

# Remote control panel **UPScontrol**

**Installation and user manual**

THE UNINTERRUPTIBLE POWER PROVIDER

**M G E**  
UPS SYSTEMS



# Introduction

Thank you for selecting an MGE UPS SYSTEMS product to protect your electrical equipment.

The **UPS*control*** terminal has been designed with the utmost care. We recommend that you take the time to read this manual to take full advantage of its many features.



To discover the entire range of MGE UPS SYSTEMS products, visit our web site at **[www.mgeups.com](http://www.mgeups.com)** or contact your nearest MGE UPS SYSTEMS representative.

## Environment

MGE UPS SYSTEMS pays great attention to the environmental impact of its products.

Due to the eco-design approach used in product development, we have succeeded in reducing the pollution caused by this product from its initial design through to the end of its life cycle.

Examples include:

- ▶ 100% recyclable packing materials.
- ▶ The elimination of toxic materials (flame retardants for the main plastic parts, CFCs, HCFCs, mercury, PCBs).
- ▶ Improvements in product recyclability through the identification of plastic materials and the use of reversible assembly techniques.

MGE UPS SYSTEMS undertakes to recycle all recovered products in installations complying with applicable regulations.



See the Environment section on our web site at **[www.mgeups.com](http://www.mgeups.com)**.

## Safety rules

### Safety of persons

No specific qualifications are required to install and operate **UPScontrol**, as long as the indications contained in this manual are observed. However, if difficulties are encountered, we advise you contact the MGE UPS SYSTEMS after-sales support department.

### Product safety



- ▶ **The connection to a wall outlet must remain easily accessible.**  
**The terminal can be disconnected from the AC-power source by removing the power cord.**
- ▶ **Never let a liquid or a foreign body penetrate inside the terminal.**
- ▶ **Never expose the terminal to direct sunlight or a source of heat.**

### Special precautions

- ▶ The **UPScontrol** connection instructions contained in this manual must be followed in the indicated order.
- ▶ Check that the indications on the plug-in power adapter correspond to your AC-power system.
- ▶ If the UPS must be stored prior to installation, storage must be in a dry place.
- ▶ The admissible storage temperature range is  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .
- ▶ The admissible relative humidity without condensation is:
  - 90% maximum for an ambient temperature  $< 40^{\circ}\text{C}$ ;
  - $< 90\%$  for an ambient temperature  $> 40^{\circ}\text{C}$ .

# Foreword

## Pictogram symbols

### In the document



Important instructions that must always be followed.



Information, advice, help.



Visual indication.



Action.



Audio indication.



LED OFF.



LED ON.

### On the terminal



Scroll down.



Scroll up.



Access menu.



Confirm.



Return to previous screen.



Buzzer reset.



UPS alarm.



Selection sign.

# Contents

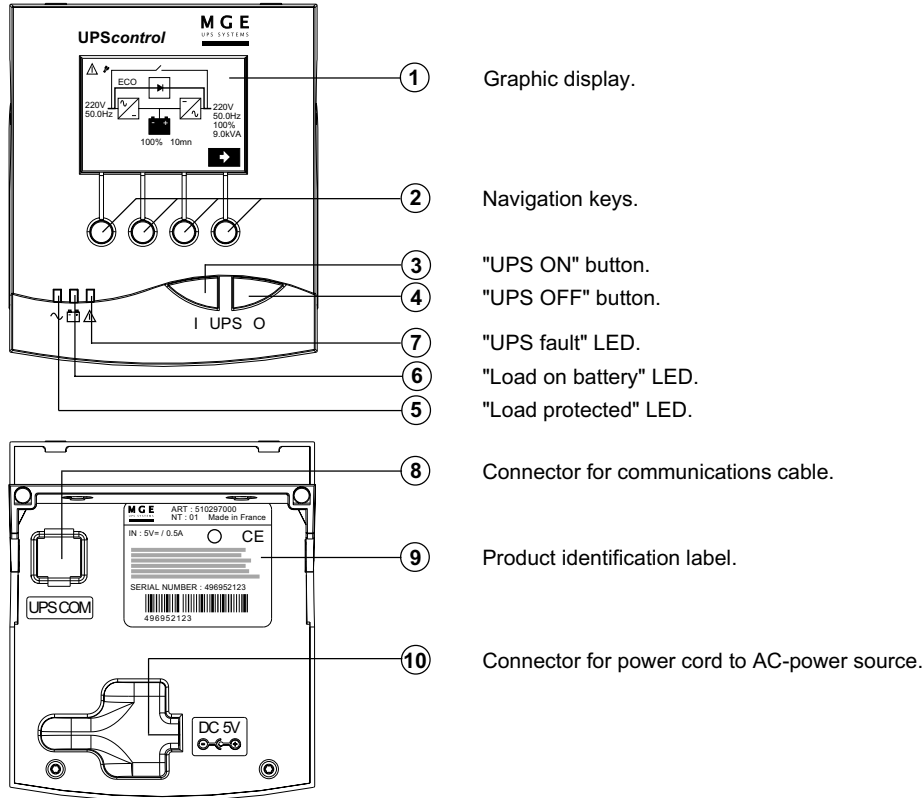
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# 1. Presentation

