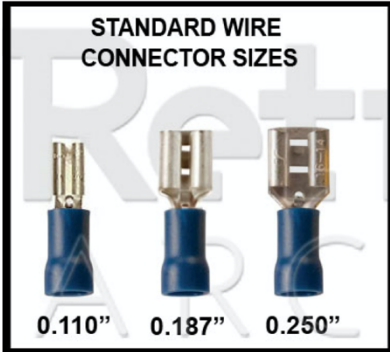


# Arcade-One.com Control Panel Hardware Guide

(Replacing cheap USB encoders with IPAC)

Connector size guide:



## PLEASE NOTE

Connector size is standard 0.110" or 0.187" for all buttons and joysticks. 0.250" is used for some LED Lamp Holders, Wiring Harnesses and Joysticks.

Please refer to the size of connector needed on each product in their descriptions, before purchasing the connection harnesses you need.

If they do not match, they do not work.

Connector sizes for the joysticks are normally 0.187" excluding Sanwa joysticks.

## DISCLAIMER

Most setups take a mixture of both sizes. There is a high possibility you will have to splice your harness to make your setup work properly.

When shopping around keep in mind that some places list to connector sizes in inches and some in millimeters. Here's how that translates:

2.8mm = .110 inches = Sanwa or Seimitsu style buttons



4.8mm = .187 inches = American (Happ/IL) style buttons/joysticks OR Seimitsu joysticks

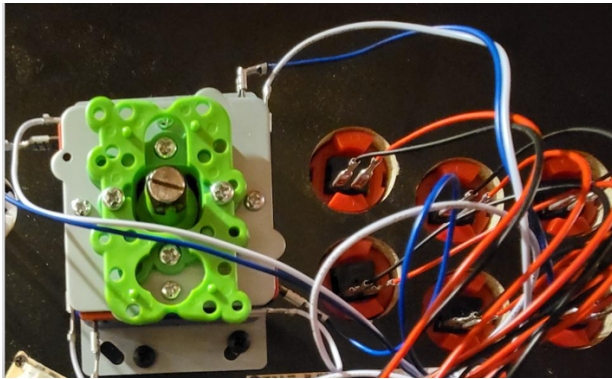


Sanwa joysticks use a 5-pin connector, there are no individual microswitches



### First step is to decide which configuration you want to go with:

1. Keep your existing joysticks and buttons (using The Arcade Guys cabinet as an example)
  - use 2.8mm/4.8mm wiring kit



2. Switch to American joysticks and buttons
  - use 4.8mm wiring kit
3. Switch to Sanwa / Seimitsu joysticks and buttons
  - All Sanwa: use 2.8mm kit
  - Sanwa joysticks w/ Seimitsu buttons: use 2.8mm kit
  - All Seimitsu: use 2.8mm/4.8mm kit
  - Seimitsu joysticks w/ Sanwa or Seimitsu buttons: use 2.8mm/4.8mm kit

Here are some places where you can buy a Sanwa 5-pin wiring harness (you will need one for each Sanwa joystick):

1. <https://www.ebay.com/itm/313557138509> - this is the best option if you're using the Mini-PAC since it includes the male quick connects that will plug right into the female quick connects included with the Mini-PAC wiring harness.
2. <https://focusattack.com/5-pin-wiring-harness/>
3. <https://www.ebay.com/itm/172143917897?epid=1462919683&hash=item281493bb49:g:7zMAAOxyLm9TDuNw>
4. <https://retroactivearcade.ca/products/xin-mo-5-pin-joystick-wiring> - if you buy this one, you will have to cut off the black plastic connectors so that the wires are exposed

### Second step is to decide which hardware to buy (based on your configuration):

#### 4 PLAYER CABINETS:

Two options you can buy:

IPAC4 **with** wiring kit from Arcade World UK:

<https://www.arcadeworlduk.com/products/i-pac-4-and-wiring-kit.html>

IPAC4 direct from [Ultimarc.com](https://www.ultimarc.com) or [T-molding.com](https://www.t-molding.com) (or anywhere else that sells it)

<https://www.ultimarc.com/control-interfaces/i-pacs/i-pac4-board/>

<https://www.arcaderenovations.com/ipac4-with-usb-cable.html>

Wiring kit from RetroActive Arcade

<https://retroactivearcade.ca/products/i-pac-4-wiring-kit-1>

## 2 PLAYER CABINETS:

Three options you can buy:

IPAC2 **with** wiring kit from Arcade World UK:

<https://www.arcadeworlduk.com/products/I-PAC-2-And-Wiring-Kit.html>

IPAC2 direct from [Ultimarc.com](https://www.ultimarc.com) or [T-molding.com](https://www.t-molding.com) (or anywhere else that sells it)

<https://www.ultimarc.com/control-interfaces/i-pacs/i-pac2/>

<https://www.arcaderenovations.com/ipac2-with-usb-cable.html>

Wiring kit from RetroActive Arcade

<https://retroactivearcade.ca/products/i-pac-2-wiring-kit-1>

Mini-PAC:

<https://www.ultimarc.com/control-interfaces/mini-pac-en/mini-pac/>

Websites that sell arcade hardware mentioned in this guide:

