

Unlocking Technology

# Citroen

(Version 3.6)





World Leaders In Automotive Key Programming Equipment

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# CONTENTS







# **APPLICATIONS** Have Moved to IQ - Online

# Vehicle Data Search

### WWW.ADUSA.US

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

	ADS105	Citroen	
	ADS142	Citroen CAN	
	ADS188	Citroen CAN	
	ADS189	Citroen CAN	
2	ADS229	PSA PINCODE	



# **DIAGNOSTIC SOCKETS/PORTS**

B



# **DIAGNOSTIC SOCKETS/PORTS**

B



# **GENERAL OPERATION**

The Citroen 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 Citroen 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 actuator functions.

Programming keys on CPH system does not erase the Plip.

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

This is the latest 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 because the immobiliser is part of a complicated system there are many more functions included on actuators, special functions and live data.

NOTE : The immobiliser receiver does not need reprogramming if replaced

CAN - CONTROLLER AREA NETWORK

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





# SPECIAL FUNCTIONS

Version 3.6 August 2015

7

**CITROEN - ALL IMMO & CPH SYSTEMS** PROGRAM KEYS **PROGRAM KEYS** PROGRAM KEYS VEHICLE SELECTION DIAGNOSTIC MENU PROGRAMMING KEYS KEYS PROGRAMMED + ALFA PROGRAM KEYS + BMW TOTAL KEYS REQD : 2 + CHRYSLER READ MEMORY + CITROEN + DAEWOO + INFINITI PRESS ENTER KEY PRESS ENTER KEY VEHICLE SELECTION SWITCH IGNITION ON + C2 SWITCH IGNITION OFF + C3 **IGNITION STATUS ON IGNITION STATUS OFF** + C4 + C5 + C8 + SAXO VEHICLE SELECTION NOTE : FOLLOW SCREEN IN-**IMPORTANT NOTE :** IMMOBL.1 STRUCTIONS CAREFULLY. PLEASE MAKE SURE YOU **REMOVE THE KEY FULLY** FROM THE IGNI-**TION, WHEN PROGRAM-**MING MORE THAN 1 KEY. SECURITY CODE REMOVE KEY FROM IGN. SWITCH IGNITION ON THEN INSERT NEXT KEY 1 2 3 4 5 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

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# **SPECIAL FUNCTIONS**

#### CITROEN - ALL BSI SYSTEMS PROGRAM KEYS **PROGRAM KEYS PROGRAM KEYS** VEHICLE SELECTION DIAGNOSTIC MENU ECU IDENTIFICATION SWITCH IGNITION ON + ALFA FAULT CODES AND THEN PRESS ENTER + BMW LIVE DATA + CHRYSLER ACTUATORS + CITROEN SPECIAL FUNCTIONS + DAEWOO PRESS ENTER KEY + INFINITI VEHICLE SELECTION DIAGNOSTIC MENU PROGRAM KEYS BACK' TO EXIT. + BERLINGO **RES. SERV. MILEAGE** ENTER' TO PROGRAM + C2 READ MEMORY NEXT KEY + C3 + C4 + C5 PRESS ENTER KEY + C8 VEHICLE SELECTION SECURITY CODE REMOVE KEY FROM IGN BSI 1 BSI 2 THEN INSERT NEXT KEY 1 2 3 5 4 7 6 8 9 0 PRESS ENTER KEY SWITCH IGNITION OFF NOTE : TRY BSI 1 FIRST THEN TRY NOTE : TO INSERT LETTERS AND BSI 2, THEN BSI 3 IF THOSE OPTIONS EXIST. AND THEN PRESS ENTER OTHER CHARACTERS, USE THE LEFT AND RIGHT BUTTONS TO SCROLL THROUGH THE DIFFERENT 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

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# SPECIAL FUNCTIONS



# **SPECIAL FUNCTIONS**



# **SPECIAL FUNCTIONS**

### CITROEN - ADS188 PROGRAM KEYS PROGRAM KEYS PROGRAM KEYS VEHICLE SELECTION INSERT KEY TO PROGRAM. + C4 SWITCH IGNITION ON PROCEDURE COMPLETE + DS4 PRESS ENTER KEY PRESS ENTER KEY ROGRAM KEYS SUCCESS SWITCH IGNITION ON PRESS ENTER KEY PRESS ENTER KEY **PROGRAM REMOTES** ECU IDENTIFICATION DO YOU WISH TO PRO-**GRAM REMOTES** HARDWARE SER. NO. 8636A636 CHASSIS NO VF41NXKZZBU702051 X 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 **KEYS PROGRAMMED PRESS UNLOCK BUTTON FOR 1** 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

