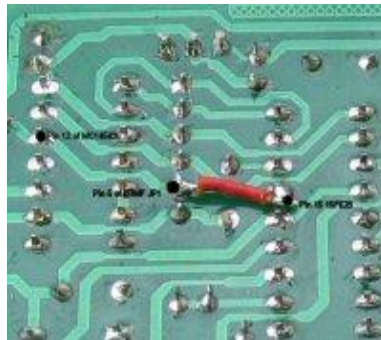


Notes

- the circuit diagram shows capacitors C14,15,18,21 with negative to the outside world. Some radios have +ve voltage on their microphone inputs. This will result in distorted audio and possible failure of the capacitors. I strongly suggest these capacitors are wired with +ve to the outside world. The circuit is wrong as is the board overlay. See reverse side of this sheet for corrected overlay including the inverted LED L5.
- in the parts overlay and circuit diagram LED L5 is the wrong polarity. It will need to be inverted (see reverse side of this sheet for correct polarity). Also note that the pdf overlays have labels to JP2 and JP4 reversed for repeater and simplex audios. Experience suggests that a 22K pot at RV6 may be a better choice than 4K7 and provide better coverage of lower CTCSS frequencies.
- The latest software requires a wire jumper from pin 5 of JP1 (effectively pin 12 of the MC145436) and pin 15 of the 16F628 on the back of the board. Use a 1cm length of insulated wire. See LINK.JPG.



- The controller supports AC Fail indication from Version 6.10 and a hardware modification is required if you want to access that function. I have had to press the MCLR pin (normally goes to +5V for normal operation) into operation as a port. If you want to use the AC fail facility read the V6.10 (or higher) manual for information on what track to cut, install a PCB pin and read the note on voltages allowed on the pin. If you do not modify the board the controller still works fine but with no AC fail facility.
- The JP Labels are somewhat confusingly labelled. Note that JP2, JP3, JP4, JP6 are all jumpers while JP1 and JP5 are input/output connectors.
- If you chose the PIC18F1827 version 7 of the software you should omit C6 (33pF) going to pin 16 of the PIC16F1827. This version runs off the internal oscillator and does not require an oscillator feed. A pin may be installed in the free hole on pin16 of the PIC16F1827. This may be used for external control via command 12. See Appendix 6 of the manual V7.05. Be sure to check if your programming software/hardware supports the new PIC16F1827, it is a new enhanced device and not all programmers support it. The PICKit3 does.

If you have printed this sheet yourself you won't have the corrected component sheet on the reverse. See the file "Repeater board overlay.pdf"