



PACTO 4000H 4 Player Arcade Cabinet Control Interfaces User Guide

[Home](#) » [PACTO](#) » PACTO 4000H 4 Player Arcade Cabinet Control Interfaces User Guide 

Contents

- [1 PACTO 4000H 4 Player Arcade Cabinet Control Interfaces](#)
- [2 Intro](#)
- [3 Wiring](#)
- [4 Connectors](#)
- [5 Typical Button Layouts](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

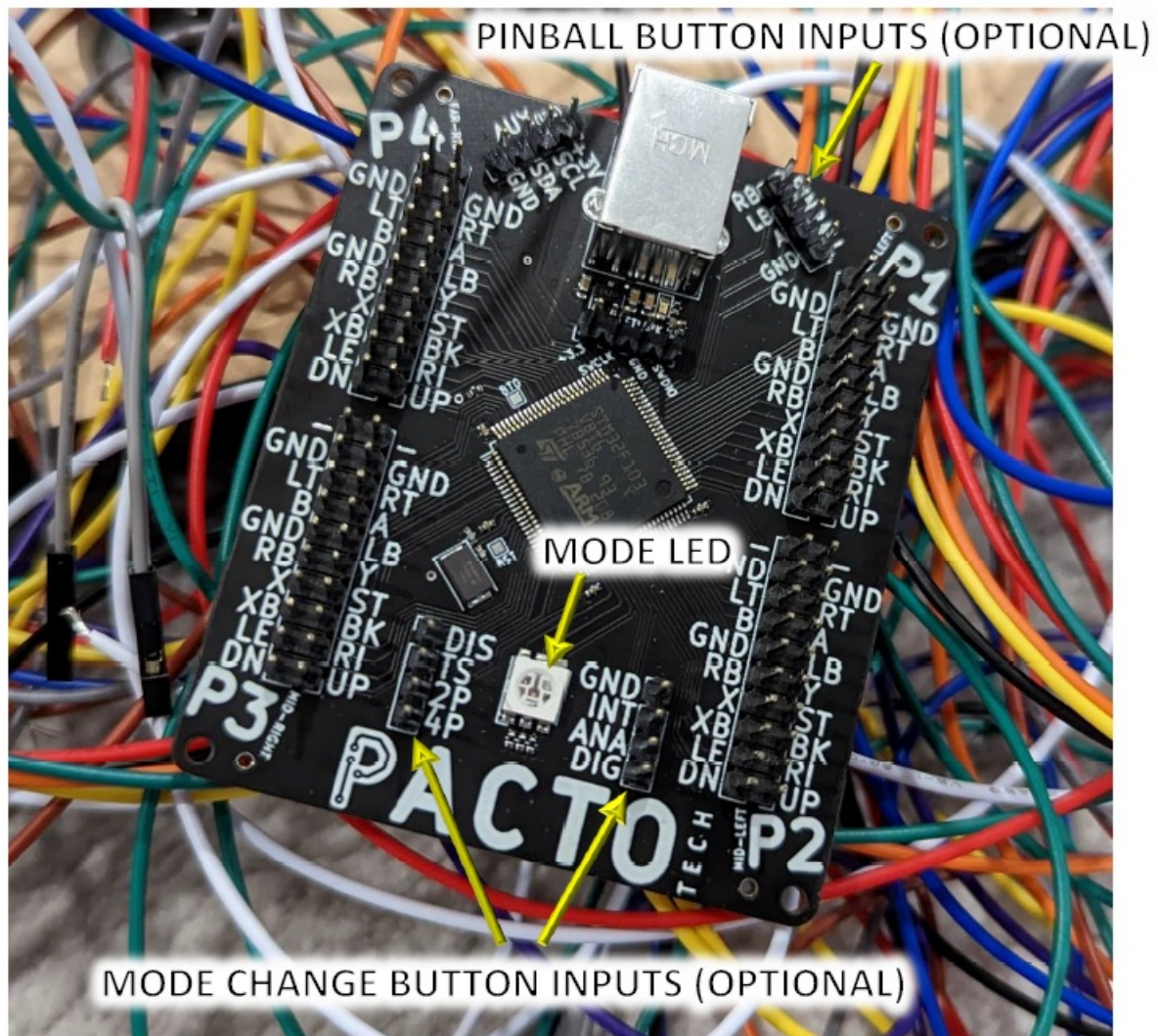
PACTO

PACTO 4000H 4 Player Arcade Cabinet Control Interfaces



Intro

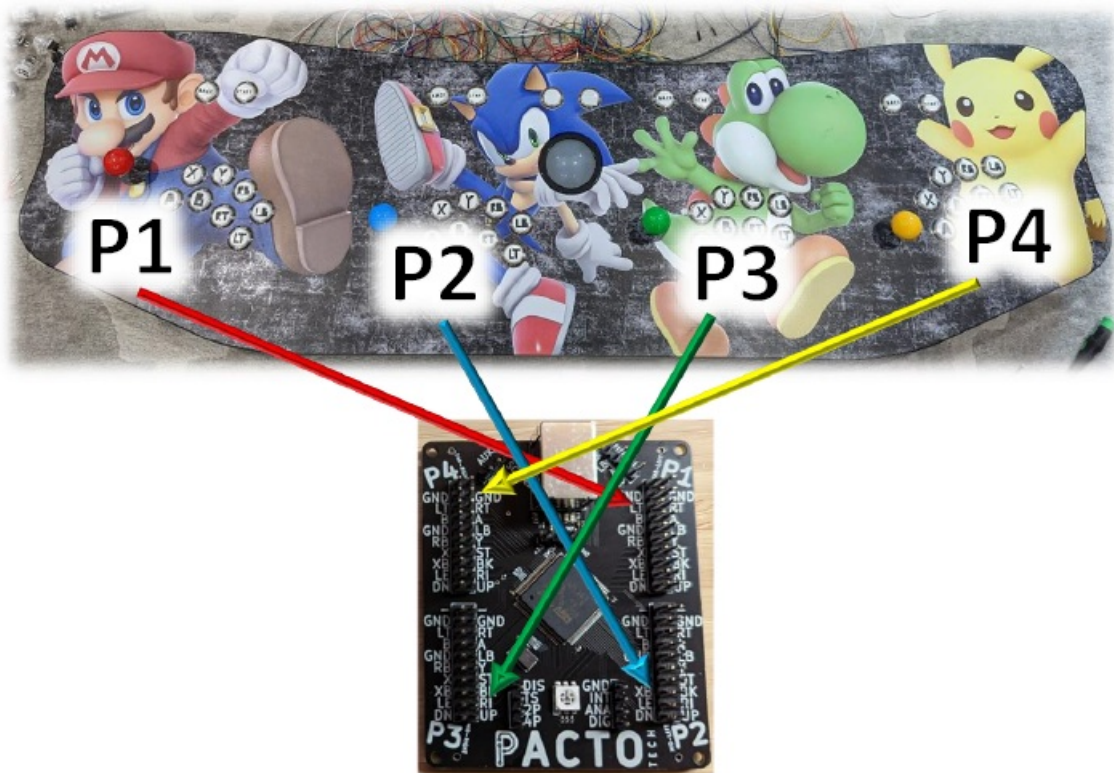
The Pacto 4000H is a 4 Player Xinput arcade control interface for arcade cabinets. When plugged into a computer, your arcade cabinet joysticks and buttons will be seen as 4 separate Xbox 360 controllers. Xinput (Xbox controller format) offers better compatibility compared to the older "direct input" or keyboard type inputs for most applications. Some newer games exclusively supply Xinput, which makes the Pacto 4000H work without additional special software or configuration. Unlike using multiple interfaces, The Pacto 4000H should always keep the players in the correct order, and also provide the option to modify the order instantly, to optimize for different games, without adjusting settings on the computer.



