

## Modifications for the Yaesu FT-50

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### 19-07-1998 FT-50R TX Mods

19 Apr 1996

*From: 73573.1504@compuserve.com (Mike A. Penner)*

The web page is advertising a MARS/CAPS mod, so even Yaesu here in the US does not have it so far. They have promised to send it as soon as they have it.

Has anyone used one yet? I am waiting for the local radio shop to get their shipment in. The radio sounds to good to be true. Is it? I have purchased the FT-50R and yes it is a pretty cool little "radio". I does have a built in game if yo press the MR button while turning the radio on. I have also modified the radio to transmit out of band.. MARS and CAPs ...Here is the information everyone needs to modify it:

1. remove the battery pack
2. remove the two screws contained under the Battery safety sticker on the back of the radio.
3. remove the key board (instuctions on how to remove the keyboard are in the owners manual)
4. by removing the keyboard, it will reveal three jumper pads 1,2,&3
5. Only jumper pad #1 will be bridged by soldier.
6. remove the soldier from jumper #1
7. now, put the radio back together
8. reset the master cpu... instruction in owners manual.
9. reset the extended receive,.. see the owners manual.
10. you now have a modified radio.

any questions e-mail me

For those of you who would like to receive the 869-894 MHz range with your Yaesu FT-50, try

tuning it to the corresponding image frequency range, 778.8-803.8 MHz. The sensitivity is the same as when tuned to an 860 MHz signal.

Rob WB8WQA

This modification is read 1353 times.

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**19-07-1998**

## FT-50 Info+Mod

de DG8NBR @ DB0BOX.#BAY.DEU.EU (Albert)

Modification und INFO`s Yaesu FT-50R

TX MOD DL-Version FT-50R :

Akku-Pack abnehmen - Infoaufkleber "Contains Nickel Cadmium....." an (in)der Rückseite des FT-50 entfernen - darunterliegende (zwei) Schrauben lösen - Handy umlegen (Display nach oben) - Keypad (Tasteneld) vorsichtig herausnehmen .....

Auf der nun sichtbaren Platine sind (links) die Zahlen "1" "2" "3" aufgedruckt.... Darüber befinden sich drei (optischrunde)Lötbrücken in der DL-Version ist "1" gebrückt, "2" frei, "3" frei..... Bücke "1" mit Lötkolben entfernen .....

```
entfernen ----> [O]  [ ]  [ ]
                  1    2    3
```

Gerät wieder zusammenbauen - Reset durchführen.

TX nun von 140.000 - 170.000 Mhz + 420.000 - 470.000 Mhz

Game Play: Taste MR(Skip) gedrückt halten und Gerät einschalten

Dank AM,FM,NFM,WFM,DTMF,CTCSS,ARTS,CW-Indicator,Voice Rec.,Voice Playb.- und und und und ..... ach ja ein Mini Game Boy ist auch noch integriert ein High Tech Gerät und das bei 99x57x30mm

Fazit: 2m + 70cm + Scanner + Taschenradio + Mini "Game Boy"

vy 73 de Abert DG8NBR @ DB0BOX

This modification is read 2211 times.

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**19-07-1998**

## FT-50R <=> 2k4-Packet ufb

From: DL5FDI @ DB0SIF.#HES.DEU.EU (Thorsten)

Hallo FT50-Freunde !

Für alle, die es vielleicht interessiert: Packet-Radio mit einer Geschwindigkeit von 2400 Bit/s funktioniert mit dem FT50R einwandfrei. Ich habe hier laut Handbuch einen Widerstand und einen

Kondensator in die Mic bzw. PTT-Leitung des TNCs eingebaut und es lief nach einigem Drehen des 1kOhm-Potis im TNC2C auf Anhieb. Wie es mit 9k6 aussieht weiß ich nicht, aber ich denke mal, daß man dann in dem kleinen Gerätchen rumlöten muß (lieber nicht (-:))...

