

**Unlocking Technology** 







World Leaders In Automotive Key Programming Equipment

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APPLICATIONS Have Moved to IQ - Online



# Vehicle Data Search

Applications are continually updated as vehicles are constantly added. To ensure you have the very latest information, the applications list is available via Info Quest - an online portal containing vehicle technical data for key & remote programming

for all manufacturers.

To view the latest vehicle applications please visit

Info Quest at http://iq.advanced-diagnostics.com/



## **DIAGNOSTIC SOCKETS/PORTS**

B

![](_page_3_Picture_3.jpeg)

## **DIAGNOSTIC SOCKETS/PORTS**

B

![](_page_4_Picture_3.jpeg)

## **GENERAL OPERATION**

#### INTRODUCTION

The Peugeot Immobiliser systems consist of 4 different types. They all perform various functions, and it is important to understand the basic configuration and the types of systems fitted.

#### IMM - STANDARD IMMOBILISER

This system was the first transponder system fitted to the Peugeot range of vehicles, after the keypad system was phased out. The system is a basic electronic control unit which consists of immobiliser unit, and transponder aerial to pick up the transponder signal code.

This system is similar to the GM immobiliser system, and is programmed and diagnosed in much the same way.

#### CPH - PASSENGER COMPARTMENT PROTECTION CONTROL UNIT

The next generation of Immobiliser and alarm system produced was the CPH system which controls a number of additional components which further enhances the vehicle protection system. These include central door locking, ultrasonic sensors to name a few.

This system is programmed in much the same way, but offers additional functionality on live data and actuators functions.

#### **BSI - BODY SYSTEMS INTERFACE**

On this system, the alarm and immobiliser have now been incorporated into the body control unit, which controls all body units, including wipers, indicators, lights, doors, windows, locks, boot, service interval, horn, etc.

Again, with BSI, the immobiliser is part of a complicated system there are many more functions included, on actuators, special functions and live data.

#### **CAN - CONTROLLER AREA NETWORK**

This is the latest system that still uses the BSI Interface as described above but in addition communicates via CAN rather than the traditional serial communications interface.

#### TRANSPONDER KEYS

If using non original transponders or keys on BSI systems, it is possible for the following problems:-

- 1. No communication
- 2. Incorrect PIN CODE

#### CABLE CONNECTION

On the Citroen Xantia / Peugeot 406 early OBD connection is very loose, and the ADC120 cable needs to be held and pushed into the vehicle OBD connector to make sure a good connection is made.

#### SYSTEM IDENTIFICATION FOR 406 OLD & 406 NEW

![](_page_5_Picture_22.jpeg)

406 OLD CONNECTOR/SYSTEM

USE ADC120 + ADC100

NOTE : PULL DOWN PANEL TO RIGHT OF STEERING WHEEL.

406 NEW CONNECTOR/SYSTEM

USE ADC110-B

NOTE : PULL OUT PANEL NEXT TO HEADLIGHT LEVEL ADJUSTMENT SWITCH

![](_page_5_Picture_31.jpeg)

## SPECIAL FUNCTIONS

**PEUGEOT - ALL IMMO & CPH SYSTEMS PROGRAM KEYS PROGRAM KEYS** PROGRAM KEYS VEHICLE SELECTION DIAGNOSTIC MENU PROGRAMMING KEYS KEYS PROGRAMMED + LANCIA + MITSUBISHI PROGRAM KEYS TOTAL KEYS REQD : 2 + NISSAN READ MEMORY + PEUGEOT + ROVER + SUZUKI PRESS ENTER KEY PRESS ENTER KEY VEHICLE SELECTION SWITCH IGNITION ON + 106 SWITCH IGNITION OFF + 206 **IGNITION STATUS ON IGNITION STATUS OFF** + 207 + 306 + 307 +406VEHICLE SELECTION **IMPORTANT NOTE :** IMMOBL.1 PLEASE MAKE SURE YOU NOTE : FOLLOW SCREEN **REMOVE THE KEY FULLY** INSTRUCTIONS CAREFULLY. FROM THE **IGNITION, WHEN** PROGRAMMING MORE THAN 1 KEY. SECURITY CODE REMOVE KEY FROM IGN. SWITCH IGNITION ON THEN INSERT NEXT KEY 1 2 3 5 4 7 6 9 0 8 PRESS ENTER KEY PRESS ENTER KEY ECU IDENTIFICATION SWITCH IGNITION ON 22BC ECU NO : 964512341234 **IGNITION STATUS ON** х PRESS ENTER KEY DIAGNOSTIC MENU **PROGRAMMING KEYS** ECU IDENTIFICATION TOTAL KEYS REQD : FAULT CODES **KEYS PROGRAMMED : 2** LIVE DATA TOTAL KEYS REQD : 2 SPECIAL FUNCTIONS 1 2 3 4 5 7 8 9 0 6 PRESS ENTER KEY **ADVANCED** DIAGNOSTICS Version: 3.4 August 2015 7 Copyright 2015

