

ILER-BOX

with DISPLAY

Assembly manual

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Updates and news at: www.qrphamradiokits.com



PARTS LIST

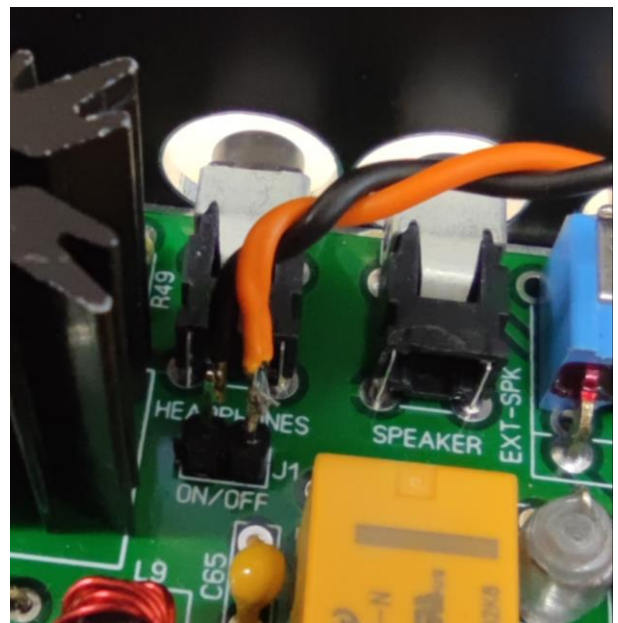
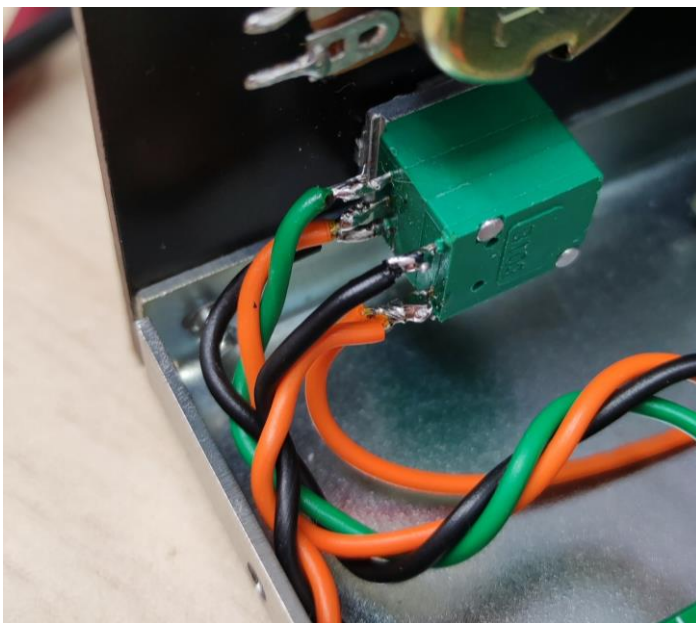
Quantity	Part
1	Galvanized iron base
1	Painted aluminum lid
1	Front panel
1	Rear panel
4	10mm.Hexagonal spacers
8	M3 x 4mm screws
8	TA29x5 self-tapping screws
1	24-26mm Knob (D shaft type)
2	15-16mm Knob
4	M2.5 x 8mm black screws
8	M2.5 nuts
1	Microphone socket
1	Microphone connector
1	10K mini potentiometer w/switch
1	1K potentiometer (RF Att)
1	20 pins strip female
1	7 pins 45° strip male
1	7 pins strip female
1	60cms RG174 cable
1	pre-assembled cable 5 poles
3	50 cm colored cables
4	adhesive rubber feet

ASSEMBLY

Installing the ILER in the box is pretty straightforward. However, there is some detail that needs to be paid close attention. Take your time. Please, work carefully. *Have a good time!*

➔ Volume potentiometer and ON / OFF switch.

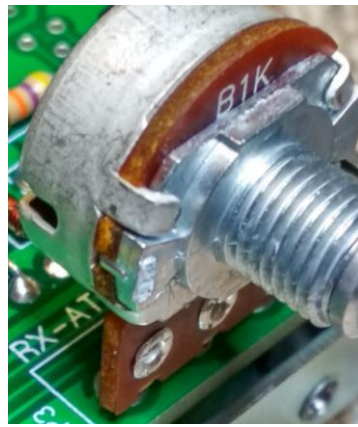
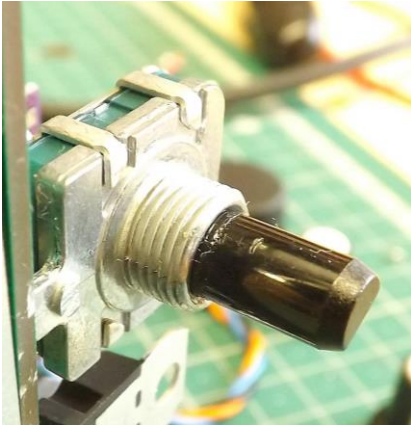
Previous note: If you don't want to use the ON / OFF switch, then you can keep the original potentiometer included in the ILER kit installed.



