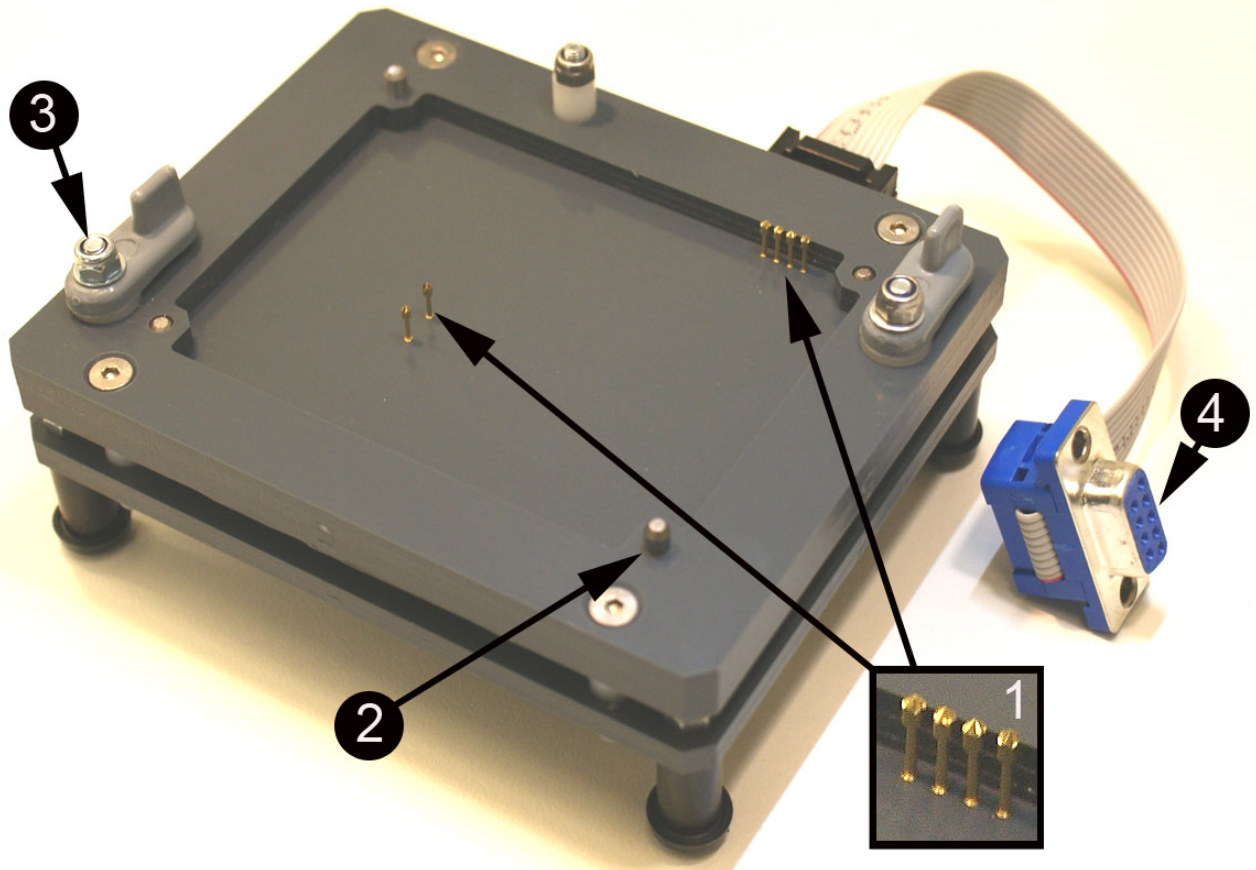


## Mercedes WSP Solderless Programming Adapter

Version 2

**Applicable to:** *All Mercedes Sprinter, Vito etc. models fitted with the WSP unit shown below, with HC08xxx micros*



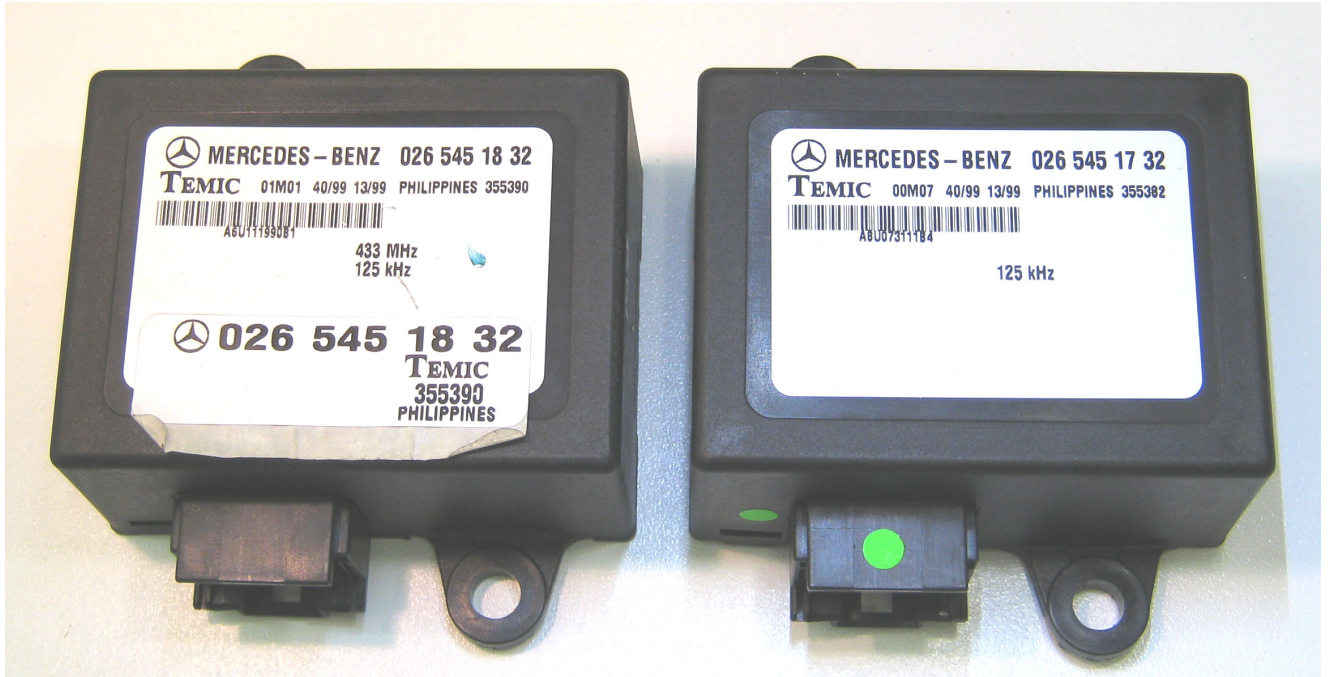
- Allows a suitable programmer to read / program the micro in the WSP unit in seconds.
- Uses the original manufacturer's test pads on the back of the PCB.