## SPECIAL FUNCTIONS

**PEUGEOT - ALL BSI SYSTEMS PROGRAM KEYS PROGRAM KEYS** PROGRAM KEYS VEHICLE SELECTION DIAGNOSTIC MENU ECU IDENTIFICATION SWITCH IGNITION ON + LANCIA FAULT CODES + MITSUBISHI AND THEN PRESS ENTER LIVE DATA + NISSAN ACTUATORS + PEUGEOT SPECIAL FUNCTIONS + ROVER PRESS ENTER KEY + SUZUKI DIAGNOSTIC MENU VEHICLE SELECTION PROGRAM KEYS BACK' TO EXIT. + 106 **RES. SERV. MILEAGE** ENTER' TO PROGRAM + 206 READ MEMORY NEXT KEY + 207 + 306 + 307 PRESS ENTER KEY + 406 VEHICLE SELECTION SECURITY CODE REMOVE KEY FROM IGN BSI 1 BSI 2 THEN INSERT NEXT KEY 1 2 3 5 4 7 8 9 0 6 PRESS ENTER KEY SWITCH IGNITION OFF NOTE : TO INSERT LETTERS AND AND THEN PRESS ENTER OTHER CHARACTERS, USE THE NOTE : TRY BSI 1 FIRST THEN TRY BSI 2, THEN BSI 3 IF THOSE LEFT AND RIGHT BUTTONS TO SCROLL THROUGH THE DIFFER-OPTIONS EXIST. ENT KEYPAD OPTIONS. SECURITY CODE SWITCH IGNITION ON 22BC SWITCH IGNITION ON AND THEN PRESS ENTER х PRESS ENTER KEY ECU IDENTIFICATION SWITCH IGNITION OFF BACK' TO EXIT. ECU NO : 964512341234 AND THEN PRESS ENTER ENTER' TO PROGRAM NEXT KEY VF7CHRSD12345678 PRESS ENTER KEY **ADVANCED** DIAGNOSTICS Version: 3.4 August 2015 Copyright 2015 8

## **SPECIAL FUNCTIONS**

![](_page_8_Picture_2.jpeg)

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## **SPECIAL FUNCTIONS**

![](_page_9_Picture_2.jpeg)

## SPECIAL FUNCTIONS

#### PEUGEOT - ADS188 - CAN PROGRAM KEYS PROGRAM KEYS PROGRAM KEYS VEHICLE SELECTION INSERT KEY TO PROGRAM. SWITCH IGNITION ON + 106 PROCEDURE COMPLETE + 206 + 207 PRESS ENTER KEY + 306 PRESS ENTER KEY + 307 ROGRAM KEYS + ION( VF31) SUCCESS SWITCH IGNITION ON PRESS ENTER KEY PRESS ENTER KEY PROGRAM REMOTES ECU IDENTIFICATION DO YOU WISH TO **PROGRAM REMOTES** HARDWARE SER. NO. 8636A636 CHASSIS NO VF41NXKZZBU702051 Х PRESS ENTER KEY DIAGNOSTIC MENU PROGRAM REMOTES ECU IDENTIFICATION SWITCH IGNITION ON. FAULT CODES AFTER PRESSING ENTER YOU >SPECIAL FUNCTIONS HAVE 1 MINUTE TO PROGRAM ALL REMOTES PRESS ENTER KEY PRESS ENTER KEY DIAGNOSTIC MENU PROGRAM REMOTES >PROGRAM KEYS **ON EACH REMOTE PRESS UNLOCK BUTTON FOR 1 KEYS PROGRAMMED** SECOND. RELEASE FOR HALF A SECOND. REPEAT TWICE **REMOTES PROGRAMMED. 0** PRESS ENTER WHEN FINISHED **KEYS PROGRAMMED** PROGRAM REMOTES ON EACH REMOTE **KEYS PROGRAMMED: 2 PRESS UNLOCK BUTTON FOR 1** SECOND. RELEASE FOR HALF A SECOND. REPEAT TWICE **REMOTES PROGRAMMED.1** PRESS ENTER KEY PRESS ENTER WHEN FINISHED

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![](_page_10_Picture_6.jpeg)

## **SPECIAL FUNCTIONS**

![](_page_11_Figure_2.jpeg)

![](_page_11_Picture_4.jpeg)

### **TIPS & HINTS**

![](_page_12_Picture_1.jpeg)

ADVANCE

### **BSI INFORMATION**

Procedures and precautions for battery disconnection and reconnection on BSI.