Soweit zu dem....hat denn mittlerweile irgendjemand rausbekommen, wie das eingebaute Spiel funktioniert? Ich weiß nur, daß man beim Einschalten mit dem Wahlknopf die Geschwindigkeit einstellen kann und das Spiel mit der PTT-Taste gestartet wird, achja, mit dem Wahlschalterknopf kann man auf Pause gehen...leider kann ich die Zahlen in keinster Weise beeinflussen (die kommende Zahlen mit der PTT als Morsezeichen einhämmern hat nichts gebracht ;-))

Vielleicht weiß ja jemand mehr und kann mir einen Tip geben...

Tnx im Voraus und 73! de Thorsten aus Oberaula / Knüll

This modification is read 2936 times.

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## 19-07-1998 FT-50R Features - Specifications Link

From: DL6RDE @ DB0BOX.#BAY.DEU.EU (Charlie)

Yaesu announces the latest in dual-band handheld technology with the release of the new FT-50R Dual-band handheld transceiver. This engineering achievement offers features never before found in this small palm sized handheld radio, rugged weather resistant construction with a full 5 watts of power output.

Exclusive INDUSTRY-FIRSTS found only in the FT-50R dual-band will enhance your operating pleasure. Wide-band Receive coverage to 999\* MHz with 3-Selectable Filters (AM, FM-N, FM-S), Keyboard or PC programmable, Rugged MIL-STD 810 Rated, CTCSS and DCS (Digital Coded Squelch), distinguish Yaesu as the world leader in amateur radio products.

### FT-50R FEATURES

### SPECIFICATIONS LINK

Wide Multi-band Receive for the scanning enthusiasts 76-200, 300-540, 800-999\* MHz (\*Cellular blocked)

-----  
3-Selectable Rx modes (AM, FM-Narrow, FM-Standard)  
-----

Rugged MIL-STD 810 Rated for Shock and Vibration  
-----

Auto Range Transpond System™ (ARTS) uses DCS to automatically poll other stations, indicating if they are within simplex range.  
-----

Digital Coded Squelch (DCS) is used in the commercial industry, DCS provides 113 unique codes in addition to the standard CTCSS tones.  
-----

112 Memory Channels each stores offset, CTCSS/DCS & power level.

-----

Alpha-Numeric Display up to 4 characters may be used to name each memory channel.

-----

Digital DC Voltage Display monitors current battery voltage.

-----

Full 5 Watts of Power Output with 4 selectable power levels (Available in 2 and 5 watt versions).

-----

Automatic Tone Search (ATS) scans for DCS and CTCSS tones. (w/ FTT-12 installed)

-----

Receive and Transmit Battery Savers built-in.

-----

ADMS-1C« Windows« PC Programmable (available May 1996)

-----

Keyboard and Menu Programming allows for simple FT-50R operation.

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MARS/CAP Modifiable with proof of permits.

This modification is read 3868 times.

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## **19-07-1998** **FT-50r Problem**

From: DL2ZBV @ DB0ULM.#BAY.DEU.EU (Harry)

hallo ft 50 Besitzer,

ich habe seit der HAM-RADIO auch so ein kleines Wunderwerk der Technik leider hatte ich schon die ersten Probleme damit, beim Empfang war alles klar und das Gerät schien in Ordnung . Doch nun wollte ich natürlich auch mal ein QSO damit machen und rief ganz erwartungsvoll auf dem Relais in die Runde .....

Man reagierte erst garnicht weil man mich nicht gehört hat , als ich dann mal etwas mehr Hub machte (ich schrie ins Mikrofon) erkannte man mich und fing an mich zu bedauern ???

Meine Modulation war kaum zu verstehen und sehr leise was mich wiederum total fertig machte , ich dachte schon ich müßte das Gerät wieder zurück schicken und Ersatz verlangen . Zu Hause angekommen machte ich einige Versuche und war noch niedergeschlagener als aus den Kontrollempfänger fast nichts zu hören war. also , griff ich mir meine Lupe und untersuchte mal mein kleines Gerät und siehe da , ich fand auch gleich was ...

Man hatte doch tatsächlich das Loch für das Mikrofon nicht richtig gebohrt und so war schon klar , ich mußte das nach holen . Also Minibohrer her und frisch ans Werk. Sollte einer von Euch ebenso ein Problem haben , zeige ich hier wie ich mein Problem gelöst habe.

