

# XCAN

## Immo PACK Description

All Function included Immo PACK:

1. EDC16 Can Adv.
2. EDC17 CAN
3. MED9.1 CAN
4. MED17 CAN
5. PCR2.1 CAN UDS
6. SIMOS 10 CAN UDS
7. SIEMENS PPD1
8. MED9.5 CAN
9. IMMO4 UDS
10. IMMO3
11. IMMO3 CRAFTER
12. IMMO3 Visteon CAN
13. **Learn Key by OBD**

All this function allow to learn used ECU and Immo module (Dashboard with immo system) and Keys.

***Option EDC16CAN Adv. , MED9.1 , MED9.5 , MED17, PPD1\****

### **Available options:**

- **Read Info :**
- **Read Immo Data**
- **Change Immo Data**

*Read Info* – Read identification of ECU

*Read Immo Data* – Read All important data of ECU:  
VIN. IMMO ID, Component Security , PIN MAC address

*Change Immo Data* – Change old Immo Data in ECU.

This operation is useful when we lost original ECU and want to learn another ECU.  
All steps we can do by OBD in car.

For carry out operation You must write data as:

1. Present Component Security (6 bytes) of ECU
2. Present PIN code (always must be write in format 5 digits) of ECU
3. Power class of ECU. If we don't know power class of ECU program automatically find it and inform us what is this value.
4. New (target) Component Security 6 bytes (same as in Immo System in car)
5. New (target) PIN Code (same as in Immo System in car)
6. New (target) VIN Number (same as in Immo System in car or can be another)
7. NEW Immo ID ( target). (same as in Immo System in car or can be another)

After preform operation ECU store new Immo data and automatically learn MAC1.  
Next step is go into Immo3 ( or Immo4 depend car system) and change Immo data in Immo module. This operation is necessary for learn MAC2.  
After this step ECU is learned to car and ready to use.

After change immo data we must learn MAC . Go into Immo3 option (or Immo4) and with PIN Login to immo system.

\* Read Immo Data PPD1 is only possible if immo is released.

### ***Option EDC17/MED17 CAN UDS***

Option for cars with ECU EDC17 , MED17 without UDS system.

In this section we have two panels:

- **OBD Change Data**
- **Read Immo Data**

OBD Change Data Panel give us options:

- **Read Info :**
- **Read Immo Data**
- **Change Immo Data**

*Read Info* – Read identification of ECU

*Change Immo Data* – Change old Immo Data in ECU.

This operation is useful when we lost original ECU and want to learn another ECU.

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7. NEW Immo ID (target). (same as in Immo System in car or can be another)

After preform operation ECU store new Immo data and automatically learn MAC1.

Next step is go into Immo3 ( or Immo4 depend car system) and change Immo data in Immo module. This operation is necessary for learn MAC2.

After this step ECU is learned to car and ready to use.

Read Immo Data Panel give us options:

- **Decode Immo data from File**
- **Read Data by CAN**

*Decode Immo data from File* -When we have read Flash and EEprom from ECU we can decode all Immo data: VIN, IMMO ID ,Component Security 6 bytes, MAC1, MAC2, PIN ,

IMMO Type , Immo Status.

To perform operation we Open Flash file , next open EEPROM File and press Decode.  
Program show us all Data.

*Read Data by CAN* give us same data as above but we don't need read flash and EEPROM  
and **we can read it without open ECU** . We have to connect ECU directly to UHDS by CAN  
( without gateway). And press button “Read Data by CAN”. After some time we get all  
Immo Data.

### Example 1.

We have VW Golf 6 2012 year with dashboard VDO NEC+c64 and engine ECU EDC17.

We lost original ECU and we need adapt another used ECU.

What we should do?

1. Read Security Block by option NEC+c64 (or NEC+c64 2012...)
2. With function Security Block Editor we find out CS and PIN (original our car)
3. Now we connect EDC17 to UHDS on the table (we can't do it by OBD). Select EDC17/MED17 CAN UDS go to panel Read Immo Data and push button Read Data by CAN. After some time we get all actual data from our EDC17 (CS+PIN is only interested)
4. Now we put ECU to car. On panel OBD Change Data we have to fill all fields. In frame Original Immo Data we put data from EDC17 .Next in frame New Immo Data we put original from the our car (which we extracted from security block from dashboard).

Now we push Change Immo Data. Operation should finished with success.

5. Last step is select option IMMO4 UDS and we put PIN code from our car and push button

“Login”. This step learn MAC2.

6. Now car is ready to start.

### Example 2:

We have Skoda Octavia 2011. Dashboard NEC+c64 , ECU EDC17. Dashboard are lost and we want to adapt another used dashboard.

What we should do?

