



Wireless Controller Adapter For NEO·GEO Consoles



PS3



PS4



PS5



XBOX
ONE S



XBOX
SERIES X/S



SWITCH
JOYCON



SWITCH
PRO



WII U



8BITDO



RETRO-BIT



COMPATIBILITY

NEO·GEO MVS / AES / CD / CDZ / SuperGun

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BlueRetro

This device is a wireless controller adapter for NEO·GEO Consoles.
Compatible with the best-selling Bluetooth controllers on the market.

Based on the open source project [\[darthcloud\]](https://github.com/darthcloud)
(<https://github.com/darthcloud/BlueRetro>), Built using the powerful
ESP32 chip.

Supports PS3 / PS4 / PS5 / Xbox One S / Xbox Series X|S / Wii / Wii U Pro
/ Switch Pro / Switch Joycon / 8bitdo / Retro-Bit Wireless Controller, etc.



Retroscaler Github



Darthcloud Github

Features

- 1) Only suitable for **NEO·GEO** consoles.
- 2) Supports firmware updates.
- 3) Almost zero latency, the PS4 & PS5 controller less than 6ms of latency using blueretro.
- 4) Compatible with PS3 / PS4 / PS5/Xbox One S/Xbox Series XS / Wii / Wii U Pro / Switch Pro/Switch Joycon / 8bitdo / Retro-Bit Wireless Controller and Bluetooth mouse, keyboard devices.
- 5) Connect via Web Bluetooth at <https://blueretro.io> to configure adapter(Supported only in Windows/MacOS/Android Chrome).

Instructions

Button Usage

- "BOOT" Button:
 - Under < 3 sec hold: Disconnect all Bluetooth devices.
 - 10 sec holds: Restore to default configurations and clear BT pairing keys.



LED Status

- "RED LED" FULLY ON: Bluetooth failure
- "PURPLE LED" Pulsing: Searching wireless controller
- "BLUE LED" FULLY ON: Bluetooth connected successfully

Pairing with PS4 or PS5 controller

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Hold down "Share" button (PS4) or "Create" button (PS5) and "PS" button of the controller simultaneously until the light bar flash blink.



Press and hold "Share" or "Create" & "PS" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE LED fully on.
- 2) For PS4 or PS5 controller: The light bar fully on.



Reconnect

Simply hold down the "PS" button on the PS4 or PS5 controller until the Bluetooth function is activated. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Xbox One S, Series X|S controller

As of v1.2.1 the minimum required Xbox FW for controller are:

Xbox One S: 4.8.1923.0 Adaptive: 4.5.1680.0 Series X|S: 5.9.2709.0

Update via the [Xbox accessories Win10 app](#).

(<https://apps.microsoft.com/store/detail/9NBLGGH30XJ3?hl=en-us&gl=US>)

For details of the update procedure, please visit on:

(<https://support.xbox.com/en-US/help/hardware-network/controller/update-xbox-wireless-controller>)

**Note: The adapter does not support
Xbox One 1st Gen Controller**



Not Support

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Power on controller via "Xbox" button and then hold the black "SYNC" button until the LED of "Xbox" button flash rapidly.



Press and hold
Black "SYNC" BUTTON
(Bluetooth Inquiry
Mode Enable)

Successful pairing

- 1) For BlueRetro adapter:
The "SYNC" BLUE LED fully on.
- 2) For Xbox One S, Series X|S
& Adaptive controller:
The LED of "Xbox" button
comes to constant.

LED FULLY ON



Reconnect

Simply hold down the "Xbox" button on the controller to power on. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Wii & WiiU Pro controller

First pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Press red "SYNC" button, then the four lights flash.
- 3) LEDs will stop blinking on controller once pairing is complete.



"SYNC" BUTTON



Press and hold red "SYNC" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter:
The "SYNC" BLUE LED fully on.
- 2) For Wii & WiiU Pro controller:
The first light fully on.



LED FULLY ON

Reconnect

Simply press power button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with Switch Pro & Joycon

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Press and hold the "SYNC" BUTTON on the top of the gamepad until the indicator on the underside of the pad starts flashing back and forth.



Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE LED fully on.
- 2) For Switch Pro & Joycon controller: The first light on the left fully on.



Reconnect

Simply press any button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with 8bitdo controller

Note: This adapter is only compatible with 8bitdo controllers that have Bluetooth functionality. Before use, please ensure that your controller supports Bluetooth. The **8bitdo Pro2** controller was used as an example in this manual.

For details of the update procedure, please visit on:
(<https://support.8bitdo.com/firmware-updater.html>)

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Power up 8bitdo controller in Xinput mode, then LED 1 will start to blink. ("Start + X" button or set switch to X) (Only supported in Xinput mode!).

Set switch to X
(Turn on Xinput mode)



- 3) Press and hold "SYNC" BUTTON until LED starts flashing back and forth.



Press and hold "SYNC" BUTTON
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE LED fully on.
- 2) For 8bitdo controller: The first light on the left fully on.
- 3) Press A buttons a few times to make sure joystick center value is properly init.