Wiring

All button and joystick inputs should be wired with one side to ground. The “mode” pins are optional to wire with buttons, or a permanent jumper. All modes except for interlock mode can be accessed through long-pressing various start or select buttons (refer to tables on later pages).

The buttons and joysticks should ALWAYS be wired to the interface left to right as follows:



The directions make more sense when looking at your panel upside down (the wiring will not crossover as above). The left most position is wired to the P1 inputs on the interface, and incrementing up as moving to the right as shown above. If you would prefer to keep the controls as 3,1,2,4, I would still recommend wiring as per above diagram. The default player order is 3124, which is often used for 4 player arcade cabinets. The “pinball” inputs for RB, LB and A are always mapped to player 1, unlike the others which may change position depending on the mode selected.

Description	Pin	Pin	Description
Unused	–	–	Unused
Ground	GND	GND	Ground
Left Trigger	LT	RT	Right Trigger
B Button	B	A	A Button
Ground	GND	LB	Left Shoulder
Right Shoulder	RB	Y	Y Button
X	X	ST	Start Button
Guide/Xbox Button	XB	BK	Back Button
Joystick Left	LE	RI	Joystick Right
Joystick Down	DN	UP	Joystick Up

Connectors

The Pacto 4000H uses 2.54mm header pins which are compatible with “Female Dupont 2.54mm” connectors. Custom cables can be built using a crimper with female DuPont connectors, or prefabbed cables can be found.



The board follows the same pinout as the Brook fight stick boards, and is therefore compatible with the pre-made wiring harness available. The regular brook fighting board wiring harnesses may require 2×10 male to female DuPont extension cables, but arcade express has one with 80cm cable length which should work on most cabinets with no additional length

<https://www.arcadexpress.com/en/cables-wires/736-12645-fighting-board-cable-20-pines-arnes-joystick-botones-para-placa-brook.html>

Typical Button Layouts

Button Layout

For arcade cabinets with only 6 buttons per player, the following layout is most common

X	Y	RB	LB
A	B	RT	LT

X	Y	LB
A	B	RB

This 6 button layout is strongly recommended by the CoinOps project team, and is a great choice for retro gaming. Retro arcade games are generally covered by 6 buttons for the middle positions for 2 player games, and 4 buttons on the outside positions for 4 player games. The 6/4 button layout will be adequate for the wide majority of arcade games.



Figure 1 - Example 6/4 Button Layout (Dreamcade® Vision 42)

Button Layout

For arcade cabinets with 8 buttons per player, the “fight stick” standard is a popular choice

X	Y	RB	LB
A	B	RT	LT

Many people feel overwhelmed by 8 buttons, but it does offer some convenience for console emulation (many games use RT for throttle as an example), and allows for a row of 4 buttons like the Neo-Geo arcade machines.



Figure 2 - Neo-Geo 4 Button Layout

Advanced Modes (OPTIONAL)

The Pacto 4000H has the ability to change the orders of the players using dedicated “mode” buttons, or by holding down various start or select buttons for 8 seconds. The “modes” can be completely ignored if not wanted or needed. Most games will function in the default mode. If you would like to permanently enable a mode other than the default, install a jumper from the desired mode pins to ground, otherwise they will return to default when the power is cycled.

Default Setting: 2P (2 Player Mode – 3124 player positions) AND “DIG (Digital/D-PAD Mode)”

(2 Player Mode – 3124 Player positions – DEFAULT)

This is the mode which allows players 1 and 2 to be in the middle while playing 2 player games. This is a common layout when people use a conventional encoder which cannot be reordered on the fly, where 4 player orders might be fixed on the software side instead.

Player 3	Player 1	Player 2	Player 4
----------	----------	----------	----------

(4 Player Mode – 1234 Player positions)

player mode makes the left-most player 1, left of center 2, right of center 3, and right-most player 4. This layout works well with default layouts for 4 player games.

