ACT LABS PC USB Light Gun Manual

Introduction

Congratulations on your choice of the ACT LABS PC USB Light Gun. The ACT LABS PC USB Light Gun is designed to enable a new level of reality for the PC shooting game experience. Providing pixel cluster accuracy, the ACT LABS PC USB Light Gun is the ultimate for on-target action on the PC.

Components

1 - ACT LABS PC Light Gun
1 - Adaptor box
(No CD-ROM is required)

Controls and Features

Adaptor Box
The adaptor box is the heart of the system. It contains the "brain" of the unit and has the connections for both the USB and video interfaces to the computer.

On one end of the main unit is the connector female 15-pin VGA connector for the monitor, a 9-pin mini-din female connector can be found on the other end for the light gun to plug into. The cables coming from the main unit have a 15-pin male VGA connector for the video card and a smaller USB connector for the USB port.

Gun Unit
The light gun has three buttons and one switch. Button 1 is the trigger while Button 2 is the reload located at the back of the gun and is accessible with the thumb. Button 3 has the same function as Button 2 which can be found on the right side of the gun. The Mode switch located on the left side of the gun is to be used for calibration purposes (covered later in this manual).

Important Notice: ACT Labs has two versions of the PC USB Light Gun available. The following table summarizes the differences:

	Original (one-player) PC USB Light Gun	**PC USB Light Gun Two Player**
Mode Switch	No silkscreening with two modes: • Light gun mode • Calibration mode	Silkscreening with three modes: • 2 – Two-player mode • 1 – One-player mode • C – Calibration mode
VGA Box	Regular VGA box	Two Player VGA box marked "2-Player Light Gun Adapter"
Games with two players	Yes, but only when combined with a second PC USB Light Gun Two Player unit	Yes, in two ways: Add Original PC USB Light Gun unit. or Add second PC USB Light Gun Two Player unit

Hardware Installation

IMPORTANT: Make sure that the mode switch on the left side of the light gun is in the default middle position.

The ACT LABS PC USB Light Gun connects to your PC via USB port and the VGA video output.

With the power to the PC turned off, make the connections as follows:

1. Connect the ACT LABS PC Light Gun to the 9-pin female mini-din jack on the adaptor box.

2. Plug the smaller USB cable into a free USB port on the back of your computer (or USB hub if you have one).

3. Unplug your monitor's cable from the PC and plug it into the 15-pin female VGA output jack mounted on the adaptor box. Connect the VGA plug of the cable from the adaptor box to the video card's 15-pin female VGA output jack.

4. Finally, turn on your PC.

How to setup two PC USB Light Guns (applies to PC USB Light Gun Two-Player version only, please refer to "Button Layout" for 1st and 2nd player configurations):

To connect 2 PC USB Light Guns to one PC, they will need to be connected serially as follows:
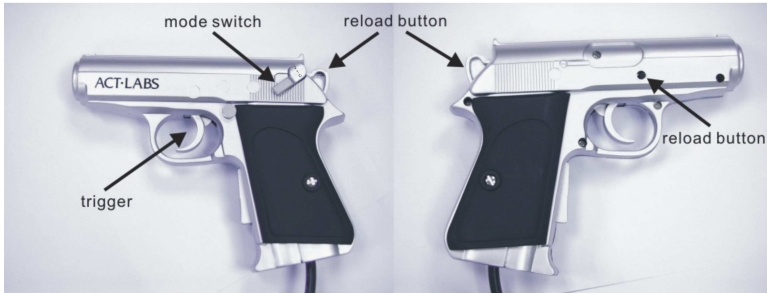1. Connect the 1st light gun's male VGA connection to the PC's VGA port.
2. Connect the 2nd light gun's male VGA connection to the 1st light gun's female VGA connection.
3. Connect the 2nd light gun's remaining VGA connection to the monitor's VGA cable.
4. Finally, connect both gun's USB connection to a individual USB port to the PC.