Reconnect

Simply press start button on the controller. Then it will reconnect to BlueRetro adapter automatically.

D-pad as Joystick or D-pad configuration

Most 8bitdo controllers are configured to have the D-pad emulate a joystick by default. In most case for BlueRetro you will want to configure it as a d-pad.

See [8bitdo support page FAQs for each controller](https://support.8bitdo.com/) for more info.
<https://support.8bitdo.com/>

8bitdo S30 Modkit: Hold Up + L + R for 5 seconds

8bitdo N30 Modkit: Hold Up + Select for 5 seconds

8bitdo M30 Bluetooth: Hold Up + Select for 5 seconds

Pairing with Retro-Bit controller

Note: This adapter is only compatible with retro-bit controllers that have Bluetooth functionality. Before use, please ensure that your controller supports Bluetooth. The **retro-bit saturn** controller was used as an example in this manual.

First time pairing

- 1) Boot up BlueRetro and make sure adapter is in inquiry mode ("SYNC" PURPLE LED pulsing).
- 2) Power up Retro-Bit controller in Xinput mode ("Home + X"), then LED starts flashing back and forth. **(Only supported in Xinput mode!)**.



Press and hold "HOME+X" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE LED fully on.
- 2) For Retro-Bit controller: The LED fully on.



Reconnect

Simply press "Home" button on the controller. Then it will reconnect to BlueRetro adapter automatically.

Pairing with PS3 controller

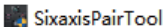
Note: Only official PS3 controllers are supported.

First time pairing

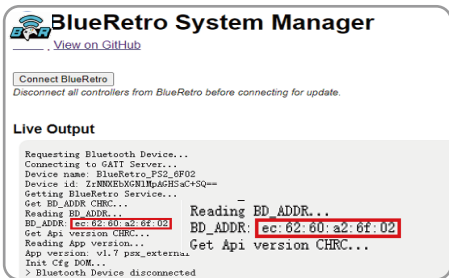
Windows

- 1) Download and install [Sixaxis Pair Tool](https://sixaxispairtool.en.lo4d.com/windows).

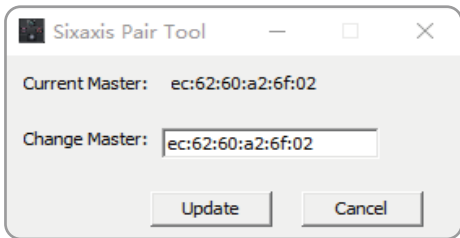
(<https://sixaxispairtool.en.lo4d.com/windows>)



- 2) Connect the BlueRetro adapter to PC or phone to get BD ADDR (MAC address). (Make sure your converter is plugged into the console or connected to the USB cable for power)
 - Open (<https://blueretro.io/>) in a chrome web browser. (Windows PC)
 - Navigate to "BlueRetro System Manager".
 - Click on "Connect BlueRetro".
(Make sure your PC had built-in Bluetooth compatibility or a Bluetooth dongle plugged in.)
 - The BD ADDR of your BlueRetro will be displayed when connected. Write it down.



- 3) Use USB cable to connect your PS3 controller to PC .
- 4) Launch Sixaxis pair tool and enter BD ADDR into the Change Master.
- 5) Click update. (Once the update is complete the controller can be disconnected from the PC.)



- 6) Insert your BlueRetro adapter into your console to boot up BlueRetro. (Make sure adapter is in inquiry mode ("SYNC" LED pulsing)).
- 7) Hold down the "PS" button on your controller until the four red lights on top of the DualShock 3 flashing.



Press and hold the "PS" button
(Bluetooth Inquiry Mode Enable)

Successful pairing

- 1) For BlueRetro adapter: The "SYNC" BLUE.
- 2) For PS3 controller: The four red lights on top of the DualShock 3 fully on.



Reconnect

Simply hold down the "PS" button on the PS3 controller until the Bluetooth function is activated. Then it will reconnect to BlueRetro adapter automatically.

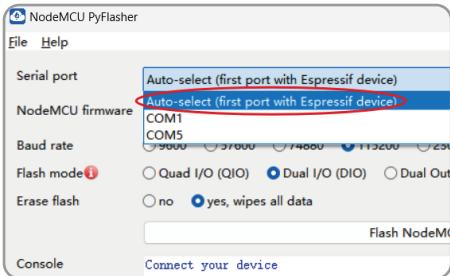
Firmware update

- 1) Download the [NodeMCU-PyFlasher](https://github.com/RetroScaler/blueretro-neogeo) and [Blueretro firmware](https://github.com/RetroScaler/blueretro-neogeo).
(<https://github.com/RetroScaler/blueretro-neogeo>)
- 2) Execute NodeMCU-PyFlasher.exe .

