

NANOCOM USER GUIDE

Rev 1.2.1

DESCRIPTION



- 1 TOUCH SCREEN DISPLAY
- 2 OBD CABLE CONNECTOR
- 3 MINI USB CONNECTOR
- 4 SD CARD SLOT
- 5 DC SOCKET

IMPORTANT CONNECTION NOTICE

You should connect your Nanocom Evolution in the following way only to avoid damaging the unit. Connect the OBD lead to the Nanocom Evolution and then connect to the OBD socket in the vehicle. When finished with diagnostics remove the connector from the vehicle OBD socket first then from the Nanocom Evolution

IMPORTANT NOTES

- The Nanocom should not require a USB driver in order to work. The USB connection is used to power the Nanocom Evolution for upgrading Firmware or if used with an SD card.
- Instructions on the use of the SD card are shown in the SD card section of this guide. Please read the instructions before attempting to use.
- There is NO software pack to operate the Nanocom Evolution on a PC. When downloading any files from <http://www.nanocom.it> please ensure it is for the Nanocom Evolution and not any other version of Nanocom.

POWER SUPPLY

POWERING YOUR NANOCOM EVOLUTION

The Nanocom can be powered by means of the following methods:

- Connection via the supplied OBD lead to the OBD plug in the vehicle
- Connection to an external 12V power adaptor with a continuous current of 500mA to the auxiliary power socket on the right hand side of the unit.
- Nanocom can also power via the MINI USB connector, but when used in this way you cannot use the Nanocom for diagnostic functions or to test the Pins in the Setup section. When the unit is powered by the USB with an SD card it can work only as external memory device for the PC.

POWER ON

The NANOCOM does not have a switch that disconnects the power from the unit, so it will power on automatically when one of the above sources is used and it will then stay active until the source of the power is disconnected.

POWER OFF

To turn off the NANOCOM you have to remove the power source. Before you remove the power source it is better to put the unit into standby mode using the button in the main menu. This allows the unit to close any open files without creating errors in the file system.



STANDBY

The NANOCOM's standby mode allows the unit to be connected permanently via the OBD plug.

In this way the unit is always powered on but it has a low consumption (only 6mA). The user has to turn the unit to standby after usage with the standby button in the main menu.



Some applications that work to give live data automatically turn the unit to standby mode when the ECU stops communication, so it will automatically go in standby a few seconds after the ignition is turned off.

TURN ON FROM STANDBY

To bring the NANOCOM out of standby mode, you have to push the touch screen for a few seconds and release pressure on the screen after you hear the buzzer and you see the start up procedure on the display

MAIN MENU

When the NANOCOM is turned on, it will display the main menu.



For each vehicle menu there is a submenu with the entire diagnostic modules available for that vehicle.



The last item of the main menu, "NANOCOM" allows access to functions to manage files and application and to make changes to the setup of the unit such as background display or start up options.



If the NANOCOM has a start up mode other than "NORMAL", then the main menu will be shown only after an application is selected and the Nanocom will then exit the start up parameter.

START UP MODE SELECTION

The start up mode allows the user to select an application that will be executed directly the unit powers instead of the main menu which then gives quick access to a particular function rather than going through the main menu.

To modify this parameter, you have to go in to the main menu first and select NANOCOM – SETUP - STARTUP SETTING.

A list of applications available is then displayed and you simply select the one you require.

Push the "SAVE" button and then quit the menu to activate the new setting.

NOTE: If you select the TD5 INSTRUMENT as start up parameter the NANOCOM will work as an on board instrument. In this way you turn on with a finger pressure on the touch screen after the engine is turned on and it will start to automatically read the fuelling inputs, showing them with as a big led display of a traditional instrument panel.

This application will also allow you to have an adjustable over temperature warning on the display. This application turns off the NANOCOM automatically to standby about 30 seconds after you turn the engine off.

BACKLIGHT ADJUSTMENT

To permanently adjust the Backlight level you have to go to the main menu and select NANOCOM – SETUP - DISPLAY menu. You can adjust the level by adjusting the + or - buttons and confirm the settings by pressing the “SAVE” button. To activate the new settings please go back to the main menu and turn the NANOCOM off and then restart it.

