

**SP Diagnostics - [www.spsupport.com](http://www.spsupport.com)**



# Key Fob and Transponder Coil Testing Tool

## Key Fob and Transponder Coil Single Function Tester

This booklet will give you a step-by-step guide of how to use the tool and how to access the functions built into it.

For more guides visit the SP Diagnostics Support website [www.spsupport.com](http://www.spsupport.com) and go to the Products – Service Tools – Documents section of the site.

Version 2.001



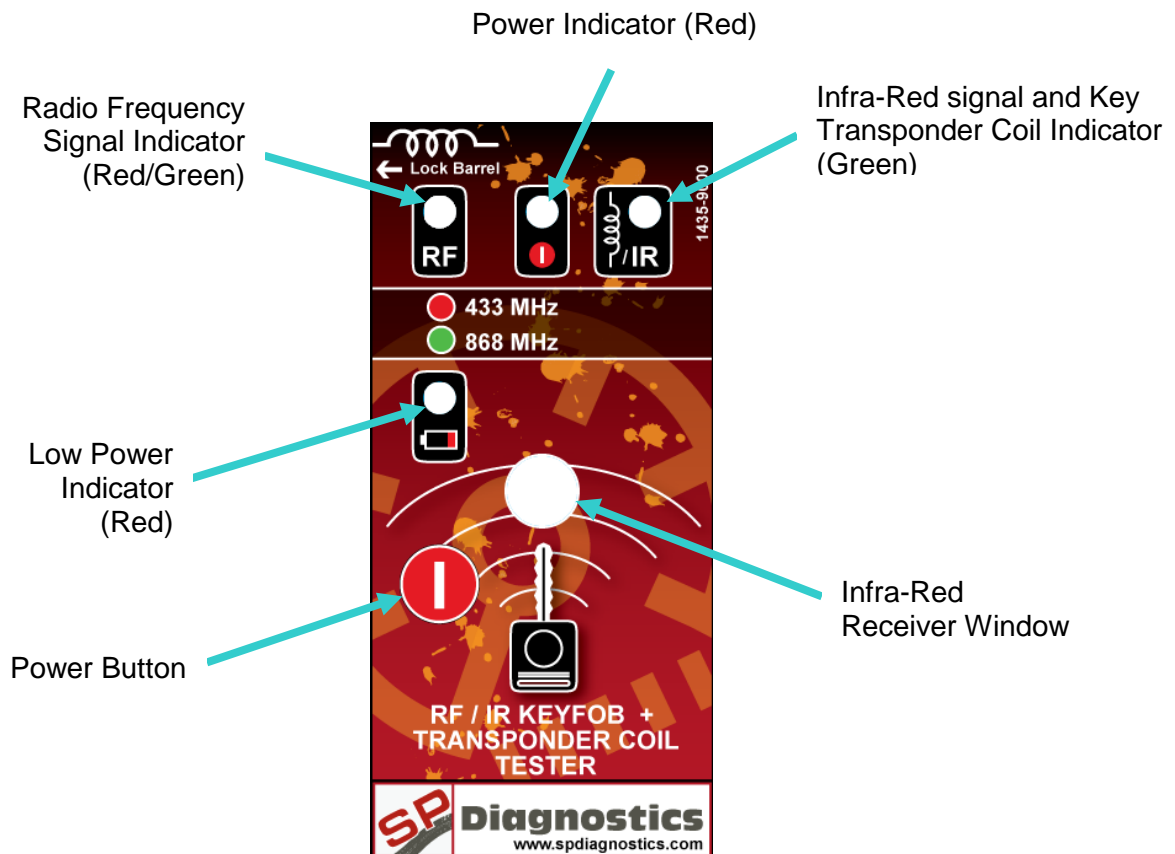
## Features / Operation

- Tests Infra-Red and RF Key Fobs (433MHz/868MHz)
- Tests transponder key coil drive
- Battery operated and portable
- Magnetic back for convenient mounting on tool box

The SP Diagnostics Key Fob tester is an accurate and reliable means of testing key fobs that do not appear to function with a vehicle. Rather than swap batteries and still be unsure this unit gives an accurate indication of a signal being received and also gives an indication of strength due to the tuned sensitivity. It also checks the integrity of the vehicle's 125KHz key transponder coil signal.