## 1.1 Overview



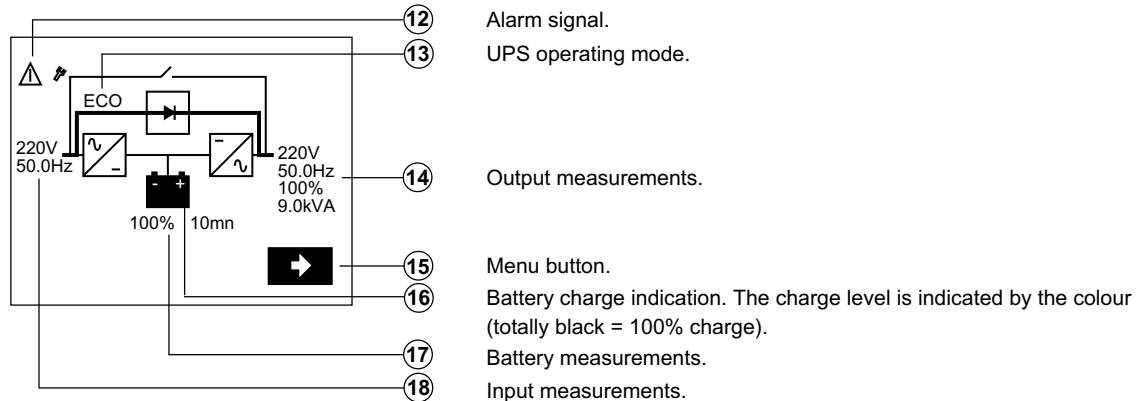
# 1. Presentation

## 1.2 Functions

The **UPScontrol** terminal remotely displays UPS operating parameters and indicates all faults. The main functions are listed below:

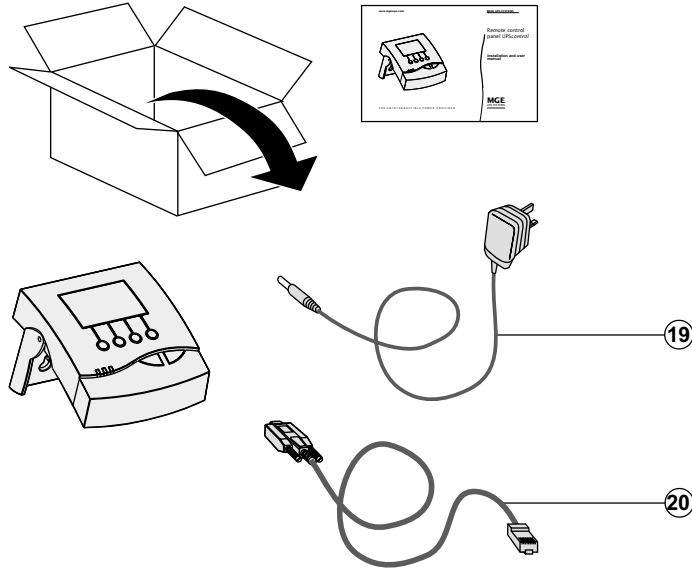
- ▶ **UPS mimic panel.**
- ▶ **Display of measurements** (input and output voltage, frequency and current, output power and percent load, battery backup time, voltage and charge level).
- ▶ **UPS ON/OFF commands** that require a secret code.
- ▶ **Visual and audio indications** for operating modes and alarms.
- ▶ **Event log.**
- ▶ **Navigation using menus**, in the selected language.
- ▶ **Saving** of user configuration **settings**.
- ▶ **Self-test** covering all indications and the keypad.