Ich ging folgendermaßen vor:

Akku abnehmen , den Aufkleber unten (grün) abnehmen , die beiden Schrauben lösen aber nicht ganz rausdrehen, mit den Schrauben die Tastatur nach vorne heraus schieben und dann die Schrauben ganz heraus nehmen .

Die beiden Bedienknöpfe oben abziehen und die Gummiverschlüsse der Anschluß- buchsen rechts und links herausziehen , jetzt kann man mit einem kleinen Schraubendreher am unteren Ende das eigentliche Funkgerät aus dem Gehäuse heraushebeln und nach unten aus dem Gehäuse ziehen . Natürlich macht man das sehr vorsichtig um nichts zu zerstören.

Jetzt kann man mit einem kleinen Bohrer das Mikrofonloch aufbohren (0,5 mm) und das Gerät in umgekehrter Reihenfolge wieder zusammen setzen.

Sollte es dann immernoch zu leise sein braucht man einen winzigen Kreuz- schraubendreher um noch etwas nach zu regeln.

Um die Lautstärke (Hub) zu erhöhen braucht man das Gerät nicht wieder auseinander zu nehmen den man kommt an die beiden Poti`s auch so dran. wenn man den Akku noch nicht wieder aufgesetzt hat und das Gerät mit der Tastatur nach unten auf dem Tisch liegen hat (Antenne oben) erkennt man neben der linken Befestigungsschraube für die Tastatur zwei kleine Poti`s Der Poti direkt neben der Befestigungsschraube ändert die Empfindlichkeit des Mikrophones und der Poti daneben (rechts) ändert den Hub .

jetzt kann man selber entscheiden wie man da nun einstellt , ich habe mein Signal mit einem Kontrollempfänger und Kopfhörer abgehört und die beiden Regler auf eine angenehme Lautstärke einreguliert.

Anschliessend habe ich mir bei den Funkfreunden die mich mit anderen Geräten kennen einige Raporte eingeholt und war mit mir zu frieden .

Eines sei noch gesagt , wer selber an seinem Gerät rumschraubt ist auch selbervvverantwortlich für das was er da tut. Was ich hier geschrieben habe ist nichts anderes als eine Beschreibung dessen was ich hier mit meinem Gerät gemacht habe. Also , nachmachen nur auf eigene Gefahr . Ich übernehme keine Garantie dafür das es bei Euch auch so klappt wie bei mir.

Ich jedenfalls habe mir so die leidige hin un her schickerei und den damit verbundenen Streß erspart und habe nun endlich meinen Spaß mit dem kleinen Seifenstück großen Gerät hi.

73 all Denen die diesen Text gelesen haben und tschüß DL2ZBV Harald

This modification is read 4699 times.

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## **22-08-1998** **FT-50 Game Mode**

The FT-50R includes an interesting "game" that's programmed into it. Here's how it works:

1. Power up the radio while holding down the MR key. (PWR + MR).
2. The display will show GAME on the left side, and Spd 1 on the right. You're in game mode!
3. By rotating the knob, you can change the speed of the game. Higher numbers are faster.
4. Press PTT to start the game.
5. Numbers will start to scroll across the screen from left-to-right. As they come, you are supposed to push the number on the keypad that makes a sum of ten, followed by F.  
Example: 6 appears, press 4, F. If 0 appears, enter 10 followed by F.
6. The game is over when the screen fills up with numbers.
7. To exit the game, simply cycle the power.

This modification is read 5598 times.

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**03-01-1999**

## FT-50R Expanded Transmit 120-230, 315-505 MHz

1. Remove battery
2. Remove the Ni-Cd sticker
3. Slowly lift off the keypad and carefully locate the jumper pads
4. Locate and unsolder jumper number "1" (see picture below) it is a solder blob between 2 pads.
5. Locate and unsolder surface mount resistor "A" (see picture below) be carefull!

It is the first resistor on the from left

6. Reinstall the keypad with the two screws
7. Turn radio off
8. Press down and hold the tuning knob and lamp button while turning on the radio.