Version 3.6 August 2015

11

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# SPECIAL FUNCTIONS

#### CITROEN- CAN - ADS189 PROGRAM KEYS PROGRAM KEYS PROGRAM KEYS ECU IDENTIFICATION KEYS PROGRAMMED NOTE : Place new Proximity key on AD900pro to check if the key HARDWARE SER. NO. **KEYS PROGRAMMED: 01** can be copied. 8616A528 You will see a message CHASSIS NO HITAG2-Uknown JNAXNGA2WBZ001150 Can be Copied! PRESS ENTER KEY PRESS ENTER KEY VEHICLE SELECTION DIAGNOSTIC MENU DIAGNOSTIC MENU + LANCIA + CITROEN >PROGRAM KEYS ECU IDENTIFICATION + NISSAN >FAULT CODES KEYS PROGRAMMED + PEUGEOT SPECIAL FUNCTIONS + ROVER + SUZUKI DIAGNOSTIC MENU PROGRAM KEYS VEHICLE SELECTION EURO >READ FAULT CODES INSERT PROX KEY INTO SLOT AUS CLEAR FAULT CODES USA ISRAEL PRESS ENTER KEY VEHICLE SELECTION DISPLAY FAULT CODES + CARISMA NOTE : EMERGENCY KEY SLOTS ARE + C- ZERO NO FAULT CODES FOUND USED FOR PROGRAMMING & ARE NORMALLY LOCATED IN THE GLOVE BOX OR ARMREST COMPARTMENTS PRESS ENTER KEY VEHICLE SELECTION DIAGNOSTIC MENU PROGRAM KEYS PROXIMITY SUCCESS NON PROXIMITY ECU IDENTIFICATION FAULT CODES >SPECIAL FUNCTIONS PRESS ENTER KEY PRESS ENTER KEY DIAGNOSTIC MENU PROGRAM KEYS PROGRAM KEYS PROCEDURE COMPLETE LEAVE IGNITION OFF >KEYS PROGRAMMED PRESS ENTER KEY PRESS ENTER KEY **ADVANCED** DIAGNOSTICS Version 3.6 August 2015 Copyright 2015 12

# SPECIAL FUNCTIONS







VEHICLE	KEY TYPE	IDENT COLOUR	PART NO
SAXO	STANDARD	GREY	9926GY
XSARA	STANDARD GREY SERVICE KEY PLIP BLADE STANDARD KEY (MULTIPLEX)	BLACK BLACK BLACK	9926FF 9926JZ 9926FG 9926LE
XSARA PICASSO	STANDARD		9926LE
XANTIA	STANDARD PLIP BLADE	GREEN GREEN	9926HC 9926HA
C5	STANDARD		9926LE
SYNERGIE	STANDARD PLIP BLADE	BLACK BLACK	9926FF 9926FG
BERLINGO	STANDARD STANDARD (MULTIPLEX)	GREY	9926GY 9926LH
DISPATCH	STANDARD	BLACK	9926FF
RELAY	STANDARD		9926CF

### **TRANSPONDER KEYS**

1. After Programming Keys on all vehicles, clear fault codes before trying each key. This enables the key programming system, and saves having to wait for 5 minutes for system to reset. 2. When programming keys on all Citroen and Peugeot vehicles ensure all doors and hatchback doors are closed.

3. If the battery is disconnected on a C5 vehicle, you must wait at least 2 minutes after re-connection before trying anything, as the immobiliser enters lockout for 2 minutes after battery disconnection.







### SYSTEM IDENTIFICATION

106 & SAXO=IMM Boxer =All code1/2 (Fiat system)

Programming keys on BSI 2 may result in a vehicle that subsequently loses all electrical device operation (lights, wipers etc)- this is caused by the BSI unit waking up incorrectly after programming causing it to switch off all actuator outputs. Therefore once keys have been programmed on BSI2 equipped vehicles the system must been set to sleep (open drivers window, remove keys from ignition, shut drivers door and leave for 30 mins) and then woken using the sidelight switch only (lean in through the open drivers window and turn on sidelights.) All CPH systems, and some Imm 1/2, have connections to doors, boot and bonnet. Key programming may not be allowed if a door is open or "thought" to be open- therefore a faulty bonnet switch will cause a failed key programming session.

To minimise the possibility of the BSI unit corrupting it's own software after download/programming or disconnection a certain procedure must be adopted to sleep and wake the BSI in the cleanest possible way. This will prevent the possibility of a complete dashboard or BSI derived electrical failure and also a current draw problem caused by failure to enter power save or sleep mode.

Switch off all electrical devices and put drivers window down. Make sure the tester is disconnected (a diagnostic session will keep the BSI unit awake) and make sure the bonnet is up, the key is out of the ignition and all of the doors are shut. Wait for 3 minutes. Disconnect the battery and wait for 30 seconds

Re-connect the battery, wait 10 seconds and without opening any doors turn on the sidelights through the drivers open window. (the "lights on" chime should sound)

Start the engine and check all systems are functioning.

