

# Pallas

REVERSE OSMOSIS



MANUAL DE INSTRUCCIONES

*MANUEL D'INSTRUCTIONS*

INSTRUCTION MANUAL

**CLASSIC • ADVANCED • SMART • PREMIUM**



			CLASSIC	ADVANCED	SMART	PREMIUM
<b>DIRECT ACCESS</b>		Easy maintenance. Maintenance aisée. Fácil mantenimiento.	●	●	●	●
<b>INSERT</b>		Safety system for piping connections. Système de sécurité pour la connexion de la tuyauterie. Sistema de seguridad en las conexiones de tubos.	●	●	●	●
<b>CLICK</b>		Connections safety blockage. Clip de sécurité sur les connexions. Fijación y bloqueo seguro de las conexiones.	●	●	●	●
<b>CALGON CARBON</b>		CALGON brand (USA) carbon with NSF certification. Charbon actif CALGON (USA) avec certification NSF. Carbón CALGON (USA) y certificación NSF.	●	●	●	●
<b>PALLAS ORIGINAL FILTERS</b>		Maximum safety and user-friendly brand new filter. Nouveau design pour les filtres pour une sécurité maximale et une maintenance aisée. Nuevo filtro de máxima seguridad y cómodo mantenimiento.	●	●	●	●
<b>SHUT-OFF VALVE</b>		Hydraulic control system, without electricity. Système de contrôle hydraulique, sans électricité. Sistema de control hidráulico, sin electricidad.	●	—	—	—
<b>PERMEATE PUMP</b>		Increases system recovery. Amélioration de l'efficacité du système. Incrementa la recuperación del sistema.	—	●	—	—
<b>PRESSURE PUMP</b>		Higher and faster production. Production d'eau pure supérieure en débit et qualité. Mayor caudal de producción.	—	—	●	●
<b>ECOLOGICAL</b>		Control system for water consumption reduction. Système de contrôle pour une moindre consommation d'eau. Sistema de control para un menor consumo de agua.	—	—	●	●
<b>ELECTRONIC ADAPTER</b>		High reliability external electronic adapter. Transformateur électronique de grande fiabilité. Transformador externo de alta fiabilidad.	—	—	●	●
<b>SOLENOID VALVE</b>		Solenoid valve with safety filter. Electrovanne avec filtre de sécurité. Electroválvula con filtro de seguridad.	—	—	●	●
<b>AUTO-FLUSHING</b>		Automatic membrane cleaning. Rinçage automatique de la membrane. Lavado automático de membrana.	—	—	—	●
<b>AQUASTOP</b>		Automatic leaking sensor. Détecteur automatique de fuite. Detector de fugas automático.	—	—	●	●
<b>QUALITY CONTROL</b>		Treated water quality control system. Détecteur de la qualité de l'eau traitée. Control de calidad del agua tratada.	—	—	—	●
<b>JOHN GUEST</b>		Maximum safety pipes and fittings. Tuyauterie et accessoires avec maximum sécurité. Tuberías y accesorios de máxima seguridad.	●	●	●	●
<b>FCT</b>		Filter change timer. Système de détection de la durée d'utilisation des filtres. Sistema de aviso automático de cambio de filtros.	—	—	—	●
<b>LOGICAL</b>		Programming depending on feed water quality. Programmation en fonction de la qualité de l'eau. Programación en función de la calidad del agua.	—	—	—	●
<b>INTERFACE</b>		Fully configurable parameters. Possibilité de programmer tous les paramètres. Parámetros totalmente configurables.	—	—	—	●



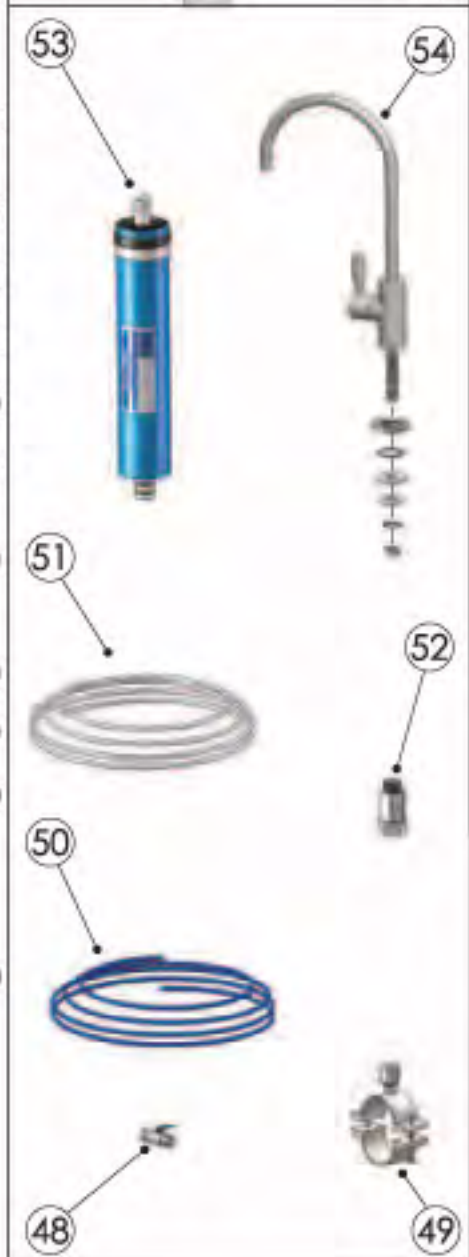
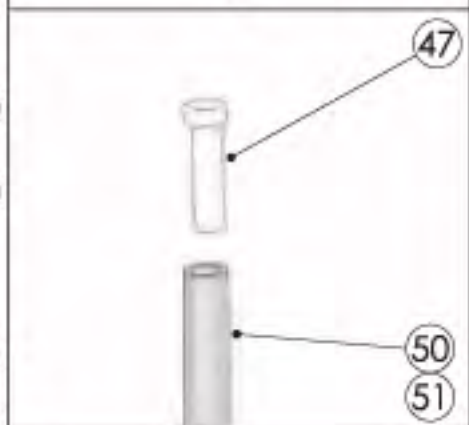
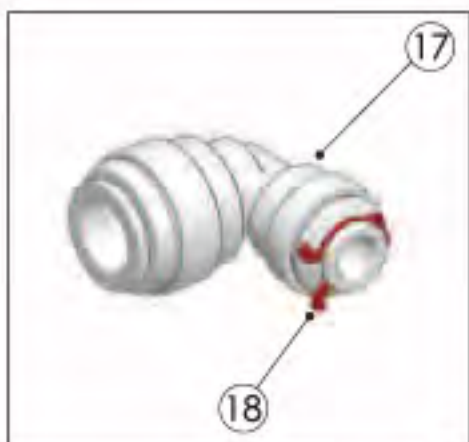
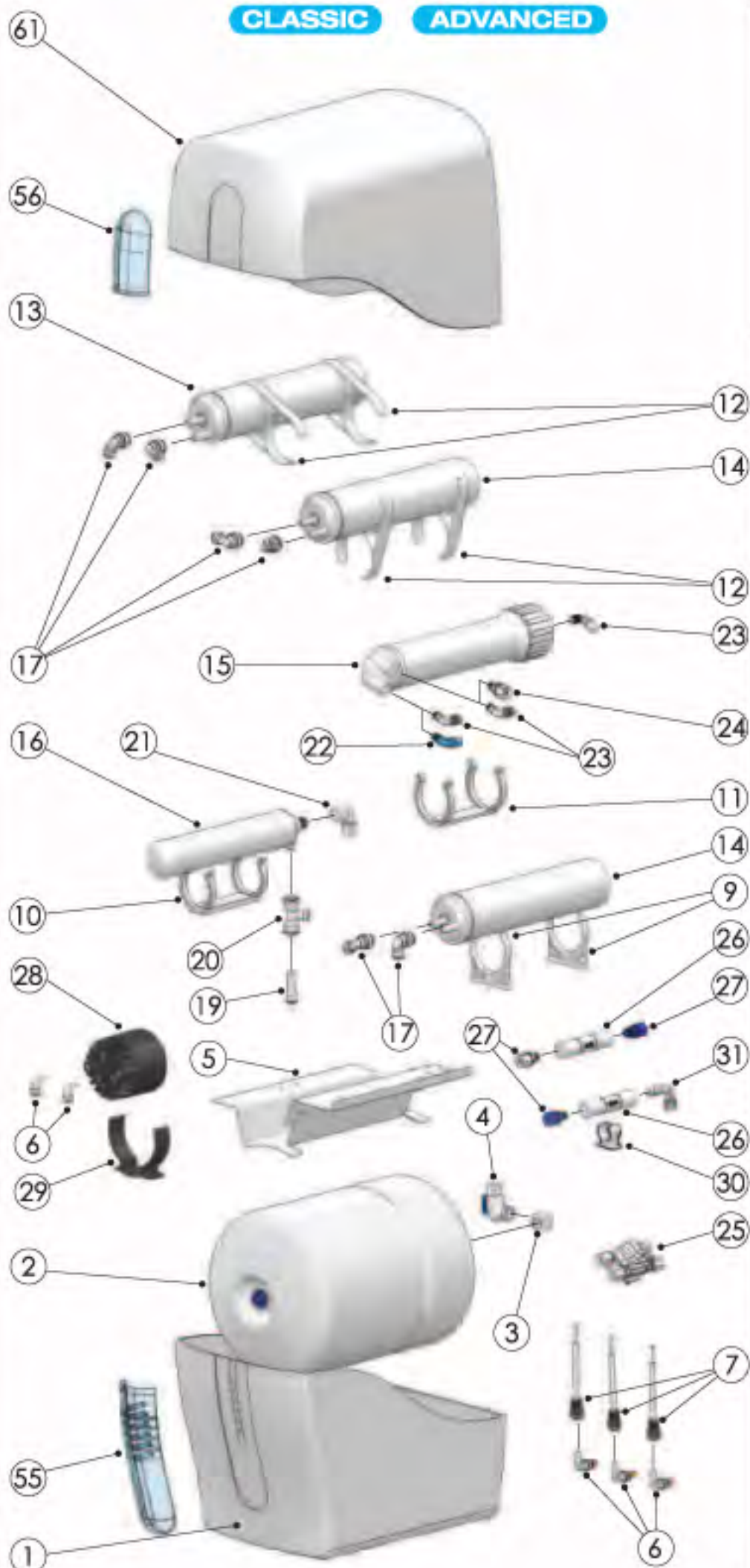
CONSERVE ESTE MANUAL QUE INCLUYE LOS APARTADOS DE LIBRO DE SERVICIO Y GARANTÍAS, CON EL OBJETIVO DE PROPORCIONARLE UN MEJOR SERVICIO POST VENTA.

