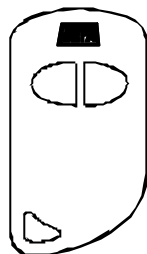


## 4 PROGRAMMING

### 4.1 PROGRAMMING THE 800 SERIES ALARM

There is a total of 13 alternative alarm/system functions to choose between in the DEFA Auto Security. The functions are set to fixed values at the factory, but may be changed by qualified work shop personnel.

Programming the DEFA Auto Security alarms is performed using the ignition key, the remote control of the alarm and the LED.



#### 4.1.1 Definition of «Long» and «Short» presses

##### Short press:

The button is pressed for less than 1 sec.

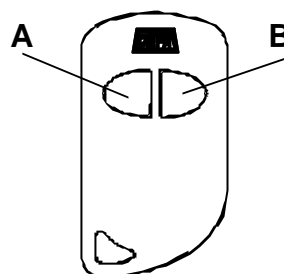
##### Long press:

The button is pressed for more than 2 sec.  
(held in until the required response is achieved)

Long presses are designated by the letter (l) after the button designation, f.i. **Al**.

Short presses are designated by the letter (s) f.i. **Bs**

Long presses on both buttons at the same time are designated **ABl**



#### 4.1.2 Programmable functions. Register 1-13

Function :	Description :	Factory settings :
1	Alarm history	-
2	Number of remote controls	2
3	Alarm sounds	Sound nr.1
4	Passive activation	Off
5	Microwave sensor - Sensitivity	3
6	Remote control with slide switch (3:1)	Pos. 3
7	Central locking - time	0.5 sec
8	Central locking safety function	Not selected
9	Start lock/Immobiliser	Start lock
10	Comfort closing	Not selected
11	Self defence function (remote activation)	Selected 1
12	Factory settings	-
13	Entering PIN-code for Immobiliser module	-

### 4.1.3 Programming of register.

**ACTION :**



5 x Ignition ON - OFF.

**RESULT :**

LED flashes fast.



Ignition ON. Let LED  
flash 2 X. Ignition OFF.

LED flashes 2X and become dark when ignition goes to OFF.



Repeat previous para. 4X.

LED flashes fast when ignition is turned OFF the 5th time.



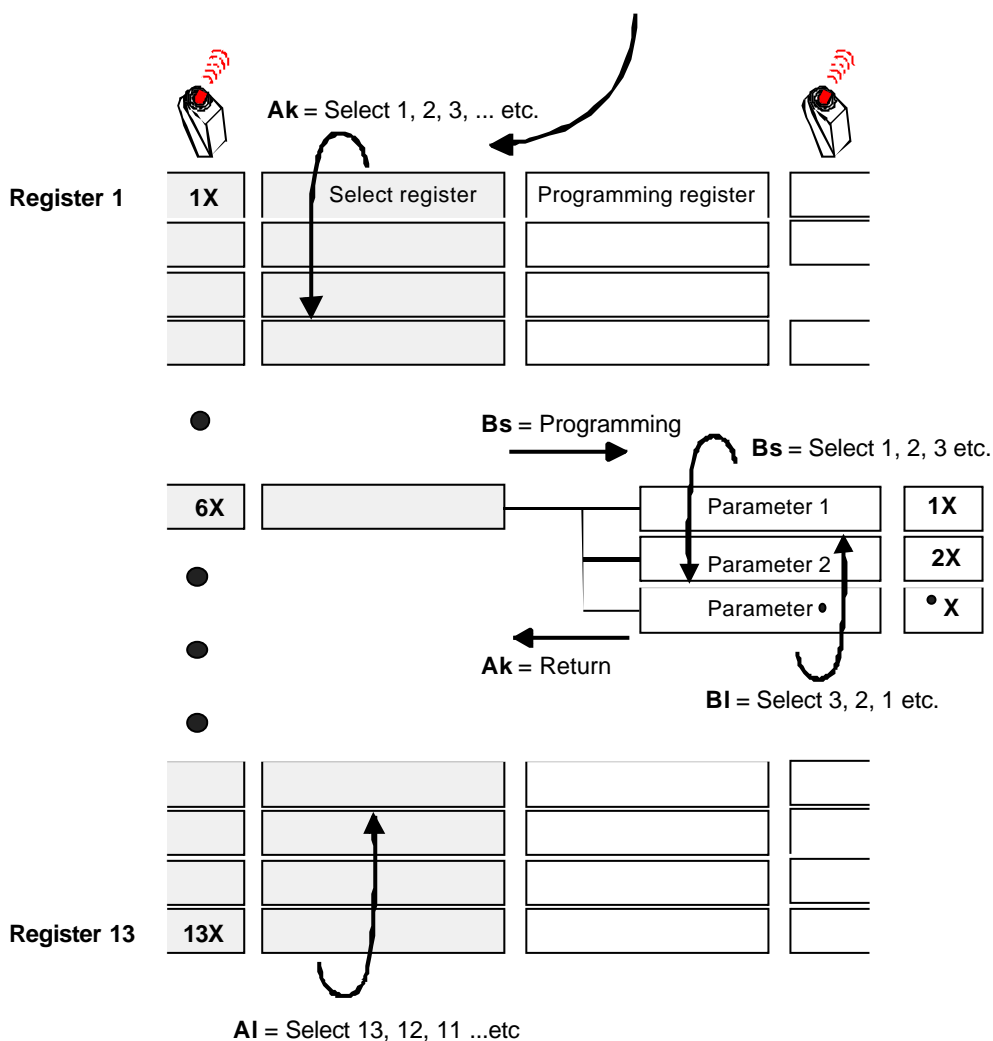
Turn ignition to ON.

