

TANGLES' PIN PARTS

TPP-1012

5101 NVRAM Dual CE



Description

The TPP-1012 is a non-volatile RAM adapter (NVRAM) than plugs in as a replacement for a 5101 CMOS memory chip. This board has been developed specifically for use in Williams System 3 to 7 and Gottlieb System 80 A/B Machines.

This module is a worthwhile upgrade for your classic pinball machine, enabling the complete removal of batteries. Remove the risk of battery corrosion by removing batteries completely.

The TPP-1012 as an assembled NVRAM modules, however, soldering is typically required to install this part.

This part is fully compatible with Stern MPU-100, MPU-200 and Bally -35 machines. I refer however to the Tangles' Pin Parts TPP-1010 and TPP-1011 for modules designed specifically for these systems.

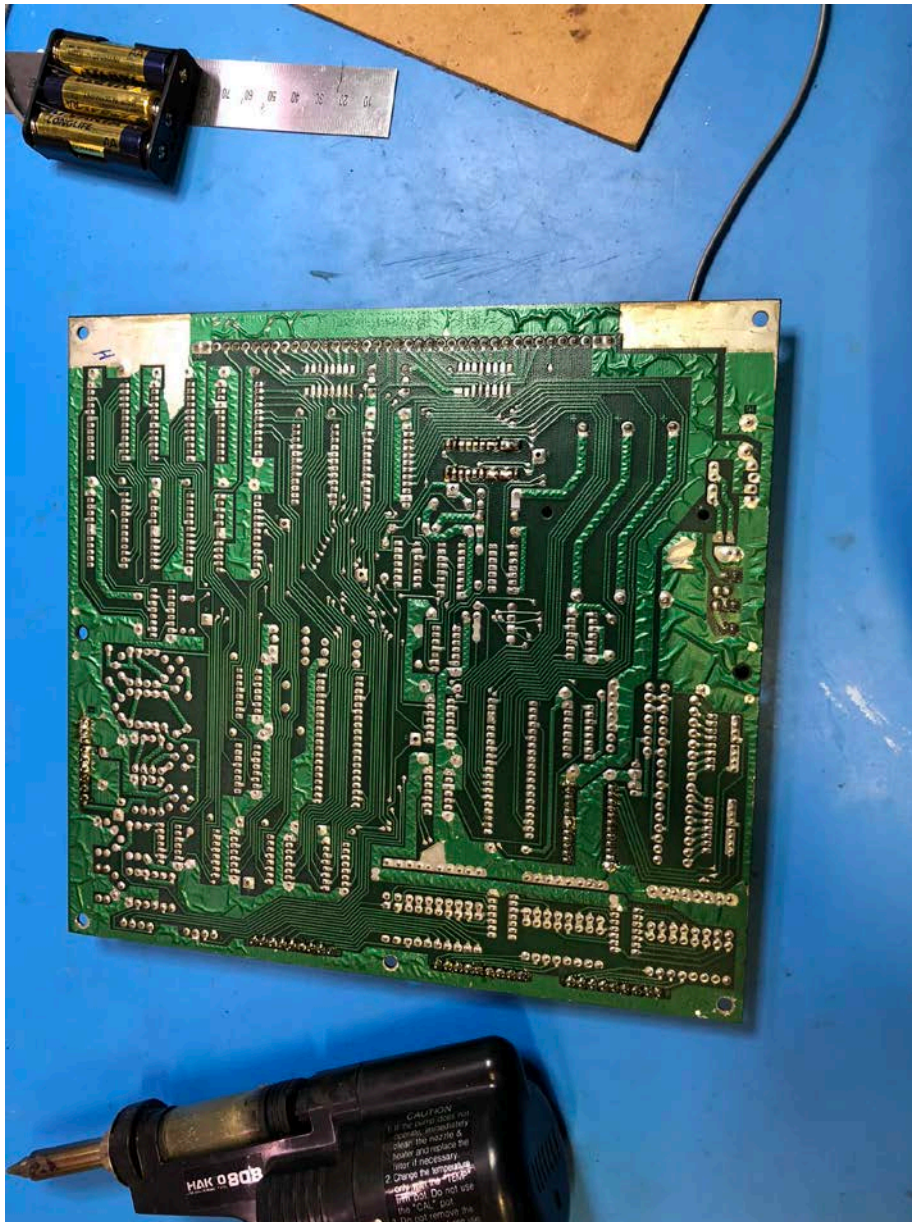
Installation

This manual will not detail specific installation instructions as it is expected that this part be installed by an experienced repairer only. I will however offer a brief overview of the installation process as carried out on a Williams System 6 machine.

