

Description: Radix Diagnostic Connectors for Commodore PET series

Compatibility: CBM 2000 / 3000 / 4000 / 8000 PET systems – not 8296

Last Revised January 2023

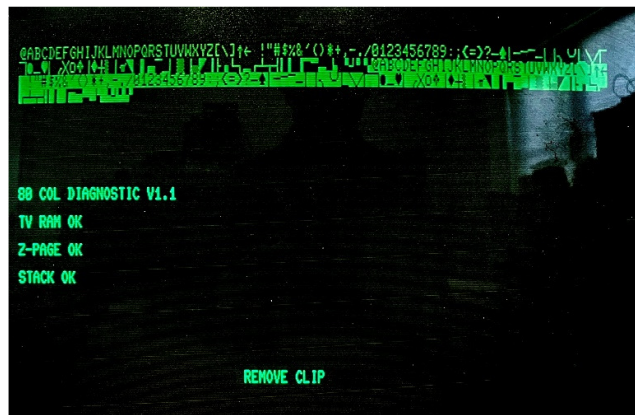
Overview

The original Commodore Diagnostics are a very good functional test of the PET main board and include “Loopback” tests to check the Keyboard, Cassette, User and IEEE Ports in great detail.

The Diagnostic connectors are fitted to the **KEYBOARD** and **USER** ports on the system.

The Diagnostics display an initial screen as shown here at start up, if the screen memory and zero page areas pass basic tests.

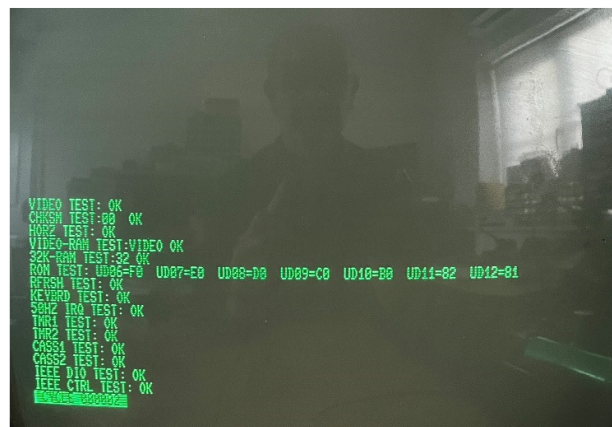
To progress to the second part of the tests, the diagnostic says “REMOVE CLIP” – the original Commodore diagnostics connected via a 40 pin test clip to the CPU and this had to be removed carefully for the test to continue.



Now, those diagnostic boxes and clips are very rare – but it is now much easier to use a custom EPROM in the F000 socket, programmed with the Diagnostic ROM code and the original F000 ROM code and switch back to the original ROM when it says “REMOVE CLIP”. This is also far more reliable than removing the test clip as supplied by Commodore, which would often crash the system under test.

Once the Original ROM is switched back, the test progresses and in the diagnostic connectors are in place and no faults are found, a screen similar to that shown here is displayed.

Without the user port connector, the diagnostics immediately fail with “NO IRQ”.



Construction

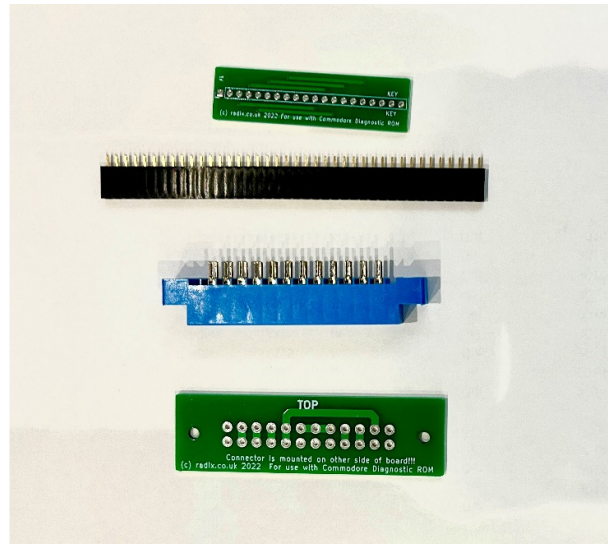
The two connectors supplied are simply fitted to the small PCBs.

The keyboard connector can be fitted to either side of the board – as it is a single row of pins, but take note that the “KEY” position marked on the board shows where the missing pin on the mainboard connector line up.

Cut the keyboard connector in position 19 to leave 20 pins intact to fit to the board.

The User port PCB is marked showing which side the connector is mounted on.

Holes are provided so a piece of cable or similar can be threaded through the holes to make removal easier.



DO NOT pull on the PCB unless the connector is bolted to the board or you may damage the board as the edge connectors are initially quite a tight fit. Push the connector from **INSIDE** the PET case if required to avoid damaging the PCB until it loosens off a little.

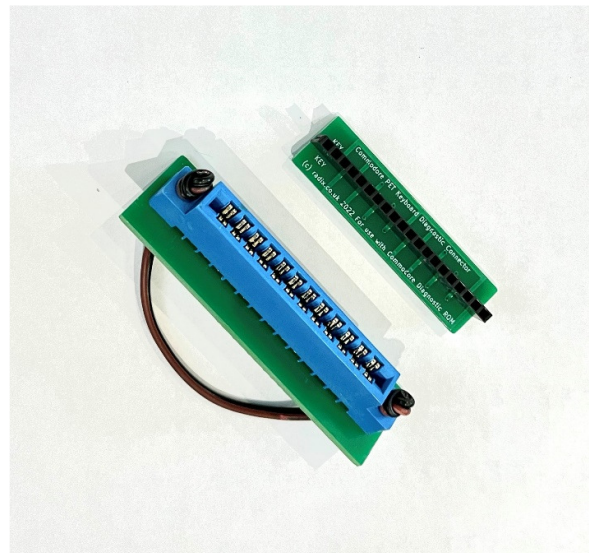
Using the connectors

The completed connectors are shown here:

Do check which way up the User port connector is fitted – the PCB is marked “TOP” on the solder side.

The connectors **ONLY** work with the Commodore diagnostics and may cause issues with other tests, so they should be removed if not using the Commodore Diagnostic ROM.

More information about the reported errors and likely faulty chips can be found online.



For suitable switchable EPROM adapter PCBs for the diagnostic ROM code and standard ROMs, see our website or other eBay listings.