1. We connect EDC17 to UHDS on the table (we can't do it by OBD). Select EDC17/MED17 CAN UDS go to panel Read Immo Data and push button Read Data by CAN. After some time we get all actual data from our EDC17 (CS+PIN+VIN+IMMO ID are only interested for us).

ECU we put to car.

2. Because we haven't old dash then all original keys we can't adapt again. We must use new transponders (normal Megamos 48). Now we prepare EEPROM (24c64) and use option read Skey OBD. After we get Skey we write original data to EEPROM (data before preparing) and use option read security block. With security block editor we extract CS+PIN.
3. Now we select option IMMO4 UDS. In frame Original Immo Data we write CS and PIN which we extract from security block. In frame New Immo Data we write CS , PIN, VIN, IMMO ID ,Power Class same as we read before from ECU. CS[7..12] we put any value which we want. Now push button Change Immo Data. Operation should finished success.
4. Now we can learn new transponders (must be new , not locked). We push button Learn Key write how many key want to adapt and switch ignition off/on with all keys which we need to program.
5. Last step is learn MAC1. We select option EDC17 and on panel OBD Change data

we must fill all fields. In Original Immo Data Frame and New Immo Data frame we write same values CS,PIN,VIN,IMMO ID, power class as was original in our EDC17. Push change immo data

6. Now car is ready to start

### **Option MED17/ EDC17 CAN TP2**

Option for cars with ECU EDC17 , MED17 without UDS system.

This function allows:

*Option EDC17/MED17 CAN UDS*

### **Option PCR2.1 CAN UDS**

Option for cars with ECU PCR2.1 UDS :

- **Read Info**
- **OBD Change Data**

*Read Info* – Read identification of ECU

*Change Immo Data* – Change old Immo Data in ECU.

This operation is useful when we lost original ECU and want to learn another ECU.

All steps we can do by OBD in car.

For carry out operation You must write data as:

1. Present Component Security (6 bytes) of ECU
2. Present PIN code (always must be write in format 5 digits) of ECU
3. Power class of ECU. If we don't know power class of ECU program automatically find it and inform us what is this value.
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7. NEW Immo ID (target). (same as in Immo System in car or can be another)

After preform operation ECU store new Immo data and automatically learn MAC1.

Next step is go into Immo3 ( or Immo4 depend car system) and change Immo data in Immo module. This operation is necessary for learn MAC2.

After this step ECU is learned to car and ready to use.

### **Option SIMOS 10 CAN UDS**

Option for cars with ECU SIMOS 10

This function allows:

*Option PCR2.1*

### **Option Immo3 CAN**

This function work on all Immo 3 system build in dash as: VW Golf5, Turan ,Skoda Octavia, Seat Altea Leon Toledo, Audi A3 and many more and with Immo build in comfort module :VW Passat

This option help us

- replace immo3 on another one
- learn Keys
- change VIN , Immo ID

This function allows:

**Login-** You must write PIN and You can login to immo system.

This operation learn MAC2.

**Change Immo Data-** You must write present PIN and present 6 bytes Components Security of Immo and new Immo data : Component Security 7 Bytes, new PIN Code ,new VIN, new IMMO ID (if car has not IMMO ID You can write 00000000000000) and new power class.

After this operation Immo take new data and lost all learned keys.

MAC2 will be learn automatically.

**Warning !!! After operation all Keys will be erased from memory. You must learn old keys again.**

**Learn Keys:** It allow learn 1 to 8 keys. Transponder must be prepared for actual immo data. After learn immo with new data next step you must go in ECU and login with PIN. It learn MAC1

### **Example 1:**

We have VW Golf 5 2007 Dashboard Visteon and EDC16 ECU and we need change dashboard to VDO.

What we need to do?

1. First we need all old data from car :PIN,VIN,IMMO ID, CS.

We can use option read security block from option Visteon.

Next we can use Security block editor for get all needed information.

If old dashboard are not available or corrupted and we can not read data from it we can use option for read immo data from ECU. In this case only one problem is 7<sup>th</sup> byte of CS because ECU not contain 7<sup>th</sup> byte. If we don't know 7<sup>th</sup> byte of CS then we can use for example Tango programmer for extract it . If we have not 7<sup>th</sup> byte of CS we can put in this place anyone but we must learn new transponders (we can not learn old keys)

2. Second step is find out CS and PIN from target dashboard – in our example VDO.

If Dashboard is made after 06/2006 and we have it without any keys then we must read s-key by Jtag with activated option MICRONAS , and read Security Block. Now with security block editor we can get PIN and CS

That is all what we need to start programming operation. We put VDO dashboard to car.

3. We use option Immo 3 CAN , We must fill all edits field.

In frame “Original Immo Data” we must write original data from our new VDO dash.