Note that system settings and audits will be cleared to factory default when the new memory is installed. Owners should consult the machine manual for audit and game settings.



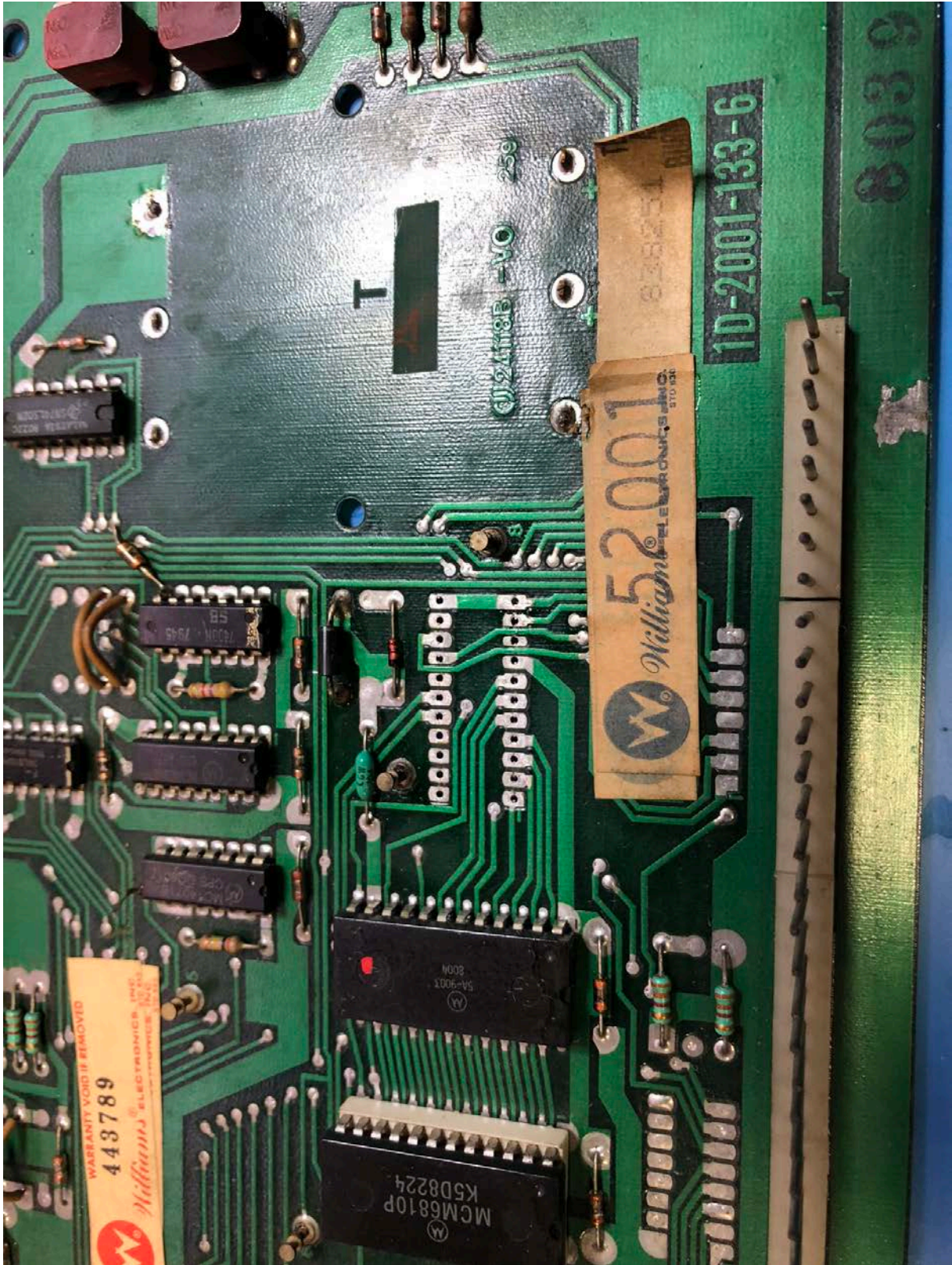
Williams System 6 board on the bench. The 5101 CMOS RAM is highlighted.



The reverse side of the System 6 board, ready for chip removal.



