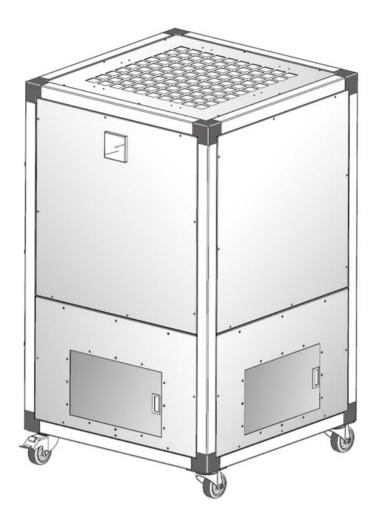


UPM/EC







Manual del Usuario **User manual**

Code: 1276550

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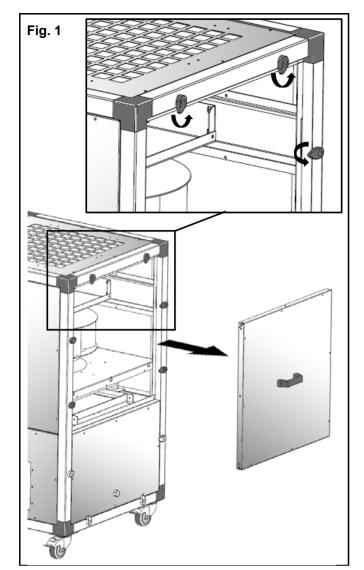
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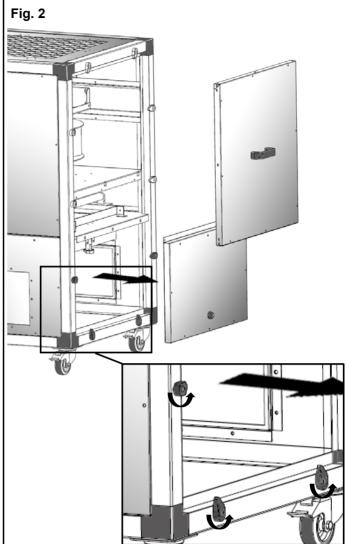
Call: <u>0845 6880112</u>