No reaction. Dark LED.



Short press on A-button.

1 flash in blinkers.  
You are now on top of the  
programming register.



**Register 1 - alarm history.**

When the alarm is activated the identification number of the sensor triggering the alarm will be registered. The last 10 alarm/trigger sensors which activated the alarm are stored in the register.

No. of flashes in the LED	Alarm Trigger Description
1	Self defence function
2	Auxiliary sensor 1
3	Door switch
4	Bonnet switch
5	Luggage compartment switch
6	Ignition switch
7	Auxiliary equipment
8	Microwave sensor
9	Glass breakage sensor
10	Auxiliary sensor 2

First Bs indicates last activated trigger. Following Bs indicates activated triggers back in time. Following Bs after 1 (oldest) gives no response. BI is used to indicate alarm triggers forward in time. BI following after the last alarm trigger gives no response.

**ABI erases all alarm triggers. When the alarm history is erased there is no response to Bs or BI commands.**

**Register 2 – number of remote controls.**

For control purposes the number of remote controls (maximum 4) initiated will be indicated by a number of flashes in the LED.

- Bs indicates the number of remote controls initiated. The only command accepted after this is ABI; initiation of new remote controls. The maximum number of remote controls that can be stored is 4.

To return to register selection, press As

**Register 3 – alarm sounds.**

For control purposes the selected alarm sound number will be indicated by a number of flashes in the LED.

Alarm sound 1 = 1 flash

Bs or BI activates valid alarm sound for 5 seconds. Where the configuration allows Bs indicates the next alarm sound, while BI chooses the previous sound. There are 6 different alarm sounds. Last selected sound will be the new alarm sound.

To return to register selection, press As.

**Register 4 - passive activation.**

When the ignition is switched off the alarm is automatically activated 12 seconds after the last door is closed. On some markets and models passive activation is an insurance demand. For these markets and models it will not be possible to set passive activation to OFF. On cars where the central locking is not connected the function must be set to ON.

Bs or BI indicates valid status:

**1 flash - active activation selected**

**2 flashes - active activation with respond signals selected**

**3 flashes - passive activation selected**

If the configuration allows the following Bs or BI will fluctuate between passive activation selected/not selected.

To return to register selection, press As.

#### Register 5 – microwave sensor - sensitivity.




For control purposes the sensitivity level of the detector is indicated by a number (1- 8) of short signals in the LED. The lowest level is 1, the highest is 8. Factory setting is 3.

Bs or BI indicates the valid sensitivity level. Bs increases the sensitivity level while BI reduces the level. **The number of flashes in the LED indicates the level.** Selected sensitivity level is confirmed by releasing the detector. Last chosen step will be selected sensitivity level.

To return to register selection, press As.

#### Register 6 – remote control 3:1.

The remote control with slide switch can be programmed to 3 different functions, depending on what they are going to operate. As can be seen from the table a choice between function has to be made.

