

## Outdoor LaserTag – by LaserVenture

Based on the Arena version of the **Crystal Phaser** but without the attached vest, this revolutionary new combat game is playable either outdoors or indoors. No Pain, No Paint and No Mess.

LaserTag is the modern clean way to play paintball type games. **Cyber-Tag** laser-tag guns fire with a range of approx 75m outdoors or 35 metres indoors.

Visual and Sound effects together with real time scoring make Cyber-Tag a market leader with the LaserTag scene. A must for all children from 7yrs to 107yrs.

### Why LaserVenture?

**LaserVenture** brings more than fifteen years experience in Indoor LaserTag to the outdoor battlefield. The **Crystal Phaser SA** (also known as 'The Dog SA') was introduced in 2004 to offer simple to use and exciting performance, whilst at the same time, an appearance one remove from the 'warlike' nature of other equipment. Rugged build, low price and a wealth of functions put the **Crystal Phaser SA** at the top of the Outdoor league.



The game is suitable for all age groups. The game objective can be to encourage team-building, or simply to have fun.

While the **Crystal Phaser SA** is simple to use, it has a host of features that can be easily programmed.

The Phasers are transported in compact stacking racks with built-in chargers, allowing recharging from any local supply including a car cigar lighter socket.

## Crystal Phaser

The **Crystal Phaser** shown here is the 'standard issue' in a system.

### Triggers

There are four triggers - a rear trigger, two front triggers (to allow for ease of left-handed operation) and a grenade button.

The rear trigger and either of the front triggers need to be operated simultaneously to fire the phaser. This is a safety feature - to discourage players waving phasers around Rambo-style. Players can fire single shots or bursts. The maximum length of a burst can be set at the main control PC, as can many other features.



### Grenade Launcher

Using the unique Grenade Launch button, players can launch 'maiming' or 'fatal' grenades. Grenade launches will hit all players within range.

Players can fire grenades by holding down the grenade button with one of the other triggers. Grenades will hit all players within range. A grenade hit will either take a pre-determined number of lives or 'kill' the players (so they have to go to a recharge station). This depends on whether the front or rear trigger was used to start the Grenade launch.



### **Muzzle Flash**

When in Outdoor mode the Phaser will emit a muzzle flash when fired. This extremely bright focused multiple led beam is mainly visible by the targeted player.



### **LCD Display**

Each **Phaser** has a back-lit LCD display which keeps the player in touch with his/her score and rank in the game, also displaying remaining game time, shots, lives etc.



## How does it work?

LaserVenture consists of up to 80 Phasers, and (optionally) uses a UHF radio link to pass hit data between them.

Players fire their phasers at the other players. Multi-directional sensors on each player's phaser ensure accurate registering of hits. Phasers can fire single shots or burst and, as mentioned above, can also launch grenades.

Players score in real time and their phaser LCD displays are constantly updated with their score, rank and other pertinent data such as remaining shots and lives.



Various game plans are available from a simple *Every-Man-For-Himself* to a series of sophisticated formats such as *Highlander* (there can be only one!) and *Tug-o-War*.

LaserTag continues to develop and refine and therefore, from time to time, software and firmware upgrades will become available. Generally, these are free of charge.

The exciting thing is that, unlike any other supplier that we are aware of, each Phaser can be re-programmed, by you, on your premises, in *less than 10 seconds*.

## **Phaser Parameters**

On the Outdoor (SA – StandAlone) system all phaser features are set by a Hand Zapper. Most can be applied globally to all the phasers at once.

Remaining clips and shots are indicated on the LCD display, cycling with other phaser information such as remaining lives, unexpired game time and so on.

## **Hit Registration**

Where the Phasers are fitted with the optional ‘good hit’ registration, the system uses an 868 MHz FM transceiver for inter-phaser communication (900 MHz in US and Canada).

## **Range**

The **Crystal Phaser SA** is fitted with a 10 watt IR emitter which gives it more than ample range for outdoor activities, even in bright sunlight. The IR power output can be switched to a lower level for use indoors, so the system is not restricted to outdoor use.

## **Upgrading Firmware**

A small port in the underside of the **Phaser** allows software updates to be programmed in under 10 seconds. Whenever new features are added to the system, you will be able to update the whole system yourself. Upgrades are free of charge. So far as we are aware, no-one else offers this feature.

