# USER MANUAL

# ATEQ CDP60

**Version 1.03**


**www.ateq.com**

Reference: UM-24100D-U

# REVISION OF THE CDP60 USER MANUAL

| **Edition/ Revision** | **Reference** | **Date** (week/year) | **Chapters updated** |
|---|---|---|---|
| First edition | UM-24100A-U | 25/2007 | ----- |
| Second edition | UM-24100B-U | 11/2008 | Modification of the measurement characteristics in the preamble. |
| Third edition | UM-24100C-U | 26/2008 | Program evolution to the 1.03 version. |
| Fourth edition | UM-24100D-U | 44/2009 | Preamble, modification of the principle scheme. Chapter 5, pressure generator use. |
| | | | |
| | | | |

# Recommendations for leak testing instruments

## Precautions for the test environment

- Keep the test area as clean as possible.

## Precautions for the operators

- **ATEQ** recommends that the operators using the instruments should have a suitable qualification and training with respect to the work bench requirements.

## General precautions

- Read the user manual before using the instrument,
- all electrical connections to the instrument must be equipped with a safety system (fuse, circuit breaker…) appropriate to its needs and complying with the standards,
- to avoid electromagnetic interference, the cable connections to the instrument should be less than two meters in length,
- it is essential that the electrical main is earthed,
- disconnect the electrical connections to the equipment before maintenance,
- cut the air supply for any kinds of operation on the pneumatic assembly,
- do not open the instrument when it is powered up,
- avoid water spillage near of the instrument,
- **ATEQ** is at your disposal for any further information concerning the use of the instrument under maximum safety conditions.

**We would like to bring to your attention that ATEQ will not be held responsible for any accident connected to the improper use of the instrument, to the work bench or to the lack of compliance with safety rules.**

**ATEQ Company is free from any responsibility for any adjustment of its instrument which would not have been done by its own technicians.**

**The ATEQ cannot be held responsible if the instrument (program, mechanics or electronics) has been modified without prior written consent.**

# ATEQ, THE ASSURANCE OF A COMPETENT AFTER SALES SERVICE

## ■ THE ATEQ AFTER SALES SERVICE IS :

- a team of qualified technicians,
- a permanent telephone assistance,
- agencies close to you for faster reaction,
- a stock of spare parts available immediately,
- a car fleet for rapid intervention,
- a commitment to quality ...

## ■ THE OVERHAUL

ATEQ carries out the overhaul of your instruments at interesting prices.
The overhaul corresponds to the maintenance of the instrument (checking, cleaning, replacing of used parts) as part of preventive maintenance.
Preventive maintenance is the best way to guarantee reliability and efficiency. It allows the maintenance of a group of instruments in good operational order and prevent eventual break-downs.

## ■ MAINTENANCE KITS

The ATEQ After Sales Service proposes, two kits destined for the preventive maintenance of the pneumatic circuits of instruments.

## ■ CALIBRATION

This may be carried out on site or in our offices.
ATEQ is attached to the COFRAC and delivers a certificate following a calibration.

## ■ TRAINING COURSES

In the framework of partnership with our customers, ATEQ offers two types of training in order to optimise the usage and knowledge of our instruments. They are aimed at different levels of technician:

- method / control training,
- maintenance / upkeep training.

## ■ A TARGETED TECHNICAL DOCUMENTATION

A number of technical documents are at your disposal to allow you to intervene rapidly in the event minor breakdowns:

- problem sheets describing and offering solutions to the main pneumatic and electronic problems,
- several maintenance manuals.

## ■ A QUALITY GUARANTEE

The instruments are guaranteed for parts and labour in our offices:

- 2 years for leak detection equipment,
- 1 year for electrical tests to norms instruments,
- 1 year for the accessories.

Our After Sales Service is capable of rapidly answering all your needs and queries.

**We strongly recommend to send the instrument back to ATEQ once a year for re-calibration**

# PREFACE

Dear Customer,

You have just purchased an **ATEQ** instrument, we thank you for the trust you have placed on our brand. This instrument has been designed to ensure a long and unparalleled life expectancy, and we are convinced that it will give you complete satisfaction during many long years of operation.

In order to maximise the life expectancy and reliability of your **ATEQ** instrument, we recommend that you install this instrument on a secured workbench and advise you to consult this manual in order to familiarise yourself with the functions and capabilities of the instrument.

Our **ATEQ** After Sales Service centre can give you recommendations based on your specific operation requirements.

**ATEQ**

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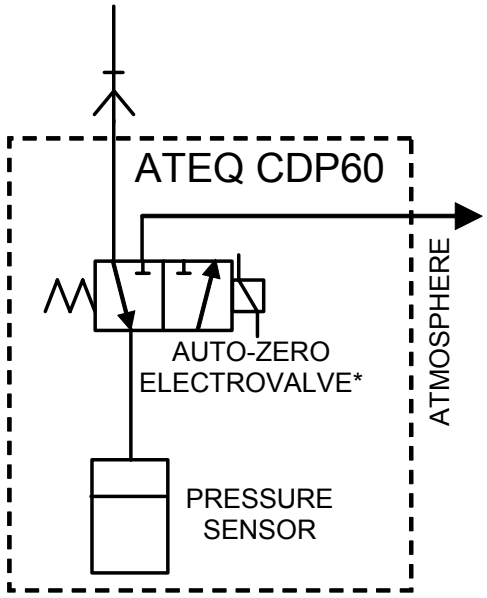
# PREAMBLE

## 1. DEFINITION OF THE ATEQ CDP60

The CDP60 is a master used to adjust or calibrate all kinds of instruments measuring air pressure.




* The auto-zero electrovalve is integrated into instruments with a full scale less than 5 bars.

