

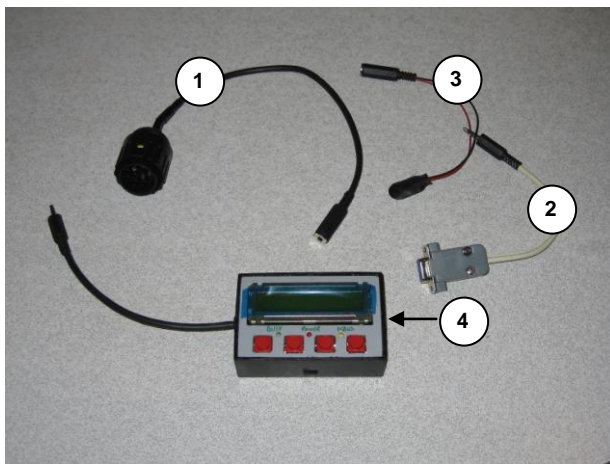
C'Mon diagnostic tool quicktour

C'mon description and features

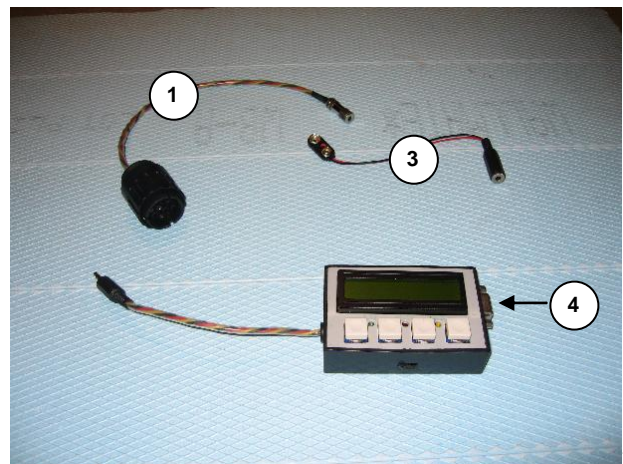
Getting familiar with C'Mon device and cables

C'mon has been released yet in 3 different versions including specific cables:

Version A

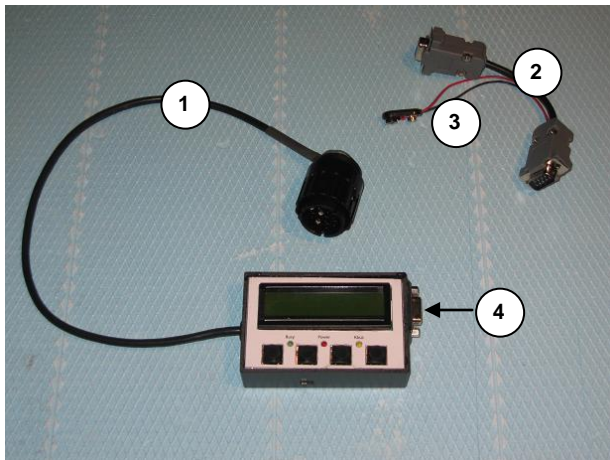


Version B



use standard modem cable (not supplied)

Version C



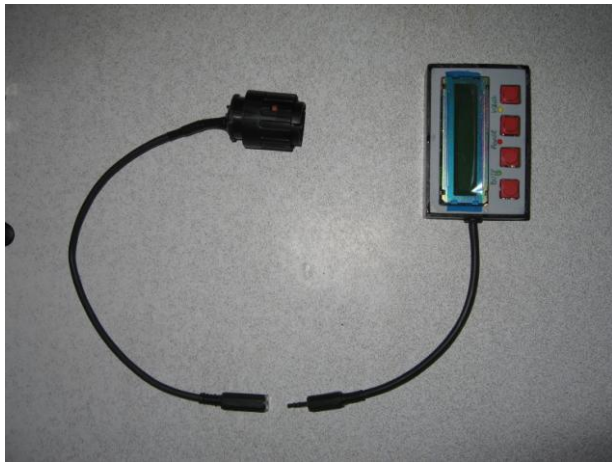
- 1 - Diagnostic cable
- 2 - Firmware upgrades serial cable plug (not to be used for normal operation)
- 3 - Firmware upgrades power cable (not to be used for normal operation)
- 4 - Serial port (for firmware upgrade only)

C'Mon device description



- 1 - Button #1
- 2 - Button #2
- 3 - Button #3
- 4 - Button #4
- 5 - Power switch (slide right to power on)
- 6 - LCD screen
- 7 - Busy led
- 8 - Power Led
- 9 - KBUS Led