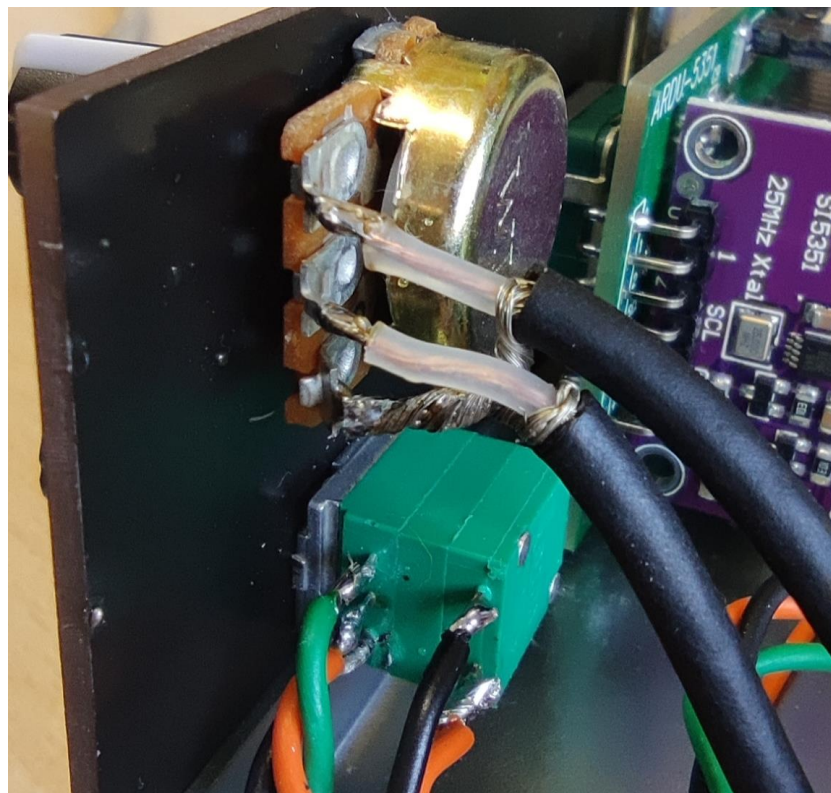
Replace the original potentiometer with the mini potentiometer with switch
Wire the volume potentiometer
Wire the ON/OFF switch to J1 jumper

➔ RX ATT potentiometer

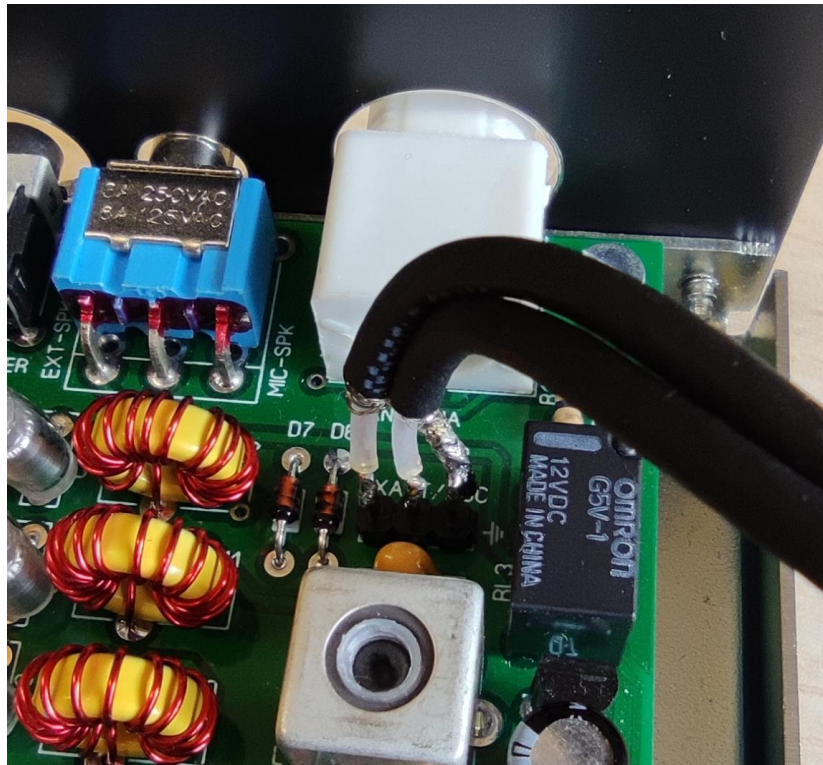
- Secure the potentiometers with their nuts (with washers). You don't need to squeeze a lot.
- Cut the bulge of the potentiometers or encoder (if they have one).
- Use coax RG174 cable for RX ATT pot wiring (see images).



