

## ORBITAL V3 Wireless Deadman System Instruction Manual



**Please read this manual before using the product**

## Contents [ [hide](#) ]

1	<a href="#">SAFETY</a>
2	<a href="#">COMPATIBILITY &amp; USAGE</a>
3	<a href="#">DEVICE DESCRIPTIONS</a>
4	<a href="#">SPECIFICATIONS</a>
5	<a href="#">LED LEGEND</a>
6	<a href="#">ABOUT US</a>
7	<a href="#">OPERATION TIPS</a>
8	<a href="#">TROUBLESHOOTING</a>
9	<a href="#">SAFETY FEATURES</a>
10	<a href="#">RADIATION EXPOSURE STATEMENT</a>
11	<a href="#">ISED STATEMENT</a>
12	<a href="#">FCC STATEMENT</a>
13	<a href="#">Documents / Resources</a>
13.1	<a href="#">References</a>

## SAFETY

- Do not attempt to repair the product without authorization;
- Do not attempt to open the case without authorization;
- Do not place the product near a fire source;
- Do not connect the product directly to the power source for the pot solenoid or blast light
- Do not use chargers that were not supplied by the manufacturer;
- Unplug the devices when not in use;
- Replace all damaged rubber boots and covers before operating;
- Test your paired devices with the air disabled before blasting;

## COMPATIBILITY & USAGE

The design works with any two wire electric deadman switch. Any connector of your choosing can also be used and is easy to install as the polarity of the wires inside the connector does not matter for either device.

Range will decrease depending on interference and obstruction. For best results, mount

both devices far from the ground or any metal objects and orient them vertically facing each other.

## DEVICE DESCRIPTIONS

### Transmitter

This device connects to your deadman switch. It works to “transmit” the command from your deadman switch to the pot. It features a guide for your hose to fit into and a Velcro strap for easy mounting. On the device you will find the text “CONNECT DEADMAN”.

### Receiver

This device connects to your pot. It is equipped with an internal relay switch which is used to control the solenoid on your blast pot. The state of the switch, whether open or closed, is determined by the signal it has “received” from the wireless deadman switch. On the device you will find the text “CONNECT POT”.

## SPECIFICATIONS

Max Range / Typical Range	1000' / 700'
Battery Life	24 hours
Time To Fully Charge	2 hours
Relay Contact Rating	1 A @ 30 VDC
Factory Twist Locks	L5-15
Maximum Receivers Per Site	25+
Operating Temperature	-30°C to 40°C

## LED LEGEND

Yellow – Flashing	Not paired
Yellow – Solid	Paired but out of range

White – Flash/Solid	Pairing mode entered
Red – Flashing	Low battery
Green – Flashing	Charging battery
Green – Solid	<b>If charging:</b> charging complete <b>Otherwise:</b> Paired, not blasting
Blue – Solid	Paired, actively blasting

## ABOUT US

Orbital Sandblasting was founded with a singular focus: to improve the quality of life of sandblasting professionals.

We want to inspire change and push towards an industry that does not accept compromises. We work directly with our customers to get feedback on our products right from day one. These products are for you, and your voice should be heard. If you have a problem that needs solving, we want to hear from you.

## OPERATION TIPS

1. Line of sight between the Transmitter and Receiver is not required to achieve 700'+ range. You don't need to worry about trying to position your Receiver in an optimal way.
2. The Receiver can be connected to the charger at all times if desired. It will still enter pairing mode and, for your convenience, once paired the LED will show the state of the pot just like it does when it is not charging.
3. The devices can be mounted in protective enclosures without impacting the range, however each device is already very durable therefore doing this is not recommended or necessary.
4. These devices will work in any situation. For “unlimited range”, rather than connecting your Receiver directly to your pot, attach your existing deadman cable between the pot and the Receiver and move the Receiver anywhere you'd like. Again this is not recommended or necessary but is a useful trick in the worst case scenario.
5. For convenience, pairing is maintained when only one device turns off. When no

longer in use, turn both devices off to guarantee pairing is erased.

## **TROUBLESHOOTING**

### **1. Device won't turn on**

Flip the toggle switch or try charging the device until it is fully charged – see LED legend.

### **2. Pairing mode failed (LED flashes red 3 times)**

Ensure the Transmitter and Receiver are both in pairing mode at the same time and that there is only one Transmitter attempting to pair at any given time.

### **3. Transmitter LED is solid blue but pot won't turn on**

Ensure the Receiver is within range – see LED legend.

### **4. Receiver LED is solid blue but pot won't turn on**

Ensure the pot solenoid is powered, the Receiver does not supply power to the pot. Also, ensure the Receiver is not connected to the wrong plug.

### **5. Range is not long enough**

Charge both device batteries. Range can also be improved by elevating the devices away from earth, or by using tip #4 from the section “Operation Tips”.

## **SAFETY FEATURES**

The pot will turn off when the Transmitter signal is lost (eg. dead battery or being out of range)

While charging, the Transmitter forgets its paired device and operation is disabled.

Pairing mode establishes a 1-to-1 connection between the Transmitter and Receiver with unique encryption keys and cross talk avoidance.

Multiple mechanical redundancies are present to ensure you can always shut off your pot in multiple ways. We recommend you disconnect the Receiver from the pot when not in use.

## **RADIATION EXPOSURE STATEMENT**

This wireless product complies with the FCC and Industry Canada RF exposure limits for portable devices used in uncontrolled environments. It is safe for intended operation as described in this manual and must not be collocated or operating in conjunction with any other transmitter. Changes or modifications not expressly approved by the party

responsible for compliance could void the electromagnetic compatibility (EMC) and wireless compliance and the user's authority to operate the equipment.

## **ISED STATEMENT**

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

**Operation is subject to the following two conditions:**

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## **FCC STATEMENT**

This device complies with Part 15 of the FCC Rules.

**Operation is subject to the following two conditions:**

**(1)** This device may not cause harmful interference, and **(2)** This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential/industrial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

## Power

①



- Flip the toggle switch for both the Transmitter and Receiver to the ON position.

The LED will flash ORANGE

## Pair

②



- Hold down the pairing button on both the Transmitter and Receiver for 3s.
- Pairing will complete in 10 seconds.

The LED will flash GREEN 3 times

### Test



- Connect the Receiver to the pot.
- Connect the Transmitter to a deadman switch.

The LED will turn BLUE when blasting

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**ØRBITAL**

## Documents / Resources





[ORBITAL V3 Wireless Deadman System \[pdf\]](#) Instruction Manual  
WDSTRS3, 2BPVG-WDSTRS3, 2BPVGWDSTRS3, V3 Wireless Deadma  
n System, V3, Wireless Deadman System, Deadman System, System

## References

- [User Manual](#)

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2BPVG-WDSTRS3, 2BPVGWDSTRS3, Deadman System, Orbital, System, V3, V3 Wireless Deadman System, WDSTRS3, Wireless Deadman System

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