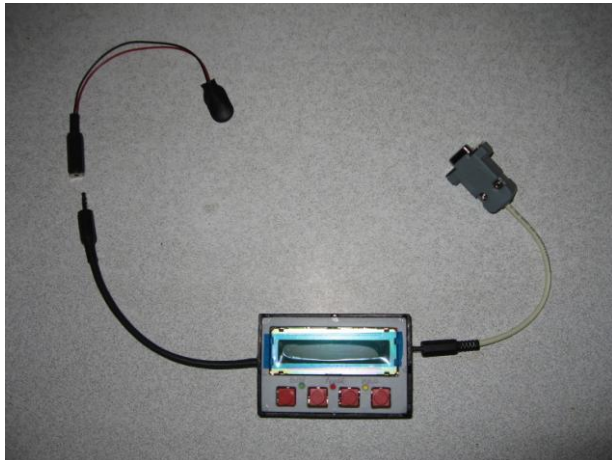
C'Mon device and cables possible configurations



Cable connections for C1 diagnostic mode



Cable connections for simulation mode
(9V battery required)



Cable connection for serial terminal and
firmware update modes (version A)
(9V battery required)

How to start a diagnostic with your C'Mon device

- 1) Setup your C'mon for diagnostic (see previous chapter)
- 2) Make sure your C'mon device is switched off (slide power switch to left)
- 3) Locate diagnostic connector on your motorcycle and plug C'mon diagnostic connector in



- 4) Turn on ignition, verify that kill switch and alarm are disabled
- 5) Turn C'mon device on (slide power button on the right)
- 6) Device beep and try to detect ECU and ABS units

See next chapter for a complete description of menus navigation.

C1 diagnostics menus Quick tour

Startup screens

After C'mon start-up following screen sequence might be displayed:

```
C'Mon (c) J.Perrin  
V1.17 17-Aug-08
```

This is the startup splash screen, it displays for 2 second then trying to initiate communication.

```
Connecting...
```

C'Mon try to initiate a connection with ECU and ABS units.

```
Retrying...  
V1.17 17-Aug-08
```

If a connection failure occurs, C'mon output a three bip signal while displaying "Retrying..." on the LCD screen. If so, check connections and that kill switch and alarm is disabled.

```
C1-200 NOABS  
[OK]
```

C'mon device display vehicle type:

- C1-125
- C1-200
- F650
- F650CS
- F650GS
- F650GSD
- F650CS-US
- F650GS-US
- F650GSD-US

Depending on ABS availability, vehicle type includes ABS or NOABS text.

Press [OK] button to go to root menu.

Menu hierarchy and navigation

The LCD display is 16 characters wide by 2 lines. First line is for information and menu navigation, second line is reserved for button help.

The root menu allows selecting between main functions and sub-menus:

- **Engine Monitor**
 - o Speed (Km/h)
 - o Battery (Volts)
 - o Coolant (Celsius)
 - o Air (Celsius)
 - o Engine revs (revs per minute)
 - o Automatic Gear (meters by rev)
 - o ECU Raw parameters
- **ECU Diagnostic**
 - o ECU Info
 - o ECU Faults
 - o ECU Reset Errs
- **ABS Diagnostic**
 - o ABS Info
 - o ABS Faults
 - o ABS StaticTest
 - o ABS Reset Errs
- **Body Electrics**
 - o Test Fan
 - o Test Switches
 - o Test ABS Light
- **Service Tasks**
 - o Engine Tuning
 - Lambda Sensor
 - Engine Idle
 - Throttle Valve
 - Reset Tuning
 - o Purge Brakes
 - LH/Rear Brake
 - RH/Front Brake

Engine Monitor

```
<Engine Monitor>  
[=>] [OK]
```

This is the root menu first item. Navigation is done using left and right button to cycle menu item and OK to drill down into sub-menu or UP to go back to parent menu.

The LCD display is 16 characters wide by 2 lines. First line is for information and menu navigation, second line is reserved for button help. Depending on the context, each bracketed item on second line might change to reflect the function of its associated board button. This shall be pretty intuitive to use. Press 4th button [OK] to go down “Engine Monitor” menu.

```
Speed 34 km/h  
[UP] [=>] [OK]
```

Real-time display of speed as measured on front wheel (C1) or rear wheel (F650).

```
Batt 11.5V  
[UP] [<=] [=>] [OK]
```

Real-time display of battery voltage. When engine is running at idle, it should be above 13 volts, otherwise check that alternator is properly functioning.

```
Coolant 45.7 C  
[UP] [<=] [=>] [OK]
```

Coolant liquid temperature, fan should be on when temperature over 100°C.

```
Air 25.7 C  
[UP] [<=] [=>] [OK]
```

Intake air temperature.

```
Rev 3000 RPM  
[UP] [<=] [=>] [OK]
```

Engine revs (RPM).

```
Gear 12.2 r/mt  
[UP] [<=] [=>] [OK]
```

This parameter calculate meters per engine revs, this is calculated out of speed and revs parameters. It is meaningful for C1 automatic transmission so transmission wear can be evaluated at a constant speed.

