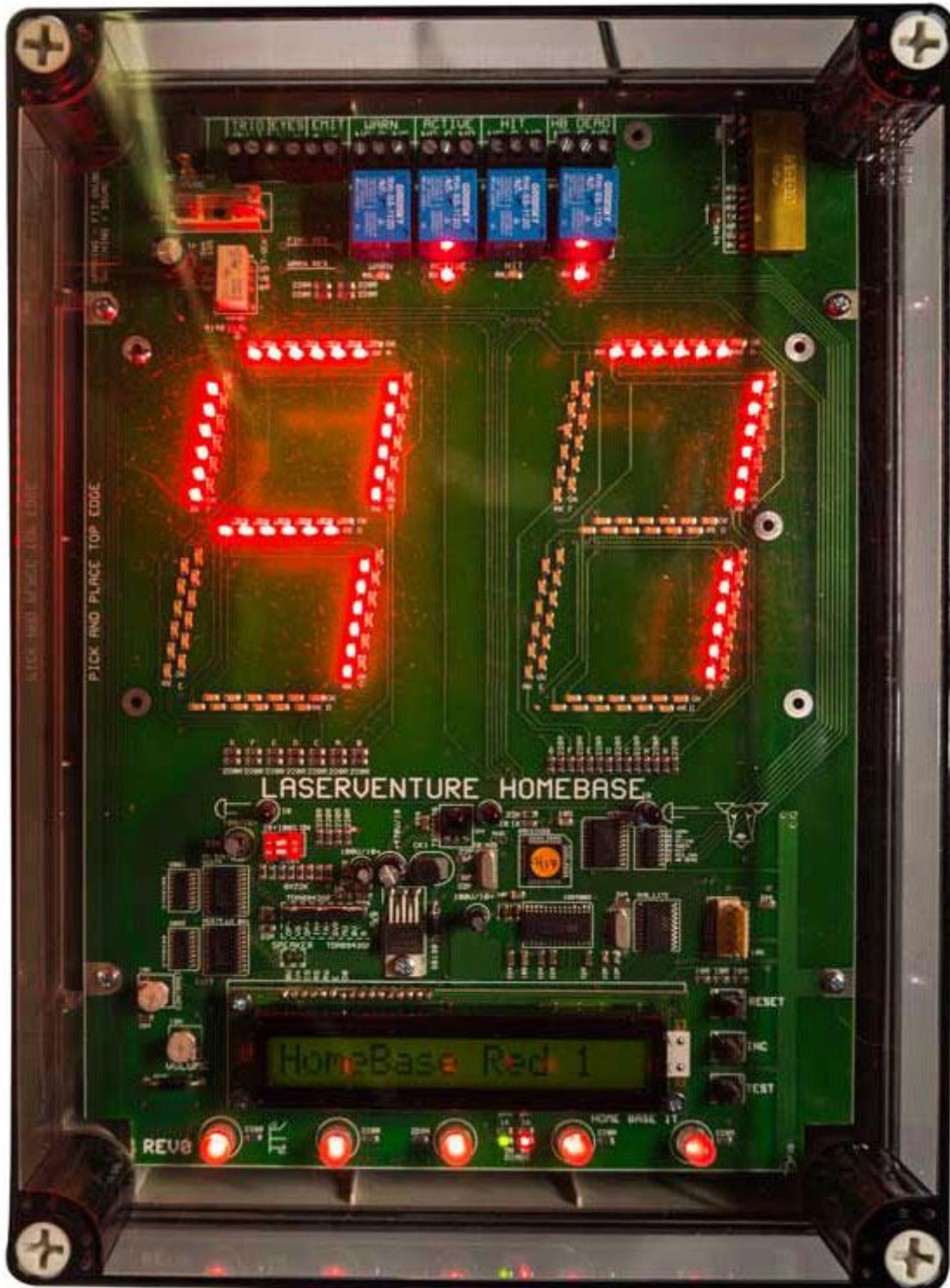


## Home Base Target Instructions (Revised January 2019)



This document explains how to install and operate the **LaserVenture Home Base Target** – in conjunction with the **Crystallite LaserTag** System - please read carefully before installation and use.

