

F3400D/F52D Series Radio Programming

GETTING STARTED: BASIC MDC

Introduction

This tutorial describes how to enable an F3400DT/F5400D series or F52D series radio with MDC-only capabilities. This also applies to an F3400D portable (minus the Menu settings) and a mobile radio. Refer to the comprehensive *MDC-1200 Programming Guide* in the B-B Knowledgebase for additional feature programming.

As with any radio software, if you are programming no-display models, features and functions that require displays will not be usable.

Prerequisites

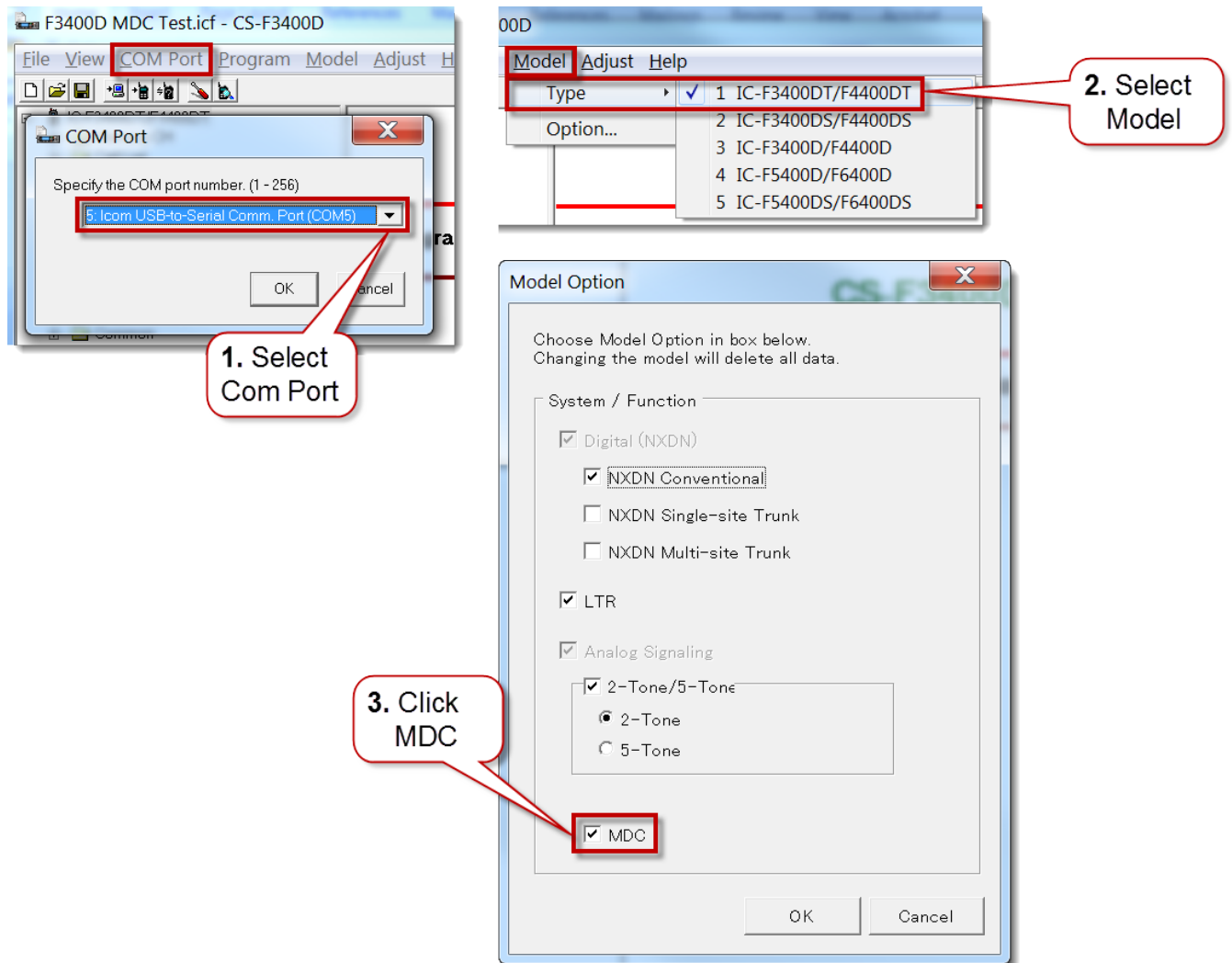
- Radio is connected to the computer with a cloning cable. USB A to micro B type, with matching driver or OPC-1862 (portables) or OPC- 2363 (Mobiles)
- Firmware and Software are updated to the latest version
- Windows® 7, 8.1, or 10 (32/64bit) operating system