Raw Parameters

[UP] [←] [OK]

Raw parameter submenu allows to have a glance into ECU internal parameters. This is an advanced feature that is meaningful for people willing to help in discovering new parameters (...).

Param #1/9

[UP] [⇒] [OK]

Actually 9 datasets of engine parameters are available for display, these are composed of a bunch of hexadecimal datas, some might change while engine is running, other not.

New engine parameters could be identified in those sets like lambda sensor voltage, atmospheric pressure, injection time, etc...

Press [⇒] to cycle to second parameter dataset.

Param #2/9

[UP] [←] [⇒] [OK]

Press [OK] to display current parameter dataset contents.

03:3fff3f0500010

[UP] [←] [→] [RF]

This is raw hexadecimal data for current dataset, first field represents data index in the current dataset followed by hexadecimal hex string.

Press [←] and [→] to scroll through dataset hexadecimal values.

Press [RF] to change cycle between raw, 8 bit or 16 bit display.

Press [UP] twice to go back to root menu then [⇒] to display next item.

03:3c= 60 (1)

[UP] [←] [→] [RF]

This is 8 bit hex to decimal conversion, first field represents data index in the current dataset, second field is parameter value in hexadecimal, third field is parameter value in decimal and fourth data is corresponding ASCII value.

03:3c3f=15423 (2D)

[UP] [←] [→] [RF]

This is 16 bit hex to decimal conversion, first field represents data index in the current dataset, second field is parameter value in hexadecimal, third field is parameter value in decimal and fourth data is corresponding ASCII value.

ECU Diagnostic

<ECU Diagnostic>

[<=] [=>] [OK]

Press [OK] to drill down sub-menu of ECU informations.

ECU Informations

<ECU Info>

[UP] [<=] [=>] [OK]

Press [OK] to drill down menu and display ECU informations.

VIN: XXXXXXXXXXXX

[UP] [=>]

This is ECU identification used to identify BMW model type and serial number. This number is engraved into motorcycle chassis and should be the same.

Press [=>] to display next ECU information.

Part No: 7668133

[UP] [<=] [=>]

This is part number of ECU. Press [=>] to display next ECU information.

HW Version: C2

[UP] [<=] [=>]

This is hardware version of ECU. Press [=>] to display next ECU information.

SW Version: 8000

[UP] [<=] [=>]

This is software version of ECU.

Press [=>] to display next ECU information.

Factory date: ..

[UP] [<=] [=>] [OK]

Press [OK] to display motorcycle manufacture date.

2000-10-30

[UP]

Press [UP] to go back to ECU information menu then [=>] to display next item.

Release Date: ..

[UP] [<=] [OK]

Press [OK] to display ECU software release code.

8000BOOT1611

[UP]

Press [UP] twice to go back to root menu then [=>] to display next root menu item.

ECU Faults

<ECU Diagnostic>

[<=] [=>] [OK]

Press [OK] to drill down sub-menu of ECU informations.

<ECU Info>

[UP] [=>] [OK]

Press [=>] to cycle to ECU fault item.

<ECU Faults>

[UP] [<=] [=>] [OK]

This menu is for ECU fault management.

Press [OK] to drill down menu and display ECU informations.

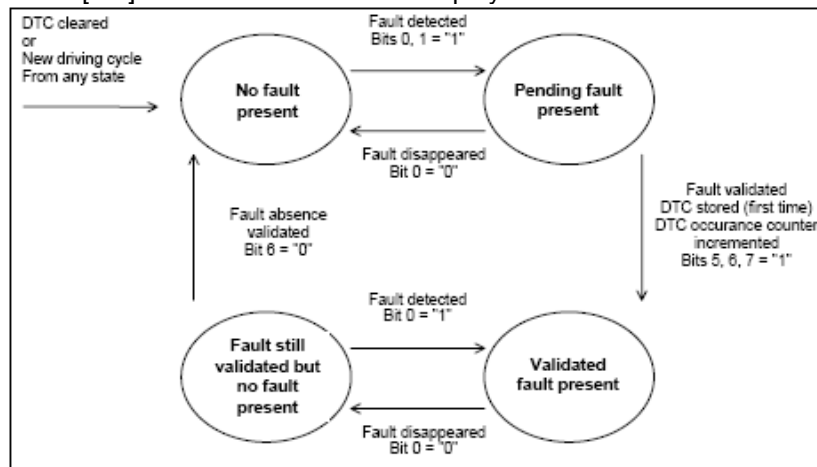
1/2: 0309 P S V

[UP] [=>] [OK]

This is first fault out of two. Its DTC (Diagnostic trouble code) is 0309. Depending on DTC status, 3 letters might appear:

- “P” means Pending fault (currently present)
- “S” means Stored fault (fault was previously detected, validated and then store into ECU’s memory)
- “V” means Validated (fault was detected and conditions were met to validate it)

Press [OK] to drill down menu and display current fault details.



