

## Akrapovič Sound Kit -

### Operational / Technical Description: Sound Remote Controller

Basic function is to control the receiver unit via Bluetooth connection and change open/close position of the exhaust valve.

Unit is supplied by 3V battery.

The supply part includes stabilizing components for Bluetooth CC2541 supply.

I/O part includes BUTTON switch and LED components.

Keyfob includes LEDs to signal the activity, white LED for VALVE closed, red LED for VALVE opened and orange LED for low-battery warning.

Bluetooth part includes main chip CC2541, crystal oscillator (32 MHz) and RF output with impedance matching balun and inverted-F antenna.

Bluetooth unit is in “sleep mode” all the time, waiting for a user to press a button. After pressing the button, Bluetooth connection with receiver is established and command signal is sent from keyfob to receiver.

When command is sent successfully, VALVE output stage on the receiver changes. RF output frequency range is 2400 – 2483,5 MHz and is separated into 40 Bluetooth channels (2 MHz each). Channel selection is automatic, determined during receiver and keyfob connection.