Icom America, Inc.
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F3400D/F52D Series Programming

BASIC PROGRAMMING: DIGITAL CHANNELS WITH SCANNING

Introduction

This tutorial describes how to program the F3400/F5400 and F52D series radios with a basic digital file composed of 3 digital channels, each with RAN codes and Scanning.

Note: No signaling or Individual Calls are programmed.

Prerequisites

- Radio is connected to the computer with a cloning cable. USB A to micro B type, with matching driver or OPC-1862 (portables) or OPC- 2363 (Mobiles) with matching drivers
- Firmware and Software are updated to the latest version
- Windows® 7, 8.1, or 10 (32/64bit) operating system

Programming

The following procedures describe programming three Digital Channels with Scanning and no signaling.

Note: There is no Model Type option (step 2) for the F52D series radios.

1. Open the CS-F3400D cloning software and go to **Model** in the Main Menu.

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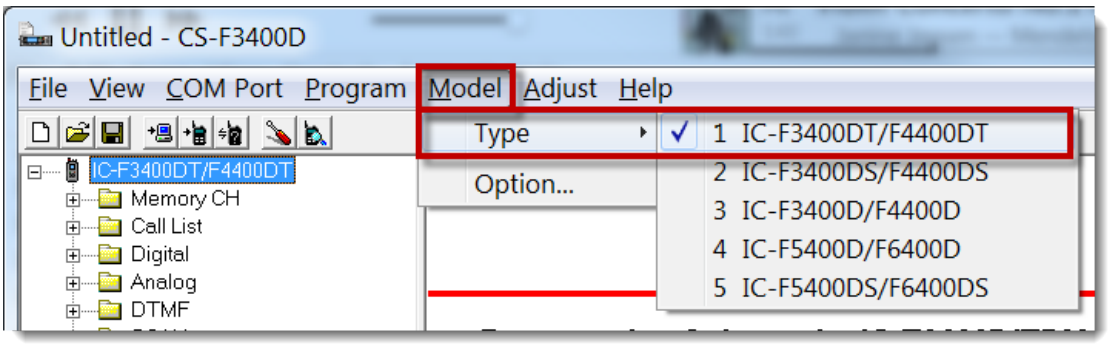
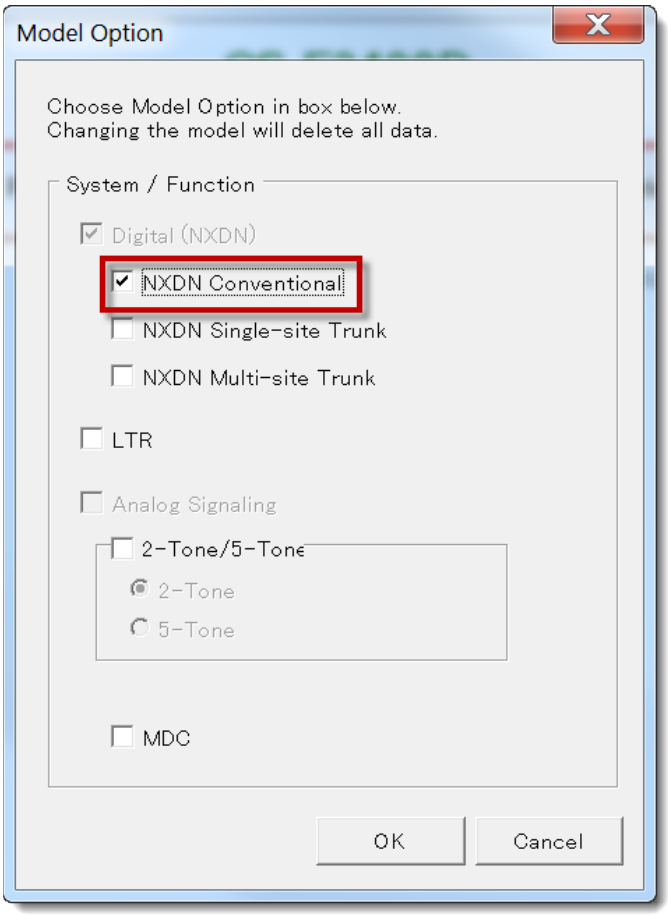


2. Assign the software to match the model radio being programmed.

3. **In Model Option**, disable all Options except **NXDN Conventional**.