There are two ways to play with two players:

	Unit 1	Unit 2
Method 1:	Original(one-player) PC USB Light Gun	Two Player unit
	• Set Mode switch at light gun setting	• Set Mode switch at "2" – Two-player mode
Method 2:	Two Player unit	Two Player unit
	• Set Mode switch at "1" – One-player mode	• Set Mode switch at "2" – Two-player mode

Button Layout

The trigger button, when pulled, moves the cursor to where the light gun is pointed on the Monitor's screen. It acts exactly like a left mouse button. The trigger button will cause the Monitor to flash white. This is required for the light gun to determine its position on the Monitor and cannot be avoided. The reload button is at the back and on the right of the light gun. It acts exactly like a right mouse button. Reloading can also be done by shooting the light gun away from the screen. This reload button can be re-mapped for other functions depending on the game.

A 3-position mode switch is located on the left side of the light gun. There are three modes available: calibration mode, one-player mode and two-player mode. The calibration mode (bottom position) is for learning the resolution and refresh rate of the Monitor. It will make the light gun shots more accurate.

Note for Original(One-player) PC USB Light Gun units only:
Only a 2-position mode switch is located on the left side of the light gun and does not have the two-player mode. It switches between calibration mode and light gun mode. Calibration mode is in the bottom position and the light gun (one-player) mode is in the upper position.

The one-player mode (middle position) is the default mode. This mode lets you play with the light gun as a single player. In one-player mode, the trigger acts as mouse button 1 (Left Mouse button) and reload as mouse button 2 (Right Mouse button).
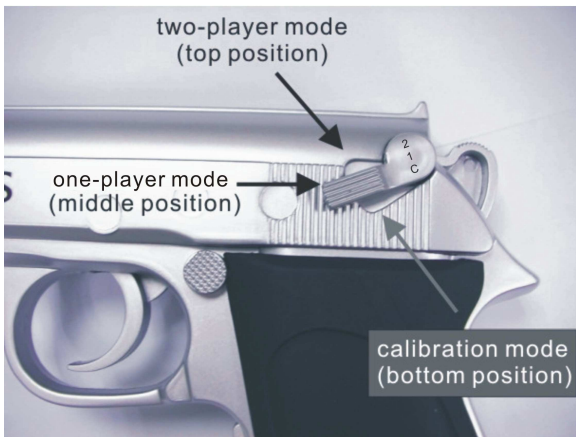
The two-player mode (top position) lets you play as a second player in games that support the ACT LABS PC USB Light Gun two player mode. In this mode, the trigger button acts like the 3rd mouse button while the reload button acts like the 4th mouse button.
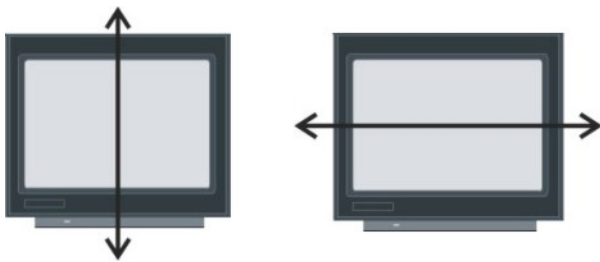
Note:
The single player version is always defaulted as the 1st player if used in conjunction with a 2 player version light gun. In this case make sure the 2 player version is configured as two player mode.

Gun Calibration

The mode switch located on the left side of the ACT LABS PC Light Gun enables you to calibrate the gun for use with your PC. Before proceeding with the light gun calibration, be sure to expand the image on the Monitor so that it fills up the entire screen area. Move mode switch to the bottom position. This will activate calibration mode and the Monitor should blank completely white.

The procedure to calibrate is to move the mode switch into the bottom position-"C" and pass the gun back and forth both horizontally and vertically beyond the screen limits close to your monitor. Move the mode switch to the middle position-"1" to complete the calibration. Start shooting on the Monitor's screen to determine if calibration was successful. You may have to calibrate the gun when you change screen resolutions.

