WASP
User Guide

WASP User Guide for the SPi.

This guide provides you with details of how to use your WASP in conjunction with the SPi.

For more guides visit the SP Diagnostics Support website www.spsupport.com and go to the Products – SPi – Documents section of the site.

Version 1.001

1419 – WASP Wireless automotive signal module

Please read this information carefully before using your new WASP Module

Thank you for purchasing your WASP Module. We at SP Diagnostics believe that you will have many years of successful business as a result of your investment and it is our aim to ensure that you will remain as up-to-date as possible. Please refer to these instructions when using the tool, if you experience any difficulties then please contact the technical help line on the number below:

TECHNICAL HELP LINE NO. 0844 561 7861

You can register on-line by selecting the following link: *www.spsupport.com* which will give you exclusive access to the support area!

By registering your product you can take advantage of the following:

- SP Diagnostics product and technical updates via email
  - SP Diagnostics will keep you up to date with new products, special offers and technical information

We are always keen to hear back from customers regarding our products, and what you would like to see included. If you have any specific thoughts, please feel free to contact our Technical Support Help line on *0844 561 7861* and discuss them with the team. Also, don't forget to log in to the **SP Diagnostics Support Forum** where you can share experiences and ask questions to SP Diagnostics technical staff and other SP Diagnostics customers. Check the **SP Diagnostics Support** website *www.spsupport.com* for regular updates and product news.

Training

SP Diagnostics can provide access to several training courses. Please contact customer services on *0845 6016510* for details.

Features:

WASP – Wireless Automotive Signal Module

- Wireless connection to the SPi
- Battery powered (3V, 2 x AA) with battery status indication icon and automatic switch-off.
- 6 Different data readings - Voltage, Low time, High time, Frequency, Duty cycle, Current (when used with additional current clamp)
- Clear easy to read values
- Min and mix readings
- Graph display alongside diagnostic reading
- Industry standard shrouded 4mm socket connection, compatible with a wide range of standard connection leads and probes and current clamp adapters.
- USB connection for factory test and programming and potential future upgrade.

The Wasp module can be used in two different modes Standalone mode and Dual reading mode.

1. Stand alone mode displays data from the WASP module only.
   This is accessed from the front screen menu by selecting the Wireless Icon (see below).

2. Dual reading mode shows Diagnostic Component data alongside the WASP data, once you have started a vehicle diagnostic session.
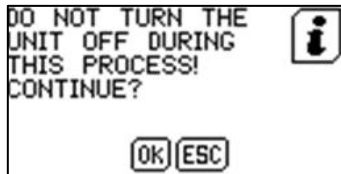
Specifications:

- **VOLTAGE** - Voltage measurements, three ranges available, Max continuous input voltage 40V:
    - Low range 0-2.0V.
    - High range 2.0-18.8V.
    - Auto range 0.0 – 18.8V.

- **HIGH TIME** – "High" period of an alternating frequency squarewave signal in milliseconds:
    - Low range 0.1ms – 3.0 ms.
    - High range 0.1ms - 2000ms.

- **LOW TIME** – "Low" period of an alternating frequency squarewave signal in milliseconds:
    - Low range 0.1ms – 3.0 ms.
    - High range 0.1ms - 2000ms.

- **FREQUENCY** - Frequency of an alternating frequency signal in Hz, two ranges:
    - Low range 0 - 300Hz.
    - High range 250 - 20,0000Hz. (0.250KHz – 20.000KHz)

- **DUTY CYCLE** - Duty cycle of an alternating frequency signal as a percentage:
    - Range <5% - >100 %.

- **CURRENT** - Using an additional current clamp with millivolt output, 0-2000A theoretical measurement and display range, dependent on the range of the clamp, three modes available:
    - Low range 0-20A - current clamp output scaled 100mV/A.
    - Med range 0-200A - current clamp output scaled 10mV/A.
    - High range 0-2000A - current clamp output scaled 1mV/A.

- **LOW BATTERY INDICATION** - WASP internal battery status is indicated in three stages by the battery icon at the top left of the SPi screen. Although WASP will continue to function for a period with low battery, it is recommended for consistency and accuracy of readings and predictable functionality to replace the batteries when the icon shows empty. Alkaline type AA cells are recommended for maximum battery life.
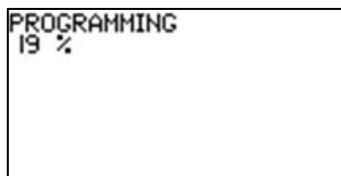
First Time Use Procedure

Your Wireless module in the SPi may need to be updated to work with the WASP, This process is straight forward by following the following steps. Upon entering a WASP mode you may see the Wireless update screen.
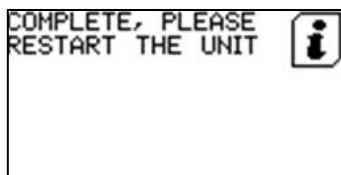
```
WIRELESS UPDATE
AVALIABLE, UPDATE  [i]
NOW?


     [OK][ESC]
```

Press ok to confirm the
update process

```
DO NOT TURN THE
UNIT OFF DURING   [i]
THIS PROCESS!
CONTINUE?

     [OK][ESC]
```

Simply press ok to start

```
PROGRAMMING
19 %
```

Programming status

```
COMPLETE, PLEASE
RESTART THE UNIT  [i]
```

Programming Completed

Menu & Icons

The Wasp module can be used in two different modes Standalone mode and Dual reading mode.