RG174 cable



RX ATT potentiometer (1K)



Wire to RXATT pins

➔ OLED display.

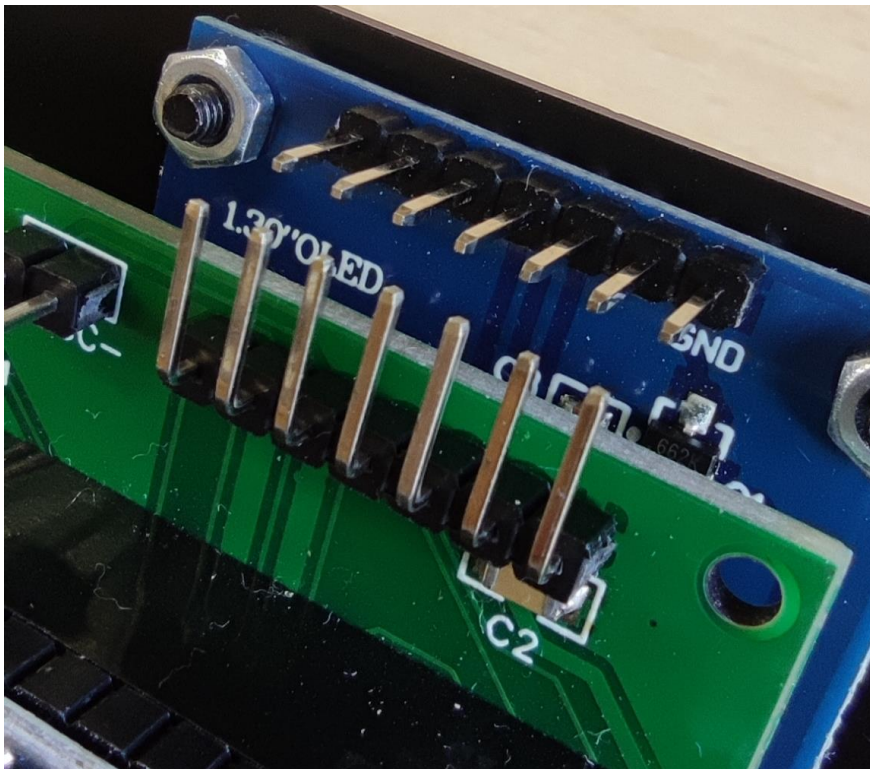
The OLED display is delicate. Handle with care.

OLED display placement needs special attention.

You should solder the OLED so that it fits snugly against the front panel. Use four M2.5 screws. It is not necessary that overtighten. Excessive tightening can damage the display. Install a nut to obtain clearance between the panel and the display (see images).

VERY IMPORTANT: cut the connection terminals flush. ¡Avoid touching the front panel!





Solder 7 pins 45° strip male on OLED display



Attach the 7-pin female strip and bend its terminals as shown in the picture
Then solder the terminals carefully

➡ Rear panel.

Very little has to be said about the rear panel.



MICROPHONE WIRING

➡ Microphone socket wiring.

You must adapt the connector for your microphone.

