Review of the Dual Strike V2 keyboard and game controller interface

This review is being done on a Dual Strike V2 controller provided by Jochen Zurborg for independent review.

Link to Docs and Purchase/Blog

https://docs.google.com/Doc?docid=0AV5ukYTEiJk3ZGRmNGpjOG5fOGdremduZnZo&hl=en&pli=1

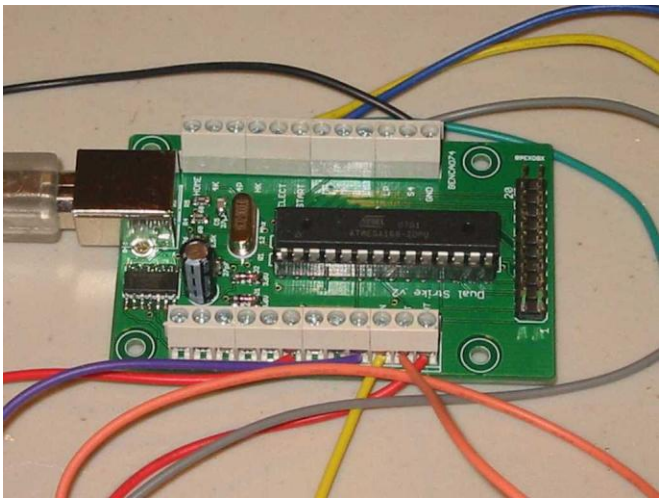
http://www.arcadeforge.de/

I received the Dual Strike V2 in a cardboard box via Canada post. The controller was well packed and protected with bubble wrap and an anti-static bag. No cable is provided so you will have to provide a standard USB A/B cable. The controller is very small and has two 12 pin terminal strips for all connections and a USB B female connector. A 20 pin header is used for a pass thru controller.

This is one controller where reading the manual is essential. I setup most keyboard controllers with only a list of keys and terminals using the default configuration but the Dual Strike is more complicated than a regular keyboard encoder due to the many options to setup for different console systems and PCs.

The Dual Strike is able to perform an auto-detect of PC (including Mac, Windows Vista/XP/2K/98, and Linux) or PS3, Xbox 1 or pass-through PCB (normally Xbox360) You can use the config program on a PC to allow the controller to automatically detect the consoles or PC or you can setup for only the ones you want.

The picture in the documentation is of earlier version of board not the V2. They warn you of this under the picture so go by markings on the board to be sure you have the right connections. The board is small and very well constructed with terminal strips for all the connections. The screws in these terminal strips require a very small Phillips screwdriver #0.



Dual Strike V2 wired and ready to go

MAME Testing

I chose to disable the automatic selection and all of the configurations except for MAME on the PC. This is because when plugging into a PC the Dual Strike can be either a game controller or a keyboard controller (MAME).

When connected to the PC the Dual Strike configured for MAME is recognized as a keyboard and the controls can be set to Player 1, Player 2 or control mode with the use of the meta key and joystick. The default is Player 1. Player 1 or 2 can also be set by the config program.

Most of the documentation refers to the buttons as LP MP HP 4P LK MK HK 4K Select Home and Start.

The button labels took me a hit of head scratching as I do not usually play fighting games. The labels are the result of the Dual Strike's evolution from fighting controllers.

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HP - Heavy Punch

MP - Medium Punch

LP - Light Punch

HK - Heavy Kick

MK - Medium Kick (not Mortal Kombat)

LK - Light Kick
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A meta key is used to switch modes and at this time to modify several buttons. Not all programmed buttons have a meta key modified output.

The direction and special inputs in the game modes are:

Dual Strike	MAME	Player 1 Keyboard	Player 2 Keyboard
Up	Up	Up	R
Right	Right	Right	G
Down	Down	Down	F
Left	Left	Left	D
Select	Coin	5	6
Start	Start	1	2
Home	Pause	P	
Meta+*LK*	Enter	Enter	
Meta+*MK*	Leave/Quit	Escape	

You can choose 1 of 4 default button layouts for the play buttons or you can alter any of them to suit your control Panel. I prefer default button layout 2 which maps my buttons as:

123

456

Default Button Layout 2

This layout is activated by pressing Meta+*LP*+*Right*.

Dual Strike	**MAME**
LK	Button 4
MK	Button 5
HK	Button 6
4K	
LP	Button 1
MP	Button 2
HP	Button 3
4P	

The standard MAME key assignments are assumed for the buttons:

MAME	**Player 1 Keyboard**	**Player 2 Keyboard**
Button 1	LCTRL	A
Button 2	LALT	S
Button 3	Space	Q
Button 4	LShift	W
Button 5	X	K
Button 6	Y	I

The Dual Strike was tested as the primary controller on my Mame test setup and as a secondary controller on my bartop to add Player 2 to the single player control panel. This only required a change from player 1 to player 2 in the config program. This change can also be done on the fly using the metakey and the joystick. When playing MAME no hesitation was noted and all controls worked well.

The Dual Strike made an excellent add on control panel for the 2nd player on my bartop. I had been using a USB joystick but using a real control panel for the second player adds a lot to the playability of the

bartop. To connect to the minipac inside the bartop would have required a 13 wire cable and connectors so the addition of a player 2 panel using the dual strike required just a usb connection.

Xbox Testing

The original Xbox uses a modified usb connection so you have to hack your own cable using a USB cable and an Xbox connector or purchase one made specially for this purpose. I used one that I had originally purchased to do a softmod on my Xbox. It has the normal Xbox controller plug in on one end and a USB port on the other.

Running Mamedox on the Xbox and using the Dual Strike was as simple as plugging it in. No controller hack is required. The Dual Strike worked as soon as it was plugged in. It was the easiest single player arcade controller that I have ever made for an Xbox.

Conclusions

The Dual Strike is a cooperative project with open source software. There are already advances being made for the software with trackball input being tested and some work on LED outputs. Software is easily updated using the configuration editor.

The circuit board is small enough to fit into a fighting stick box to add additional consoles and PCs to the stick's capabilities. This is the design path that the Dual Strike evolved from. The pass-thru connector was not tested. Its main purpose is to allow the control panel or fighting stick box to connect to a game console that does not have 3rd party support such as the Xbox 360.

I would recommend the Dual Strike for single player control panels for MAME or consoles. It is a great controller to use to build a multi console/mame control panel or fighting stick box. It is small enough to make a really compact panel/box with the use of Japanese buttons and stick. Further software upgrades will only make this controller better.