

**MD-380/390 with AE2A Code Plug**

For Programming your DMR ID into the Code Plug file and writing to your radio.

## Download and Install the MD-380/390 CPS

Navigate to <http://www.va3xpr.net/programming-software-firmware/>

Select **TYT / Tytera MD-390 CPS v1.36**

Download and install this software if you don't have it already. If you do have a version of the CPS software you can use that. Ensure you have created a folder to store your code plug files, if not make one! Store the code plug file in the email in this location. Make sure you know where it is and how to find this folder.

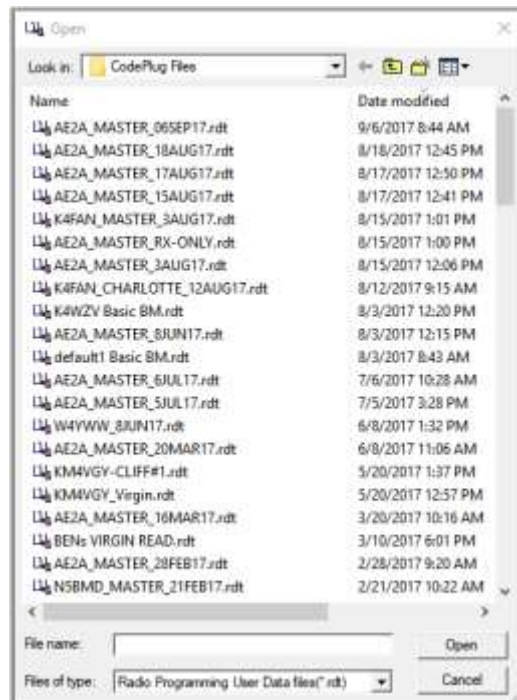
*I suggest you create the folder under the "My Documents" folder and create another folder in this folder called "Code Plug Files".*

You may need to register on this site with your email and call sign.

## Load and program your Radio

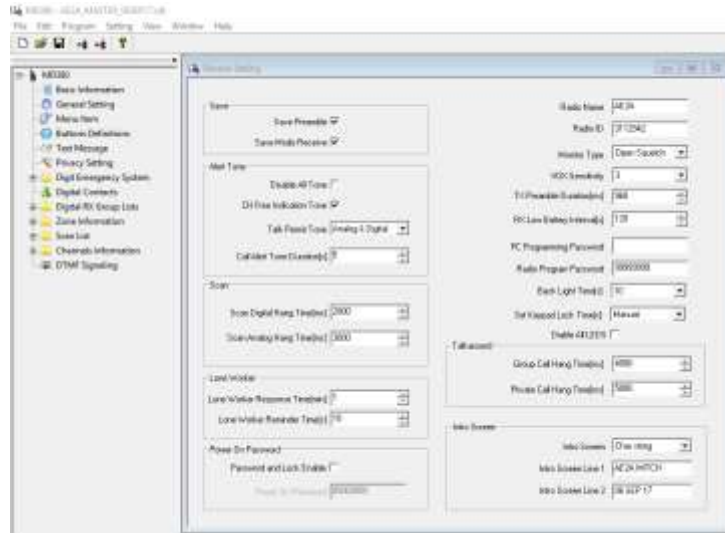
Open the TYT CPS (start the program by double-clicking the Icon).

Click the file/Open Dialog



Select the file you saved from the email and click “Open”.

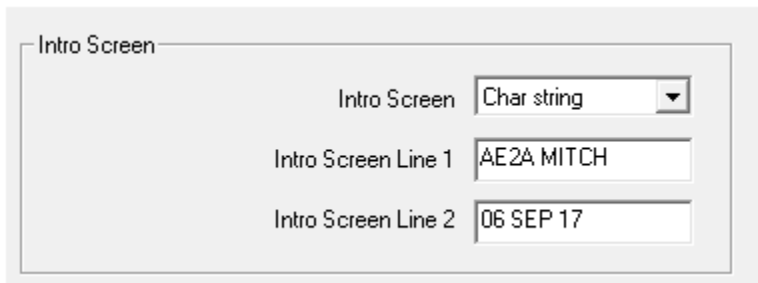
Select the “General Setting” selection and this window will show.



Change the “Radio Name” Box to your call sign.

Change the Radio ID to Your DMR ID.

Look to the bottom right of this window:



Change the “Intro Screen Line 1” to your call sign and name as above.

