

# SUBLETHAL

## Installation Guide

Basic installation for Sublethal Remote Gun 2019 v1



Thank you for buying a Sublethal Remote Gun. This guide will give you information on how to install the system to ensure maximum service life and effectiveness.

Please download the latest installation guides, advanced set up, documentation and Troubleshooting Guide at:

[www.sublethal.co.za/help](http://www.sublethal.co.za/help)

For further assistance please contact us:

[installation@sublethal.co.za](mailto:installation@sublethal.co.za)

include the serial number of the Remote Gun in your email.

Note the conditions of sale for Sublethal which includes the responsibility of the customer when using the Remote Gun:

<https://www.sublethal.co.za/conditions-of-sale.php>

## Parts in the box:

Quantity	Description
1	Sublethal Remote Gun, Boomslang 2019 model (South Africa interior), including 30m cables and Muzzle Cover on the paintball gun.
1	12v deep cycle battery, 45 to 60 Ah
1	Hand controller (no batteries required)
1	Gas Bottle (CO <sub>2</sub> 20oz, carbon dioxide) <b>NB: this needs to be filled with gas before use</b> (Couriers do not allow Pressure vessels to be fully pressurised during transit)
100	Solid Nylon bullets
1	Installation DVD with videos and documentation
1	Case of spare parts, tools for paintball gun
1	Battery charger (220v)
3	cross-hair stickers

## Overview of the installation process

- Buy Sublethal Remote Gun, ensure that all parts are in the box
- Tools required
- Site consideration and placement
- Cabling
- Erecting the pole
- Mount the Remote Gun
- Connect cabling
- Test system
- Handover

## **Safety Warnings**

- Ensure the safety of people and possessions before each procedure.
- Use appropriate safety equipment such as a harness for working at heights.
- The installer must leave the site in a safe state.
- Read all the instructions before installing.
- A remote gun is not a toy and can cause damage and injury if installed incorrectly or used by irresponsible people.
- Only use a remote gun for self defense. Liability caused by a Remote Gun rests exclusively with the user of the Remote Gun.
- Always point the remote gun in a safe direction when not in use.
- Always lock the Hand Controller and keep the key with a responsible person who understands the dangers of the Remote Gun. Keep away from children.
- Before working on the system, cut the power by removing the battery charger and removing the battery clamps from the battery.
- Ensure that the system is earthed

## **Tools Required**

- 4m scaffolding or cherry picker (a ladder is not recommended)
- 2 spanners (size 17)
- insulation tape
- pick and spade
- Drill with masonry drill bits to get cables through walls
- Rope
- Multimeter/ voltmeter
- Tools for the Paintball Gun are supplied in the box
- A target for testing

## **Site consideration and placement**

- The cable from the Remote Gun to the Hand Controller is 30m long and should not be extended. Plan the route of the cable carefully before installing the pole.
- Do not install the pole next to a wall or other feature which will allow criminals to climb up the pole.
- Comply with all municipal and local regulations.

## **Cabling options**

There are 3 cables: CCTV, comms, battery charger. All cables are supplied with the unit.

1. Galvanised steel pipe: this is the best option for cabling. If cabling must be less than 300mm underground or above ground, it must be in a galvanised steel pipe.
2. PVC conduit underground: if using PVC conduit, ensure that it is at least 300mm below ground level. The conduit should not be visible at any point.

## **Erecting the pole**

It is the installers' responsibility to ensure that the Remote Gun system is mounted on a suitable structure. Every installation is different, so this guide is for a typical house with firm soil that can be compacted.

A 100mm x 100mm x 2mm thick steel pole should be used, preferably 8m in length but where this is not available a 6m length may work. Ensure that the pole is primed and painted.

Other mounting structures that may be suitable:

- Brick wall
- Steel tower
- gumpole (use steel pipes for cables)

For a typical installation using 6m pole:

- carefully remove the soil covering (paving, grass, etc.). Dig trenches to the house minimum depth 300mm.
- Check the length of the trenches by laying the cables, run them through the pole to ensure that there is sufficient cable.
- dig a hole for the pole 1.2m deep, 500mm long and 500mm wide
- Insert the cables into the conduit, the conduit must run up the inside of the 6m pole.
- Mount the pole into the hole and fasten the pole in the vertical to ensure it does not fall over. The cables should be sticking out the top of the pole.
- Partly fill the hole with soil and compact tightly. Repeat until the hole is filled. If the soil is sandy or loose, then it may be necessary to fill the hole with concrete.
- Test that the pole is secure before removing fastenings.

## Mount the Remote Gun

NB: the person working on the Remote Gun MUST carry all the keys to the Hand Controller at all times until the installation is completed.