## 2. MEASUREMENTS CHARACTERISTICS

### 2.1. PRESSURE RANGES

| Pressure ranges | Accuracy<br>No linearity + Hysteresis + Repeatability<br>(extended uncertainty) | Max over pressure | Long time drift (1 year) | T° drift (ref 25°C) | Max resolution |
|---|---|---|---|---|---|
| **500 Pa** | 1% RV + 1 Pa<br>*0,5% RV + 0,5 Pa** | 350 hPa | 0,5% RV | 0,01% FS/°C | 0,1 Pa |
| **5000 Pa** | 1% RV + 10 Pa<br>*0,5% RV + 5 Pa** | 1000 hPa | 0,5% RV | 0,01% FS/°C | 1 Pa |
| **-1000 > 500 hPa** | 0,20% \|RV\| + 1 hPa | 4000 hPa | 0,9% RV | 0,01% FS/°C | 0,1 hPa |
| **-1000 > 5000 hPa** | 0,20% \|RV\| + 5 hPa | 7000 hPa | 0,5% RV | 0,01% FS/°C | 1 hPa |
| **-0,1 > 2 MPa** | 0,20% \|RV\| + 2 kPa | 3 MPa | 0,5% RV | 0,01% FS/°C | 10 hPa |

FS = Full scale; RV = Read value.

** Specifications in option (adjusted in our metrology laboratory with COFRAC agreement).*

***Note**: the zero offset linked to the temperature or the position can be take over by an auto-zero. It is however advised to realize an auto-zero before a measurement report.*

**Recommendation of use:** according to some use's conditions, the instrument can put to two hours of time of heating before complete stabilization.

# Chapter 1
# INTRUMENT INSTALLATION

**Before the first use of the instrument, make a complete battery charging, wait until the CHARGE light is off.**

## 1. PRESENTATION OF THE ATEQ CDP60


The **ATEQ CDP60** is according a portable case.

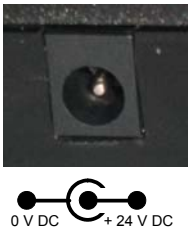
The instrument has a pneumatic quick connector (Staublï kind) for the connection to the pressure to be measured.

The instrument has three electrics connectors:

- 1 connector for the battery charge, the instrument run with lithium-ion batteries under 12 V DC voltages and it supplies with a specific supply transformer to charge the batteries.
- 1 RS232 connector.
- 1 USB connector.

# 2. ATEQ CDP60 INSTALLATION

## 2.1. SUPPLY CONNECTOR 24 V DC

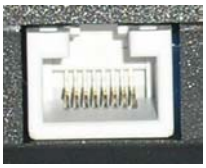



Connector for the 24 V DC supply. For the battery charging. (Jack connector).

## 2.2. USB CONNECTOR

Allows the connection to a PC. (Type B USB connector).

## 2.3. RS232 CONNECTOR



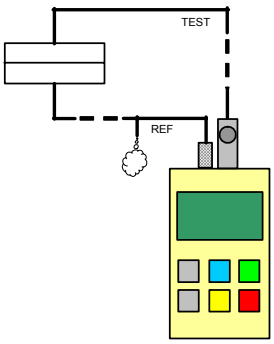
Allows the connection to a PC or a printer with a RS232 connection. RJ45 type connector. For further information see chapter 7, paragraph 1.2 RS232 connection.

## 2.4. PNEUMATIC CONNECTOR (FIRST INPUT)

Allows the connection to the pressure to be measured (quick connector "Staublï" RBE03 female type).

## 2.5. PNEUMATIC CONNECTOR (SECOND INPUT)

In case of low pressure differential sensor calibration, allows to put all the reference circuit to the same atmospheric pressure.



# Chapter 2
# USER INTERFACES

## 1. KEYS

### 1.1. "START / INFORMATION" KEY

| KEY | FUNCTION |
|---|---|
|  | **Switched off instrument**: this key switch on the instrument.<br>**Switched on instrument**: allows the displaying of:<br>➢ the program **version**,<br>➢ the pressure **range**,<br>➢ the **battery** level.<br>➢ Press and hold this key to **switch of** the instrument (more than 3 seconds).<br>Press and hold the key to display the battery level. |

### 1.2. "CANCEL" KEY

| KEY | FUNCTION |
|---|---|
|  | Cancel he edition or the modification of the parameters.<br>Return to the previous menu. |

### 1.3. "HOLD" KEY

| KEY | FUNCTION |
|---|---|
|  | To freeze or unfreeze the measurement display. |

### 1.4. "ENTER" KEY

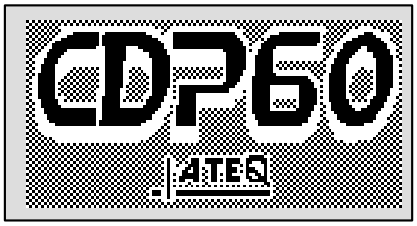
| KEY | FUNCTION |
|---|---|
|  | **ENTER:** menus access, parameter edition, parameter validation.<br><br>Menus access: its exists two modes:<br><br>**1st mode, short press** (< 1 second) : allows acceding to the "special cycles" menu,<br><br>**2nd mode, press and hold** (> 3 seconds) allows acceding to the "parameters" menu. |

### 1.5. NAVIGATION KEYS

| KEY | FUNCTION |
|---|---|
|  | Scroll up or increase numeric values.<br><br>Swing from the single "Pressure" or extended "Pressure /temperature / Atmospheric pressure" displays. |
|  | Scroll down or decrease numeric values.<br><br>Swing from the single "Pressure" or extended "Pressure /temperature / Atmospheric pressure" displays. |

## 2. OTHERS ITEMS

### 2.1. LCD DISPLAY




Allows the measurements and parameters displaying.

### 2.2. LIGHTS

Three DEL indicate the instrument state.

| | |
|---|---|
| Low Bat | **Battery level**: when this is on, the battery level becoming too low for reliable operation, indicating that the battery must be recharged before further use. |
| Charge | **Charge light**: this light is glowing red while the battery is being charged. When charging is finished, the light turns off. |
| Tx | Not used. |

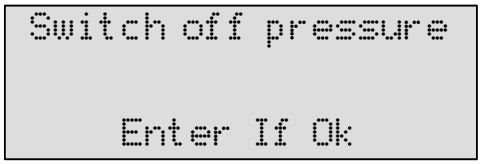
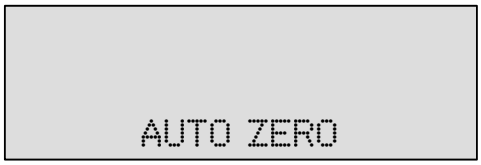
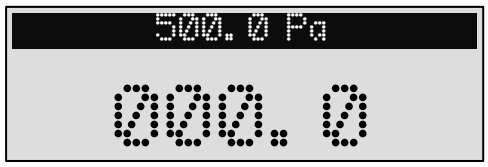
***Note**: when the device is connected to a PC USB port, the "Charge" light is on.*

# Chapter 3
# START UP ADJUST AND MEASURES

## 1. STARTING THE ATEQ CDP60

Before using the **CDP60** device, be sure that the battery is correctly charged.

