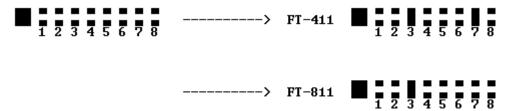
#### **Modifications for the Yaesu FT-411**

#### MODS for FT-411/811 TRX for a VHF UHF

To allow this TRX for a VHF UHF general cover, do the following mods:

- 1) Remove the front panel.
- 2) Look for the first part where the Lithium battery is connect.

there are 8 connectors like:



To validate the micro controller, do next:

For the FT-411: RX 120 - 174 Mhz TX 140 - 174 Mhz

- 1) Reset the TRX by switch on it with [MR] and [VFO] key down.
- 2) Type 1200 [VFO] 1740 [VFO] 1400 [VFO] 1740 [VFO]
- 3) Press the [F] and [7] keys tho change the QSY step.

BE CARREFULL, with this few mods, the TRX looses the automatic AM detection.

For the FT-811: RX 420 - 470 Mhz TX 420 - 470 Mhz

Do the same but step 2 is different :

- 1) Idem
- 2) Type 4200 [VFO] 4700 [VFO] 4200 [VFO] 4700 [VFO]
- 3) Idem

# FT-411 Modification via computer

I was unhappy with the FT-411's "3" mode because the frequency had to be entered starting with the 100 MHz digit, and the ARS function would not work. I now use it in the "2" (normal) mode with the following mod.

I used the "clone" mode to dump the FT-411's ram to a computer. It's 9600 baud, 1 start bit, 1 stop bit, CMOS logic. 544 bytes are dumped when the up arrow is pressed. Starting with byte \$211 are the upper and lower transmit and receive frequencies, stored in BCD. I changed these to the limits I wanted. My FT-411's upper PLL limit is 195.4 MHz, so I used 195 MHz. The lower limit MUST remain set to 130 MHz (magic number) or the keyboard entry of frequencies will start with the 1 MHz digit. VS. the 10 MHz digit. To put the data back into ram, just press the down arrow and send the new 544 bytes to the FT-411. You could also just clone an H.T. that has the limits you want. You can not clone a mode "3" H.T. to a mode "2" H.T., however. The mode is contained in the first byte, which must match.

## FT-411 to packet

For those that wish to connect a ft 411 to packet via a mfj tnc the following modifications are needed. In the black lead from the tx audio out insert a .01-0.1uf cap. In the red lead from the ptt, insert a 2.2k rst.

Then combine these into a common single lead connected to the tip of the small mike plug. The yellow rx audio goes to the tip of the large speaker plug. And the shield goes to the ring of the large plug. This information can be found in the 1989 august issue of 73. Page 58 it workes for me.

## Extended frequency coverage mod for the FT-411

Yaesu has sent out the following as an extended frequency coverage mod for the FT-411. I tried it and it works as advertised. First remove all black screws from case. Remove 4 silver screws holding the battery connector on bottom.

Remove the 3 knobs. Carefully separate the front and back. There is a multiconductor trace between the front and back so hinge the front from the back to keep from putting too much tension on the traces. Looking at the board side of the front cover there are 8 little solder pads. They are half hidden by a cover plate and the multiconductor trace. Pad 2 will have a solder connection, the rest are open. Remove the solder from the battery connector on bottom.

Remove the 3 knobs. Carefully separate the front and back. There is a multiconductor trace between the front and back so hinge the front from the back to keep from putting too much tension on the traces. Looking at the board side of the front cover there are 8 little solder pads. They are half hidden by a cover plate and the multiconductor trace. Pad 2 will have a solder connection, the rest are open. Remove the solder from pad 2 and place a solder bridge on pad 3. All other pads will be open. Close up radio.

Now when you turn on radio it will come up with 1.000 in the display. Memory channel should say 1. Program in the lower receive frequency.

Example 1 - 4 - 1 - 0 then push VFO key. The Memory channel should go to 2.

Now program in the upper receive frequency. i.e. 1 - 6 - 5 - 0 and push VFO key. Memory will move to 3. Do same for lower and upper transmit frequencies.

Note. The receiver sensitivity falls off at 162.55 to about 1 uv. The step and repeater offset will need to be re-programmed also. Follow instruction manual.

## FT-411 out of band modification (Software)

I discovered a nice trick to increase its frequency coverage.

It is so simple that you don't even have to open your hand held. All you have to do is:

- 1. Make sure that the power switch is off.
- 2. press the UP arrow and DOWN arrow together, at the same time (those keys are also called A, and B. and they placed at the upper right side of the keyped)
- 3. Keep pressing both buttons and turn the power on.

Now you can receive 130-174Mhz, and transmit 140-150Mhz.

# CAUTON:

When you do this modification the memories can be erased. Anyhow I think it is not the end, and there are some more options. If you do have some more information about this Hand held,

#### PTT mod for FT-411

Hello, a few days ago i was using my friend's Yaseu FT-411 and found out this neat trick!!! First, a little background... As i'm sure some of you know, Yaseu came out with the popular 411 a few years ago. Just recently, they came out with an "enhanced" model, the 411-E. The only found difference is the frequency lock of the radio. THe 411E has a feature that lets you lock the ptt as well as the frequency.

To activate ptt lock on the 411:

- · Turn radio off
- Push the 6 button, hold it and turn on the rig while your still holding it.
- Now, press FM 6, you should see "L".
- Press FM 6 again, you should see "PTT" (Both L and PTT will appear in the bottem left corner of the lcd display). Congradulations you have installed ptt lock in ur rig. To turn it off, just repeat those steps.

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