

SENSOR OPERATED

Dualflow Plus



M14A
white finish



M14ACS
satin finish



M14AB
black finish

General description

- The dualflow® Plus M14 240V is a fast, energy efficient, ecologic, hygienic & stylish hand dryer.
- “Hands in” model it has 2 pairs of IR sensors on both sides of the upper covers for instant hand detection
- Maximum air speed 410 Km/h.
- Dries hands in only 8 / 15 seconds.
- Motor power adjustable, allowing electricity consumption to be regulated. (Between 420 and 1.100W).
- 30 seconds safety timer.
- Lowest noise level in its category. (62 dBA in ECO mode).
- Suitable for medium and high traffic facilities.
- Easy maintenance.

Components & materials:

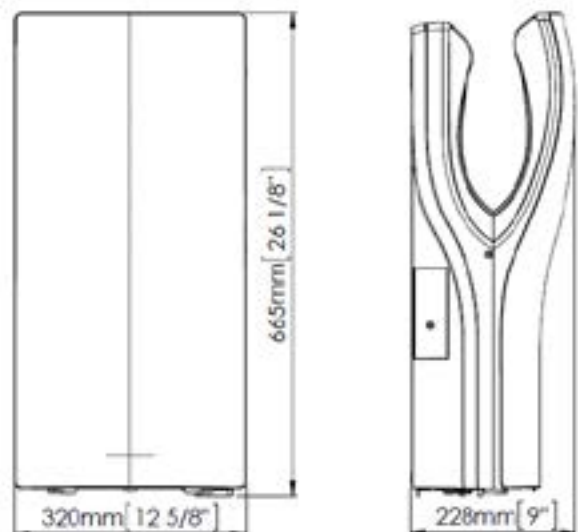
- **M14A:** ABS cover, white finish.
- **M14AC:** ABS cover, satin finish.
- **M14AB:** ABS cover, black finish.
- High speed class F universal brush motor, adjustable from 19000 to 30000 rpm.
- Biocote® antimicrobial and antibacterial protection technology based on silver ions. These ions inhibit the reproduction of micro-organisms in the product throughout its lifetime.
- H13 HEPA filter which eliminates more than the 99% of particles.
- Base plate made in plastic PA6V0.
- Removable water tank which it has valve for emptying.
- LED front light for fast diagnosis of the dryer (green - machine running, blue - full tank, red - check engine).
- Optical and acoustic warning full tank.
- No heating element.
- Odor neutralizer (optional).

Technical Specifications:

Voltage	220- 240 V
Frequency	50/60 Hz
Electrical Isolation	Class I
Total power	420 – 1,100 W
Consumption	3.2 – 5 A
Motor power	420 – 1,100 W
Rpm	19,000 – 30,000
Heating element power	No Heating Element
Dimensions	665x320x228 mm
Weight	8.3 Kg
Cover thickness	3 mm
Drying time	8-15 sec
Effective airflow	94-165m ³ /h –1,570-2,750 l/min
Air velocity	234 – 410 Km/h
Air temperature (10 cm distance/21°C)	35 °C
Sound pressure ^(*) (at 2m)	62 – 72 dBA
Protection rating	IPX4

(*) According to UNE EN ISO 11201:2010 V2 standard.

Dimensions:



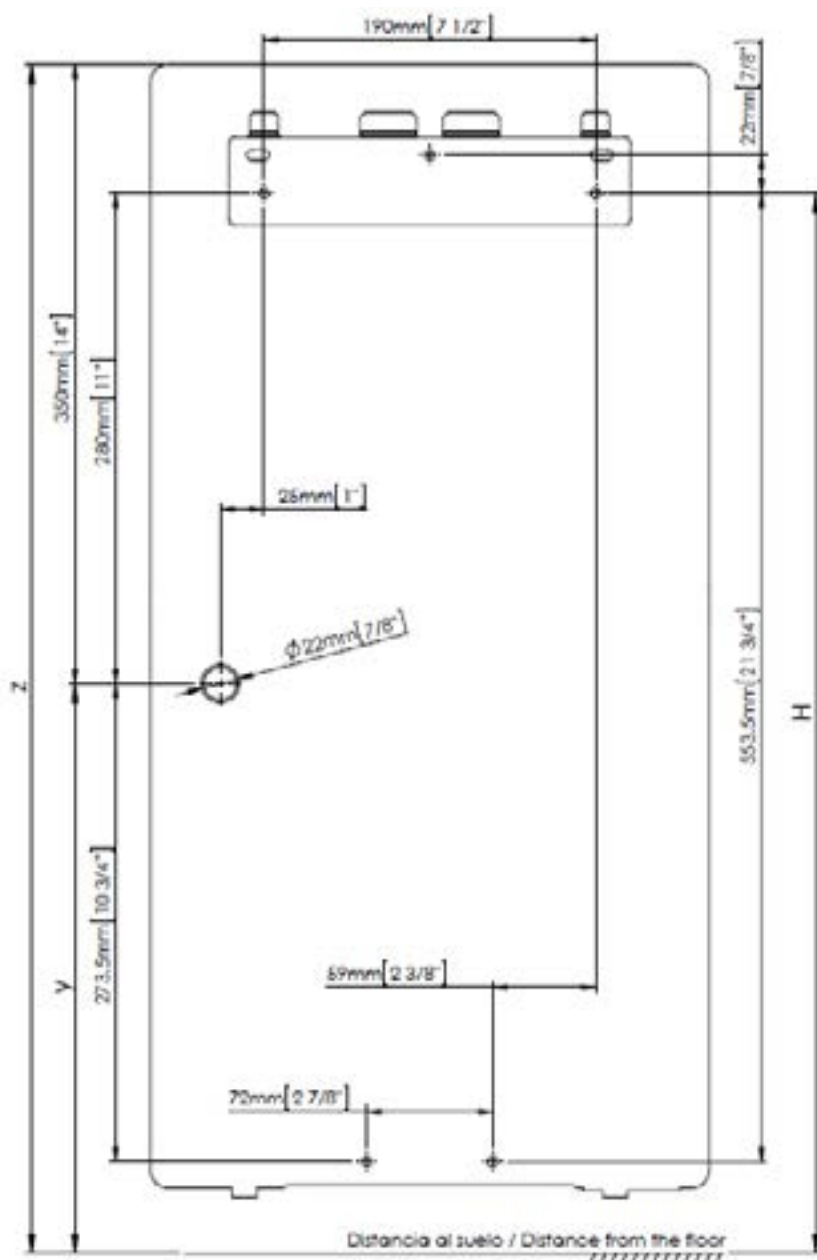
Operation




Place the hands between the air outflow valves, inside the hand dryer. The dryer will start automatically, and go on with no interruption as long as the hands are kept in the detection range of the sensor. Move the hands vertically in order to dry them completely. The appliance will stop 2 seconds after the hands are removed from the airflow.



Mounting

Recommended heights distance from the floor



			
Z =	92 cm (36 1/4")		87 cm (34 1/4")
H =	85 cm (33 1/2")		80 cm (31 1/2")
Y =	57 cm (22 1/2")		52 cm (20 1/2")

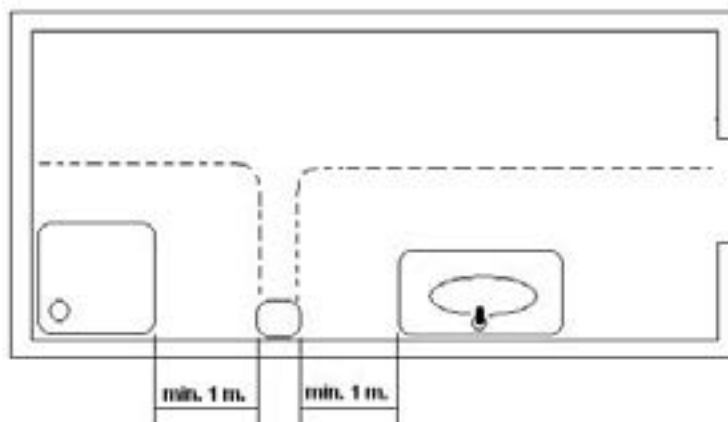
Certificates & Qualifications



SAFETY INSTRUCTIONS

Before to carry on any operation, please read carefully and take into account the following safety instructions:

- Only a qualified technician can install, adjust and maintain this device. All this operations must be always done according to the current legal European Standards of installation and according the local installation regulations as well.
- Be careful when the casing of the appliance is dismantled because active parts of the device become accessible and then there is a potential risk of an electric shock.
- Before any electrical manipulation, the electrical current must be cut in order to avoid any electric shock risk
- The device must be fixed out of reach of a water source in order to fulfil the security distances marked into the current IEC standards and as the following figure shows:



- Be careful because local installation requirements can ask more than 1 m of safety distance. Take into account these local requirements as well.
- Hairdryers must be fixed out of reach of a person taking a bath or a shower.
- Means for disconnection, with contact separations at least 3 mm (0.12"), must be incorporated in the fixing wiring involving all poles, accordingly to the current legal European Standards.
- The installer must make sure that the electric system is grounded in accordance with the law in force.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The device could not be installed on a normally inflammable surface.
- To fix the hand dryer to the wall follow the instructions of this manual and use the template provided with the device as well. To fix the machine with adhesives or similar methods is forbidden by the European safety standards.

INTRODUCTION

'Dualflow Plus' range hand dryers offer the following technical features:

- Automatic operation. Hand detection is based on Infra Red (IR) movement sensors. Two pairs of those sensors emit a continuous beam of IR light. The introduction of the hands causes the interruption of the IR light beam and switch on the dryer.
- The speed of the air generated by the hand dryer can be adjusted, to achieve an optimum balance between the drying power and noise level.
- Available finishes:
 - White (M14A)
 - Satin (M14ACS)
- Dimensions: 656 mm (H) x 320 mm (W) x 226 mm (D).
- Weight: 8.3 Kg
- Mounting: Surface.

OPERATION

Hands must be introduced inside. Hand dryer starts automatically after introducing hands.

Move hands vertically (as shown in Fig.1) in order to dry them completely.

Green light (in standby state) led on top becomes to orange colour when dryer is in use.

Maximum continuous operation time is $T = 30$ sec.
Drying time is less to it ($T_d \approx 8 - 12$ sec).

After removing hands, dryer turns off automatically.