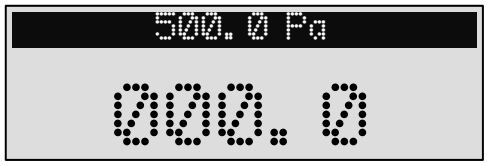
Check the pneumatics and electrics connections before the start up of the **CDP60**.

| | |
|---|---|
|  Switches on the instrument.<br>When this is on, the battery level becoming too low for reliable operation, the "**LOW BAT**" light will light on. |  |
| For a full scale superior than 5 bars, the instrument asks to disconnect all pressure source from the instrument for making the auto-zero. When it's disconnect, press the **ENTER**  key. |  |
| The instrument starts the auto-zero cycle. |  |
| At the end of the auto-zero cycle, the instrument indicates the current pressure measured and is ready for measurement. |  |

***Note**: it's important to make an auto-zero cycle before each measure statement.*

## 2. MEASURES DISPLAY

The instrument displays continuously the current pressure. There's no measurement start cycle.



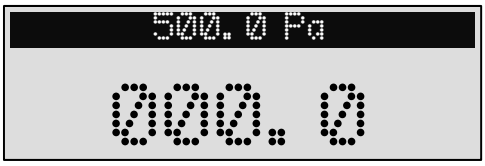
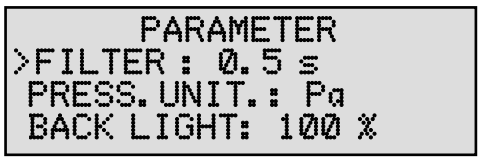
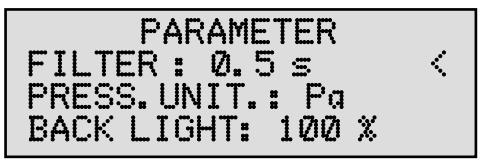
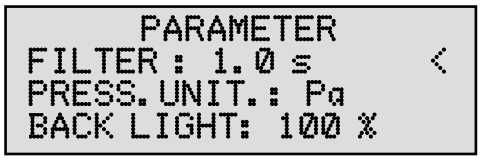
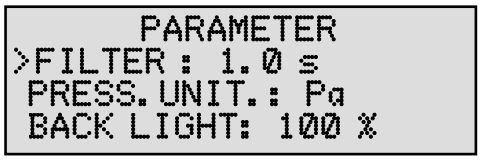
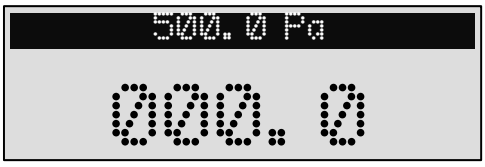

***Note**: the data sending on the RS232 frame are the pressure measurements.*

## 3. PARAMETERS ADJUST

It's existing three adjusted parameters.

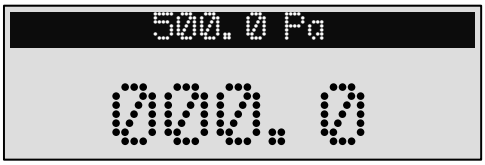
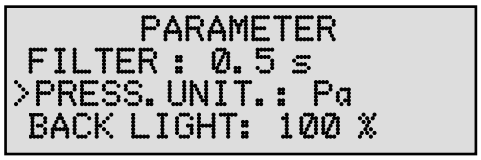
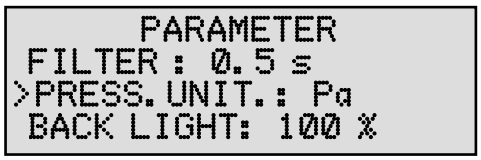
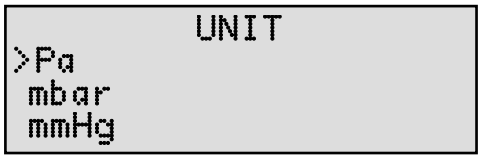
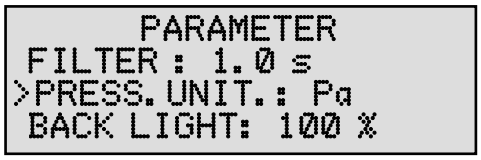
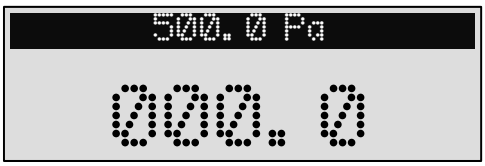
### 3.1. FILTER

It can be adjusted from 0.1 to 9.9 seconds by 0.1 second of step. It allows making a mean on the measurement time, making easier the measurement reading.

| | |
|---|---|
| Enter into the parameters menu, by pressing and old the **ENTER** during 3 seconds. |  |
| The **PARAMETER** menu is displayed. By using the **UP** and **DOWN** key select **FILTER** parameter. |  |
| Then press the **ENTER** key to modify the parameter (the cursor moves on the right). |  |
| By using the **UP** and **DOWN** key modify the parameter to the hoped value. |  |
| Validate with the **ENTER** key. |  |
| To return to the measurement mode, press **CANCEL** . |  |

### 3.2. PRESSURE UNIT

This parameter selects the pressure unit displayed during the measurements.