## 1.3 UPS mimic panel



# 2. Installation

## 2.1 Unpacking and check on contents



The product is made up of the following elements:

- ▶ **UPScontrol** terminal.
- ▶ power cord (19).
- ▶ communications cable (20).
- ▶ installation and user manual.

## 2. Installation

### 2.2 Terminal installed on a desk

Simply unfold the prop and place the terminal on the desk. When making connections, the cord (19) and cable (20) can be run between the prop and the base.

### 2.3 Terminal hung on wall



- 1 - Mark the holes to be drilled using the template at the end of this document.
- 2 - Drill and plug the holes, then screw in round-headed screws (diam. 4 mm), leaving 5 mm of clearance between the heads and the wall.
- 3 - Position the terminal on the wall, with the screw heads in the holes in the prop.
- 4 - Pull the terminal down until it blocks on the screw heads.

### 2.4 Connection to the UPS

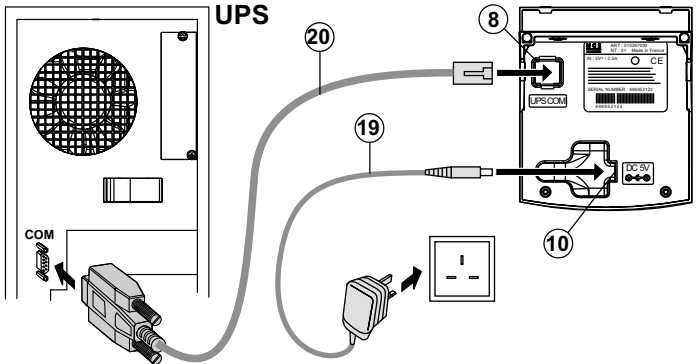


Connection depends on the UPS communications option:

- ▶ UPS equipped with a COM communications port.
- ▶ UPS equipped with a communications card.
- ▶ UPS connected to a **MultiSlot** module.

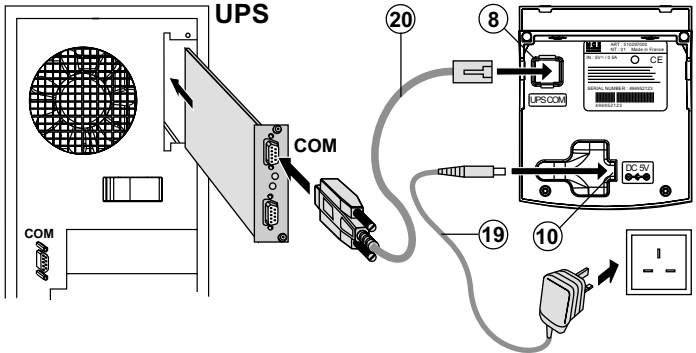
# 2. Installation

## UPS equipped with a COM communications port



- 1 - Connect cable (20) to the RJ45 connector (8) on the terminal and to the COM port on the UPS.
- 2 - Connect cord (19) to connector (10) on the terminal and to an outlet backed up by the UPS.