- No soldering or desoldering required.
- Precision made in the UK.
- Supplied with a connector for Codex / Elrasoft UPA programmers. (Programmer not supplied).

### Key Features:

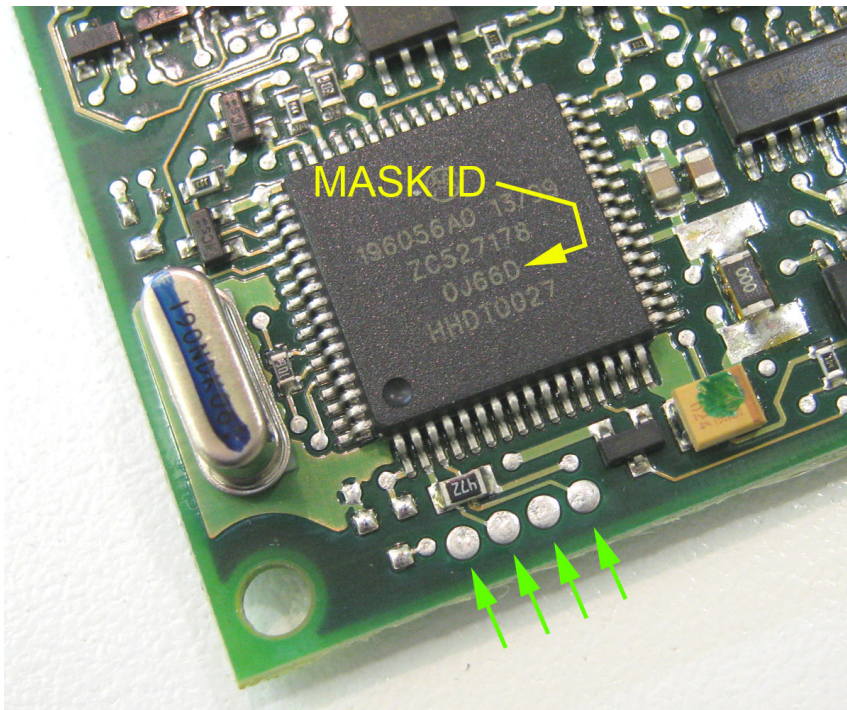
- 1) Spring loaded contact pins
- 2) Steel location pins – use existing holes in PCB
- 3) PCB Hold-downs
- 4) 9 Way 'D' Connector for programmer