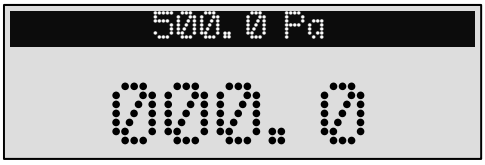
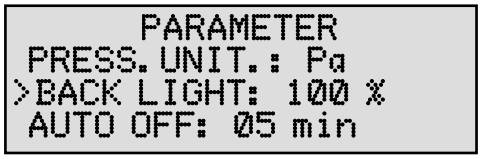
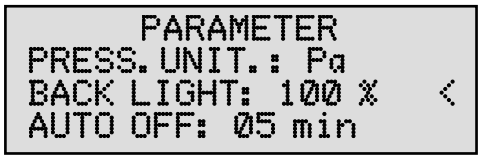
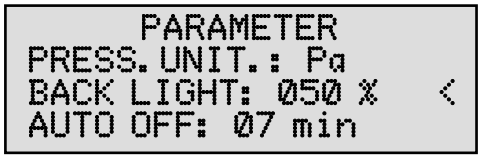
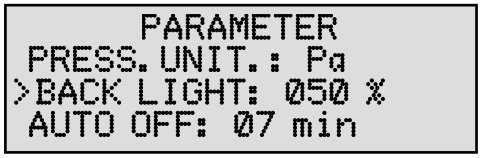
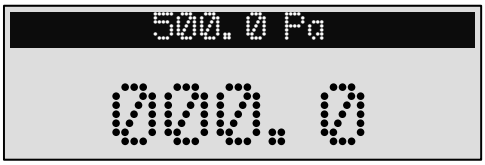
| | |
|---|---|
| Enter into the parameters menu, by pressing and old the **ENTER** during 3 seconds. |  |
| The **PARAMETER** menu is displayed. By using the **UP** and **DOWN** key select **PRESS. UNIT** parameter. |  |
| Then press the **ENTER** key to modify the parameter (the cursor moves on the right). |  |
| By using the **UP** and **DOWN** key choose the unit to be displayed. |  |
| Validate with the **ENTER** key. |  |
| To return to the measurement mode, press **CANCEL** . |  |

### 3.3. BACK LIGHT

The brightness of the backlighting can be set so as to suit the backlighting to the ambient lighting or your personal preferences.

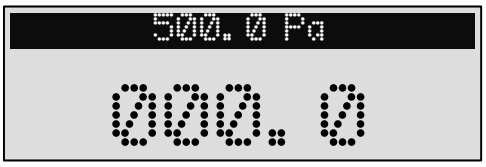
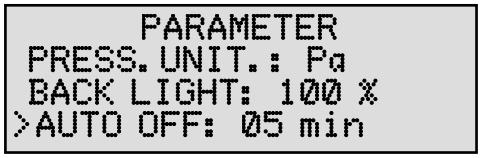
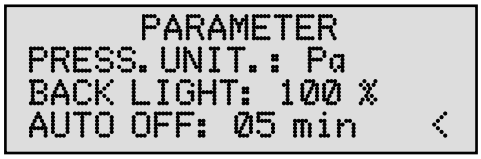
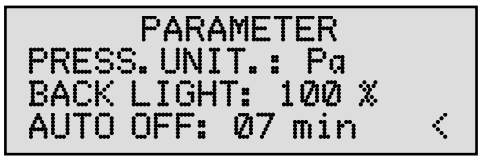
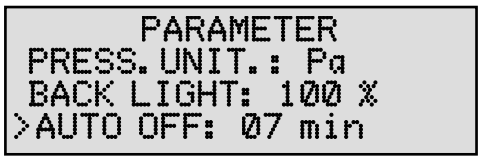
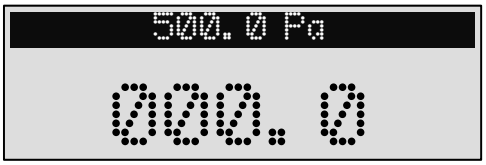
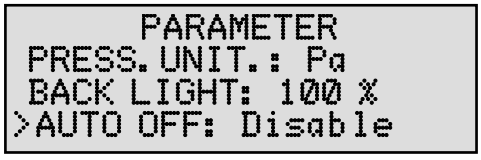
The screen backlighting is programmable and can be altered.

Backlighting of low brightness will save battery power. Specify a setting that suits the way you use the instrument.

| | |
|---|---|
| Enter into the parameters menu, by pressing and old the **ENTER** during 3 seconds. |  |
| The **PARAMETER** menu is displayed. By using the **UP** and **DOWN** key select **BACK LIGHT** parameter. |  |
| Then press the **ENTER** key to modify the parameter (the cursor moves on the right). |  |
| By using the **UP** and **DOWN** key modify the backlight value between 0 % (switched off) and 100 % (maximum). |  |
| Validate with the **ENTER** key. |  |
| To return to the measurement mode, press **CANCEL**. |  |

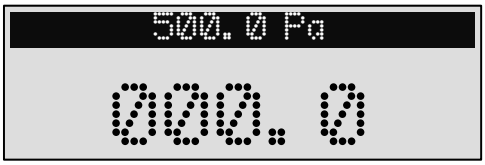
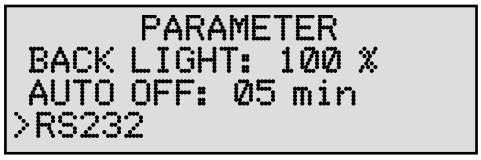
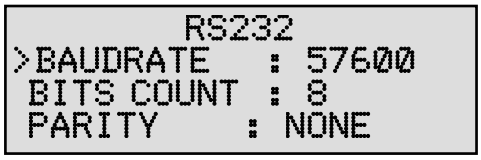
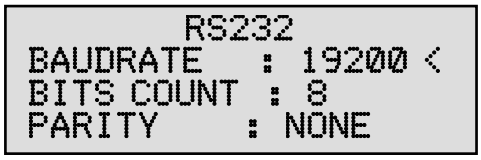
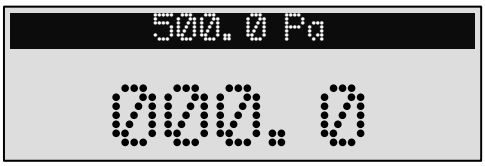
### 3.4. AUTOMATIC POWER OFF (AUTO OFF)

This feature conserve battery life by automatically turning the instrument off after a user-defined period of time within there has been no key activity.

