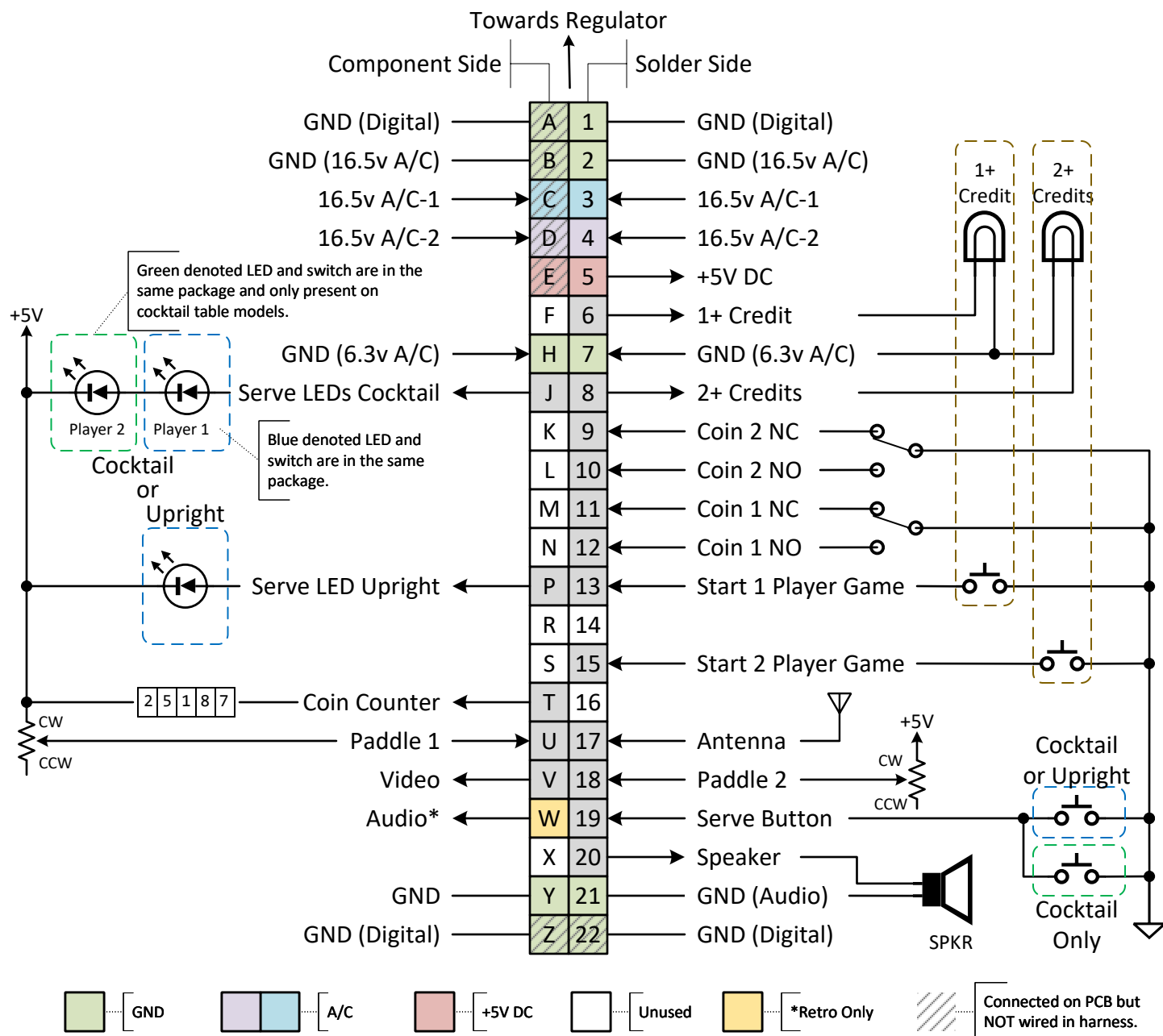


ATARI BREAKOUT 44-P CARD EDGE CONNECTOR



Notes:

- Ground pins are all tied together at some point, but are (labeled) here with the Atari schematic-documented intention. If you look at the wiring side of the connector in the cabinet, only pin [2] is wired up to the transformer center-tap. This connector finger is quite stressed (~3A), and usually burnt. My suggestion is to tie pins [A/1] & [B/2] together on the board using the holes next to the fingers, and tie pins [A/1] & [B/2] together on the connector to beef up this weak spot. Pins [1] & [2] on the connector have wires but can easily accommodate 20 or 18 gauge jumpers. Or if you are lazy, you can wrap wire around these four pins and solder together. If you have good [B/1] fingers, you should at minimum, tie these two pins together on the wiring side to improve current carrying capacity.
- The wiring harness on page 34 of the manual labels pin [T] as "GRD", but this is actually the low-level signal driven to the coin counter. The other side of the coin-counter ties to regulated +5V from the board at pin [5].
- On page 34, pin [7] is labeled as "6.3v A/C", but pins [7/H] are actually tied to GND on the board (see sheet 3). The "high" side of the incandescent bulbs in the start game switches are driven by the "high" side of the 6.3V transformer winding, while the "low" side is driven to GND by SCRs Q4 & Q5. You can also drive LEDs with these signals. Just tie the LED anodes to +5v DC thru 1K resistors, and the cathodes to the SCR outputs on pins [6] and [8]. If using LEDs you can use cheap switching transistors (e.g. 2N2222) instead of the SCRs. Just watch the leads as they are not pinout-friendly with the SCR pins. For them to attach pins [7/H] together in the harness but not pins [2/B] is beyond me.
- On the retro board we tie pin [W] thru a 0.1uF ceramic cap to the audio bus (common net of R36, 37, 38, 39, and 50). This allows us to easily attach the board to an audio input like on a composite monitor. On legacy boards, you can jumper a 0.1uF cap from the bus to pin [W] for this purpose as well.

Retro Breakout Control / Test Board SIP Header

