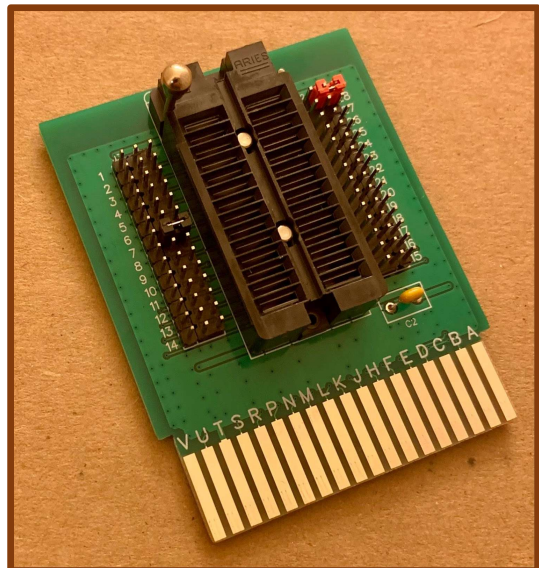


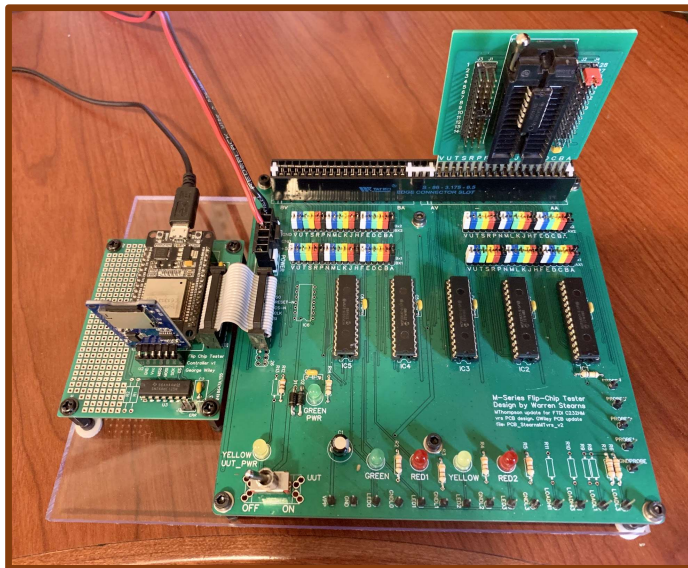
# IC Test Jig Build & Usage Information

## Building the IC Test Jig

This document describes details to build the IC Test Jig. **Figure 1** shows revision v1 of the test jig with all components installed and **Figure 2** shows the IC Test Jig installed in the Tester UUT slot.



*Figure 1 IC Test Jig v1*

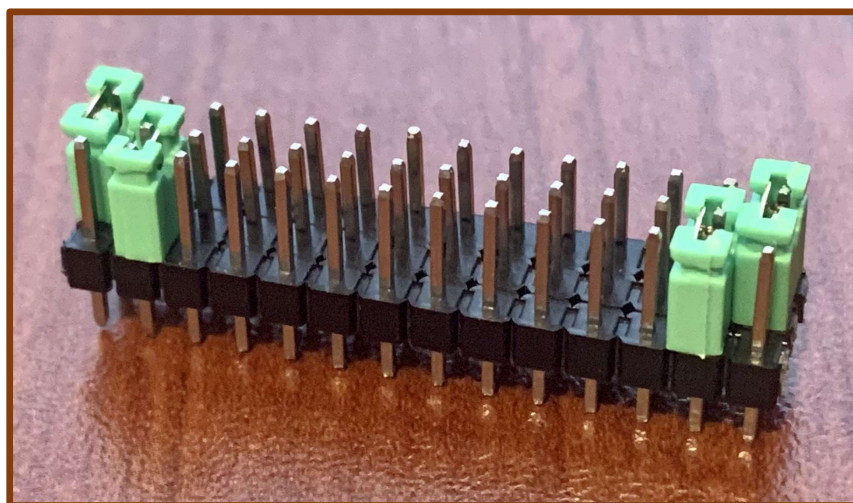


*Figure 2 IC Test Jig in Tester UUT slot*

Install the shortest components first, so the order is:

1. The capacitor, C1.
2. The header strips
3. The ZIF IC socket
4. Insert jumpers onto the headers

To solder the header strips to the PCB, it's convenient to use jumper plugs to hold them together before soldering to the PCB. This helps to keep sections of the header aligned. An example is shown in **Figure 3**.

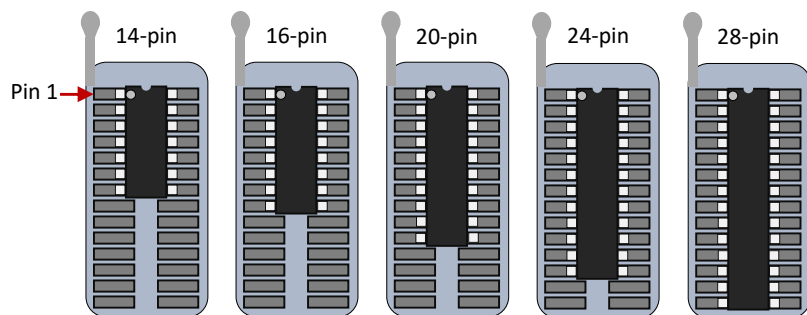


*Figure 3 Header Strips held together by Jumper Plugs*

There are two overlapping sets of PCB pads for the ZIF socket so that ZIF sockets with pin spacing of either 0.3 or 0.6 inches can be used. The referenced socket in the BOM is Aries Electronics part number 28-3554-10, which has two rows of pins spaced 0.3 inches apart. Any socket in the series 28-x55x-1x can be used where "x" is any valid p/n character.