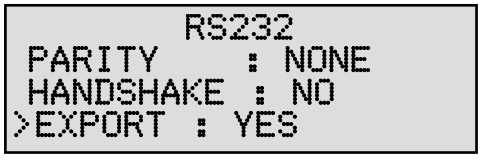
| | |
|---|---|
| Enter into the parameters menu, by pressing and old the **ENTER** during 3 seconds. |  |
| The **PARAMETER** menu is displayed. By using the **UP** and **DOWN** key select **AUTO OFF** parameter. |  |
| Then press the **ENTER** key to modify the parameter (the cursor moves on the right). |  |
| By using the **UP** and **DOWN** key to modify the switch off delay value. |  |
| Validate with the **ENTER** key. |  |
| To return to the measurement mode, press **CANCEL** C. |  |
| It's possible to disable the **AUTO OFF** function and leave continuously the instrument on, for that by using the **DOWN** key go the minimum (inferior to 1 minute) then appears "**DISABLE**" Validate with the **ENTER** key. The instrument will be power on continuously. |  |

### 3.5. RS232

This parameter is configuring the RS232 port.

| | |
|---|---|
| Enter into the parameters menu, by pressing and old the **ENTER** during 3 seconds. |  |
| The **PARAMETER** menu is displayed. By using the **UP** and **DOWN** key select **RS232** parameter. |  |
| Then press the **ENTER** key to enter into the RS232 links parameters configuration menu. |  |
| Select and adjust each parameter: **BAUDRATE**, **BITS COUNT**, **PARITY**, **HANDSHAKE** and the **EXPORT** mode by using the **UP** and **DOWN** key and validate with the **ENTER** key. |  |
| To return to the measurement mode, press **CANCEL** . |  |

The **EXPORT** mode allows modify the frame format, this is to export the measurements results to a spreadsheet or not (the character strings are separated by a punctuation mark).

| | |
|---|---|
| Select **YES** or **NO** by using the **UP** and **DOWN** keys and validate with the **ENTER** key. |  |

# Chapter 4
# CDP60 FUNCTIONS

## 1. MENUS STRUCTURE

**Extended menu, access by press and hold  > 3 seconds**

| | | | | | | |
|---|---|---|---|---|---|---|
| **PARAMETER** | > | FILTER | > | 0.1 à 9.9 s | | |
| | | V | | | | |
| | | Pressure unit | > | *Atm* > Bar* > In H2O* > InHg* > kg/cm2* > kPa* > Mbar* > mmH2O* > mmHg* > MPa* > Pa* > PSI* > Torr* >* | | |
| | | V | | | | |
| | | Back light | > | 0 > 100 % | | |
| | | V | | | | |
| | | Auto off | > | Disable > 99 min | | |
| | | V | | | | |
| | | RS232 | > | Baudrate | > | 2400 |
| | | | | V | | 4800 |
| | | | | V | | 9600 |
| | | | | V | | 19200 |
| | | | | V | | 38400 |
| | | | | V | | 57600 |
| | | | | V | | |
| | | | | Bits count | > | 7 |
| | | | | V | | 8 |
| | | | | V | | |
| | | | | Parity | > | None |
| | | | | V | | Even |
| | | | | V | | Odd |
| | | | | V | | |
| | | | | Handshake | > | No |
| | | | | V | | Yes |
| | | | | V | | |
| | | | | Export | > | No |
| | | | | | | Yes |

* Only some units are integrated according to the instrument full scale.

**Simple menu, access by press  < 1 second**

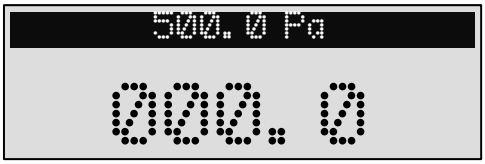
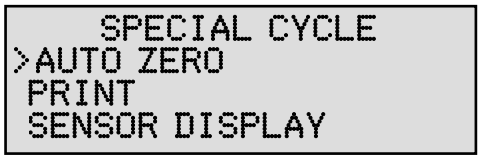
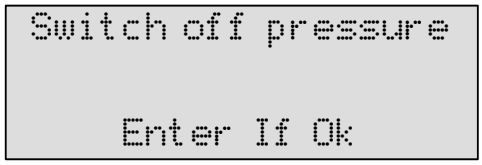
| | | |
|---|---|---|
| **SPECIAL CYCLE** | > | Auto-zero |
| | | Print |
| | | Sensor display |

## 2. SPECIALS CYCLES

The specials cycles allows doing commands on the instrument.

### 2.1. AUTO-ZERO

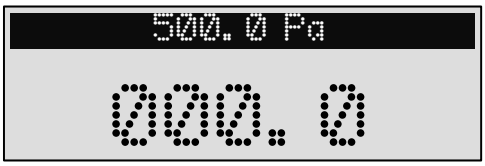
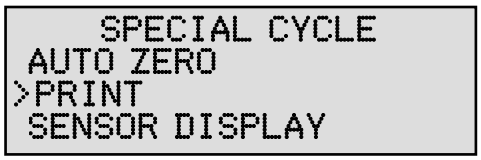
This special cycle make a zero sensor according to the atmospheric pressure.

| | |
|---|---|
| Enter into the parameters menu by short press on the **ENTER** key. |  |
| Select the **AUTO ZERO** function by using the **UP** and **DOWN** keys validate with the **ENTER** key. |  |
| If the full scale is more than 5 bars, the instrument ask to disconnect every pressure source from the connector and validate with the **ENTER** key. |  |

***Note**: this cycle allows taking over an offset linked to the temperature, position, etc…*

### 2.2. MEASUREMENTS PRINT (PRINT)

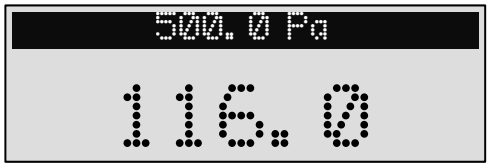
This special cycle send on the USB or RS232 port the measures displayed on the screen.

| | |
|---|---|
| Enter into the parameters menu by short press on the **ENTER** key. |  |
| Select the **PRINT** function by using the **UP** and **DOWN** keys. |  |

The frame format is different following if the **EXPORT** mode is validated or not.

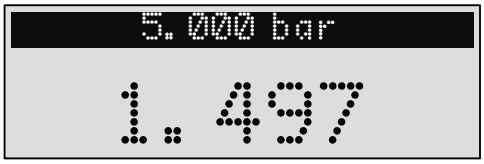
**Frame format sent on the USB or RS232 port with no EXPORT mode (no):**

PRESS.: 116.0 Pa




**Frame format sent on the USB or RS232 port with EXPORT mode (yes):**

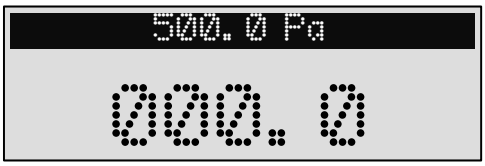
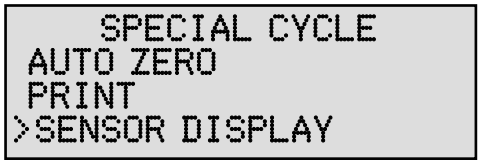
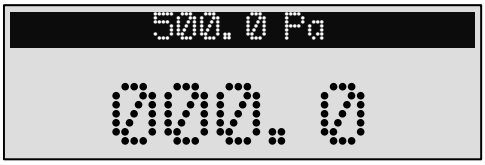
PRESS.:; 1.497 ;bar;




In the **EXPORT** mode, the frames contains punctuation separators and each measurement result are on the same line (no line feed) this is to easily importing and treating in a spreadsheet software for example.

