

LightGunVerter Instructions

Connecting

You will need

- LightGunVerter
- A LightGunVerter Cable
- USB Mini Cable
- USB Power Adapter or Powerbank (Not Supplied)
- A Wiimote (Not Supplied)
- A composite RCA cable (Not Supplied)

One end of your LightGunVerter cable should be plugged into the *Player 1* port.

The composite video output from your console should be connected to *Video In*.

The RCA cable should connect from *Video Out* to your TV input.

USB power should be supplied to the mini USB socket on the rear on the LightGunVerter. (Note using a PC/laptop to power LightGunVerter is **not** recommended).

If your cable is universal...

- Attach the LED end to the barrel of your light gun so the light shines into the barrel. Blu-Tac is good for holding in the LED in place. Use the Blu-Tac to make a seal so no other light can enter.

If your cable is console specific...

- Attach the other end to your console. Note NES needs light guns plugging into the second controller port

It is recommended you place the LightGunVerter centrally under your TV, with the front pointing towards where you will sit. This is because the LEDs on the front of the box function similarly to a Wii sensor bar. If this is inconvenient a battery powered Wii sensor bar can be used but for the time being please cover up one end (this will be improved in the future).

Basic Usage

- Turn on your console
- Turn on your TV
- Apply power to the LightGunVerter
- You should see the LightGunVerter logo followed by an overlay showing 1+2
- Press the 1 and 2 buttons on the Wiimote down simultaneously
 - This should sync the Wiimote and go on to the next step
 - If you are having issues try pressing the Sync button under the battery cover of the Wiimote. This is needed for newer Wiimotes don't function properly with temporary pairing
- The next display should ask what cable you are using
 - Use the D-Pad on the Wiimote to select a cable type
 - If you are using the **universal cable** then select *Universal*
 - Otherwise select the console you are using
- Press A to register your selection
- You should now see a cursor if you aim at the screen

If your cable is universal...

- Aim at the screen with the Wiimote but pull the trigger on your light gun

If your cable is console specific...

- Use the Wiimote's B button (trigger) to shoot. Also A button for Start if using Sega Saturn cable

The hit point should be under the cursor for most games. If not use then use the in game calibration (if there is one) or use the options in the configuration menu

Configuration Menu

Pressing the Home button on a synced Wiimote will open the configuration menu.

Use the D-Pad to move around the menu and make changes. Pressing the Home button again will exit the menu.

The basic options are...

- Cursor Size
 - Four options. Off, Small, Medium and Large
 - Controls the size of the displayed cursor or turns it off completely (for calibrated mode)
- Cursor Color
 - Three options: Dim, Medium, Bright
 - Controls the brightness of the cursor. Use what's most visible for the game
- 2 Player
 - Two options: Co-op and Versus
 - In versus mode if you sync two Wiimotes the first Wiimote to sync controls the cable plugged into the Player 1 port and the second the Player 2 port
 - In Co-op mode both players control the Player 1 port. Whenever the B button is pressed that player will take control of where the console thinks the gun is pointing. This way single player games can be played as rudimentary two player games (for example 2 player Duck Hunt)

The advance options are...

- Delay
 - Controls how far to the right of the cursor the shot will land. Adjust if the hit point is to the left or right of the cursor.
 - Technical details
 - Setting is in microseconds. Controls the delay between the console displaying the point of the line the cursor is on and when the signal should be sent to the console. Needed as all lightguns had some level of delay before registering they had seen the flash from the TV
- Line Delay
 - Controls the vertical offset of the hit point. Adjust if the hit point is above or below the cursor. This is less likely than having to change *Delay*.
- White Level
 - Off or a voltage level
 - Controls what brightness is considered bright enough to be detected by a lightgun
 - Some systems (almost all but NES) don't try to detect dark frames so this can be left in the *Off* setting which improves reliability. Otherwise tweak until it works (should be around 1.3V)
- IO Type
 - Five options: Out AB, Out BA, Inv AB, Inv BA, Serial
 - Controls what signals get's sent through the player ports
 - The LightGunVerter player ports have two digital IO lines. These are normally connected to the A and B buttons on the Wiimote. *AB* and *BA* options allow these to be switched around
 - The *Inv* options invert the signal (active high)
 - Serial is for future "smart" cables and sends Wiimote data out as serial data

Final option is *Start Calibration*. This allows you to try and achieve a one to one mapping if you have mounted the Wiimote to your light gun (for instance using this [Zapper bracket](#)) . Pressing A on this menu item starts the calibration process. It will say *Aim + A* and show a spot. Point the gun at the spot and press A on the Wiimote. If successful another spot will appear. Repeat for each corner and you will be back in play mode with a one to one mapping. Note: The Wiimote has rather a narrow field of view so if the corners aren't detected try moving further back.

After calibrating if you want to go back to full scale, choose the *Start Calibration* option again but instead of going through the procedure press the Home button on the Wiimote to exit the process. This will remove the calibration.