AimTrak Playstation 2 User Guide

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1. Introduction

This guide is aimed to give help and guidance to those wanting to use AimTrak with Playstation 2. AimTrak provides the advantage of enabling PS2 lightgun games to be played on an LCD TV, the GunCon45 and GunCon2 lightguns will only work on a CRT TV. Please note that not all games will work with AimTrak as the principle of operation is very different to the original CRT-based guns.

If you have tried any of the games that are listed as not been tested or have managed to play a game that is listed as not working please contact Andy at Ultimarc so this guide can be updated.

I hope you find this guide useful!

Dan (Billygoat)

2.   Buttons and Wiring

If you have the retail, pre assembled AimTrak lightguns (in the style of the Playstation 1 GunCon45 lightgun) then the button configuration is as follows;

If you have bought the OEM electronics AimTrak kit then you will need to have wired up the Trigger, Aux and P1 connectors for the lightgun to work properly with Playstation 2.
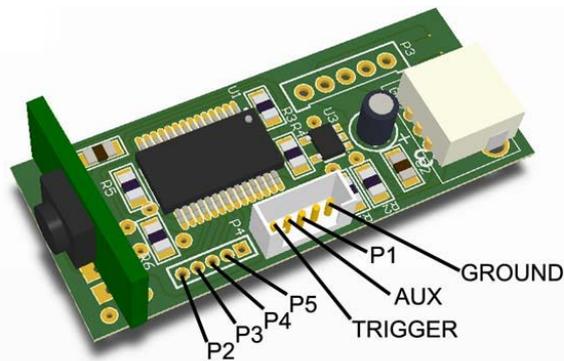
For simplicity here are the GunCon45/GunCon2 button designations for the connections required for Playstation 2 AimTrak operation;

GunCon45/2	Retail AimTrak Gun	OEM Aimtrak Electronics
Trigger	Trigger	Trigger
A Button	A Button	Aux
B Button	B Button	P1
Start	A + B Buttons	Aux + P1

Only the GunCon designations will be referred to from now on. The rest of the guide assumes that your lightgun is wired up as described above and is functioning correctly.

Note: Pressing A+B together simulates pressing start on a GunCon45/2 controller. None of the other connections on the AimTrak OEM circuit board are currently configured to work with Playstation 2.

3. Setup Guide

3.1   A Note on Firmware

Firmware 8.11 was used to test the AimTrak on PS2. Previous firmware versions may not be compatible. Please contact Andy at Ultimarc with the details of your AimTrak device and the firmware version installed if your device does not work with PS2.

3.2   Initial Setup

1) Plug the AimTrak lightgun into USB port 1 on your Playstation 2.

2) Plug the LED strip into the second USB port and place it centred above your monitor. For best results, the strip should be centred left-to-right and as close to the top of the picture screen as possible. (NOTE: If you are using a second AimTrak lightgun you will need to find an external power source for your LED strip. This is because the second lightgun will need to be connected to the second USB port on the Playstation 2. we recommend using a mains USB charger, the same type that might be used to charge a phone or iPod with a USB cable).

3) Insert a known working Playstation 2 lightgun game into your Playstation 2 (We recommend starting with Time Crisis 2 or Time Crisis 3).

4) With the Playstation 2 turned off, hold down the A and B buttons together on your AimTrak lightgun and switch your Playstation 2 on. Hold the A and B buttons down until you see the startup screen and hear the startup sound, this is required to turn the lightgun into GunCon mode (this will need to be done on both lightguns if two are being used).

4) Calibration – The GunCon calibration screen will appear once you navigate through the usual pre-game menus. To begin calibration hold the Trigger down for 5 seconds, the screen will flash and you will hear a gunshot sound effect.

   The lightgun then requires you to aim at the top left, top right and just off centre at the bottom of the screen for calibration. A crosshair will appear in each location, you will need to shoot at each one in turn. Once this is complete the crosshair will appear on the screen to show where you are aiming, if the process fails or is incorrect simply hold down the Trigger for 5 seconds and begin again.

   Calibration should be performed while holding the Light Gun in your normal "shooting" position. If you intend to look through the gun-sights when playing you must do this when calibrating. Likewise, if you "shoot from the hip" you must do this when calibrating as well.

5) Once calibration is complete simply press A, B or start (whatever button is required to continue).

6) Enjoy the game!

   Note: You may wish to disable or lengthen the timer for the calibration feature to avoid accidentally going into calibration mode. This requires a PC to run the Aimtrak utility.

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4.   GAMES

4.1   A Note on Playstation 1 Lightgun Games

Unfortunately Playstation 1 lightgun games will not work with AimTrak. AimTrak connects through the USB port and therefore cannot emulate the original GunCon45 lightgun which requires to be connected through the Playstation 1 style controller port.

