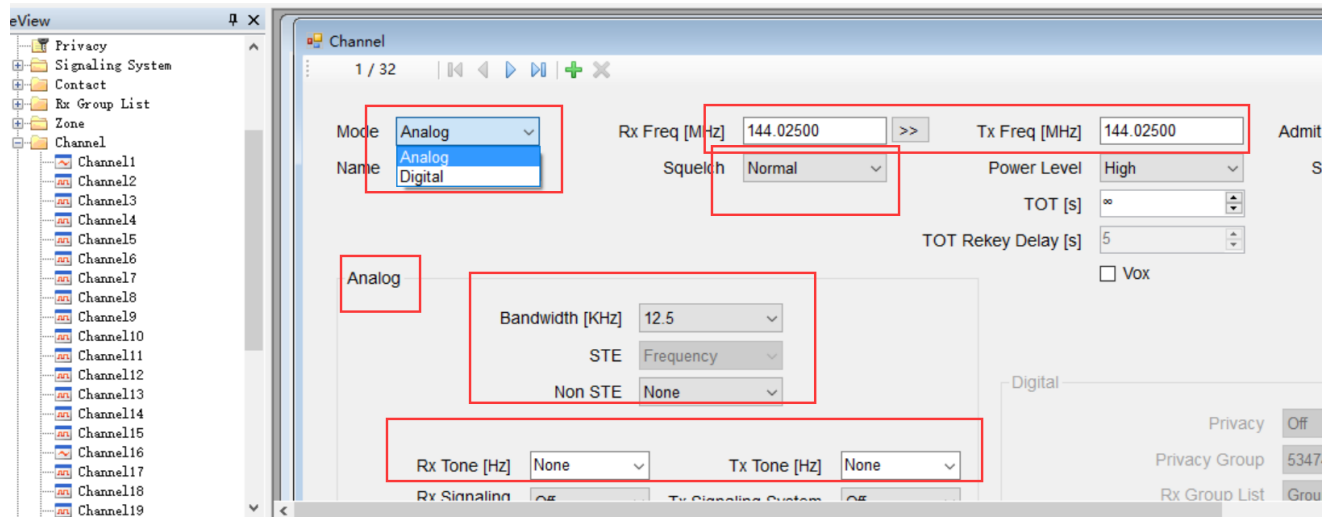


2. Channel setting

1) Double click CHANNEL, you can EXPORT or IMPORT channel infos in bulk.



2) Channel edit. Double click CHANNEL1, CHANNEL2, CHANNEL3...all channels need to be edited respectively (channel name can be customized).



3) Select Analog mode, then start to edit the needed info like RX/TX freq, VOX, bandwidth, etc.

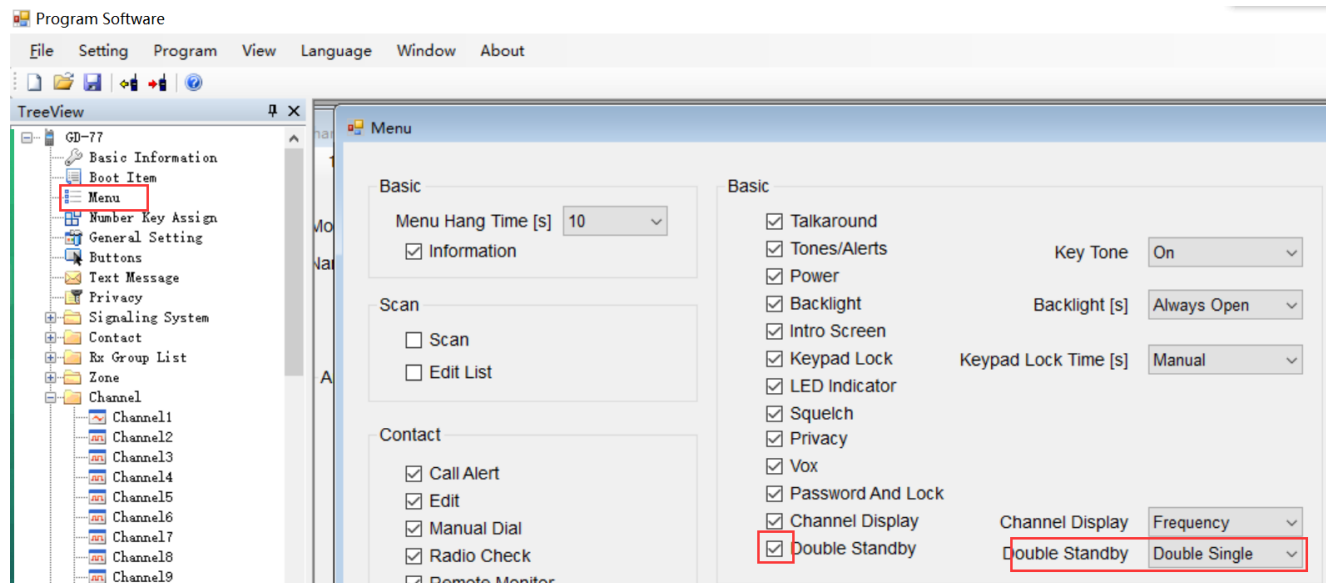
### 3. Scan setting.

1) Scan function will take up some spaces, thus it can't work when double standby is on.