Slide switch position	Short A	Long A	Short B	Long B	Programming
<b>Position 1</b> <b><u>1 flash</u></b>	Alarm ON	Close window	Alarm ON	Open window	
<b>Position 2</b> <b><u>2 flashes</u></b>	Alarm ON	Sunroof slide close <b>or</b> channel 2. Opening fuel tank lid	Alarm ON	Sunroof slide open <b>or</b> channel 1. Opening luggage compartment	
<b>Position 3</b> <b><u>3 flashes</u></b>	Alarm ON	Sunroof tilt close <b>or</b> channel 3. Start of Car heating	Alarm ON	Sunroof tilt open <b>or</b> channel 3. Turning off car heating	

You can for instance choose between controlling sunroof or remote controlled opening of luggage compartment lid. If you only want to operate the electrical windows of the car, this can be done with an original remote control without slide switch through long presses on the A and B button. A remote control without slide switch has the same functions as a remote

control with slide switch in the lower position (1). As an alternative to comfort functions slide switch position 2 and 3 can be used to serve the alarm on two other cars. The remote control is programmed to one of alarms in position 1. To the other cars in either position 2 or 3. All 3 cars will be able to operate electrical windows via the same remote control.

The following Bs selects the next while BI selects the previous. The number of respond signals indicates selected remote control.

To return to register selection, press As.

#### **Register 7 – central locking time.**

It is possible to decide a number of time variations of the open- and close pulses.

Bs or BI indicates valid status:

- 1 flash = 1 second open-and close pulse.**
- 2 flashes = 4 seconds open/lock pulse.**
- 3 flashes = 0,5 seconds open/close pulse.**

Bs or BI- confirmation signals indicates valid lock driver time. Following Bs or BI chooses the next or the previous lock driver time. The number of respond signals indicate selected time.

To return to register selection, press As

#### **Register 8 – central locking security function.**

This is a security function making it difficult for the user to lock him self in the passenger compartment. With the security function activated the alarm can only be activated after a door has been opened or closed when the ignition has been switched off. The function can be applied regardless of how the central locking is connected but is primarily intended to be used when the car is equipped with a bar system on the central locking.

Bs or BI indicates valid status:

- 1 flashes = Security function not selected.**
- 2 flashes = Security function selected.**

The following Bs or BI alternates between security function selected/not selected. The number of respond signals indicates valid status.

To return to register selection, press As.

#### **Register 9 – start lock/immobiliser**

This function selects one of two possible starting lock functions:

**Start lock:** The function is activated at the same time as the alarm. Goes out of the function when deactivated.

**Immobiliser:** The Immobiliser is activated automatically 30 seconds after the ignition has been turned off and a door has been opened. If a door has not been opened within 30 seconds the Immobiliser is activated when the door is opened. The Immobiliser is deactivated when the alarm is deactivated. If the car is not started within 30 seconds the Immobiliser is activated again.

Bs or BI indicates valid status:

**1 flash = Immobiliser selected.**

**2 flashes = Start lock selected.**

**The following** Bs or BI changes between Immobiliser/start lock. The number of respond signals indicates valid status.

To return to register selection press As.

#### **Register 10 – Comfort closing.**

Automatic closing of windows and sun roof when the alarm is activated via remote control.

Bs or BI: Respond signals indicate valid function. The following Bs or BI, chooses the next or the previous function. The number of respond signals indicates valid function.

**1 flash = Function not selected**

**2 flashes = Comfort closing via the original system**

**3 flashes = Comfort closing via DEFA Power Module.**

To return to register selection press As.

1. The function has not been selected. No automatic or directly controlled locking of windows or sunroof by activation.
2. Activates and closes windows and sunroof via the cars own central locking system. The function gives the user the possibility to close windows and sunroof together with activation and locking of doors in cars with built in comfort closing. The signal for closing of windows remains activated as long as the A-button on the RF remote control is activated. If the A button activation is interrupted for 1,5 seconds the functions are carried through as by short presses on the A-button.

**NOTE !** When function 2 is selected it must be clarified if the central locking system in the car is built for comfort locking. Long lasting activation of the closing signal may damage the unit if there is no built in protection..

3. Activates and closes windows and sunroof via DEFAnet. The same function as 2 but now controlled via DEFAnet. One or several Power Module may be used. For some sun- roofs it is not possible to get automatic closing because of built in limitations in the sun- roof control of the vehicle. For function 2 and 3 attention should be given to the risk of someone getting jammed when closing windows or sunroof.

#### **Register 11 - Self defence functions. (Panic function)**

Simultaneous activation of A and B button (Abl) sets off siren and alarm light. The selected alarm sound is used for all functions where an alarm sound is activated. The following selections are possible as self defence functions:

- 1 flash = The function has not been selected**
- 2 flashes = The function is active as long as AB is depressed..**
- 3 flashes = The function is active for 30 seconds**

Bs or BI: Respond signals indicate valid self defence function. The following Bs or BI selects the next or previous self defence function. The number of respond signals indicates selected self defence function.