## Functions:

- Tests 433/434MHz RF transmitters
- Tests 868MHz RF transmitters
- Infra-Red detector for older style remotes and Mercedes Fobs
- Tests transponder key coil drive
- Auto Off to conserve battery power



## Key Fob Tool User Instructions

### Controls:



**Power Button:** Switches the unit on for a period of time



**Power Indicator:** Indicates the unit is switched on when lit.



**IR/Transponder Coil Indicator:** Lights when an Infra-Red signal or 125KHz transponder coil signal is received.



**RF Indicator:** Lights RED when an RF signal of 433MHz is received. Lights Green when an RF signal of 868MHz is received.



**Coil Reader:** Place this as close to the coil as possible to test

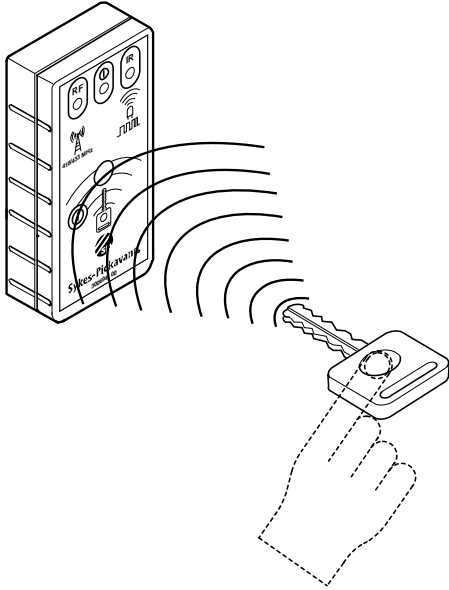


**Low Battery Indicator:** Lights when the battery requires replacement.

## Testing RF Fobs



1. Press the power button
2. The ON indicator will illuminate.



3. Point the key fob at the tester and operate the button.



Green – 868MHz

4. If a signal is received then the RF LED will illuminate for the duration of the transmission. This may be continuous or just short bursts, depending on the key fob.

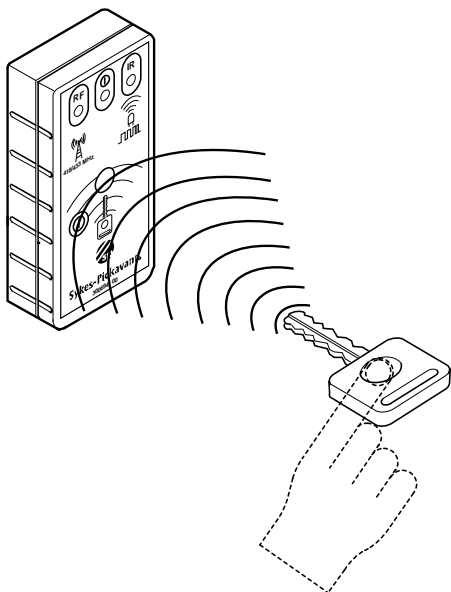


Red – 433MHz

## Testing IR Fobs



1. Press the power button
2. The ON indicator will illuminate.



3. Point the key fob at the tester Infra-Red receiver window and operate the button.

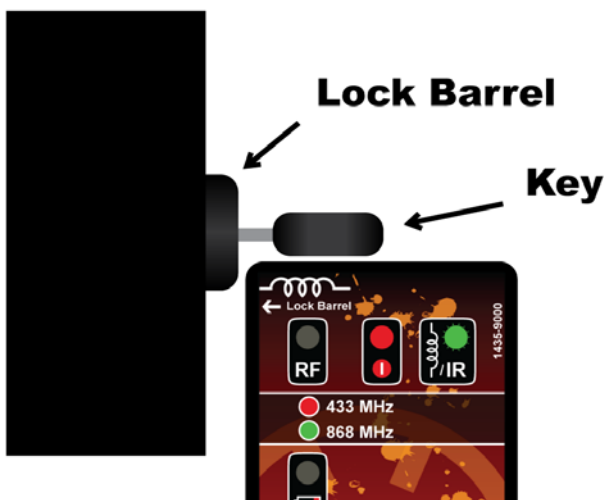


4. If a signal is received then the Infra-Red LED will illuminate for the duration of the transmission. This may be continuous or just short bursts, depending on the key fob.

