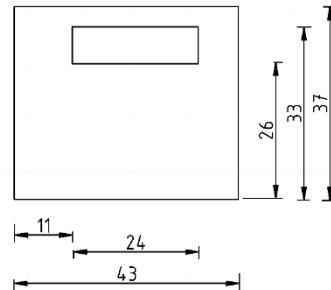


T198 Changes for DDS

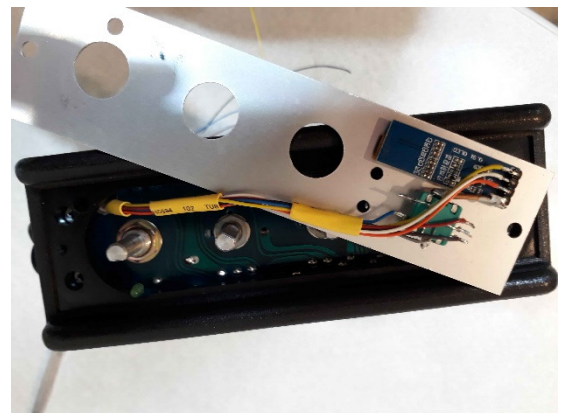
Front Panel

Cut black plastic panel as shown. Plastic cut from a Jaycar HB6015 Jiffy box 83x54x31mm is ideal.

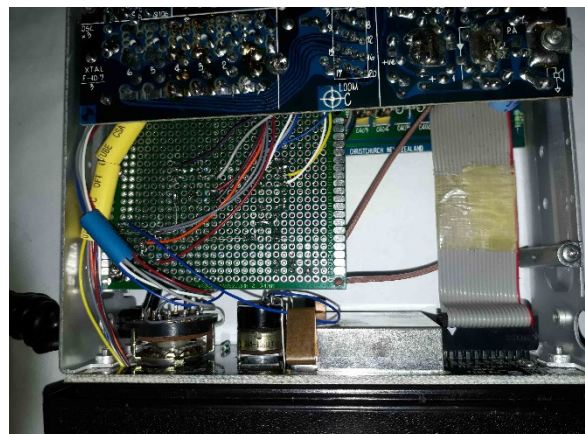
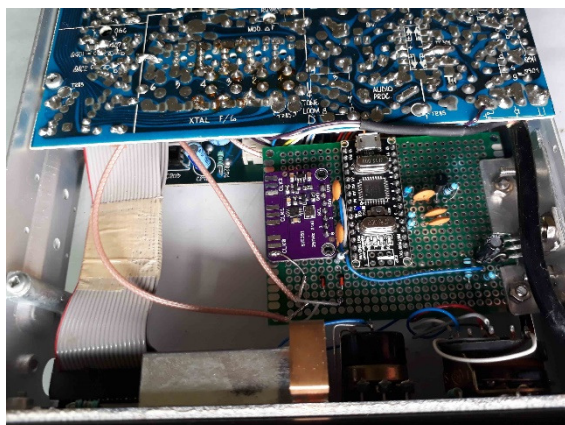


Panel Dimensions (mm)

See the images below to position and drill a hole for the encoder and drill a corresponding hole in the T198 front panel so that the panel fits vertically central and horizontally so that it aligns just to the left of the call, tx, busy labels and leaves enough space to drill to accommodate the tx and busy LED's . Make a cut-out on the T198 front panel to match the display rectangle. Remove the 'Call' LED from the T198 front panel and drill a hole for each of the tx and busy LED's. Part of the heavy front plastic rear will need to be cut back for the display.



Mount and wire the DDS Board rewiring the existing channel switch to match the DDS circuit.



Both the TX and RX XTAL oscillators need modifying to change them to amplifiers.

Receiver

Remove C147. Remove L131 and L132 and replace with wire link. Remove all the XTAL switching diodes D101, D102.... Connect the DDS Receiver output directly to Q106 base.

Transmitter

Remove C413. Remove L435 and replace with wire link. Remove all the XTAL switching diodes D401, D402... Connect the DDS Transmitter output directly to Q402 base. (R415 and C412 may be linked out on the pc board).

Note that both the RX and TX Q106 and Q402 transistor bases are biased via the corresponding diodes on the DDS depending on which is powered on.

Rotary Encoder

The DDS circuit shows 10k resistors and 0.1 capacitors to debounce the encoder contacts. In this application they disrupted the operation somewhat. To correct this the rotary encoder was connected directly to D2 and D3 of the Arduino which worked well.