Programming

The following steps allow for a simple PTT-ID and Select Call in MDC.

Selecting Model and Option

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



Note: If the incorrect model Type is selected when writing a file to a radio, the software will give an error message, but the programmer *will be allowed* to write the file into the incorrect version. This is not recommended as feature capabilities and functionality may be compromised, depending on settings.

If this message pops up, click **Cancel** and change the **Type** to the correct model before proceeding.

Unlike previous Icom programming, changing the radio type does not delete previously entered settings.

Note: Other capabilities can also be checked, but this will add more programming screens to the software. Icom suggests selecting only the options that this radio will be using to keep the programming more intuitive.

Zone Operation Window

1. Enter text in the applicable Zone **Name**.

Zone Operation (3983 Remaining)			
Zone	Text	Zone Type	Unit ID Type
1	MDC Test	Conventional	Own
2	Zone 2	Conventional	Own

2. Select **Conventional** in **Zone Type**.

3. Enter a number in **Capacity** to enable each desired zone. (Zone 1 is enabled by default). If necessary, enable more zones by entering a "1" under **Zone 2 Capacity**, and entering a text name.

Capacity	Used
16	1
1	0
0	0

Zone 1 Memory Channel Window

The **Zone** window contains the specific information for each channel in that zone.

1. Enter a text name in **Text**.

Zone 1: MDC Test (3983 Remaining)						
CH	Atr	Inh	Text	CH Type	Frequency (MHz)	C.Tone
1-1	AB		Robert	Analog	455.000000	67.0

2. Select **Analog** in **CH Type**.
3. Enter your frequencies in **Frequency** -> **RX/TX**.
4. Select your tones in **C. Tone** -> **RX/TX**.

Note: Ignore the settings in **System Profile**. This setting refers to the System Profile window for *2-Tone* and *5-Tone* features only.

MDC Test (3983 Remaining)				
Com- pander	System Profile	Signal	Analog Profile	Scan List
	1:	MDC	System 1	

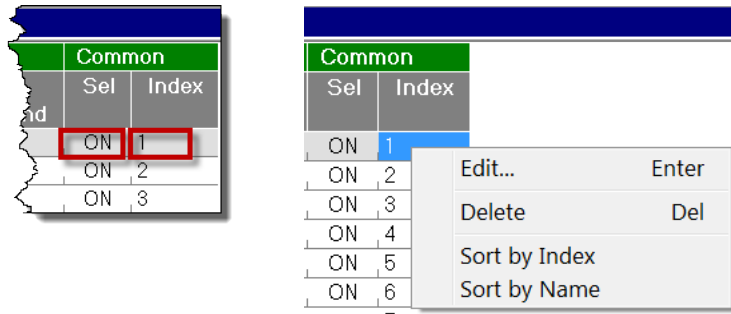
5. Select **MDC** in **Signal**.
6. Select **System 1** in **Analog Profile**. This refers to the **MDC Systems** window. For this example, leave at System 1. Generally, leaving this at "System 1" is the correct setting. If further system flexibility of settings is required, the various parameters that the radio will follow in MDC can be modified.

Call List Window

The **Call List** window is where you enter the ID's, either Group or Individual, for all the radios or groups that you might want to select from your radio (using programmed keys or menu choices) for targeted calling. The Call List, when used with MDC, acts as the Alias list, showing Text Aliases. This list can contain radio ID's for conventional analog, conventional digital, and digital trunking.