Sudden voltage spikes (as with jump starting) can also corrupt the BSI unit.

Some 607 vehicles have two batteries (other one is in the boot under the R/H trim)

406 Interior fuse box Fuse 25 (immobiliser, gearbox, engine, interior light, clock) blows intermittently. This fuse covers immobiliser function so you will find that if it is blown the car will not start but once started the fuse can blow (or be removed) without the car stopping. Fault is caused by a water leak in through the aerial onto the interior light assembly.

### **GENERAL**

Failure to program keys on CPH systems can be caused by corrosion to the large brown loom connector on the O/S inner wing or a melted pin in the large round connector situated on the n/s inner wing (below battery or air filter)

C5- if the battery has been disconnected or gone flat, after replacing/re-connecting the battery it will be necessary to leave the vehicle for approx 2 minutes before it can be started- during this time do not switch the ignition on.

All Saxo and Dispatch vehicles are CPH, remotes & keys are therefore programmed separately. If a pin code has been entered incorrectly three times the ignition must be left ON for 20 minutes and then OFF for 5 minutes before you try to program the keys again.

### CITROEN RELAY

The Citroen Relay is a FIAT based vehicle, same as DUCATO. The keys, pin code and procedures are the same as FIAT DUCATO.

### 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. ADC120 is only needed on classic units such as AD100, MVP and TCODE.

**ADVANCED** DIAGNOSTICS



### **BSI INFORMATION**

#### Introduction

Currently there is a different BSI for each model that Citroen 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 shuts 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)

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

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

3. 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.

- 1. Close all doors on the vehicle.
- 2. Remove the ignition key if left in the ignition.
- 3. Reconnect the battery.
- 4. Wait 10 seconds.
- 5. Switch on the headlights through the driver's window. You will hear a 'Bong'.
- 6. 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.





### **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.

- 1. Having connected the jump leads, start the donor vehicle, then start the vehicle with the flat battery.
- 2. Wait a few minutes for its tick-over to stabilise. Do not rev the engine.
- 3. Switch on its headlights, heated rear window and heater fan.
- 4. Remove the jump leads from the vehicles.
- 5. Switch off all loads one by one.
- 6. 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.

#### **Procedure for BSI Disconnection & Reconnection**

- 1. If the BSI is being removed, print off or note down the BSI configuration first.
- 2. Follow the 'Battery Disconnection' procedure (remembering the 3 minute rule).
- 3. Remove the BSI.
- 4. After all repairs are complete, refit the BSI.
- 5. Follow the 'Battery Reconnection' procedure.

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

#### **Procedure for BSI Replacement**

- 1. Carry out the 'BSI removal' procedure, points 1,2 & 3, important, remember the 3-minute rule.
- 2. For the replacement BSI.
- 3. Reconnect the battery, open the door and switch on the ignition.
- 4. 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).
- 5. 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.

### PRECAUTIONS

IMPORTANT : PLEASE ENSURE ALL PRECAUTIONS ARE OB-SERVED 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 CONTROL PROGRAMMING**

### XSARA-XANTIA-SYNERGIE-EVASION

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

Procedure

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

### **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 seconds. After 20 seconds 2. press the small deadlock button once while still holding the large button.
- 3. The LED will stop flashing.
- 4. Release the large button and the LED will light constantly.
- Press the large button one time, and the LED will go out. 5.
- 6. Open the door and hold the Plip key near the Ignition switch, and press the large plip button one time.
- Now turn the ignition ON, and wait 10 seconds then turn ignition OFF. 7.
- 8. After 5 seconds, Plip should now operate.

### BERLINGO 98 >

#### Procedure

- Turn the Ignition switch to accessory position using the key, without the remote plip attached. 1.
- Hold the Plip key towards the receiver at the front of the vehicle. 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.

### SAXO 99 >

#### Procedure

- Unlock the vehicle using Key. 1.
- Press the LOCK button 2 times within 20 seconds of unlocking the vehicle. 2.

## XSARA PICASSO

#### Procedure

- Turn Ignition ON. 1.
- Press and HOLD the LOCK button for 5 seconds. 2.
- 3. Turn Ianition OFF.
- 4. After 5 seconds test Plip key.

### DISPATCH

### Procedure

- Turn Ignition ON, and wait for LED to go out. (If fitted) 11
- Press the LOCK or UNLOCK button with 20 seconds. 2.
- 3. Press the LOCK or UNLOCK on other PLIPS within 10 seconds. 4.
  - LED should light for 1 second.
    - Check PLIPS for operation.

5.

Version 3.6 August 2015



## **REMOTE CONTROL PROGRAMMING**







### 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.



### 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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