-Comp.Sec – we write 6 bytes original component security from VDO Dash

-PIN- we write 5 digit of PIN code from VDO

In frame “New Immo Data” we must write request new data of immo system = data of our car which we get from dash or from ECU:

-Comp.Sec – we write 7 bytes from our car ( from Visteon DashBoard)

-PIN – pin from our car ( from Visteon DashBoard).

-VIN from our car

-Immo ID from our car.

-Power Class from our car.

And now we push “Change Immo Data”

Operation should finish with success.

4. Now we must learn MAC.

We can go into engine ECU .We select option “EDC16 Adv”

Because all data in ECU is same as we need we change original data to same new data.

We push button "Change Immo Data" and it should finished without any errors.

5. Last step is learn Keys. Because we have original keys from the car we can adapt our old keys and don't need new transponders. We go option Immo 3 and put PIN field. Now we push button Learn Key and we must write how many keys we need to learn.

We switch ignitions keys with all needed key

Now our car ready to start.

### **Example 2.**

We have Skoda Octavia 2008 .Dashboard VDO Micronas and ECU MED9.1. We have stolen ECU and we have used one.

What we should to do?

1. Read security block from dash and find out CS and PIN with security block editor.
2. With Option MED9.1 CAN we need find out Immo data from our MED ECU.

Now we have CS+PIN from Immo (car) and CS+PIN with new ECU(which we need to adapt).

3. With option MED9.1 CAN we fill all required field :

- Original Immo data :

Comp.Sec 6 bytes read from MED

PIN from MED

Power Class – if we don't know we can write any one. Program find it automatically.

-New Immo Data:

Comp.Sec - read from dashboard (original car)

PIN - read from dashboard (original car)

VIN - read from dashboard (original car)

IMMO ID - read from dashboard (original car)

Now we push button "Change Immo Data" . ECU are learn to Immo system.

Last step learn MAC.

4. We go on Immo3 CAN option and fill PIN field. Push button "Login".

5. That is all. Car is ready to start.

### ***Option Immo3 Crafter***

This function allows:

Please look *Option Immo3 CAN*.

### ***Option Immo3 Visteon***

This function allows:

Please look *Option Immo3 CAN*.

### ***Option Immo4 UDS***

This function work on all Immo system build in dash as: VW Golf6, Audi A1,Audi Q3 and many more.

It support dashboard Continental, VDO

This function allows:

**Login-** You must write PIN and You can login to immo system. This option Learn MAC ECU<>Immo.

**Change Immo Data-** You must write present PIN and present 6 bytes Components Security of Immo , new Component Security 6 Bytes, new PIN Code ,new VIN, new IMMO ID

(if car has not IMMO ID You can write 00000000000000) , new power class , new 6 bytes of second part Component security (only for keys).

After this operation Immo take new data and lost all learned keys.

MAC2 will be learn automatically.

**Learn Keys:** It allow learn 1 to 8 keys. Transponder must be prepared for actual immo data. After learn immo witch new data next step you must go in ECU and login with PIN. It learn MAC1.

### ***Learn Key by OBD***

#### ***All DashBoard with Immo4 system (VDO NEC )***

This operation give possibility to learn normal Megamos 48 without any preparing in Immo 4 system.

How to learn key?

To perform this operation we need access to dashboard. We need skey. If we have some original keys then we can use option "Read Skey OBD" and that's all. If we haven't original keys we must remove dash, read EEprom by programmer prepare EEprom , read skey, write original EEprom back (by OBD or by programmer).

1. We select proper dashboard (for Example NEC+24C32).
2. Push button Learn Key. Soft Ask "Erase All old Keys" .If we not have originals keys we confirm YES. In another case we select NO .Now soft ask how many keys we want to learn (1..8).After confirm we have to switch ignition off/on with all learned keys.
3. Now all keys ready to use.

#### ***DashBoard with Immo3 system (VDO Micronas ).***

This operation give possibility to learn prepared transponders for brand TP22..TP25.

We can use for example Tango programmer for prepare normal blank MegaMos48 to TP2x or another tool or we can buy prepared TP2x transponder.

How to learn key?

To perform this operation we need access to dashboard. If we have some original keys then we can use option Learn Key immediately .If we haven't any key for car we must remove dash from car read skey by JTAG on the table put dash back to car and next we can go to Learn Key Option.

1. We select proper dashboard (for Example VW VDO 06/2006...).
2. Push button Learn Key. Soft Ask "Erase All old Keys" .If we not have originals keys we confirm YES. In another case we select NO .Now soft ask how many keys we want to learn (1..8).After confirm we have to switch ignition off/on with all learned keys.
3. Now all keys ready to use.

For more information please write mail [help@smok.com.pl](mailto:help@smok.com.pl)