## UPS equipped with a communications card

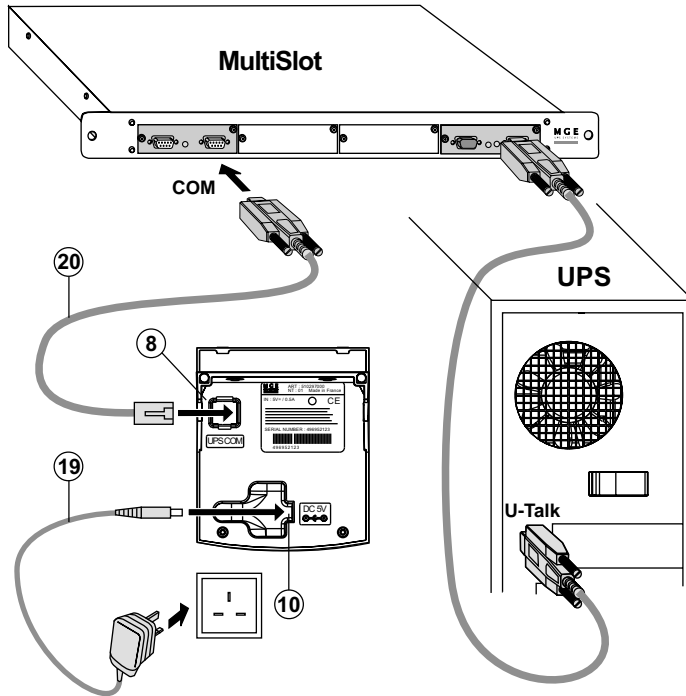


- 1 - Unscrew and remove the cover on the back of the UPS.
- 2 - Insert and secure a communications card with two COM ports in the UPS.
- 3 - Connect cable (20) to the RJ45 connector (8) on the terminal and to one of the COM ports on the card.
- 4 - Connect cord (19) to connector (10) on the terminal and to an outlet backed up by the UPS.

## 2. Installation

### UPS connected to a MultiSlot module

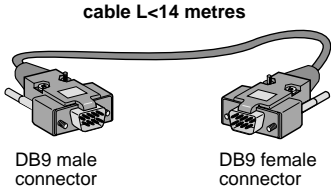
Connection example:



- 1 - Unscrew and remove the cover on an available slot in the **MultiSlot** module.
- 2 - Insert and secure a communications card with two COM ports in the **MultiSlot** module.
- 3 - Connect cable (20) to the RJ45 connector (8) on the terminal and to one of the COM ports on the card.
- 4 - Connect cord (19) to connector (10) on the terminal and to an outlet backed up by the UPS.

# 2. Installation

## 2.5 Distant installation of the UPScontrol terminal



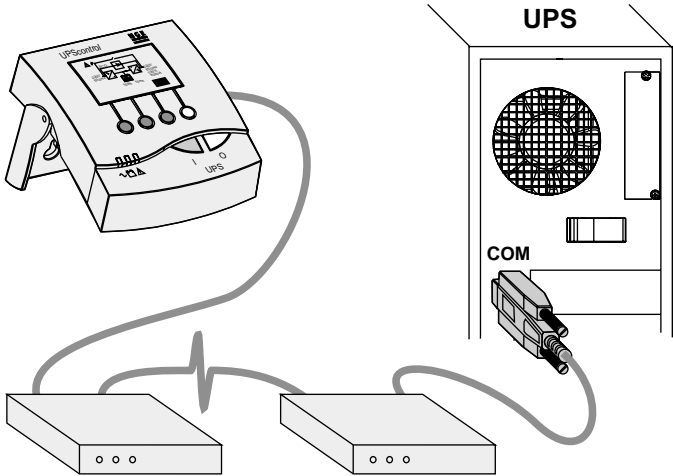
cable wiring diagram

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

DB9 male connector      DB9 female connector

The terminal is supplied with a communications cable that is six metres long.