CONSERVEZ SOIGNEUSEMENT CETTE NOTICE POUR POUVOIR LA CONSULTER A TOUT MOMENT. CARNET D'ENTRETIEN ET GARANTIE COMPRIS A FIN DE VOUS GARANTIR UN BON SERVICE APRES VENTE.

KEEP THIS INSTRUCTION BOOK WITH ITS SERVICE REGISTER AND GUARANTEE SHEETS, FOR GIVING A BETTER AFTER SALES SERVICE.

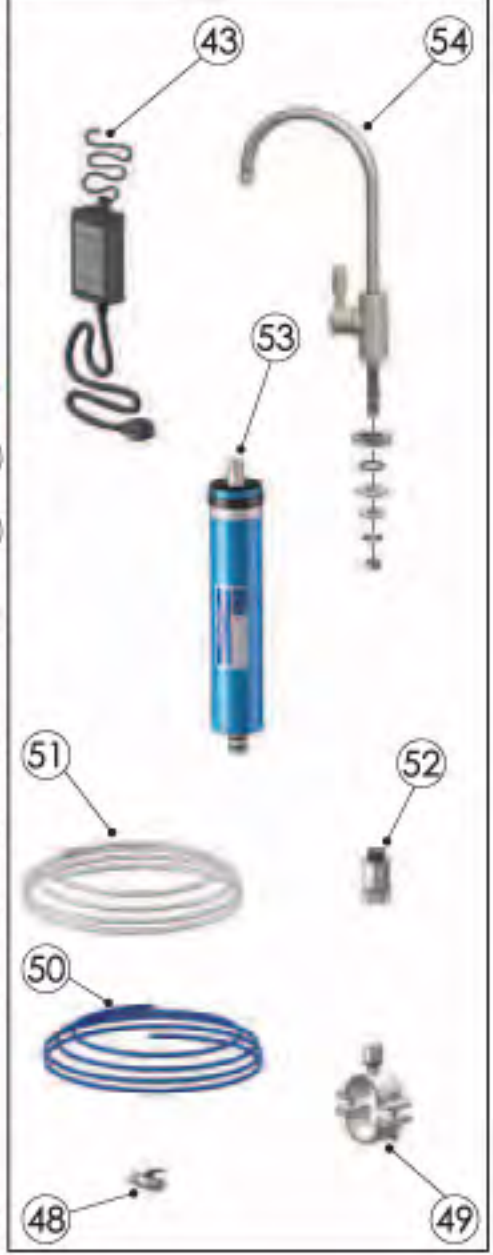
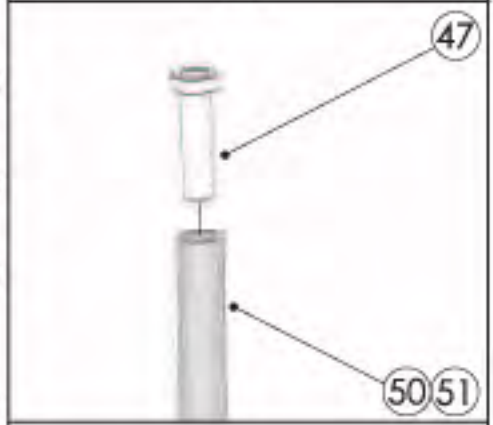
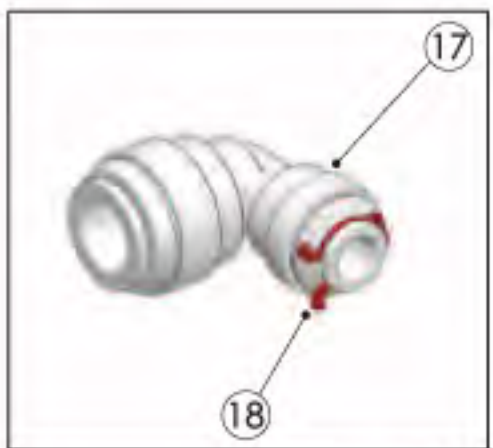
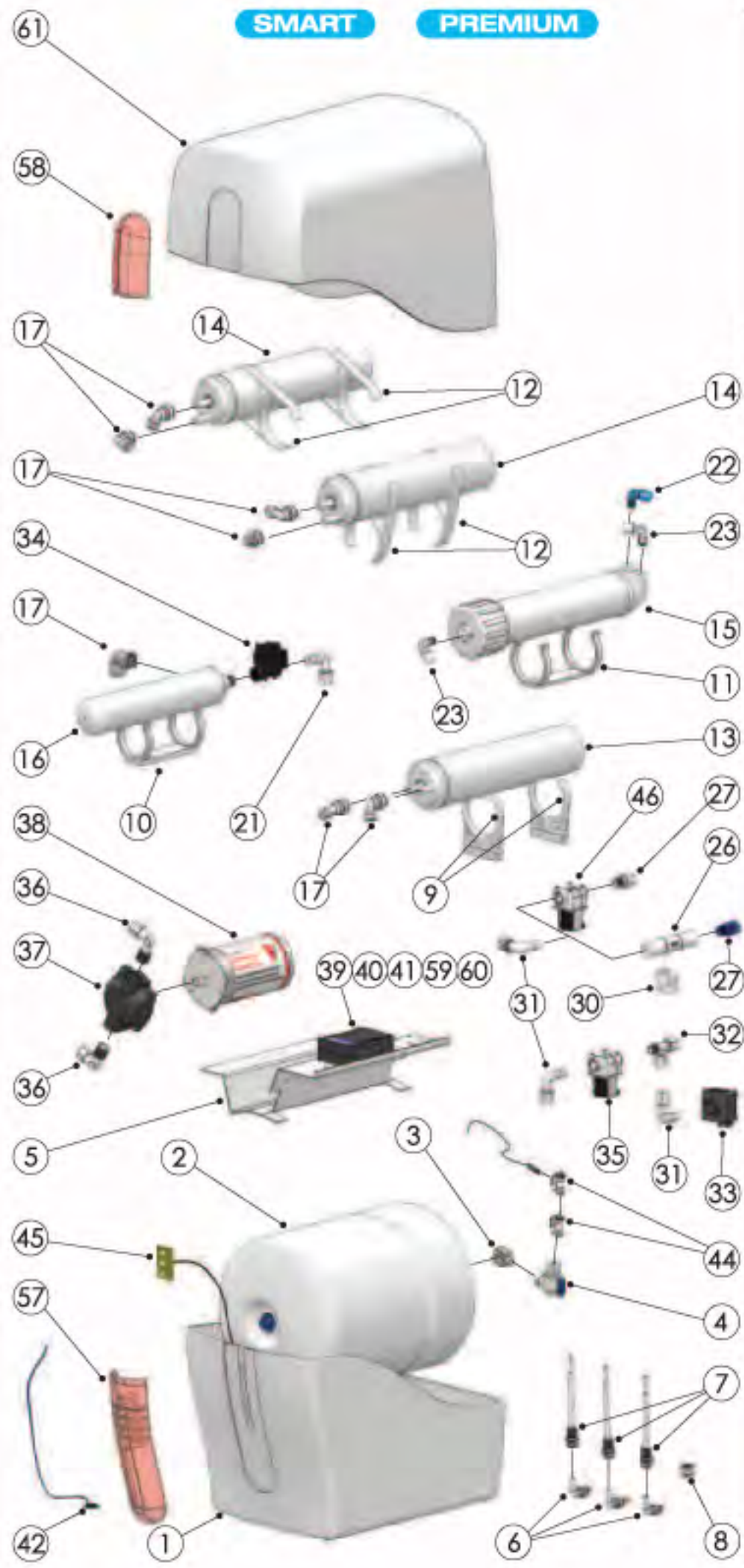
CLASSIC