VIEW: looking down with keypad removed

```

      ***          ***
=   *****   *   ***
I *****
*  -----  *
I* | [FREEBANDER] | *
I* | ----- | *
*   YAESU   *
I* ===== *
I* ===== *
*  ===== *
*   ===== *
*  -----  *
* | ABCDE   | *
* | I I I I I | *
* | : : :   | *
* | 1 2 3   | *
*  -----  *
*****

```

9. The vfo should display 144.000 Press FW. (this step may not be needed but it worked for me)  
Power off.
10. Powerup with lamp/ptt/knob held down. It should now be in tune mode with something new  
(BAND= A 1) change it pressing the knob for 1/2 second and then turn the knob to FREE.  
(BAND=FREE)
11. Power off and back on NOW RADIO DISPLAYS 50~540 590~1000 no gaps!!!  
(Dont change any other function or you could screw up alot of adjustments here) IT will tx  
where ever it locks. One radio 122~231 and 309~502 and another radio was 120-232mhz and  
315-509mhz. This varies radio by radio.  
Tx is only miliwatts near the edges (DONT TX OUT OF BAND!!!).  
Rx locks after about 74mhz. it is very def in the 220 band tx is miliwatts. no tx above 502 but  
varies radio by radio.

12. If you have the ADMS 1 software you should have a copy of what was in your radio before you started.
13. Copy from the radio. Save and name this file FREEBAND. This is to be saved as a clean copy for future use.
14. Copy from the radio again (or just copy the file) name this file MERGE.
15. Merge the old file to this file and send to radio.
16. With your palms facing forward put your thumbs in your ears, wiggle your fingers and stick out your tongue at your Users manual while it is open to page 10.
17. Then update page 10.

Dont make the FCC and Yaesu angry at you by trasmitting where you are not supposed to.

This information came from a Newsgroup message by Alan Judd, information gained from the Web Page at <http://members.gnn.com/hca/ft50/index.htm> and my own attempts at restoring the radio using this FREEBAND Mod.

Please give Alan Judd great thanks for subjecting his radio to T&E R&D (trial and error research and development).

E. Scott Sykes

This modification is read 6874 times.

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**03-01-1999**

### **Software mods for FT-50r. Mod any thing**

This is a method to do any MOD to your FT50R. The procedure is very simple and fast done:

1. You make a template from your FT50R
2. Change 3 Bytes in the template
3. Upload the template to your FT50R

So you can switch to any BAND, you don't have do hardware interventions or similar staff like pull the adapter cable out, ...

If you want do return the FT50R to its original state, just upload the old (unmodified) .TPL to the Unit.

### **Information and explanations:**

All MOD's can be made by software only. To do the MOD's you need the ADMS 1C Software (I am using the 1.05 Version) and a HEX editor to manipulate the .TPL file (I am working with .TPL file's only) I am using HIEW 5.24 (Hacker's View) but any HEX editor will do the job (PCT, Norton, Multiedit, ... )

Everyone has noticed the problem after making same MOD's to the Unit that the old .TPL files can not be uploaded to the Unit any more.

There is a simple protection scheme (2 bytes) that prevents uploading a .TPL file from a different

hardware configuration to the Unit.

This is a description how to bypass this protection. By uploading a .TPL file with different hardware configuration, ( from a other Unit or just to change the 2 bytes) the Unit will be assigned to this new configuration.

First a description of Terms and Positions:

### **1. Current Byte**

This is the Byte that tells the current Status (Hardware configuration) of the Rig, you can get this Byte as follows:

- Make a .TPL file from the Rig.(Menu: <Radio> <Create template>)
- Edit the .TPL File with e HEX Editor.
- ```

v this is the first byte
On the File Address 05E2 is the sequence 07 XX
                                         ^ Current_Byte (Addr.:05E3)

```
- The Current\_byte can be in the Range from 00 to 06.
- \*the first byte is usually 07, by experimenting with nonstandard Numbers you can change this byte also. (03 or same other value, but very rare)

### **2. Key Byte (Security Key)**

The Key\_Byte is at the same place as the Current\_Byte, but in the .TPL file you intend to upload. If you want to upload a .TPL File to the Rig, the Key\_Byte must match the Current\_Byte (that means that the Hardware configuration of the Unit and the .TPL file you intend to upload must be the same). Just change with the HEX Editor the Key\_Byte of the .TPL file you intend to upload to be the Current\_Byte and you can upload anything (any .TPL file) to the Rig.