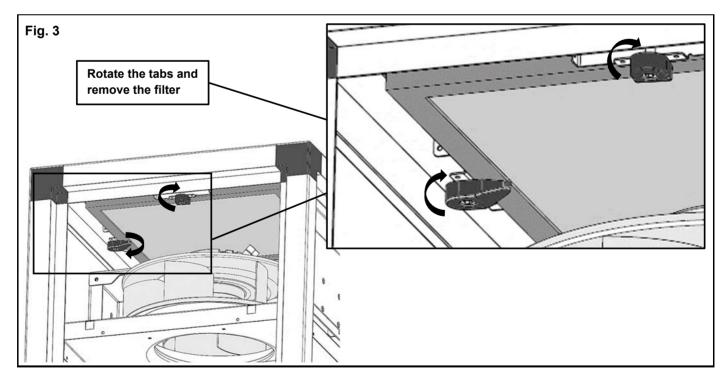








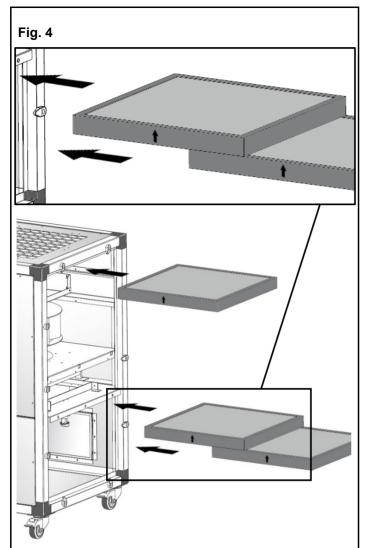


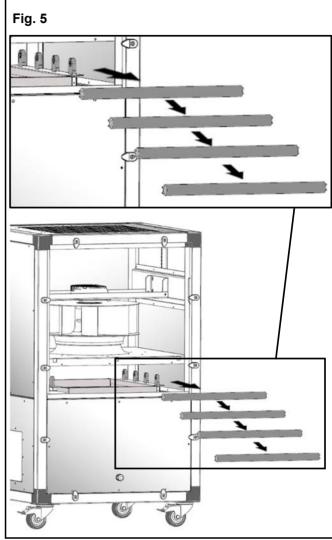


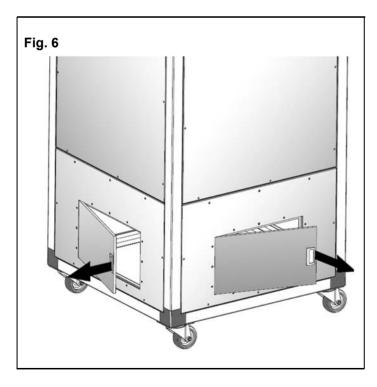




















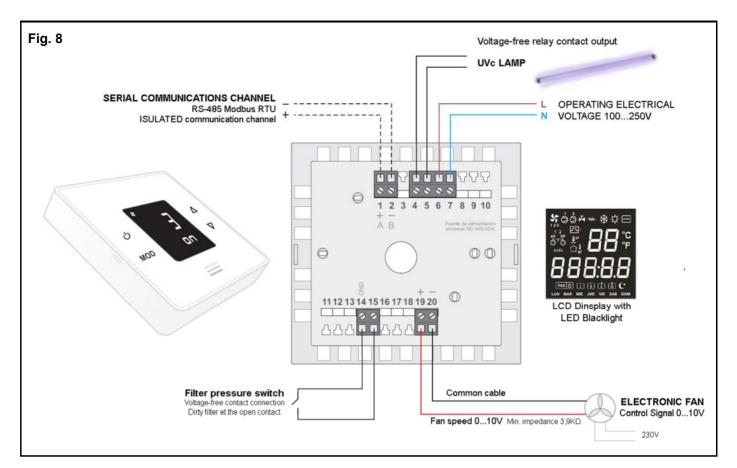


Fig. 9 - Technical Characteristics

| Model | Surfac | le working ce ¹ (m²) | Speed | Fan Power | Power supply | Sound Level ² | Max. Airfl | . , | Weight |
|------------|--------------------|------------------------------------|---------|--------------|-------------------------|--------------------------|--------------------|---------------------|--------|
| | Filtros (F7+F9) | Filtros (F7+H14) | (r/min) | (W) | | dB(A) | Filtros (F7+F9) | Filtros (F7+H14) | (kg) |
| UPM/EC-310 | 140 | 50 | 1920 | 175 | 200-240V 50/60Hz 1Ph | 29 | 1450 | 510 | 55 |
| UPM/EC-400 | 220 | 130 | 1550 | 460 | 200-240V 50/60Hz 1Ph | 38 | 2200 | 1300 | 97 |
| UPM/EC-500 | 300 | 325 | 1250 | 1150 | 380-480V 50/60Hz 3Ph | 36 | 2990 | 3250 | 165 |

¹ Recommended surface with 3 meters high local

Fig. 10 - Filter Characteristics

| Filtono | EN770 E | EN 1822 | ISO 16890 | | | | | |
|----------|----------|----------|----------------------|------------------------|-----------------------|------------|--|--|
| Filters | EN779 Em | | ISO ePM ₁ | ISO ePM _{2,5} | ISO ePM ₁₀ | ISO COARCE | | |
| G4 | 90% | - | - | - | - | >90% | | |
| F7 | 90% | - | >50% | >65-95% | >85% | - | | |
| F9 | 95% | - | >80% | >95% | >95% | - | | |
| HEPA H14 | - | >99,995% | - | - | - | - | | |

Fig. 11 - UVc Germicidal Technical Characteristics

| Model | Number of lamps | Total electrical power (W) | Total radiation power UVc (W) | Radiation doses (mJ/cm²) |
|------------|-----------------|----------------------------|-------------------------------|--------------------------|
| UPM/EC-310 | 6 | 66 | 16,8 | 5,9 |
| UPM/EC-400 | 4 | 100 | 28 | 5,6 |
| UPM/EC-500 | 6 | 150 | 42 | 4,5 |



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² The values of the Radiated Noise Level, are in dB(A), measured at 1,5 meter, and at maximum flow rate (Qmax).

