

DC-DC Mod : Issue 3/3B Spectrum

This kit contains the following parts in order to complete the DC-DC Mod on Issue 3/3B motherboards:

- 1 x 1uf 63v Capacitor *
- 7x 22uf 25v Capacitor *
- 1 x 2K2 Resistor (3 red bars)
- 1 x 220R Resistor (2 red, 1 black bar)
- 1 x 5v1 Zener Diode (identified with a Z on the tape)
- 1 x 1N4148 Diode
- 2 x BA157 Diode (1 new and 1 replacement for D15 if required)

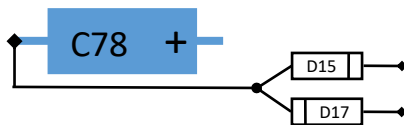
* Note that the capacitors are not included if the mod kit is bought as an add-on for the capacitor kit as there are enough to complete the mod in the standard capacitor kit.

Completing the Mod

De-solder the anode (left hand side) of D15

Connect a 22uf capacitor (C78 on Issue 4A boards) between the anode of D15 (the negative of the new capacitor) and the original pad of D15 (the positive of the new capacitor).

Add new BA157 diode (D17 on Issue 4A boards) between ground (the anode/+ve of this new diode / use the right hand connector if the C54 location which should be empty) and D15 anode (the cathode/-ve of this new diode)



(See areas outlines in orange in images below)

Replace the following other components (Green outlines in images below):

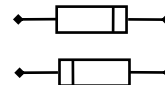
D12 for new R79 2K2 resistor

D16 for new C79 1uf 63v capacitor (negative on the left hand side)

R54 for new D19 5v1 Zener Diode (cathode on the right hand side)

R55 for new D18 1N4148 Diode (cathode on the left hand side)

R60 for new 220R resistor



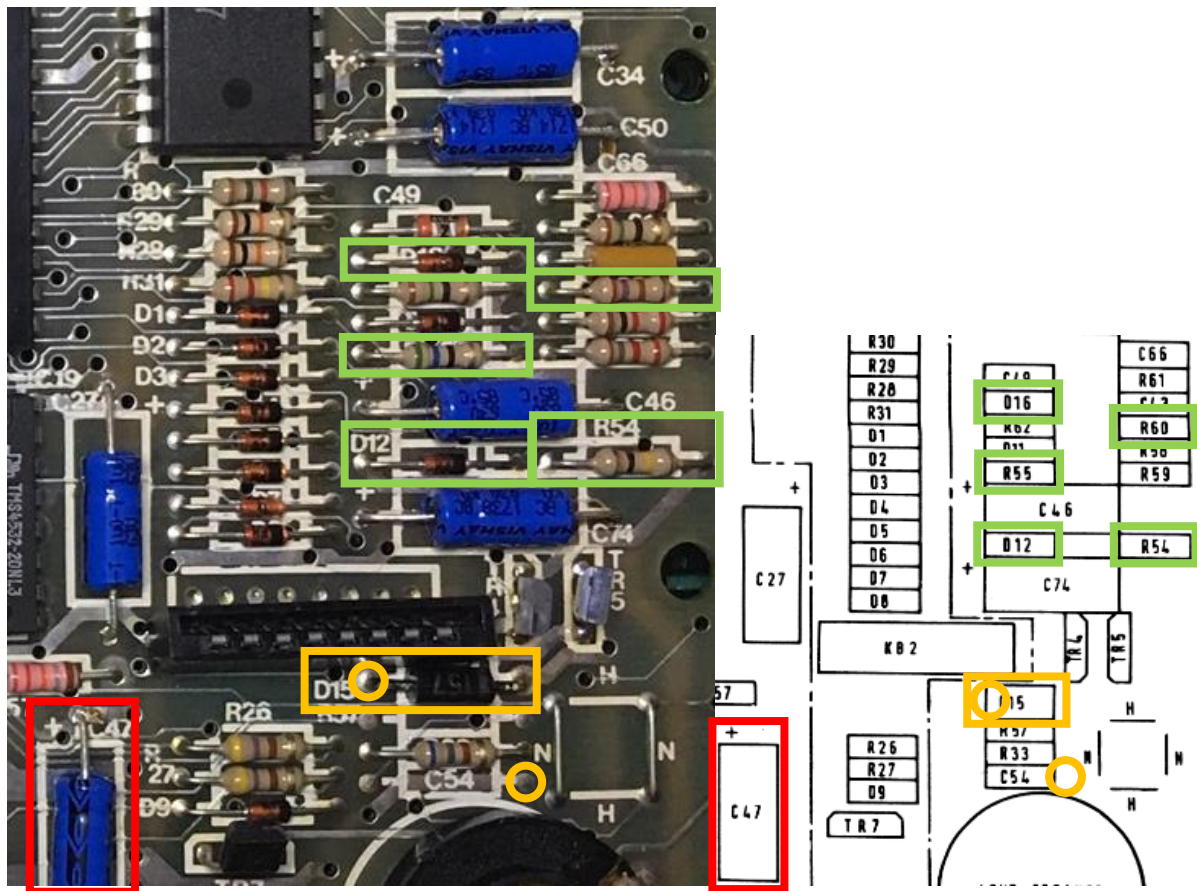
C47 should be removed (red outline in images below)

A PDF copy of these notes can be found here: <https://bit.ly/2WaDQkG>

Basic layout diagrams highlighting the different capacitors and locations for each motherboard issue can be found on my website here: <https://www.markmorton.co.uk/zxMaintCaps.html>

A PDF file containing all the layout diagrams can also be viewed or downloaded from here: <https://bit.ly/2FjHCzt>

Location references:



New 22uf capacitor and BA157 Diode locations