- Erect scaffolding.
- Put the Muzzle Cover on the muzzle of the Paintball Gun. Ensure that the Paintball Gun does NOT have any bullets in it. Gas Bottle NOT connected.
- Mount the Remote Gun on the pole, use the spanners (size 17) to tighten the M10 bolts between the Mounting Plate and the Back Plate.
- NB: Attach the 3mm steel safety cable to one of the bottom M10 mounting bolts between the mount plate and the back plate.

## Connect cabling

- Connect all the cables.
- Disconnect the Battery Clamps from the Battery. Connect the Battery Charger in the house and use the multimeter/voltmeter to read the voltage at the Battery Clamps. The Voltage should be 13.6v to 14.5v, if not, then consult the Troubleshooting Guide on [www.sublethal.co.za](http://www.sublethal.co.za) and fix.
- Connect the Battery Clamps to the Battery.

## Test system

- Connect the full Gas Bottle (the gas bottle is shipped empty), cock the Paintball Gun.
- Test the Remote Gun functions using the Hand Controller to ensure that everything is working without bullets. The Remote Gun can fire without using bullets.
- Switch the Hand Controller to OFF, remove keys while working on the Remote Gun.
- Fill and compact the conduit trenches. Replace the soil covering (Grass, paving, etc.).
- Ensure that the area is clear of all people, animals and objects than can be damaged.
- Put Solid Nylon Bullets into the Bullet Hopper. The Bullet Pump needs at least 40 bullets to operate.
- Remove the Muzzle Cover.
- From inside the house, perform a full test of all the Remote Gun features. Fix any problems immediately. NB: the person working on the Remote Gun MUST carry all the keys to the Hand Controller at all times until the installation is completed.



- Shoot at a target and place the red cross-hairs on the Hand Controller Screen where the bullets are striking the target.

## **Handover**

Remote Guns can be dangerous if used improperly. It is the responsibility of the installer to ensure that the end user understands how to use the Remote Gun.

Below is a part of the Sublethal Conditions of Sale:

### **Customer responsibility**

The paintball marker and the equipment (Remote Gun) are not toys.

The customer asserts that they will use the equipment for legal purposes only on properties that the customer owns or has authority to operate on. The customer is responsible for the use of the equipment.

The customer must secure the product and ensure that only responsible persons have access to the equipment.

The key lock will only lock the hand controller from being used, it does not prevent the control circuitry from moving. If another hand controller is connected to the control circuitry, then the product will function. All reasonable measures must be taken by the customer to ensure that the equipment cannot be accessed, and thus operated, by unauthorised people

The equipment was designed and intended for self defence only. The customer will only use, and permit other people to use, the equipment for self defence.

The customer must be mindful that use of the equipment may result in one or more of the following, where this list is not exhaustive:

- Death or injury to people
- Death or injury to animals
- damage to property
- stampede or animals charging
- noise nuisance

The customer must make all people with access to the equipment familiar with the uses and limitations of the equipment. The customer must not allow access to any people whom:

- are not responsible;
- are not familiar with the dangers, uses and limitations of the equipment;
- do not understand the laws applicable to self defense and the principle of the use of minimum force.

When not being used, the equipment must be aimed in a safe direction which cannot harm people, animals or property. Although unlikely, it is possible that the equipment shoots when it is not operated. eg. if a brick is thrown and strikes the equipment, it may shoot.

## Maintenance

Please consult the Maintenance Schedule, [www.sublethal.co.za/help](http://www.sublethal.co.za/help), for details of how to maintain the Remote Gun. It is recommended that the Remote Gun is fully tested at least every 6 to 12 months.

