

Modification of the 'Crystal Type' Walkie-Talkie

by B.W.

The 'Crystal Type' Walkie-Talkies require a set of crystals for each channel; one each; for Transmit and Receive.

The easiest modification method is to swap out the existing crystals, and order two new ones. This way will have two new Fo's (Channels); one low and one high; both out of present legal GB Band!

Example below is for using the Channel 14 crystals that usually come with Walkie-Talkies: (TX Xtal = 27.125MHz, RX Xtal = 26.670MHz.)

1. Remove both xtals from their sockets.
2. Place Transmit Xtal (27.125) in Receive Xtal's socket location 'A'.
  - a. This makes the receive frequency 27.125MHz. Since receive Fo is 455KHz below the transmit Fo, this figure must be added to obtain the new correct transmit crystal.
  - b.  $27.125\text{MHz} + .455\text{MHz} = 27.580\text{MHz}$ ; this is the way to figure it out and is the correct frequency.
3. Place new Transmit Xtal (27.580MHz) in Transmit Xtal Socket 'A', This makes 'A', the new High Fo Channel, on the Even.
4. Place Receive Xtal (26.670) in Transmit Xtal's socket location 'B'.
  - a. This makes the transmit frequency 26.670MHz. Since transmit Fo is 455KHz above the receive Fo, this figure must be subtracted to obtain the new correct receive crystal.
  - b.  $26.670\text{MHz} - .455\text{MHz} = 26.215\text{MHz}$ ; this is the way to figure it out and is the correct frequency.
5. Place new Receive Xtal (26.215MHz) in Receive Xtal's socket location 'B'.

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\*Above is for reference to Channel 14 Crystal frequencies only.

Socket locations A & B, are in reference to most Crystal type Walkie-Talkies.

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NOTE: Selman Enterprises can get these new crystals that you may need. Manufacturer and Model Number of the Walkie-Talkie must be given. Also the correct frequency wanted must be given, as this will be Special Order. Use chart on next page for correct crystal frequencies.