

SDD
SilcaDiagnosticDevice

SBB

SW- FORD[®] USA CAN BUS -L2 (SDD/SBB)

CODE: D431427XA - VERS. 2.0



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SW- PRG. FORD® USA CAN BUS-L2 (SDD/SBB)






1

FORD® USA CAN BUS



The functions on these vehicles are:

- Programme new keys in the immobilizer even when all the original keys are missing;
- Add new keys to the immobilizer;
- Delete the code of all keys from the immobilizer memory, but re-programme 2 of them;
- Check how many keys are memorized in the immobilizer;
- Delete any anomalies memorized in the immobilizer.

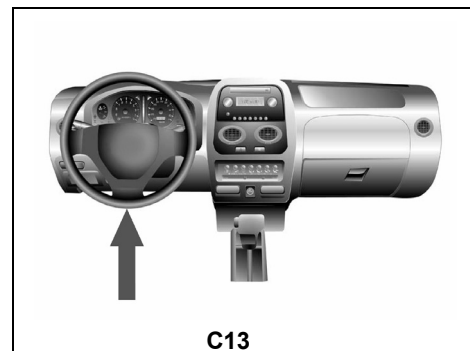
To make use of this function, use:

	 SWITCH ADAPTER CAN BUS (optional*)
 CABLE OBDII [00] (standard)	 Security access approx. 12 minutes
 Keys to be programmed (Max.8)	

Optional* = STANDARD for SDD USA CAN BUS

SBB	CABLE/ADAPTER
	 CABLE OBD II [00] (STANDARD)

WHERE TO FIND THE PLUG DIAGNOSTICS



2 FORD® USA CAN BUS

New generation cars use a new communication technology known as CAN BUS (Controller Area Network). This system is designed to eliminate the problem of overcrowding with electrical wiring in modern vehicles due to an increase in the number of electronically controlled functions. Today on most cars each single wire in the electrical system carries out a single function, i.e. it powers a given component or receives or sends certain information. CAN BUS makes use of a «multiplex» network connection that connects the various central units and transmits data and commands on a single line (also called «data bus»).

OPERATIONAL NOTES

To use IMMOBILIZER SDD/SBB functions on FORD® USA CAN BUS models, include the optional CAN BUS SWITCH ADAPTER (Cod. D726833ZB) + OBD II Cable (00).

3 FUNCTIONS MENU FORD® USA CAN BUS (FORD® USA - MERCURY®)

In this section, you can execute the functions provided, in particular:

- Storing new keys in the immobilizer even when all the original keys have been lost;
- Adding new keys in the immobilizer;
- Erasing the codes for all keys from the immobilizer's memory **provided that you reprogram two**;
- Checking how many keys are stored in the immobilizer's memory;
- Eliminating any errors stored in the immobilizer's memory.

ATTENTION: The programming system for FORD® USA CAN BUS is structured in such a way that **it is not possible to individually erase one or more keys for the vehicle.**

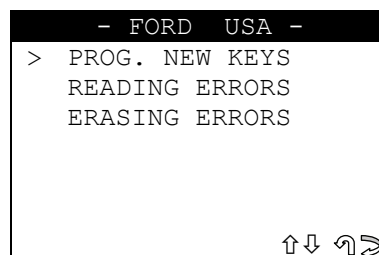
ATTEMPTING TO START A CAR USING A KEY THAT HAS NOT BEEN STORED IN MEMORY

In this case, the immobilizer system goes into protection mode and it is not possible to start the vehicle even using a key intended for that purpose. This situation is indicated by a rapid flashing of the immobilizer warning light.

- To unlock the vehicle, insert a functioning key into the ignition switch and hold it in the ON position until the immobilizer warning light goes off (this procedure takes a few minutes).