## **Casing**

The **Crystal Phaser** model features a transparent shell made of high impact PETG, which is internally blacked out in some places, with other sections being left clear so that the ‘works’ can be seen. This in itself is a testament to our pride in the product – how many other manufacturers would like you to see how their phasers are built?!

The Phaser uses latest **Atmel** processor, a switched-mode power supply for optimum battery life, and Surface Mount Technology for light weight and the highest possible electronic integrity and reliability. A back-lit LCD provides plenty of data for the player including his/her score and rank.

Multiple IR receivers ensure that the **Phaser** is ‘visible’ to all other players no matter what direction the phaser is pointed in.

A small port on the underside, just in front of the rear hand-grip, allows the **Phaser** to be upgraded with the latest firmware.

## Weight (Overview)

At less than 950 gram the Crystal Phaser is far lighter than most products and makes the **LaserVenture** packs suitable for all age groups.

## Hand Zapper

This hand held unit is used to program the packs with the parameters such as shots, lives, clips and game time. Rowdy players can be zapped with a quarantine code. They then have to stand within range of an **Intelligent Target** until the quarantine period has elapsed, or they have been 'released' by a marshal.



Games are started and stopped by waving the Zapper across the players whilst emitting the correct code from the Zapper.

During games, the Zapper can be used to recharge 'dead' players, to top up lives and shots, or, at the Marshal's discretion, to administer sneaky hits on players who are not playing the game in a fair manner!

## Intelligent Target

The **CRYSTAL IT** (Intelligent Target) is a one-stop ancillary solution for use with the **LaserVenture Crystal Phaser** system, both indoor and outdoor versions. The unit can be programmed to be hostile (in a number of ways, fatal and non-fatal), a recharge station, to add lives or shots, to be a jail, to make players invisible or invincible, or simply to be a target to shoot at.

A weather-proof cover and built in NIMH battery allow this unit to be sited at strategic points in the play area.

The **CRYSTAL IT** shows its current status via a large character back-lit LCD display and a block of 10mm red and green LEDs. A range of 50 different sound effects can be selected and played automatically through an on-board amplifier and 87mm speaker.

The **CRYSTAL IT** has a simple five button user interface that simplifies individual settings for multiple user in large arenas. Up to 16 units may be deployed with radio-linking, any number without the radio-link.



## Features

The **CRYSTAL IT** has these important features

- **Relays** that operate when the unit is Active, Firing or Hit.
- **50+ Sound effects**, programmable for the various events
- **Built-in** 8 watt amplifier and loudspeaker
- **Laser Output** – output to drive an external laser
- **Simple** set up procedure
- **Tough** and transparent PTEG cover

## Functions

<b>0 - Recharger</b>	-	Replenishes Lives
<b>1 - Time Bomb</b>	-	Players have 5 second to get clear
<b>2 - Wildcard</b>	-	Strips one life
<b>3 - Grenade</b>	-	Grenade simulator
<b>4 - Mine</b>	-	Fatal hit
<b>5 - Invisible</b>	-	Makes a player invisible for a period
<b>6 - Quarantine</b>	-	Player cannot continue until released
<b>8 - Base Hit</b>	-	Backward compatibility = 1 hit
<b>9 - Dead By Base</b>	-	Backward compatibility = fatal hit
<b>A - + 50 shots</b>	-	Shots top up
<b>B - + 100 shots</b>	-	Shots top up
<b>C - + 10 lives</b>	-	Lives top up
<b>D - + 20 lives</b>	-	Lives top up
<b>E - Invincible</b>	-	Makes player unhittable for a period
<b>F - Target only</b>	-	Benign – target only

For more information please see the **Crystal IT PDF**.

## Obtaining Upgrades

Upgrades can be downloaded from our websites download page <http://www.laserverture.com/downloads-page.htm>. If for some reason the upgrade you desire cannot be found then please contact us.

## In-house Servicing

While we offer a quick turn-around for faulty/damaged items, we appreciate that our customers may want to avoid any delay whatsoever, as well as maintaining a 'hands-on' approach. All our equipment is designed to be easily serviceable in-house. Most parts can be replaced in just a few minutes. Even a gun-shell replacement can be effected in less than 15 minutes.

## Warranty

**LaserVenture** products are warrantied for 12 months from date of installation. The warranty is on a 'return-to'base' basis unless there is a service contract in place. Certain items are excluded from the warranty because their use is beyond our control:

- Batteries - life will depend on usage and experience has suggested that a life in excess of 18 months may be expected, but this is not guaranteed.
- Plastics, if failure is due to impact damage.

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