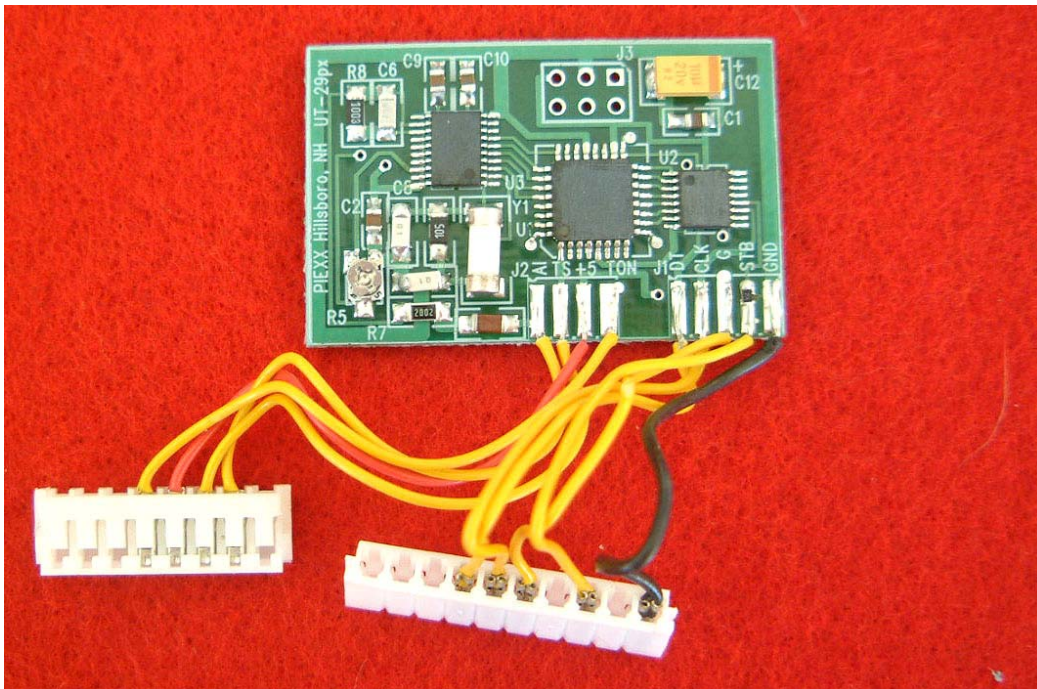




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PIEXX UT-29px Installation Instructions



The PIEXX UT-29px is a physical replacement and electrically equivalent to the original Icom UT-29 tone encoder / decoder. As such, you may, and should, follow the original installation instructions that were provided with your transceiver pertaining to the installation of this option. As an example of a typical installation, shown below is the installation of the UT-29px in an IC-28H 2 meter transceiver.

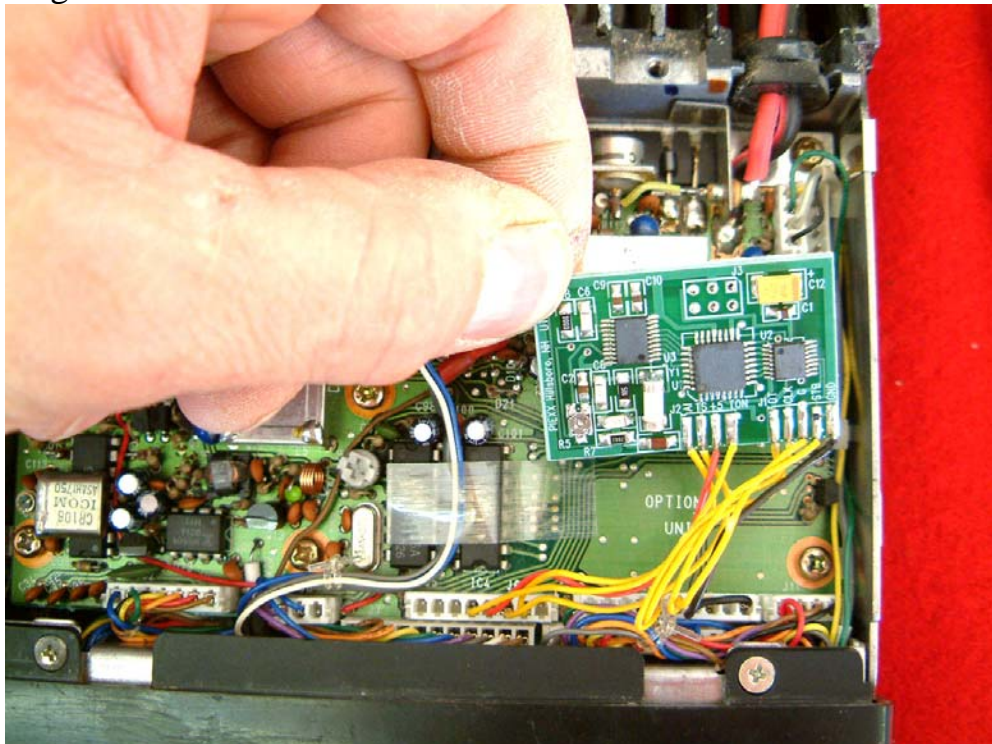
Note: The small pot on the UT-29px is used for setting the transmit deviation of the CTCSS tone. This pot is preset at the factory to provide approximately .5 KHz deviation on the sub-audible tone.

Installation of UT-29px in the IC-28H

1. Remove the top cover of your IC-28H transceiver.



2. Locate the 10 pin connector, marked J4, and the 8 pin connector, marked J4, in the front right corner of the radio. Align and install the matching plugs installed on the UT-29px with these 2 connectors. Not all of the pins in these connecting plugs are populated with wires. Make sure you notice the keying of these connectors; it is difficult to install them in the wrong direction.



3. Use double-sided adhesive tape to attach the UT-29px to the PC board in your radio in the location marked 'OPTION UNIT'.



4. Complete the installation by reinstalling the IC-28Hs top cover.

Operation

The PIEXX UT-29px operates almost exactly like the original Icom tone board, so the operating instruction included with your transceiver are valid. The 'almost exactly' does not include a new automatic tone feature that is built into the new PIEXX tone board.

Automatic Mode

When you select CTCSS Tone number 42, the UT-29px will operate in its automatic mode. In the automatic mode, the UT-29px 'listens' to the receive audio and when it hears a valid CTCSS tone, for approximately ½ second, it saves the tone value and uses this same tone when you transmit. If you are in the tone squelch mode, selecting the automatic mode via tone number 42, will open the audio even if a tone is not present.

The automatic mode will not work if your repeater does not send a CTCSS tone, but this is quite rare.

If the CTCSS tone remains present for 6 seconds or more, the tone is saved in the UT-29px non-volatile memory. This allows the UT-29px to retain the current tone when you power off the radio.

Tone Number / CTCSS Freq. Table

1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	34	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	29	179.9	39	150.0
10	94.8	20	131.8	30	186.2	40	100.0

Tone 42 puts the UT-29px into the Automatic mode.