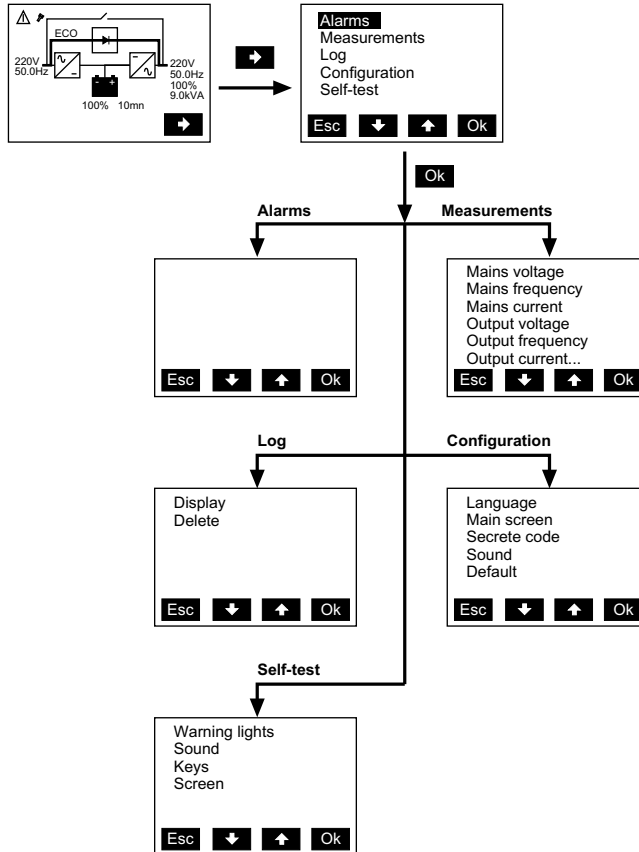
This distance can be increased **up to 20 metres** using a SUBD9F - SUBD9M extension cable between the supplied communications cable and the UPS. The extension cable is not supplied.



It is also possible to install the terminal **more than 20 metres** from the UPS using two micro-modems. The required connections are shown opposite.

The micro-modems and the cables are not supplied.

# 3. Operation



The terminal operates as soon as it is connected to the AC-power source:

- ▶ The buzzer beeps and all the LEDs go ON for three seconds.

- ▶ A progress screen (time gauge) is displayed while communication with the UPS is initialised.

- ▶ The UPS mimic panel is displayed. A number of question marks "-" are displayed if communication with the UPS is not Ok (see section 4).

The function assigned to each key changes during navigation through the menus. Each function is clearly indicated on the screen just above each key. When a key is pressed, the buzzer beeps.

To access the menus:

- ▶ Press the right arrow → to display the main menu.

- ▶ Select the desired function using the ↑ and ↓ keys and confirm by pressing the Ok key. When a menu is made up of more than six items, suspension points after the last line indicate that more items follow.

To return to the previous screen, press the **Esc** key. The UPS mimic panel is automatically displayed if the keypad is not used for three minutes.

# 3. Operation

## 3.1 Terminal configuration

### List of parameters

Functions	Default configuration	Options
Language	English	English, French, German, Dutch, Italian, Spanish, Russian, Chinese
Mains input measurements	Voltage, frequency	Voltage, frequency, current
Load output measurements	Voltage, power, percent load	Voltage, frequency, current, power, percent load
Battery measurements	Charge level, backup time	Charge level, backup time, voltage
Secret code	Navigation keys 2, 3 and 4	Different order
Sound	Buzzer activated	Buzzer inhibited

# 3. Operation

## Selection of the display language



In the main menu, select the **Configuration** command, then the **Language** command:

- ▶ Select the desired language. Press **Ok**.

## Settings for the UPS mimic panel



In the main menu, select the **Configuration** command, then the **Main screen** command:

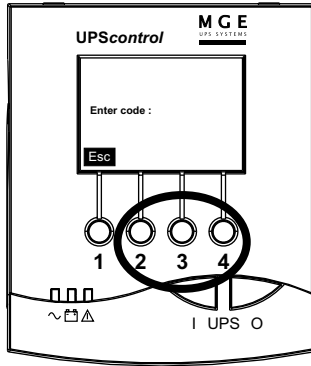
- ▶ Select the **Mains input**, **Load output** or **Battery** command. Press **Ok**.
- ▶ Select the measurements to be displayed in the corresponding zone of the UPS mimic panel. Press **Ok**.
- ▶ The selected measurements are indicated by the  $\surd$  sign.
- ▶ To deselect a measurement, highlight it and press **Ok**.



The maximum number of measurements that may be selected at the same time is three for the "Mains input" zone, four for the "Load output" zone and two for the "Battery" zone. In each zone, if the maximum number has been reached and a new measurement is selected, one of the previous measurements is automatically deselected.