## Technical Specifications

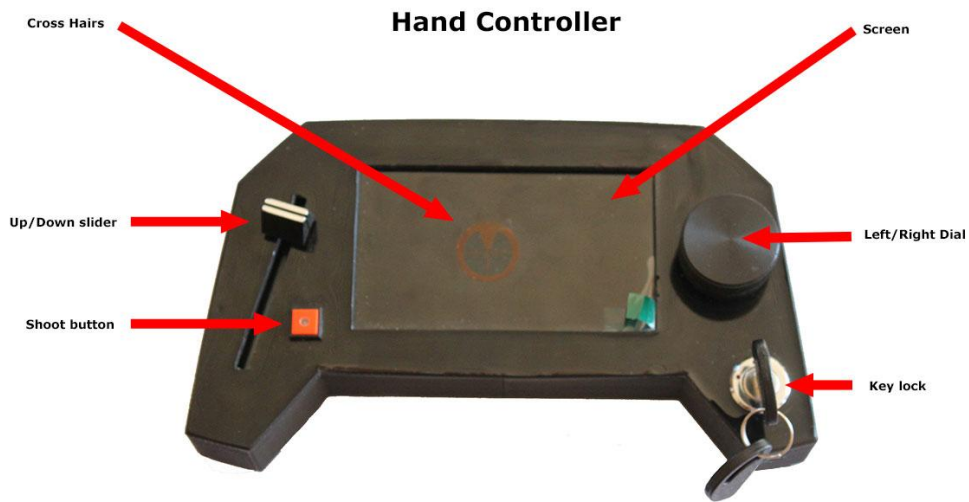
Manufacturer:	Sublethal PTY LTD, registered in the Republic of South Africa
Model:	Boomslang, self defense unit.
Shipping mass:	34kg (South Africa only) 22kg, 48 pounds (International, excluding battery & gas cylinder)
Mass/Weight- Arm & weapon housing:	18kg, 40 pounds. This is to be lifted by the technician/s.
Mass/Weight- Battery	16kg, 35 pounds
Dimensions- packaging:	(l w h): 700 x 300 x 600mm, 28 x 12 x 24 inch
Dimensions- Arm:	530mm, 21 inch
Dimensions- Weapon housing:	(l w h): 350 x 240 x 400mm, 14 x 10 x 16 inch
Power supply:	12v 50Ah deep cycle battery (endurance: 3 days without charging) battery charger from 220v (110v optional) optional solar power
Finish:	Powder coated, dark grey Optional galvanised for coastal areas and high temperature areas.
Materials:	Mild steel body, ABS fittings
Main weapon:	Paintball gun
Rate of fire:	up to 3 rounds per second
Magazine capacity:	155 bullets
Bullets:	0.68cal solid nylon bullet, 0.68cal pepper balls. Does <b>not</b> accept 0.68 paint balls

Effective range:	up to 25 meters (80 foot)
Propellant:	20oz Carbon Dioxide gas cylinder (approx 500 shots) optional: compressed air cylinder for cold climates
Distance, user to gun:	limited to 30m (98 foot)) cable length. Optional: extended for export or special applications.
Installation time:	2 hours for an experienced technician, excluding mounting structure construction. 2 person installation recommended.
Installation tools:	spanners, screwdrivers, scaffolding or cherry picker, working at height personal protective equipment.
Operating temperature:	Standard model: 1° to 35° Celcius (33° to 95° Fahrenheit) optional: modifications are available for colder and hotter operating temperatures.

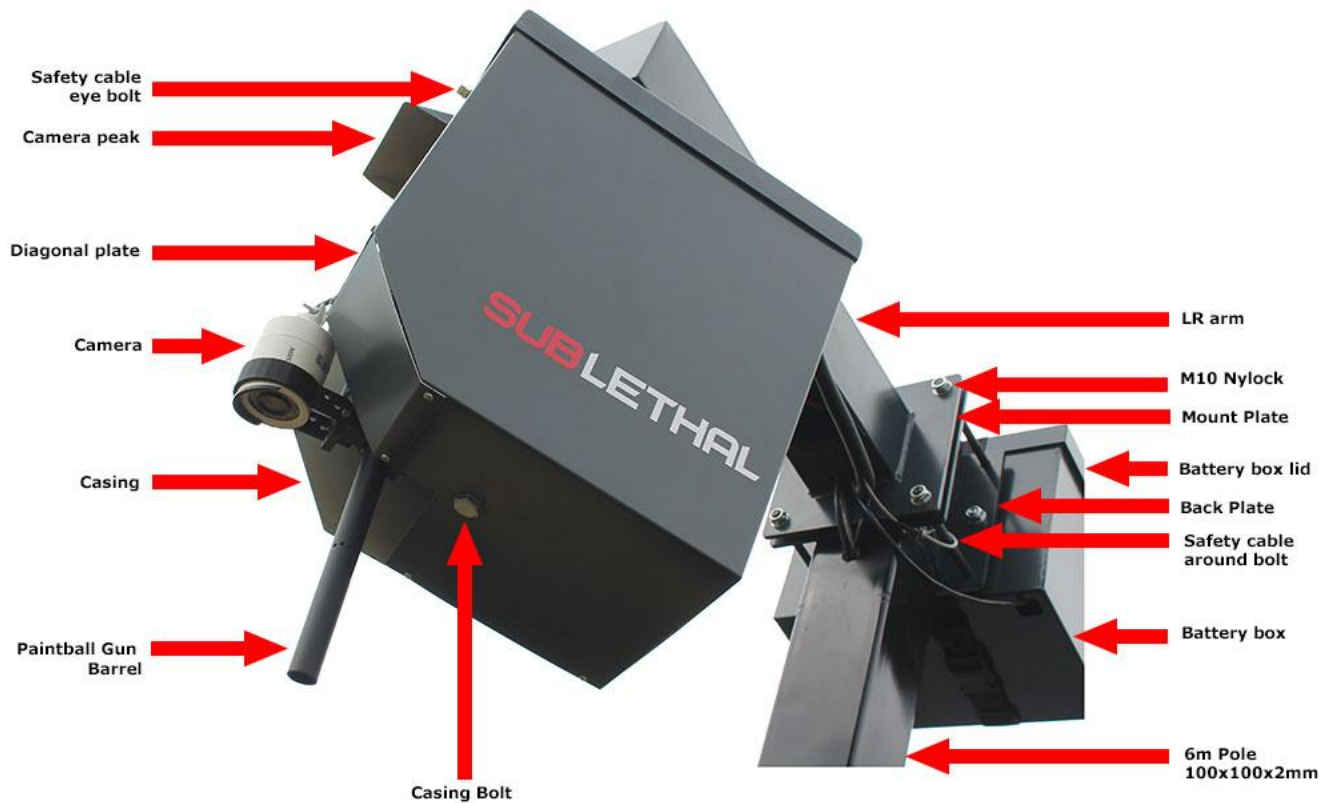
Controller:	<ul style="list-style-type: none"> <li>• Hand controller connected to the weapon system via 30m (98 foot) cat5 cable.</li> <li>• Powered from the weapon system</li> <li>• Secured with a key lock. Weapon will move but not fire without the key inserted and armed.</li> <li>• Screen width: 95mm (3.7 Inch)</li> <li>• Screen height: 54mm (2.1 Inch)</li> </ul>
Camera:	HIKVISION DS-2CE16COT-IR. Note: the camera can be replaced by almost any camera if better resolution or off site monitoring is needed. IP cameras can also be used. See documentation on alternate CCTV setup.
Camera details:	Color, 720p, 0.01Lux @ F1.2, Infra Red, 12V, 4W
Camera mounting:	Camera is mounted on a picatinny rail on the paintball gun

