



Wireless Lasertag Game Kit «L.S.D. Electronics»

Specifications & Operation Manual

(8.2 and 8.3 generations)



www.lasertagsd.com

DESCRIPTION.

The game kit by L.S.D. Electronics is designed for games, sport activities and entertainment events. The goal of these lasertag activities – is to “tag” as many rivals as possible or to conquer the territory or to capture the checkpoint, etc. (the players choose the scenario they want)

Please, read the operation manual carefully before using L.S.D. Electronics game kit.

Shooting is performed by taggers using infrared range. The damage done is indicated by light, sound and vibration from the sensors on the headband.

The competitions can be held either indoors or outdoors.

WARNING: Open carriage and simulation of using lasertag tagger model as a combat weapon may mislead law enforcement officials and citizens and give them right to use firearms or other means of self - defense against you.

COMPLETE GAME KIT.

1. L.S.D. Lasertag Tagger
2. L.S.D. Headband
3. Switch Keys
4. Operation Manual
5. Warranty Card

TECHNICAL CHARACTERISTICS.

- Maximum fire range is up to 300 meters, effective range is 130 – 180 meters.
- Ability to bind 2 blasters to 1 headband
- Audio feedback
- Realistic sound 8-bit, 22050 Hz
- Fire mode switch single/automatic (may not be presented on some models)
- Wireless online connection to the computer via radiobase for rapid change of settings and statistics tracking.
- Operating radio frequency of game kit and additional devices is 433 MHz.
- IR diode with wavelength is 940 nm (tagger emission)
- IR sensor/receiver TSOP4856 (headband receiving)
- Radiated radio power is no more than 32 mW.
- Digital and mechanical adjustment of fire range.
- Visual indication of operating tagger.
- Tagger Identification System and intelligent signal processing of IR to block self – defeating.
- Compact optical emitter tube made of aluminum.
- Power supply from ICR18650 (3.7V – 1.8-4.4 Ah) Li-ion batteries.
- Average operation time is 15-20 hours from fully charged batteries.
- Operation air temperature is -20C - +45C when using anti-cold batteries

CONTROLS LAYOUT

L.S.D. TAGGERS



- 1 – Switch Key
- 2 – LED power indicator
- 3 – Reloading
- 4 – Charging
- 5 – Fire mode switch

WIRELESS L.S.D. HEADBAND



The headband is part of the game set, along with the tagger and separately from the latter can not function. It is a head-adjustable ribbon made of strong fabric with velcro adjustment. A control unit with a loop of sensors and LEDs is attached to the tape.

The headband is designed to receive shot signals from the tagger and control signals from the IR devices, for example from the Remote Controller or the First Aid Kit. The headband has 6 sensors and 6 RGB indication LEDs. Sensors, as well as RGB indication LEDs are in a reliable PVC tube, which protects against mechanical damage. In the case of the control unit there are a mainboard, a lithium-ion battery and a vibration motor. There is also an activation lock and a charging socket.

On the side adjacent to the player's head, the headband is equipped with a hygiene cuff that can be easily replaced or disconnected for cleaning.

The electronic stuffing, i.e. the control unit with the board and the straps with the sensors can also be detached from the fabric tape in order to replace or clean.

Power type: Li-ion 1800 mAh, 3.7 V.

Weight: 0.2 kg

Size: 48-64 cm (on the circumference of the head)

Dimensions for reference:

S (53-54cm)

M (55cm)

L (56-57 cm)

XL (58cm)

XXL (59-60cm)

XXXL (61cm)

GAME EQUIPMENT

L.S.D. REANIMATOR



Needed to activate (respawn) and deactivate (kill) players, start a new game. Restores health and ammo.

Has 3 buttons: "ON/OFF", "Activation" - green and "Deactivation" - red.

2 battery elements of the AA type.

L.S.D. REMOTE CONTROLLER



L.S.D. Remote controller used to control the game process and change the settings of the game kits.

On the remote controller there are 3 colors of the value of the buttons: WHITE, GREEN and BLUE.

The color WHITE - are always active, regardless of the selected mode:

ON - turn on the remote controller (short press)

OFF - turn off the remote controller (turns off automatically if other buttons are not active for 2 minutes, forced, if you hold the button for 3 seconds)

ACTIVATION - "recover" the player, makes the kit active for the game

DEACTIVATION - "kill" the player, makes the kit inactive

GAME MODE - activates one of the 4 presets sequentially in the set or switches the mode for additional equipment.