ADVANCED



SMART

PREMIUM



NUMBER	CODE	DESCRIPTION	CLASSIC	ADVANCED	SMART	PREMIUM
1	5202000047	PALLAS compact housing lower cover	●	●	●	●
2	5202000048	8L pressure tank	●	●	●	●
3	5202000049	Elbowed adaptor for tank valve 1/4"	●	●	●	●
4	5202000003	Tank valve 1/4"	●	●	●	●
5	5202000050	Estructura metálica PALLAS compact	●	●	●	●
6	5202000037	QC stem elbow 1/4"	●	●	●	●
7	5202000051	QC bulkhead 1/4"	●	●	●	●
8	5202000052	Bulkhead for power supply	-	-	●	●
9	5202000013	Single mounting clip 2 1/2"	●	●	●	●
10	5202000053	Double mounting clip 2"	●	●	●	●
11	5202000054	Double mounting clip 2 1/2 "	●	●	●	●
12	5202000055	Double clip 2 1/2"	●	●	●	●
13	5202000056	PALLAS 5µm sediment filter	●	●	●	●
14	5202000057	PALLAS GAC filter	●	●	●	●
15	5202000016	2012 Membrane housing	●	●	●	●
16	5202000058	PALLAS post-carbon filter	●	●	●	●
17	5202000059	3/8-1/4" QC reducing elbow	●	●	●	●
18	5202000060	Locking clip 1/4"	●	●	●	●
19	5202000061	QC reducing stem 3/8" to 1/4"	●	●	-	-
20	5202000062	QC reducing tee 3/8"-1/4"-3/8"	●	●	-	-
21	5202000063	JACO female elbow thread 1/4" - tube 1/4"	●	●	-	-
22	5202000019	JACO elbow thread 1/8" - tube 1/4" with SS check-valve	●	-	●	●
23	5202000018	JACO elbow thread 1/8" - tube 1/4"	●	●	●	●
24	5202000020	JACO straight male connector thread 1/8" - tube 1/4"	-	●	-	-
25	5202000025	Shut-Off valve	●	-	-	-
26	5202000014	In-line flow restrictor 400 cc	●	●	●	-
27	5202000009	JACO straight male connector pipe 1/4" - tube 1/4"	●	●	●	●
28	5211004673	Permeate pump	-	●	-	-
29	5211004674	Clip for permeate pump	-	●	-	-
30	5202000064	Single mounting clip 1/2"	-	●	●	-
31	5202000007	JACO male elbow thread 1/4" - tube 1/4"	-	●	●	●
32	5202000021	JACO male run tee thread 1/4" - tube 1/4"	-	-	●	●
33	5202000029	Low pressure switch	-	-	●	●
34	5202000065	High pressure switch 20-40 PSI	-	-	●	●
35	5202000031	Inlet electrovalve 24V with filtering mesh	-	-	●	●
36	5202000026	JACO elbow thread 3/8" - tube 1/4"	-	-	●	●
37	5202000027	UP-7000 pump head	-	-	●	●
38	5202000028	UP-7000 motor	-	-	●	●
39	5202000066	Electronic board box	-	-	●	●
40	5202000067	Electronic board for Aquastop leaking sensor + wiring	-	-	●	-
41	5202000084	Premium electronic board + wiring	-	-	-	●
42	5202000068	Aquastop leaking sensor	-	-	●	●
43	5202000070	Transformer 220-24V / 2A connection type D	-	-	●	●
44	5202000071	QC equal tee 1/4"	-	-	●	●
45	5202000072	LED board	-	-	-	●
46	5202000073	Flushing electrovalve 24V	-	-	-	●
47	5202000074	Insert 1/4"	●	●	●	●
48	5202000043	Ball valve 1/4"	●	●	●	●
49	5202000045	Drain clamp 1/4"	●	●	●	●
50	5202000075	Blue 1/4" polyethylene tube	●	●	●	●
51	5202000042	White 1/4" polyethylene tube	●	●	●	●
52	5202000076	Free nut 3/8" - 3/8" wall adaptor, drill 1/4"	●	●	●	●
53	5202000041	Membrane 50 GPD	●	●	●	●
54	5202000046	Pallas faucet	●	●	●	●
55	5202000077	Blue frontal lower cover	●	●	-	-
56	5202000078	Blue frontal upper cover	●	●	-	-
57	5202000079	Red frontal lower cover	-	-	●	●
58	5202000080	Red frontal upper cover	-	-	●	●
59	5202000081	Leaking sensor electronic board	-	-	●	-
60	5202000082	Premium electronic board	-	-	-	●
61	5202000083	PALLAS compact housing upper cover	●	●	●	●
-	5202000086	PALLAS Instruction manual	●	●	●	●