!!! No more CERR Messages !!!

(As mentioned in 1. if you change the first byte, you have to change this)  
(byte also (in the .TPL File you intend to upload) to be the same Byte as)  
(in the Template you have just made to read the Current\_Byte.)

### **3. Band-Set Byte**

- Edit the .TPL file you intend to upload with e HEX Editor
- ```

v*      v Sub_Band-Set_Byte (Addr.:0CE8)
On Address 0CE6 is the Sequence 07 XX XX
                               ^ Band-Set_Byte (Addr.:0CE7)

```

This Byte tells the Rig to switch to Band XX (XX is a Nr.between 00 and 06) To change the Band simply change the Band-Set\_Byte to the desired Number.  
After Uploading the Modified .TPL File to the Rig, it switches to the desired Band and the Current\_Byte becomes the Band-Set\_Byte. That means if you want to upload later something else to

the Rig, you have to change in the .TPL File you intend to upload the Key\_Byte to the new Current\_Byte (with the HEX Editor).

The Sub\_Band-Set\_Byte tells the Rig in with Sub Band to switch (see Table) \*The byte (0CE6) is usually 07, rare 03 or same other number.

### Example

Now, to do a band change do as follows:

- let's assume you have BAND\_A1 (USA) and want to switch to BAND\_F3
  - make a .TPL file from your unit (let's assume original.tpl)
  - copy the original.tpl to mod1.tpl (this file we are going to upload)
  - read the Current\_Byte from original.tpl (as described in 1) (for the BAND\_A1 we assumed you have it will be 01))
  - set the Key\_Byte in mod1.tpl to be the Current\_Byte (01) (as described in 2). It is logical that the Key\_Byte will already be 01, you've just made the copy, but it is a matter of principle, keep reading.
  - set the Band-Set\_Byte in the mod1.tpl to 00 (for the BAND\_F)
  - set the Sub\_Band-Set\_Byte in the mod1.tpl to 03 (for the Sub BAND F3)
  - upload the mod1.tpl to the unit.
  - power off, power on, now you have BAND\_F3, DONE.
- 
- let's assume you want to switch now to BAND\_B2a
  - make a .TPL file from you unit (let's assume temp.tpl)
  - read the Current\_Byte from temp.tpl, it will be 00. (BAND\_F)
  - copy the original.tpl to mod2.tpl
  - set the Key\_Byte in the mod2.tpl to be the Current\_Byte (00)
  - set the Band-Set\_Byte in the mod2.tpl to 02 (BAND\_B)
  - set the Sub\_Band-Set\_Byte in the mod2.tpl to 01 (Sub BAND B2a)
  - upload the mod2.tpl to the unit.?
  - power off, power on, now you have BAND\_B2a, DONE.

and so on ...

Here are the MOD's (Band's) available:

|       | I                              | 00   | 01   | 02   | 03   | I | <- Sub_Band-Set_Byte (Address 0CE8) |
|-------|--------------------------------|------|------|------|------|---|-------------------------------------|
| 00    | I                              | F1   | F2a  | F2b  | F3   | I |                                     |
| 01    | I                              | A1   | A2a  | A2b  | A3   | I |                                     |
| 02    | I                              | B1   | B2a  | B2b  | B3   | I |                                     |
| 03    | I                              | C1   | C2a  | C2b  | C3   | I |                                     |
| 04    | I                              | D1   | D2a  | D2b  | D3   | I |                                     |
| 05    | I                              | H1   | H2a  | H2b  | H3   | I |                                     |
| 06    | I                              | FrEE | FrEE | FrEE | FrEE | I |                                     |
| ----- |                                |      |      |      |      |   |                                     |
|       | ^ Band-Set_Byte (Address 0CE7) |      |      |      |      |   |                                     |

When you set the Rig in a band (with the Band-Set\_Byte) then you can switch from Sub Band X1 to X3 (if solder jumper 1 removed) with the key sequence:

- Hold Lamp and Knob by powering\_on to switch to X3 Subband
- Hold Lamp and Knob by powering\_on (you will see ALRST prS5) and then press the function key to switch to X1 Subband

The TX for the X3 Bands is:

| BAND | SUB_Band | TX              |
|------|----------|-----------------|
| F    | 3        | 120-222 320-500 |
| A    | 3        | 140-174 420-470 |
| B    | 3        | 140-174 420-470 |
| C    | 3        | 140-174 420-470 |
| D    | 3        | 144-146 432-438 |
| H    | 3        | 144-148 430-450 |
| FrEE |          | 50-300 300-540* |

\* It will TX from aprox. 118-233 and 312-508 RX from aprox. 71-540 and 600-999 depending from the Unit.

The Sub Bands 1,2a and 2b are with restriction variations in TX and RX and I am to tiered to examine them closely and write them down. I guess that they are not very interesting.

### **ARS lost - effect**

The FT50R has e BAND\_PLAN like database and depending for witch country your unit is configured (A,B,C,D & H) it is using the repeater database? from his Memory for that country.

It is understandable that for the BAND\_FrEE and BAND\_F (TX:120-221&320-499) there is no data in the database because those band's are not for any specific country. That is why the ARS does not work any more, and not? same mess up (magic) in the memory of the unit.

That does not mean that it is not possible to enter additional data to the ARS memory database (I am working on it).

If you want to use the ARS again you just have to switch it into any ordinary country BAND\_X and it will work again.

### **Original .TPL file**

If you don't have a original .TPL file, you can make (improvise) one:

1. Start the ADMS 1C software
2. Goto the File Menu and save a .RDF file as original.rdf (don't download anything from the Unit, don't use a template)
3. Change with a HEX editor the first 3 bytes from RDF to TPL
4. Set the Key\_Byte in this file to be the Current\_Byte of your Unit
5. Rename the original.rdf to original.tpl
6. Start the ADMS 1C and upload the original.tpl to the Unit.

This will switch your unit to BAND A1 (USA), ARS will work again !

**Disclaimer:**

Don't TX and RX at frequencies that you are not allowed to! I do not guarantee the validity of this information, as Yaesu may change programming or hardware so that some of the techniques in this document may cease to function. I am not responsible if these instructions damage your rig in some way. All I can say is that I have performed the following procedures to my unit, and I am quite pleased with the results. Your mileage may vary, etc.

**Some newsgroups messages.**

Subject: Re: FT50R Software MOD's  
From: Ingra-Beton@t-online.de (Ingra-Beton)  
Date: 26 Mar 1997 08:21:18 GMT

Just e short explanation of the Message I've send:

It is a Method to do any MOD to your FT50R.  
The procedure is very simple and fast done:

1. You make a Template from your FT50R
2. Change 3 Bytes in the Template
3. Upload the Template to your FT50R

So you can switch to any BAND, you don't have do  
Hardware interventions or similar staff.

If you want do return the FT50R to its Original  
state, just upload the old (unmodified) .TPL  
to the Unit.

It is also a solution to Upload your old .TPL  
files to the Unit, (those files your are not  
able to Upload after making Hardware MOD's)

Indi.

PS. I need various .TPL Files from  
different FT50R's for my further  
investigations, please send  
me a couple of .TPL files  
- The Original  
- After making same MOD's  
- any other  
(I still need the 1.04)

=====

To: mgrand@mbi.net  
Newsgroups: rec.radio.amateur.equipment  
Subject: FT50 Freeband  
From: Ingra-Beton@t-online.de (Ingra-Beton)  
Date: 2 Apr 1997 07:07:40 GMT

> Mark Grandstaff wrote:

>

> O.K. I read through all the info on mods for the FT-50R and am more

```

> confused than ever.
>
> My goal is to get expanded transmit and expanded receive (freeband)
> operation.
>
> I have a newer model (SN begins 6L12) so I realize that "pulling the
> plug" won't work to achieve freeband. I assume that the expanded Tx
> MARS/CAP mod of unsoldering the jumper #1 will work though. In an
> article submitted by E. Scott Sykes in addition to the jumper
> modification he suggests unsoldering the resister at location "A" to
> achieve a freeband state. Is this part of the "pulling the plug
> method"? What is the purpose of this resister? Is this recommended with
> the newer radios?
>
> It looks as though my best option to get to the freeband state is to
> first do the MARS/CAP mod as described by Bill Childers (unsolder jumper
> #1) then follow the software suggestions outlined by Ingra-Beton
> (3/26/97). Any comments?
>
> --
> Mark Grandstaff KF7JA mgrand@bmi.net

```

I have a newer model also, the articles by Scott Sykes work's just fine.  
It is not a part of the "pulling the plug method".