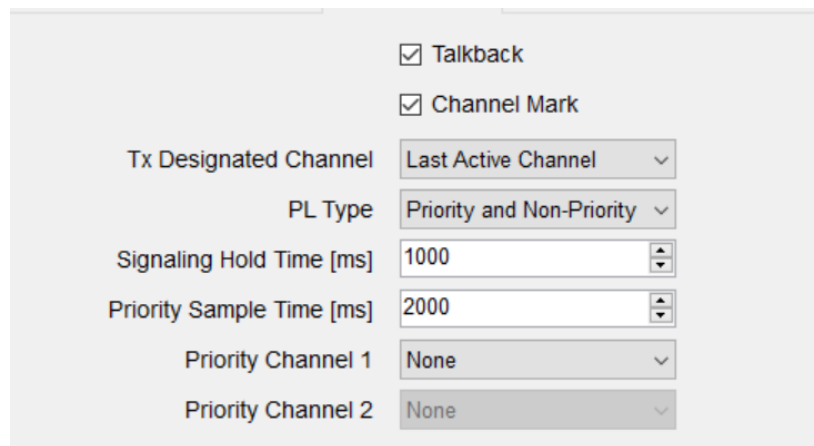
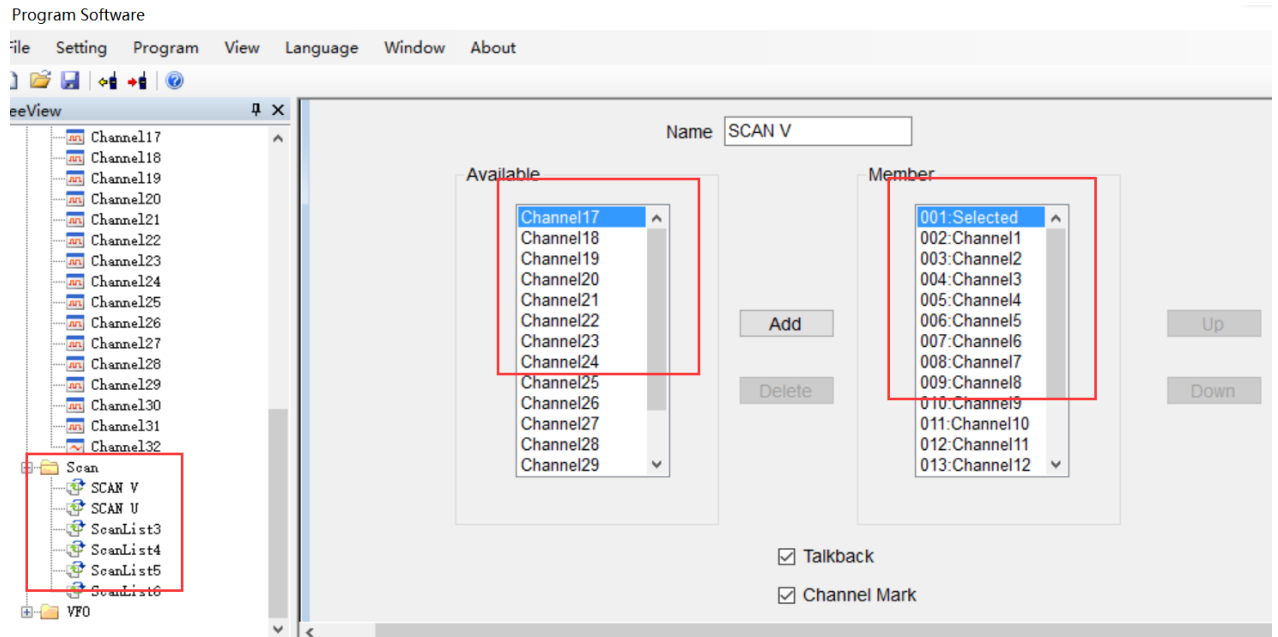
1. Menu----Double Standby----Double Single

or

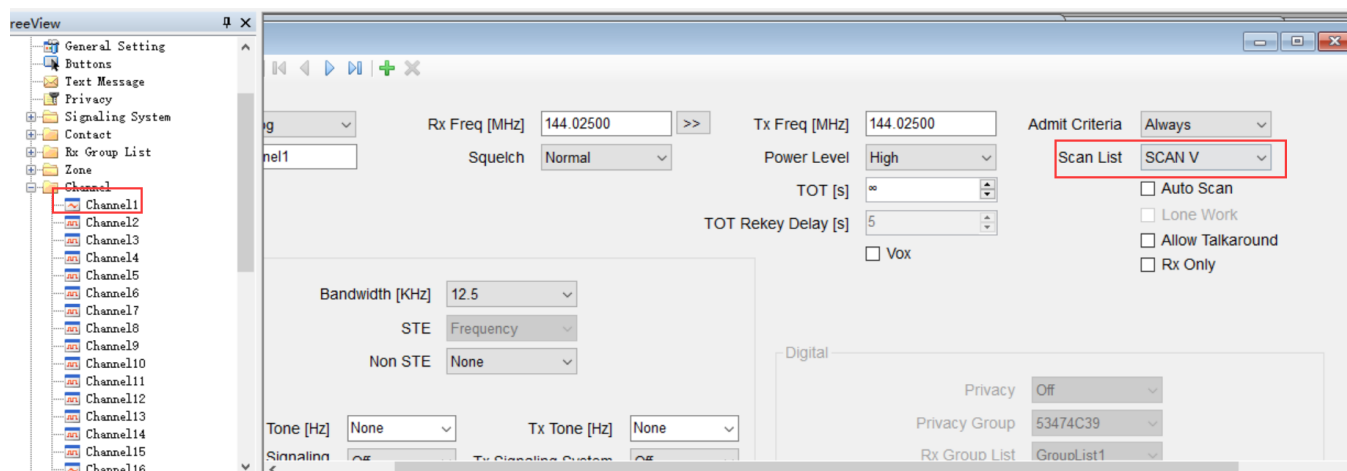
2. Uncheck DOUBLE STANBY



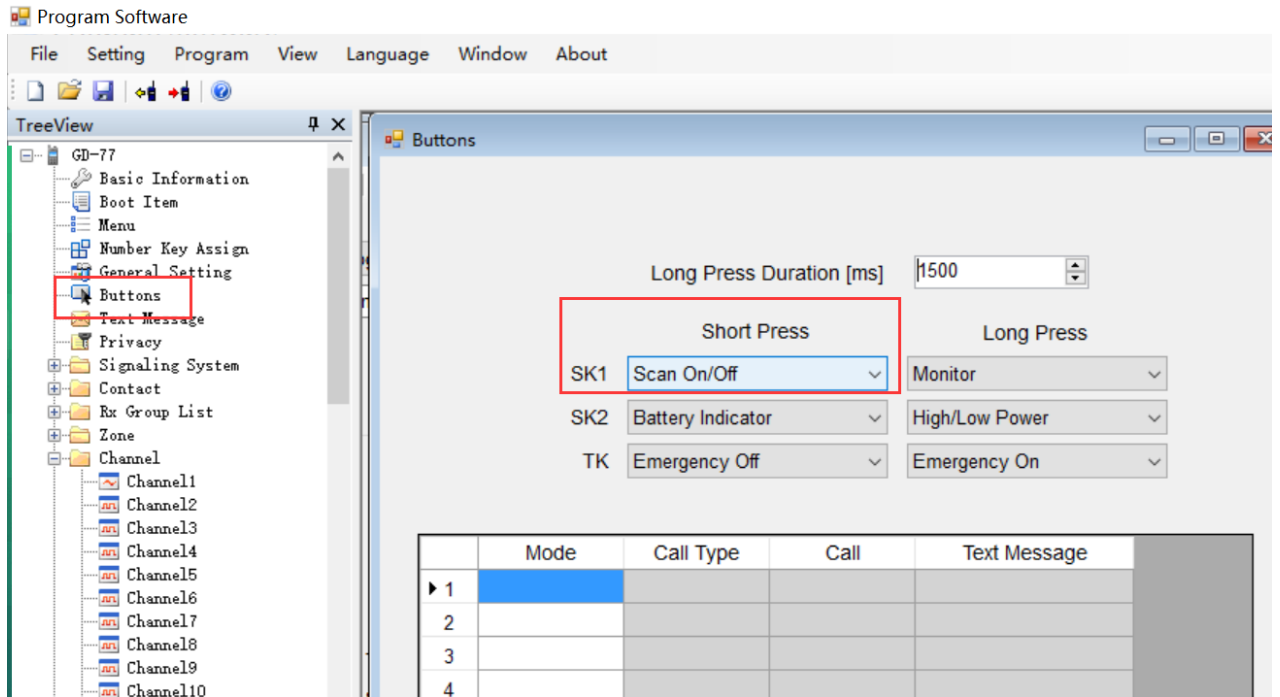
2) Scan list setting (put the frequency you want to scan into the scan list)