Z W





1. Start

All fans produced by **SODECA**, hereinafter *the manufacturer*, and the full line of accessories, have been manufactured in accordance with the strictest standards in relation to quality assurance, systems and production processes.

Their project, testing, manufacture and control structure has been configured in line with EU standards and regulations, especially in reference to current safety standards.

The materials used in our fans, and the standardised components of which they are made meet the same standards and, when so required, are backed up by the corresponding quality certificates.

The Original Manual was written in Spanish.

The manufacturer reserves the right to make modifications without prior notice.

All the documentation in this manual is the property of the manufacturer, and its total or partial reproduction is prohibited.

2. Product Definition

UPM/EC: Mobile air purifying units, designed for cleaning and purifying indoor air and eliminating odours in any type of room.

IMPORTANT: This product is not suitable for use in explosive environments or for fire safety.

3. General Information

- Always check the products received.
- After unpacking the equipment, it must be checked to make sure that it is not damaged. Damaged products must never be installed.
- This equipment must not be used for purposes other than those for which it was designed; it must only operate under the conditions described in this manual.
- In the event of a defect or malfunction, this must be reported to the authorised representative, with a description of the problem, in order to coordinate its return or possible repair.
- Before starting up the equipment, it is important to ensure that the safety and installation instructions in this document have been read

4. Transportation, storage and handling

- Always hold the equipment at the points provided for this. Do not lift it by the electrical cables, connection boxes, or the air inlets or outlets.
- · Before installation, store the equipment in a clean, dry place, protected from inclement weather.

⚠ 5. Safety

- **CAUTION!** Electrical power must be removed from the unit prior to opening the inspection covers to access the UVc lamps if installed; otherwise, these lamps could cause damage to the eyes and skin.
- If a UVc lamp breaks, ventilate the compartment for 30 minutes and remove the lamp pieces, preferably while wearing protective gloves.
- Do not disassemble or modify the equipment. This could negatively affect the equipment or even cause accidents.
- Do not put your fingers or any objects into the protective grilles on ducts, inlets or outlets. If this were to occur, immediately disconnect the equipment's power supply.
- Never use a damaged power cable.
- Do not perform equipment inspection or maintenance without first checking the following:
 - \circ That the equipment has been disconnected from the electrical supply.
 - o That all its components are at rest.
- The equipment must not be operated unless it has been properly installed and the inlets and outlets have been protected.

In designing and manufacturing the various Series of *the manufacturer's* Fans and Extractors, Hazard Elimination has been taken into account, in order to meet the conditions for Integrated Safety.

When their configuration and manufacturing processes permit this, the manufacturer directly incorporates the most appropriate Safety Devices. If the conditions for installation or use mean that these devices cannot be incorporated at source, all additional safety accessories are available for implementation when the equipment is installed and before it is put into service.



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6. Installation and Assembly

This equipment may only be installed by a qualified technician who is familiar with the installation, monitoring and maintenance of this type of equipment, and uses suitable tools.

Mechanical

- Prior to starting up the unit, make sure the following checks are carried out:
 - o Ensure the wheels are blocked and the unit is immobilised (Fig. 7).
 - Ensure the side covers are properly closed.
 - o Make sure the unit has not been forcefully installed on a curved or unstable surface.
 - Make sure there are no obstacles blocking the air inlets and outlets that could prevent the unit from operating properly. A minimum distance of 0.3 metres shall be left clear between the inlet and impulsion grilles and the wall or the nearest obstacle.
- Sufficient space must be provided for opening the hatch cover.
- The fan should be installed so that it does not cause vibration in the ducts or building and to facilitate its
 maintenance and cleaning.
- Once the mechanical assembly is complete, it is important to check that the impeller turns freely, with no friction or tension.