BACKLIGHT QUICK ADJUSTMENT

To adjust the backlight level temporarily, without having to exit the application that you are using, you have to push the touch screen anywhere for a few seconds and a window will then open and allow you to adjust the back light. This new level will stay active until the unit is turned off.

TOUCH SCREEN CALIBRATION

The Nanocom has a built in screen calibration feature which you need to do the following to access, Power on the unit and from the main menu select NANOCOM – SETUP - DISPLAY and push the “TOUCH CALIBRATION” button. The calibration procedure will then start. You have to push the touch screen on the arrow until you hear the beep. (The arrow will appear 4 times in 4 different positions). At the end of the calibration you don't have to restart the NANOCOM to activate the new settings as this automatically saves the new settings.

NOTE: To calibrate the touch screen we suggest you use an object with a small surface of contact with the display to press on the arrow. Do not use a sharp object such as a pen as this can scratch the screen.

BACK GROUND PICTURE SELECTION

The NANOCOM has 4 selectable pictures for background. To select them you have to go the main menu and then select NANOCOM – SETUP – DISPLAY. Then choose from the following - BK1, BK2, BK3 or BK4. Confirm your selection by pushing the “SAVE BACKGROUND” Button. Quit the menu and restart the NANOCOM to activate the new setting.

ONLINE REGISTRATION AND OBTAINING YOUR UNLOCK CODES

The Nanocom is supplied without the unlock codes. To obtain your codes you will need to register the unit. Please go to www.nanocom.it and select Registration from the Left hand side menu.

Enter the information required (denoted by a *) and any additional information you wish to input. You will need to know the Unlock ID number of your Nanocom which you can obtain from the Nanocom unit menu by going into NANOCOM – SETUP - NANOCOM ID. This code is composed of a combination of 6 digits and letters and is case sensitive.

An email is then sent to your email account with your password. Once you receive your new login details and password you can then log into the restricted area and obtain your unlock codes.

INSERTING UNLOCK CODES

When inserting your unlock lock codes which are in the Download section of the Nanocom.it site as detailed above, rather than having to take the unit out to the vehicle to power it you can simply power it from the PC/Laptop using the supplied USB lead and click on Diagnostic functions from the 4 icon menu. This allows you to then go into the menu to input your codes and save them prior to connection to the vehicle. Please note that each unit from manufacture has 6 question marks in each licence box. You need to delete these prior to inputting your licence code. This is done by touching the screen at the end of the last character and then uses the backspace key on the virtual keypad. The characters do NOT overwrite so must be deleted prior to inputting a new character.

RESTORING FILE

With the new firmware revisions now available from the restricted area and on all new Nanocom units, the Restore File is created ONLY at the end of the update process onto the computer. From here it can then be put onto the SD card to restore the unit. There is no longer a function to create the Restore file within the Nanocom.

RESTORING FILE USAGE

To restore the unit using a saved file after Firmware update go to Nanocom – Settings – Restoring File. Then select Restore System. Note that you will need to have the SD card with the restore file on in the Nanocom unit for this process. It should also be noted that this file is unique to the unit it was created on and cannot be shared to other Nanocom Evolution users and can it be used to restore to the version it was created on. So if you have installed a later date Firmware than when the file was created, it cannot be used.

SD CARD

The diagnostic data is stored on the SD CARD. The memory card must be inserted in the slot located on the top side of the unit. The SD card must have a capacity less or equal to 8 GB following the latest Firmware update. The SD card must be formatted in FAT mode (Do not use FAT32 or NTFS format)

To format the SD CARD, insert it into the slot in the Nanocom.

Connect the Nanocom to the PC using the MINI USB cable supplied but without using any other power supply (car or external) and do not touch the screen during this process.

Once the unit is connected the PC shows it as an external memory device called Nanocom in the resource manager (Windows Explorer). Click on it with the right button of the mouse and select “Format” from the menu.

Select “FAT” and the “Quick format” options. Now click the “Format” button and wait until the screen tells you that the process is complete. Ensure that you are looking at the SD card on the PC screen before formatting.

FOR UNITS WITH FIRMWARE 1.00 (never been upgraded)

If the SD card has NOT been recognised but the Nanocom Evolution has connected you will see it reported as a flash memory device called NC_FIRMWARE. **FOR UNITS THAT HAVE BEEN UPGRADED FROM ORIGINAL FIRMWARE.** If the SD card is not recognised then the Nanocom screen will show 4 icons.