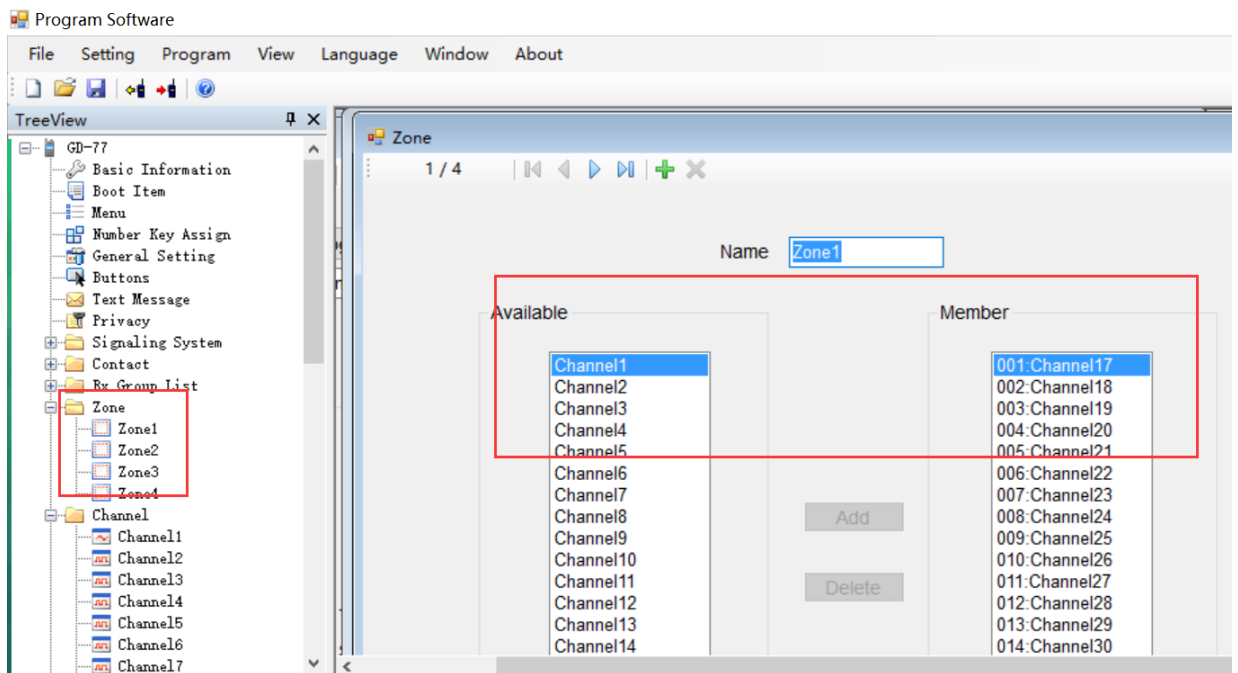
### 3) Choose a scan list



### 4) Turn on scan function: Buttons---SK1/SK2---Scan On/Off

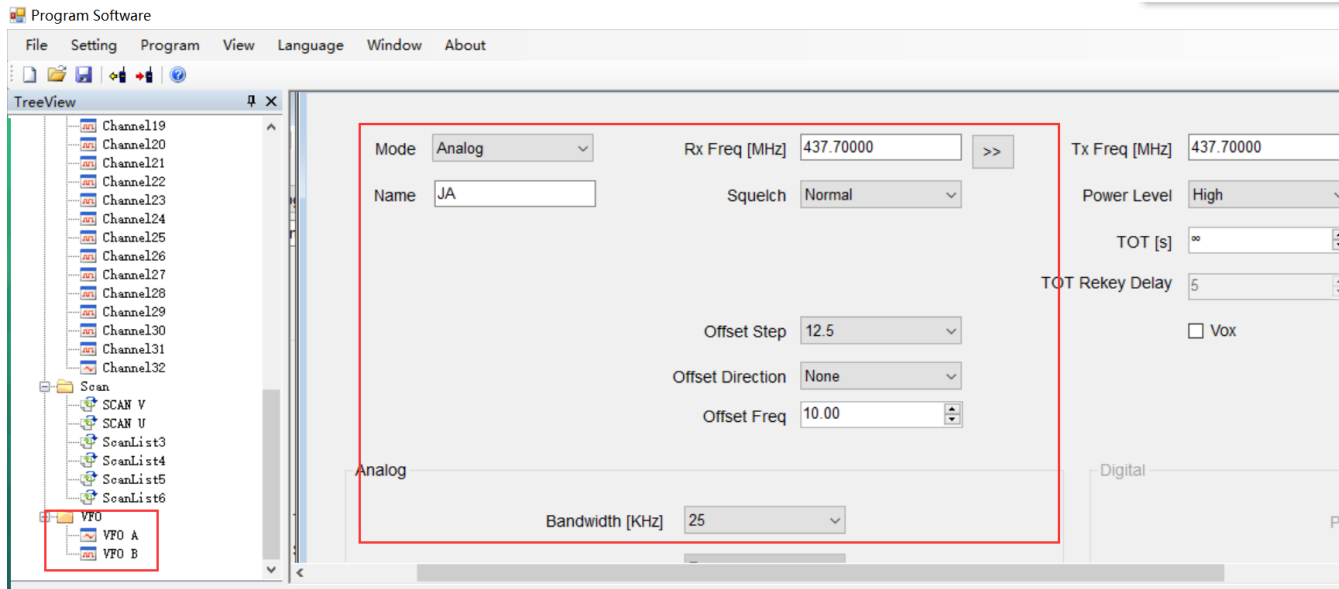


4. Zone selection (choose zone for your set channel, name zone 1, 2, 3...they can be customized)



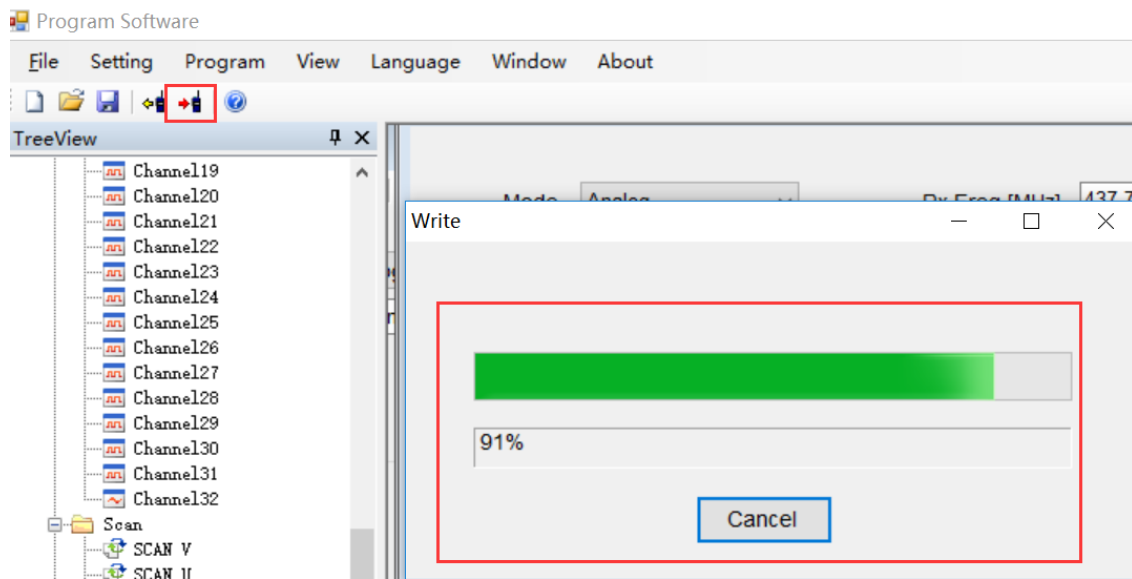
### Analog Mode – VFO Mode Setting

1. VFO---Select VFO--- Select Analog



2. Set infos of Squelch, Bandwidth, RX/TX fre, etc.

When finish all your settings, click write data icon (top left software corner) to start writing data into your radio.



### Start to Use Your Radio

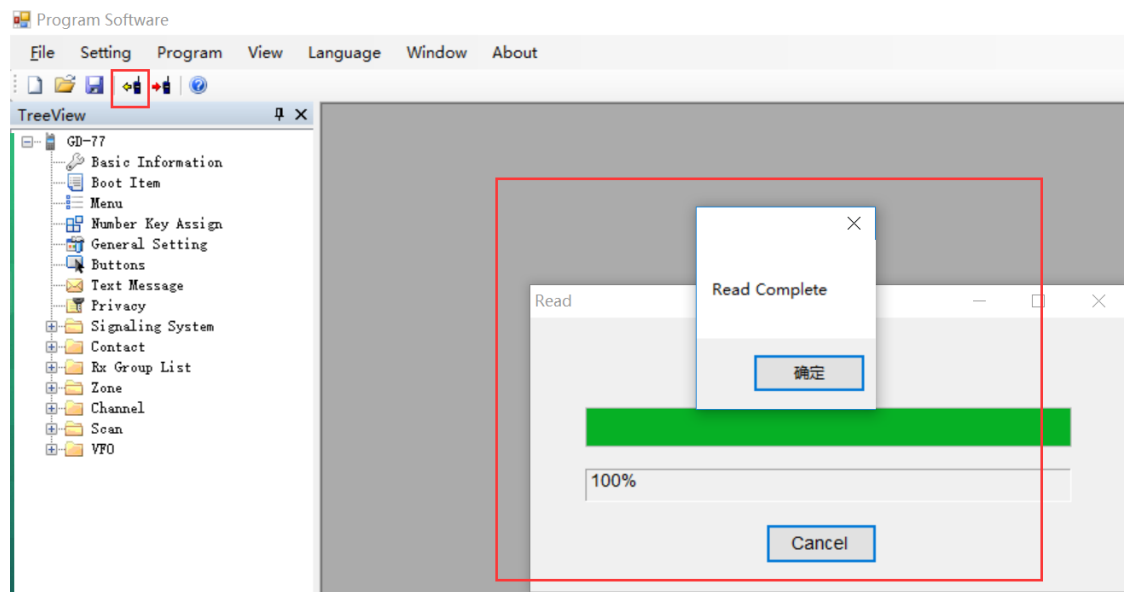