Presets for game kits:

1) holders - 100, health - 4;

2) holders - 20, health - 3;

3) holders - 10, health - 2;

4) holders - 1, health - 4, no reload, no shooting, "Hostage" mode.

PROFILE - press to change the color value of the buttons (hold for 3 seconds, the LED changes color to GREEN or BLUE).

The color of the button values is GREEN:

FULL AMMO - restores the holders to the values set in the software

FRIENDLY FIRE - turns on or off the possibility of hitting your team's players

ZOMBIE MODE - turns on or off zombie mode

DISARM - the player can not shoot

TEST - check of the headband - blinks the colors of all teams and vibrates for a while

SET TEAM - moves the player to the team, according to the buttons: RED, BLUE, GREEN or YELLOW

The color of the button values is BLUE:

IR POWER - switches the shot range by 50% or 100%

DAMAGE - switches the values of the damage of the tag to 1, 2, 4, 7

FIRE RATE - switches the rate of fire of the tagger to 60, 650, 1000

RECOIL ON/OFF - turns on or off the simulation of recoil in the tagger

SOUND TEST - increase or decrease the volume of the speaker dynamics (3 volume levels)

PRESETS - activates presets in the optional equipment:

Checkpoint in the "CAPTURE" mode:

RED - 25 health
BLUE - 50 health
GREEN - 75 health
YELLOW - 100 health

Checkpoint in the "HOLD" mode:

RED - 3 minutes
BLUE - 5 minutes
GREEN - 10 minutes
YELLOW - 15 minutes



L.S.D. FIRST AID KIT



Restores the players health and is replenished ammo by pressing a button.

L.S.D. RADIOBASE



L.S.D. Radiobase is needed to connect the game server (personal computer, laptop) with L.S.D. Electronics game kits. Works by RF. Has the function of starting and stopping the game for all the game kits in the radio visibility zone. This is a green and red button, which respectively activate and deactivate game kits.

Also used to adjust the TTX taggers in all generations of equipment.

Used to take statistics of the game in real time (online).

Radius of the radiobase 8.2 generation: up to 150 meters. 8.3 generation up to 1 km without the use of external antennas and up to 2 km using an external antenna. The antenna is removable and has a standard SMA connector.

To work with the radiobase you need special software, which can be downloaded on the site in the section "Operation". Connect to PC via USB.

L.S.D. MULTIPOINT



Device 4 in 1.

When you turn on the L.S.D. Multipoint, it automatically goes into Standby mode. LEDs blink white. Put and remove using the L.S.D. Remote Controller buttons "Activate" and "Deactivate"

Change of devices is made from the remote with the "Game mode" button.

1. Auto First Aid Kit. LED blink is red. Fully restores the player ammo and health.

2. Auto Medic. LED blink is green. Adds one health to the player.

3. Auto Engineer. The blink of the LEDs is blue. Adds one holder to the player.

4. Radiation. LED blink is yellow. Takes away one health from the player right up to "game death".

The interval between the signals is selected from the L.S.D. Remote Controller with the buttons "Presets" and is 2, 5, 15 and 30 seconds.

L.S.D. CHECKPOINT



When you turn on the L.S.D. Checkpoint automatically goes into the configured by the L.S.D. Software or the last used mode. The L.S.D. Checkpoint can be set up either as a L.S.D. Remote controller or via L.S.D. Software on a PC. The L.S.D. Checkpoint (CP) can work in three modes: "HOLD", "CAPTURE" and "BASE".

When working in the "HOLD" mode, the player needs to activate the CP with a shot. At the same time, the CP starts flashing the color of the team of the player who shot it and makes a characteristic sound. The player needs to hold the CP for a certain time, which is configured and prevent it from being shot by the player of other teams. The closer to the end of the retention time, the more flashing the CP and the more intense the sound.