Oxygen Sensor He

[UP] [=>] [OK]

This screen displays the beginning of current fault explanations. To scroll through fault text press [OK].

Sensor Heating

[UP] [<<] [>>]

Use [<<] and [>>] to scroll left and right the text.
Press [UP] then [=>] to display next DTC information.

Pend. Present:0

[UP] [<=] [=>]

This screen tells if current DTC is currently present.
Press [=>] for next DTC information.

Pend. State:0

[UP] [<=] [=>]

This screen tells if current DTC has been at least detected once in current driving cycle (driving cycle start with ignition on and stop with ignition off).
Press [=>] for next DTC information.

Test Running:0

[UP] [<=] [=>]

This screen tells whether the diagnostic trouble code test conditions are met at the time of request.
Press [=>] for next DTC information.

Test Inhibit:1

[UP] [<=] [=>]

This screen tells if the diagnostic trouble code test conditions are not met because of another fault in the ECU. (1)
Press [=>] for next DTC information.

Test Readiness:0

[UP] [<=] [=>]

This screen tells if the diagnostic trouble code test has not yet been completed during the current driving cycle (1).
Press [=>] for next DTC information.

DTC Stored:1

[UP] [<=] [=>]

This screen tells if the fault indicated by this DTC has been validated at least once and stored in ECU memory since this DTC was last cleared.
Press [=>] for next DTC information.

Valid. Present:0

[UP] [<=] [=>]

This screen tells if the fault indicated by this DTC is currently validated in the server (ECU).
Press [=>] for next DTC information.

Valid. State:0

[UP] [<=]

This screen tells if the fault indicated by this DTC has been validated at least once during the current driving cycle.

Press [UP] twice to go back to root menu then [=>] to display next root menu item.

<ECU Reset Err >

[UP] [<=] [OK]

To reset ECU error codes press OK.

ABS Diagnostic

<ABS Diagnostic>

[UP] [<=] [=>] [OK]

Press [OK] to drill down menu and display ABS informations.

ABS Informations

<ABS Info>

[UP] [<=] [=>] [OK]

Press [OK] to drill down menu and display ABS informations.

Part No: 02335805

[UP] [<=] [=>]

This is part number of ABS controller.

Press [=>] to display next ABS information.

HW Version: 18

[UP] [<=] [=>]

This is ABS controller hardware version.

Press [=>] to display next ABS information.

SW Version: 17

[UP] [<=] [=>]

This is ABS controller software code version.

Press [=>] to display next ABS information.

Factory date: ..

[UP] [<=] [OK]

Press [OK] to display ABS controller manufacturing date.

2000-06-07

[UP]

Press [UP] twice to go back to root menu then [=>] to display next ABS item.

ABS Faults

<ABS Diagnostic>

[UP] [<=] [=>] [OK]

Press [OK] to drill down menu and display ABS informations.

<ABS Info>

[UP] [=>] [OK]

Press [=>] to cycle to ABS fault item.

<ABS Faults >

[UP] [<=] [=>] [OK]

This is ABS fault management menu. To scan ABS for fault, press OK. Press [=>] to display next root menu item.

No fault present

[UP]

In this example, no fault is detected on ABS system, pressing UP twice allow to go back to root menu. This function is exactly the same as ECU Fault Management menu.

<ABS Reset Errs>

[UP] [<=] [OK]

To reset ABS error codes press OK.

ABS StaticTest

TO BE DOCUMENTED

ABS Reset Errs

TO BE DOCUMENTED

Body Electrics

Test Fan

TO BE DOCUMENTED

Test Switches

TO BE DOCUMENTED

Test ABS Light

TO BE DOCUMENTED

Service Tasks

Engine Tuning

TO BE DOCUMENTED

Lambda Sensor

TO BE DOCUMENTED

Engine Idle

TO BE DOCUMENTED

Throttle Valve

TO BE DOCUMENTED

Reset Tuning

TO BE DOCUMENTED

Purge Brakes

LH/Rear Brake

TO BE DOCUMENTED

RH/Front Brake

TO BE DOCUMENTED

Simulation mode

This mode allows offline C'mon features testing (no motorbike connection required).

Setup appropriate cable connections (see previous chapters)

- check device is powered off
- connect 9V battery to power cable
- connect power cable to C'mon device
- keep buttons #1 and #2 down while powering on C'mon device until next step
- LCD displays "*** Simulation ***" and issue a dual tone beep
- You can now navigate into C'mon menus

Menus diagram