1. After programming successfully, pull out the cable---turn off radio---then turn on again
2. Apply Channel Mode: Menu---zone---select a zone---switch channel via  $\uparrow\downarrow$  button
3. VFO Mode: switch channel via  $\rightarrow$  button for GD-77, VFO/MR button for RD-5R

**Done**

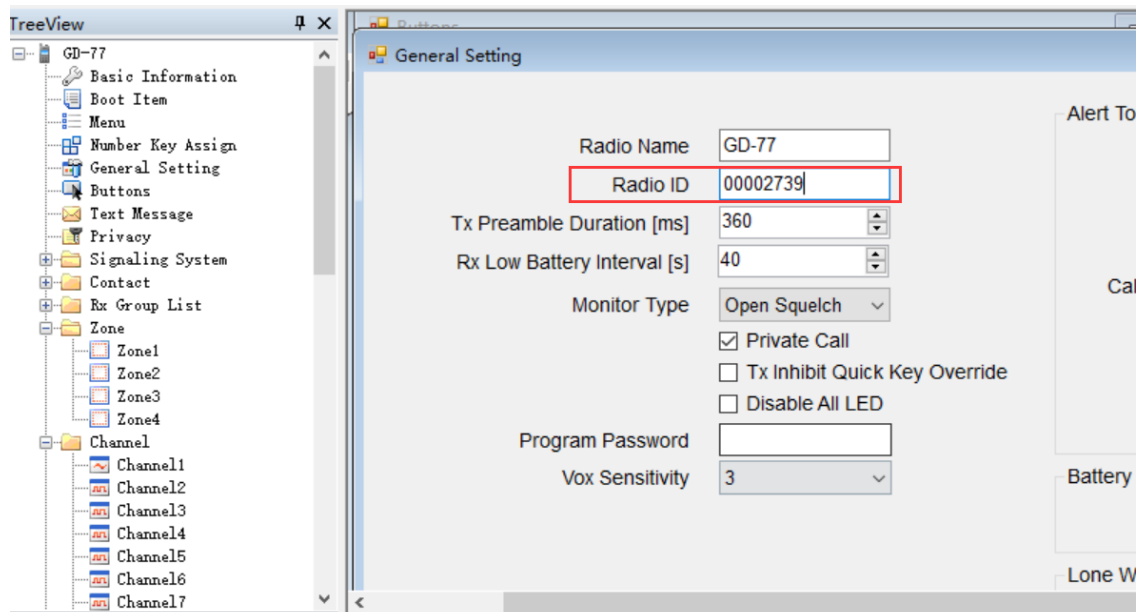


## DMR Mode – Channel Mode Setting

1. Read data, click the read data icon



2. Confirm and edit Radio ID



3. Add your digital contact

1) CONTACT---add your contacts Radio ID

2) Double click DIGITAL CONTACT---an overview will display, you can EXPORT or IMPORT all the contact infos in bulk.