Electrical

- The unit is supplied ready to be connected using a Phase + Neutral + Ground connector for the single-phase models and a 16A, 3 poles + Neutral + Ground for the three-phase models.
- Check if the electrical characteristics stated on the plate correspond to the power supply.
- An external protective component must be connected (a relay, magneto-thermal protection system or fuse), in accordance with current regulations.
- The equipment's earth connection must be connected.

7. Operation and adjustment

Basic functions

The regulator has 4 buttons: ON/OFF, MODE, UP and DOWN.

Note: If the backlight is turned off, by pressing once (on any buttons) it will illuminate the backlight. With the backlight illuminated, the functions of the buttons are described below. The backlight will automatically turn off after 2 minutes elapse without pressing any of the buttons.

ON/OFF:

Short press: Turns the regulator on/off. Manual mode.

Long press (approx. 1 s): Enables and disables the time programming.

Time programming disabled: Manual mode.

Time programming enabled: Programming mode.

MODE:

Short press: Turns the UVc lamp on/off (if enabled).

Long press (approx. 2 s): Accesses the user menu: Set the date (h⊕rR),

Time programming setup (Pr 09),

Displaying the identifier (Id), parameter mode (PAr),

Displaying and reset of the operating time (hFUn) and regulator reset (rE5EL).

UP:

Short/long press: Increases the speed setpoint (0%...100%).

DOWN:

Short/long press: Decreases the speed setpoint (100%...0%).

Note: If MODE+UP is pressed continuously while voltage is applied to the regulator or after the regulator is reset, the regulator returns to its default values (shown $dEFE_{c}$ on the screen).

User Mode

User Menu: UP and DOWN can be used to select the mode you want to access: Set the date $(h \square \neg R)$, time programming setup $(P \neg \square P)$, displaying the identifier (Id), parameters mode $(PR \neg P)$, viewing and reset of the operating time $(hF \sqcup P)$ or reset of the regulator $(\neg E \neg P)$. To enter the selected mode press MODE. To exit press ON/OFF.

• **Setting the date:** MODE is used to select the item you wish to modify (day/time) and UP and DOWN are used to modify the value. ON/OFF is used to set the date and return to the normal mode of operation.



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- Time programming setup: MODE is used to select the item you want to modify (day / period / setpoint) and UP and DOWN are used to modify the applicable value (time/setpoint). To disable the period, set the time to value --:--. ON/OFF is used to exit the time programming setup and return to the normal mode of operation. See the regulator time programming.
- **Displaying the identifier:** The configured identifier is displayed on the regulator via a serial communication. The display includes 5 digits.

D1 D2 D3 D4 D5

- Parameters mode: MODE is used to select the parameter you wish to display and UP and DOWN are used to
 modify its value. ON/OFF is used to exit the parameters mode and return to the normal mode of operation. See
 the parameters of the regulator.
- **Displaying and resetting the operating time:** When entering this mode, the current operating hours are displayed. To reset the operating time (e.g. resetting the time to zero as a result of a filter change), press ON/OFF. As confirmation that the operating time has been reset, "hF 00000 is displayed on the screen and the system returns to the normal mode of operation. A few seconds after ON/OFF is pressed, the regulator returns to the normal mode of operation without resetting the operating time.
- **Regulator reset:** When the regulator is reset, "-----" is displayed on the screen and the operation is restart after a few seconds.