# 3. Operation

## Secret code



Access to the UPS ON/OFF and the default configuration functions is protected by a secret code. This code is a combination of the three keys to the right, i.e. the left-most key may not be used (see the figure opposite).

### Entering the code

During access to the protected functions, the systems requests the secret code. Entry of the code consists in successively pressing the three keys in a precise order. Each time a key is pressed, the buzzer beeps and an X is displayed on the screen. When the three keys have been pressed and if the code is correct, the system goes on to the next screen. If the code is not correct, an error message is displayed.



By default, the secret code is **2-3-4**.

During entry of the code, it is possible to quit the procedure by pressing **Esc**.

## 3. Operation

### Modify the secret code



In the main menu, select the **Configuration** command, then the **Secret code** command:

- ▶ Enter the current code or the default code if the code was never modified.
- ▶ Enter the new code, using only the three navigation keys on the right (without a symbol on the screen). Press only one key at a time.
- ▶ Confirm the code. If it is the same as the previous code, the configuration menu is displayed.
- ▶ In the event of an error, the previous screen is displayed.



Do not forget the secret code. It is the only way to access to the securized UPS stop command. If you lost it, refer to the Maintenance section.

### Sound control



In the main menu, select the **Configuration** command, then the **Sound** and **Keypad** commands:

- ▶ Select the **Buzzer activated** line and press **Ok** to have the buzzer beep each time a key is pressed.
- ▶ Select the **Buzzer inhibited** line and press **Ok** to stop the buzzer from beeping each time a key is pressed.

In the main menu, select the **Configuration** command, then the **Sound** and **Alarms** commands.

- ▶ Select the **Buzzer activated** line and press **Ok** to have the buzzer beep each time an alarm is detected.
- ▶ Select the **Buzzer inhibited** line and press **Ok** to stop the buzzer from beeping each time an alarm is detected.



When an option has been selected, it is preceded by the ✓ sign.

# 3. Operation

## Return to the default configuration



In the main menu, select the **Configuration** command, then the **Default** command:

- ▶ Enter the secret code.
- ▶ Confirm by pressing **Ok** or cancel by pressing **Esc**.

## 3.2 UPScontrol test



▶ In the main menu, select the Self-test command, then one of the indications to be tested:

- ▷ **Warning lights**, the LEDs are turned on for three seconds,
  - ▷ **Sound**, the buzzer is activated for 0.5 seconds (even if it is disabled),
  - ▷ **Keys**, pressing a key generates a beep and the display of an X on the screen. Press **Esc** to exit the test,
  - ▷ **Screen**, a black rectangle is displayed on the entire screen for five seconds, then the system returns to the **Self-test** screen.
- ▶ Press **Ok** to run the test.

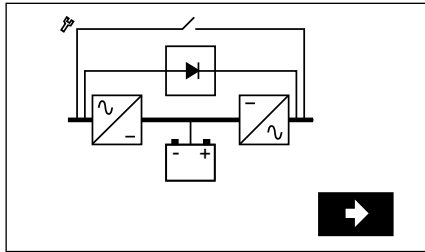


At the end of the test, the line describing the test is preceded by the √ sign.

# 3. Operation

## 3.3 Animated UPS mimic panel

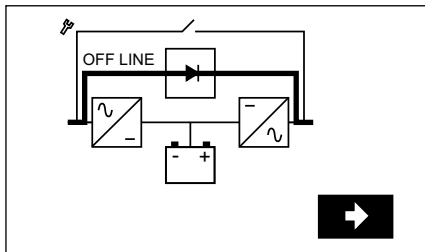
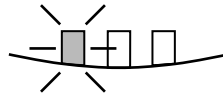
The main screen of the **UPScontrol** terminal is a mimic panel that displays the current UPS operating mode. The path followed by the electrical power is shown as a flashing bold line.



The AC-input source is present. Power is drawn by the rectifier/inverter modules to supply the connected loads.

The UPS operates in double-conversion (on-line) mode.

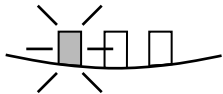
The connected loads are protected, the green LED is ON.