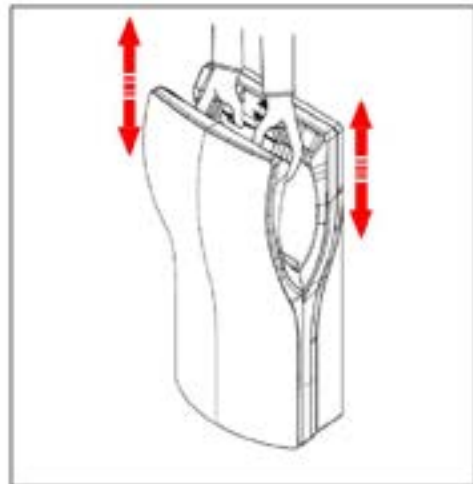


Figure 1

This appliance can be used by children aged from 8 years or above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by people without the proper training.

Means for disconnection with contact separations at least 3 mm (0.12") must be incorporated in the fixing wiring.

INSTALLATION AND MAINTENANCE BOOK (TECHNICAL STAFF)

Introduction

'Dualflow Plus' family of hand dryers offers the technical features as follows:

- Automatic operation. Drying cycle starts when putting hands in. Two couple of IR sensors detect hands introduction.
- Dryer is a class I (earthed) electrical insulation device.
- Drying process is based on powerful air curtains which remove water from hands.
- Hand dryer has no heating element.
- Speed of air can be adjusted in order to achieve an optimum balance between drying power and noise level.
- Light leds on top supply some information referred to the status of hand dryer.
- Maximum time of continuous operation is $T_{max} = 30 \text{ sec.}$
- Water from hands is collected in a removable tank which may be emptied and cleaned.
- An HEPA filter is incorporated in the aspiration area whose state should be reviewed periodically. The place of fitting the air inlet filter allows easy removal and replacement. Optionally, in the aspiration area, an air-freshener can be incorporated.

Installation

ONLY A QUALIFIED TECHNICIAN CAN INSTALL, ADJUST AND MAINTAIN THIS HAND DRYER.

The installation of the appliance is only allowed on fixed wiring.

Means for disconnection of the mains with contact separations at least 3 mm (0.12") must be incorporated in the fixing wiring.

The installer must make sure that the electric system is grounded in accordance with the law in force.

Make sure that the electric system has a high-sensitivity breaker $I_n \leq 0.03 \text{ A.}$

Make sure that the machine is disconnected from the electric power supply, before performing maintenance operation.

To install the hand dryer follow the pictures contained in the figure 2.

The hand dryer must be fitted to the wall by using the upper metal plate (support) which is supplied.

After fitting the metal plate, the hand dryer should be hung on it. The lower screw fits safely the appliance to the wall. So, to assemble the hand dryer the following steps must be done:

- Make five 8 mm (0.31") diameter drill holes in the wall using the provided template (1).
- Clean the dust away and insert the wall plugs.
- Screw the upper plate to the wall (2).
- Plastic covers which protect the terminal block (inlet power supply) must be removed (3).
- The hand dryer should be hung on the metal support which has been fitted to the wall (4).
- Pass the electrical cables from mains through the 22 mm diameter hole located in the rear plastic base plate. (5).
- Connect the electrical wires to the hand dryer terminal block.
Two phases (N,L) and earth wires must be screwed in the right ways of the terminal block, as indicated by the engraved letters (6).
- After this operation has been done, plastic covers must be placed correctly (10).
- Remove the air inlet filter casing (7).
- Firmly place the lower screw for fixing the appliance completely (8).
- Put the inlet air casing to its location (9).