Call List (993 Remaining)									
No.	Name	Ringer Type	Vibration Type	Call Type	NXDN Conv ID	MDC ID	CTC		
1	Ron	PI	Null	IND	OFF	1235	ON		
2	Betty	PI	Null	IND	OFF	1236	ON		
3	Bill	PI	Null	IND	OFF	1237	ON		

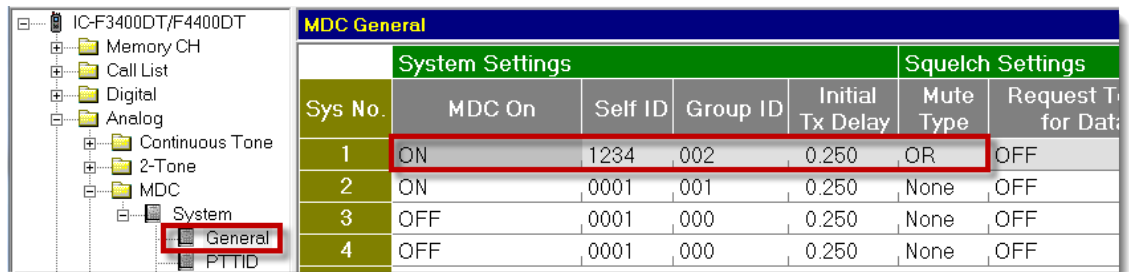
1. Enter the alias of each radio in **Name**.
2. Select **IND** for an individual radio, **GRP** for a group of radios.
3. Enter the MDC 4-digit Individual ID in **MDC** -> **ID**. For Group calls, the ID must begin with an "E". Example: E002 for Group 2.
4. Select **ON** in **Common** -> **Sel** to enable you to choose an ID from the radio keys or menu.



- Click **Index** to organize the ID list. This represents the order of the ID's in the call list. You can set the priority of the list by right-clicking in the **Index** field.

Analog -> MDC -> System -> General Window

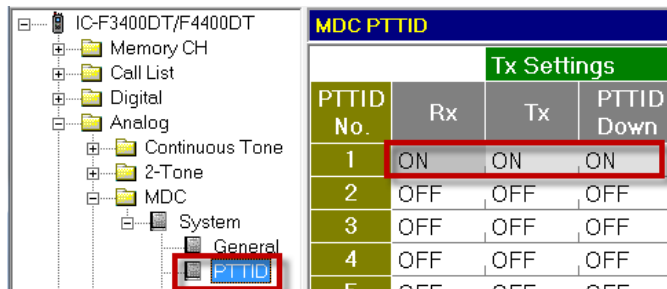
- Select **ON** in **MDC On**.



- Enter this radio's 4-digit individual ID in **Self ID**.
- Enter the group ID in **Group ID** that this radio belongs to. An "E" is not used in this window.
- Enter 0.250 for radio to radio in **Initial Tx Delay**. Enter 0.400 for transmission through a repeater.
- Select **OR** in **Mute Type** for normal group transmissions. Select **AND** if individual (Select) calls will be the standard default communication.

Analog -> MDC -> PTTID Window

- Select **ON** in **Rx**.



2. Select **ON** in **Tx**.
3. Select **ON** in **PTTID Down**. This will enable the MDC data burst to be sent when the PTT is pressed down.

Analog -> MDC -> System -< SelCall Window

1. Select **ON** in **Rx**. This enables select call receiving.

MDC SelCall							
Rx Settings							Tx Setti
SelCall No.	Rx	Ringer Type	Vibration Type	Bell Icon	Log	AUX	Tx
1	ON	PiPi	OFF	ON	OFF		ON
2	OFF	PiPi	OFF	ON	OFF		OFF
3	OFF	PiPi	OFF	ON	OFF		OFF
4	OFF	PiPi	OFF	ON	OFF		OFF
5	OFF	PiPi	OFF	ON	OFF		OFF

2. Select **ON** in **Tx**. This enables select call transmission.

Key Assign Window

The **Key Assign** window allows you to assign specific functions for the keys on the radio. For the DS and DT versions, these would be keys to be used *in addition* to the menu display icons. For the “D” versions (no displays), these keys are the only way to access features by the user.