You just remove the solder jumper 1 and the freeband resistor and it's done.

The removal of the solder jumper 1 is hardware enabling of the sequence "hold down LAMP and KNOB by powering on"  
(You can switch from BAND\_X1 to BAND\_X3)  
(usually MARS/CAP)

The removal of the freeband resistor is hardware enabling of the sequence "Hold down LAMP and PTT and KNOB by powering on"  
When you see BAND\_X1, push KNOB for 1/2 sec. and rotate.  
(You can switch BAND A , B, C , D , H , F or FrEE)

With the hardware MOD's you will not have the ability to switch to the xxa and xxb BAND's (you probably not need them anyway)

If you don't want to make any hardware MOD's you can use the software MOD's, you can have any BAND you want, you will only not have the ability to switch from one BAND to another because the hardware switches are not enabled.

Of course you can use the hardware and software MOD's together.

This modification is read 8058 times.

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**23-04-2000**

## VFO access blocking mod

*Author: Bryce P Rumery - [klgax@juno.com](mailto:klgax@juno.com)*

This mod applies to either the FT-10 or FT-50.

Once programmed the radio can be set to block out access to VFO and frequency display. Only memory channel names will be displayed. User can not switch to a frequency not programmed into memory.

With radio off press & hold LAMP & PTT simultaneously and power radio on.  
To switch radio back into VFO available mode repeat the process.

73, Bryce, K1GAX

This modification is read 8949 times.

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## 02-07-2000 FT-50 modification

*From: F5PBG@F5PBG.FBRE.FRA.EU*

I have found a modification of the FT-5 on our fax machine. I don't know how it got there :-))))), but perhaps it is usefull for someone. So i did some work and got it in my computer.

I don't have a FT-5, so i didn't try it out. It is all at your own risk.  
Don't blame me if your FT-5 is destroyed by using this info !!!!!!!

Here is wat i found on our fax :

### Modification FT-5

| position |                 |    |                 |    | CNTL unit jumper |     |     |     |
|----------|-----------------|----|-----------------|----|------------------|-----|-----|-----|
| Type     | Frequency Range |    |                 |    | X=Available      |     |     |     |
|          | RX              | TX | RX              | TX | R204B            | JP1 | JP2 | JP3 |
| A1       | 144-148/144-148 |    | 430-450/430-450 |    | X                | X   | X   | X   |
| A2A      | 140-174/144-148 |    | 420-470/430-450 |    | X                |     | X   | X   |
| A2B      | 108-174/144-148 |    | 400-470/430-450 |    | X                | X   |     | X   |
| A2C      | 76-200/144-148  |    | 300-824/430-450 |    | X                |     |     | X   |
| A3       | 76-200/140-174  |    | 300-824/420-470 |    | X                |     |     |     |
| B1       | 144-146/144-146 |    | 430-440/430-440 |    | X                | X   | X   | X   |
| B2A      | 140-174/144-146 |    | 420-470/430-440 |    | X                |     | X   | X   |
| B2B      | 108-174/144-146 |    | 400-470/430-440 |    | X                | X   |     | X   |
| B2C      | 76-300/144-146  |    | 300-999/430-440 |    | X                |     |     | X   |
| B3       | 76-300/140-174  |    | 300-999/420-470 |    | X                |     |     |     |
| C1       | 144-146/144-146 |    | 430-440/430-440 |    | X                | X   | X   | X   |
| C2A      | 140-174/144-146 |    | 420-470/430-440 |    | X                |     | X   | X   |
| C2B      | 108-174/144-146 |    | 400-470/430-440 |    | X                | X   |     | X   |

