

## Setting Up Digital DMR APRS – DMR-6X2

Step One:

### Setup a Channel for APRS

You must designate one of your channels as the default APRS Channel. This will be used for the Frequencies, Color Code and Time Slot to use that matches the Repeater or Hotspot you are using.

Open this Channel's settings screen and select:

- APRS Report to "ON"
- APRS Report Channel to "1"

Channel Name: DUP 3100

Receive Frequency: 421.55500  
Transmit Frequency: 427.55500

Channel Type: D-Digital  
Transmit Power: Low  
Band Width: 12.5K  
TX Permit: Always  
CH Scan List: None  
APRS Report: On  
APRS Report Channel: 1

TX Prohibit  
 Work Alone  
 Talk Around  
 Through Mode

Digital

Contact: 3100 Nat  
Radio ID: N6DMR 028  
Color Code: 5  
Slot: Slot2  
Receive Group List: Rx 3100  
Digital Encryption: Off  
Encryption Type: Normal Encryption

Simplex TDMA  
 TDMA Adaptive  
 Call Confirmation  
 Ranging

Analog

CTCSS/DCS Decode: Off  
CTCSS/DCS Encode: Off  
Squelch Mode: Carrier  
Optional Signal: Off  
DTMF ID:   
2Tone ID:   
5Tone ID: 1  
PTT ID: Off

Reverse  
2TONE Decode:   
Custom CTCSS: 251.1

OK Cancel Previous Next

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Step Two:

## Setup Digital APRS Information Screen

At this screen you set your required settings:

1. Manual Tx Intervals
2. APRS Auto TX Intervals
3. Transmit Power set as High for Repeaters or Low for Hotspots
4. Fixed GPS Beacon (semantics on this is wrong it really means Fixed Beacon on or off
  - a. This gets set as “Not Used” if you want to use the actual GPS data as the location, GPS must be on and have a satellite signal lock for APRS to send
  - b. This is set to “Used” to transmit as a fixed Beacon and it will use the “dd.mm.nn” settings you enter below instead of the GPS (good for testing with no GPS lock)
5. Current Location which will be used as an APRS Beacon
6. The Report Channels you want to use, in this case select Report Channel 1 as the Channel you set in Step One Above
7. Enter Brandmeister APRS Talk Group (In the USA this is 310999)
8. Call Type set to Private Call
9. Set Slot that you want to use typically this would match the Step One Channel setting

The screenshot shows the APRS setup screen with the following settings:

- Manual TX Intervals[s]: 30
- APRS Auto TX Intervals[s]: 60
- Transmit Power: Low
- Fixed GPS Beacon: Not Used
- Report Channel 1: DUP 3100
- Report Channel 2: Channel VFO B
- Report Channel 3: Channel VFO B
- Report Channel 4: Channel VFO B
- Report Channel 5: Channel VFO B
- Report Channel 6: Channel VFO B
- Report Channel 7: Channel VFO B
- Report Channel 8: Channel VFO B
- APRS Talk Group: 310999
- Call Type: Private Call
- Slot: Slot1

The 'Fixed Beacon Settings' section is highlighted with a red arrow and contains the following fields:

- ddd.mm.mm
- Latitude (degrees): 40
- Latitude (minutes): 07.45
- North or South Latitude: N
- Longitude (degrees): 70
- Longitude (minutes): 07.99
- East or West Longitude: W

Buttons for OK and Cancel are visible at the bottom.

Step Three:

## Select APRS Send Channel

To turn on the DMR APRS, you just have to select the Channel you set up in Step One above and do a PTT to start the process, you will see the “Sending Digi APRS Data” Icon. The radio should now send APRS data at your selected intervals until you change the active channel.