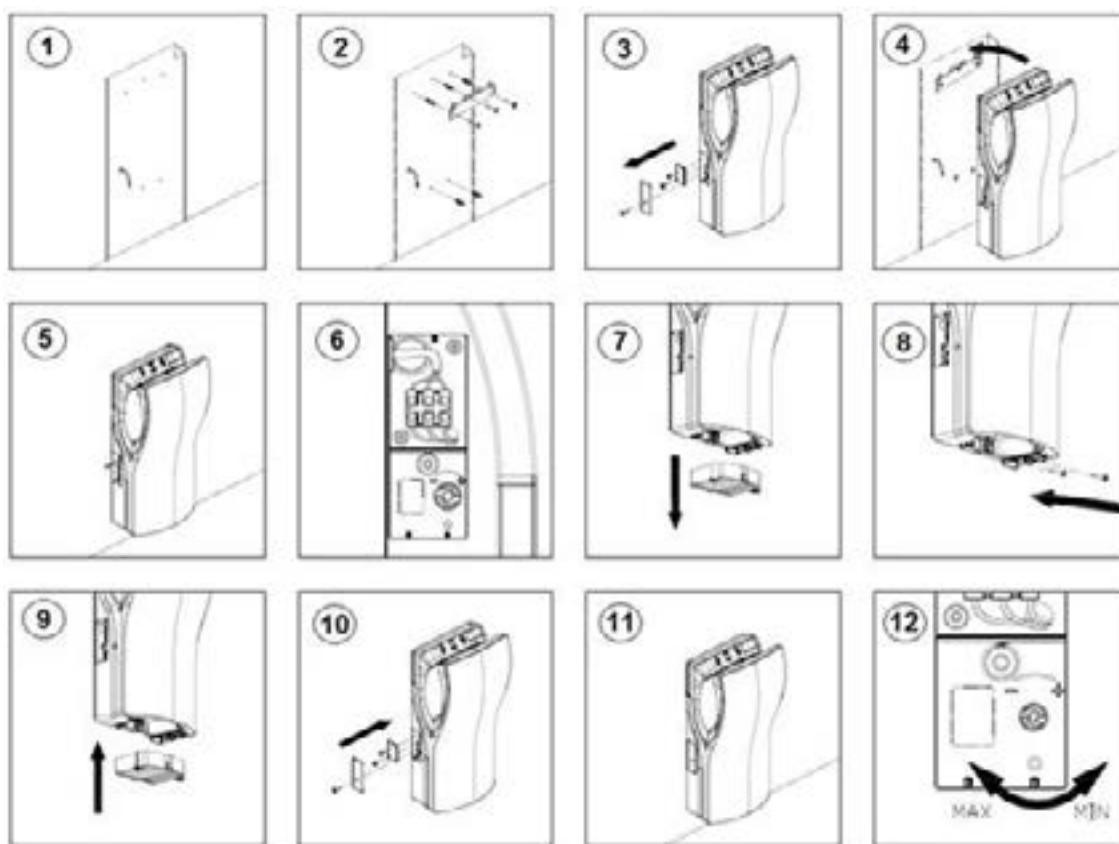


Figure 2

Installation height must be the showed in figure n° 3.

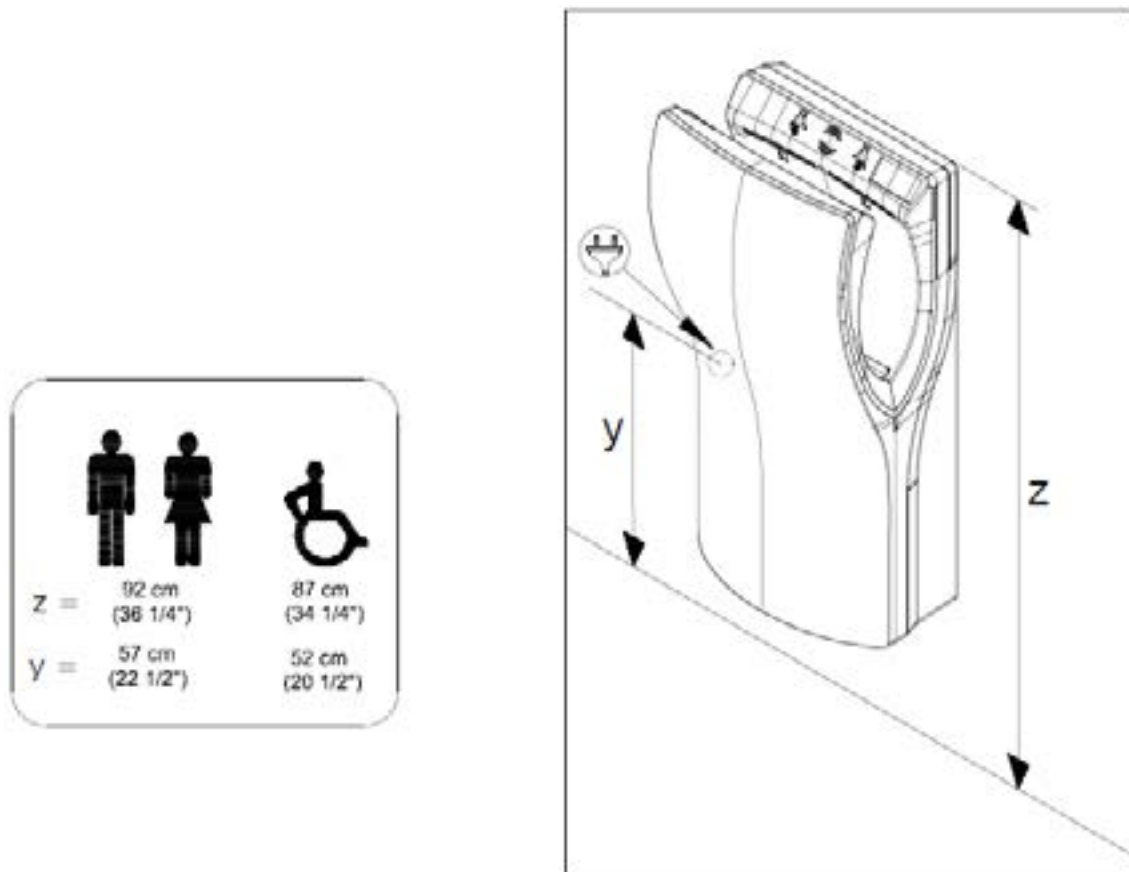


Figure 3

ATTENTION: WHEN THE CASING IS DISMANTELED ACTIVE PARTS OF THE DEVICE BECOME ACCESSIBLE.

Maintenance

ONLY A QUALIFIED TECHNICIAN CAN INSTALL, ADJUST AND MAINTAIN THIS HAND DRYER.

Adjust the speed of the motor

To adjust the speed of the motor turn the sensor potentiometer wheel as the picture 4 shows.