The FORD® USA CAN BUS functions menu is structured as follows:

- A key has already inserted into the ignition switch and turned to the ON position.
The following is displayed:



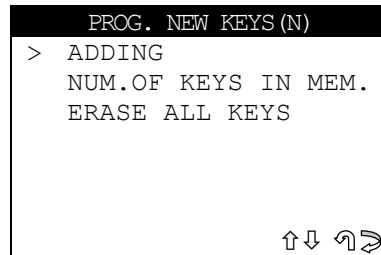
Select and press **ENTER**.

3.1 PROGRAMMING NEW KEYS (N)

This function is used to add new keys, erase programmed keys and check how many keys are memorized in the immobilizer.

- To activate the function, select “**PROG. NEW KEYS**” and press **ENTER**.

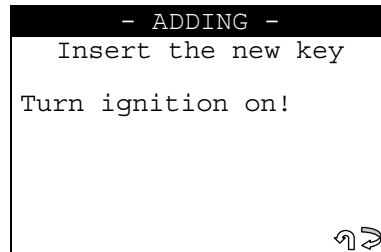
The display will show:



3.1.1 ADDING KEY

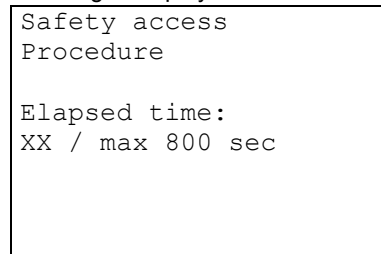
This function is used to add new key.

- Select “**ADD**” and press **ENTER**.
- The display will show:

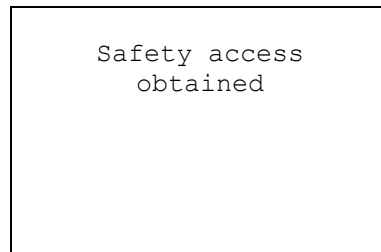


- Insert the key to be programmed into the ignition block.
- Turn the key to the **ON** position.
- Press **ESC** to exit.
- Press **ENTER** to continue.

After a few seconds, the following is displayed

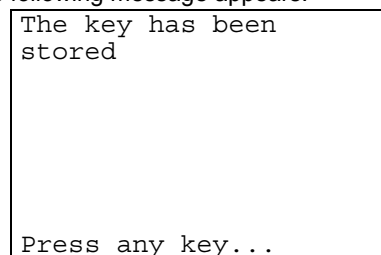


A dialogue then begins between the device and the immobilizer central unit, which may take up to 800 sec. If communication and data transfer has taken place successfully, at the end of the operation the display will show:



At that point, the **key programming phase** begins.

After a few seconds, the following message appears:



- Press a key to continue:

```

Turn ignition OFF!

Press any key...

```

TESTING KEYS

ATTENTION: To check that the stored keys work, try starting the vehicle at least 2 times. If this fails, repeat the operation.

OPERATIONS ARCHIVES - USERS DATA

When the programming operation has been completed, the following appears:

```

Do you want to save
the customer data?

NO
>YES

↑↓ ↻

```

- Select YES/NO and press **ENTER**.
- **No**, return to the **IMMOBILIZER functions menu** screen
- **Yes**, save the data for the operation that has just been completed.
- Press **ESC** to exit.

SAVING USER DATA

To enter user data, the following is displayed:

```

- USER DATA -
POS.: 001
DATE: 19/07/01
> SURNAME:XXXXXXXXXX
NAME: XXXXXXXXXXXXX
REG.NO: XXXXXXXXXXXXX

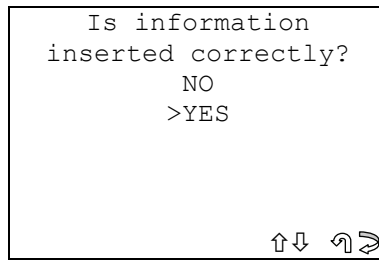
↑↓↔ ↻