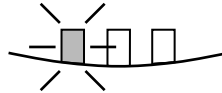
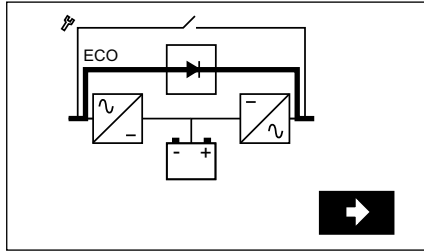
The AC-input source is present. Power is supplied directly to the connected loads, bypassing the rectifier/inverter modules.

The UPS operates in off-line mode (passive or active standby).

The connected loads are protected, the green LED is ON.



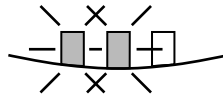
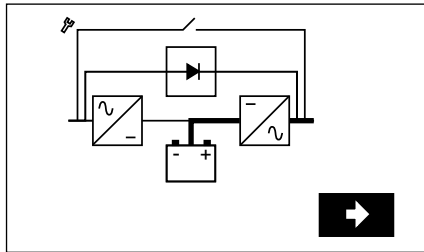
# 3. Operation



The AC-input source is present. Power is supplied directly to the connected loads if the AC source characteristics are within the tolerances defined by the user.

The UPS operates in ECO mode.

The connected loads are protected, the green LED is ON.



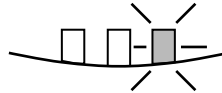
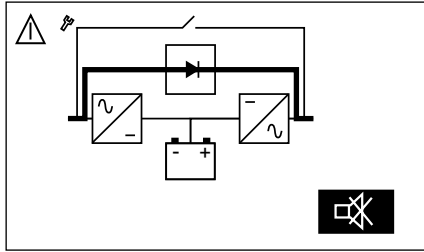
The AC-input source is absent. Power is supplied by the battery.

Transfer to battery power is signalled by three short beeps.


The connected loads are protected. They are supplied by the battery. The green and orange LEDs are ON.

The return of the AC-input source is signalled by a long beep.

# 3. Operation




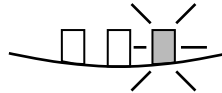
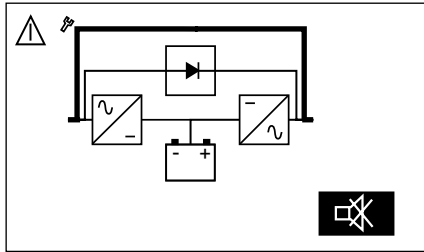
The UPS signals a fault. The connected loads continue to be supplied directly by the AC-input source.

The  indication flashes in the top, left-hand corner of the screen.


The buzzer beeps every three seconds.

The connected loads are supplied, but are not protected. The red LED is ON.

Press  to stop the buzzer.




Power is supplied via the manual bypass in order to service the UPS.

The  indication flashes in the top, left-hand corner of the screen.

The buzzer emits a continuous sound.

The connected loads are supplied, but are not protected. The red LED is ON.

Press  to stop the buzzer.

# 3. Operation

## 3.4 UPS remote control

### UPS shutdown (break in the supply of power to the load)



- ▶ Display the UPS mimic panel (press **Esc**).
- ▶ Press the "UPS OFF" button (4).
- ▶ Enter the secret code.
- ▶ Two beeps acknowledge the command, the UPS is shut down and the UPS mimic panel is displayed.

If the secret code is incorrect, a warning message is displayed.

If remote control is not authorised, a warning message is displayed.



**Following shutdown of the UPS, the terminal may no longer be supplied with power. In this case, it is not possible to restart the UPS via the terminal ("UPS ON" button (3)). If the terminal is supplied with power, the UPS mimic panel is displayed.**

### UPS ON (supply of power to the load)



- ▶ If the terminal is still supplied with power following UPS shutdown, display the UPS mimic panel (press **Esc**).
- ▶ Press the "UPS ON" button (3).
- ▶ Enter the secret code.
- ▶ Two beeps acknowledge the command, the UPS is turned ON and the UPS mimic panel is displayed.

If the secret code is incorrect, a warning message is displayed.

If remote control is not authorised, a warning message is displayed.

