



**NANO/COM**

DESIGNERS AND MANUFACTURERS OF CUTTING EDGE AUTOMOTIVE DIAGNOSTIC EQUIPMENT.

## FUNCTIONS DESCRIPTION MANUAL

Coverage	Nanocom 1 and EVO
ECU	<b>10AS Alarm</b>
List of Functions	<ul style="list-style-type: none"><li>○ EVENTS</li><li>○ SETTINGS</li><li>○ SET COUNTRY</li><li>○ Inputs</li><li>○ Outputs</li><li>○ Utility<ul style="list-style-type: none"><li>Plip learn</li><li>RF test</li><li>Set default data</li><li>Clear Factory Mode</li><li>Set to Immobilize</li></ul></li></ul>

## DIAGNOSTIC FUNCTIONS OF THE 10AS ALARM (Defender)

All the diagnostic functions have to be performed with the Ignition turned on to the second step and the engine may be running or stopped. We suggest in any case keeping the key inserted, so that the ECU can detect the presence of a valid key and fob, to avoid that the ECU activates sECURITY timers. We also suggest you arm and disarm the alarm with the fob after each diagnostic session on that ECU and wait a few minutes to test if the modification is effective.

**WARNING:** The alarm system is an essential component essential the car because of the immobilizer; the modification of some parameters can arrest the vehicle and, in that case, solving the problem can be difficult or can require the help of the dealer's expert technicians.

### EVENTS FUNCTIONS

The 10AS ECU has the READ EVENT and CLEAR EVENT to read and clear the last 5 events triggered by the alarm. The events have not any relevance in faults diagnostic, because they store only alarm events like doors open with alarm armed etc.

### SETTINGS FUNCTIONS

The 10AS ECU has the READ SETTING and CLEAR SETTING to read and write the setting.

The settings available are many and complex, so we suggest reading carefully the workshop manual to know their meanings. In any case we suggest to use those functions with the maximum care and only if it is necessary.

By means of the SET COUNTRY function, the 10AS ECU has the possibility to easily and safely load the country presets instead of modifying the settings one by one. It is not recommended however to use this function as some settings may differ. We recommend making manual changes instead.

**WARNING:** Before writing the settings the Nanocom shows the following message "Write all data, configuration and codes overwriting your current coding information? (suggested NO)". If you choose NO the Nanocom writes only the functional setting and leaves the coding data as they are, with less possibility of alarm locking.

The coding data are the immobilizer codes and rolling codes of the fobs and other codes used by the alarm to manage the immobilization.

### INPUTS FUNCTIONS

The 10AS ALARM ECU has the READ INPUT function to read dynamically the parameters. The parameters can be analogue-numeric or digital-ON/OFF.

*Driver sill* – HIGH = 12V o LOW = 0V

*Passenger sill* – HIGH = 12V o LOW = 0V

*Driver Door* – HIGH = 12V o LOW = 0V

*Passenger door* – HIGH = 12V o LOW = 0V

*Door key* – HIGH = 12V o LOW = 0V

*Ignition stage 2* – LOW = 12V o LOW = 0V

*Bonnet* - LOW = 12V o LOW = 0V

*Factory mode* SET - CLEAR

*TD5 learnt* – YES o NO

*MIL light* - HIGH = 12V o LOW = 0V

*MIL status* OK –FAULT

*Spider 1-Spider 2-Spider 3* OPEN = open circuit CLOSE = close circuit (immobilizer system on DiscoveryI with TDi engine)

*Crank output* – 0 min 255 max, crank enable output

Interior light – 0 min 255 max

*Plip 1 - Plip 2 - Plip 3 -Plip 4* rolling codes of the 4 fobs

*Volumetric sensor1 Volumetric sensor2* – 0 min 255 max , (only if sensors are present)

*Catalyst 1 input - Catalyst 2 input* (not used)

## **OUTPUTS TESTS**

These functions activate the relative outputs for a few seconds allowing you to check them.

*Lock door*

*Unlock door*

*Sounder*

*Alarm LED*

*Immobilizer light*

*Hazard light*

*Interior light*

## **UTILITY FUNCTIONS**

### **PLIP LEARN**

This function allows the 10AS to learn the codes and synchronize one or more fobs. Once the function is active you have to push one of the buttons of each of the fobs until you hear the sounder or you see the hazard light.

Note: The number of fobs you can program is set in the *Plip learnt* parameter that you can read and set by means of the READ/WRITE SETTING functions.

### **RF TEST**

This function allows you to verify that one fob (even if it is not programmed into the alarm) is received by the Radio Frequency equipment. Once the function is active you have to push the buttons of the fob and see if the hazard lights work as if the alarm is being armed and disarmed.

### **SET DEFAULT DATA**

Load the factory setting as Discovery I.

Warning: If you perform this function you set the 10AS as it were a Discovery I, so it doesn't manage the TD5 immobilization. To come back to the TD5 settings you have to perform the CLEAR FACTORY MODE and set one of the available countries by means of the SET COUNTRY function.

### **CLEAR FACTORY MODE**

This function clears the "new ECU" flag.

### **SET TO IMMOBILIZE**

This function activates the immobilization (Discovery I only).

### **HOW TO DISABLE THE PASSIVE IMMOBILIZER**

If you want to disable the passive immobilization you have to read the settings by means of the READ SETTING function, and then modify the parameter PLIP IMMOBILIZE and PASSIVE IMMOBILIZER as DISABLED. Write the new setting with the WRITE SETTING function.