#### Introduction

Currently there is a different BSI for each model that Peugeot produces, although the boxes are different, in general they use the same connectors and a large number of the connector pins have the same function.

The BSI is a computer much like the PCs we have at home. Like a PC, when working on any vehicle fitted with a BSI there are certain procedures that must be followed to avoid corruption of the software and loss of pre-programmed settings or memories.

Failure to adhere to the correct procedures can result in a non-start, a loss of configuration or a burnt out BSI. All of which are time consuming to rectify.

#### BSI activation

The BSI can be woken up by activating certain functions i.e. key plip, opening a door or switching on the radio. When woken, it switches to full operating mode instantly.

On switching the ignition off it continues working for up to 2 minutes and then shits itself down progressively taking a further 1 minute to do so. At this point its power consumption is approximately 0.02 of an Amp and is referred to as being asleep or in 'Standby'/'Power Save' mode. If however the driver switched on a consumer with the engine not running, the BSI stays awake for thirty minutes (Economy Mode).

Anything which interrupts the BSI's shut down operation can cause the problems mentioned in the above introduction. This is the reason for the 3-minute rule.

#### Procedure for Battery Disconnection (The 3 minute rule)

Whenever a vehicle battery has to be disconnected, switch off all equipment interior lights etc. close the doors leaving the driver's window down.

Switch off the ignition and remove the key and DIAG if connected.

Wait a full 3-minutes before disconnecting the battery.

The BSI must be allowed to go to sleep i.e. into 'Power Save' mode. Do not operate any equipment on the vehicle during this time. Remember, even opening the bonnet will wake up the BSI on the vehicle fitted with an alarm.

If the battery is under the bonnet open the bonnet first and leave it up. 807 batteries can be disconnected through the driver's window, remove floor cover first.

Always disconnect the DIAG, as the BSI does not go to sleep when connected. Ensure that a plip from the same Peugeot model type is not operated within range of your vehicle as this will also wake up the BSI.

#### Procedure for Battery Reconnection

Unless instructed otherwise by Peugeot or Product Service, you must always carry out the following procedure, often referred to as a 'Soft Re-boot', to minimise the possibility of the BSI corrupting its own software when reconnecting the vehicle's battery supply.

Ensure that the procedure for battery disconnection has been adhered to and importantly all BSI functions were switched off with the driver's window left down.

Close all doors on the vehicle. Remove the ignition key if left in the ignition. Reconnect the battery. Wait 10 seconds. Switch on the headlights through the driver's window. You will hear a 'Bong'. Switch on the ignition then start the vehicle and check systems are functioning.

Upon reconnection of the battery: If any vehicle function controlled by the BSI i.e. interior light is switched on, the internal operation of the BSI has the potential to spike or corrupt its configuration and software program.

As a consequence this procedure for reconnecting the battery on a BSI vehicle should be adopted as common practice.

## **TIPS & HINTS**

![](_page_13_Picture_1.jpeg)

### **BSI INFORMATION**

#### Procedure for Jump Starting a Vehicle fitted with BSI

Certain precautions must be observed when jump starting vehicles fitted with a BSI. Failure to do so can result in spiking ECUs including the BSI and engine management. Remember, when connecting the leads always fit the earth lead clamp last when completing the jump circuit and disconnect it first on removal.

Having connected the jump leads, start the donor vehicle, then start the vehicle with the flat battery.

Wait a few minutes for its tick-over to stabilise. Do not rev the engine.

Switch on its headlights, heated rear window and heater fan.

Remove the jump leads from the vehicles.

Switch off all loads one by one.

Allow vehicle to idle and recharge battery.

This procedure prevents the alternator, suddenly loaded by the removal of the jump leads, from creating a high voltage spike before the alternator's regulator can stabilise the voltage.

#### Procedures and Precautions for BSI Disconnection, Reconnection or Replacement

#### Procedure for BSI Disconnection & Reconnection

If the BSI is being removed, print off or note down the BSI configuration first.

Follow the 'Battery Disconnection' procedure (remembering the 3 minute rule).

Remove the BSI.

After all repairs are complete, refit the BSI.

Follow the 'Battery Reconnection' procedure.