Player 1	Player 2	Player 3	Player 4
----------	----------	----------	----------

TS (Twinstick Mode)

Play MAME Twinstick games with default controller mappings for Xbox controllers, or have some fun with flying games or first person shooters! This is a completely unique feature for this encoder which combines all 4 joysticks and buttons to behave as 2 Xbox controllers. The player 1 and 2 joysticks on the cabinet will behave as player 1 left and right stick. The player 3 and 4 joysticks on the cabinet will behave as player 2 left and right joystick. Player 1 can use buttons from player 1 or 2, and Player 2 can use buttons from players 3 or 4.

Joystick = Player 1 Left Stick	Joystick = Player 1 Right Stick	Joystick = Player 2 Left Stick	Joystick = Player 2 Right Stick
Buttons = Player 1 Buttons	Buttons = Player 1 Buttons	Buttons = Player 2 Buttons	Buttons = Player 2 Buttons



Twinstick mode provide 0-100% direction control instantly when in “DIG” mode, and provides slow/smoothed input ramping in “ANA” mode. “DIG” mode will almost always be more appropriate for arcade games, but the analog smoothing could make for unique first-person shooter or flying game play.

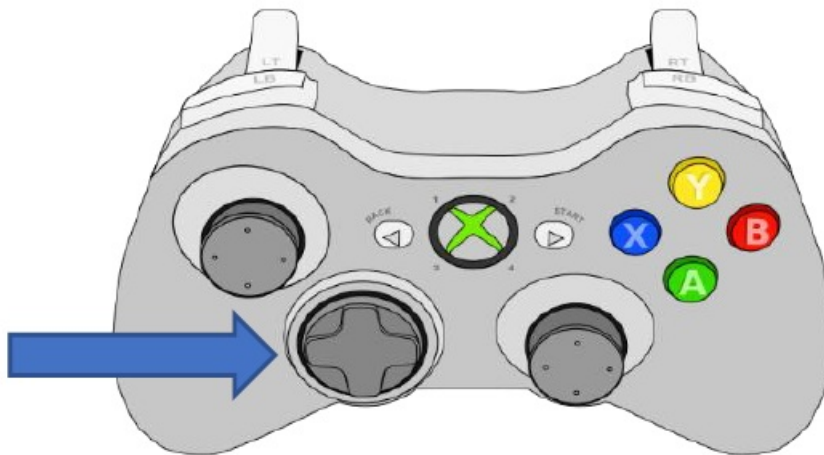
INT (Interlock Start/Back)

Interlock mode helps avoid accidentally exiting games by pressing start and select at the same time (a common shortcut used for MAME/CoinOps/Hyperspin). Start and select must be held together for 2 seconds before being sent at the same time.

Jumper “INT” pin to ground to activate. Unlike every other mode, it is simply enabled or disabled by a jumper, and does not stay activated when momentarily pressed. This mode is recommended for CoinOps, Hyperspin or RetroFE users.

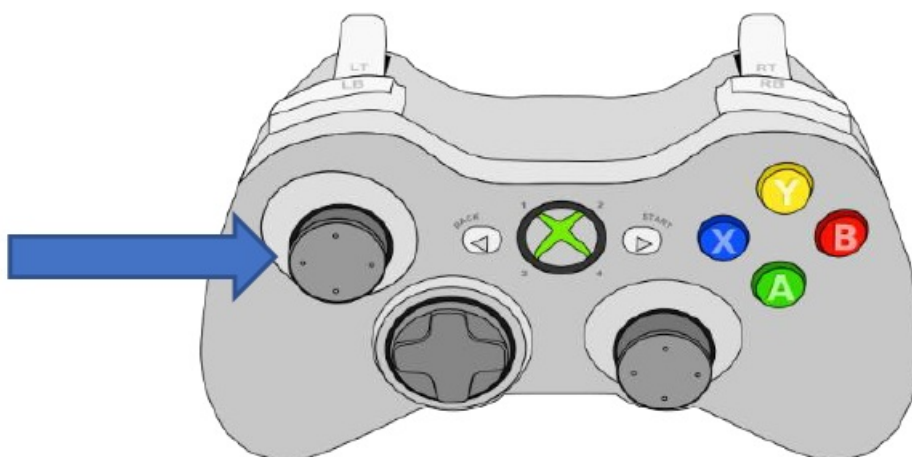
DIG (Digital/D-PAD Mode – DEFAULT)

Joystick inputs are sent to the computer as d-pad controls from an Xbox controller. This is the default setting, and will work with most games and emulators.



