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GM/OPEL

GM HOLDEN

VAUXHALL

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OPEL/GENERAL MOTORS/VAUXHALL

VEHICLE	YEAR	CABLE
AGILA	ALL MODELS	ADC110-B
ASTRA - F	95	ADC113 + ADC100
ASTRA - F	96	ADC110-B
ASTRA - G	98+	ADC110-B
ASTRA - H (CAN BUS)	2003 +	ADC110-B
CALIBRA	95	ADC113+ADC100/ADC110-B
CALIBRA	96	ADC113+ADC100/ADC110-B
CAVALIER	95	ADC113 + ADC100
CAVALIER	96	ADC113+ADC100/ADC110-B
CORSA - B /COMBO VAN	95	ADC110-B
CORSA - B/ COMBO VAN	96	ADC110-B
CORSA - C	ALL MODELS	ADC110-B
FRONTERA	> 98	ADC110-B
FRONTERA	98+	ADC110-B
MERIVA	ALL MODELS	ADC110-B
MONTERAY	96	ADC110-B
MONTERAY	97	ADC110-B
MONTERAY	98+	ADC110-B
OMEGA - B	94/95	ADC113 + ADC100
OMEGA - B	96+	ADC110-B
OMEGA -B	98 +	ADC110-B
OMEGA -B	2000 +	ADC110-B
SIGNUM (CAN BUS)	2003 +	ADC110-B
SINTRA	97+	ADC110-B
TIGRA	95	ADC113+ADC100/ADC110-B
TIGRA	96+	ADC110-B
TIGRA-B	ALL MODELS	ADC110-B
VECTRA	96+	ADC110-B
VECTRA	2000 +	ADC110-B
VECTRA - C (CAN BUS)	2002 +	ADC110-B
VX220	ALL MODELS	ADC110-B
ZAFIRA	99+	ADC110-B
ZAFIRA (CAN BUS)	2006 +	ADC110-B

APPLICATIONS

A

GM HOLDEN

VEHICLE	YEAR	CABLE
VR COMMODORE	ALL MODELS	ADC128
VS COMMODORE	ALL MODELS	ADC128
VT COMMODORE	ALL MODELS	ADC128
VX COMMODORE	ALL MODELS	ADC128
VY COMMODORE	ALL MODELS	ADC128
BARINA-B	ALL MODELS	ADC110-B
BARINA-C	ALL MODELS	ADC110-B
JACKAROO	ALL MODELS	ADC110-B
MONARO	ALL MODELS	ADC128
RODEO	2001 >	ADC128
VU UTE	ALL MODELS	ADC128
WH STATESMAN	ALL MODELS	ADC128
WH CAPRICE	ALL MODELS	ADC128

ISUZU

VEHICLE	YEAR	CABLE
TROOPER	ALL MODELS	ADC110-B
RODEO	ALL MODELS	ADC110-B
AXIOM	ALL MODELS	ADC110-B

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INTRODUCTION

The General Motors Immobiliser is used in conjunction with the vehicle engine management electronics to immobilise the vehicle. The first systems were fitted to Petrol vehicles and subsequently fitted to Diesel vehicles from 95½ Model Year.

The immobiliser system is independent, and can be diagnosed separately. The system is also operated independently from the central locking system, and it's main function is to inhibit starting.

Immobiliser Control Unit

The immobilisers function is to transmit the start signal to the engine management ECU after it has read the key fob code. If the code is recognised the immobiliser sends the signal and the ECU compares the code with what is programmed. If the signal is incorrect the engine which is allowed to start initially is then switched OFF. If there is a malfunction then the engine check light mounted in the instrument panel will flash.

The system uses what is called an IMO (Immobiliser Signal Code) signal to talk to the electronic engine management system, or for Diesel vehicles the Fuel Cut-off Solenoid.

The control unit can only be re-programmed if the necessary security code is entered, which is found on the customer vehicle information card (CAR PASS).

NOTE : If a new immobiliser ECU is fitted to the vehicle, then the code that is entered will be stored in the memory for any future programming requirements.

If a different code is used to that on the CAR PASS, please ensure this is written down and passed to the customer for safe keeping. It is not possible to change this code once programmed.

Transponder (Mounted in key fob)

The key fob contains a small electronic circuit (Transponder) which is powered when in close proximity to the control unit using cordless voltage power. Each transponder has a different code for security.



CAR PASS

The information that is stored in the control unit includes Security Code, Engine type and transponder code. The security code cannot be erased or overwritten using the TECH 1, TECH 2 or the AD PROGRAMMING SYSTEM.