Click the “Save” icon:

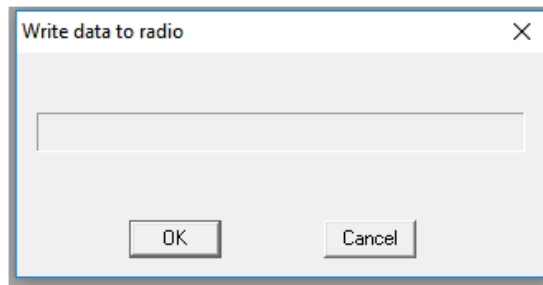
Or Click the “File / Save As” dialog and rename this file to your call sign and today's date. This will keep your updates organized by date.

Connect your programming cable to your PC. Connect the other end to your radio and ensure it is fully seated in the sockets.

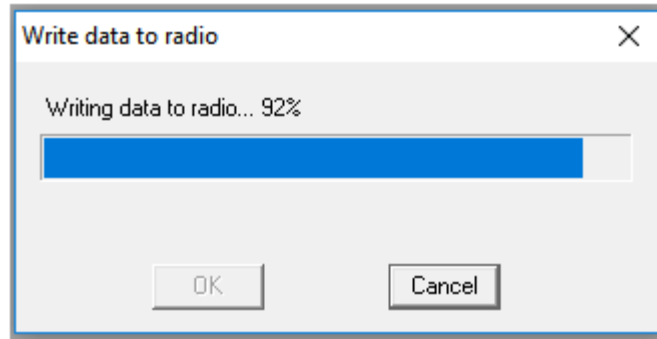
Turn on your radio.

Select the “Write” Icon:

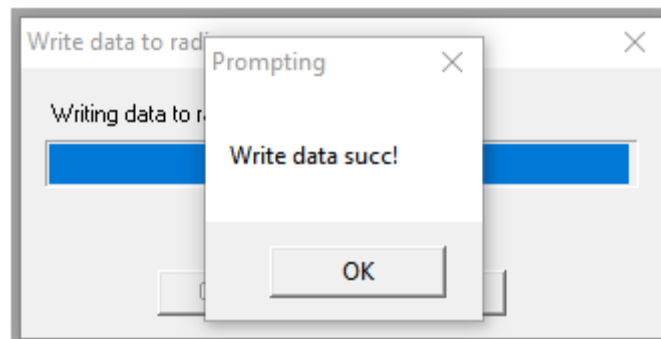
The “write dialog will open:



If you are properly connected, click the “OK” button and write the updated code plug into your radio.



If all went well you will see:



Disconnect the programming cable.

Power down your radio, and power it up again and you should be all set!

Remember to turn the volume up to at least 3 or you won't hear anything!

## Using the New Code Plug

By default the MD-380/390 will start up on the first Zone and Channel #1.

This is Zone = KJ4OVA and Channel #1=KJ4OVA LOCAL 2. This channel is the 'local' channel and is NOT networked or heard on any other repeater in the network. This Talk Group should be used for most of your local communications. The KJ4OVA repeater has a very large coverage area of more than 40 miles! This make it ideal for our use as it will cover all of Wedgefield and beyond with excellent quality.

### To select and use the OCARES "Zone"

This zone has all of the local analog repeaters used during OCARES activations.

*These directions can also be used to select any of the other "Zones" that I have programmed into this code plug. The naming convention uses the geographical general location you are in as the Zone name. The channel naming is generally the repeater call sign and talk group name. Some zones have not yet been edited to the new format and may have a 3 character suffix in the channel naming instead of the repeater call sign. Some repeater call signs may not have been available when I created the code plug, so these use the suffix method of naming.*

Power up your MD-380. Turn the top right knob clockwise.

Turn the volume up to about "3". Leaving the volume too low may result in your not hearing any activity.

### Select or change the "Zone"

Press the **LEFT GREEN** button (this is the Menu/Select button).

Navigate with the UP (↓) or down (↓) buttons to select "Zone", then press the **GREEN** select button.

Navigate with the UP (↓) or down (↓) buttons to select the "OCARES" Zone, then press the **GREEN** select button. This selected the OCARES zone. There are only 5 channels programmed in this zone.

Channel #1 is "W4MCO 443.050F". This is the analog side of the Downtown W4MCO Fusion repeater. You will NOT hear any digital traffic on this channel, but if the digital side is in use you will see the **GREEN LED** on top lit indicting the channel is busy and if you try to PTT (transmit) you will get a busy tone and error message on the screen.

