



Electro-Resales LLC

Think-Design-Make

11287 S. Lake Crest Dr.  
Olathe, KS. 66061  
913-544-6184

## IN-12 A/B Breakout board Usage

The Electro-Resales Nixie breakout board is designed for the IN12 series Nixie tube is designed to allow easy prototyping and testing for these tubes these notes are designed to assist with basic information.

The board comprises a small (1.5" x 1.5") 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 screw terminal 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, while ensuring a good electrical connection.

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 four (4) 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 four bolts and four standoffs to assist users in placing/mounting the socket.

Connecting to each socket digit drive is made by inserting a wire to the appropriate screw terminal and tightening the screw to ensure a snug fit. Each terminal is marked with its digit number. See the back of this sheet for an enlarged layout of these connection points (Appendix A).

The Anode or B+ point on the board connects to the tubes Anode pin via an included resistor that is available for the user to specify its value from 15K, 24K, 33K or a wire link (0 Ohm Resistor) depending on the end use requirements.

### Caution

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.



Electro-Resales LLC

Think-Design-Make

11287 S. Lake Crest Dr.

Olathe, KS. 66061

913-544-6184

### Appendix A

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

### Questions:

Email: [steve@electroresales.com](mailto:steve@electroresales.com)

Phone: 913-544-6184 (Monday – Friday 9AM- 6PM CST)

### Connection Pattern for IN-12A/B Nixie tube



Attach wires to appropriate screw terminal