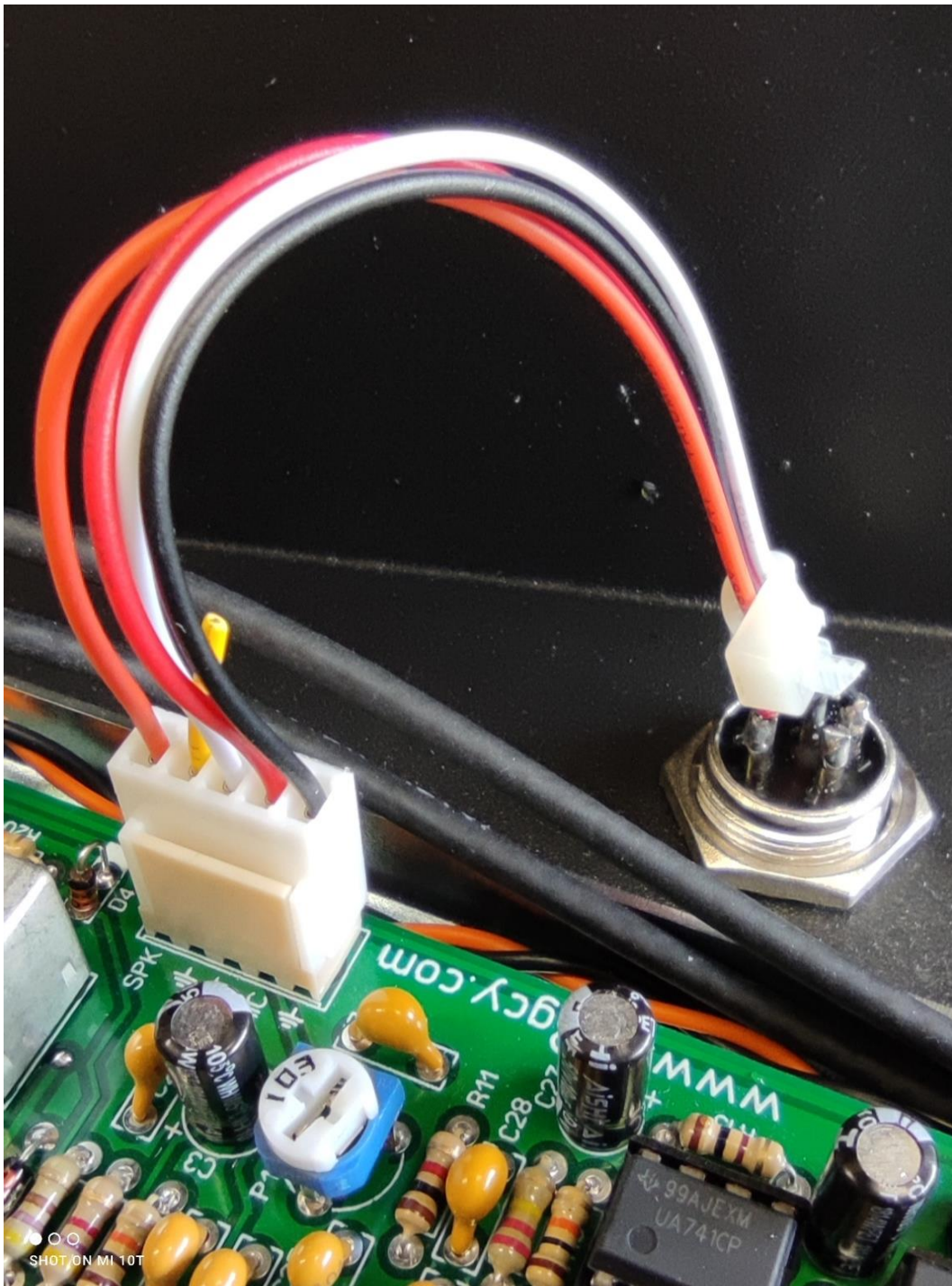
You can use any combination of cables. There is no standardized wiring planned.

The connector has 5 ways. You can use a microphone with a built-in speaker. It has a spare way for other uses.