<b>1. PRESENTATION</b>	<b>75</b>
<b>2. INTRODUCTION</b>	<b>75</b>
2.1 What is natural osmosis and reverse osmosis?	75
2.2 How does the membrane of your system work?	76
2.3 Concentration of salts and other substances reduced by the reverse osmosis membrane	76
2.4 The effect of pressure and temperature in a reverse osmosis system	76
2.5 The effect of the concentration of salts in feed water	77
<b>3. TECHNICAL DATA</b>	<b>78</b>
<b>4. UNPACKING AND VERIFICATION OF THE CONTENTS</b>	<b>79</b>
<b>5. PREVIOUS WARNINGS</b>	<b>79</b>
5.1 Conditions for the proper operation of the system	79
5.2 Installation of the system	80
5.3 Start-up and maintenance	80
5.4 Use of the system	80
5.5 Recommendations for the proper use of reverse osmosis water	81
<b>6. INSTALLATION OF THE SYSTEM</b>	<b>81</b>
<b>7. START-UP</b>	<b>85</b>
<b>8. OPERATION OF THE PALLAS SERIES SYSTEMS</b>	<b>88</b>
8.1 Description of operation	88
8.2 User interface	89
<b>9. MAINTENANCE / CONSUMABLES</b>	<b>92</b>
9.1 How to change filters	92
9.2 Hygienization	97
<b>10. GUIDE FOR THE IDENTIFICATION AND SOLUTION OF PROBLEMS</b>	<b>101</b>
<b>11. MAINTENANCE SERVICE BOOK</b>	<b>104</b>
	<i>(for the user)</i>
	<i>(for the technician)</i>
<b>12. EC DECLARATION AND GUARANTEE</b>	<b>106</b>
<b>14. INSTALLATION AND START-UP SHEET OF THE SYSTEM</b>	<b>107</b>
	<i>(for the technician)</i>

## 1. PRESENTATION

Welcome to your reverse osmosis system of the PALLAS series. Thank you and congratulations. You have made a great choice in choosing the reverse osmosis of the PALLAS series.

The PALLAS series systems are some of the best domestic appliances for the improvement of the characteristics of water that you can find on the market.

The quality of the water in our environment is getting worse every day. The reality of this is what has driven us to design and manufacture this domestic osmosis system in order to provide you with a water of the highest quality.

Your PALLAS series system provides you with different benefits and advantages:

- It is a physical system that does not use or add chemical products to the water.
- Provides high quality water.
- Ensures high production.
- Has low maintenance costs.
- Convenient and easy installation.
- Compact system with an appealing design.

**!** It is very important that you read and keep this manual before installation and start-up of the system.

If you have any questions regarding the use or maintenance of this system, please contact the Technical Assistance Service (TAS) of your distributor. .

## 2. INTRODUCTION

The PALLAS series reverse osmosis systems provide you with a better quality of life.

You will perceive an improvement in the taste of your drinking water, and likewise in the taste of your coffees, juices or icecubes. Cooking with purified water will heighten the taste of food. Your family will have healthier water.

The water provided has a LOW MINERAL CONTENT. Osmosis water helps prolong the life of your domestic appliances and is ideal for steam irons, coffee makers and humidifiers.

### 2.1 What is natural osmosis and reverse osmosis?

Natural or direct osmosis is the most common in nature, since most of the organisms contain semi-permeable membranes (for instance, plant roots, organs in our body, cellular membranes, etc.)

When two solutions with different concentrations of salts are separated by a semi-permeable membrane, there is, naturally, a flow of water from the solution that has a lower concentration of salts to that of higher concentration. This flow continues until concentrations on both sides of the membrane are equal.

If this process was to be reversed in order to obtain a flow of water with a lower concentration of salts from a higher concentration one, it would be necessary to apply sufficient pressure against the membrane with the water with a higher concentration, in order to stop this tendency and natural flow of the system. This process is called reverse osmosis. At present, reverse osmosis is the best method to produce pure water via a physical system (without using chemical products).

As has been explained, its working principle is based on that of our own organism, where water is distributed by natural osmosis.

The human body is mainly composed of water:

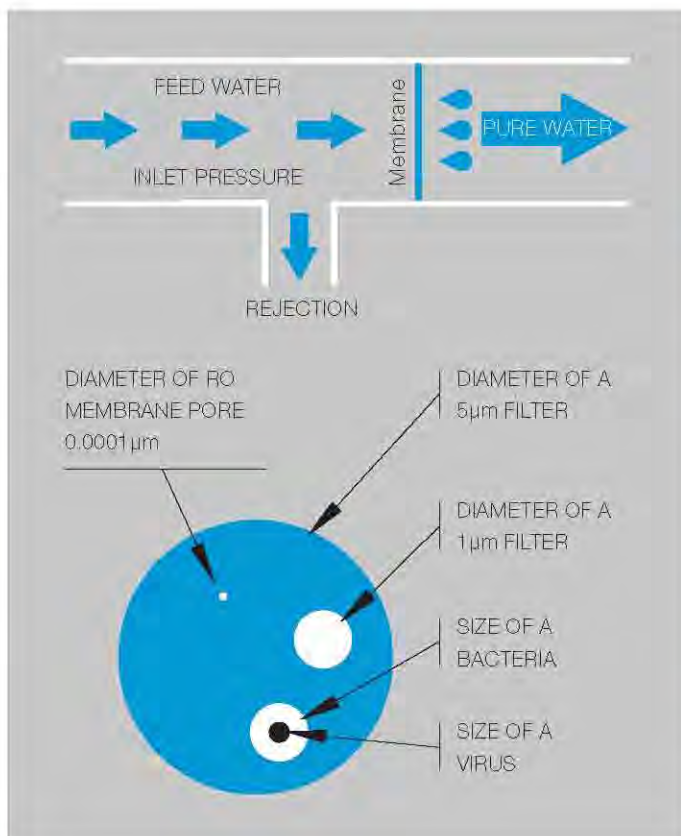
Woman > 55 - 65%	
Man > 65 - 75%	
Child > 80%	

An adult body contains between 38 and 48 litres of water, 40% of which is found in the cells. This water in the body, which is almost completely recycled every 15 days, is the basis for the transportation of nutrients, oxygen to cells, the removal of waste and the control of the body temperature. We consume an average of 2.2 litres of water per day including the water found in food.

## 2.2 How does the membrane of your system work?

The water that is going to be purified exerts pressure on the semi-permeable membrane, to the extent that part of it is able to pass through the pores of the membrane (osmosis water), while the remainder of the water (rejected water or that with high concentrations of salt) are diverted to the drainpipe.

Since the diameter of the membrane pores are less than 0.0001 microns, only the water molecules and a certain amount of minerals (sodium, potassium, magnesium, etc.) are able to get through, removing the excess minerals that our body does not need, as well as the bacteria, heavy metals, pesticides, chemical products, etc.



## 2.3 Concentration of salts and other substances reduced by the reverse osmosis membrane

The chemical composition and concentration of salts and other substances of the water on entering the reverse osmosis system has an effect on the purified water.

