Overview:
The goal of the CoinUp 1UP device is to emulate what the user would do when starting an arcade game. That is:
1. Coin up the game
2. Press 1P or 2P start

The device monitors the 1P and 2P start buttons. When either of these is pressed, it sends a series of pulses to the coin input of your game PCB and then pulses the 1P or 2P signals again to start the game. This allows the user to coin-up the game, without having to open the coin door or use any additional external buttons.

Installation:
The CoinUp device is powered by, and attaches to the arcade game through the 5-pin terminal block on the right of the device. The following picture shows the pinout:

The easiest way to attach the device is to simply use the terminal block to connect it to the existing P1, P2 and coin switch terminals. Unlike the previous version of the CoinUp, the 1UP version does not require cutting into the harness for installation.*

The best location to install the device is towards the front of the cabinet where you can access the coin switch and control panel wiring. (Fig 2). However, if you wish to attach the device inside the cabinet in a specific location, you can use additional wire and connectors (small wire-nuts, butt connectors, etc) to extend the wires wherever you need them. Note that the device is designed to get its power from the pull-ups located on the game PCB that are connected to the P1, P2 and coin signals. If these pull-up resistors are strong enough, there is no need to connect the +5v terminal to the +5v power supply that powers your game. A simple way to check is to install the CoinUp without connecting the +5v terminal and power up the game. Using a voltmeter, measure across the +5v and Ground terminals of the CoinUp. If the voltage is less than +3v you should consider connecting the +5v terminal.
* (Some games have the harness soldered to the P1/P2 and coin switches. In this case, it may be necessary to splice into your harness, or simply solder on some connecting wires that will lead to the CoinUp device)
Figure 2: Typical Installation

Arcade PCB

- P1 Start
- Coin
- P2 Start
- GND

P1 Start

Coin switch

P2 Start
If you don’t want to cut into your original harness, and your game uses blade connectors to attach to the coin-switch and/or control panel buttons, then you can utilize additional blade connectors to create ‘splitters’ and tap into existing connections. (Figure 3)

**Figure 3: Blade Splitters**
Programmable DIP switch feature

The CoinUp 1UP device has an on-board DIP switch that can be used to configure some of the device features

- **SW1 - Disable device**
  - **ON**: Enable Device
  - **OFF**: Disable Device

- **SW2 - Disable X2 Coin Multiplier**
  - **ON**: 1 credit = 1P game, 2 credits = 2P game
  - **OFF**: 2 credit = 1P game, 4 credits = 2P game

- **SW3 - Disable Sega Vector support**
  - **ON**: Normal Coin pulse length
  - **OFF**: Coin pulse shortened to around 10ms