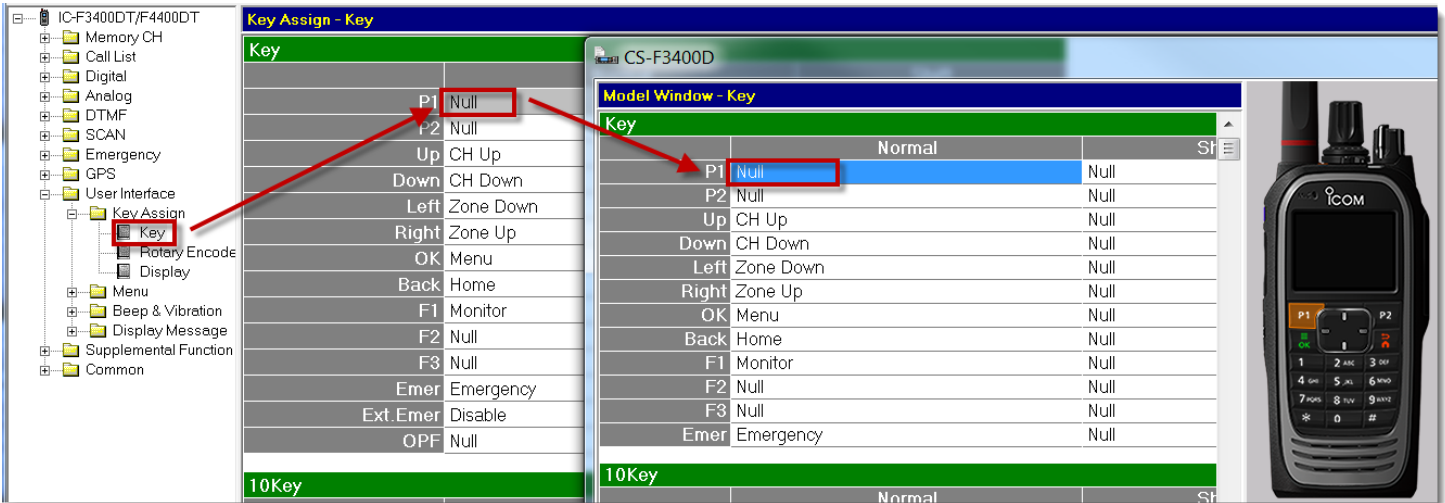
In most applications, the fewer keys assigned, the easier the radio is to operate for the user. The following examples allow the user to access the Menu screens on the display, navigate through them, and to return to the previous screens.

Access the window by clicking **Key** then double-clicking (or pressing Enter) a field that corresponds to a key on the radio. A second window will pop-up with a graphic of the radio showing the location of the key.

Display Versions- Leave buttons at default.