ANG (Analog/Left-Stick Mode)

This mode outputs joystick direction to the PC as analog left stick. The outputs in analog mode are also slowly increased from 0 to 100% over time, and slowly reduced back to 0% when released. This is intended to make driving games or other which require sensitive inputs easier. This mode can be accessed by pressing a button wired to the “ANG” input, or by using button shortcuts (refer to table).



DIS (Disconnect Mode)

Completely removes the Xbox control interfaces from the computer to allow other controllers like wireless Xbox controllers to be used to play games, without needing to physically unplug anything. Plug your wireless Xbox dongle plugged into the PC, and power up your controllers AFTER entering disconnect mode. Switching back to any other mode will reenables the USB interface. After reenabling, it can take up to 30 seconds for the Xbox

interfaces to reappear. To use the arcade controls again, turn off the wireless gamepads, or unplug the dongle to release the low player positions.

Table 1 – Mode Selection Shortcuts

Shortcut Button (hold 8 sec.)	Modes Enabled
Player 2 Back	2 Player Mode (3124) + Analog
Player 2 Start	2 Player Mode (3124) + D-pad (DEFAULT)
Player 3 Back	Twin Stick Mode + Analog
Player 3 Start	Twin Stick Mode + D-pad
Player 4 Back	4 Player Mode (1234) + Analog
Player 4 Start	4 Player Mode (1234) + D-pad
Player 1 Back AND Player 2 Back	Disconnect Mode (Return to any other mode to reconnect)



Table 2 – Dedicated Mode Selection Input Pins

Dedicated Input Pin	Modes Enabled
INT (need permanent jumper)	Start/Back Interlock (delay 3 sec. before sending both)
DIG	Digital/D-pad output (DEFAULT)
ANG	Left Stick/Analog output (with slow ramp – works in all 3 modes)
4P	4 Player Mode (1234)
2P	2 Player Mode (3124) (DEFAULT)
TS	Twinstick Mode (1LS 1RS 2LS 2RS)
DIS (hold 3 seconds)	Disconnect Mode (Return to any other mode to reconnect)

Table 3 – Status LED Patterns

Status LED	Modes Enabled
Solid Color	Digital/D-pad output (DEFAULT)
Blinking Color	Left Stick/Analog output (with slow ramp – works in all 3 modes)
Green	4 Player Mode (1234)
Blue	2 Player Mode (3124) (DEFAULT)
Purple	Twinstick Mode (1LS 1RS 2LS 2RS)
Red	Disconnect Mode (Return to any other mode to reconnect)

Documents / Resources

	<p>PACTO 4000H 4 Player Arcade Cabinet Control Interfaces [pdf] User Guide</p> <p>4000H 4 Player Arcade Cabinet Control Interfaces, 4000H, 4 Player Arcade Cabinet Control Interfaces, Arcade Cabinet Control Interfaces, Control Interfaces, Interfaces</p>
	<p>PACTO 4000H 4 Player Arcade Cabinet Control Interfaces [pdf] User Guide</p> <p>4000H 4 Player Arcade Cabinet Control Interfaces, 4000H, 4000H Arcade Cabinet Control Interfaces, 4 Player Arcade Cabinet Control Interfaces, Arcade Cabinet Control Interfaces, Arcade Cabinet Control</p>

References

- [📌 Cable 20 pin Joystick Harness Joystick Buttons Brook Universal Fighting Board - Arcade Express S.L.](#)