The TFC reverse osmosis membrane of your PALLAS series system can reduce the concentration of the elements and compounds, among others, outlined in the following tables.

### Inorganic

ELEMENT / COMPOUND	REDUCTION
SODIUM	90-95%
CALCIUM	93-98%
MAGNESIUM	93-98%
ALUMINIUM	93-98%
COPPER	93-98%
NICKEL	93-98%
ZINC	93-98%
BARIIUM	93-98%
CARBONATES	93-98%
CHLORINE	90-95%
BICARBONATES	90-95%
NITRATES	45-55%
PHOSPHATES	93-98%
FLUORIDE	93-98%
CYANIDE	90-95%
SULPHATES	90-95%
BORON	40-45%
ARSENIC	93-98%

### Organic

ELEMENT / COMPOUND	REDUCTION
HUMIC ACIDS	98%
GLUCOSE	98-99%
ACETONE	70%
ISOPROPANOL	90%
ETHYLBENZENE	71%
ETHYLPHENOL	84%
TETRACHLORETHYLENE	68-80%
UREA	70%
1,2,4 TRICHLOROBENZENE	96%
1,1,1,TRICHLOROETHANE	98%

## 2.4 The effect of pressure and temperature in a reverse osmosis system

The membrane usually rejects more than 95% of salts, however the percentage may vary depending on the quality of the water and the temperature and pressure.



## Conversion factors

BY PRESSURE		
CONVERSION FACTOR		
PRESURE (Bar)	ON PRODUCTION	REJECTION OF SALTS (%)
0,70	0,17	84
1,00	0,25	88
1,50	0,33	90
1,75	0,42	92
2,50	0,58	93
4,00	1,00	95
4,50	1,08	95
4,90	1,17	95
5,20	1,25	95
5,80	1,42	95

BY TEMPERATURA	
CONVERSION FACTOR	
TEMPERATURE (°C)	ON PRODUCTION
6	0,38
8	0,45
10	0,52
12	0,59
14	0,66
16	0,70
18	0,77
20	0,85
22	0,88
25	1,00
28	1,09
30	1,16
32	1,23
34	1,30

The life of the membrane is evaluated by the percentage of salts rejected:



Below 70% the life of the membrane is finished.

Using a conductivity meter or a TDS meter compare the conductivity of the feed water with that which comes out of the membrane and obtains the percentage of rejection of salts.

$$\text{Rejection of salts \%} = \left( 1 - \frac{\text{Conductivity of R.O. water}}{\text{Conductivity of feed water}} \right) \times 100$$

## 2.5 The effect of the concentration of salts in feed water

The concentration of salts and substances in the water to be treated influences the capacity of production of osmosis water by the system. The greater the concentration of salts in the water to be treated is, the greater the pressure that is necessary against the membrane, in order to exceed the natural osmotic pressure and to guarantee a minimum flow of osmosis water.

### Table of pressures in relation to the TDS

MAXIMUM INPUT TDS*	MINIMUM PRESSURE OF FEED TO MEMBRANE**
Up to 200 ppm	3,5 bar
Between 200 and 500 ppm	3,8 bar
Between 500 and 800 ppm	4,0 bar
Between 800 and 1200 ppm	4,3 bar
Between 1200 and 1500 ppm	4,5 bar
Between 1500 and 1800 ppm	4,75 bar
Between 1800 and 2000 ppm	5,2 bar

\* The test is carried out with a 50 GPD membrane at 14 °C, without back pressure, a hardness of 15 °F and corrected salinity with NaCl.  
\*\* The pressure shown is calculated for a production of 6 l/h.

## 3. TECHNICAL DATA

## FEATURES OF THE PALLAS ADVANCED MODEL

**DIMENSIONS** (height x width x depth): 435 x 255 x 420 mm.

**WEIGHT:** 13 Kg.

**INPUT TEMPERATURE** (maximum / minimum): 40°C / 2°C.

**INPUT TDS** (maximum): 2000 ppm\*\*.

**INPUT PRESSURE** (maximum / minimum): 6 / 2.5 bar (600-250 kPa).

**MEMBRANE:** Type 1 x 1812 50 GPD.

**MEMBRANE PRODUCTION:** 175 LPD\*.

Soft water with 250 ppm. T: 25°C. 15% conversion.

Pressure on membrane: 3,4 bar (without back pressure).

**PUMP:** Permeate.

**MAX. ACCUMULATION:** (tank pre-charged at 7 PSI): 7 litres\*\*\*.

**POWER SUPPLY:** -

**ELECTRIC ADAPTOR:** -

## FEATURES OF THE PALLAS PREMIUM MODEL

**DIMENSIONS** (height x width x depth): 435 x 255 x 420 mm.

**WEIGHT:** 15 Kg.

**INLET TEMPERATURE** (maximum / minimum): 40°C / 2°C.

**INPUT TDS** (maximum): 2000 ppm\*\*.

**INPUT PRESSURE** (maximum / minimum): 2.5 / 1 bar (250-100 kPa).

**MEMBRANE:** Type 1 x 1812 50 GPD.

**MEMBRANE PRODUCTION:** 175 LPD\*.

Soft water with 250 ppm. T: 25°C. 15% conversion.

Pressure on membrane: 3,4 bar (without back pressure).

**PUMP:** Booster.

**MAX. ACCUMULATION:** (tank pre-charged at 7 PSI): 7 litres.

**POWER SUPPLY:** 24Vdc, 48W.

**ELECTRIC ADAPTOR:** 100-240V, 50/60Hz, 24Vdc, 2A.

## FEATURES OF THE PALLAS CLASSIC MODEL

**DIMENSIONS** (height x width x depth): 435 x 255 x 420 mm.

**WEIGHT:** 13 Kg.

**INPUT TEMPERATURE** (maximum / minimum): 40°C / 2°C.

**INPUT TDS** (maximum): 2000 ppm\*\*.

**INPUT PRESSURE** (maximum / minimum): 6 / 2.5 bar (600-250 kPa).

**MEMBRANE:** Type 1 x 1812 50 GPD.

**MEMBRANE PRODUCTION:** 175 LPD\*.

Soft water with 250 ppm. T: 25°C. 15% conversion.

Pressure on membrane: 3,4 bar (without back pressure).

**PUMP:** -.

**MAX. ACCUMULATION:** (tank pre-charged at 7 PSI): 7 litres\*\*\*.

**POWER SUPPLY:** -

**ELECTRIC ADAPTOR:** -

## FEATURES OF THE PALLAS SMART MODEL

**DIMENSIONS** (height x width x depth): 435 x 255 x 420 mm.

**WEIGHT:** 15 Kg.

**INLET TEMPERATURE** (maximum / minimum): 40°C / 2°C.

**INPUT TDS** (maximum): 2000 ppm\*\*.

**INPUT PRESSURE** (maximum / minimum): 2.5 / 1 bar (250-100 kPa).

**MEMBRANE:** Type 1 x 1812 50 GPD.

**MEMBRANE PRODUCTION:** 175 LPD\*.

Soft water with 250 ppm. T: 25°C. 15% conversion.

Pressure on membrane: 3,4 bar (without back pressure).

**PUMP:** Booster.

**MAX. ACCUMULATION:** (tank pre-charged at 7 PSI): 7 litres.

**POWER SUPPLY:** 24Vdc, 24W.

**ELECTRIC ADAPTOR:** 100-240V, 50/60Hz, 24Vdc, 2A.

MADE BY PWG IN TAIWAN

\*Flows may vary a +/- 20%.