|     |                 |                 |   |   |   |   |
|-----|-----------------|-----------------|---|---|---|---|
| C2C | 76-300/144-146  | 300-999/430-440 | X |   |   | X |
| C3  | 76-300/140-174  | 300-999/420-470 | X |   |   |   |
| D1  | 144-146/144-146 | 432-438/432-438 | X | X | X | X |
| D2A | 140-174/144-146 | 420-470/432-438 | X |   | X | X |
| D2B | 108-174/144-146 | 400-470/432-438 | X | X |   | X |
| D2C | 76-300/144-146  | 300-999/432-438 | X |   |   | X |

After setting the jumper points on the control unit then please do the following.

1. Please press and hold "KNOB" and "T.CALL" button together while powering the radio.
2. Please press "F" button.
3. Power OFF the radio.
4. Please press and hold "KNOB" and "LAMP" button together while powering the radio.
5. Now, finished.

There was a note written down on it :

RX Only :    JP1 Closed  
                  JP2 Open  
                  JP3 Open

After setting the jumper points on the control unit then please do the following.

1. Please press and hold "KNOB" and "T.CALL" button together while powering the radio.
2. Please press "F" button.
3. Power OFF the radio.
4. Please press and hold "KNOB" and "LAMP" button together while powering the radio.
5. Now, finished.

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There was a note written down on it :

RX Only :    JP1 Closed  
                  JP Open  
                  JP Open

73's de Ludovic.

e-mail: [radioham@chez.com](mailto:radioham@chez.com)

This modification is read 10209 times.

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**28-10-2001****Transmit under 420 MHz***Author: Chris Salinas - [salinas63@home.com](mailto:salinas63@home.com)*

Well, after getting a program called "YAESU FT-50 Manager v.99", I was able to get it to transmit lower than 420. I've only tried the low end of 400 Mhz and 380 Mhz. Try this technique with the newer radios.

1. [Download](#) the program.
2. Get the interface cable for your radio.
3. Remove the Jumper and Resistor like the original mod.
  - a. Place radio in CLONE mode (LAMP+PTT).
4. Start the program after unzipping it.
5. Select "FT50 I/O" in menu and then select "Download from FT50".
6. Follow the directions.
7. Save the data that was downloaded.
8. Select "Config" in the menu.
9. Jumper Byte should say "0F". Change Band Byte to "06".
10. Press "UPLOAD" button. Radio should have taken the upload and went into operation mode. If not, turn off the radio.

Now we need to see if the first change worked. Use the Knob+Lamp button to go to expanded mode when you turn the radio on. Press the Knob button to change to the next band. The key here is to see if the display goes from 144 to 222, not 380.

If it did, then we are good to go. If not, then repeat the above steps.

11. Make sure the radio display shows 144 (2m band).
  - a. Place radio in clone mode (Knob+Lamp at powerup)
  - b. Download from the radio again in the FT50 I/O menu selection.
  - c. Click the checkbox in the upper-right by the word MASK.
  - d. Slide the slider to the bottom.
  - e. Enter 076000 in H1, A1 and B1.
  - f. Enter 380000 in H2, A4 and B4.
12. Repeat steps 8 to 10 using Band Byte "07" instead.
13. Try transmitting (low power using a dummy load) on the other bands.

**NOTE** Don't switch to expanded mode or you'll lose the programming. So will resetting the radio.

I used these steps and it worked for me. For some reason it changes it's jump points in memory and the "07" puts it into some strange mode. The one thing I noticed was that any memory channels programmed with software doesn't work correctly. So repeater splits, CTCSS, DCS and the like don't store. But you can adjust them from the keyboard on the radio.

Save the new memory in a separate file. Save that first ORIGINAL file in case you have problems. Let me know what works and what doesn't since I haven't had time to try in other bands besides 380-390 and 400-420.

Chris  
N0TTW

This modification is read 10417 times.

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Have you any tips, trick or modifications you can't find here, please [E-mail](#) them to me, or use the [mail form](#).

Can't you find a mods, please don't e-mail to me. All mods i have is listed on this site.!

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