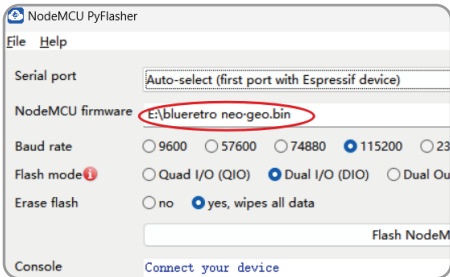


GitHub

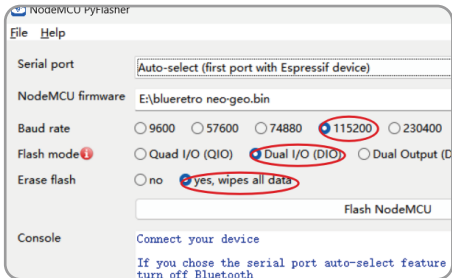
- 3) Connect the Blueretro to your computer using a typec cable, Select 'Serial port'



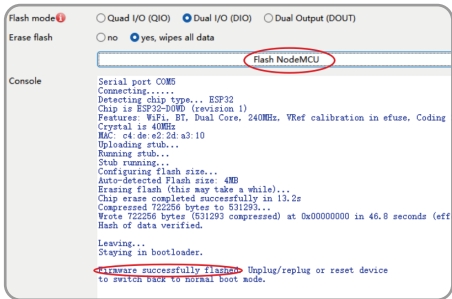
- 4) Select the latest firmware



- 5) Set [Baud rate:115200] [Flash mode:Dual I/O(DIO)]
[Erase flash: yes,wipes all data]



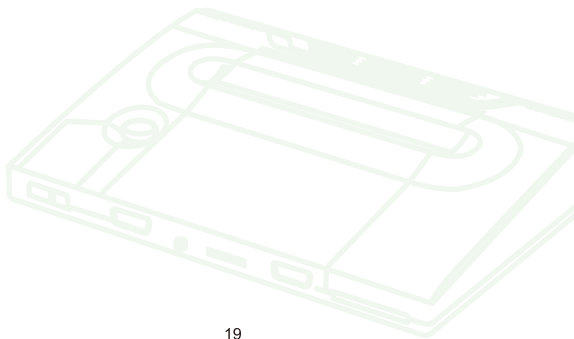
- 6) Click [Flash NodeMCU], wait the firmware successfully flashed



Buttons mapping reference

NeoGeo (Parallel 1P)	PS3	PS4/PS5	Xbox One S/XS	Switch Joycon
	Left stick left	Left stick left	Left stick left	Stick left (H)
	Left stick right	Left stick right	Left stick right	Stick right (H)
	Left stick down	Left stick down	Left stick down	Stick down (H)
	Left stick up	Left stick up	Left stick up	Stick up (H)
	Right stick left	Right stick left	Right stick left	
	Right stick right	Right stick right	Right stick right	
	Right stick down	Right stick down	Right stick down	
	Right stick up	Right stick up	Right stick up	
D-pad left	D-pad left	D-pad left	D-pad left	
D-pad right	D-pad right	D-pad right	D-pad right	
D-pad down	D-pad down	D-pad down	D-pad down	
D-pad up	D-pad up	D-pad up	D-pad up	
C	Square	Square	X	B D-pad up
B	Circle	Circle	B	X D-pad down
A	X	X	A	A D-pad left
D	Triangle	Triangle	Y	Y D-pad right
Start	Start	Options	Menu	*+* Capture
Select	Select	Share	View	*.- Home
Extra	PS	PS	Xbox	
		touchpad	Share	
6	L2	L2	LT	SL
6	L1	L1	LB	L R
	L3	L3	Left stick	Stick click
Credit	R2	R2	RT	SR
Credit	R1	R1	RB	ZL ZR
	R3	R3	Right stick	

NeoGeo (Parallel 1P)	Switch Pro	WiiU	8bitdo Pro2	Retro-bit Saturn
	Left stick left	Left stick left	Left stick left	
	Left stick right	Left stick right	Left stick right	
	Left stick down	Left stick down	Left stick down	
	Left stick up	Left stick up	Left stick up	
	Right stick left	Right stick left	Right stick left	
	Right stick right	Right stick right	Right stick right	
	Right stick down	Right stick down	Right stick down	
	Right stick up	Right stick up	Right stick up	
D-pad left	D-pad left	D-pad left	D-pad left	D-pad left
D-pad right	D-pad right	D-pad right	D-pad right	D-pad right
D-pad down	D-pad down	D-pad down	D-pad down	D-pad down
D-pad up	D-pad up	D-pad up	D-pad up	D-pad up
C	Y	Y	Y	A
B	A	A	A	C
A	B	B	B	B
D	X	X	X	Y
Start	"+"	"+"	Start	Start
Select	"."	"."	Select	Select
Extra	Home	Home	Home	Home
	Capture	Capture		
6	ZL	ZL	L2	L
6	L	L	L	X
	Left stick	Left stick	L Stick	
Credit	ZR	ZR	R2	R
Credit	R	R	R	Z
	Right stick	Right stick	R Stick	





RetroScaler



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