FILE IMPORT EXPORT

To import or export files from or to the SD card you must do the following.

Connect the NANOCOM to the PC using the MINI USB cable but without any other supply source (OBD or external).

Do not touch the screen at any time during the start up.

Once the unit is connected, the PC will then show it as external memory device in the resource manager. You can then drag and drop or copy and paste the files to the SD card.

DIAGNOSTIC FILES

During a diagnostic session, you can generate file reports of the data that you find. Note however that is only available if there is a button with this icon



- The dynamic readings are stored in CSV files that you can open with EXCEL and you are then able to see the values in listed in columns and also create graphic lines with them.
- The “Settings”, can be store in CSV format.
- The faults are stored in as a TXT file that can be opened with all text editors.
- The map files that are not copyright protected are stored in MAP format
- The map file protections are stored in TUN format

When you find the following icon in an application’s page it means that you can directly import data from a compatible file.



For example you can read the TD5 injectors setting and save them to a CSV file. You can then write the injectors code stored in that file back to the ECU any time you want , without having to edit the values each time.

FILE MANAGER MENU



The menu - NANOCOM - FILE MANAGER allows you to manage the files stored in the SD card.

The list box on the left of the screen shows all of the files present on the SD card. If you select one of the names, it will highlight it in yellow.

The black bar on the lower part of the screen (top part of the screen on MKII Nanocom Evolution) then shows the information about the file that you selected but only if there is information available for that file.

If you push on the "Filter" box you can edit the filtering criterion. By default it is *.* so all files are shown. If you insert *.CSV it will show the CSV files only. If you write B??????.CSV it will show all the files ending in .CSV that start with the letter B.

The RENAME button allows renaming of the selected file.

The DELETE button allows deleting of the selected file.






The OPEN button allows you to directly run the application or file selected and automatically loads the data on it.

DYNAMIC INPUT CSV FILES VIEWING

The CSV files generated during the reading of inputs can be viewed by the application that generated them. You have to go to the FILE MANAGER and select the file that you want to open, and push the open button.

The application relative to this file will be opened directly in the input page and you will see in the bottom of the display this button.




The data is shown in the boxes as if the NANOCOM is connected to the car.

-  Automatic backward
-  One line Backward
-  Stop
-  One line forward
-  Automatic forward

The text box on the lower left corner shows the number of the line. You can edit it pushing on it to jump to the desired line.

THE PEAK DETECTION FUNCTION

During the dynamic reading you can find these buttons.

-  Show maximum peak
-  Show minimum peak
-  Peak reset

If you push the show peak button you can see the maximum or minimum level reached by all values during the reading, since the function was started or since the reset peak button was pushed.

FILE NAMES

The files name must be no longer than 8 characters and the extensions are assigned automatically from the applications.

If you copy files with long file names to the SD card, the NANOCOM shows them cut, and they can become unreadable with the content not being in a valid format.

THE APPLICATIONS MENU

The Main menu shows only the applications that are found in specific configuration files. The “APPLICATIONS” menu allows you to see all the applications available in the unit and execute them. They are shown as buttons that you can push to execute them.

FORCED RESET

If the software freezes and you can no longer interact with the touch screen, you can restart the NANOCOM without removing the power source. To do this you have to push the touch screen anywhere and keep it pressed for more than 8 seconds, until you see the NANOCOM restart.

SUGGESTIONS FOR THE DIAGNOSTIC USAGE

- The diagnostic functions must be performed with the ignition on and the engine can be running or ignition just on stage II.
- If you want to stop the communication with one module and perform functions to another one you have to quit the module and turn off the ignition for more than 15 seconds, in some case you may wait for more than one minute until the ECU goes to sleep.
- If for some reason the communication stops and you get an error message, you have to turn off the ignition for more than 15 seconds, in some case you may wait more than one minute.
- The alarm – BCU modules can also communicate if the ignition is turned off. We suggest that you keep a working remote fob near to retrigger the alarm if you are not able to communicate with the alarm without having to wait for a time out which can be a long time.
- Note when working on a P38 that after communication with the ABS ECU the ignition MUST be recycled before any further communication with any ECU is possible