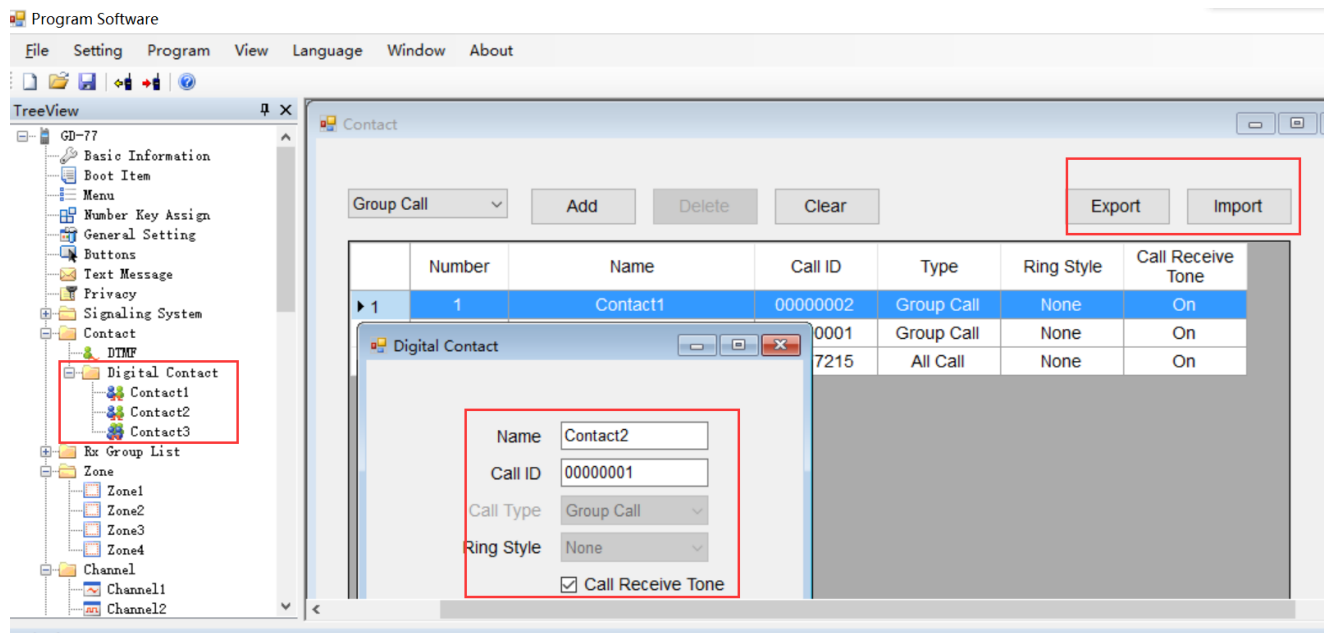
3) Double click Contact 1/2/3...to edit respectively (name can be customized).

### Note:

There are 3 types of DMR Radio ID

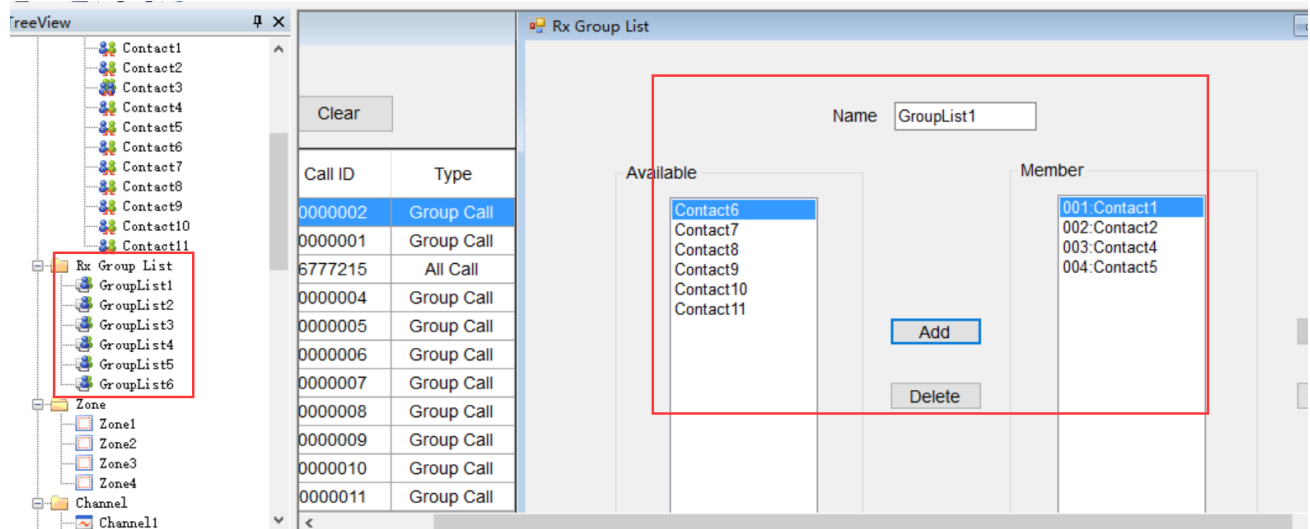
1: Private Call (If apply **Private Call ID** to operate, **don't need** to set RX Group list)

- 2: Group Call ((If apply **Group Call ID** to operate, **must** set RX Group list)
- 3: All Call (If apply **All Call ID** to operate, **don't need** to set RX Group list)



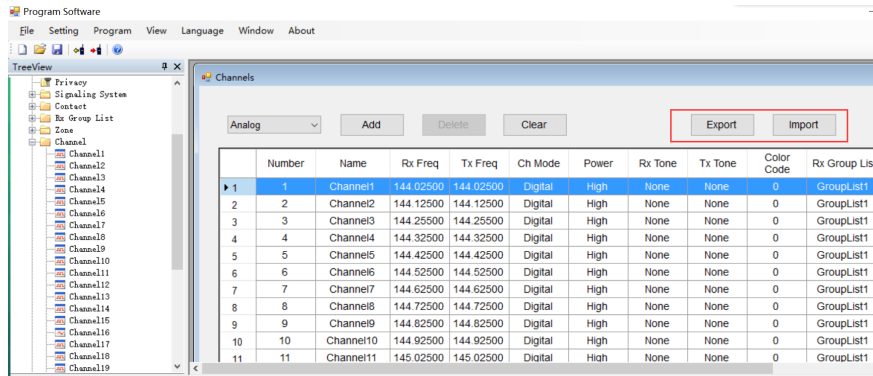
#### 4. RX Group List Setting (only needed if you set Group Call ID).