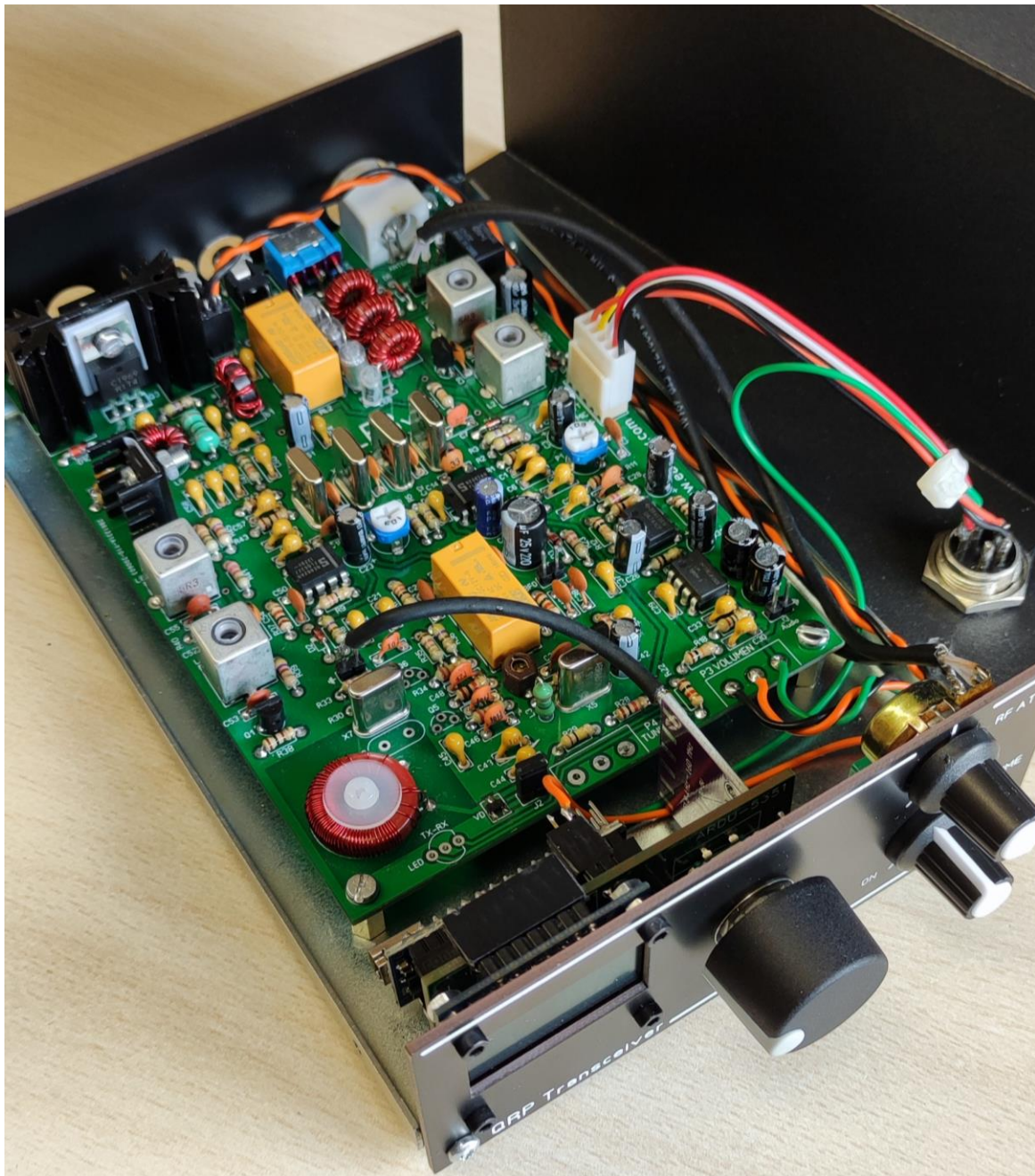
IMPORTANT: Always use a suitable electret micro. Everything about this is explained in the [ILER assembly manual](#).



Microphone plug



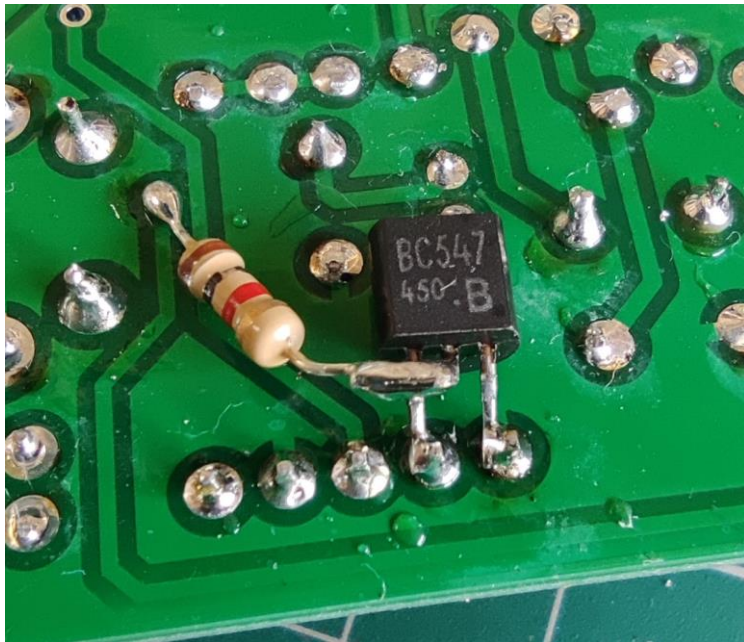
Microphone socket wiring (include speaker connection)