4. Go to the **Zone Operation** window.

Zone Operation Window

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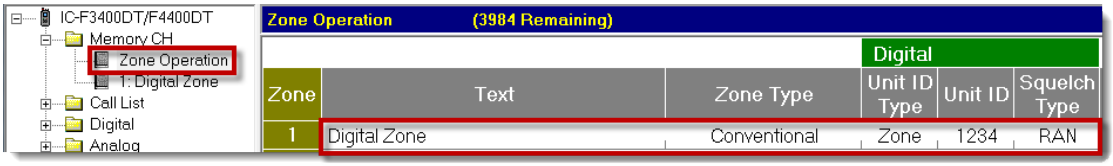
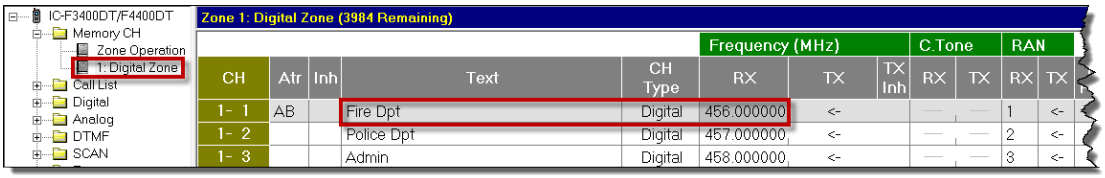
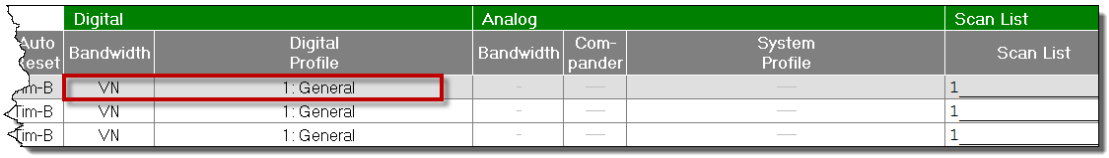


5. In **Text**, enter a descriptive name for this zone.
6. Assign **Zone Type** as **Conventional**.
7. **Unit ID Type**:
   - **Own -** Uses 1 global ID for all zones as set in **Digital**->**Conventional**->**Own ID** .
   - **Zone -** Uses 1 ID for THIS zone. The ID is set in **Zone Operation**->**Unit ID**.
8. **Unit ID**: Used only when **Unit ID Type** is set as **Zone**. Enter this radio's ID when operating in this zone.
9. Set **Squelch Type** as **RAN** for this example. **SEL** would be appropriate if Talk Groups were different or if Selective Calling were used.
10. Go to the **Zone 1** window.

Zone 1 Window



11. Enter the following settings:
    - **Frequency (MHz) -** Enter the 3 channels sets for these channels.
    - **RAN** - Enter applicable RAN code for each channel. Choices are from 0 to 63.
    - **CH Type** - Enter **Digital**.
    - **Text** - Enter descriptive text for this channel.



12. Set **Bandwidth** to **VN** (Very Narrow 6.25kHz) or **N** (Narrow 12.5kHz).

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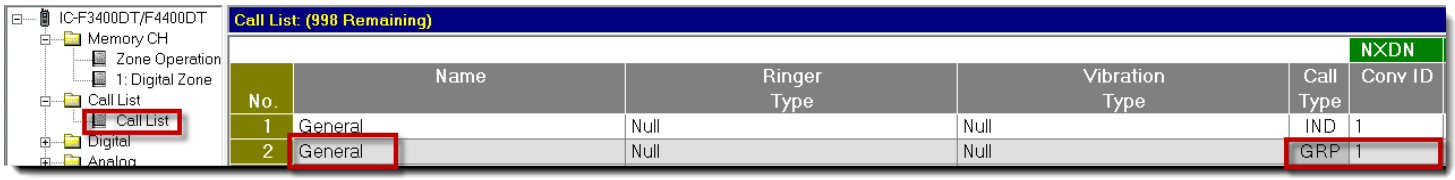
Digital Profile: Ultimatly this setting defines the default TX and RX Call types and IDs when on this channel. This setting is derived from the Digital Conventional Profile and Call List windows that follow.