- 1) Right click to add RX Group list
- 2) Double click to edit RX Group list1/2/3/4...respectively

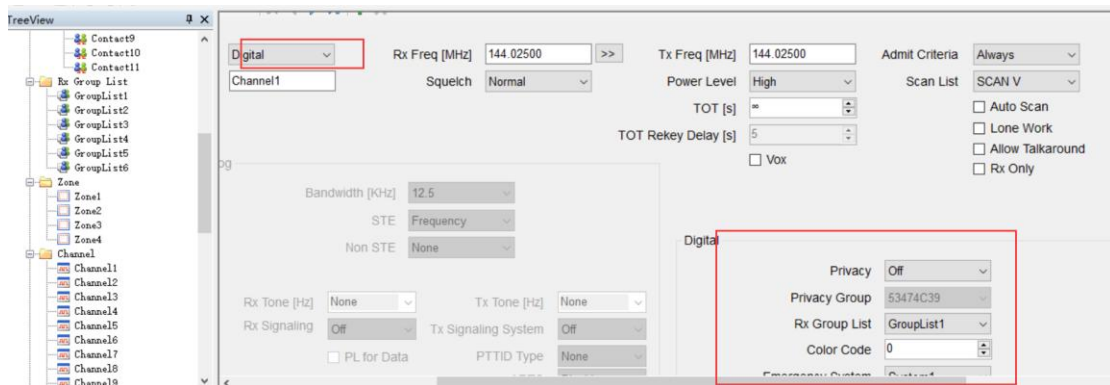


#### 5. Channel Setting

- 1) Double click CHANNEL, you can EXPORT or IMPORT all channel infos in bulk.



2) Channel edit. Double click CHANNEL1, CHANNEL2, CHANNEL3...all channels need to be edited respectively (channel name can be customized).



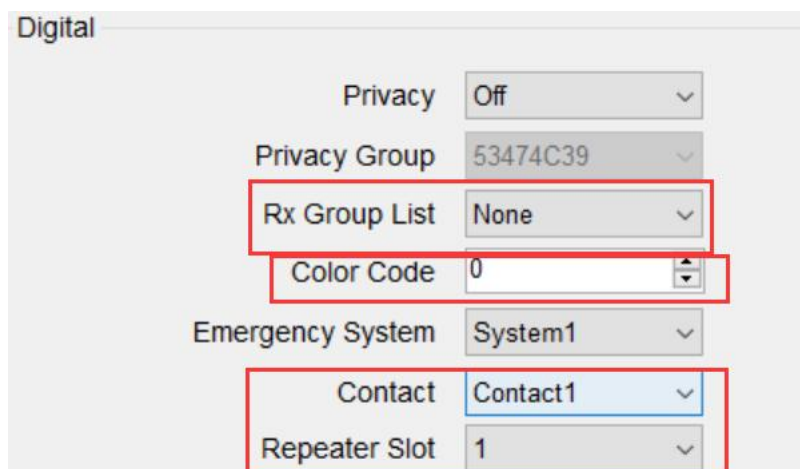
3) Select Analog mode, then start to edit the needed info like RX/TX freq, VOX, bandwidth, etc.

#### 4) Digital Setting

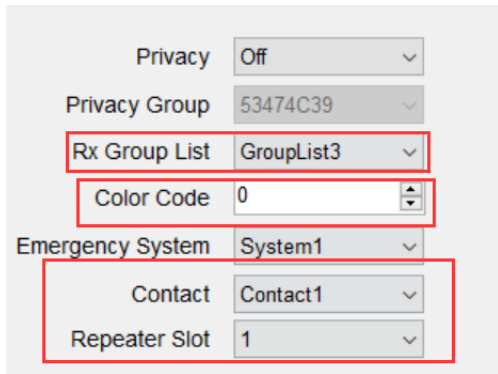
1. COLOR CODE and REPEATER SLOT should be the same with the other radio ID you want to talk to.

2. Select Contact

a. If the contact you select is Private Call or All Call, set RX Group list to NONE.



b. If the contact you select is Group Call, you must select a RX Group list.



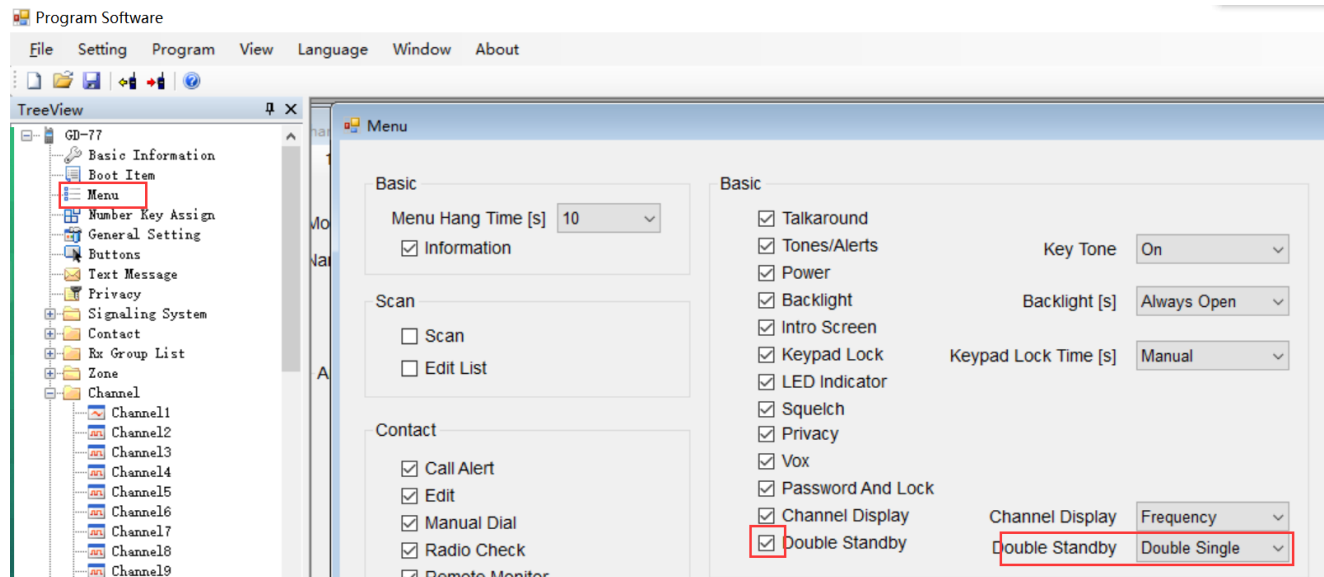
## 6. Scan Setting

1) Scan function will take up some spaces, thus it can't work when double standby is on.