The battery is disconnected to prevent accidental spiking of the BSI on removing the connectors.

#### Procedure for BSI Replacement

Carry out the 'BSI removal' procedure, points 1,2 & 3, important, remember the 3-minute rule.

Fir the replacement BSI.

Reconnect the battery, open the door and switch on the ignition.

Connect DIAG and download the latest BSI software version, via the 'Replacement Parts' menu, (except 406 BSI, which should be supplied programmed with the latest version).

Complete a Configuration/Initialisation of the BSI, following the 'Procedure for Initialising the BSI after a Download' on the next page.

Please not the following:

Replacement BSIs can be supplied with very early software versions.

You must download the latest software version before starting the initialisation and configuration of the replacement BSI, with the exception of 406 which cannot be downloaded.

You must also adhere to the 3-minute rule. Failure to do so may result in the new BSI being unable to communicate with the original engine management ECU and the vehicle not starting. Remember you only have three attempts to initialise the engine management ECU to the BSI.

Finally always check the battery is fully charged otherwise initialisation and configuration may fail.

## **TIPS & HINTS**

![](_page_14_Picture_1.jpeg)

### **BSI INFORMATION**

#### Precautions when Downloading and Initialising the BSI

#### Checks to be made prior to downloading a BSI

The vehicle battery must always be fully charged before downloading. A fully charged battery should have a voltage of between 12.6 & 12.8 volts.

Never have a battery charger on the vehicle during downloading or initialisation. Always have the DIAG operating from a mains supply. Always copy or print off the BSI configuration before starting a download.

#### Procedure for Initialising the BSI after downloading

Lower the drivers door window and connect DIAG. Download the latest BSI software version into the unit. Initialise, configure and program all the keys into the BSI, via 'Replacement Parts' menu. Disconnect DIAG. With the driver's door window still down, ensure all equipment is switched off. Ensure all the doors are closed and remove the key from the ignition. Remembering the 3 minute rule, disconnect the vehicle battery and wait 15 seconds. Reconnect the vehicle battery, wait a further 10 seconds. Do not open any doors. Switch on the headlamps through the driver's window. You will hear a 'Bong'. Switch on the ignition and check systems functionality. Start the engine and complete the systems functionality check. This procedure is designed to put the BSI to sleep and then wake it up in the cleanest possible way (Soft Re-Boot) ensuring that the newly downloaded software is not corrupted. Failure to follow this procedure could result in incorrect operation of, Fuel Gauge. Oil Level Indicator, Key Learning and many other BSI controlled functions.

#### Remarks and Special Points

#### 607 Vehicles

607 vehicles can have two batteries. The second battery is located in the boot under the R/H/S boot trim. This battery powers all the vehicles systems. The front battery is for starting only. a single red 50 amp maxi fuse, located to the left of the engine management ECU, connects the second battery to the vehicle. This fuse must be removed as well as the front battery connection to disconnect battery power on these vehicles. There is also a maxi fuse at the battery end under the boot trim. This is not accessible without removing the trim but the connections to the fuse holder should be checked if power is lost to the front of the vehicle.

#### Earths

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Before removing the main earth strap mounting for the battery, either for replacement, checking or cleaning, always disconnect at the battery end first or keep earth continuity with a fly lead until the bolt is removed. This avoids the earth making and breaking whilst removing the bolt and switching the BSI power supply on and off.

To clear built-up battery charge in the vehicle systems after battery disconnection, short the earth and positive battery leads together for a few seconds. NB This is done without any Battery or External Power Source connected to the vehicle.

### PRECAUTIONS

### IMPORTANT : PLEASE ENSURE ALL PRECAUTIONS ARE OBSERVED AS INDICATED AT THE FRONT OF THE OPERATING MANUAL.

**IN PARTICULAR** : For vehicles fitted with STOP/START technology, the battery leads must not be shorted together when the battery is disconnected as this can lead to damage to the car and potential personal injury.

## **REMOTE PROGRAMMING**

Procedure

Unlock the vehicle using the working key. 1. 2

Press the LOCK button 2 times within 20 seconds.

206

106

#### CENTRAL DOOR LOCK (1 BUTTON PLIP KEY)

#### Procedure

- Ensure all doors are unlocked using the key. 1
- 2. Press and hold plip key button until LED stops flashing.
- 3. After releasing button, LED will light constantly.
- 4. Press the Plip Button once, and LED will extinguish.
- 5. Open the door and hold the Plip key near the Ignition switch, and press the plip but ton one time.
- 6. Turn the ignition ON, and wait 10 seconds then turn ignition OFF.
- 7 After 5 seconds, Plip should now operate.

