

**connector pins**

```

                ?      RXD ----o<---- PC TXD
                GND  8   ?
PC RXD ----o<---- TXD      ?
    
```

**software change**

Connect stuff. Leave radio off.  
 Start loader with -z option to clear the user memory

```

$ ./h45loader -f hx45.bin -d /dev/ttyxxx -z
Waiting
Q?
    
```

Press PTT and power on radio

```

Q? KG109etc....
.....
.....
Thumbs up!
    
```

Power-off, disconnect, replace connector cap.  
 Switch -z is optional later.

**frontend filter**

all screws inwards seems normal.

**tx vco range, unless ok as-is**

remove vco case, look under,  
 add 1pF from resonator hot end to ground (440-470 types)  
 or whatever is needed. 2p7 reportedly works good.

**ctcss tx, if needed**

```

PLL DATA --R+-R-- MOD, both pins on vco case. untested.
    _C_
    
```

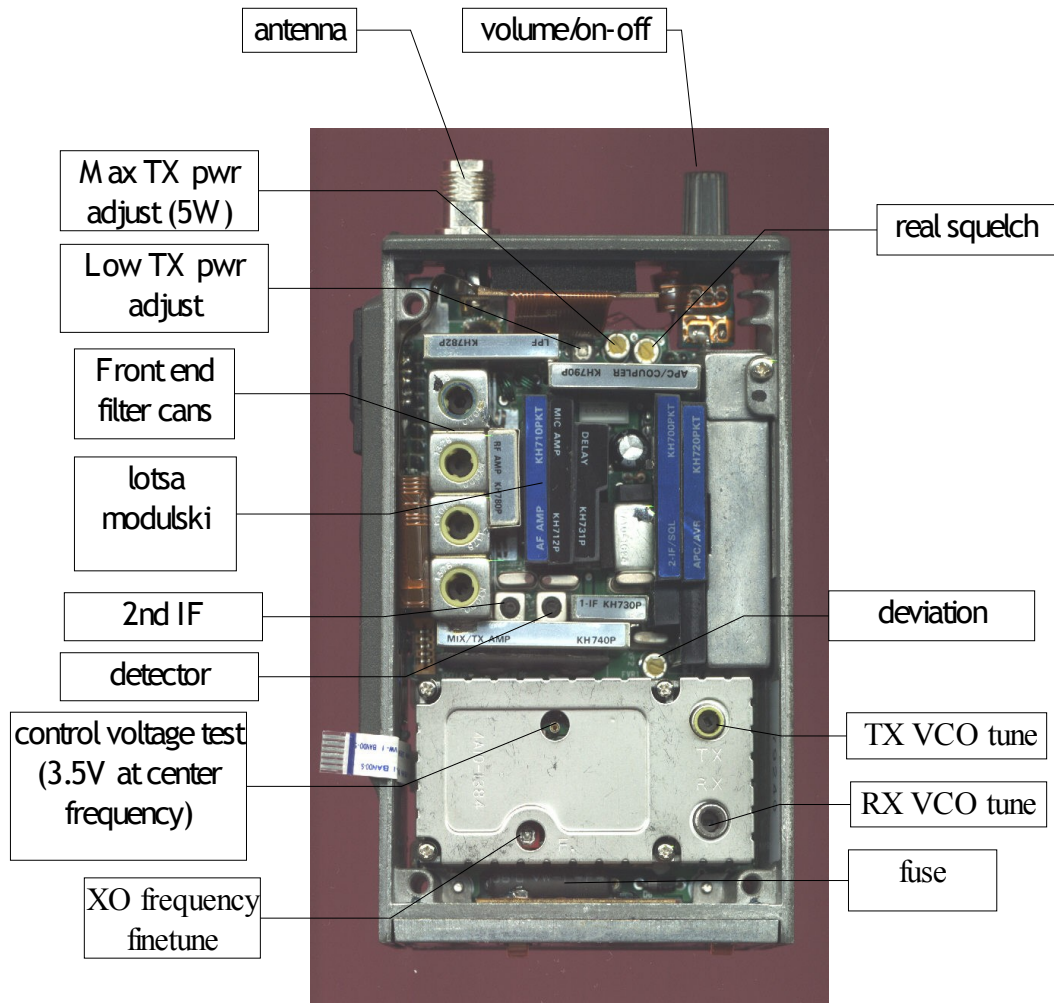
In setup, round all ctcss Hertz to nearest integer.