```

- SURNAME (mandatory) (**12 characters**).
 - NAME / REG. NO. (optional) (**12 characters**).
- The following data will be saved automatically:
- **POS.:** Location where the data will be saved
 - **DATE:** Operation date
 - **MAKE:** Make of the vehicle for which the operation was performed
 - **MODEL:** Model of the vehicle for which the operation was performed
 - **YEAR:** Model year
 - **Keys stored:** Number of keys stored in memory
 - **PIN CODE:** (if storage is confirmed by an operator)
 - **IMMO ID:** Immobilizer control unit ID

To enter data:

- Use the ↑↓ keys to position on the desired item.
- Press ⇒ to enter and select the field where the text is to be typed.
- To confirm, press **ENTER**.
- To exit and save the data, press **ESC**.

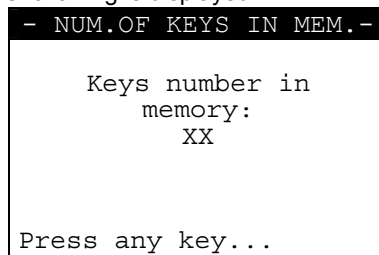


- Select YES/NO and press **ENTER**.
- **No**, return to the data entry screen.
- **Yes**, save the entered data.
- Select **ESC** to exit.

3.1.2 NUMBER OF KEYS STORED

This function is used to display the number of keys stored in the immobilizer's memory.

- Make sure the key in the ignition block is in the **ON** position.
- After selecting it, the following is displayed:



- Press any key to continue.

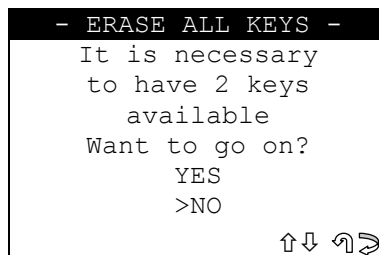
3.1.3 ERASE ALL KEYS

This function is used to erase all keys stored in the immobilizer's memory. To proceed, 2 keys must be stored.

ATTENTION: The key erasure procedure provides for programming 2 keys necessary for the immobilizer to start the car.

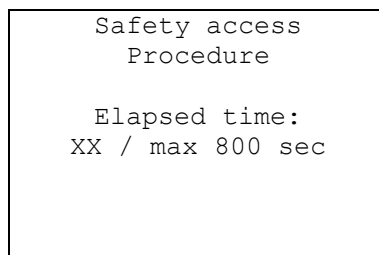
- Make sure there is a key turned to the **ON** position in the ignition block.
- In the "**PROG. NEW KEYS**" menu, select "**ERASE ALL KEYS**" and press **ENTER**.

The display will show:



- Select YES/NO and press **ENTER**.
- **No**, return to the data entry screen.
- **Yes**, to erase the key.
- Press **ESC** to exit.

The display will show:



A dialogue then begins between the device and the immobilizer central unit, which may take up to 800 sec. If communication and data transfer has taken place successfully, at the end of the operation the display will show:

Safety access
obtained

At this point, the **erase all keys phase** begins.
After a few seconds, the following is displayed:

All keys
have been erased

Please wait ...

Key erasure has been completed (all the keys programmed to date have been erased).
At this point, the **2 key programming phase** begins.

COMMUNICATION OK!

Sequentially insert
the keys and turn each
one to the ON position

Press any key...

- Turn the key to the **OFF** position;
- Turn the key to the **ON** position (wait 5 seconds);
- Turn the key to the **OFF** position;
- Remove the key (first key programmed operational);
- Insert the second key and turn to the **ON** position (wait 5 seconds);
- Turn the key to the **OFF** position (within 10 seconds);
- Remove the key (second key programmed operational);
- Press any key to continue.

ATTENTION: Make sure that two keys have been programmed. The central unit will not allow the vehicle to start unless two keys are memorized. Read the number of keys and if necessary add the missing one(s).

OPERATIONS ARCHIVES - USERS DATA

When the programming operation has been completed, the following appears:

Do you want to save
the customer data?

NO
>YES

↑↓ ↻ ➤

- Select **YES/NO** and press **ENTER**.
- **No**, return to the IMMOBILIZER functions menu screen
- **Yes**, save the data for the operation that has just been completed.
- Press **ESC** to exit.

SAVING USER DATA

To enter user data, the following is displayed:

```

- USER DATA -
POS.: 001
DATE: 19/07/01
SURNAME: XXXXXXXXXXXX
> NAME: XXXXXXXXXXXX
REG.NO: XXXXXXXXXXXX

↑↓↔⇒

```

- SURNAME (mandatory) (**12 characters**).
- NAME / REG. NO. (optional) (**12 characters**).

The following data will be saved automatically:

- **POS.:** Location where the data will be saved
- **DATE:** Operation date
- **MAKE:** Make of the vehicle for which the operation was performed
- **MODEL:** Model of the vehicle for which the operation was performed
- **YEAR:** Model year
- **Keys stored:** Number of keys stored in memory
- **PIN CODE:** (if storage is confirmed by an operator)
- **IMMO ID:** Immobilizer control unit ID

To enter data:

- Use the ↑↓ keys to position on the desired item;
- Press ⇒ to enter and select the field where the text is to be typed.
- To confirm, press **ENTER**.
- To exit and save the data, press **ESC**.

```

Is information
inserted correctly?

NO
>YES

↑↓⇒

```

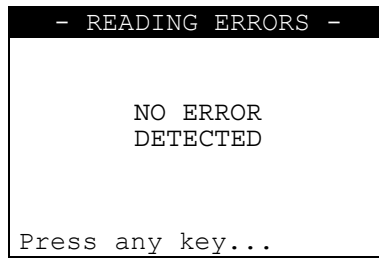
- Select **YES/NO** and press **ENTER**.
- **No**, return to the data entry screen.
- **Yes**, save the entered data.
- Select **ESC** to exit.

3.2 READING ERRORS

This function is used to check for problems in the immobilizer's memory.

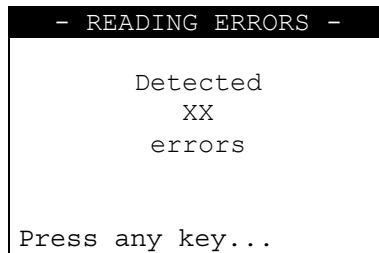
NO ERRORS FOUND

If no problems are found, the following is displayed after a few seconds:

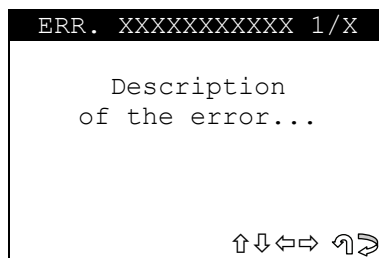


ERRORS FOUND

If problems are found, the number of errors (XX) stored in the control unit is displayed:



Press any key to display a description of the error:

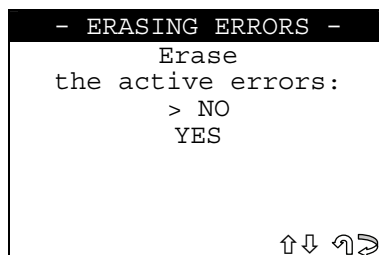


- **ERR: XXXXXXXXXXXX** error code;
- Press $\uparrow\downarrow\leftarrow\rightarrow$ to scroll through all the errors found;
- Press **ESC** to exit.

3.3

ERASING ERRORS

After selecting and pressing **ENTER**, the following appears:



- Select YES/NO and press **ENTER**.
- **No**, return to the data entry screen.
- **Yes**, save the entered data.
- Select **ESC** to exit.

- The following is displayed:

```
Turn ignition ON!  
  
Press any key ...
```

- Turn the key to the **ON position** and press a key.

After a few seconds the display will show:

```
TERMINATED  
ERASING  
  
Press ESC to quit
```

Select **ESC** to quit.



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