13. Go to the **Call List** window.

Call List Window



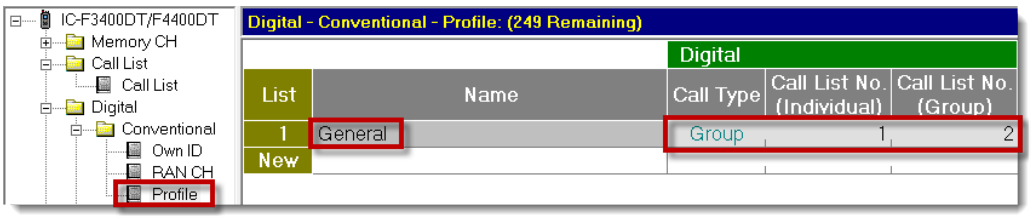
Call List: A collection of default Transmit Call Types, either Group or Individual, and the associated ID's for that particular Call Type destinations to be used by this radio on a channel by channel basis.

Each line number also defines the ringtone and/or vibration pattern that this radio will exhibit when receiving a Status or Call Alert call from this matching Group or ID.

14. Enter the following settings:
    - **Name**- Enter "General" for this example.
    - **Call Type** - **GRP** for group calls
    - **NXDN/Conv ID** - Enter "**1**" for TG 1.
      Note: When the **Call Type** is **GRP**, the NXDN Conv ID is a Talk Group ID. When the **Call Type** is **IND**, the NXDN Conv ID is an Individual ID.

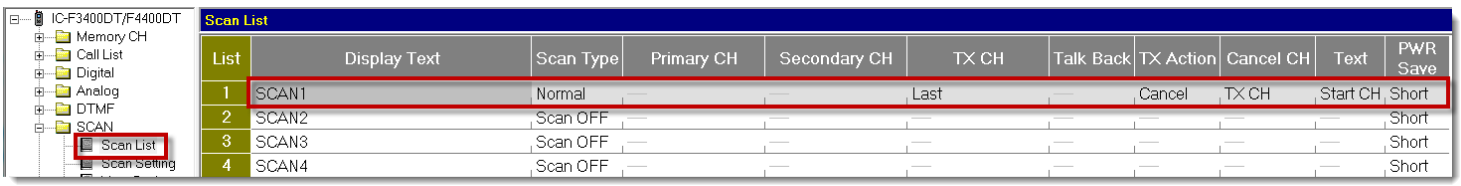
15. Go to the **Digital Conventional Profile** window.

Digital Conventional Profile Window



This window points to Call List settings, and represents Individual and Group ID's. Once populated, the appropriate list Line 1 or 2 or 3, etc. is entered into the Zone Digital Profile setting to assign the corresponding Call Type and Call List TG or Inv ID for that particular channel.

Scan List Window



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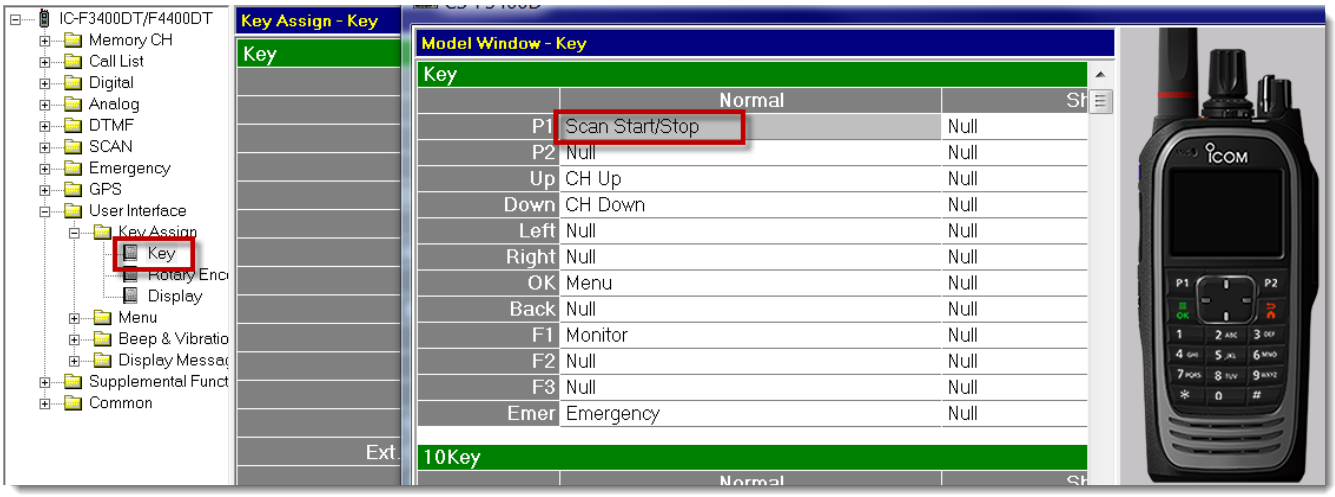
16. In **Scan List** in the **Zone 1** window, assign each channel as **1**.
17. In the **Scan** -> **Scan List** window, assign the characteristics desired for this scan group as determined by customer requirements. Set all unused Scan List groups to **Scan OFF** (**in Scan Type** field).
18. Go to the **Interface** -> **Key Assign** -> **Key** window.