In the event of any queries please contact us at [sales@laserverture.com](mailto:sales@laserverture.com)

## Contents

### 2 - Description

### 2 - Installation

### 3 - On Power Up

### 4 - Changing the ID

### 5 - Changing the Radio Band

### 5 - Testing the Home Base

### 6 - Setting the **Home Base** Operating Parameters

### 5 - Terminations

### 6 - External Trigger

### 6 - Controlling other devices remotely

### 7 – Contact Details

---

## Description

The **Home Base** is a top of the range Crystallite Laser Tag System arena accessory featuring >

- Radio link to the main system, allowing players to score and be scored for hits made by or on them by the Home Base.
- Illuminated LCD display.
- Giant 100mm seven segment LED display
- As previously, clean relay contacts plus supply feed for energising solid state relays.
- Remote trigger option.
- Output capability for remote IR emitters
- Outputs for 'Warn' and 'Firing' feeds to LED clusters ('Eyes').

The **Home Base** is a game play device and does not offer any of the functions of the Mini-IT and the Midi-IT. It is controlled from AtriumPlus and is set up on the **Home Bases** tab of **Main Menu > Utilities > AtriumPlus Set Up**.

The **Home Base** can currently run two game plans, **Home Base Target** and **Home Base Defence**.

With **Home Base Target**, the target invites hits when active. You can control how long the target is active and the delay between active periods. You can also have the target retaliate either taking one life or fatally. You may choose to have the target team change automatically, randomly or not at all.

**Home Base Defence** offers more detail to the game. The target starts with a preset number of lives. The opposing team can hit the target, reducing its lives and same team players can 'rebuild' the score of the target by shooting it. Retaliation is possible – so is auto-recharging.

Sounds – in all cases, sounds can be allocated for all **Home Base** events on the HB Sounds tab.

## Installation

The **Home Base** housing is a rugged wall-mounting clear-fronted box. Two fixing plates, top and bottom are provided. The antenna will be found flattened to the top of the **Home Base** and should be gently raised upright to ensure the best radio response. The 2.1mm DC supply plug should be plugged into the socket at the top of the **Home Base** – use only a 15 volt DC PSU.

To remove the clear front cover use a large screwdriver, flat or cross-head to rotate the corner locks 90 degrees anti-clockwise, then lift the cover off.

### External connections

The **Home Base** is usually fitted with four relays. An additional bank of relays can be fitted at request. The next revision of the **Home Base** will include all seven relays. These are the functions of the relays >



- Spare – this relay is reserved for future use.
- Capture – to be used in the upcoming 'Capture The Flag' games.
- Rebuild – activates when the **Home Base** has rebuilt (increased) its lives.
- Warn – activates before the **Home Base** is about to become active.
- Active – activated when a game is in play. active
- Hit - activated when the **Home Base** receive a hit
- Retaliate - activated when the **Home Base** retaliates following a hit

The relays are all changeover types and will only handle low voltages. If you want to switch line power, then you should use solid-state relays. A 5v takeoff to drive such items can be taken from the EMIT+ terminal block.

EMIT +/- provides for direct connection of external IR emitters (stealth emitters) EYES allow you to connect LED clusters, such as the eyes in a robot, or monster. If implemented, the FIRE RES and WARN positions need to be loaded with suitable value for the cluster being used. If unsure please forward the cluster specification to [sales@laserventure.com](mailto:sales@laserventure.com).

## Identifying Home Bases

**Home Base** are usually shipped in pairs, in which case the red **Home Base** will have an operational ID of 1 – for communicating with the system a value of 80 will be added to that automatically in order to arrive at a Unit ID of 81- the green **Home Base** will have an ID of 2, resulting in a Unit ID of 82.

A system can have a maximum of two pairs of **Home Bases**, meaning that they would have IDs of 3 (red), 4 (green) and Unit IDs of 83 and 84. This may all sound a little confusing, but is very simple once you accept the idea that:

- You may have up to 80 phasers in a system (Unit IDs 1 – 80)
- You may have up to four Home Bases in a system, Unit IDs 81 - 84
- You may have up to 16 Midi-Its in a system, Unit IDs 85 - 96

When a **Home Base** powers up for the very first time it will initialise to default settings which you can then change >

ID = factory set to 1 or 2 (Unit ID = 81/82)

Channel 0 – 868MHz

Initially, the serial number will be displayed.