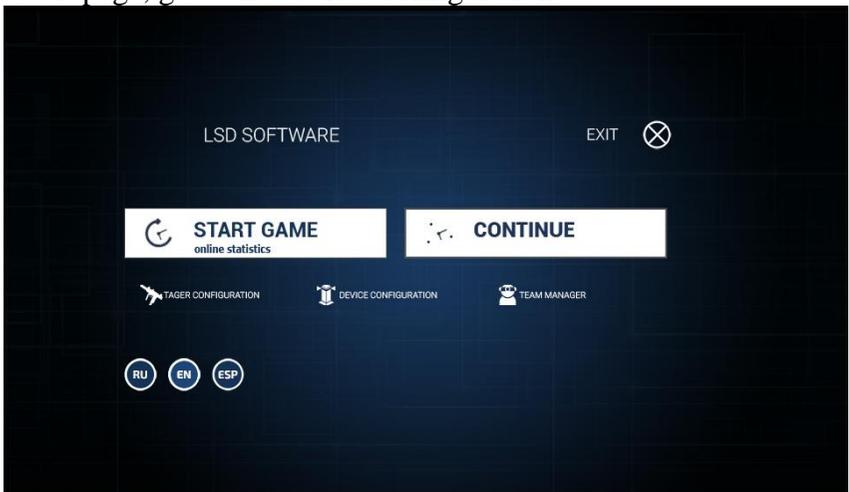
When working in the "CAPTURE" mode, the player must hit with a CP shot a certain number of times. At each hit, the CP blinks in the color of the team of the player who shot it and produces a characteristic sound. The number of hits is adjusted via L.S.D. Software or L.S.D. Remote controller.

When working in the "BASE" mode, the CP belongs to a specific team and constantly lights up with the color of this command. The task of the enemy team player to hit a CP shot a certain number of times. The number of hits is adjusted via software or remote control. CP hits the enemy players with shots at a certain interval,

which is also configured through the L.S.D. Software and is 1, 3, 5 or 10 seconds.

Setup from the L.S.D. Remote controller. The operating mode of the CP is changed by the "GAME MODE" button. The time in the "HOLD" mode is changed by the "PRESET" buttons and has the values 3, 5, 10 and 15 minutes. The number of hits in the "CAPTURE" mode is changed by the "PRESET" buttons and has the values 25, 50, 75 and 100 health. The interval between shots in the "BASE" mode is changed by the "PRESET" buttons and has values of 1, 3, 5 or 10 seconds.

Setup from the L.S.D. Software. When starting the software on the start page, go to the devices configuration:



The CP scan is displayed in the list and all of its settings will be available:

The holding time varies from 0 to 250 minutes for each of the 4 commands separately in the "HOLD" mode.

The number of hits varies from 0 to 100 units for each of the 4 teams separately in the "CAPTURE" and "BASE" modes.

In the "BASE" mode, the CP is attached to a specific team and you can set the interval of damage inflicted by a point on the players of enemy teams.

L.S.D. TIMER



L.S.D. Timer simulates the work of the bomb. Players who are within its range lose all lives after the explosion. The range is up to 100 meters.

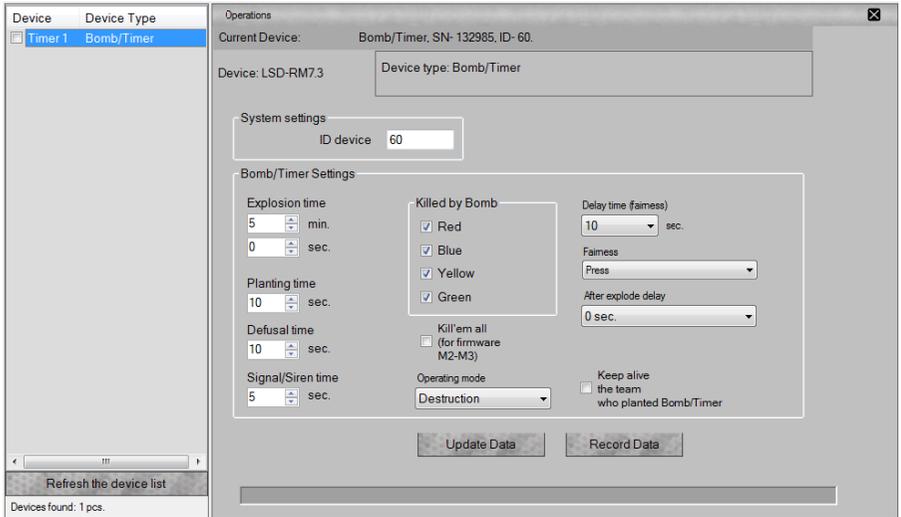
L.S.D. Timer is turned on with a key. After turning on, a certain sound is played, a display test is performed and the L.S.D. Timer goes into standby mode.