\*\*For a salinity up to 2000 ppm, check the table of pressures in relation to the TDS in section 2 of this manual. For a salinity higher than 2000 ppm, check previously with your distributor. See *Section 5 Warnings*.

\*\*\*Accumulation depends on the input pressure

## 4. UNPACKING AND VERIFICATION OF THE CONTENTS

It is important that prior to installing and starting the system you check the box and condition of the system, with the aim of guaranteeing that it has not been damaged during transport.

**Any claims for damages during transport must be presented together with the delivery note or invoice to the distributor, including the name of the carrier, within a period of 24 hours following the reception of goods.**

Remove the system and accessories from their carton packaging, taking away the protective packaging.

**!** Throw the plastic bags away or keep them away from children as they may cause them harm.

You will find the following components inside:

COMPONENT	*	QUANTITY
Domestic osmosis system of the PALLAS series	–	1
Faucet + Assembly kit	(54)	1
Kit for drain connection	(49)	1
Wall adaptor for inlet valve	(52)	1
Blue manual 1/4" inlet valve	(48)	1
Power supply and connection wire**	(43)	1
Instructions manual.	–	1
Blue 1/4" tube for drain connection	(50)	150 cm
White 1/4" tube for inlet and faucet connections	(51)	300 cm
Reverse osmosis membrane 50GPD	(53)	1

\*No. of part on flap. \*\*Depending on the model.

The packaging materials can be recycled and must be thrown away in the appropriate selective recycling bins or the specific centre for the Collection of waste material. The machine that you have acquired has been designed and manufactured with high quality materials and components that can be recycled and reused. This product must not be thrown away into the usual urban rubbish bins. When you want to throw the machine away, it must be taken to a specific local centre for the collection of materials, stating that it has electric and electronic components, **PREMIUM** and **SMART**. In order to obtain more information about how to dispose of your electrical and electronic machine once they have fulfilled their use, contact the management of urban waste service or the establishment from which you acquired the system. The proper collection and treatment of the machines that can no longer be used, contributes to the preservation of natural resources and also to avoiding potential public health risks.

## 5. PREVIOUS WARNINGS

**!** The domestic systems of the PALLAS series, ARE NOT POTABLE WATER SYSTEMS. If the water to be treated comes from a public water supply (and as such complies with the legislation in force), the domestic systems of the PALLAS series, significantly improve the quality of water.

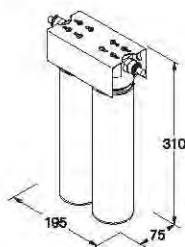
**!** Should the water to be treated not come from a public water supply, that is, from an unknown source, a physical-chemical and bacterial analysis of the water shall be necessary, with the aim of ensuring its proper purification applying the proper techniques and systems appropriate to each case, PRIOR TO THE INSTALLATION of the system. Contact your distributor in order to obtain advice about the most appropriate treatment for you.

### 5.1 Conditions for the proper operation of the system

- Do not use hot water in the system ( $T > 40^{\circ}\text{C}$ ).
  - The room temperature must be between  $4^{\circ}\text{C}$  and  $45^{\circ}\text{C}$ .
  - The **PREMIUM** and **SMART** series systems incorporate a pump. Should the inlet pressure be higher than 3 bars, a **pressure regulator** should be installed prior to water entering the system, set at a maximum pressure of 2.5 bars. (Ref. 5202000090).
  - The **ADVANCED** and **CLASSIC** series systems do not incorporate a pump. These systems must be installed when inlet pressure is higher than 3 bar.
  - For water with a **salinity higher than 2000 ppm** contact your distributor.
  - It is recommended that you decalcify the water to be treated or that it has maximum hardness of  $15^{\circ}\text{F}$  in order to obtain the optimum performance of the system.
  - Should the water to be treated have a **level of hardness higher than  $15^{\circ}\text{F}$** , the life of the membrane may be reduced and also the performance of the system.
  - **Should the water to be treated contain:**
    - high concentrations of **iron** and **manganese** (higher than 1ppm on average in the rejection of the system),
    - prolonged high chlorisations,
    - sludge or turbidity higher than 3 NTUs,
    - a concentration of **nitrates** higher than 100 ppm,
    - a concentration of **sulphates** higher than 250 ppm,
- contact your distributor so that they can recommend the most appropriate pre-treatment for you, and as such ensure the proper working of the system, so as to avoid damage to components and guarantee the quality of the water supplied.

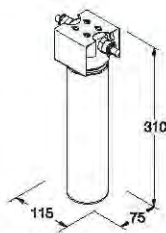
# ft line

The systems of the FT-line series will help you find the most appropriate pre-treatment. For further information, please contact your distributor.



## FT Line PRE

Ref: 5202000091. For the pre-treatment of domestic osmosis.



**FT Line 82.** Ref: 5202000092. 5µm filtration.

**FT Line 83.** Ref: 5202000093. Activated carbon GAC.

**FT Line 85.** Ref: 5202000095. Cationic resins for decalcification.

**FT Line 87.** Ref: 5202000094. Regulation of pH and remineralisation of acid water.

**FT Line 88.** Ref: 5202000096. Granulated active carbon with silver.

**FT Line 89.** Ref: 5202000097. Mixed bed resins for demineralisation.

**FT Line 90.** Ref: 5202000098. Granulated active carbon GAC with silver and silicopolyphosphates.

## 5.2 Installation of the system

- Should it be necessary to condition the installation of the home in order to install the system in the foreseen location, it must be carried out in accordance with the national regulations in force, concerning internal installations of water and electrical supplies.
- The **PREMIUM** and **SMART** systems require a power supply within 1 metre of distance.
- The **PREMIUM** and **SMART** systems must not be installed horizontally or inclined, since the leaking sensor would not work properly.

- The location foreseen for its installation must have enough space for the system itself, its accessories, connections, and to carry out maintenance comfortably.
- Under no circumstances must the system be installed on the outside.
- The system should not be installed next to a heat source or where it receives a direct flow of hot air (dryer, refrigerator, etc.)
- The surroundings and the environment where the system and faucet are to be installed must meet the appropriate hygienic and sanitary conditions.
- Avoid external drips from pipes, drains, etc. onto the system.

## 5.3 Start-up and maintenance

- The **PALLAS** series systems need to undergo periodic maintenance, which must be carried out by qualified technical personnel, with the aim of guaranteeing the quality of the water produced and supplied.
- The consumable elements must be replaced with the frequency indicated by the manufacturer (see section 9. *Maintenance*).
- The system must be hygienised periodically and prior to its start-up.
- Following the start-up, the first two tank fillings must be thrown away.
- Maintenance must be carried out by qualified technical personnel, under the proper hygienic conditions, in order to reduce the risk of internal contamination of the device and its hydraulic system. (For further information contact the technical service of your distributor.)

## 5.4 Use of the system

- Should you be away from home for more than a week, close the water inlet, empty the system and unplug from the power supply. On your return connect the power supply, open the inlet valve and empty the tank twice before consuming the water.
- Following a prolonged period (more than a month) during which the system has not been in operation or produced water, contact your distributor in order to carry out the proper hygienisation and maintenance.
- In order to improve the performance of the system, extract full jugs and bottles and avoid the occasional extraction of glasses of water.

## 5. Previous warnings

**!** Special attention must be paid to the regular cleaning and hygiene of the osmosis faucet, and specially during the periodic maintenance. With this purpose use the Oxibac spray (Ref. 5202000099) and disposable kitchen paper towel. Under no circumstances must you use a hand towel or a multiuse cloth for cleaning the kitchen.