LCD Display

Note: When power is applied to the regulator or after it is reset, the following is shown on its display:

- **UF143** + \$\frac{1}{2}\$: Indication for regulator TX143UF.
- v X.X: Indicates the firmware version of the regulator.
- Wait: Indicates that the regulator is in the process of initializing.



| Icon | Indication | | |
|------|--|--|--|
| 55 | Status of the fan: Fan off: Icon not illuminated. Fan on: Icon illuminated | | |
| | Status of the filter (via the timer of differential pressure switch): Filter clean: Icon not illuminated. Filter dirty: Icon illuminated | | |
| 88 | Fan speed setpoint: Selection range: 0%100%. Display: 0%99%, 100%=HIGH =0%: Fan off. >0%: Fan on. - With the regulator set to off in manual mode, these digits remain off - In parameters mode indicates the parameter number. | | |



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| | Operating status on/off (manual mode). | | |
|-----------------------------|---|--|--|
| 00000 | OFF On | | |
| 888:8.8 | Current time (programming mode). | | |
| OFF On | 00=00 23=59 | | |
| 23:45 | - In parameters mode indicates the value of the parameters. | | |
| 63.73 | - In time programming mode indicates the time programmed to start-up or stop. | | |
| | Operating hours (HF + operating time): | | |
| | hF | | |
| | | | |
| HH | D 1543 | | |
| | Identifier (ID + code): | | |
| 888:8.8 | ıd | | |
| | A23F0 | | |
| | | | |
| AAA | UVc lamp status: | | |
| - VVV- | UVc lamp off: Icon not illuminated. UVc lamp on: Icon illuminated. | | |
| | Manual mode. | | |
| | Operation based on whether on/off is selected and if manual | | |
| PRG PRG | setpoint is selected. | | |
| | Time programming mode. Operation based on the programmed time. | | |
| c12 c12 | operation based on the programmed time. | | |
| (i)(i) | Programming period 1 (start and end). | | |
| 522 522 | | | |
| (£)(6) | Programming period 2 (start and end). | | |
| | | | |
| C* | Reduced programming period | | |
| | | | |
| ტ | In time programming indicates the copy of the day. | | |
| | Day of the week | | |
| LUN MAR MIE JUE VIE SAB DOM | Day of the week. In time programming indicates the day of the week that is being | | |
| | programmed. | | |
| 1 | WiFi connection error. | | |
| \bigcirc | In model with WiFi connection. | | |
| 9 | | | |
| 2 | Server connection error. | | |
| | In model with WiFi connection. | | |
| | | | |
| # AUTO 123 MAT ↑ SET | | | |
| т — | Unused icons. | | |
| | | | |
| A.LEG. | | | |







Configurable parameters of the regulator

To access the parameter mode, in normal operation press MODE continuously (approx. 2 s) until the user menu is displayed on the screen (time setting, time programming, identifier, parameters, operating time reset and regulator reset). The UP and DOWN keys are used to select par and press MODE to access the parameters mode at that very instant.

Note: During the parameters mode, the regulator does not communicate through the serial communication channel.

In parameters mode, the functions of the buttons are:

- ON/OFF: Exits the parameters mode.
- MODE: Accepts the displayed parameter and go to the next parameter.
- **UP:** Increases the value of the parameter.
- DOWN: Decreases the value of the parameter.

Parameters list

P1. Operating times for filter dirty indication (range: 0ff, 00001 h to 09000 h; by default: 03000 h)

Off Function disabled **00001...09000** Function enabled

- P2. Fan speed minimum voltage (range: 0.0 V to 5.0 V; by default: 0.0 V)
- P3. Fan speed maximum voltage (range: 6.0 V to 10.0 V; by default: 10.0 V)
- P4. UVc lamp control (range: 0 to 1; by default: 0)
 - 0: UVc lamp disabled.
 - 1: UVc lamp enabled (operation based on UVc lamp on/off, MODE button).
- P5. Direction of communications (range: 1 to 240; by default: 1)

Regulator time programming

To access the time programming mode, in normal operation press MODE continuously (approx 2 s) until the user menu is displayed on the screen (time setting, time programming, identifier, parameters, operating time reset and regulator reset). The UP and DOWN keys are used to select PROG and press MODE to access the time programming mode at that very instant.

Note: During the time programming mode, the regulator does not communicate through the serial communication channel. In time programming mode, the functions of the buttons are:

ON/OFF:

Short press: Exits the time programming mode.