To set L.S.D. Timer into combat mode, you must press and hold the "activation / deactivation" button for a certain time. In this case, depending on the settings, it is necessary to shoot from the tagger to the L.S.D. Timer 's photodetector before pressing the button, after pressing or in both cases.

While pressing and holding the button, a circular scale is activated from the LEDs around the button. After the scale is full, the L.S.D. Timer will signal the transition to the active mode. Demining occurs through similar actions.

The L.S.D. Timer in the software is configured using the "device configuration" tab. After power on, go to the "device configuration" tab.

After the L.S.D. Timer is found in the software, we can access its settings.



System settings

ID DEVICE - individual L.S.D. Timer number. It must be different from other ID Tagger on this radio channel.

Bomb/Timer settings

EXPLOSION TIME - time (from 1 second to 255 minutes) before the Timer explodes, after activation.

PLANTING TIME - the time that the button is held before activation, after which the reverse report will start before the explosion.

DEFUSAL TIME - the button hold time before deactivation, after which the Timer is put into standby mode (demining).

SIGNAL/SIREN TIME - the time during which the explosion signal is played.

KILLED BY BOMB - marked with the check marks of the colors of the teams whose players will receive damage when the Timer explodes.

KILL'EM ALL - function for older versions of firmware game kits (5 generation).

DELAY TIME - the time during which you can activate the Timer (press the button) after being shot in the photodetector. If after

this time the player after the shot could not press the button, then the shot is reset.

FAIRNESS - control of honesty when activated, depending on the scenario. You can configure 4 control options:

1. Press
2. Shot - press
3. Press - shot
4. Shot - Press – Shot

AFTER EXPLOD DELAY - time for reactivation of the Timer after the explosion.

KEEP ALIVE THE TEAM WHO PLANTED BOMB/TIMER - after explosion the Timer does not kill the team that activated it.

OPERATION MODES

DESTRUCTION - any team can activate and deactivate the Timer.

COUNTER TERROR - the team that first captured and activated the Timer should protect it, and the other team must defuse it.

L.S.D. TARGET



It is intended for indication of hit of a shot from a tagger. Has a light and sound indication. Can be used to adjust equipment or to play back any scenarios.

On the front side of the **L.S.D. TARGET** there is a photodetector in the center and the indicator LEDs on the top.

Turn on is done by the key in the lock located on the side.

GETTING STARTED

Right after purchase the LSD game kit is ready to work as it has original factory settings. Just switch on the taggers and headbands by the keys. If the kit has been used or stored at subzero temperature, keep it at the room temperature for 4 hours before switching on.

NOTE: due to the specific technical assembly and tagger's body features, a minor breach of refinishing may occur.

Switch on the blaster and the headband by turning on the key. They both will indicate turning on by LED blinking and sounding. After that you must activate the kit by the L.S.D. Reanimator or L.S.D. Radiobase (sold separately).

Then, you have to pull the trigger several times. You should hear the sound of empty mag, like you are out of ammo. For loading and reloading press the button or juggle the shutter. You should hear the sound of reloading. Now the blaster is ready for operation.

