JAMMA-Prog - Game Controller JAMMA Interface



A JAMMA compatible arcade machine will have the power supply, monitor, speaker, joysticks and buttons all hooked up to a single cable harness known as a JAMMA harness. When the control panel features more than three fire buttons per player, there is usually a second, small harness known as a kick harness which carries the wires to these extra fire buttons. The purpose of this board is to be an adapter between the JAMMA/kick harness and third party controller boards such as the Brook Fighting Board series as well as hacked game pads. The RGB and audio amplifier are located another board, the SCART2ARC30, sold separately.

The joystick and button section is divided into two sides: the JAMMA side, which plugs into the JAMMA harness and the kick harness if there is one, and the controller side, which is connected to a controller board for each player. They are connect either via the terminal array or the 20 pin fighting board connectors. The JAMMA side and controller sides each have their signals routed to a strip of pins (dark red and dark blue on the diagram). To program the controls, a jumper wire is connected between the a JAMMA pin and a controller pin on the strip, this is repeated for every joystick and button signal.

In addition to being a connection adapter and programmable pin matrix, the JAMMA-Prog provides some active circuits which are handy in certain applications. The first is the start-up hold circuit. The purpose which is to activate (connect to ground) an input for a short time at power up. Many third party controller boards such as the Brook Fighting Board series and the

Akishop PS360+ require holding down a particular button on start-up to put the controller board into the desired operation mode. This can be programmed via jumper wires to done automatically, so the user does not need to remember to hold a particular fire button down when turning the console on. There are two start-up hold circuits provided (one for each player).

The second is the trigger inverter circuit. This is useful for game pad hacks which feature analog triggers. An analog trigger usually has a potentiometer connected which provides 0V in the neutral state and VCC when fully depressed. This is the opposite of a standard button which is normally pulled up to VCC and connected to ground (0V) when pushed. The trigger inverter circuit inverts the signal from the JAMMA button so it is compatible with the analog trigger input. There are four trigger inverter circuits provided, two for each player.

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