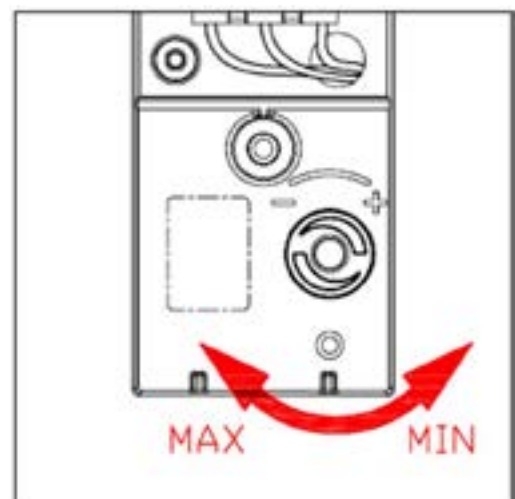


Figure 4

Pilot light information

Light leds on the top of the hand dryer (see figure 5) give advice about:

- 1: Standby (green colour) or operation status (orange colour).
- 2: Red colour led bright when motor has a problem of consumption (due to brushes which may be wearing out or due to a blocked or locked state of motor).
- 3.- Blue colour led bright when cabinet of water is full.

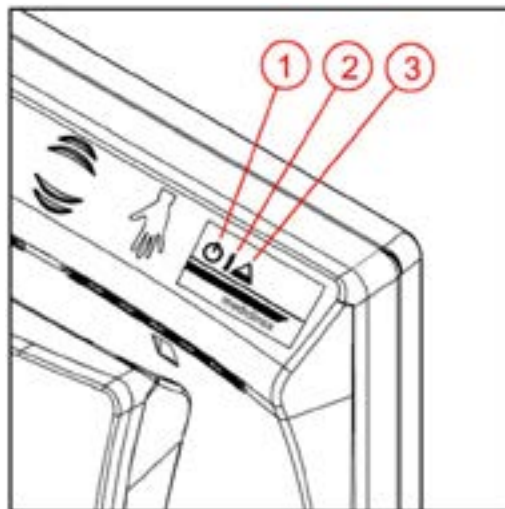


Figure 5

Air filter

Air filter must be changed as the pictures of figure n° 6 shows.

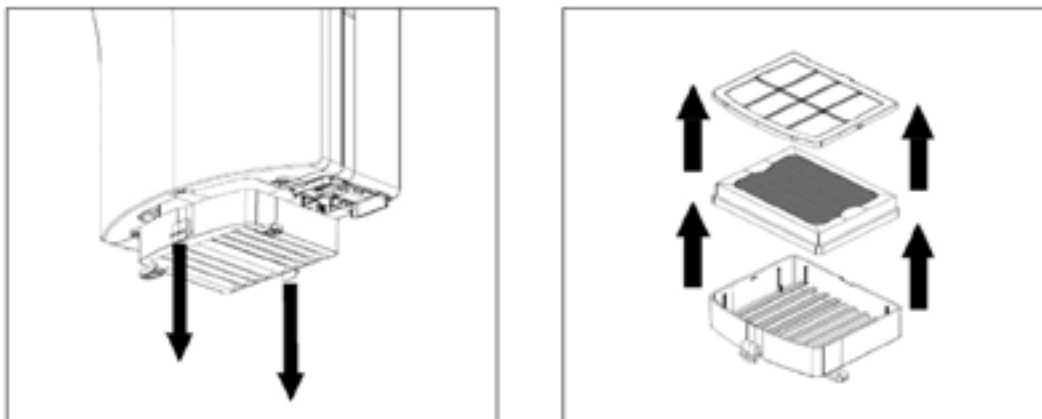


Figure 6

No smell load charge

Figure n° 7 shows how to install the no smell charge.



Figure 7

Water tank.

Water from hands drops directly to a removable water tank. When water from the removable water tank reaches the 'full level' an acoustic alarm sounds and the blue pilot light bright (see Fig. 5). In this case, water in the tank must be emptied.

Two options to remove the water from the water tank are available:

- I. Press the two lateral clips and pull down the water tank, as the picture 8 shows. Remove the water tank from its fitting place, empty and clean the tank and re-place it.
- II. Press the push button as indicated in Fig. 9 until remove all the water contained into the water tank.