Once the power-up process is completed the LCD display will alternate between different messages. For example, with no radio link operating, the display continually will cycle through, if there is a radio signal >

- 'HB Standing By'
- "HB #1 Red Team' (for instance)
- 'LaserVenture HB (+ ID)'

Or, if no radio signal

- 'Home Base (+Version #)'
- 'HB #1 Red Team' (for instance)
- 'No Radio Signal!'

## Testing the Home Base

The **Home Base** must be in Standby Mode, ie no game playing.

Press and release the 'Test' button

The **Home Base** functions are tested in the following

- Red display segments. The display will show any received IR code in the order in which it was received.
- Green LEDs display segments. Again, the display will show any received IR code.
- Relay test. The test routine will cycle through all seven possible relays, starting with three that are only fitted as an option. The Warn, Active, Hit and Retailiate
- IR Emitters output incrementing code which can only be detected with the right equipment . This section of the test routine may take a second or so to respond to a button press.
- IR Sensors will indicate any received IR data - This section of the test routine may take a second or so to respond to a button press.





## Gameplay

The following message will be displayed on the **Home Base** LCD during games

### Home Base Defence Mode

'HB Defence Mode' alternating with the ID and time

#### On a hit by a team player >

Hit by + ID

If Rebuild is switched on then the time to rebuild counts down – lives get incremented beforehand

#### On an opposing team hit >

Lives decrement

If retaliation is switched on, retaliation countdown starts, followed by retaliation.

### Home Base Target Mode

When the **HB** is active the remaining active time is shown (Ax) at the right of the display, where x =- remaining seconds. During dwell periods the remaining dwell period is shown as (Dx)

#### On a hit by a team player >

#### On an opposing team hit >

If retaliation is switched on, retaliation countdown starts, followed by retaliation.

## Utilities

### Changing the ID

If for some reason you need to change the ID (and thus the Unit ID)....

Press RESET and when the serial number displays, press and hold INC. (Do not press INC before the serial number displays – if you do, release INC and press RESET again.

The LCD will show 'Soft Reset' followed by the revision number and then 'Utilities'. Release the INC button. Then press INC again until the LCD shows 'Test=ID Inc=Next'. Press TEST.

The current ID will be displayed. If you still wish to change the ID press Inc to cycle through the four available IDs. When your selection is complete, press Test to save. You will then see the Unit ID saved.

Warning – do not change the ID of the **Home Base** to an ID that is not allocated in **AtriumPlus!**

### Changing the Radio Channel

**Note:** Do not change the Radio Band setting unless advised to do so – this could result in the unit not responding to system polls. The default band setting is Channel 0 (868 MHz). A change of band may be required to ensure compatibility with other **LaserVenture** equipment operating in other countries.

Repeat the above procedure to get into the Utilities Menu and then follow the LCD display options. If you have changed the channel you can check whether you have done this correctly by >

- a) watching for the green poll LED to flash at the left of the IT (The Red 'UNIT') LED will flash once every time the actual IT is polled
- b) checking that the **Home Base** appears in the Arena Equipment in **AtriumPlus** (Results Tab > Equipment)

### External Trigger

The external trigger is not currently implemented on the **Home Base**.

### Controlling other devices remotely using the relays

The relays fitted have changeover contacts - these terminals will switch a maximum of 15 volts at up to 1A. **DO NOT** connect any high voltage equipment to the terminals.

If using relays to switch the EMIT + outputs, the maximum total current draw from the **Home Base** should be limited to 1A as the PSU provided is only rated at 1.5A. If you wish to switch higher currents, then a higher current PSU must be used, maximum total of 3.5A.



[www.laserverventure.com](http://www.laserverventure.com)  
[sales@laserverventure.com](mailto:sales@laserverventure.com)

England (Rye)  
+44 (0)1424 883411  
+44 (0)7824 515529 (Mob)

Spain (Sucina)  
+34 868 184 903  
(Mobile as above)