To return to register selection, press As.

#### **Register 12 – Factory settings.**

The function is used to "zero" all settings and adjustments carried out in the system after the market configuration. All functions and adjustments are returned to factory setting.(se Table 4.1.2)

Bs or BI returns the above mentioned function selection to factory setting. **Responds with 1 flash**

#### **Register 13 - PIN-code for DEFA Immobiliser module.**

When the DEFA Immobiliser module is retrofitted the PIN-code of the module must be entered in to the alarm. The following procedure is used:

- 1. Press Bs.**
- 2. Turn off the ignition.**
- 3. Turn on the ignition. Let the LED flash as many times as indicated by the first digit of the PIN-code.**
- 4. Turn off the ignition.**
- 5. Repeat point 3 and 4 until all the digits in the PIN-code have been entered. The last time you turn off the ignition the LED will flash rapidly confirming that the procedure has been completed.**

Note ! If you make a mistake on the way, you have to repeat the procedure. The LED will flash rapidly regardless of whether the right or the wrong code has been entered.

To return to selection of register press As.

#### **4.1.4 Programming of remote controls**

When initiating new remote controls the special code (PIN-code) valid for the system, must be known.

The code is noted on the code card delivered with the system. The code card is the private property of the user and must be protected against unauthorised copying of the code. The following procedure is used:

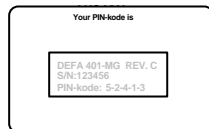
## ACTION :



5 x Ignition ON - OF.



Ignition to ON. Let LED flash as many times as indicated by the first digit of the PIN-code.  
Turn OFF ignition.



Repeat point 3 and 4 until all digit in the PIN-code have been entered.



Turn ON ignition.



Long presses on A and B buttons at the same time.

## RESPONSE :

LED flashes rapidly.



LED goes dark when ignition is turned OFF.



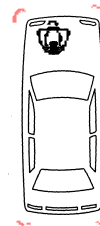
LED flashes rapidly when the ignition is turned OFF the 5th time.



No reaction. LED dark.



1 response signal in blinkers for every accepted Remote Control.

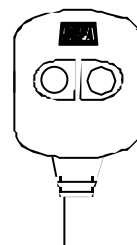


When new remote controls are initiated all old remote controls are erased as soon as a new remote control is approved by the system. As a consequence all remote controls to be used, must be entered at the same time.

## 4.2 PROGRAMMING THE 400 SERIES ALARM MODULE

There is a total number of 9 alarm/system functions to choose from in the DEFA Auto Security 400 series. The functions are set at standard values at the factory, but can be reset by qualified workshop personnel. A 5 digit code has been introduced to make sure that only qualified personnel have access to the programming of the functions.

Programming the DEFA Auto Security 400 series alarms is done with the aid of the ignition key, the programming panel and the LED.





### 4.2.1 Definition of «Long» and «Short» presses

#### Short press:

The button is pressed for less than 1 sec.

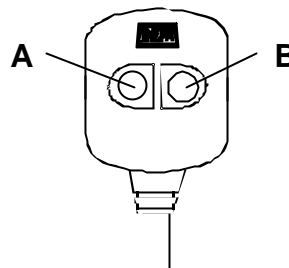
#### Long press:

The button is pressed for more than 2 sec.  
(depressed until the required response is achieved.)

Long presses are designated by the letter (l) after the respective button designation for instance **Al**.

Short presses are designated by (s) for instance **Bs**

Long presses simultaneously on the **A** and **B** buttons are designated **ABl**










