My blog

16/07/2017

Making a DIY programming cable for the Tait 8105 Radios

I am currently building a project that utilises two Tait 8105 UHF radios. I needed to upgrade the firmware and configure the radios, but couldn't find a programming lead in the UK for sensible money. After a bit of research, I managed to build my own using a FTDI TTL-232RL USB adapter and a DB9 Breakout board.

Disclaimer

The DIY cable worked for me without any issues, however anything DIY increases the chances of something going wrong. I will not be held responsible if you cook your radios. If in doubt, please contact an Authorised Tait Service Centre or Dealer.

Required Parts

1. FTDI TTL-232RL USB adapter (see note)
2. DB9 / RS232 Breakout board
3. USB cable, in my case it was Mini USB.
4. Jumper wires to connect the Serial adapter to the breakout board.

Note- This requires a *genuine* FTDI USB adapter, as the process requires editing the settings which seems to be impossible on the clones. I purchased mine from Ebay a long time ago, and it's since disappeared. I believe it's one of these. Unfortunately the majority on Ebay today seem to be counterfeit clones.

Inverting the FTDI adapter signal

Its possible to invert the serial signal on the FTDI chips using their FT_PROG utility.

You can find the FT_PROG utility on the FTDI website. Its for Windows only, however there's an untested version for Linux here

About

A no-frills blog aimed at Networking, Communications, Amateur Radio, Gadgets and anything else that takes my fancy.

Search This Blog

Search

Labels

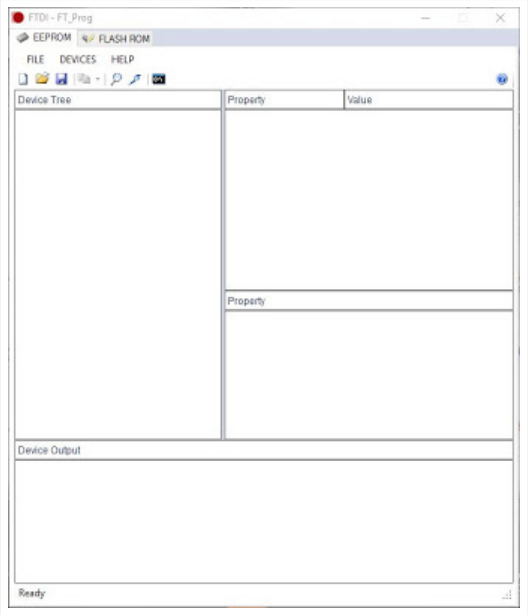
- gadgets (8)
- amateur radio (5)
- mmdvmhost (4)
- dmr (3)
- dvmega (3)
- Ebay purchases (2)
- London Underground (2)
- Trains (2)
- networking (2)
- raspberry pi (2)
- Waffle (1)
- android (1)
- cisco (1)
- linux (1)

Blog Archive

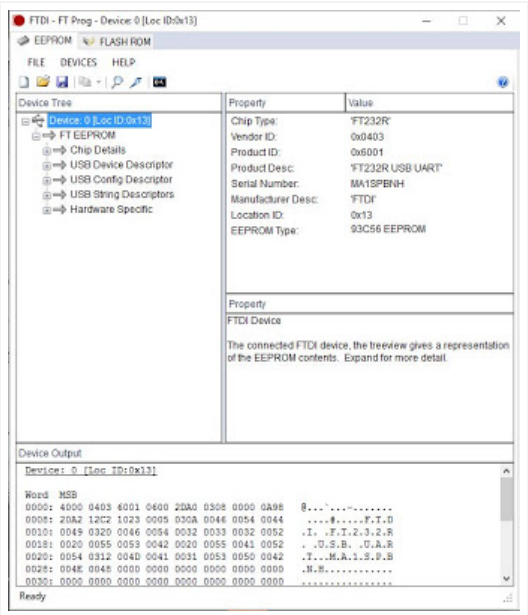
- ▼ 2017 (18)
  - ▼ July (2)
    - Making a DIY programming cable for the Tait 8105 R...
    - Using UDEV rules to ensure a USB serial device alw...
  - ► June (1)
  - ► May (2)
  - ► April (2)
  - ► March (4)
  - ► February (3)
  - ► January (4)

Follow @matthewharrold

Once you have installed tool, plug in the adapter into a PC and open the tool. You should see the following screen-