Stand alone mode displays data from the WASP module only
Dual reading mode shows Diagnostic Component data alongside the WASP data
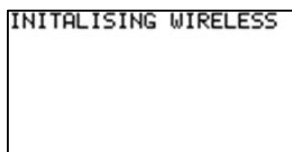Standalone mode is accessed from the front menu screen

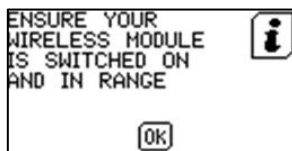Wireless Icon – Select this to start Standalone WASP mode
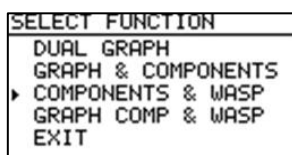
Component Function Menu – Select this to start Dual Reading mode (once Diagnostics Has started).
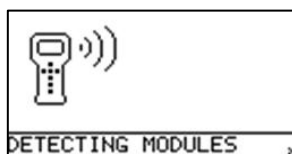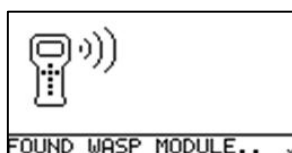
Connecting

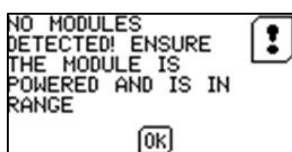

Start Wireless connection to WASP module.

Switch on the WASP module (Red LED will illuminate)

The screen will display 'Detecting Modules' to indicate that it is trying to communicate with the WASP.

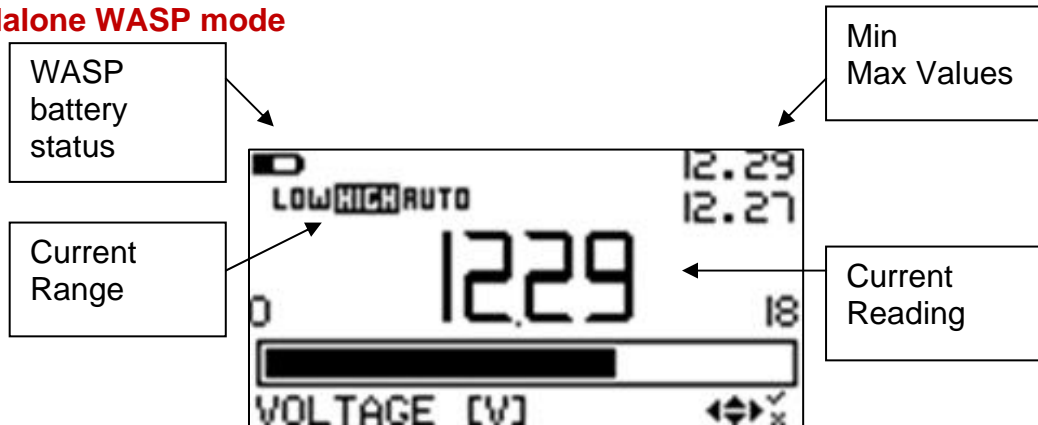WASP module Detected and ready to use (WASP led will be flashing)

WASP module not found Ensure it is switched on and the LED illuminated or flashing.

Quick Start Guide

Now you are ready to start using the WASP module in either Standalone of Dual mode

Standalone WASP mode

WASP battery status

Min Max Values

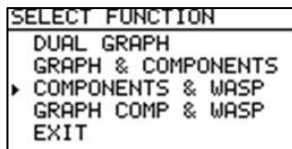Current Range

Current Reading

Available Key functions**:**
Press up & down to scroll through WASP measurement parameters.
Press left & right to change Range (if applicable).
Press OK for Help on current reading.

WASP and Vehicle Diagnostic Components

Once you have started a diagnostic session with the vehicle select "Component and WASP" in the Components Menu.
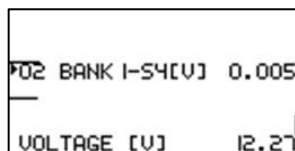
Components & WASP

Available Key functions**:**
Up & Down to scroll through Components / WASP Items,
Left and Right to switch between WASP and Diagnostic Components,
OK to select large WASP Display (to allow range change / setup) or Basic components (8 Diagnostic components on a screen).

Graph Comp & WASP

Available Key functions**:**
Up & Down to scroll through Select Items,
OK to select Component (Top Graph) or WASP (Bottom Graph)
Right to select large WASP Display (to allow range change / setup)

Disconnecting & Switching Off

The WASP will automatically switch off five minutes after communication with SPi has finished. Alternatively escaping from the WASP function displays a menu which allows the WASP module to be switched off immediately, this will help to prolong battery life.

```
DO YOU WISH TO
SWITCH OFF THE        [i]
WASP MODULE?


        [OK][ESC]
```

WASP Switch off Screen

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