Notes on calibration:

1. **The calibration enables the light gun to learn the size of your PC screen, refresh rate and resolution. During calibration the whole screen should blank white, and be sure to pass your light gun slowly across the screen as instructed.**
2. **During calibration, the light gun should be pointed at the PC monitor at a similar angle as you would while playing a game. For example, if your monitor is placed below you then you will be shooting downwards during game play. Therefore you should position the gun at the same angle when you perform the calibration.**
3. **Before playing any shooting games, first calibrate the light gun on your Windows Desktop. Then check the accuracy of the light gun on the desktop by aiming and shooting. This would isolate any problems associated with particular games.**
4. **If the light gun accuracy is poor during gameplay, try re-calibrating the gun when the game is loaded. Some games might change the resolution/refresh rate depending on the games settings and will require the light gun to re-learn the new screen settings.**
5. **For 2 player set up, each gun has to be calibrated individually as the instructed under "Gun Calibration".**

!!! Epilepsy Warning !!!

PLEASE READ BEFORE USING THIS PRODUCT OR ALLOWING YOUR CHILDREN TO USE IT.

Exposure to certain light patterns on a television screen or while playing computer games may cause some people to have epileptic seizures. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures.

If you or anyone in your family has ever had symptoms related to epilepsy (seizures or loss of consciousness) when exposed to flashing lights, consult your doctor before playing.

We advise that parents should monitor the use of video games by their children. If anyone playing a video game experiences any of the following symptoms: dizziness, blurred vision, eye or muscle twitches, loss of consciousness, disorientation, any involuntary movement or convulsion, stop playing the game IMMEDIATELY and consult your doctor.

Precautions to take while playing:

- Sit as far away from the screen as your system set-up will allow
- Avoid playing if you are tired or have not had much sleep
- Make sure that the room in which you are playing is well lit
- Rest for at least 15 minutes per hour while playing a video game

FREQUENTLY ASKED QUESTIONS

Q. Will the ACT LABS PC Light Gun work with my laptop PC?
A. The ACT LABS PC Light Gun can work with a laptop, but only if an external CRT based monitor is used.

Q. Can I use the ACT LABS PC Light Gun with an LCD monitor or video projector?
A. No. The ACT LABS PC Light Gun depends on the characteristics of CRT-based monitors to work.

Q. Can I use the ACT LABS PC Light Gun with my projection TV and the TV out of my video card?
A. No. The ACT LABS PC Light Gun only works with a VGA video system. Scan converters or TV-out adapters will throw off the system calibration or simply not work at all.

Q: Will the PC USB Gun work with my video card TV-out feature? Support for TV's in general?
A: This version of the gun does not include support for TV out, you can buy our PC TV USB Light gun.

Q: How many games will work with the PC USB Gun?
A: As of the release date, the PC USB Gun will work with over 100 games. This includes retail, java, flash, and emulator games.

Q: Will the gun work with House of the Dead 2 by Sega?
A: Yes. 100% absolutely!

Q: Will the gun work with shooting games under the MAME emulator?
A: Yes, provided that you are running the Windows version of MAME (MAME32).

Q: Will the gun work in DOS?
A: No, the gun requires DirectX, which is a Windows component. DOS is not
   supported.

Q: Can I use two PC USB Guns in tandem?
A: First of all, the software (Game) has to be able to support 2 Light Guns.
   MAME32 version 1.02 has support for both two PC and TV USB Light Guns to work
   in tandem. In "Controllers" tab of the game properties dialog, turn on the
   "Enable lightgun input" and "Dual lightguns" options. Once in a game, use
   MAME's in-game menus to assign the "Player 2 Button 1" input to the trigger on
   the second lightgun.
   Two PC and/or TV USB Light Guns can be used in tandem with other selected
   retail games with the help of a special driver on this third party website:
   http://thetroubleshooter.home.mindspring.com/.

Q: How does the PC USB Gun work?
A: The exact specifics of light gun technology can be found online using any
   search engine. In regards to our technology, that's a trade secret and we're
   not telling!

Q: Will the PC USB Gun work on a Mac.
A: Technically, the PC USB Gun should work on a Mac since it's designed as a
   generic HID interface controller. However, we do not specifically test on
   Macintosh computers and therefore we do not officially support MAC systems.

Q: Will the PC USB Gun work with Quake 3 or other First Person Shooting games?
A: First Person shooters rely on a freedom of motion throughout the entire field
   of vision (mlook) and any shot is always going to go to the center of your view.
   The PC USB Gun can work in an FPS game, but if you shoot an enemy towards the
   corner of the screen, the view will change so that the enemy is at dead-center
   and then the shot will be registered. It will work kind of like an auto-aim. We
   don't really recommend using the PC USB Gun with FPS games like Quake 3, Unreal
   Tournament, or Soldier of Fortune.

