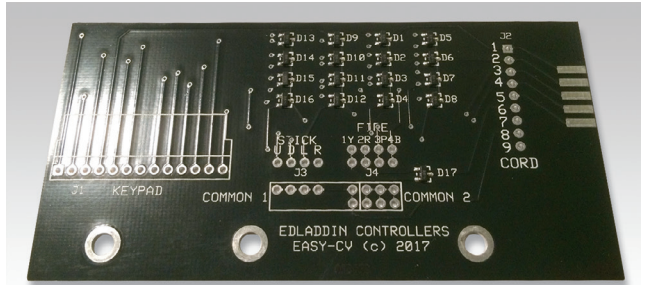




Easy CV Controller Board & Keypad

Build your own Super Action-type controller for the ColecoVision with an Easy CV controller board and 12-key membrane keypad from Edladdin. This input/output board replaces confusing harnesses and the complexity of hand-wiring the ColecoVision controller's diode array. Three mounting holes are spaced to allow the Easy CV to be directly mounted on two of the joystick's mounting bolts.



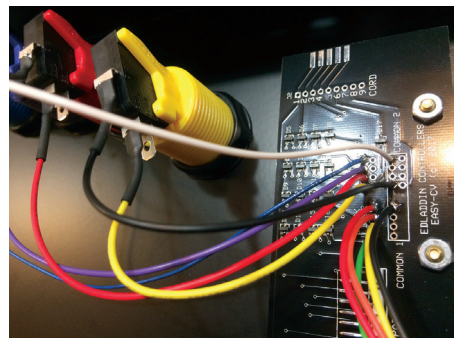
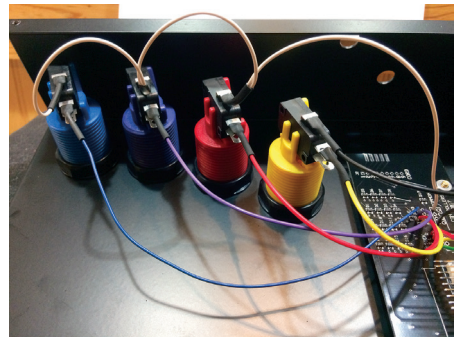
Easy CV Controller Board

Assembly

- Controls: Solder the wires from your joystick and fire buttons as indicated by the labels on the Easy CV printed circuit board under "STICK" and "FIRE". Note that solder pads are provided for two complete sets of fire buttons for ease of construction of an ambidextrous controller. **It is very important to note that the CV controller uses two common lines rather than a single ground wire.** The joystick and button 1Y share Common 1 (black wires in photos) while buttons 2R, 3P, and 4B share Common 2 (white wire in photos).

Tips:

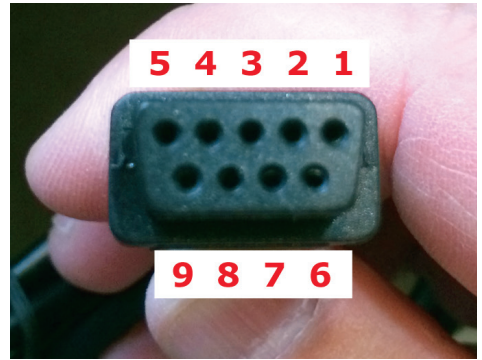
- Pre-tin the ends of all connection wires, then be sure to solder all wires to both sides of the Easy CV. Clip off any excess on the bottom of the board.
- Mounting orientation of the joystick directly impacts which leaf or micro-switch is associated with each direction. For best results:
 1. For sticks with separate connections to each switch, hold the stick in each cardinal direction while observing which switch is actually being activated.
 2. For sticks with quick disconnect connectors, hold the stick in each cardinal direction while using a multi-tester to locate the active positive wire and the ground wire.
- 1Y = left button and 2R = right button on the original pack-in CV controller. Buttons 3P and 4B drive the third (purple) and fourth (blue) buttons found on the classic Super Action Controller. The original Super Action Controller thumbwheel is not supported by the Easy CV.



DB9 Output Cable: Solder the nine wires in your DB9 cable to the numbered solder pads on the Easy CV printed circuit board labeled "CORD", matching pin/wires shown in the photo with the matching solder pads on the Easy CV.

Tips:

- Identify which wire is which by putting a pin or small wire in the #1 hole in the end of the DB9 plug, then test the other ends of the wires for continuity with a multi-tester. Repeat with 2-9. **Note: You MUST use a controller cord that actually has nine wires! A recycled CX-10/CX-40 cord only has six and will not work.**
- Pre-tin the ends of all DB9 wires, then be sure to solder all wires to both sides of the Easy CV. Clip off any excess on the bottom of the board.
- To prevent delicate DB9 cord wires from flexing and breaking, place a blob of hot glue around the junction between the nine wires and the board after all soldering *and* testing is done.



Membrane Keypad: Peel the paper backing off the keypad and stick it to the exterior of your enclosure, then feed the plug and ribbon cable into the case. Plug the membrane keypad into the 13-pin connector on the Easy CV board. Note that pins 1 and 13 are marked on both the plug and the connector. *Both numbers should be visible and matched to one another as shown below.*

Tip: The keypad ribbon cable is surprisingly delicate. Take care not to pinch or fold the ribbon lest any of the small traces be broken.

