433MHz Waterproof Remotes with Frequency Hopping

#### **FEATURES**

- Waterproof Keyring Remotes (IP66)
- Option of 1, 2, 4 or 5 channels
- Simultaneously transmits the encrypted code on 5 different frequencies, making it difficult for the remote to be interfered with or jammed
- Uses frequency hopping spread spectrum (FHSS)
- One of the most secure remote controls on the market
- Designed in Australia
- Compatible with PCR Penta series of receivers



- Keyless access control for automatic gates and doors
- Home automation i.e. garden lights, swimming pool control etc
- Wireless security, lighting and automotive controls
- .... and anywhere else you need a wireless signal to transmit a contact closure

#### **DESCRIPTION**

The Waterproof PentaFOB® works in conjunction with our standard PentaFOB® remotes and PCR series of receivers. It uses frequency hopping spread spectrum (FHSS). This means that when a button is pressed, it simultaneously transmits the encrypted code on five different frequencies. This makes it difficult for your remote control to be interfered with or jammed.

Available in 1, 2, 4 and 5 button configurations.

The keyring retainer is moulded as part of the chassis making for a super sturdy keyring mount.

#### **OEM CONFIGURATION**

The PentaFOB® WP series is an extremely versatile remote control that can be customized through a range of configurations and colors to suit your needs.

# **TECHNICAL DATA**

Operating Voltage	3 Volt Battery (CR2032)
Battery life	2 years with average use
Frequency Band	433.100 to 434.700MHz
Operating range	up to 100 metres depending on building structure and receiver antenna
Operating Temperature Range	-5 to 50°C
Decoding System	Encrypted 17 billion codes combinations
Weight	38 grams



# **COMPATIBLE RECEIVERS**

Below is a list of compatible receivers for the PentaFOB® keyring remotes.



# **ORDERING CODE**

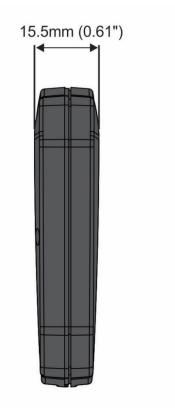
FOB43301LWP	1 - Large Button, Keyring Remote
FOB43301WP	1 - Button, Keyring Remote
<b>FOB43302WP</b>	2 - Button, Keyring Remote
<b>FOB43304WP</b>	4 - Button, Keyring Remote
<b>FOB43305WP</b>	5 - Button, Keyring Remote

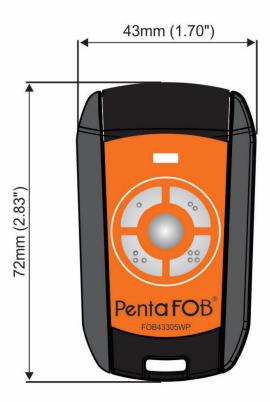
# **ELSEMA'S INVENTION**

Elsema has once again revolutionised the wireless, automatic gate and door industry. With our next generation of Penta series that use frequency hopping and customizable features, these remotes and receivers are superior to normal garage door rolling code remotes. And to make the PentaFOB® even better we made it with a water proof case.

Penta originated from the 5 sides of a Pentagon. The 5 sides representing each frequency the keyring remote control operates on. Most keyring remote controls operate on a single frequency, we wanted to be the first in the world to operate a keyring remote control on 5 different frequencies giving it a high level of security and immunity to interference.

#### **KEYRING DIMENSIONS**





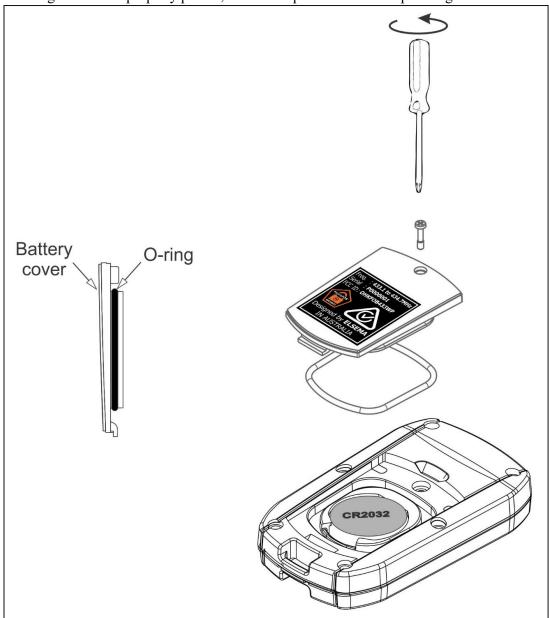
#### FREQUENCY HOPPING

The PentaFOB® series keyring remotes use frequency hopping spread spectrum (FHSS). When a button is pressed, the remote transmits the code on 5 different frequencies, making it impossible for the remote to be interfered with or jammed. This allows multiple transmitters to be used in close proximity with no interference or jamming.

This technology is usually used in very expensive equipment and military applications

# **BATTERY REPLACEMENT**

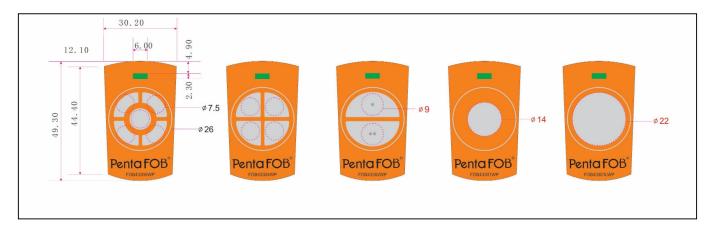
The PentaFOB® series remotes use a 3 Volts coin cell battery (CR2032). The battery life is expected to be 2 years with average use. To replace the battery, remove the center screw at the back of the remote with a phillips head #0 screw driver. Remove the battery cover. This exposes the battery. Replace it with the same type of battery while observing the polarity. There may be a risk of explosion if wrong type of battery is used. While putting the battery cover back, make sure that the O-ring gasket is properly placed as show in the diagram below. If this gasket is not properly placed, it will compromise the waterproofing.



# **Labeling/Instruction Requirement**

The Penta $FOB^{\otimes}$  transmitters have been labeled in accordance with FCC and Australian regulations in effective to the day of this document.





# **LABEL DIMENSIONS**

### **REGULATORY COMPLIANCE STATEMENTS**

#### **American Users**

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.

#### **FCC Notice**

This device 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 installation. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, 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.

Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

#### **Australian and New Zealand Users**

This device has been tested and found to comply with the limits for a Class [B] digital device, pursuant to the Australian/New Zealand standard AS/NZS 4268 set out by the Spectrum Management Agency.