Figure 8

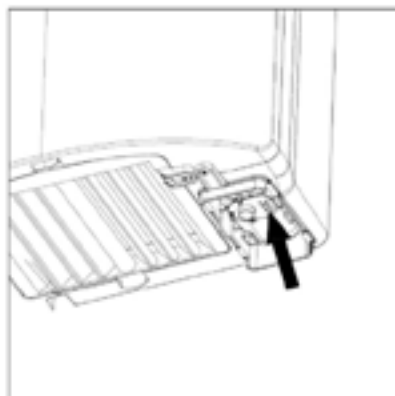


Figure 9

CONNECTION DIAGRAM

ELECTRIC DIAGRAM

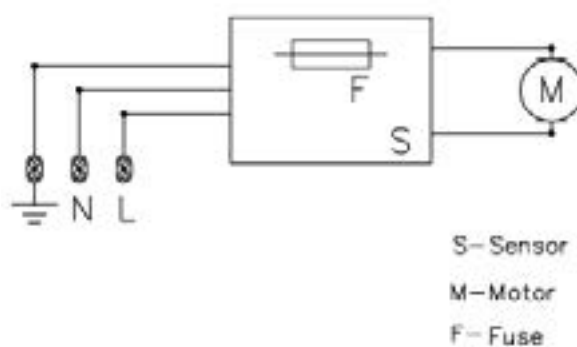


Figure 10

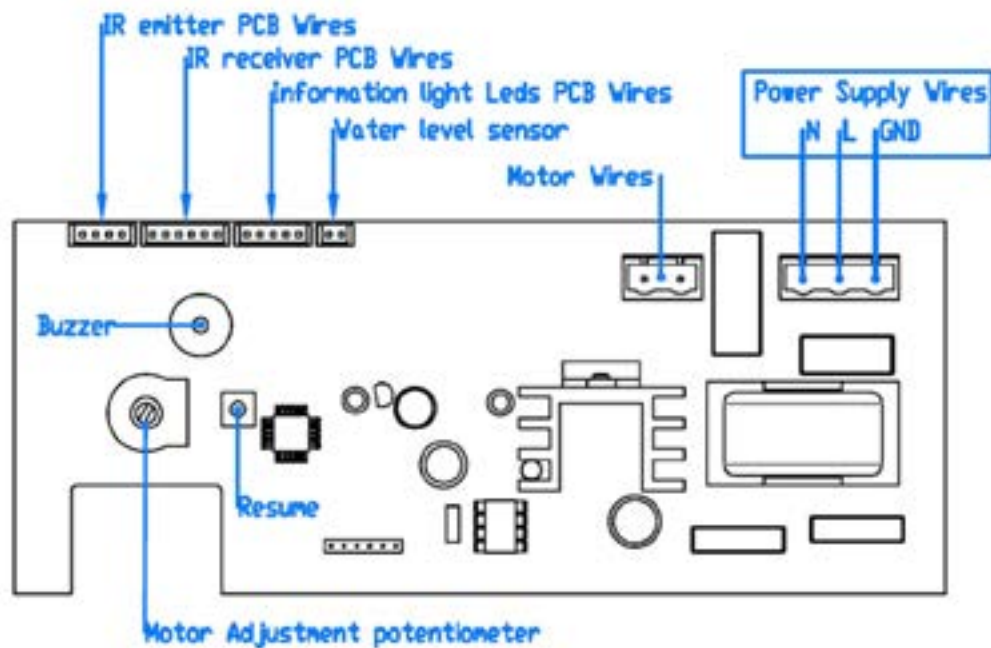


Figure 11



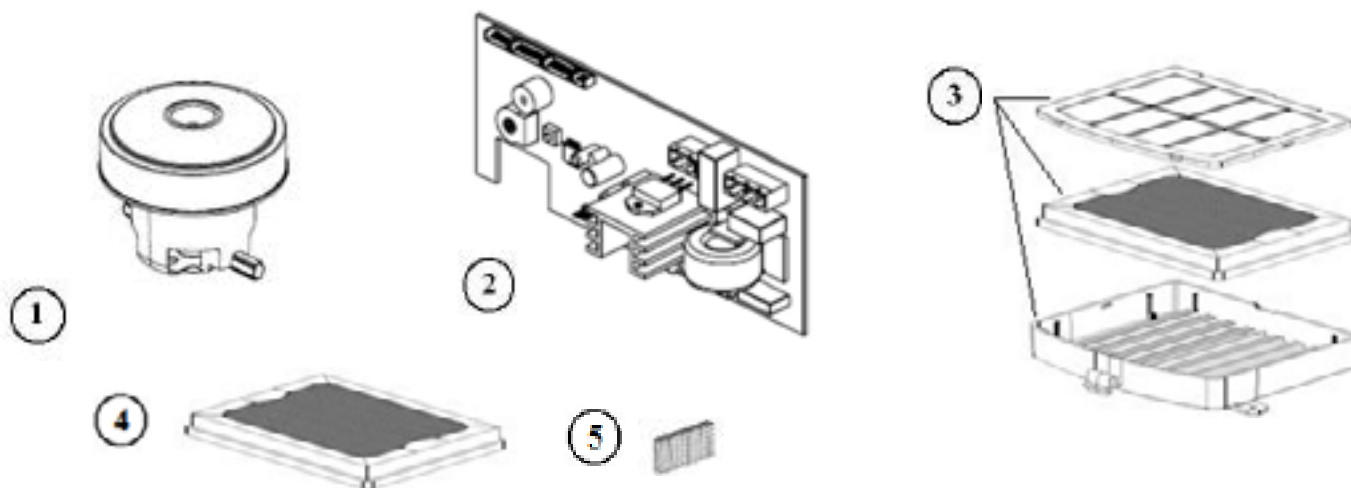
DANGER.
Electric shock risk

- The installer must make sure that the electric system is grounded in accordance with the law in force.

- Make sure that the electric system has a high-sensitivity breaker $I_{\Delta n} \leq 0.03 \text{ A}$.

- Make sure the machine is disconnected from electric power supply, before performing maintenance operation.