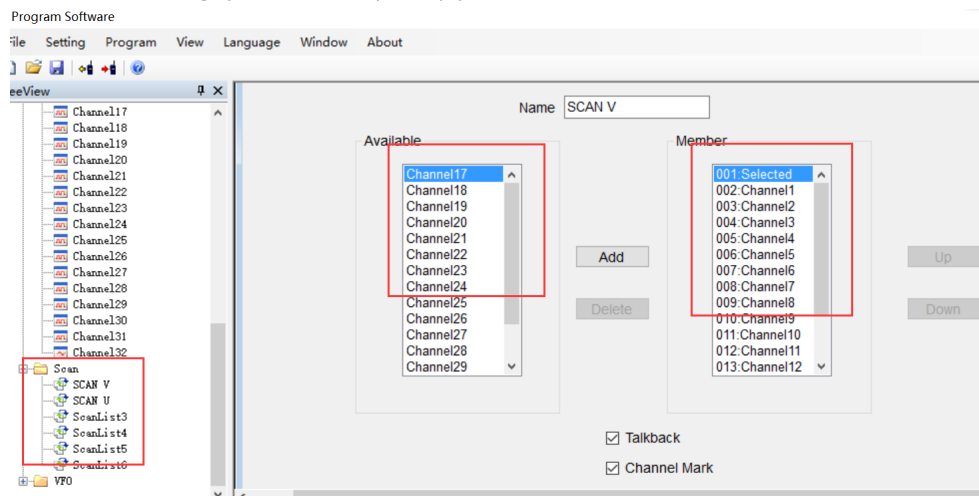
1. Menu----Double Standby----Double Single

or

2. Uncheck DOUBLE STANBY



2) Scan list setting (put what frequency you want to scan into the scan list)



Talkback  
 Channel Mark  
 Tx Designated Channel: Last Active Channel  
 PL Type: Priority and Non-Priority  
 Signaling Hold Time [ms]: 1000  
 Priority Sample Time [ms]: 2000  
 Priority Channel 1: None  
 Priority Channel 2: None

### 3) Choose a scan list

reeView

Channel1

Rx Freq [MHz]: 144.02500

Tx Freq [MHz]: 144.02500

Admit Criteria: Always

Scan List: SCAN V

Power Level: High

TOT [s]: ∞

TOT Rekey Delay [s]: 5

Bandwidth [KHz]: 12.5

STE: Frequency

Non STE: None

Privacy: Off

Privacy Group: 53474C39

Rx Group List: GroupList1

### 4) Turn on scan function: Buttons---SK1/SK2---Scan On/Off

#### Program Software

File Setting Program View Language Window About

TreeView

GD-77

- Basic Information
- Boot Item
- Menu
- Number Key Assign
- General Setting
- Buttons**
- Text Message
- Privacy
- Signaling System
- Contact
- Rx Group List
- Zone
- Channel
  - Channel1
  - Channel2
  - Channel3
  - Channel4
  - Channel5
  - Channel6
  - Channel7
  - Channel8
  - Channel9
  - Channel10

Buttons

Long Press Duration [ms]: 1500

Short Press

SK1: Scan On/Off

SK2: Battery Indicator

TK: Emergency Off

Long Press

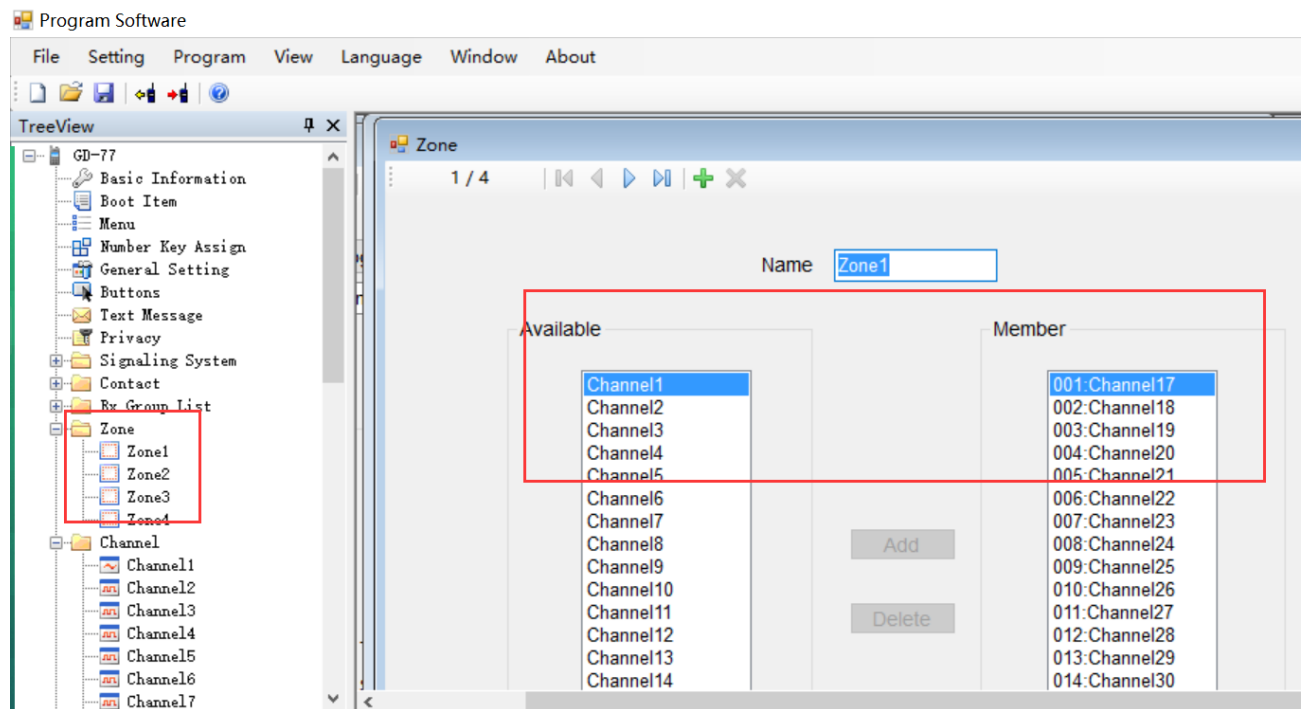
Monitor

High/Low Power

Emergency On

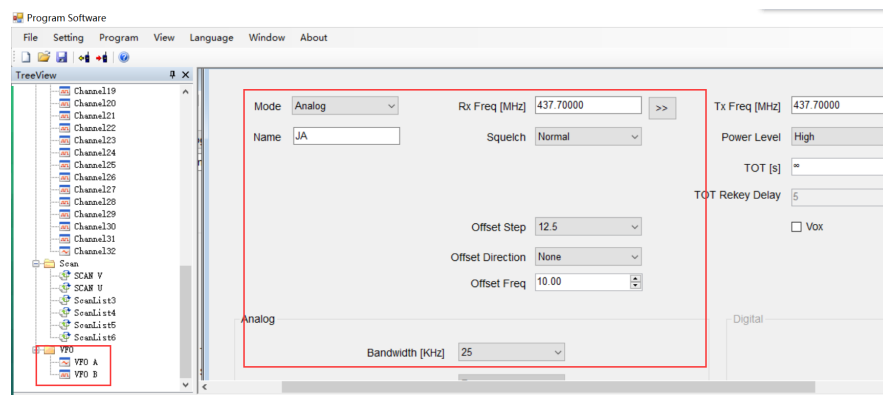
	Mode	Call Type	Call	Text Message
▶ 1				
2				
3				
4				