### 2.3. SENSORS DISPLAY

This special cycle displays the raw values of the all sensors. This is to help the after sales service diagnostic.

| | |
|---|---|
| Enter into the parameters menu by short press on the **ENTER** key. |  |
| Select the **SENSOR DISPLAY** function by using the **UP** and **DOWN** keys validate with the **ENTER** key. |  |
| The instrument displays the sensors points. |  |
| To return to the measurement mode, press **CANCEL** . |  |

# Chapter 5
# ACCESSORIES, SECURITY AND RECYCLING

## 1. ACCESSORIES

### 1.1. POWER SUPPLY

The power supply of the **CDP60** converts a network voltage (120 to 240 V AC) into a 24 V DC low voltage supply. It has no power switch and works as soon as it is plugged in. It allows supplying the instrument who manage itself its charge.

It is protected against surges and short circuits via a thermal fuse.

Do not use any other type of fuse.

Moreover, this supply can be plugged on all types of electrical plugs using different removable pins.

The instrument is not designed to work during the battery charge.

### 1.2. SOFT CASE

The soft case is to put away the instrument when out of use.

### 1.3. USB WIRE

To connect the instrument to a PC.

### 1.4. TEST TUBE

To make the pneumatic connection between the instrument and the pressure source to control.

### 1.5. PROTECTION COVER (OPTION)

This cover in rubber material allows protect the **CDP60** and absorb impacts (option).

### 1.6. HARD CASE (OPTION)

Hard case to put away the **CDP60** instrument and its accessories.

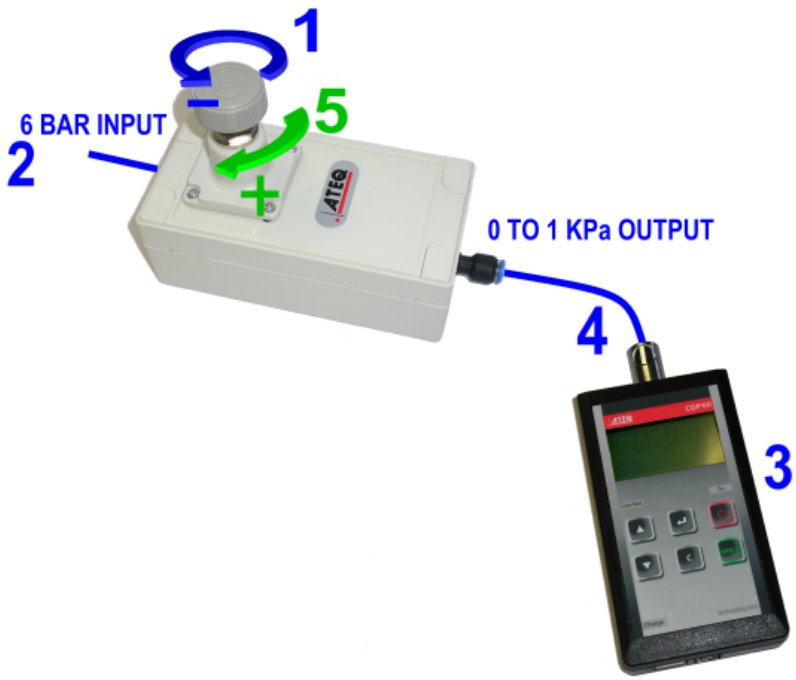
### 1.7. PRESSURE GENERATOR (OPTION)


Full scale: 1000 Pa.

This instrument generates from the 6 bars network a pressure between 0 and 1000 Pa (option).

### 1.7.1. Pressure generator use

Use of the pressure generator with a **CDP60** :




**1)** Adjust the pressure to the minimum by turning the knob to the left (watch counter clockwise).

**2)** Plug the 6 bar network pressure to the generator input.

**3)** Turn on the **CDP60**, wait i twill be ready.

**4)** Connect the pressure generator output to the **CDP60** input.

**5)** Turn the knob to the right to increase the pressure, the pressure value is displayed by the **CDP60**.

## 2. RECYCLING

**Do not dispose of the rechargeable Lithium-Ion battery or the tool to the dustbin.**

**These components must be collected and recycled.**

The crossed-out wheeled dustbin means that within the EU the product must be taken to separate collection at the product end-of life. This applies to your tool but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste. For further information, please contact ATEQ.

## 3. SAFETY INFORMATIONS

Your device and its enhancements may contain small part. Keep them out of the reach of small children.

### Operating environment

Remember to follow any special regulations in force in any area, and always switch off your device when its use is prohibited or when it may cause interference or danger.

Use the device only in its normal operating positions.

### About Charging

Use only the charger supplied with your device. Use of another type of charger will result in malfunction and/or danger.

Use a specified battery in the equipment.

### About the Charger

Do not use the charger in a high moisture environment. Never touch the charger when your hands or feet are wet.

Allow adequate ventilation around the charger when using it to operate the device or charge the battery. Do not cover the charger with paper or other objects that will reduce cooling. Do not use the charger while it is inside a carrying case.

Connect the charger to a proper power source. The voltage requirements are found on the product case and/or packaging.

Do not use the charger if the cord becomes damaged.

Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

### About the Battery

***CAUTION**: This unit contains an internal Lithium Ion battery, it is replaceable only by the competent ATEQ personnel. The battery can burst or explode, releasing hazardous chemicals. To reduce the risk of fire or burns, do not disassemble, crush, puncture, or dispose of the battery or the instrument in fire or water, do not short-circuit or connect the contacts with a metal object.*

Use a specified charger approved by the ATEQ manufacturer.