Key Window



19. Double-click on **P1** and assign **P1** as the **Scan Start/Stop** key.
20. Set all other key assignments to Null to avoid confusion.
21. Go to **Rotary Encoder**.

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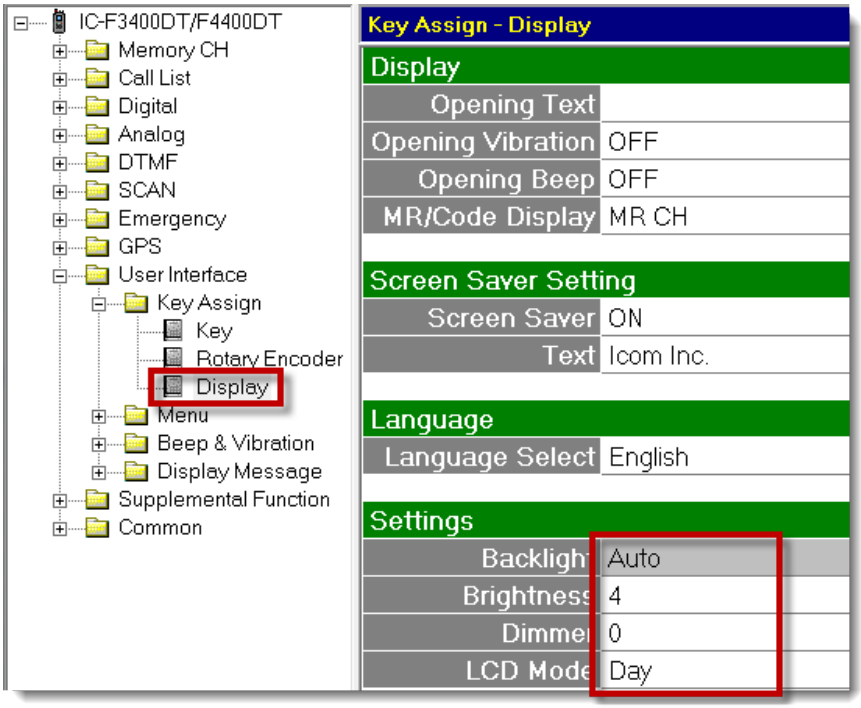
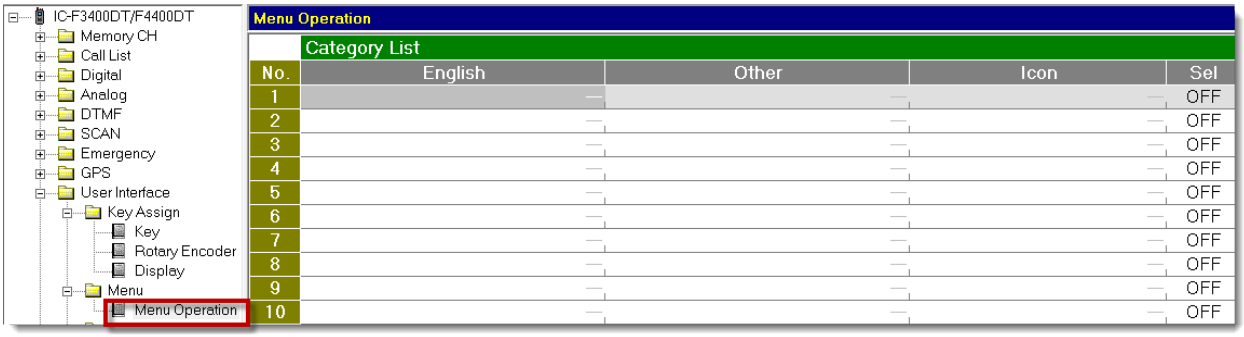
Display Window



22. Enter the following settings:

- **Backlight** - Set to preference.
  - **ON** for mobiles
  - **Auto** for portables. When the Display lights, power is being consumed. The Display will dim after 5 seconds of idle.
- **Brightness –** recommend set at **4**
- **Dimmer –** recommend set at **0** for portables, **4** for mobiles.

Menu Operation Window



Since funtionality for this simple file requires no screen use, all menu views are turned off in this procedure. Set **Sel** to **OFF** for each line.