### 5.5 Recommendations for the proper use of reverse osmosis water

• *If you wish to feed any other consumption point with osmosis water (such as a fridge with an ice-cube dispenser, another faucet, etc.), the piping should not be done with a metal tube, as this would give water a bad taste. Always use a plastic tube (Ref. 5202000042).*

- The water supplied by domestic osmosis systems has a LOW MINERAL CONTENT. The mineral salts required by the human body are provided by food, especially by dairy products and to a lesser degree, by the water we drink.
- It is recommended not to use aluminium utensils for cooking with reverse osmosis water.

## 6. INSTALLATION OF THE SYSTEM

The installation of your PALLAS osmosis system must be carried out by qualified technical personnel from an authorised technical service. Follow the recommendations in Section 5 *Previous warnings* of this manual.

## 6. Installation of the system

*Given that the system that you are going to install improves the quality of the water you consume and is considered a food, all of the tools that you are going to use for the assembly and installation must be clean and, under no circumstances, contaminated or impregnated with grease, oils or rust.*

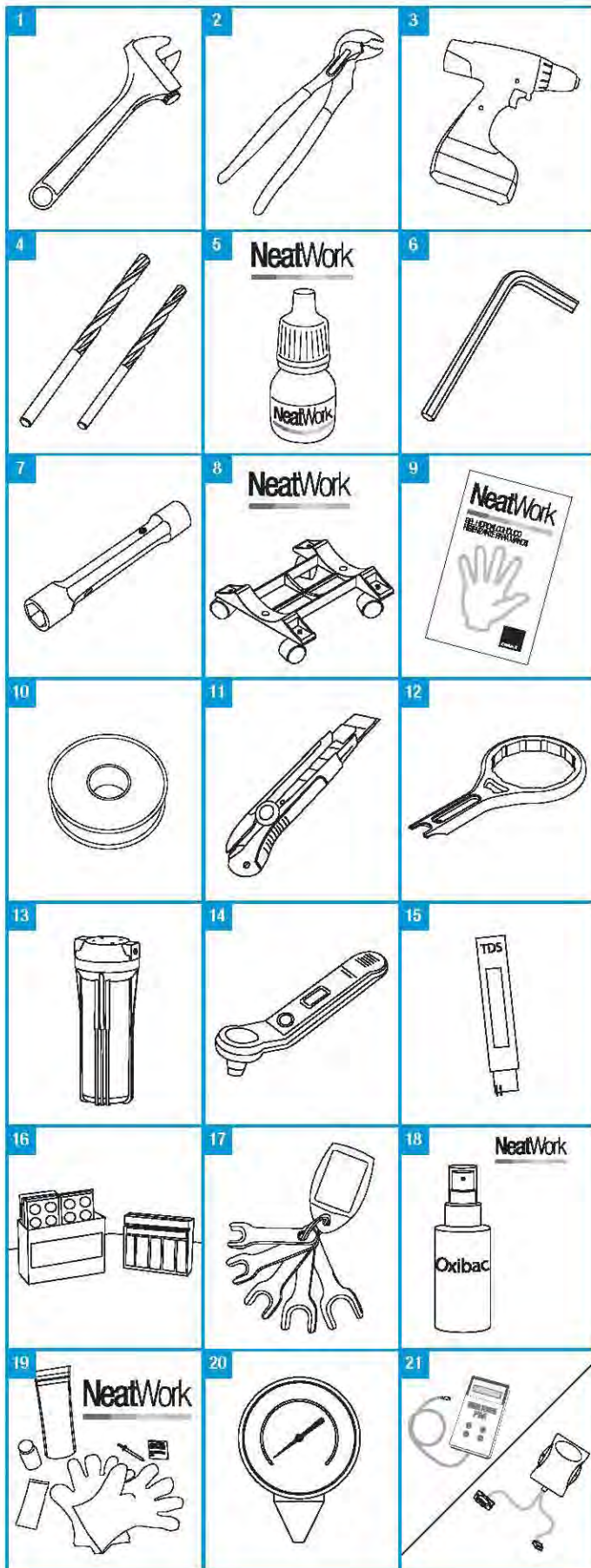
*Use special tools designed to cut tubes, manipulate the membrane, etc. Keep them disinfected. The work must be carried out under adequate hygienic conditions, taking the necessary precautions with everything related to the materials that are going to be in contact with the water to be treated or consumed. (For further information contact your distributor.)*

*Use the hygienising hand gel (Ref. 5202000100) as frequently as necessary before and during the installation, start-up and maintenance of the system.*

The most usual place for the installation of the system is under the sink in the kitchen or in a cupboard next to it.

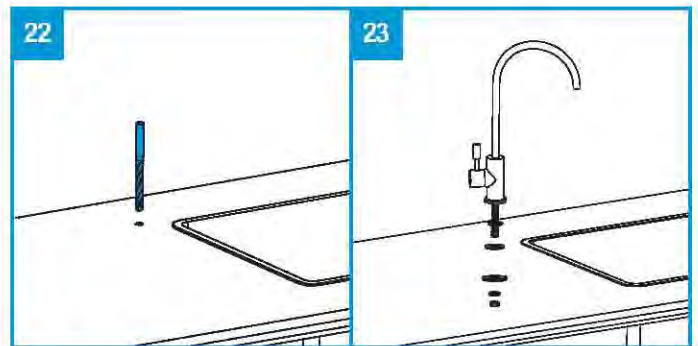
### TOOLS FOR INSTALLATION, MAINTENANCE AND START-UP:

TOOL	REFERENCE	IMAGE
Adjustable wrench	–	1
Vice grip pliers	–	2
Drill	–	3
12 and 6 mm drill bits	–	4
Food-grade glycerin	5202000101	5
No. 2 allen wrench	–	6
No. 14/15 mm double socket wrench	–	7
Wheel support for compact system	5202000108	8
Hygienising hand gel	5202000100	9
Teflon tape	–	10
Cutter	–	11
Membrane housing wrench	5202000103	12
Filter housing + 2 x 1/4" fittings	5202000001 + 5202000104	13
Air pressure display for tank check	5202000105	14
Portable conductivity meter	5202000106	15
Chlorine analyser	–	16
Disassembly wrench for quick-fittings	5202000109	17
Oxibac spray	5202000099	18
Hygienisation kit	5202000107	19
<i>CONTENTS: Test tube, gloves, 2.5ml syringe, paper towels, bottle for mixing and OSMOBAC disinfectant.</i>		
Pressure gauge	5202000102	20
RS-232 interface PC connection	5202000110	21
Portable model connection	5202000111	–
<i>For further information contact your distributor.</i>		



## 6. Installation of the system

1. Once it has been decided where to put the faucet on the counter-top or sink (usually in the corner), a hole is drilled in it with the 12mm bit, to pass the threaded connecting pipe through. **Image 22.** Use the metal escutcheon to choose the location of the drill. If the metal escutcheon of the faucet creates any difficulty when being assembled, due to the geometrics of the counter-top or sink, use the rubber joint supplied instead of the metal escutcheon, in order to assemble the faucet.



**!** Choose the bit and the type of drill that is appropriate for the specific material.

2. Prior to this, insert the metal escutcheon and a thick flat rubber joint in the threaded connecting pipe (these must be on the upper part of the counter-top). Then pass the threaded connecting pipe through the hole. Once this is done connect on the bottom end of the connecting pipe; The rigid plastic washer, the grower washer and the hexagonal nut. They should be tightened together with the No. 14/15mm double socket wrench, until the faucet is completely static and properly positioned. The faucet will be positioned as required before the final tightening (it is recommended that the faucet handle is positioned towards the exterior of the counter-top).