Q: Will the PC USB Gun interfere with my mouse?
A: No. The PC USB Gun is an independent game controller and does not conflict with
   either a Serial, PS/2 or USB mouse. In fact you can actually use the PC USB
   Guns to open up a program by shooting the icons on your Windows desktop!

Q: Since it's a USB device, will the PC USB Gun work with a Playstation 2?
A: No, the PC USB Gun is PC only.

Q: What is the best refresh rate to use with the gun?
A: For optimal performance, a rate of 75 Hz is recommended, but the gun should
   perform equally well using refresh rates between 60 and 150 Hz. The maximum
   refresh rate is dependent on your monitor. We suggest you check your monitor's
   technical specifications by either referencing the manual, or the
   manufacturer's website. Pushing your monitor past its rated refresh rate can
   cause serious damage and may void your monitor's warranty.

TROUBLESHOOTING

Q: I connect my PC USB Gun, but nothing happens. Windows doesn't detect it.
A: Try a different USB Port on your computer. Remember that the USB Gun will only work on Windows 98 Second Edition, Windows ME, Windows 2000 and Windows XP. Older versions of Windows are not supported. Also make sure that your USB ports are not disabled in your system BIOS. Finally, make sure you have the latest version of DirectX installed on your system.

Q: Windows detects the PC USB Gun, but when I shoot I can never hit a target.
A: The gun is most likely not calibrated properly. Different games use different screen resolutions, and you may have to calibrate the gun as soon as you get into a specific game. Follow the calibration instructions in the manual.

Q: The gun was working previously, but has now stopped functioning.
A: Check your USB cable connection. The most common cause for a sudden loss of functionality is a loose cable.

Q: The PC USB Gun was working in one game, but it won't work in another.
A: Again, this has to do with screen resolution. Every time the screen resolutions changes, you have to re-calibrate the gun. Follow the calibration instructions in the manual.

Q: If I shoot towards the corners of the screen, sometimes the shots do not register.
A: You have to make sure that your desktop area is maximized so that the actual screen image is taking up all of your monitor's area. You should not have any black border around your screen image. You may have to manually adjust your monitor's vertical and horizontal settings to maximize your screen image. Check your monitor's manual for instructions.

CUSTOMER SATISFACTION, WARRANTY AND RETURN INFORMATION

Your satisfaction is our top priority. If you are not 100% satisfied with your ACT LABS product, you may return it for a replacement or refund within 30 days of the delivery date.

NOTE: This return policy is only in effect for merchandise purchased from www.act-labs.com. Products purchased from our retail partners shall abide by the return policies of the retailer.

Your ACT Labs Product is warranted against defects in materials and workmanship for 90 days from the delivery date of the product.

ALL returns, for any reason, must be pre-authorized by ACT LABS and be accompanied by a Return Merchandise Authorization (RMA) number.

To obtain an RMA number for technical reasons, contact our Technical Support staff at techsupport@act-labs.com

To obtain an RMA number for non-technical reasons, contact our Sales staff at sales@act-labs.com

If any product is returned to ACT LABS without an RMA number, then ACT LABS has the right to refuse acceptance of the items and send the product back to the customer freight collect.

ACT LABS is not responsible for any damages that happen to occur during shipping or as a result of improper packaging. ACT LABS reserves the right to deduct 20% from any applicable refund if goods are received damaged.

This does NOT include returns resulting from the customer's inability to install or use any ACT LABS product, drivers, or bundled software owing to computer or game-console hardware or software misconfiguration, defect, or other incompatibility with the ACT LABS product, drivers, or bundled software.
The customer is responsible for all shipping costs back to our return centers or repair facilities.

TECHNICAL SUPPORT

If you require help installing or troubleshooting your ACT Labs staff by email or telephone.

Email: techsupport@act-labs.com

Hours of operation are Monday to Friday, 9:00 am to 5:00 PM, Pacific Standard Time. (GMT -8)