

# Installing a LIF port into the FT-817 transceiver

## *Introduction*

This document describes the procedure for installing a LIF (Low Intermediate Frequency [9 – 18kHz]) port into the FT-950 transceiver. This procedure requires a level of expertise sufficient to dismantle the transceiver and to solder. Nonetheless, the installation is straight forward and should not cause any difficulties for the experienced radio amateur.

It is important to unplug all connectors and power before working on any transceiver. It is also important to be grounded to avoid static discharges.

**Please note:** no responsibility or liability will be taken by the author of this document for any damage or malfunction caused by user modifications.

## *Option filter port extended to the rear of the radio (FT-817)*

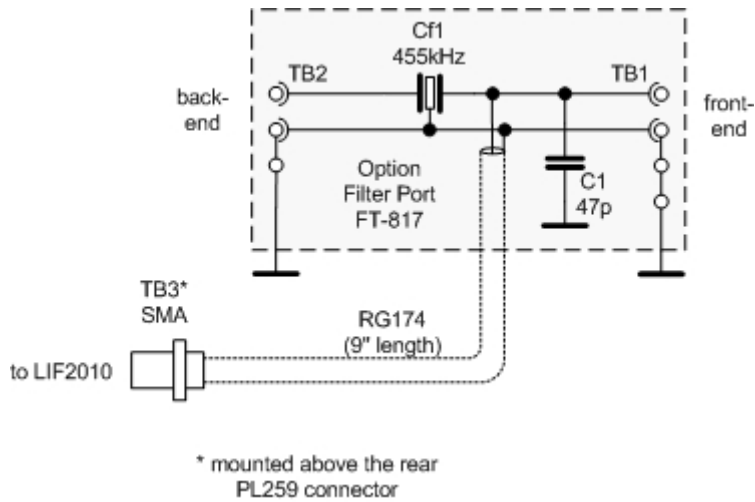


A small circuit board serves as a platform to solder the 0.075" spacing strip connector as well as a 47pF capacitor.

A small rubber cube glued on top of the PCB insulates and secures the assembly when the lid is closed.

The shielded cable is RG174 and the connector on the rear wall of the radio is a SMA male, chosen for its small size. This mod does not impact the portability of the unit nor does it affect performance in any way. From here, it connects to the bidirectional input of the Bi-LIF converter.

## Schematics for the LIF port extension PCB



### Please note:

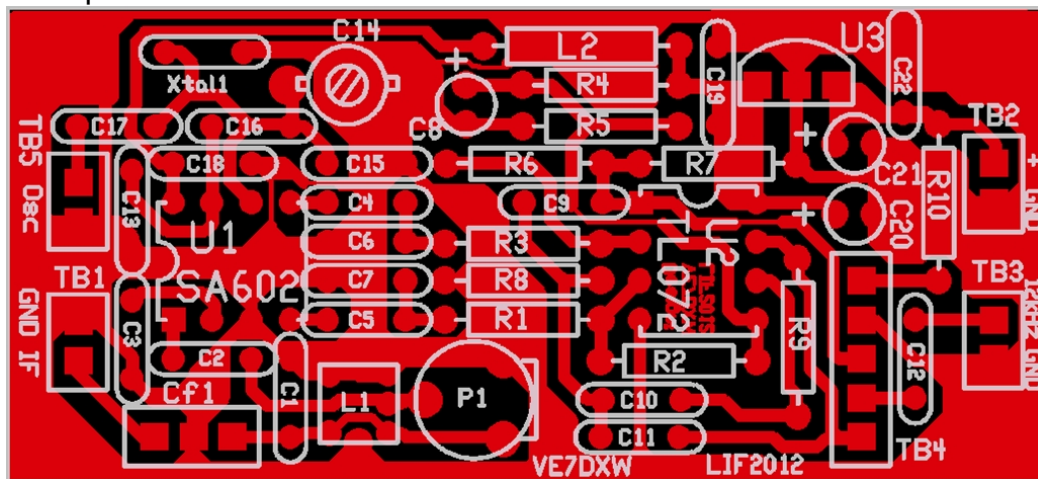
The Cf1 ceramic filter is optional and is not supplied in the kit.

## Connection of the LIF converter (RX only)

The LIF RX output of the transceiver connects to the IN port (TB1) of the LIF assembly and the audio Line out (TB3) connects to the tip line-in of the sound card. TB2 provides power (+12V). TB5 is not used for the RX only version. A jumper has to be placed on TB4 between 3-4 to by pass the 7kHz high pass filter or between 4-5 to enable it.

**FT-817 setup:** To route the RF into the LIF converter the option filter has to be selected for SSB in the filter menu #38.

**Note:** The FT-817 has only one internal filter for TX and RX. In this configuration the radio can not be used to transmit through the internal microphone.

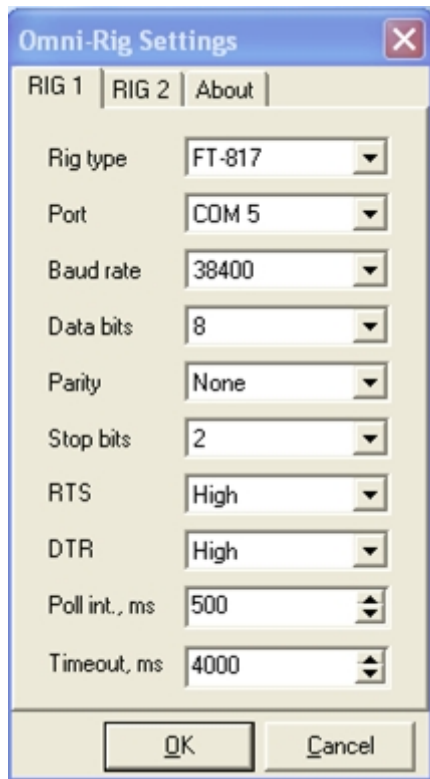


## Setup of the CAT interface

The MDSR software controls the transceiver via the CAT port. The connector cable CT-62 is the Vertex Standard version of the interface cable that plugs into the back of the radio and the RS-232 port of the computer. There are also virtual RS-232 cables available that connect via the USB bus to the computer.

### OmniRig Setup for the FT-8x7 series transceivers

To enter setup menu in MDSR-SA select the tool icon at the bottom right and select “OmniRig Configuration & Status”, select the key icon “Configure OmniRig”. Only configure RIG 1.



- Select the transceiver to be controlled from the drop down menu.
- Select the port of the computer. If the Com port is not known go to the “Device Manager” and select the ports icon. The port number should be listed there.
- The Baud Rate has to match the setting in the Transceiver. The default setting for the FT-817 is 4800. It can be changed to a higher performance if needed (see transceiver manual).
- All the other settings should be as displayed here.

That completes the installation of the LIF port of the FT-817. The MDSR team wishes you all the best and if you like the performance of the MDSR software please tell all your friends about it.

73

### The MDSR development team

To order the PCB kit or for more information please go to;

**Note: if you are interested in the TX – BiLiF option contact VE7DXW directly.**

<http://users.skynet.be/myspace/mdsr>

**specify 455kHz IF**