BASIC EXPLODED VIEW



COMPONENT	NUMBER	CODE
Motor set	1	RC9111003SMD
Electronic control	2	RC9121012SMD
Air filter set	3	RCFILTROHEPA1
HEPA filter	4	RCFILTROHEPA2
Air-freshener	5	9481002

M14A / M14ACS DUALFLOW PLUS



Normas de seguridad

Todo proceso de instalación, mantenimiento y reparación debe ser efectuado por personal técnico cualificado.

Mediclinics le recuerda la importancia de:

1. Familiarizarse con el equipo y leer detenidamente el manual de usuario antes de su manipulación.
2. Desconectar la fuente de energía antes de iniciar cualquier proceso de reparación o mantenimiento.
3. Actuar con precaución de acuerdo a los procedimientos descritos en el presente manual.

Mantenimiento general

Mantenimiento Preventivo – Limpieza

Inspeccionar las unidades con una periodicidad **anual o semestral**, en función de la carga de trabajo de la secadora.

Limpiar las partes activas de la unidad, como son: el motor, los detectores LED y la placa electrónica, con un cepillo o pincel de cerdas suaves.

Mantener las aberturas de entrada y salida de aire libres de polvo y otras obstrucciones, utilizando un cepillo o pincel de cerdas suaves.

Mantenimiento Correctivo – Recambios

Puede solicitar recambios de los elementos referenciados en el presente manual, al servicio de recambios y reparaciones de Mediclinics.

C/ Casanova, 93. Pral. 2ª 08011 Barcelona.

Tel: 934 516 009. Fax: 934 516 367. Email: sca@mediclinics.com

Safety regulations

All installation, maintenance and repair tasks must be performed by qualified technicians.

Mediclinics reminds the importance of:

1. *Becoming familiar with the equipment and carefully reading the user manual before handling.*
2. *Disconnecting power before beginning any repair or maintenance task.*
3. *Act with caution according to the procedures included in this manual.*

General maintenance

Preventive Maintenance - Cleaning

*Inspect the units **annually or quarterly**, depending on the dryer's operating cycles.*

Clean the active parts of the unit, such as: the motor, the LED detectors and the electronic circuit board with a soft brush.

Maintain the air inlet and outlet free of dust and other obstructions; use a soft flat ended brush.

Corrective Maintenance – Spare Parts



















You can order spare parts of the components shown herein.

Contact your closest dealer for further information.

LEYENDA DE LOS INDICADORES LED /LED INDICATORS LEGEND



Esperar 3-5 segundos a que la máquina se estabilize antes de diagnosticar algún problema.
Wait 3-5 seconds for the machine to stabilize before diagnosis of any problems.

  	Verde <i>Green</i> Off Off	El secador está listo para funcionar en cuanto se introduzcan las manos. <i>The dryer is ready to run as soon as the hands are introduced.</i>
  	Naranja <i>Orange</i> Off Off	El secador está detectando las manos y el motor está funcionando correctamente. <i>The dryer is detecting the hands and the engine is running properly.</i>
  	Off Rojo <i>Red</i> Off	Avería en la electrónica o el motor <i>Electronics or motor are not working properly.</i>
  	Naranja <i>Orange</i> Rojo <i>Red</i> Off	El secador está detectando las manos pero el motor no funciona correctamente. <i>Hands are detected but the engine is not working properly.</i>
  	Verde o naranja <i>Green or Orange</i> Off Azul <i>Blue</i>	El depósito de agua está lleno. Sonará un pitido intermitente adicionalmente <i>The water tank is full. An intermittent whistle will sound additionally</i>
  	Off Off Off	El secador está desconectado. <i>The dryer is disconnected.</i>

DESMONTAJE DEL FRONTAL - FRONT COVER REMOVAL

Extraiga el conjunto filtro, desclipándolo de la base.

Remove the filter assembly by unclipping it from the base.



Desatornillar, usando una llave allen de 2,5 mm, los 4 tornillos que sujetan el frontal a la base.

Unscrew the four screws securing the front cover to the base. Use a 2.5 mm hexagonal spanner.



Mediante un suave pero firme tirón separe el frontal de la base.
Después desliza el frontal hacia la parte superior.

*With a gentle but steady pull separate the front of the base.
Then slide the front to the top.*



**Para realizar el montaje del frontal, siga los pasos anteriores en orden inverso.
*To fit the front cover, follow the previous steps in reverse order.***

CAMBIO DE MOTOR - MOTOR REPLACEMENT

Extraiga el conjunto filtro, desclipandolo de la base.

Remove the filter assembly by unclipping it from the base.



Desatornillar, usando una llave allen de 2,5 mm, los 4 tornillos que sujetan el frontal a la base.

Unscrew the four screws securing the front cover to the base. Use a 2.5 mm hexagonal spanner.



Mediante un suave pero firme tirón separe el frontal de la base.

Después desliza el frontal hacia la parte superior.

With a gentle but steady pull separate the front of the base. Then slide the front to the top.



Desatornille los tornillos de fijación de la tapa circuito. Use un destornillador de punta PZ2.

Unscrew both screws securing the electronic circuit board cover. Use a cross head PZ2 screwdriver.



Retire la tapa.

Remove the lid.



Desconecte los cables de motor y alimentación de los terminales de la placa electrónica.

Unplug the motor and power wires from the electronic circuit board terminal blocks.