The 5101 has now been removed and isopropyl alcohol is used to clean the board.



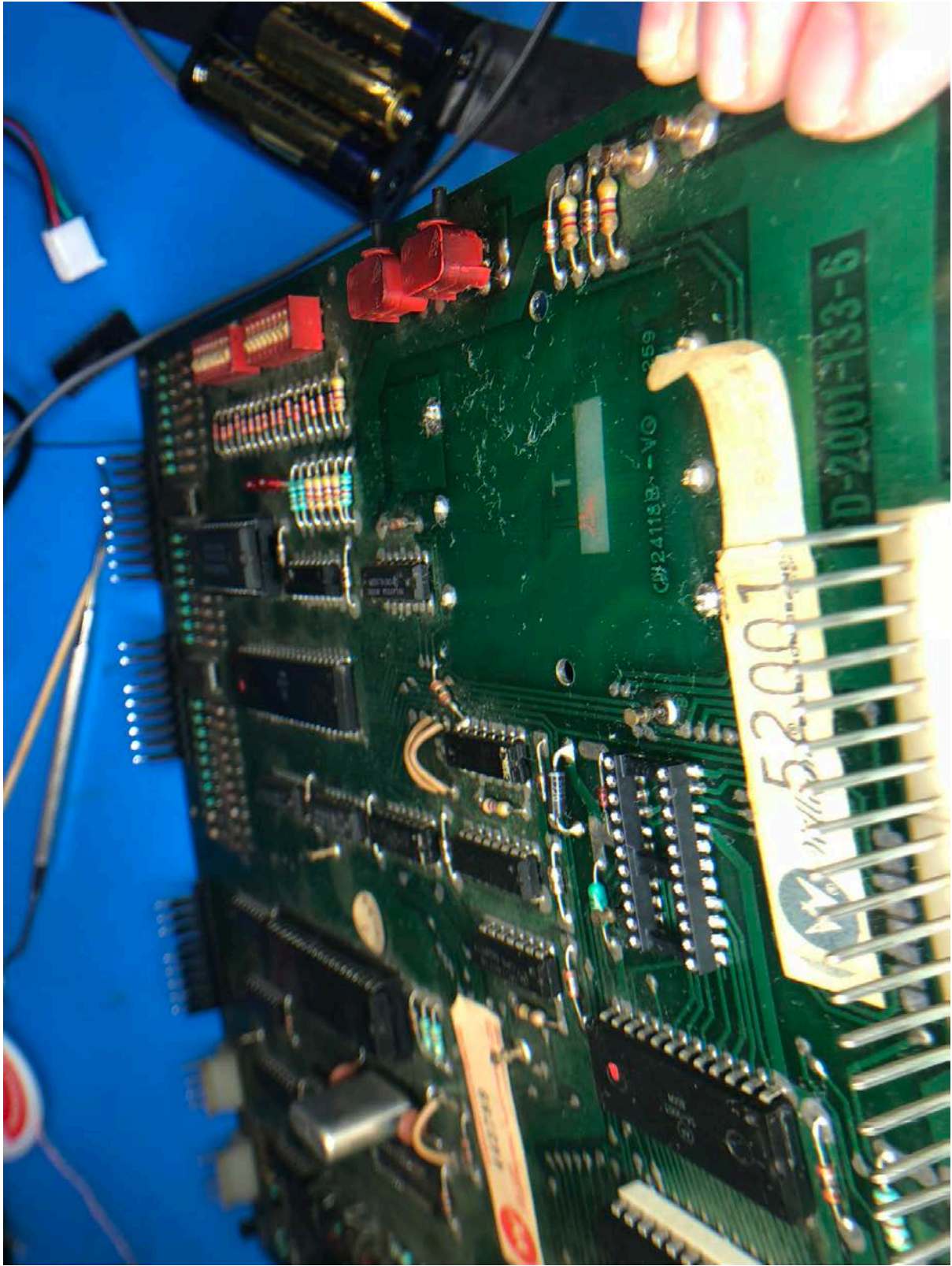
The pads are now nice and clean, the old battery removed, we can proceed to installing a socket.



A turned pin socket is ready for installation.



The new socket is installed. A careful inspection of the board is required to ensure a good solder joint on both the top and bottom of the board.



A better view showing good solder connections on the top of the board.



The NVRAM module can now be installed onto the board. Take care to ensure all pins on the NVRAM mate with the socket.