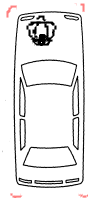


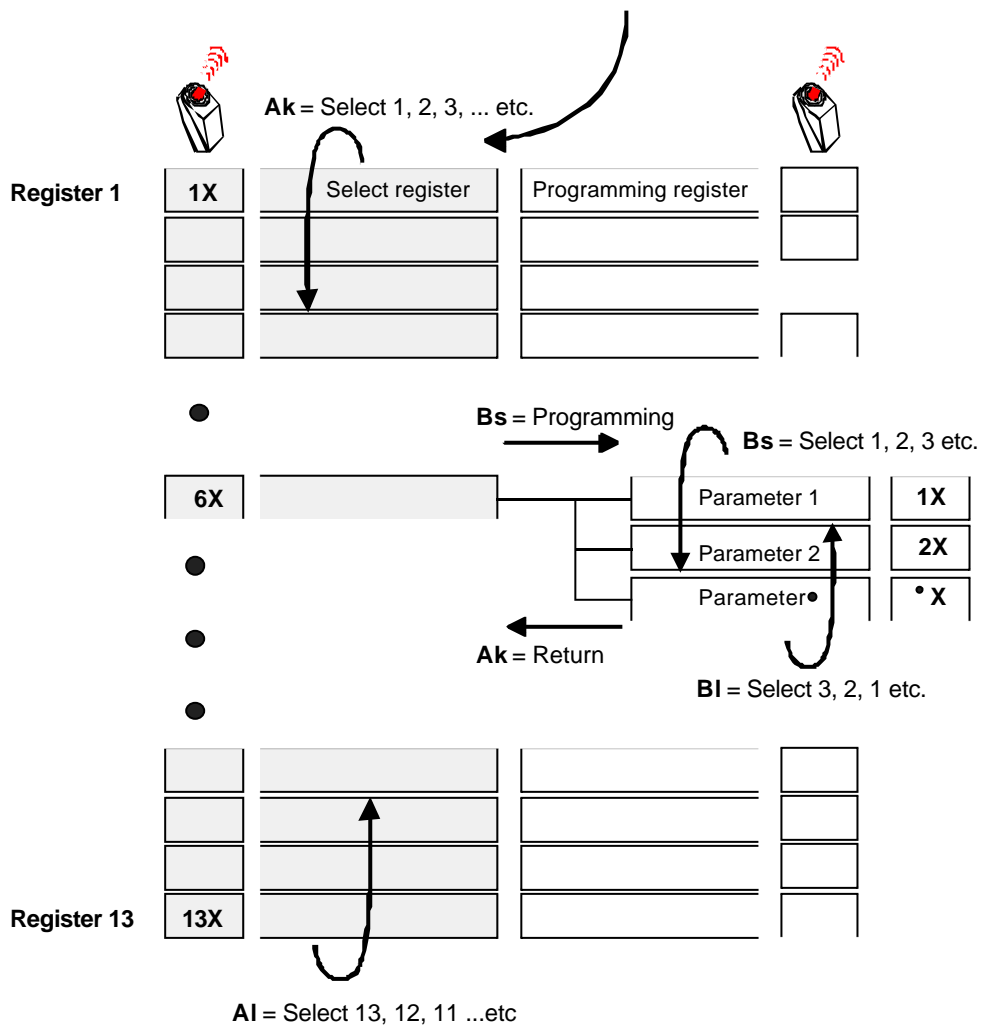
### 4.2.2 Programmable functions. Index 1-13

Function :	Description :	Factory settings :
1	Alarm history	-
2	<b>Not in use</b>	<b>Not in use</b>
3	Alarm sound	Sound # 1
4	Passive activation	OFF
5	Microwave sensor - sensitivity	3
6	Selection of car model – control signals	Selection 1
7	Response by activation/deactivation	Response
8	<b>Not in use</b>	<b>Not in use</b>
9	Start lock/Immobiliser	Start lock 1)
10	<b>Not in use</b>	<b>Not in use</b>
11	<b>Not in use</b>	<b>Not in use</b>
12	Factory settings	-
13	Entering the PIN-code for the Immobiliser	-

1) Set in position Immobiliser for some models. (403)

4.2.3 Index programming

ACTION :	RESULT :
 5 x Ignition ON - OFF.	LED flashes fast. 
 Ignition ON. Let LED flash 2 X. Ignition OFF.	LED flashes 2X and become dark when ignition goes to OFF. 
 Repeat previous para. 4X.	LED flashes fast when ignition is turned OFF the 5th time. 
 Turn ignition to ON.	No reaction. Dark LED. 
 Short press on A-button.	1 flash in blinkers. You are now on top of the programming register. 



**Register 1 – Alarm history.**

When an alarm is triggered the identification number of the sensor or trigger which set off the alarm is registered. The 10 latest incidents of triggered alarm are registered.

No. of flashes in the LED	Alarm Trigger Description
1	Self defence function
2	Auxiliary sensor 1
3	Door switch
4	Bonnet switch
5	Luggage compartment switch
6	Ignition switch
7	Auxiliary equipment
8	Microwave sensor
9	Glass breakage sensor
10	Auxiliary sensor 2

The first Bs indicates last released trigger. The following Bs indicates released triggers back in time. By following Bs after 1. (oldest) alarm trigger, no response is given. BI is used to show alarm triggers forwards in time. By following BI after last alarm trigger, no response is given.