## 3. Operation

### 3.5 View the alarms

In the main menu, select the **Alarms** command:

- ▶ The last six alarms are displayed, starting with the most recent (top of the screen) and ending with the least recent (bottom of the screen).



This list is lost if power to the **UPScontrol** terminal is cut.

### 3.6 View the measurements



In the main menu, select the **Measurements** command:

- ▶ Select the desired measurement in the list and press **Ok**.
- ▶ The corresponding value replaces the name of the measurement on the screen. Press **Ok** to return to the name of the measurement.
- ▶ Press the **↑ ↓** arrows to select another measurement and confirm by pressing **Ok**.



If a measurement that is not available for a given UPS is selected, question marks "-" are displayed in place of the corresponding value.

### 3.7 View the log



In the main menu, select the **Log** command:



- ▶ Select **Display** to obtain the list of the last 24 events in the UPS system and press **Ok**.
- ▶ The most recent events are displayed at the top of the list. Those already displayed during a previous view are signalled by the **√** sign. Press the **↑ ↓** arrows to display each page of six events.
- ▶ Select **Delete** to clear all the events stored in the log. A message requesting confirmation is first displayed.



The list is saved when the UPS issues the low-battery shutdown warning.

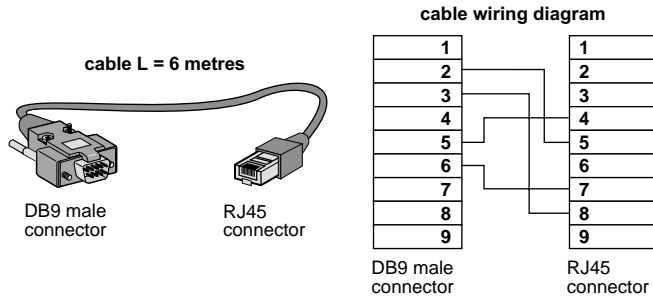
# 4. Maintenance

## 4.1 Operating anomalies

Problem	Probable cause	Solution
Nothing works, the terminal does not go ON.	The terminal is not energised.	Check that the power outlet to which the terminal is connected is supplied with power.
Once energised, the screen remains blank, the red LED is ON and the buzzer remains silent.	An internal fault has been detected.	Test the terminal (see section 3.2). If that produces no results, contact after-sales support (all the necessary contact information is available via <a href="http://www.mgeups.com">www.mgeups.com</a> ).
The secret code is systematically refused.	The code is not correct.	Contact after-sales support (all the necessary contact information is available via <a href="http://www.mgeups.com">www.mgeups.com</a> ).
The  indication is displayed on the screen. "-" marks are displayed on the measurement lines. The buzzer beeps intermittently.	The communications link with the UPS has failed.	Check the communications cable and the connections. Check the communications mode (see section 2.4).
When a key is pressed, the buzzer does not sound.	The buzzer is inhibited.	Activate the buzzer (see section 3.1 Sound control).
The  indication is displayed and the buzzer remains silent.	The buzzer is inhibited.	Activate the buzzer (see section 3.1.6 Sound control).

## 4. Maintenance

### 4.2 Replacement of the communications cable



If the supplied communications cable is lost or damaged, a cable complying with the wiring diagram may be used.

### 4.3 Replacement of the power-supply module

If the AC power adapter for the **UPScontrol** terminal is lost or damaged, it may be replaced by a **switch-mode power supply that can be plugged into an AC outlet** and that offers following characteristics:

- ▶ Input voltage: 90 to 264 V AC.
- ▶ Input frequency: 45 to 65 Hz.
- ▶ Output voltage: 5 V DC.
- ▶ Output current: 500 mA DC minimum.
- ▶ Load regulation at end of cable:  $\leq \pm 5\%$ .
- ▶ DC plug: 2.1 to 5.5 mm.
- ▶ Polarity of DC plug: + — — -

# 5. Appendices

## 5.1 Glossary

<b>COM</b>	Serial communications port with HID protocol.
<b>HID</b>	Human Interface Device.
<b>MultiSlot</b>	Expansion module for communications cards.
<b>UPS</b>	Uninterruptible Power Supply.

# 5. Appendices

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