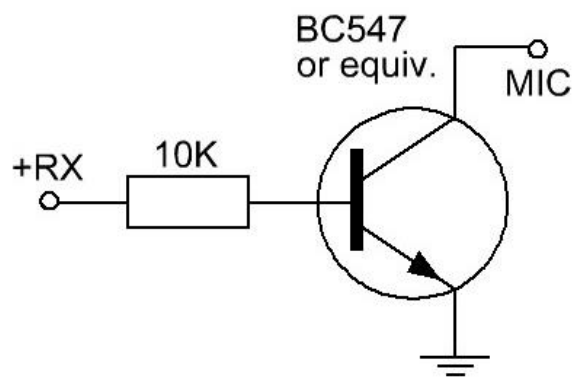
➡ Modification to use microphone/speaker.

If you want to use the internal speaker that some microphones have. Then, you have to make a small modification in the ILER. You will need to mute the microphone connection while receiving. See the pictures.

Note: If you use the microphone speaker and do not make this modification, then you will hear a loud beep (feedback) upon reception.

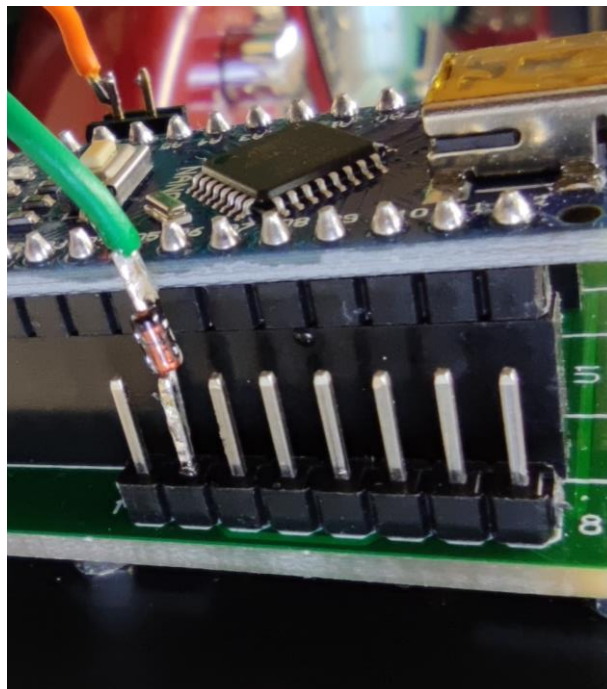
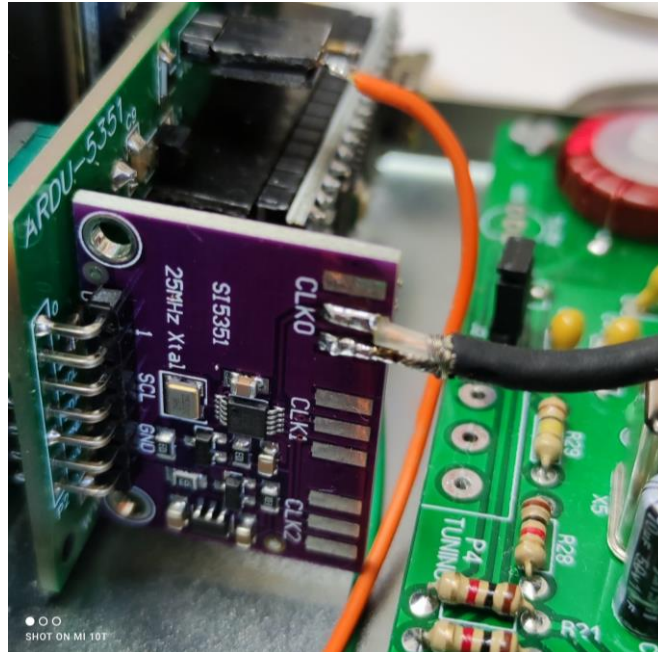


Use a 10K resistor and a BC547 transistor or equivalent.



➔ ARDU-5351 wiring.

Wire the CLK0 from ARDU-5351 to “VFO” terminals on ILER board. Use RG174 coaxial cable.
Wire the +V terminal to ON-OFF switch.



Wire Ardu-5351 pin 2 to PTT terminal on ILER board.
Place a 1N4148 diode in series.

➔ Adhesive rubber feet.