#### CENTRAL DOOR LOCK with DEADLOCKING (2 BUTTON PLIP KEY)

#### Procedure

Ensure all doors are unlocked using the key. 1.

Press and HOLD the large plip key button while the LED flashes continuously for 20 2. seconds. After 20 seconds press the small deadlock button once while still holding the large button.

- The LED will stop flashing. 3.
- Release the large button and the LED will light constantly. 4.
- Press the large button one time, and the LED will go out. 5.
- Open the door and hold the Plip key near the Ignition switch, and press the large plip 6. button one time.
  - Turn the ignition ON, and wait 10 seconds then turn ignition OFF.
- 7. 8. After 5 seconds, Plip should now operate.

![](_page_15_Picture_25.jpeg)

#### Ensure TESTER is disconnected

#### Procedure

- Insert Ignition Key. 1
- Press the small Black button. 2.
- 3. Switch the Ignition ON
- Keep the lock button pressed for 10 seconds. 4.
- 5. Release lock button , switch ignition OFF and remove key.
- 6. Close all doors and press the lock button 2 times.

NOTE : If PLIPS still do not work, start the vehicle and then turn OFF. Open and close the door, and check PLIP again. This is also necessary after a new BSI system is fitted.

### 306 - 806

#### Procedure

- Turn the Ignition switch to accessory position using the key, without the remote plip attached. 1.
- Hold the Plip key close to the central locking receiver mounted in the roof console. 2.
- 3. Press the large plip button, then the small plip button on the remote.
- 4. Repeat for second Plip key if required.
- 5. Turn ignition OFF.
- 6. After 5 seconds, Plip should now operate.

## **REMOTE PROGRAMMING**

### 406 & 605

The 406 deadlocking remote control has specific button controls, and if the vehicles has two controls, one is set as primary and the other as secondary. When replacing the Plip, a

Primary or Secondary Plip are different part numbers and must be ordered as required. The white label inside the Plip is labelled PRIM and SEC.

#### Procedure

- 1. Turn the Ignition switch ON.
- 2. Press the large Plip key button (Primary Plip)
- 3. Within 10 seconds, press the large Plip key button (Secondary Plip)
- 4. If there is one remote, press the Primary Plip button twice.
- 5. Turn ignition OFF.
- 6. Test Plip's for correct operation.

NOTE : On some 406 models, Plips cannot be re-synchronised unless the battery has been disconnected for 1 minute.

### 406 (D9) 2001 >

#### Procedure

- 1. Press and hold large button and then press and hold the small button for 20 seconds.
- 2. Release both buttons, the indicator light on the plip will illuminate.
- 3. Press the large button once and the light will go out.
- 4. Switch the ignition 'ON' for 3 to 5 seconds.
- 5. Switch the ignition 'OFF' and remove the key.
- 6. Lock and Unlock the vehicle with the remote to test.

### 806 > 1998

#### 806 (Up to 98MY) PLIP PROGRAMMING

#### Procedure

- 1. Turn Ignition switch to accessory position using the key, without the remote plip attached.
- 2. Hold the Plip key towards the receiver at the front of the vehicle.
- 3. Press the large Plip button, then the small Plip button on the remote.
- 4. Repeat for second Plip key if required.
- 5. Turn ignition OFF.
- 6. After 5 seconds, Plip should now operate.

### 307

#### Procedure

- 1. Turn the Ignition switch to ON position using the first key.
- Press the LOCK button for 10 seconds.
- 3. Remove key and wait for 10 seconds.
- 4. Check Plip key operation.
- 5. Repeat for second Plip key if required.
- 6. Turn ignition OFF

### 307 (CAN) & 407 (CAN)

#### Procedure

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- 1. Turn the Ignition switch to ON position using the first key.
- 2. Press the LOCK button for 5 seconds.
- 3. Remove key and wait for 30 seconds.
- 4. Check Plip key operation.
- 5. Repeat for second Plip key if required.
- 6. Turn ignition OFF

![](_page_16_Picture_48.jpeg)

![](_page_17_Picture_0.jpeg)

### ADC240 SMART Dongle

Smart Dongle provides 'one easy to use solution' by replacing the current range of dongles with one automatic configurable dongle.

Integration of the security calculator and smartcard is a significant benefit by automating the security process.

![](_page_17_Picture_4.jpeg)

### AD35 Remote Control Tester

AD35 is an innovative remote control tester developed to assist with the diagnosis of all types of (IR) Infra Red & (RF) Radio Frequency remote controls for all makes & models.

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