**"monitor", the round upper button on the side, above ptt, optional**

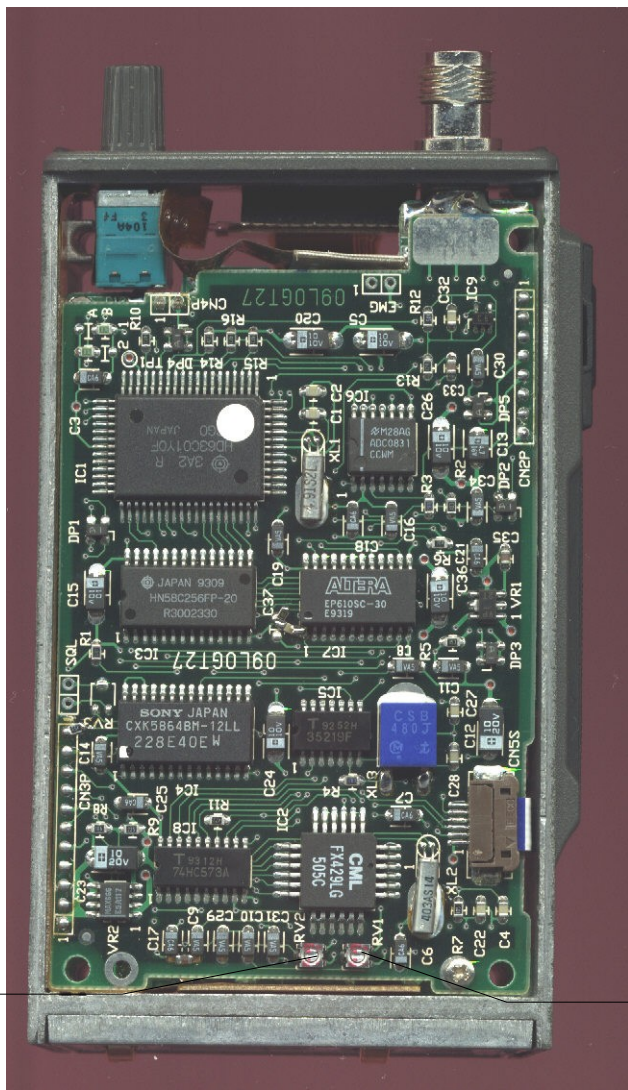
wire EMG\_1 from logic board to  
 pin 1 of the 15 pin zigzag connector, on motherboard.  
 pin 1 is almost under the small tin cover, near the button itself.

originally, the button is wired to nothing.

look under front panel



look under back panel



modem deviation

dtmf/1750 deviation

## keyboard

### basic

1	2	3	toggle or shortcut setup
4	5	6	backspace or clear buffer. history rewind
7	8	9	roll call/qsy/beach or enter tx offset (+)
scan	0	enter	roll simplex/duplex/reverse or enter tx offset (-)
0 c/q/b		kHz,	or shortcut rep list
1 memory	memory or		or reject channel when scanning
2 band	command or		(power off/on to clear tmp rejects)
	recall history		

### setup

1	2	3	toggle or shortcut setup
4	5	6	backspace or clear buffer
7	8	9	+ parameter or dive (up arrow)
prev	0	next	- parameter or back
		enter	
		new value	

### memory edit

1	2	3	toggle or shortcut setup
4	5	6	backspace or clear buffer
7	8	9	tx offset (+) or use memory
prev	0	next	tx offset (-) or back
		enter	
		N	go to another memory
		NN	flags
		NNN	CTCSS (000 to remove)
		NNNN+	rx freq

### rep list (press digits to search by letter)

QZ	ABC	DEF	to basic state
GHI	JKL	MNO	nothing
PRS	TUV	WXY	use repeater
prev	ÄÄÖ	next	back to setup

### transmit

1	2	3	A	dtmf, 1 second tone (sorry; make-only keyboard)
4	5	6	B	
7	8	9	C	
*	0	#	D	

### memory flags

1	scan	(fork on screen) or not (pi)
2	...	64 no meaning

### access tone

Verify "TX TONE" Hertz (3 F1 F1), 1750 typical. For fixed 0.5 sec, key 'didah' with PTT. Look for 't' on screen, top right. duplex must be on. For random duration, use PTT in screen "TX TONE". Access tone is not heard locally like dtmf is.