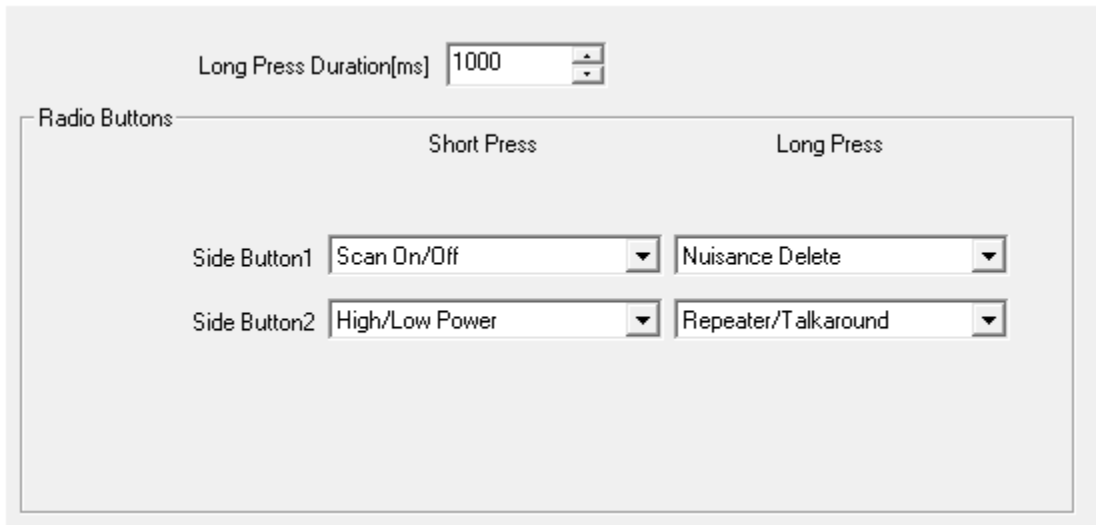
### Become familiar with the channels

Refer to the distributed copy of the Official ICS 205 Incident Radio Communications Plan that is distributed for each ARES activation. Most will follow the same set of channels to be used.

When in analog mode, our DMR radios do not exhibit the 'normal squelch tail' you may be used to. I have deliberately eliminated as much 'noise' as possible to keep the communications as clean as possible. If you are communicating with someone using a different type radio or a GMRS/FRS radio (using that zone) you will notice the difference, but you will still get through.

## Change to SIMPLEX

If you are directed to use SIMPLEX mode for any reason, you must be familiar with how to use the function buttons on the radio. So here is what it looks like in the CPS:



The screenshot shows a configuration window for radio buttons. At the top, there is a field for "Long Press Duration[ms]" set to "1000". Below this is a section titled "Radio Buttons" which is divided into two columns: "Short Press" and "Long Press".

	Short Press	Long Press
Side Button1	Scan On/Off	Nuisance Delete
Side Button2	High/Low Power	Repeater/Talkaround

SO if you press and hold the side buttons for longer than 1 second, you will be selecting the “Long Press” function. A simple “Short Press” (less than 1 second or 1000 msec) will select the related function associated with the most common functions. Side button number 2 is the lower button and has the letter “M” embossed into it. The function to switch to SIMPLEX (more commonly called “Talk-Around”) is simply to press and hold the lower button until you hear the high-low tone and see the ‘simplex icon’ appear on the display (|→|). This setting will be remembered for this channel! Make sure you reset this when returning to this channel or you will not be accessing the repeater if Talk-Around (SIMPLEX) is enabled! PRESS and HOLD the “M” button to return to normal repeater (Duplex) operation.

This same method but using just a short press of the “M” button will change your TX power from LOW to HIGH and back again. The same method applies to enabling SCAN, but this time using the upper button. Nuisance Delete is used when in SCAN mode to stop scanning a BUSY channel. If you are in scan mode and there is noise on the channel or you wish to stop scanning and stopping on this channel, while stopped on the channel, simply press and hold for 1 second the upper button and the scan will not stop on this channel until reset.

Try out these functions and become familiar with the display icons that denote SCAN and HIGH or LOW power.

For local CERT Team communications, Select the Zone=GMRS/FRS and the designated channel is FRS-08 per the CERT Communications Guide.

Good luck with this code plug and don’t be afraid to investigate the programming of all the channels. This code plug has most of the Florida repeaters that are currently on the air included. If you find that something does not work, please contact me!