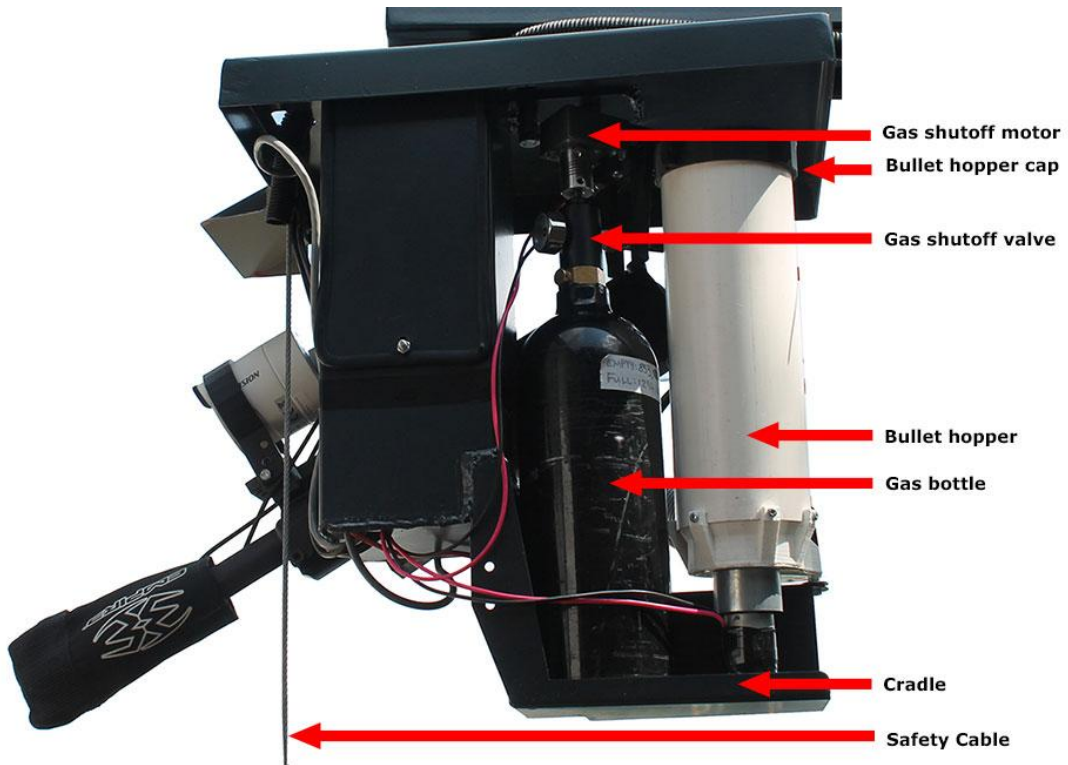


# Product Identification



## Sublethal Remote Gun





## Electrical Setup

Simplified electrical set up for installations:

