



NANO/COM

DESIGNERS AND MANUFACTURERS OF CUTTING EDGE AUTOMOTIVE DIAGNOSTIC EQUIPMENT.

FUNCTIONS DESCRIPTION MANUAL

Coverage	Nanocom Evolution Mk 2
ECU	VALEO Body Control
List of Functions	<ul style="list-style-type: none"> ○ Read Inputs ○ Settings ○ Outputs Body ○ Outputs Security ○ Key programming ○ Utility <ul style="list-style-type: none"> RF test Resest NEW ECU flag Read and set EKA code Odometer Synchronizing

Please note the menus on the Nanocom On and Evolution Mk 1 have some differences. Please ensure you follow the correct Help guide.

DIAGNOSTIC FUNCTIONS OF THE VALEO BODY CONTROL UNIT (Discovery II)

All the functions may be performed with the ignition turned on or off and the engine running or stopped. We suggest in any case to keep the key inserted so the ECU can detect the presence of a valid key and fob, to avoid that the ECU activate security timers. We suggest also to arm and disarm the alarm with the fob after each diagnostic session on that ECU and wait few minutes to test if the modification has become effective.

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

SETTINGS FUNCTIONS

The VALEO BCU ecu has the READ SETTING and ability to write the settings.

LIGHTS WINDOWS-SEATS

- Front Fog lamp
- Daytime run lights
- Courtesy head lamps
- Headlamp power wash
- Electric front window
- Rear windows sunroof
- Heated front screen
- Electric front seats
- Programmed wash wipe
- Seat belt warning
- Seat belt warning sound
- Autographic

TRANSM-LOCK-WARN

- Transmission
- Shift Interlock
- HDC
- Superlock
- Single point entry
- Speed lock option
- Mislock option
- Bathrobe lock option
- Odometer error warn
- Key warning
- Low battery warning
- Bulb failure

INSTRUMENT PACK

- Transmission
- Engine

ACE
SLS
Gulf
Police
HDC
TRC

ALARM-OTHER

Alarm
Alarm option
Alarm disarm
Alarm sounder
Alarm tamper
Engine immobil.
Passive immobile.
Inertia switch
Hazard option
Volumetric sensor
Market
EKA option
Cruise control
Air conditioning
Fuel burning heater
Passive coil
Transit mode

INFO

Serial No
Date
Hardware No
Software No
Alarm type
VIN

WRITE SETTINGS

INPUTS FUNCTIONS

The VALEO BCU ecu has the READ BODY – SECURITY – POWER DISTRIBUTION INPUTS function to read dynamically the parameters.

The parameters can be analogue-numeric or digital-ON/OFF.

BCU INPUT

BODY 1

Side lights ON-OFF

Main beam ON-OFF

Dipped ON-OFF

Front fog light ON-OFF

Rear fog light ON-OFF

Left indicator ON-OFF

Right indicator ON-OFF

Hazard ON-OFF

Daytime run light ACTIVE-DISABLED

Passenger door switch OPEN-CLOSE

Driver door switch OPEN-CLOSE

Bonnet OPEN-CLOSE
Key lock IDLE-LOCK
Key unlock IDLE-UNLOCK
CDL lock IDLE-LOCK
CDL unlock IDLE-UNLOCK
Inertia SET-TRIGGERED
Ignition key inserted IN-OUT
Transfer box neutral
Park/neutral

BODY 2

Reverse idle ON-OFF
Transfer neutral switch
Autobox W switch
Autobox X switch
Autobox Y switch
Autobox Z switch
Park Neutral switch ON – OFF

WINDOWS

Front left down ON-OFF
Front left up ON-OFF
Front right down ON-OFF
Front right up ON-OFF
Front intermit ON-OFF
Front Wash ON-OFF
Front wiper parked ON-OFF
Front wiper speed (numeric from 1 to 5)
Rear wiper ON-OFF
Rear wash ON-OFF

HEATED SCREEN

Heated screen switch ON-OFF
Ignition 2
Engine speed signal

INSTRUMENTS

Engine speed signal ACTIVE-NOT ACTIVE
LH DI
RH DI
LH Tailor DI
RH tailor DI
Seat belt ON-OFF
Diff lock ON-OFF
Transfer neutral ON-OFF
Autobox manual ON-OFF
Autobox sport ON-OFF
Offroad level ON-OFF
ABS
Traction control ON-OFF
SRS
HDC select ON-OFF
Glow plug
Brake
Oil pressure

Alternator
Check engine
Fuel filter
Transmission temp. ON-OFF
Check ACE
Check HDC
Check SLS ON-OFF
Instr. mileage (Km) Mileage stored in the odometer
BCU Mileage (Km) ON-OFF Mileage stored in the odometer
IP Trip switch ON-OFF

POWER DISTRIBUTION

BCU ignition pos. 1 ON-OFF
BCU ignition pos. 2 ON-OFF
BCU ignition pos. 3 ON-OFF
IP ignition pos.2 ON-OFF
IDM ignition pos.2 ON-OFF - Intelligent Drivers Module ignition input
IDM battery (V) ON-OFF Intelligent Drivers Module powersupply
BCU switch power - power supply for switch and pushbuttons
BCU relay power ON-OFF power supply for the relays

OUTPUTS FUNCTIONS

Outputs Body

LIGHTS

FRONT FOG LIGHTS
REAR FOG LIGHTS
DAYTIME RUNNING LIGHTS
LH INDICATOR ENABLE
RH INDICATOR ENABLE

WINDOWS

FRONT LEFT WINDOW UP
FRONT LEFT WINDOW DOWN
FRONT RIGHT WINDOW UP
FRONT RIGHT WINDOW DOWN (Warning: once the window is completely closed or open you must stop the function or disconnect the Nanocom to avoid the over heating of the motor)
REAR WINDOW ENABLE
SUNROOF ENABLE

WASH WIPE

FRONT WIPER ENABLE
TAIL WIPER ENABLE
HEADLAMP POWER WASH

HEATED SCREEN

HEATED SCREEN
HEATED REAR SCREEN LAMP

CHECK ENGINE

CHECK ENGINE LAMP

Outputs Security

SECURITY

HORN

BBUS ALL Battery baked sounder and horn

BBUS ST Battery baked sounder only

FUEL FLAP

ALARM LED

IGNITION INTERLOCK

CRANK ENABLE

VOLUMETRIC POWER

ROBUST IMMOBILIZATION

TRANSPONDER POWER

LOCKING

LOCK

UNLOCK

SUPERLOCK

SINGLE POINT ENTRY

KEY PROGRAMMING

HOW TO PROGRAM A NEW OR USED KEY

- 1) Verify by means of the KEY DETECT function which slots are already used by the programmed keys available.
- 2) Open the fob and read the 6 digit code printed on the label and program it by means of the KEY INNER CODE function
- 3) Perform a SYNC KEY function verifying that the result is positive
- 4) Verify that the new key's fob opens and closes the doors, but remember to keep the other key out of the car with you, in order to avoid closing them in if the fob has a problem.

KEY PROGRAM COMPLETE BAR CODE (not available on Nanocom Evolution Mk 2)

This function allows you to program one or more keys on the 4 slots available (the suspension plip is not used) by means of the 18 digit bar code attached to the new keys. The code must be inserted without the first 2 and the last 2 digits that normally are "*" or "?" and confirmed with the Set button.

We suggest using the first slot available. Once the code is inserted and confirmed we suggest that you perform the SYNC KEY function to synchronize the fob's rolling code.

KEY PROGRAM 6 DIGIT INNER CODE (Used on the Nanocom Evolution Mk 2)

This function allows you to program one or more keys on the 4 slots available (the suspension plip is not used) by means of the 6 digit code printed on the label of the circuit inside the fob. The code must be written in the desired slot and confirmed with the corresponding button.

We suggest using the first slot available. Once the code is inserted and confirmed the SYNC KEY function is required to synchronize the fob's rolling code.

SUSPENSION FOB

Besides standard fobs the BCU can accept inputs from an accessories and optional extras fob which can be used to raise and lower the air suspension from outside the vehicle, this fob is designated as a SLABS fob and its bar code must be placed in the Suspension plip BAR CODE box only.

SYNC KEY

This function allows synchronizing of the rolling code of a programmed fob. Once the function is activated the Nanocom shows the message "Please push one or both buttons of the remote fob". Confirm the operation and wait for the result, which can be one of the following messages:

"Key sync. done successfully!"

"No key signal has been detected"

"The signal detected comes from a plip not programmed on this BCU"

UTILITY FUNCTIONS

RESET NEW ECU FLAG

This function clears the "new ecu" flag.

RF TEST

This function allows verification if a fob is received by the BCU and if it is already programmed. Once the function is active the NANOCOM shows the message "Please push one or both buttons of the remote fob". Confirm the operation and wait for the result, which can be one of the following messages:

"The signal detected comes from a plip not programmed on this BCU"

"Key X signal has been detected "

"No key signal has been detected".

SYNC ODOMETER TO BCU

This function allows synchronizing of the BCU mileage with the odometer mileage. If you are fitting a new BCU, you would use this option to increment the BCU to the correct value, which is taken from the Instrument Pack.

SYNC BCU TO ODOMETER

If fitting a new instrument pack, you would use option 2 to increment the Instrument Pack to the correct value, which is taken from the BCU.

IMPORTANT NOTICE. When using either function it will always use the higher mileage and not decrease for obvious reasons. This is built in at manufacture

READ-SET EKA

This function allows reading-modifying of the EKA code.