#### 4. Zone selection (choose zone for your set channel, name zone 1, 2, 3...can be customized)

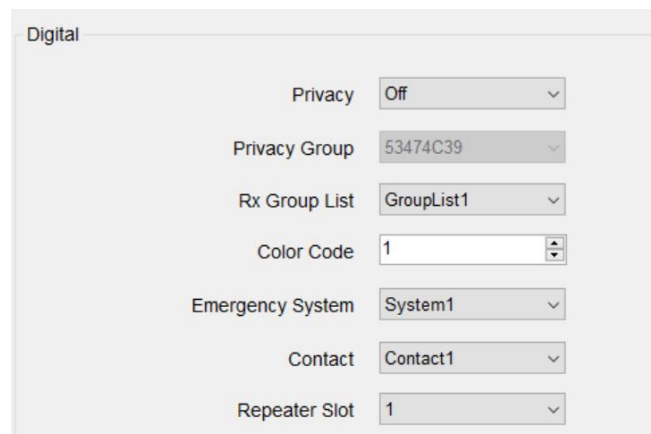


#### DMR Mode – VFO Mode Setting

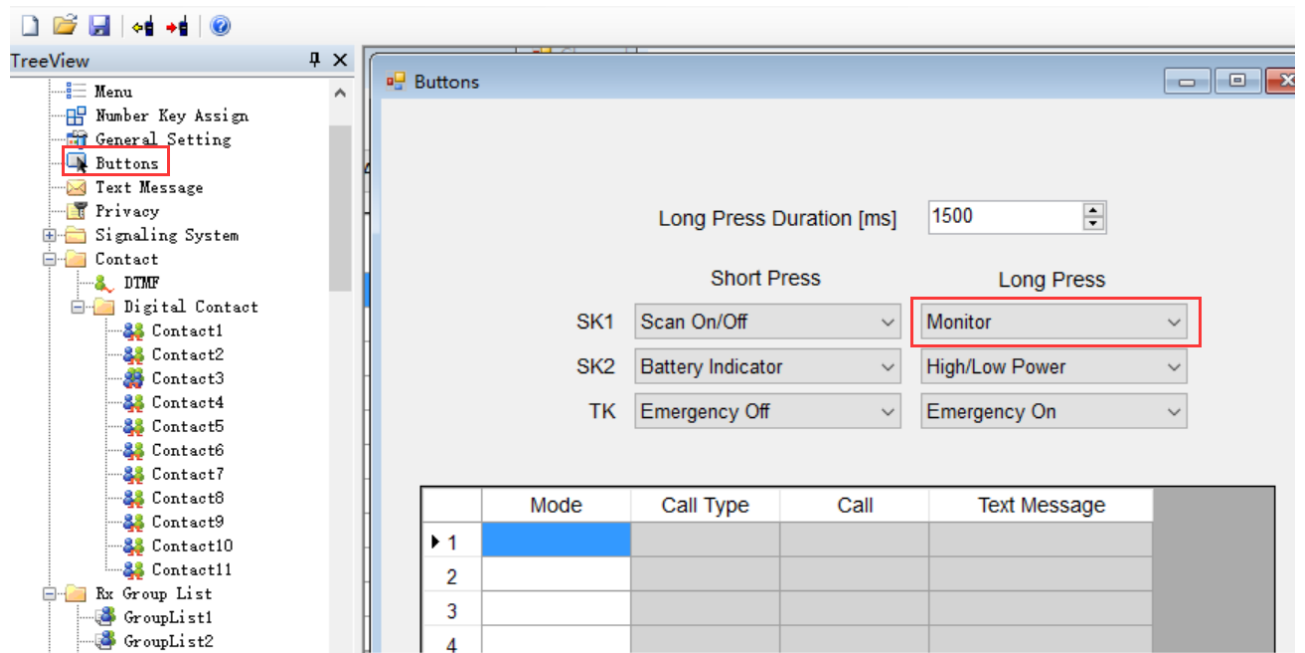
##### 1. VFO---Select VFO--- Select Analog



##### 2. Edit Digital Setting

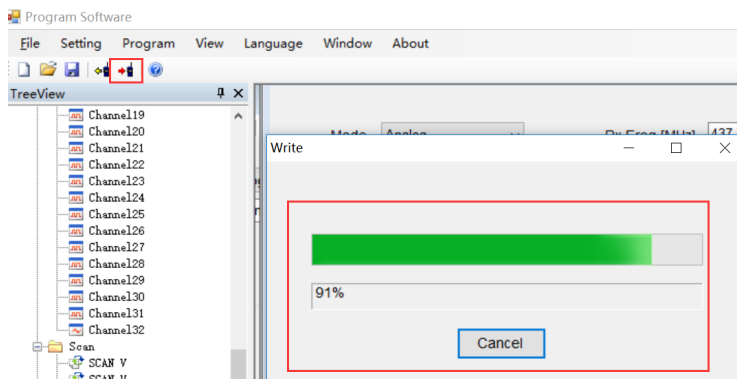


## Monitor Function (Set via BUTTONS)



For now, in Digital Mode, you can start monitor function when RX/TX fre, Color Code and Repeater Slot are mapped. The radio will automatically neglect the mapping of Radio ID and RX Group List.

When finish all your setting, click the write data icon to start programming.



## Start to Use Your Radio

1. After programming successfully, pull out the cable---turn off radio---then turn on again
2. Apply Channel Mode: Menu---zone---select a zone---switch channel via ↑↓ button
3. VFO Mode: switch channel via → button for GD-77, VFO/MR button for RD-5R

**Done**

## FAQ

**Question 1.** In digital mode, Radio A (GD-77/RD-5R/GD-77S) can talk to Radio B; But when Radio B transmit a signal, Radio A gets nothing.

Reason 1: Radio A ID is All Call ID, while Radio B doesn't add Radio A's ID.

Reason 2: Radio A has added Radio B's Radio ID as contact, while Radio B doesn't add Radio A.

Solution: Check the contact ID and channel setting of Radio B, set Radio A as a contact.

Reason 3: Radio B has turned on the Monitor function, while Radio A doesn't. Hence, both A and B don't add the other as a contact.

Solution: Check the contact ID and channel setting of Both Radio A and B.

**Question 2.** In digital mode, both Radio A and B add the ID of each other. but they still cannot communicate.

Solution: Check if select Group Call in contact; Check if the selected channel setting is related to Group Call.

**Question 3.** In digital mode, monitor function doesn't work.

Solution: Check Menu----Double Standby----Double Double, change **Double Double** to **Double Single**.

**Question 4.** In analog mode, the radio lacks the 1750 tone of EU repeater.

Solution: GD-77 analog mode, press PTT button + ←button; RD-5R analog mode, press PTT button + A/B button.