

12/2/2021

Quick Start

1. Install the MXT400 PC software.
2. From the PC's Start menu, select USBtoComPort_Win8, located in the MXT400 program folder. This will install a driver for the DBR1 programming cable.
3. Plug the DBR1 programming cable into a USB port on the PC. Your PC should find new hardware and finish installing the DBR1 cable driver. Note the com port number for the virtual com port.
4. Connect the DBR1 programming cable to the MXT400 microphone jack.
5. Turn the radio on.
6. Open the MXT400 PC software.
7. Select Set COM from the PC software Set menu. Select the communication port from drop list.
8. Select Read from Radio from the PC software Program menu.
9. Once the program is read, edit the program as needed.
10. Once the program is edited as needed, Select Write to Radio from the PC software Program menu.

CH Screen

MXT400[MXT400:Rx(400 - 489.9950 MHz) Tx(400 - 489.9950 MHz)][:new.dat]										
File Model Channel Edit Edit Set Program View Help										
CH.	RX Frequency	TX Frequency	CH Name	Step	Channel Spacing	TX Power	CTCSS/DCS Decode	CTCSS/DCS Encode	Optional Signaling	
1	462.56250	462.56250		25K	12.5K	Low	Off	Off	Off	
2	462.58750	462.58750		25K	12.5K	Low	Off	Off	Off	
3	462.61250	462.61250		25K	12.5K	Low	Off	Off	Off	
4	462.63750	462.63750		25K	12.5K	Low	Off	Off	Off	
5	462.66250	462.66250		25K	12.5K	Low	Off	Off	Off	
6	462.68750	462.68750		25K	12.5K	Low	Off	Off	Off	
7	462.71250	462.71250		25K	12.5K	Low	Off	Off	Off	
8										
9										
10										
11										
12										
13										
14										
15	462.55000	462.55000		25K	12.5K	High	Off	Off	Off	
16	462.57500	462.57500		25K	12.5K	High	Off	Off	Off	
17	462.60000	462.60000		25K	12.5K	High	Off	Off	Off	
18	462.62500	462.62500		25K	12.5K	High	Off	Off	Off	
19	462.65000	462.65000		25K	12.5K	High	Off	Off	Off	
20	462.67500	462.67500		25K	12.5K	High	Off	Off	Off	
21	462.70000	462.70000		25K	12.5K	High	Off	Off	Off	
22	462.72500	462.72500		25K	12.5K	High	Off	Off	Off	
23	462.55000	467.55000		25K	25K	High	Off	Off	Off	
24	462.57500	467.57500		25K	25K	High	Off	Off	Off	
25	462.60000	467.60000		25K	25K	High	Off	Off	Off	
26	462.62500	467.62500		25K	25K	High	Off	Off	Off	
27	462.65000	467.65000		25K	25K	High	Off	Off	Off	
28	462.67500	467.67500		25K	25K	High	Off	Off	Off	
29	462.70000	467.70000		25K	25K	High	Off	Off	Off	
30	462.72500	467.72500		25K	25K	High	Off	Off	Off	

CH 01 – CH 07

Unused

CH 15 – CH 22

rP CH 15 - rP CH 22

The CH screen is shown above. CH 1-7 and CH 15-22 directly correspond to those default channels on the MXT400. CH 8-14 are unused with the default MXT400 channel configuration, but may be used for additional

channels as needed. CH 23-30 correspond to rP CH 15-22 on the MXT400. The repeater channels are only displayed when they are enabled. The repeater channels can be enabled from the radio menu or using the Rep Function check box on the Function Setup screen. To edit channel information, double click anywhere on the desired channel row, to bring up the Channel Edit screen. Or place the cursor on the desired row and select CH Edit from the Edit menu.

Channel Edit Screen

The screenshot shows the 'Channel Edit' dialog box with the following fields and options:

- RX Frequency:** 462.56250
- TX Frequency:** 462.56250
- CH Name:** Seven empty character slots for an alpha-numeric name.
- Step:** 25K (dropdown menu)
- Channel Spacing:** 12.5KHz (dropdown menu)
- TX Power:** Low (dropdown menu)
- CTCSS/DCS Decode:** Off (dropdown menu)
- CTCSS/DCS Encode:** Off (dropdown menu)
- Optional Signaling:** Off (dropdown menu)
- Squelch Mode:** Carrier (dropdown menu)
- DTMF PTT ID:** Off (dropdown menu)
- 5Tone PTT ID:** Off (dropdown menu)
- Scrambler Switch:** Off (dropdown menu)
- Busy Channel Lock-out:** Off (dropdown menu)
- TX Off:** ☐
- Compander:** ☐
- Scan Skip:** ☐
- Reverse:** ☐ (grouped in a box with Talk Around)
- Talk Around:** ☐ (grouped in a box with Reverse)
- Buttons:** OK and Cancel

The Channel Edit screen allows per channel options configuration. To open the Channel Edit screen, double click anywhere on the desired channel row of the CH screen. Or place the cursor on the desired row and select CH Edit from the Edit menu.