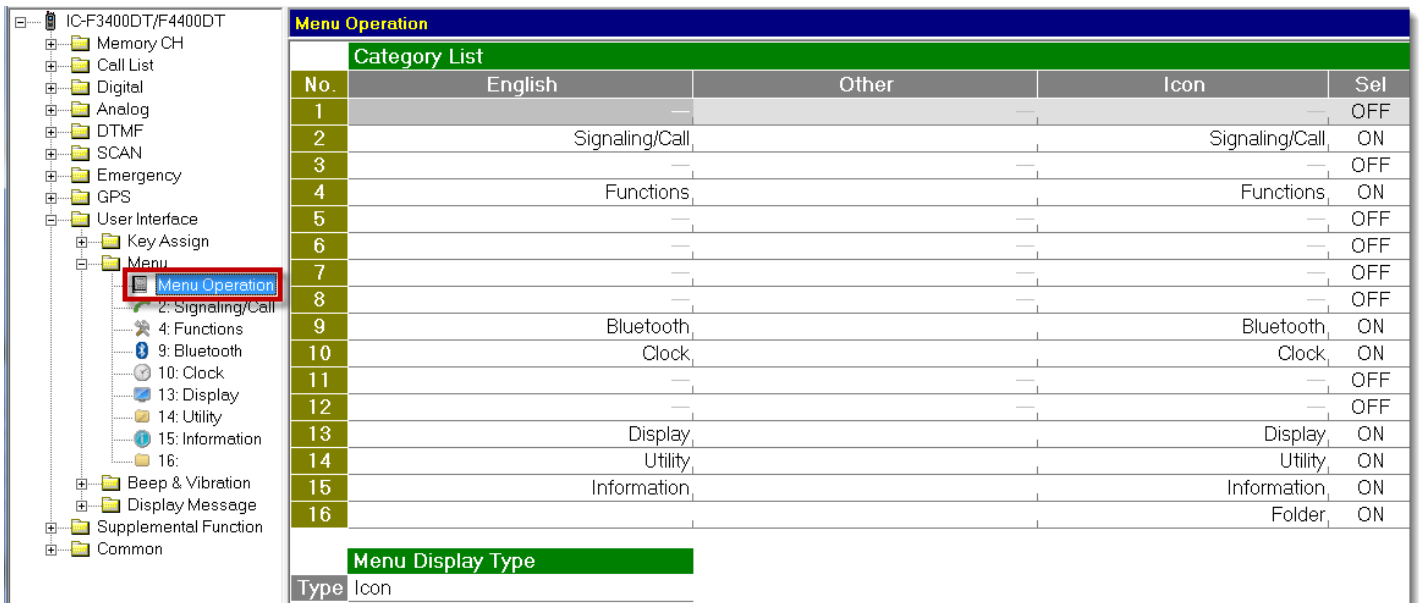
OK- Press to access the Menu screens on the display.

Non Display versions- Only Group calls are performed, so Key assignments are not used.



Menu Operation Window

Menu Operation shows the enabled Menu icons and allows you to delete Menu options that will not be needed by users when using a DT or DS radio. By default, all Menu icons are visible on the Radio Display. The following example shows that all but 7 functions have been disabled. Only these 7 functions will appear on the display, simplifying radio operation.



Menu Customize

Each icon on the Menu display contains many parameters that can be accessed once that icon has been selected. The number of choices can be reduced in the **Menu Customize** window to simplify use for the radio operator. The following examples use the **Signaling/Call** Menu.

Signaling/Call Menu

Menu Customize 2: Signaling/Call	
Function List	
No.	Function
1	Call Menu
2	Announce Level
3	DTMF Autodial
New	

Deleting from Signaling/Call Menu

Menu Customize 2: Signaling/Call	
Function List	
No.	Function
1	Call List Select
2	Call Menu
3	Clear Incoming
New	

Edit...	Enter
Copy	Ctrl+C
Paste	Ctrl+V
Up	Ctrl+Up
Down	Ctrl+Down
Delete	Del
Insert	Ins

Highlight the unwanted feature and right-click to delete.

To add the Signaling/Call features back into the radio:

1. Highlight a blank line.
2. Right-click and select **Edit**.
3. Highlight **Signaling/Call** and click to select, making the features list appear.
4. Highlight the feature that is to be added back into the list and click to select.
5. Repeat for each function desired within the Signaling/Call Icon
6. Write the file into the radio and test.

Making an MDC Call

Default group call

Press PTT. The radio will perform a normal group call on the group that this radio is programmed with in the **MDC -> General** window.

Individual Call (F3400D series)

1. Press the **OK** key (if left at default programming) to access the **Menu** screen, or press an assigned **Call Menu** key (such as P1).
2. Press the Front Panel Left/Right keys to select the **Signaling/Call** function.
3. Press **OK**.
4. Use the Front Panel Left/Right keys to choose **Individual Select**.
5. Press **OK**.
6. Use the Front Panel Left/Right keys to select the desired ID.
7. Press PTT.

Individual Call (F52D series)

1. Press the **OK** key (if left at default programming) to access the **Menu** screen, or press an assigned **Call Menu** key (such as P1).
2. Press the Up/Down keys to select the **Signaling/Call** function.
3. Press **OK**.
4. Use the Up/Down keys to choose **Call List Select**.
5. Press **OK**.
6. Use the Up/Down keys to select from the **Call List** or **Call Menu**.
7. Press PTT.