The security code consists of a 4-digit number and can be found on the car pass. If a new control unit is fitted, the new unit is not programmed with a code, and must be programmed using the TECH or AD PROGRAMMING SYSTEM. However, the security code can only be programmed once and cannot be erased or overwritten.

If the customer has lost the car pass with security details, then the pin code must be sought from the dealer.

VIN	X382787CWDKJW
Security Code	4874
Engine Type No	X16SZ
Key No.	4386413
Radio Code	1234
CD Changer Code	1234

NOTE : The immobiliser receiver must be reprogrammed when it has been replaced.



CLEARING KEYS

DIAGNOSTIC MENU

ECU IDENTIFICATION
FAULT CODES
LIVE DATA
ACTUATORS
SPECIAL FUNCTIONS

PRESS ENTER KEY

Select **SPECIAL FUNCTIONS** from the Diagnostic Menu using the **UP** and **DOWN** arrows.

Then press the **ENTER** key.

DIAGNOSTIC MENU

> **CLEAR KEYS**
PROGRAM KEYS

Using the **UP** and **DOWN** keys select the **CLEAR KEYS** option

Please follow the instructions on the screen.

PRESS ENTER KEY

SWITCH IGNITION OFF
IGNITION STATUS ON

Enter the security code from the Security Pass as outlined in the General Operation section.

SECURITY CODE

If code is correct press the **ENTER** key.

SECURITY CODE

1 2 3 4

If code is entered incorrectly then press the **BACK** key to reset the code.

IS THIS CORRECT
OK = ENTER CLEAR =BACK

ACCESS GAINED

If the code is correct, the TESTER will display **ACCESS GAINED**.

SPECIAL FUNCTIONS

C

CLEARING KEYS

ERASING KEYS

KEYS ERASED

PRESS ENTER KEY

It will then automatically erase all the keys and display the message **KEYS ERASED** if successful.

PROGRAMMING KEYS

DIAGNOSTIC MENU

CLEAR KEYS
> **PROGRAM KEYS**

PRESS ENTER KEY

Using the **UP** and **DOWN** keys select the **PROGRAM KEYS** option

If the clearing key function was successful the TESTER should indicate that there are no keys programmed.

KEYS PROGRAMMED 0

Press the **ENTER** key.

Follow the screen instructions.

SWITCH IGNITION OFF
IGNITION STATUS ON

Enter the security code from the Security Pass as outlined in the General Operation section.

SECURITY CODE

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SPECIAL FUNCTIONS

C

SECURITY CODE
1 2 3 4
IS THIS CORRECT
OK = ENTER CLEAR =BACK

If code is correct press the **ENTER** key.

If code is entered incorrectly then press the **BACK** key to reset the code.

ACCESS GAINED

If the code is correct, the TESTER will display **ACCESS GAINED**.

SWITCH IGNITION OFF
IGNITION STATUS ON

Follow the screen instructions.

KEYS PROGRAMMED
KEYS PROGRAMMED : 1

The TESTER should now indicate that the key is programmed, and how many there are.

Press the **ENTER** key and repeat the sequence for up to 5 keys.

PRESS ENTER KEY

To check the programming status, use the **LIVE DATA** function.

PROGRAMMING PLIPS

> CLEAR PLIPS
PROGRAM PLIP

PRESS ENTER KEY

SPECIAL FUNCTIONS

C

DIAGNOSTIC MENU

CLEAR PLIPS

SWITCH IGNITION ON

PRESS ENTER KEY

DIAGNOSTIC MENU

ERASING PLIP
PROCEDURE COMPLETE

PRESS ENTER KEY

PROGRAMMING PLIPS

CLEAR PLIPS
> PROGRAM PLIP

PRESS ENTER KEY

After selecting PLIP functions select **SPECIAL FUNCTIONS** and follow on screen instructions.

SWITCH IGNITION ON

After selection, new PLIP key should be pressed until screen indicates PLIP is programmed.

PRESS ENTER KEY

PROGRAMMING PLIP

PRESS PLIP

Programming can be checked by operation and accessing the LIVE DATA function.

PRESS ENTER KEY

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SPECIAL FUNCTIONS

C

CAN BUS SYSTEM's

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CAN BUS SYSTEM's



PLIP PROGRAMMED

PRESS ENTER KEY

PLIP KEY SYSTEMS

TYPE 1.

Teardrop shaped plip, separate from key

TYPE 2.

Type used on early systems, with integrated remote key head.

TYPE 3.

Type used on Astra G vehicles.

TYPE 4.