RX Frequency

The default receive frequency is displayed for the channel. Channels 8 -14 will allow any valid receive frequency within the MXT400 receiver's bandwidth to be entered.

TX Frequency

The default transmit frequency is displayed for the channel. Channels 8-14 will allow transmit frequency selection from the 16 predefined GMRS main frequencies.

CH Name

A seven character alpha-numeric channel name may be entered, that will show on the MXT400 display in place of the normal channel number. The characters display as all caps, but are best entered without using the shift key on the keyboard.

Step

Unused in the MXT400 application, selection can be left at 25 kHz.

Channel Spacing

Selecting 12.5 kHz will set the radio for maximum ± 2.5 kHz deviation, or narrow band mode. Same function as selecting NB-ON in the V2* radio menu. Selecting 25 kHz will set the radio for maximum ± 5 kHz deviation, or wide band mode. Same function as selecting NB-OFF in the V2* radio menu. Selecting 20 kHz will set the radio for maximum ± 4 kHz deviation.

TX Power

Allows selection of the channel's transmit power. The channel's transmit power can also be switched using the PWR button on the radio front panel. CH 1-7 are fixed at low power, 5W, to comply with FCC rules.

CTCSS/DCS Decode

Allows selection of the receive privacy tone or code. May also be referred to as the repeater output tone or code. Same function as the RCP selection in the V2* radio's TS/DCS menu.

CTCSS/DCS Encode

Allows selection of the transmit privacy tone or code. May also be referred to as the repeater input tone or code. Same function as the TCP selection in the V2* radio's TS/DCS menu.

Optional Signaling

Unused in the MXT400 application.

Squelch Mode

Selected as Carrier on channels that do not have CTCSS/DCS decode enabled and usually selected as CTCSS/DCS on channels that have CTCSS/DCS decode enabled.

DTMF PTT ID

Unused in the MXT400 application.

5Tone PTT ID

Unused in the MXT400 application.

Scrambler Switch

Unused in the MXT400 application.

Busy Channel Lockout

Allows selection of the conditions when PTT is inhibited.

Off – PTT allowed.

Repeater – PTT not allowed when the channel is busy and the programmed CTCSS/DCS decode conditions are not met.

Busy – PTT not allowed when the channel is busy.

V2* -- 2022 radio redesign menu changes

TX Off

The transmitter is disabled on the channel when checked.

Comander

The compander circuit is used on the channel when checked. Same function as the COMP selection in the radio menu.

Scan Skip

The channel is not scanned when checked. This function can also be toggled by long pressing the menu button on the V2* MXT400 front panel.

Reverse

The programmed transmit and receive frequencies and privacy codes are reversed when checked.

Talk Around

The programmed receive frequency and privacy code is used for transmitting when checked. This allows for direct radio to radio communication on a channel normally programmed to operate through a repeater. Same function as the TALK selection in the radio menu.

Function Setup Screen

The screenshot shows the 'Function Setup' dialog box with the following settings:

- Starting Display: [Seven character display area]
- Display Mode: Channel
- MR Channel: 1
- Squelch Level: 4
- Backlight Brightness: 3
- TBST Frequency: 1750Hz
- Time Out Timer: 180s
- Auto Power Off: Off
- Mute: Off
- Call Tone: 1
- Tail Eliminator Type: Off
- Choose TX Power: 40W(UHF)
- Options:
 - ☐ Inhibit To Setup Background Operations
 - ☐ Inhibit Initialize Operation
 - ☐ Eliminate Squelch Tail When No CTCSS/DCS Signaling
 - ☐ CHANNEL KNOB UN-LOCK
 - ☒ Rep Function

Buttons: OK, Cancel

The Function Setup screen allows radio wide options configuration. To open the Function Setup screen, click Function Setup on the tree view or select Function Setup from the Edit menu.

Starting Display

A seven character alpha-numeric name can be entered to display in place of “WELCOME” when the radio is turned on. The characters display as all caps, but are best entered without using the shift key on the keyboard.

Display Mode

If the display mode is selected as Channel, the MXT400 will display the CH Name when one is entered; otherwise, it displays the channel number. If the display mode is selected as Name, the MXT400 will display the CH Name when one is entered; otherwise, it displays the channel frequency.

V2* -- 2022 radio redesign menu changes

MR Channel

This is the channel currently selected when the radio was read, and the channel selected after the radio is programmed.

Squelch Level

Selects the relative noise squelch threshold level. Same function as SQL in the radio menu.

Backlight Brightness

Selects the backlight brightness level. Same function as LAMP in the radio menu.

TBST Frequency

Selects the burst tone frequency that might be used to open a repeater. The burst tone is sent by pressing the microphone channel DN button while PTT is pressed.

Time Out Timer

Selects the maximum time for continuous transmission. Same function as TOT in the radio menu.

Auto Power Off

Selects the idle time before the radio will turn off. Same function as APO in the radio menu.

Mute

Selecting On disables the keypad tones. Same function as MUTE in the radio menu.

Call Tone

Selects a call tone sequence to be sent when the Call button is pressed on the MXT400 front panel.