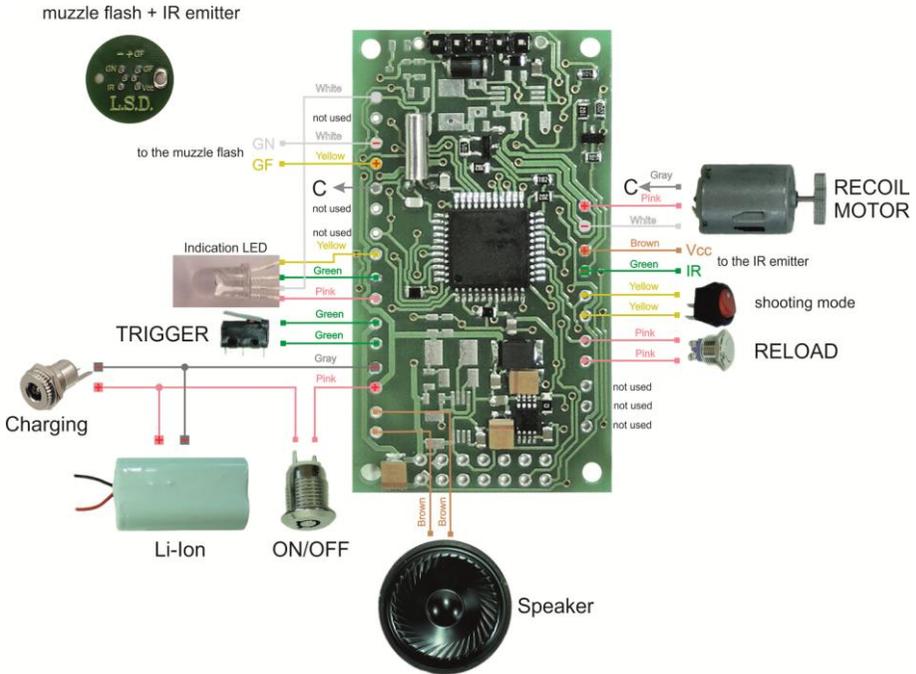
Firing is performed by aiming the blaster and pulling the trigger. There are 2 fire modes – single and automatic (sniper rifles perform only single fire mode). The fire mode is selected by pressing the button or putting the fire mode selector in desired position.

The hit is indicated by LED and audio sensors on the headband of the target. The blaster also makes a sound. Factory settings offer 3 hits after which the blaster becomes blocked. The LED sensors light up to indicate the death of a player.

To restore the kit to original state (activation) you have to press “Activation” button on the LSD Reanimator directing it towards the headband. The blaster will make a corresponding sound and the LED lights should fade off. The kit is in its original state. If necessary, the kit can be put into “DEAD/IDLE” state by pressing the “Deactivation” button.

To refine the accuracy it is highly recommended to zero the taggers from time to time. Produce some test fire shots at the distance of 80-100 meters and adjust the scope.

L.S.D. MAINBOARD



TECHNICAL MAINTENANCE.

You should take care of every optical part of the game kit (sensors, lenses, emitters, scopes). Careful cleaning with the help of special wipes is required whenever the blaster or the headband gets dirty.

Control buttons on the blaster are pressed effortlessly, therefore it is not recommended to apply excessive power to avoid mechanical damage.

Avoid any physical damage to the equipment.

To avoid possible electrical short circuits prevent moisture from the inside of the equipment. If a blaster or a headband gets wet, switch it off immediately and dry it at the room temperature.

Due to hygiene reasons it is recommended to wear the headband over some headgear. While operating the equipment in cold weather, plastic parts and some wires may become more fragile, so please try to avoid excessive stress.

NOTE: clean and well-maintained equipment is the pledge of stable developing of a lasertag club. It will also increase service life period of the equipment that is also very important.

NOTE: on a bright sunny day or during foggy weather the fire range may reduce up to 30-40%. It can also happen if the lens is dirty.

NOTE: some crackling sounds can be heard due to radio interference. However it does not affect the operation of the equipment.

SHIPPING AND STORAGE

The shipping of a game kit is allowed by all types of land, air and sea transport in accordance with the rules applicable to the type of the transport. LSD game kit should be stored in a dry heated room at the temperature +3C to +50C degrees at a relative humidity 60%

FACTORY WARRANTY

The manufacturer guarantees the reliable operation of the LSD game kits if a buyer follows the rules of transporting, storing and operating. The rules and recommendations are presented here:

www.lasertaglsd.com

Manufacturer: LSD Electronics

Russia, Penza

www.lasertaglsd.com

CONTACTS

Consultation & Sales Department:

+7 (967) 448 8856 (Viber, WhatsApp)

+7 (8412) 63-22-42

Mail: order@lasertagsd.com

Skype: LSD Electronics

Technical Support & Aftersales Service:

+7 (906) 156-89-18 (Viber, WhatsApp)

Mail: service@lasertagsd.ru

Skype: LSD Electronics Support

Business Hours

Moscow timezone - MSK (UTC+3)

Monday-Friday: 9am to 6pm

Dinner Break: 12am to 1pm

Saturday-Sunday: Closed