### Important instructions (for service personnel only)

***CAUTION**: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.*

Replace only with the same or equivalent type recommended by the manufacturer.

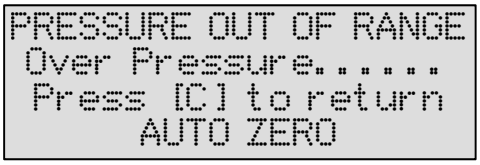
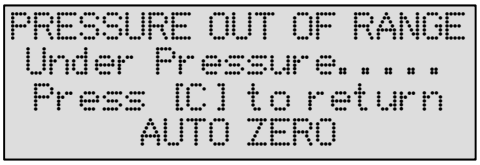
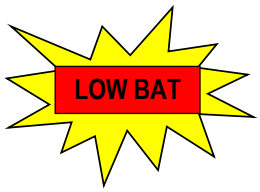
Use the battery only in the specified equipment.

The battery must be recycled or disposed of properly.

# Chapter 6
# ERROR MESSAGES

## 1. ERROR MESSAGES

The **CDP60** can display the following error messages:

| | |
|---|---|
| The applied pressure is too high.<br>Reduce the pressure and press on the **CANCEL** key. |  |
| The applied pressure is too low.<br>Increase the pressure and press on the **CANCEL** key. |  |
| The "**LOW BAT**" light flashes, the battery level is too low for reliable operation. When this light is on the instrument will be quickly turned off automatically. **Charge the instrument.** |  |

# Chapter 7
# PC INSTALLATION

## 1. PROGRAM AND DRIVERS INSTALLATION

For this device, the connections for update can be carried out by two ways, USB or RS232 following the user preferences.

### 1.1. USB CONNECTION

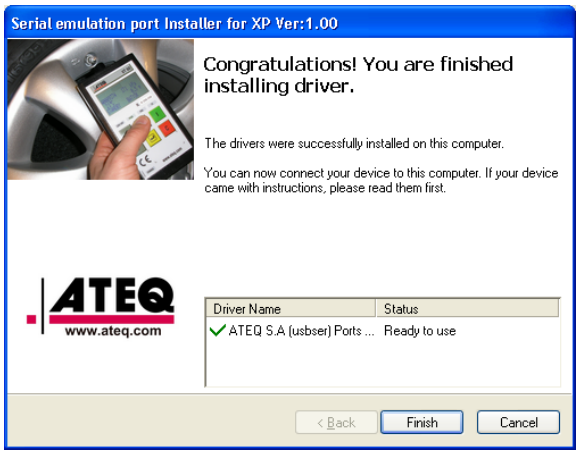
#### 1.1.1. Windows© XP installation

**1)** Start the installation program: **USB_VIRTUAL_232_XP.EXE**, the opposite window appears.

**2)** Click on "**Next >**".


**3)** The "**Serial emulation port**" drivers will be installed, at the end, the opposite window appears.

**4)** Click on "**Finish**".

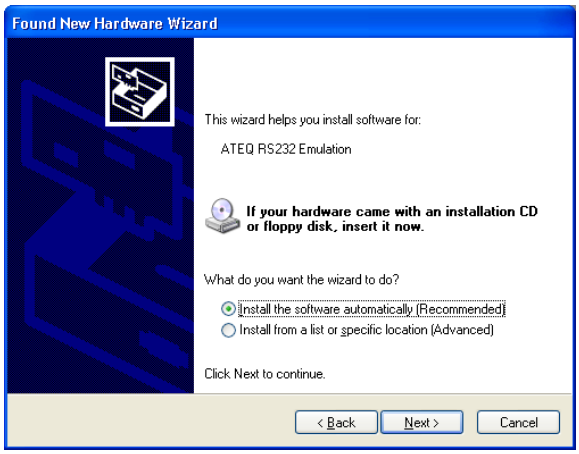


**5)** Connect the USB wire on the USB port of your PC and on the **CDP60** device.

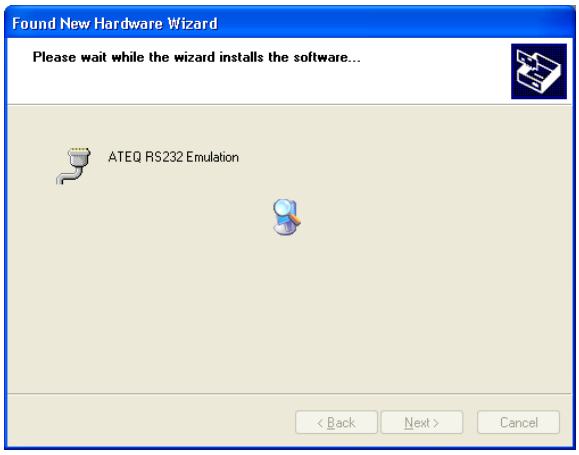
**6)** Switch on the **CDP60** device.

**7)** When the **CDP60** device is detected, its installation begins. The opposite window appears select "**No, not this time**" and click on "**Next >**".