Tail Eliminator Type

Selects the phase shift of the reverse burst type of squelch tail elimination used on CTCSS channels.

Choose TX Power

Selects the MXT400 maximum transmit power output.

Inhibit To Setup Background Operations

Check to disable the MXT400 Menu button functions.

Inhibit Initialize Operation

Check to disable the Factory Restore menu function.

Eliminate Squelch Tail When No CTCSS/DCS Signaling

Check to enable squelch tail elimination on channels without CTCSS/DCS signaling. Compatible with radios using 259.2 Hz for squelch tail elimination.

Channel Knob Unlock

Check to enable the channel knob when the MXT400 keypad lock is turned on.

Rep Function

Check to enable the repeater channels on the MXT400 channel list.

DTMF Screen

Unused in the MXT400 application.

2Tone Screen

Unused in the MXT400 application.

5Tone Screen

Unused in the MXT400 application.

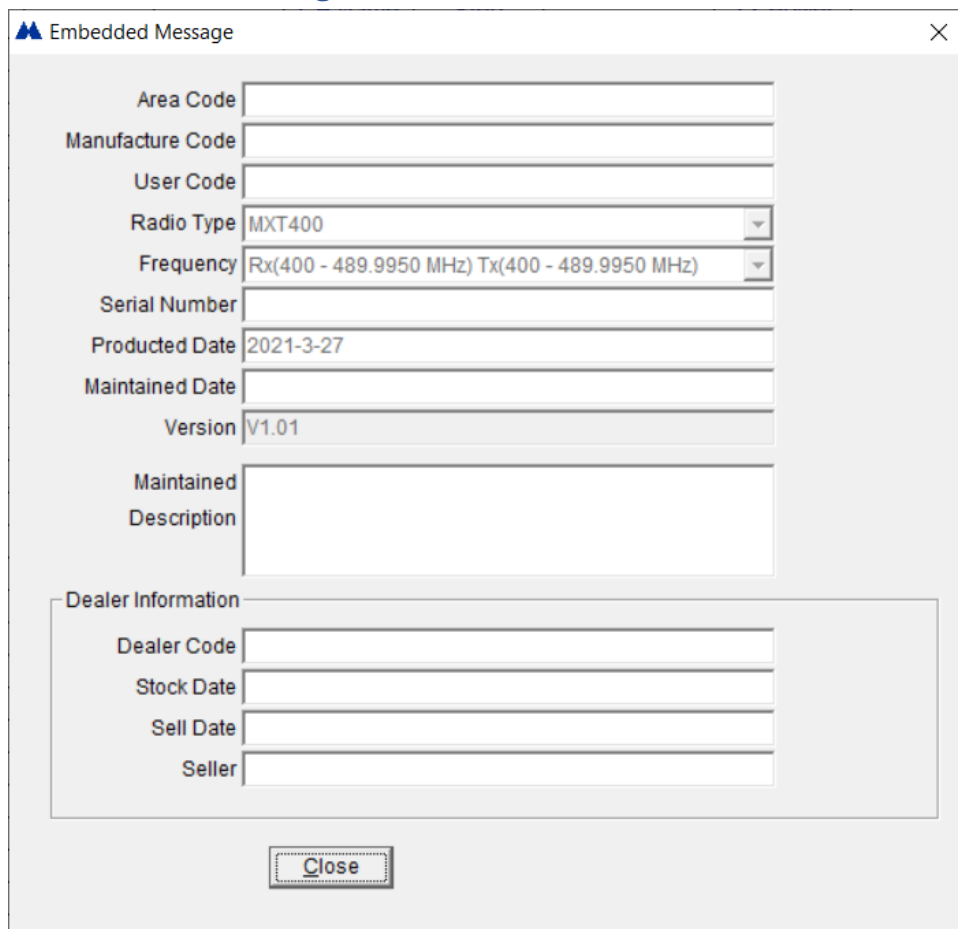
Emergency Information Screen

Unused in the MXT400 application.

Communication Note Screen

Unused in the MXT400 application.

Embedded Message Screen



The screenshot shows a window titled "Embedded Message" with a close button (X) in the top right corner. The window contains several input fields and dropdown menus for configuring a radio. The fields are as follows:

- Area Code: Text input field.
- Manufacture Code: Text input field.
- User Code: Text input field.
- Radio Type: Dropdown menu with "MXT400" selected.
- Frequency: Dropdown menu with "Rx(400 - 489.9950 MHz) Tx(400 - 489.9950 MHz)" selected.
- Serial Number: Text input field.
- Produced Date: Text input field with "2021-3-27" entered.
- Maintained Date: Text input field.
- Version: Text input field with "V1.01" entered.
- Maintained Description: Text input field.
- Dealer Information: A section containing four sub-fields:
 - Dealer Code: Text input field.
 - Stock Date: Text input field.
 - Sell Date: Text input field.
 - Seller: Text input field.

At the bottom of the window is a "Close" button.

The Embedded Message screen shows factory configured parameters. To open the Embedded Message screen, click Embedded Message on the tree view or select Embedded Message from the Edit menu.