Corte la brida de sujeción de los cables de motor y alimentación.

Cut the tie securing motor and power wires.



Desatornille los 6 tornillos que fijan la tapa motor a la base. Use un destornillador de punta PZ2.

Unscrew the 6 screws fixing the motor cover. Use a cross head PZ2 screwdriver.



Mediante un suave pero firme tirón separe la tapa motor de la base.

With a gentle but steady pull separate the motor cover of the base.



Desconecte los cables de alimentación del motor presionando el clip de seguridad del conector y tirando del conector suavemente.

Unplug the motor power wires pushing the safety clip of the faston and pulling the faston out carefully.



Extraiga el motor.

Remove the motor.



Instale el nuevo motor siguiendo los pasos anteriores en sentido inverso.
Fit the new motor by following the previous steps in reverse order.

CAMBIO DE ESCOBILLAS - BRUSHES REPLACEMENT

En caso necesario revise el apartado de cómo retirar el motor antes de continuar.

If necessary review the motor replacement section before continuing.

Una vez que el motor está fuera de la secadora, afloje los tornillos que sujetan la escobilla. Utilice un destornillador de punta PH1.

Once the motor is removed from the dryer, loosen the screws holding the brush. Use a cross head PH1 screwdriver.



Retire la escobilla.

Remove the motor brush.



**Realice el mismo proceso con la segunda escobilla del motor.
Realice el montaje siguiendo los pasos anteriores en sentido inverso.
Carry out the same procedure for the second motor brush.
Fit the new brushes following the previous steps in reverse order.**

CAMBIO DE PLACA ELECTRÓNICA - ELECTRONIC CIRCUIT BOARD REPLACEMENT

Extraiga el conjunto filtro, desclipándolo de la base.

Remove the filter assembly by unclipping it from the base.



Desatornillar, usando una llave allen de 2,5 mm, los 4 tornillos que sujetan el frontal a la base.

Unscrew the four screws securing the front cover to the base. Use a 2.5 mm hexagonal spanner.



Mediante un suave pero firme tirón separe el frontal de la base.
Después desliza el frontal hacia la parte superior.

*With a gentle but steady pull separate the front of the base.
Then slide the front to the top.*



Desatornille los tornillos de fijación de la tapa circuito. Use un destornillador de punta PZ2.

Unscrew both screws securing the electronic circuit board cover. Use a cross head PZ2 screwdriver.



Retire la tapa.

Remove the lid.



Desconecte los cables de motor y alimentación de los terminales de la placa electrónica.

Unplug the motor and power wires from the electronic circuit board terminal blocks.



Desconecte los cables de sensor de nivel, sensores infrarrojos y pantalla led.

Unplug the water level sensor, infrared sensors and signal board wires.



Abra la tapa lateral de conexiones.

Open the control switch cover.



Retire el eje del potenciómetro.

Release the potentiometer rod.



Extraiga la placa electrónica.

Remove the electronic circuit board.



**Realizar el montaje siguiendo los pasos anteriores en sentido inverso.
*Fit it following the previous steps in reverse order.***

REGULACIÓN DE POTENCIA DEL MOTOR - MOTOR POWER ADJUSTMENT

Abra la tapa lateral de conexiones.

Open the control switch cover.



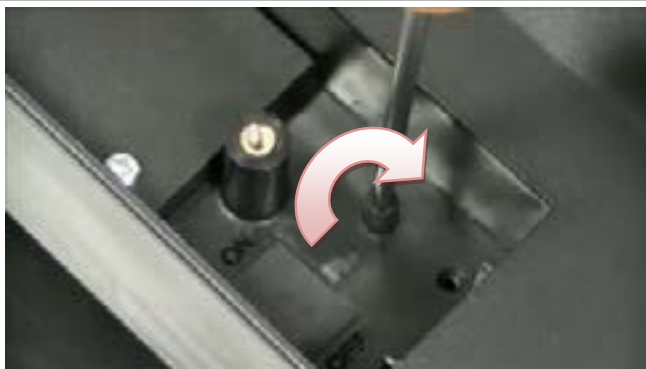
Utilizando un destornillador de punta plana gire el potenciómetro en sentido anti horario para disminuir la potencia del motor.

Using a flat head screwdriver, turn the potentiometer rod counterclockwise to decrease the motor power.



Gire el eje del potenciómetro en sentido horario para aumentar la potencia del motor.

Turn the potentiometer rod clockwise to increase the motor power.



CAMBIO DEL FILTRO DE ADMISIÓN - AIR INTAKE HEPA FILTER REPLACEMENT

Extraiga el conjunto filtro, desclipándolo de la base.

Remove the filter assembly by unclipping it from the base.



Con la ayuda de un destornillador de punta plana, extraiga el filtro de su alojamiento.
Tenga cuidado de no dañar los plásticos.

Remove the filter from its housing. Use a flat head screwdriver. Be careful of not to damage plastic parts.



Proceda a cambiar el filtro y/o la pastilla neutralizadora de olor según necesite. Para evitar dañar el filtro nuevo, evite tocarlo por otro sitio que no sea el marco

Replace the filter and/or the freshener tablet, as needed. To avoid damaging the new filter, avoid touching the filter on other parts that are not the frame





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