Long press (~1 s): Copies the programming of the previous day and applies it to the current day. The icon is displayed as confirmation of the copy of the day.

- MODE: Select the period (day, periods 1 and 2 and reduced period) and the setpoints for these periods.
- UP/DOWN: Modifies the time value and the applicable setpoint.







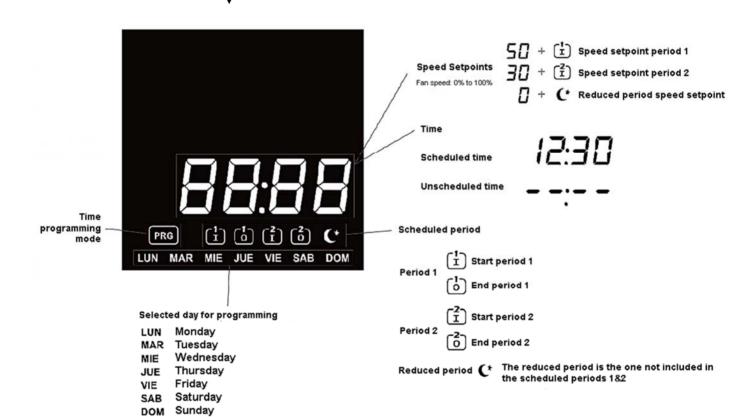






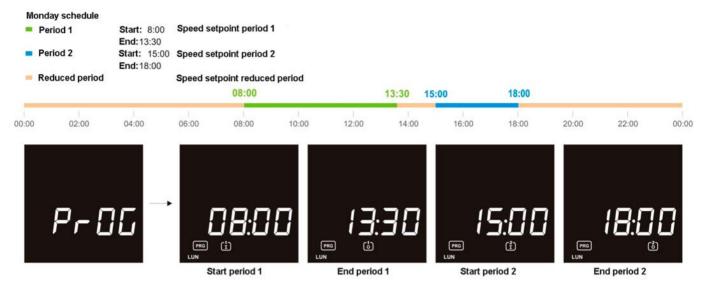
Time programming mode displays:







Time programming example:



Start-up

- After starting up the motor, it is important to check that the motor is rotating correctly, without vibrations, or unusual noises.
- A check must be made to ensure that the motor's actual power consumption does not exceed the level stated on the equipment's label and that it does not heat up excessively.
- The machine must not be switched on and off intermittently, as this could damage the winding of the motor or the insulation, due to overheating.

8. Maintenance

Maintenance shall be carried out by certified personnel, and gloves and a mask must be worn while the work is being conducted.

- · The bearings are greased and sealed for life.
- The unit incorporates two side inspection hatches to carry out maintenance or repairs. (Fig. 1 and 2). The unit stops automatically when the inspection covers are opened.
- Good maintenance, cleaning of the equipment filters and replacing the UVc lamps, if installed, are essential tasks to ensure the machine's operation and storage capacity remain optimal condition.
- The impeller must be cleaned at least once a year with caution in order to not affect its balancing.
- The fan filters must be preferably changed every 6 months of usage (Fig. 3 and 4), or when indicated by the dirt sensor, except in the case of the aluminium inlet pre-filters, which can be cleaned in the dishwasher (Fig. 6).
- · When replacing the filters make sure they are properly installed as indicated on their labels. (Fig. 4)
- If the unit has UVc lamps installed, these must be cleaned every 6 months and must be replaced after 9000 hours of operation or when indicated by the UVc lamps change indicator.
- To replace the UVc lamps, remove them in order and also re-install them in order so that all lamps can be easily reached (Fig. 5).
- It is not advisable to use chemical cleaners or aggressive substances, as they could damage the equipment.
- If a part must be replaced, please ask the distributor.

9. Disposal

Careless or negligent disposal of the equipment may cause contamination. The disposal process must be carried out in compliance with the standards and regulations applicable in the country.

10. Warranty

Incorrect use of the equipment and failure to observe the instructions in this manual may result in the cancellation of the warranty.



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