Hit F5 on your keyboard to scan for devices. Once your device is found, you should see the following-



In the Device Tree, click Hardware Specific > Invert RS232 Signals, and check the boxes for TXD and RXD so it looks like this-

Tweets by @MatthewHarrold

@MatthewHarrold

I've written a new blog post on my first steps with #Puppet a configuration management tool - goo.gl/TjR6F8

30 May

Matthew Harrold
@MatthewHarrold

Had a QSO on #DMR Phoenix TG 235 with an Amateur on GB7IN, a Brandmeister repeater. Thanks #MMDVM

24 May

Matthew Harrold
@MatthewHarrold

Embed View on Twitter

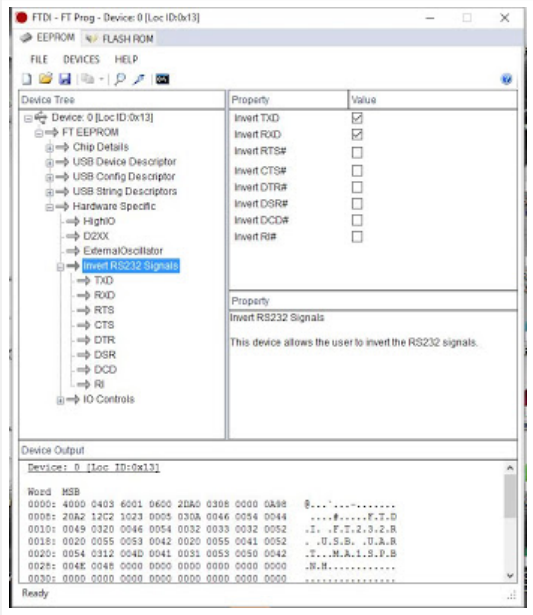
Contact Form

Name

Email *

Message *

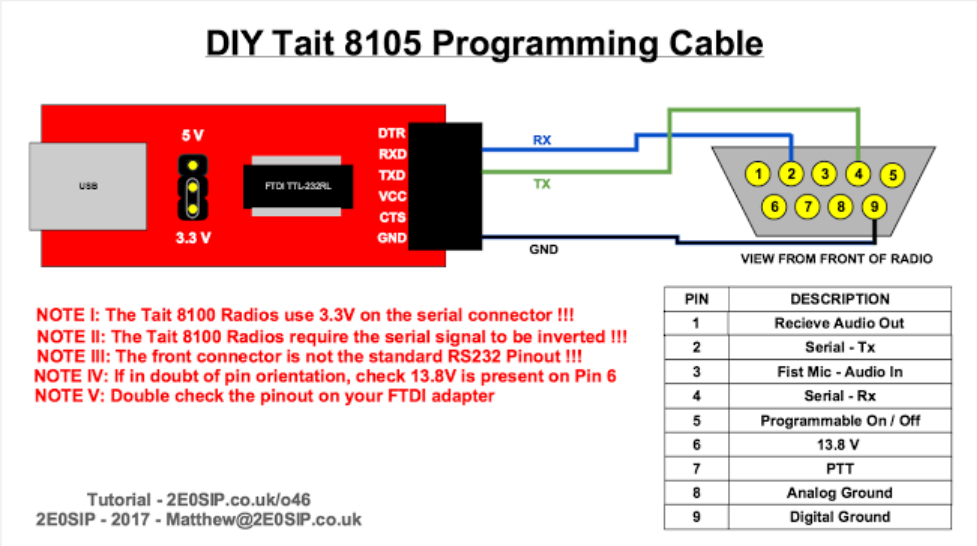
Send



Press Ctrl + P to flash the updated configuration to the FTDI chip. To confirm its worked, press F5 to refresh the programmer and check that the Invert boxes are still checked. If they are unchecked, you may have a counterfeit FTDI chip that doesn't correctly save the settings.

Building the Cable

Use the diagram below to assist you making up the cable. Carefully read the notes before proceeding.



PIN	DESCRIPTION
1	Recieve Audio Out
2	Serial - Tx
3	Fist Mic - Audio In
4	Serial - Rx
5	Programmable On / Off
6	13.8 V
7	PTT
8	Analog Ground
9	Digital Ground

If you've followed the instructions above, you should now have a functioning programming cable for the Tait 8105 radios, to use with the programming and calibration software.

at 18:06

No comments:

Post a Comment