US Based

<https://focusattack.com>

<https://www.arcaderenovations.com>

Canada Based

<https://retroactivearcade.ca>

UK Based

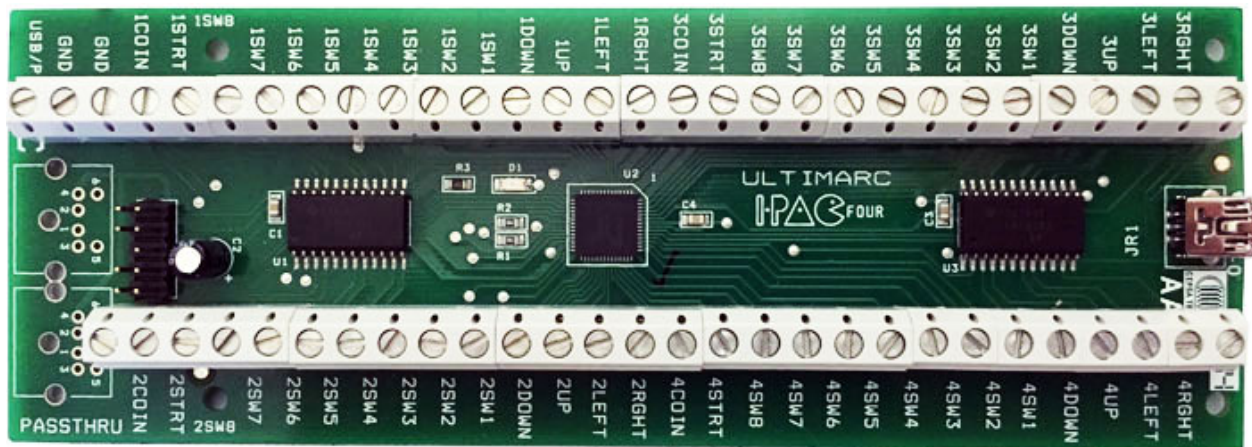
<https://www.ultimarc.com> (manufacturers of the IPAC)

<https://www.arcadeworlduk.com>



## IPAC4 WIRING GUIDE:

IPAC4 pictured for reference:



Players 1 & 2 (buttons 7 & 8 are optional), Players 3 & 4 (4 buttons each):

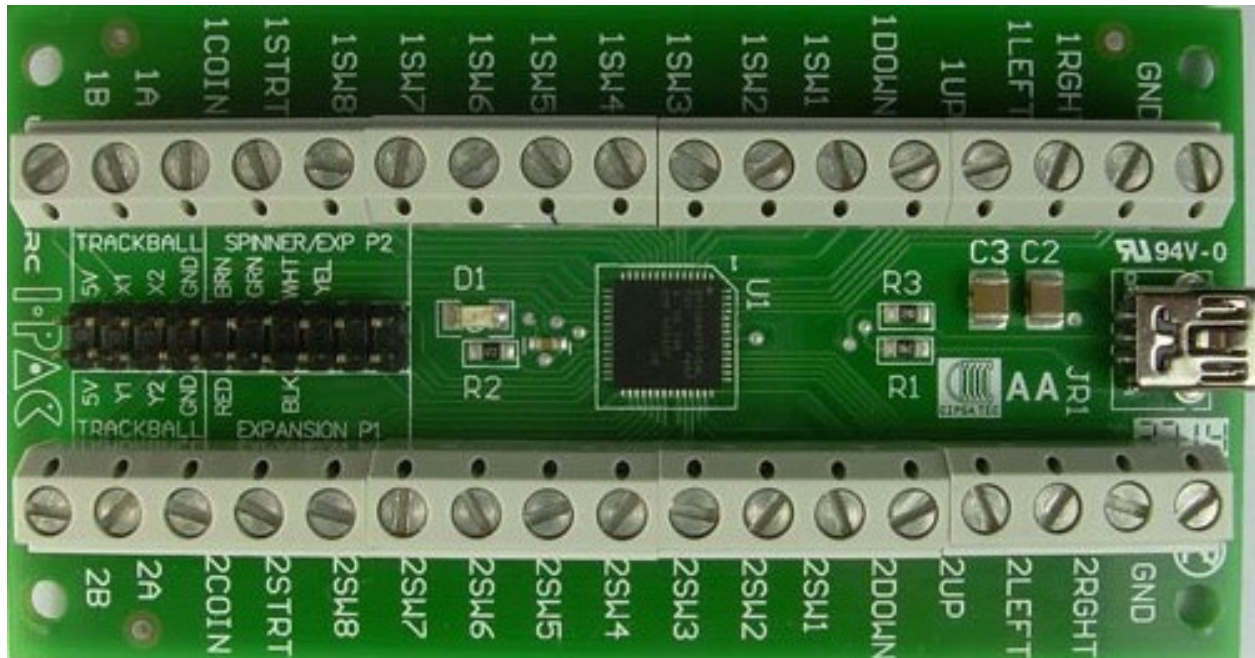


Players 1 & 2 (buttons 7 & 8 are optional), Players 3 & 4 (6 buttons each):



## IPAC2 WIRING GUIDE:

IPAC2 pictured for reference:



Players 1 & 2 (buttons 7 & 8 are optional):





## Mini-PAC WIRING GUIDE:

Mini-PAC pictured for reference (includes wiring harness):

