



Electro-Resales LLC

Think-Design-Make

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IN-12 A/B Socket Usage

The Electro-Resales Nixie socket designed for the IN12 series Nixie tube is easy to utilize and these notes are designed to assist with basic information.

The socket comprises a small (1.5" x1.1") PCB with PCB pins soldered into the relevant tube pin positions. These pins are high quality Mill-Max® pins that are soldered in place on the back of the PCB. Each Pin is routed to a Pad corresponding to the Digit of the Nixie, allowing wire connections to be made to the tube pins. The use of the PCB pins allows tubes to be easily swapped out if needed.

The pins internal construction utilize spring fingers that grip the tube pin on all sides of the pin to ensure a 100% electrical connection, here is a close up photo of one pin, that clearly shows the 'fingers':



Each socket also has two (2) mounting holes located at the top and bottom of the PCB. These holes are sized for a 4/40 bolt, and as supplied the board comes with two bolts and two standoffs to assist users in placing/mounting the socket.

PCB sockets can be mounted next (nested) to each other, which allow a minimum distance between tubes of 0.5", which is aesthetically pleasing, obviously greater separation, can be achieved by spacing sockets further apart.

Connecting to each socket digit drive is made by soldering a wire to the appropriate pad, each pad is marked with its digit number, please note that the socket also has a pad for the Decimal Point (DP), the IN-12B has this DP, and the 'A' version does not. See the back of this sheet for an enlarged layout of these connection points.

The Anode or B+ point on the board will need a current limiting resistor, this will need to be calculated for the mA digit draw, but typically a 24K resistor will work well for a 180 VDC B+. Higher values may be used and will lead to dimmer digits, but longer life, a 33K resistor is a good value at the higher end. Don't go below 15K for the 180 VDC B+.

Warning

High voltages exist on the PCB when energized, pins on the underside need to be isolated from metallic surfaces and protected to avoid accidental contact.



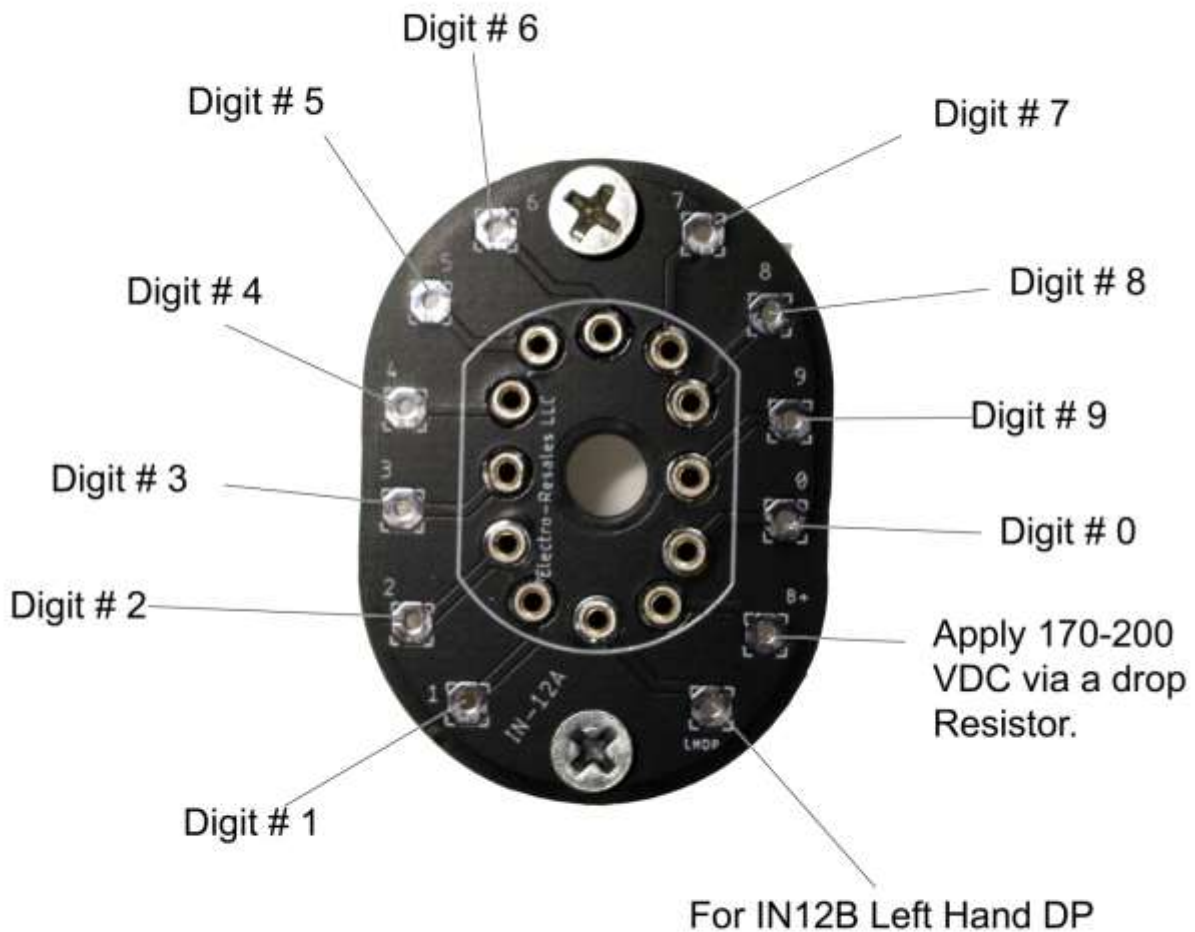
The image below shows connection points for the socket, from the tube side, all connections are thru' hole plated.

Questions:

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Socket Connection Pattern For IN-12 A/B Nixie



Connect and solder wires to each digit location Pad & Anode HVDC