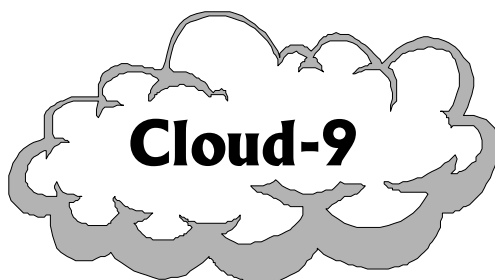
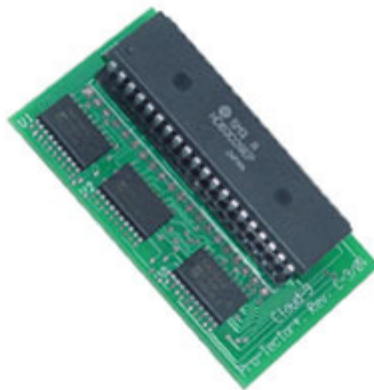


# Pro-Tector+

## User Manual



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# 1. Congratulations!

Thank you for purchasing the **Pro-Tector+**, another one of the fine products offered by Cloud-9. This product was designed to be used with the Radio Shack TRS-80 Color Computers 1, 2, and the Tandy Color Computer 3.

## Features

- Buffers in the 6x09 CPU the address, E, Q, FIRQ, Halt~, IRQ, NMI, R/W~ lines.
- Provides protection and saves your CPU!

## Disclaimers

In order to install this product, a modification will have to be performed to the motherboard. This modification will socket the processor. If you feel that you cannot perform this procedure, then a qualified technician should install this modification.

## 2. Installation

This manual details step by step instructions on how to install the **Pro-Tector+** board into your system.

### Required Tools

You need the following tools to install the **Pro-Tector+**

1. Soldering iron and solder:
2. Desoldering tool
3. Lead clippers
4. Phillips screwdriver

All of these items can be obtained from Radio Shack

### Installation Steps

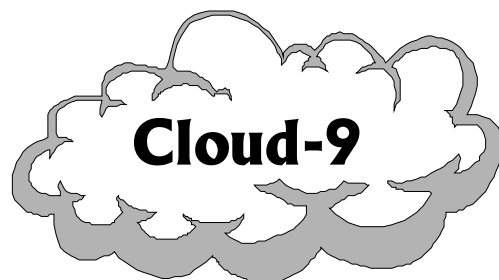
1. Remove all screws on the bottom of the Color Computer. Note that the shorter screws are removed from the front of the computer by the keyboard.
2. Locate and desolder the 6809 processor. It is a 40-pin IC, labeled IC1 in the Color Computer 3. Be VERY careful not to break any of the traces during extraction.
3. Install and solder the 40 pin socket in the place of the removed CPU area.
4. Install your processor into the socket on the **Pro-Tector+** board.
5. Insert the **Pro-Tector+** board into the socket that was replaced in Step 2. Please note the proper orientation. Pin 1 of the Pro-Tector+ must align with pin 1 of the motherboard. Pin 1 of the **Pro-Tector+** is represented by a square hole. Pin 1 of the motherboard is labeled on the Color Computer.
6. Reinstall the keyboard into its mounting position.
7. Close the cover and replace the screws that were removed in Step 1. Watch the screw lengths.

Apply power to the system as you normally would. If the installation was successful then the machine will operate as it did prior to the installation but with the processor protected. In the event that the buffers are destroyed, please replace these ICs with the EXACT components.

Please note that there are two 40 pin sockets with this unit. The 40 pin socket that is attached to the bottom of the PC board is to protect the pins above it. The loose 40 pin socket is to replace the CPU on the motherboard. If this socket isn't needed then you have a spare in case you break a pin off of the socket on the bottom of the PC board.

If you have any problems with the installation, please contact Cloud-9 via the email, [support@cloud9tech.com](mailto:support@cloud9tech.com).

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