Type used on Vectra B vehicles, and requires PIN CODE

TYPE 5. (ATWS)

Type with Alarm system fitted (V6 etc)

TYPE 6

Type ATWS system on Zafira (Ultrasonic in Interior Light module)

TYPE 7

Type ATWS system on Zafira (Ultrasonic in A frame)

CORSA-C Remote Controls

MERIVA Remote Controls

OMEGA Remote Controls (Infra Red System, select Omega Pre97)

NOTE : ENSURE THE CORRECT PLIP PART NUMBER IS USED AS THE INCORRECT TYPE CANNOT BE PROGRAMMED. PLEASE SEE TIPS AND HINTS FOR FURTHER INFORMATION

SPECIAL FUNCTIONS

C

PIN CODE READING—FIXED CODE TRANSPONDER

CLEAR KEYS
PROGRAM KEYS
READ PINCODE

PRESS ENTER KEY

Select the READ PIN CODE option under the Special Functions menu.

Before reading the pin code the Immobiliser ECU requires resetting.

The procedure for this is to disconnect the connector from the immobiliser and then re-connect.

Remove the plastic cover from the underneath of the steering wheel column. Disconnect the connector and then re-connect.

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IF YOU DO NOT RESET THE IMMOBILISER THE ECU WILL LOCK AND THIS FUNCTION WILL NOT READ THE PIN CODE.



RESET IMMOBILISER

REMOVE IMMO. FUSE
OR
DISCONNECT IMMO.UNIT
FROM THE VEHICLE

PRESS ENTER KEY

Follow on screen instructions to read the pin code.

**IMPORTANT NOTE : IF AN
INCORRECT PIN CODE WAS THE
LAST PIN CODE TO BE USED ON THE
VEHICLE THEN THIS FUNCTION
WILL NOT WORK.**

PIN CODE

1 2 3 4

PRESS ENTER KEY

SPECIAL FUNCTIONS

C

PIN CODE READING—INSTRUMENT CLUSTER

VEHICLE	YEAR	CABLE
CORSA - C	ALL MODELS	ADC110-B
TIGRA—B	ALL MODELS	ADC110-B
MERIVA	ALL MODELS	ADC110-B

IMMOBILISER
PLIP FUNCTIONS
READ PINCODE

Select READ PINCODE

PRESS ENTER KEY

VEHICLE MENU

CORSA-C
> **TIGRA-B**
MERIVA

Select MODEL required

PRESS ENTER KEY

SWITCH IGNITION ON

Switch Ignition ON

PRESS ENTER KEY

VEHICLE MENU

ECU NO : WM 131 234567

The ECU number will be displayed.

PRESS ENTER KEY



SPECIAL FUNCTIONS

C

PIN CODE READING—INSTRUMENT CLUSTER

ECU IDENTIFICATION
SPECIAL FUNCTIONS

PRESS ENTER KEY

Select SPECIAL FUNCTIONS

READ PINCODE

PRESS ENTER KEY

Select READ PINCODE

PIN CODE
1234

PRESS ENTER KEY

The pin code will be displayed

GENERAL MOTORS

1. Check the vehicle battery, to ensure the voltage is at least 12 volts.
2. V registration Vectra, use ASTRA-G 98 vehicle selection.

CONNECTOR'S

On some Calibra's the 10 Pin connector mounted in the R/H engine bulkhead is prone to water ingress, and can cause bad connections. In some cases there was nothing that could be done, until the connector had been replaced.

PLIP KEYS

VEHICLES	VIN NUMBERS	PART NUMBERS
CORSA		9115104 CODE GJ
ASTRA IV		9192450 without ATWS 9153235 with ATWS
VECTRA	To VIN V7999999 To VIN V7999999 From VIN W>	9194590 without ATWS 90508961 with ATWS 24424724 without ATWS 9153226 with ATWS
OMEGA	To 97 From VIN W1000001 to W11109513 From VIN W11109514 From VIN W1000001 to X1999999	90512398 9194590 without ATWS 90508961 with ATWS 9153230 without ATWS 24424724 without ATWS 9153226 with ATWS
OMEGA Saloon	From VIN Y1000001	9146043 with ATWS
OMEGA Estate	From VIN Y1000001	9153235 with ATWS

NOTE : ATWS = Anti Theft Warning System

1. Vectra C has the transponder located inside the remote part of the key. None start can be caused by locked IM module—disconnecting the battery might fix it.

2. Programming of remotes and transponders cannot be done one after the other. Ensure that when programming of either transponders or remotes is finished, switch ignition off and disconnect TESTER before entering another programming mode.
3. When programming remotes, if the TESTER display doesn't change to "ignition off", when the ignition is turned off, this indicates an incorrectly wired radio.
4. Program all 10 pin diagnostic connectors with ADC112 and the ignition switched off (leave key in).
5. To identify which type of remote a vehicle uses, look inside to see if the car has ultrasonics in the A or B pillars. If it has, then use Megamos remotes, if not use Bosch.