**ABI erases all alarm triggers. When the alarm history is erased there is no response to Bs or BI commands.**

**Register 2 – Not in use.****Register 3 – Alarm sounds.**

For control purposes the selected alarm sound number is indicated by short flashes in the LED.

Alarm sound 1= 1 flash

Bs or BI activates the valid alarm sound for 5 seconds. When the configuration allows Bs will select the next alarm sound whereas BI selects the previous alarm sound. There are 6 different alarm sounds available. The last selected sound will be the new alarm sound of the alarm.

To return to selection of register, press As.

**Register 4 - Passive Activation.**

After the ignition has been switched off, the alarm is automatically activated 12 seconds after the last door has been closed.

For some markets and models passive activation is an insurance demand. For these markets and models it is not possible to set passive activation to OFF.

Bs or BI indicates valid status:

**1 flash = Active activation selected.**

**2 flashes = Active activation with response signals selected**

**3 flashes = Passive activation selected.**

Following Bs or BI alternates between passive activation selected/not selected.

To return to selection of register, press As.

#### Register 5 – Microwave sensor - sensitivity.

For control purposes the sensitivity level of the microwave sensor is indicated by a number(1 to 8) of short flashes in the LED The lowest level is 1 and the highest level is 8. Factory setting is 3.

Bs or BI indicates valid sensitivity level. Bs increases the sensitivity level whereas BI reduces the level. **The number of flashes in the LED indicates the level..** Selected sensitivity level is shown by releasing the sensor. The last selected step will be selected sensitivity level.

To return to selection of register, press As.

#### Register 6 – Selection of car model.

In addition to connecting the control signals for activation and deactivation, the alarm module must be programmed to suit the car model in question..

Bs or BI indicates valid status.

Number of flashes	Car model
1 flash	Standard 1, Negative or Positive control signals
2 flashes	Standard 2, Positive control signals with Positive blocking signal
3 flashes	Standard 3, Positive control signals with Negative blocking signal
4 flashes	Volvo V40/S40 1996
5 flashes	Opel Vectra 1996
6 flashes	Mercedes E class 1995 - 97
7 flashes	Mercedes Vito 1995 – 97 with/comfort closing.

New short press on button B selects the next car model. Long press on B selects the previous.

To return to selection of register, press As.

#### Register 7 – Response signals in blinkers.

Some cars with original remote control have response signals in the blinkers by locking/unlocking. It is therefore possible to remove the alarms response signals in the blinkers.

Bs or BI indicates valid status:

- 1 flash = Response signal ON**
- 2 flashes = Response signal OFF**

To return to selection of register, press As.

#### Register 8 – Not in use.

#### Register 9 – Start lock/Immobiliser

This function selects one of two possible starting lock functions:

**Start lock:** The function is activated at the same time as the alarm is activated. Goes out of the function when it is deactivated..

**Immobiliser:** The immobiliser is activated automatically 30 seconds after the ignition has been turned off and a door has been opened. If a door has not been opened within 30 seconds, the Immobiliser is activated when a door is opened. The Immobiliser is deactivated when the alarm is turned off. If the car is not started within 30 seconds the Immobiliser is activated again.

Bs or BI indicates valid status:

- 1 flash = Immobiliser selected.**
- 2 flashes = Start lock selected.**

The following Bs or BI alternates between Immobiliser/start lock. The number of response signals indicates valid status.

To return to selection of register, press As.

#### **Register 10 – Not in use.**

#### **Register 11 – Not in use.**

#### **Register 12 – Factory settings.**

The function is used to "zero" all settings and adjustments made after the market configuration. All functions and adjustments will return to factory setting.(see Table 4.2.2 )

Bs or BI returns the above mentioned function selection to factory setting. **Confirms with 1 flash.**

#### **Register 13 - PIN-code for DEFA Immobiliser module.**

If the DEFA Immobiliser module is fitted afterwards the PIN-code of the module must be entered in to the alarm. The following procedure is applied:

- 1. Press Bs.**
- 2. Turn off the ignition.**
- 3. Turn on the ignition. Let the LED flash as many times as the first digit in the PIN-code indicates.**
- 4. Turn off the ignition.**
- 5. Repeat point 3 and 4 until all the digits have been entered. The last time you turn off the ignition, the LED flashes rapidly as a confirmation that the procedure has been completed**

NOTE ! If you make a mistake on the way, the procedure has to be repeated again. The LED will flash rapidly regardless of whether the right or the wrong code has been entered.

To return to selection of register, press As.