4.2   Playstation 2 LightGun Games

The following lists the Playstation 2 GunCon45 and GunCon 2 compatible lightgun games. Not all games have been tested and unfortunately not all work with AimTrak at the moment.

All testing has been performed using a PAL (UK) Playstation 2, a 22" LCD TV and an AimTrak module with firmware version 8.11.

Game	No. Players	Tested? (only PAL tested)	Working With AimTrak?	Notes
Crisis Zone	1	Y	Y	Calibration works fine, be careful in game as holding the trigger down for 5 seconds turns the gun into calibration mode
Dino Stalker	1	N	?	Not Tested
Endgame	2	Y	N	Not working, does not seem to detect controller
Gunfighter II: Revenge of Jesse James	2	N	?	Not Tested
Ninja Assault	2	Y	Y	Calibration works fine, as does gameplay
Resident Evil: Dead Aim	1	Y	Y	Games does work if you use a DualShock controller too. Ensure you calibrate the AimTrak with another game first, then connect controller and AimTrak gun. Boot PS2 up as usual. Use DualShock to navigate menus then disconnect AimTrak from USB once calibration screen appears, this will skip calibration. Reconnect AimTrak gun and continue, you can use your left hand on the DualShock to navigate menus and move the player and your right hand with the AimTrak gun to shoot.
Resident Evil Survivor 2: Code Veronica	1	N	?	Not Tested
Starsky & Hutch	2	N	?	Not Tested.
Time Crisis 2	2	Y	Y	Calibration works fine, as does gameplay
Time Crisis 3	2	Y	Y	Calibration works fine, as does gameplay
Vampire Night	2	Y	Y	Calibration works fine, as does gameplay
Virtua Cop Elite Edition	2	Y	N	Not working. Calibration works OK but then a black screen appears when you try to continue. Currently no way to get around this
Gunvari Collection (Japan)	1	Y	Y	Calibration works fine, as does gameplay

5.   Troubleshooting

I can't start the calibration process
The default setting is to enable calibration by holding the trigger, on screen, for 5 seconds. Unfortunately we have discovered that calibration does not work 100% for all games, please check the games section above for games that have been tested so far.

Please note that sometimes the calibration process may not work properly for some of the games listed as working. You can start the Playstation 2 again but we recommended calibrating using Time Crisis 2/3 and switching to the other game if all else fails. Note that calibration data is retained by the AimTrak

I can get the AimTrak to start calibration, but it won't register all my shots (or it keeps repeating the same spot)
   Calibration will not complete if the sensor in the gun cannot see the LED bar at all gun-aim locations within the screen boundary.
   There are two possible causes:
• The LED bar is simply off the edge of the sensors viewing area.
   This is caused by incorrect location of the LED bar, or attempting to use the gun too close to the screen. The min distance varies with screen size but is approx 2 feet (60 cm) with a 19in screen, or 3 feet (90 cm) with a 28in screen.
• The LEDs are becoming too dim at certain viewing (ie aim) locations
      This can be caused by:
   • USB port/power supply not supplying correct power. Make sure the LED bar is plugged into a powered port.
   • If using an un-cased LED board, LEDs are not angled downwards to "point" roughly at the gun.

   To determine which of the above causes is the problem, you can use the config utility on your PC and click on the "sensor view" tab. Aim at the edges of the screen , and check the red point does not go off the edge (ie disappear) or turn orange (become dim).

The crosshair or gun shots are jumping all over the place and behaving erratically
There may be a bright point light source interfering with the AimTrak. It may be in the line-of-sight of the gun, or reflecting off of your monitor screen. Try turning the room lights off or lowering the blinds to see if it improves. Also ensure that you are the correct distance away from the screen. If you have moved from the location where the AimTrak lightgun was calibrated this may affect your aim and could also cause the aiming to act erratically.
Note: normal room lighting will not affect the gun. It will only be affected by very bright point sources which are in view of the gun. Fluorescent lighting will not affect the gun at all.
You can test for extraneous light sources by unplugging the LED bar. The cursor should not track at all regardless of where the gun is aimed. If the cursor moves, even erratically, a spurious light source is present.

I cannot get my AimTrak lightgun to work on my Playstation 2 at all, even with Time Crisis 2/3.
Your Aimtrak device may not have the most up to date firmware. Version 8.11 onwards is required for correct operation with Playstation 2. Please contact Andy at Ultimarc for the latest firmware, a guide for updating firmware can be found on the Ultimarc website or in the Aimtrak Setup Guide.

If you do have the latest firmware and still cannot get your Aimtrak lightgun to work please ensure that you are holding down A and B as you boot up your Playstation 2. If you are using the OEM Aimtrak electronics module please ensure that you have wired up AUX and P1 correctly.