## Testing Key Transponder Coil



1. Press the power button
2. The ON indicator will illuminate.

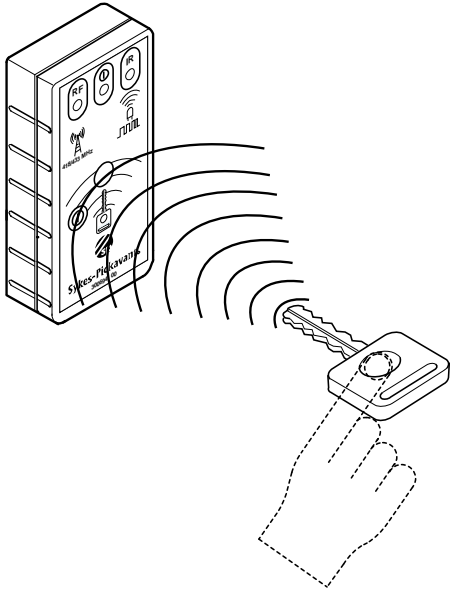


3. Align the tester so that the internal transponder detector faces the key transponder ring opening, with the key in the ignition barrel – it may be necessary to hold the tester alongside and close to the key, to align the detector with the narrow field generated by the coil. Turn the key to activate the transponder reader coil whilst observing the IR/Transponder LED (depending on vehicle, the transponder coil may be activated in key position “1” or “2”, or even on key entry for some Honda models for example.) Note that the Transponder Coil signal is very directional along the axis of the key and deliberately short range, so the tester needs to be carefully aligned and in close proximity to the key during the test to maximize reliability of the test



4. If a signal is received then the IR/Transponder LED will illuminate for the duration of the transmission. This may be a continuous burst or just short bursts depending on the vehicle.

## Testing Transmit Range (RF or IR)



**1.** Mount the tester on a magnetic surface like a tool box for example.

**2.** Press the power button.

**3.** Test the key fob by activating it and moving the fob further away from the tester.

**4.** The corresponding light on the tester will indicate the received signal whilst the fob is still in range. (The actual range may not reflect that achieved with the vehicle, due to variations in sensitivity of tester compared to individual vehicles. The tester sensitivity is deliberately reduced to minimize interference sources from showing erroneous results)

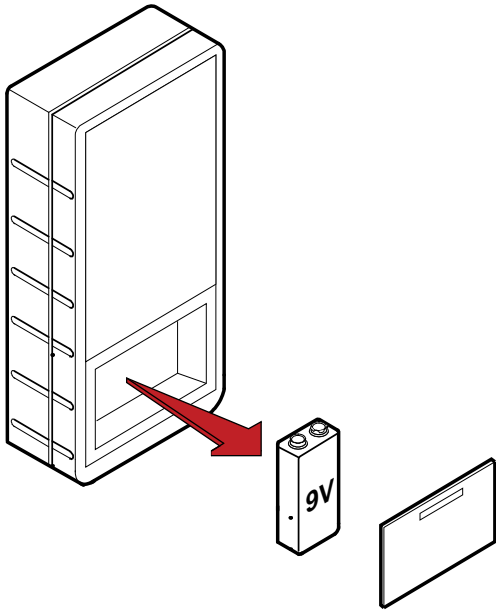


## Battery Replacement

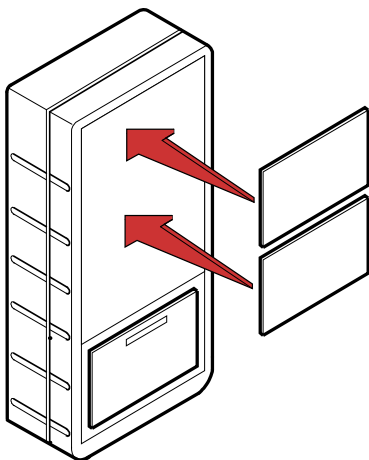


**1.** If the unit fails to power on or the battery low indicator LED illuminates then follow the steps below.

**2.** Replace the battery which is located under a sliding panel on the rear of the unit. The battery is a standard PP3 9 volt battery



## Magnetic Strips



**1.** If required you can attach the self-adhesive magnetic strips to the rear of the Key Fob tester.







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