## Instructions

- 1) Compatibility: Ensure that the WSP unit is compatible with the adapter. The adapter will work with the versions that have an HC08 micro.



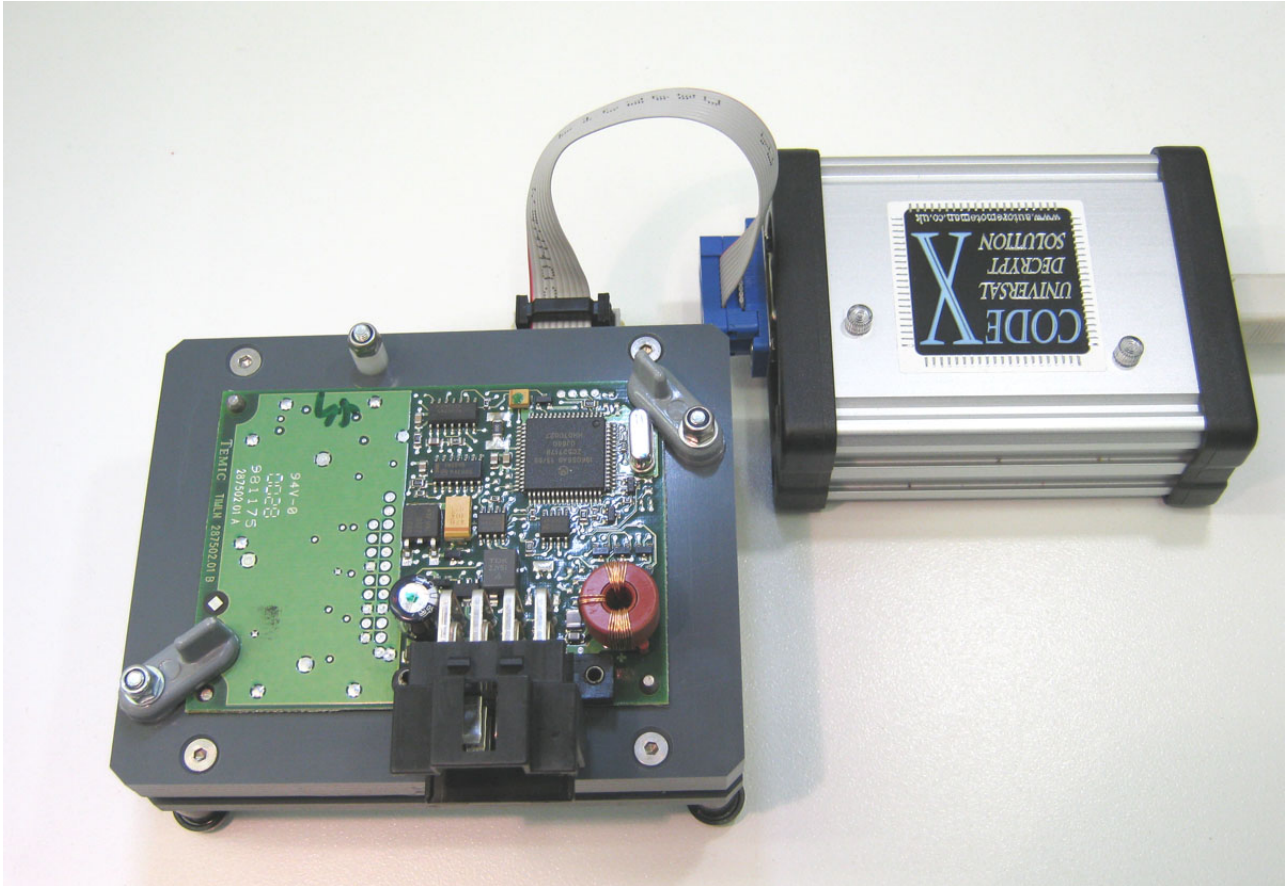
i.e. it is definitely compatible with the 2 units shown above, but as a more general rule, the micro in the WSP unit should be a HCx08 version, with the arrangement of pads shown below, indicated by the green arrows:



If in doubt, check the processor's Mask ID.

2) Mount the PCB on the Adapter, and secure it using the thumb latches.

Note that you can only fit the PCB onto the Adapter one way round.



3) Once the programmer is connected, the micro can be read in the usual fashion, using your own programmer.

No power supply is required for the adapter. Power is supplied by the programmer, usually through its USB connection.

## Example 1

Reading a memory dump from a WSP unit, part number 026 545 17 32, mask ID J66D no security feature set.

The screenshot shows the UPA-USB Device Programmer v1.2 interface. The main window displays a memory dump with hexadecimal and ASCII data. A red arrow labeled '1' points to the device selection dropdown menu, which is set to 'MC68HC08AZ32'. Another red arrow labeled '2' points to the 'Auto Baud Rate' button. A third red arrow labeled '3' points to the 'Read' button. The 'Messages' window at the bottom shows the following text:

```
Found Device Programmer UUSP1, Serial Number: 050D68F8
Sample Device Script (sample1.uds) Installed © 2005 ELRASOFT
Setting up baud rate: Success Device: MC68HC08AZ32 Range: 0 - 1FF
Reading: Success Device: MC68HC08AZ32 Range: 0 - 1FF
```

1 – Select MC68HC08AZ32

2 – Click on 'Auto Baud Rate'. A baud rate of 14401 should be detected.

3 – Click 'Read'

The part number appears in the dump as indicated.

The 'Program' button can be used to write data to the micro.

## Example 2

Reading a memory dump from a WSP unit, part number 033 545 59 32, mask ID L52H with security feature set.

The screenshot shows the UPA-USB Device Programmer v1.2 interface. The main window displays a memory dump for device 'Sprinter\_0335455932\_Mask ID L52H'. The dump shows hexadecimal data and ASCII characters. A green box highlights the part number '033 545 59 32' in the dump. The right-hand panel shows the device configuration: 'MC68HC08AZ32A/4MHz', '32KB E2:512 RAM:1KB', Baud rate '14401', EEPROM selected, All Memory selected, Start '0', End '1FF', Security Bytes checked, and the security bytes 'F1-6A-FA-04-E4-DA-FA-04'. The 'Auto Baud Rate' button is highlighted with a red arrow labeled '3'. The 'Read' button is highlighted with a red arrow labeled '4'. The 'Program' button is also visible. The bottom status bar shows 'Offset 000000h', 'Data FFh', 'Size 000200h', 'CRC', 'Over Find/Replace Monitor', 'Programmer', and 'Connections'. The Messages window at the bottom shows the following text: 'Found Device Programmer UJ5P1, Serial Number: 050D68F8', 'Sample Device Script (sample1.uds) Installed © 2005 ELRASOFT', 'Setting up baud rate: Success Device: MC68HC08AZ32A/4MHz Range: 0 - 1FF', and 'Reading: Success Device: MC68HC08AZ32A/4MHz Range: 0 - 1FF'.

1 – Select MC68HC08AZ32A/4MHz

2 – Enter the security bytes: **F1-6A-FA-04-E4-DA-FA-04** in the box shown.

3 – Click on 'Auto Baud Rate'. A baud rate of 14401 should be detected.

4 – Click 'Read'

The part number appears in the dump as indicated.

The 'Program' button can be used to write data to the micro.