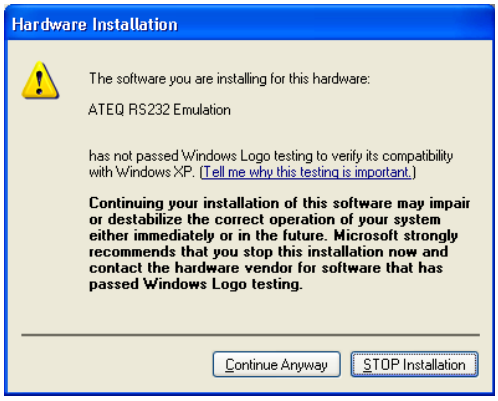

**8)** Select the "**Install the software automatically (recommended)**" option and click on "**Next >**".



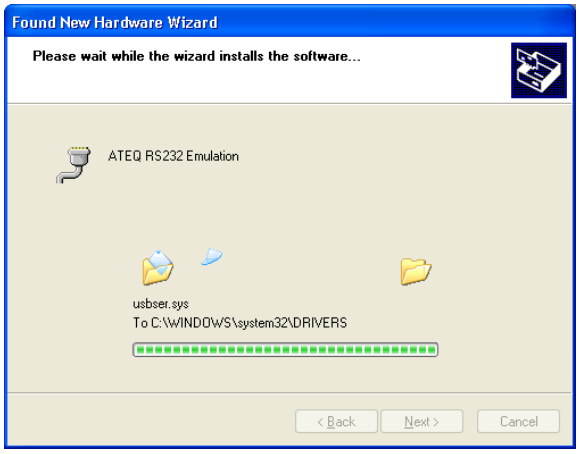

**9)** The installation begins…



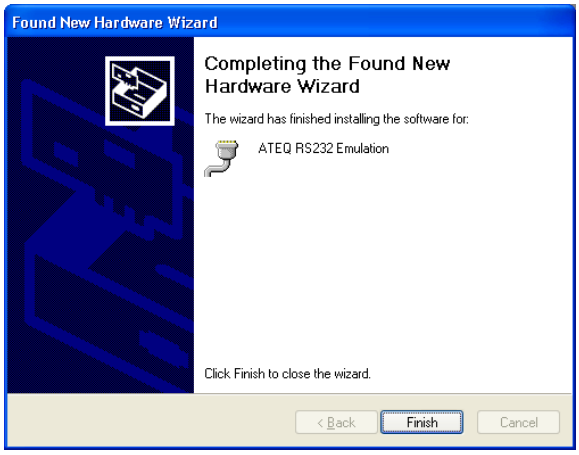
**10)** When this window appears, click on "**Continue Anyway**".



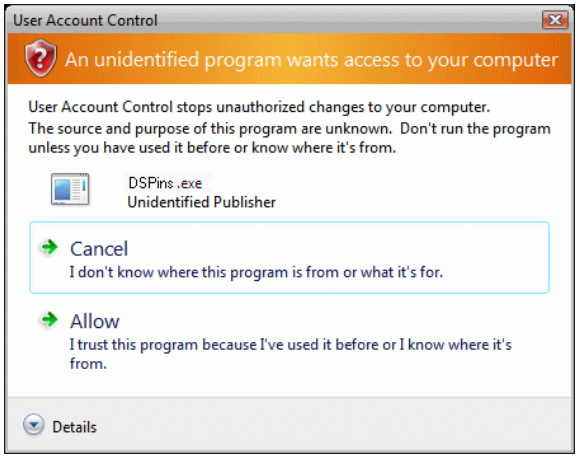

**11)** The drivers are installed.




**12)** The "**ATEQ RS232 Emulation**" communication port is created; this port will be used for each communication between the **CDP60** device and the PC through an USB connector. Click on "**Finish**".



### 1.1.2. Windows© Vista installation




**1)** Start the: **USB_VIRTUAL_232_VISTA.EXE**, program the opposite window appears.

**2)** Click on "**Allow**", to start the installation.


**3)** The opposite window appears.

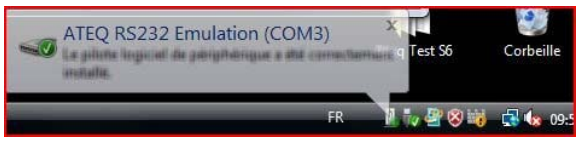
**4)** Cliquer sur "**Suivant >**".


**5)** The "**Serial emulation port**" drivers will be installed, at the end, the opposite window appears.

**6)** Click on "**Finish**".

**7)** Connect the USB cable on the PC USB port and on the **CDP60** device.

**8)** Switch on the **CDP60** device the drivers will automatically installed.




**9)** The message at the right bottom corner of the screen "**ATEQ RS232 Emulation**" appears, to confirm the correct **CDP60** device driver's installation.

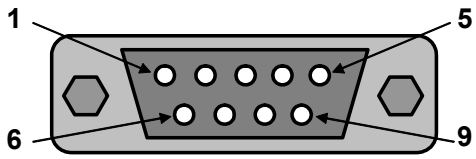
### 1.2. RS232 CONNECTION

**1)** To connect the **CDP60** to the RS232 port (PC com1 or com2) it needs the RJ45 wire and the SubD adapter.

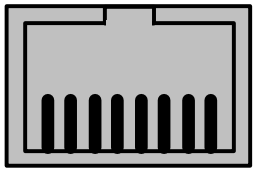
**2)** Adjust on the **CDP60** and in the PC the same RS parameters on each side. For example:

- Baud rate: 19200.
- Bits count: 8.
- Parity: even.

### 1.3. RS232 CABLE DIAGRAM

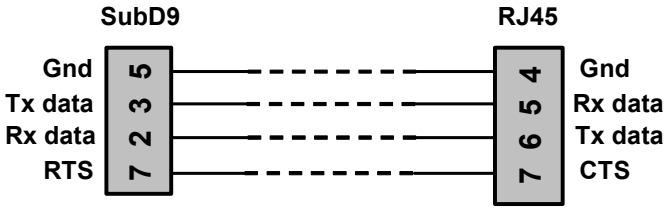



**SubD (9 pins)**




**RJ45 (8 pins)**

| | | | |
|---|---|---|---|
| Pin 1 | Not used | Pin 1 | Not used |
| Pin 2 | RXD Data reception | Pin 2 | Not used |
| Pin 3 | TXD Data emission | Pin 3 | Not used |
| Pin 4 | Not used | Pin 4 | Ground |
| Pin 5 | Ground | Pin 5 | RXD Data reception |
| Pin 6 | Not used | Pin 6 | TXD Data emission |
| Pin 7 | RTS request to send | Pin 7 | CTS clear to send |
| Pin 8 | Not used | Pin 8 | Not used |
| Pin 9 | Not used | | |



# Appendix
# ATEQ CDP60

## 1. TECHNICALS CHARACTERISTICS

| | **CDP60** |
|---|---|
| **Dimensions**<br>H x L x P (mm) : | 152 x 83 x 36 |
| **Battery:** | Lithium ion, 12.6 V DC* |
| **Autonomy:** | Minimum 6 hours |
| **Electrical connexions:** | Power supply: concentric Jack<br>Communication : USB and RJ45 (RS232)<br>Principal connector: quick connector Staublï RBE03 female type. |
| **Pneumatics connexions:** | Secondary connector: 2.7/4 AVS type (low pressure). |
| **Display:** | LCD 4 lines 60 mm x 32 mm |
| **Weight:** | About 450 g |
| **Temperatures:** | |
| Use: | + 0°C to + 50°C |
| Stock: | -10°C to + 70 °C |

* See the security and recycling instructions about this battery type.

## 2. PERSONNAL NOTES

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