## Aligning an IC in the Test Socket:

The IC to be tested should be inserted into the ZIF socket so that pin 1 of the IC is in pin 1 of the ZIF socket.



## Installing the VCC and GND jumpers:

The following example shows a 14-pin SN7400N IC in the socket. A VCC jumper is inserted at socket pin 28 to connect IC pin 14 to GND. A GND jumper is inserted at socket pin 7 to connect IC pin 7 to GND.

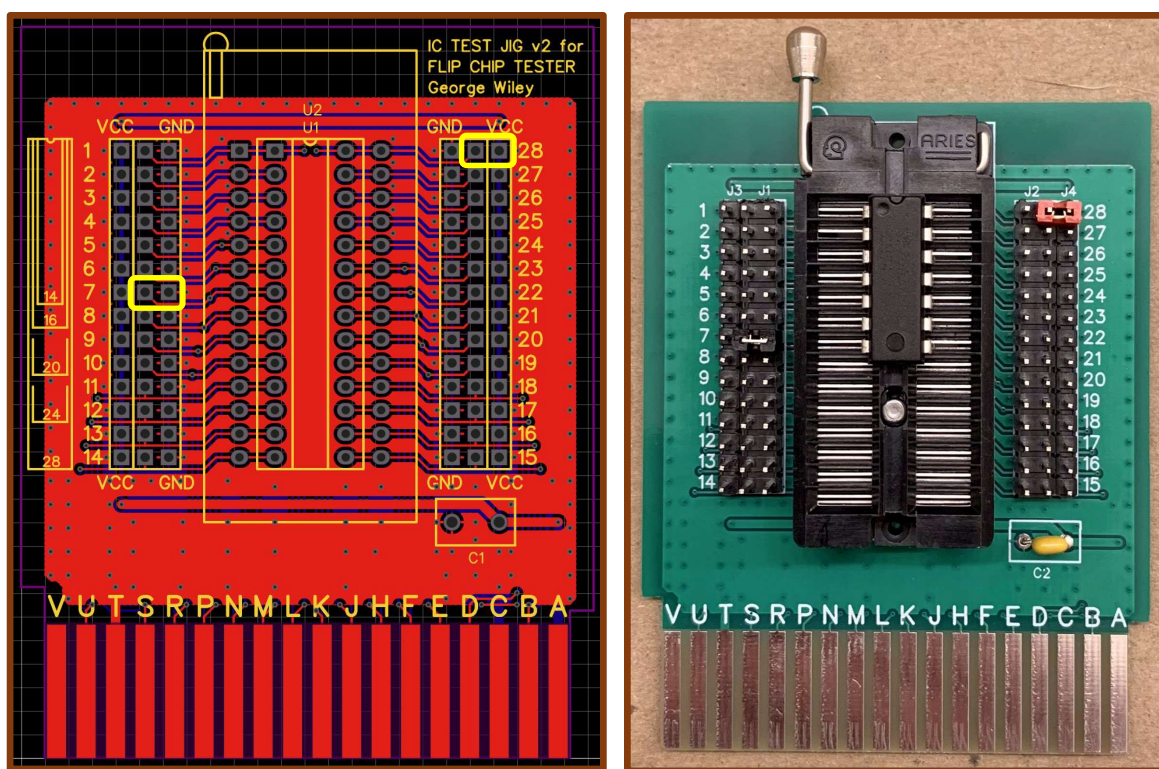
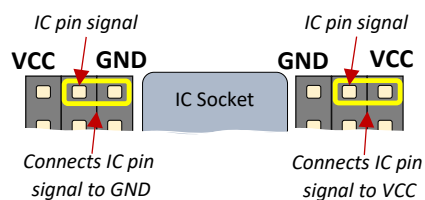


Figure 4 VCC and GND jumper example for an SN7400N IC

The outside columns of header pins are connected to VCC. The inside columns of header pins are connected to GND. The IC socket signal pins connect to the middle columns of header pins.

A VCC jumper is inserted at a specific IC pin location between the middle column of header pins and the outside column of header pins.

A GND jumper is inserted at a specific IC pin location between the middle column of header pins and the inside column of header pins.



Special test files having the prefix “JIG” have been created to test SN7400-series ICs that are commonly used in PDP-8/L and PDP-8/I computers. These test files are located in the repository: “IC\_Test\_Jig”.

A “Jig Tests Data Sheet” file provides a brief description of each test and specifies the proper location of the VCC and GND jumpers for each test.

To use these test files, copy the JIG74xx.TST files onto the microSD card that is inserted in the FlipChip Test System, enter the test name using main menu command “1”, and run the test using main menu command “4”.