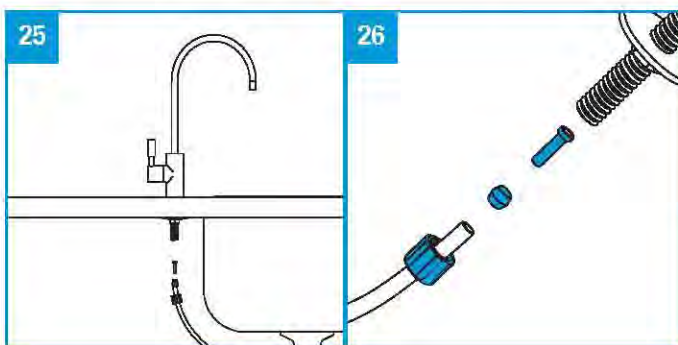
**Image 23.** If the counter-top is thicker than that of the threaded connection pipe of the faucet, the tap adaptor can be used (Ref.5202000089). **Image 24.**

3. Then connect the faucet with the connector marked as "faucet-grifo" using the 1/4" white tube, **part no. 51 on flap.** Prior to this, cut the tube to the required length.

**!** In order to carry out all the connections, use a longer tube, so as to facilitate the movement and maintenance of the system once it has been installed, preventing unnecessary disconnections or difficult access.

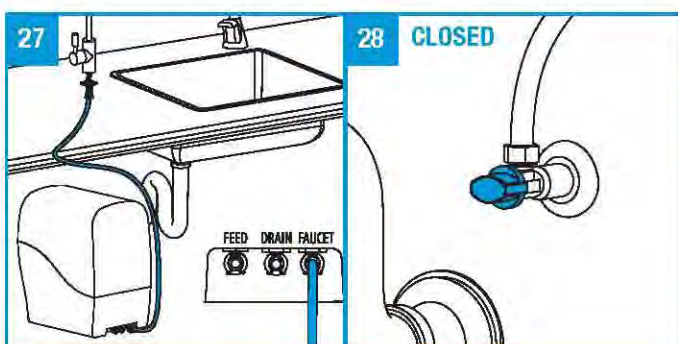


Carry out the connection of the faucet by inserting the metallic nut, compressing ring and insert through the end of the 1/4" tube. **Images 25 and 26.** Introduce the end of the tube inside the threaded connecting pipe and screw the nut using the adjustable wrench or until you are sure it has been connected properly. The connection to the system must be carried out in the connector marked as "faucet-grifo". **Image 27.**



**4.** After this the hydraulic connection of the system to the network shall be made. As the network is under pressure, the stopcock located in the cold water outlet must be closed. **Image 28.**

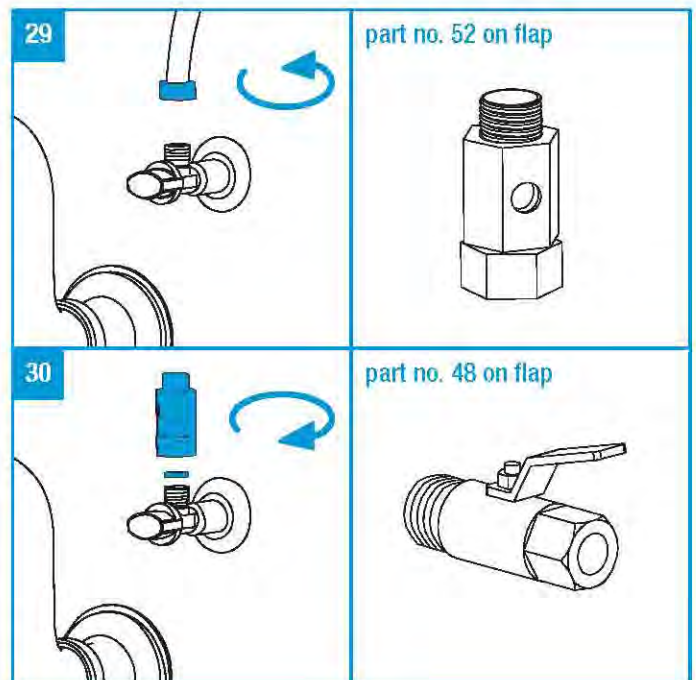
Depending on how old the installation is, there may be no right angle valve, so it will be necessary to turn off the general stopcock of the house. Immediately afterwards, depressurize the installation by turning on the faucet of the sink and wait until water stops coming out of it.



**!** Make sure that the connection to the system is going to be carried out in the cold water pipe connection. If the connection is made in the hot water pipe, it may damage important components of the system. (Generally the cold water pipe connection is found to the right.)

Unscrew the connection of the hose or flexible pipe, **image 29.** Have a receptacle or cloth ready to collect or wipe up the water that may come out of the flexible pipe when unscrewed. Insert the 3/8" wall adaptor, **part no. 52 on flap,** between the connector on the wall and the valve or flexible pipe.

The 3/8" flat joint that is inserted makes it unnecessary to use a sealant (Teflon wire, liquid Teflon, hemp twine, etc.), **image 30.** Assemble the 1/4" manual inlet valve, **part no. 48 on flap,** in the lateral hole of the wall adaptor, **image 31.**

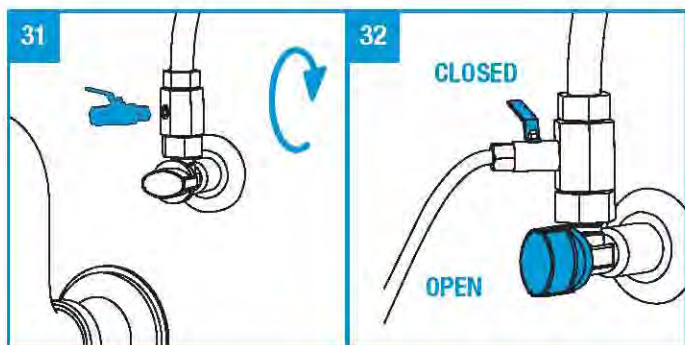


A sealant should be added to this valve to ensure that it has been assembled properly and that it is tight. The use of Teflon is recommended, as it is a clean, quick sealant and safe on brass threads. The two connectors (3/8" and 1/4") must be screwed in with an adjustable wrench until you are sure that it is properly assembled and tight.

Afterwards, connect the flexible pipe (usually female) to the male connector of the 3/8" adaptor.

**!** Should it be necessary to install a special component, it should not be iron or contain iron, as on rusting these can reduce the performance of the system.

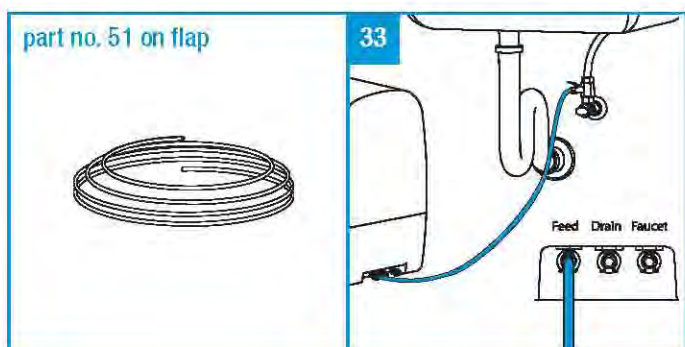
To ensure the proper installation and tightness of the connections, open the right angle valve (or where applicable the ge-



neral stopcock), first making sure that the 1/4" inlet valve has been closed, **image 32**. Once the stopcock is open, turn on the faucet on the counter-top to bleed any air that may be inside (beware of any spurts or splashes of water).

Check the 1/4" valve, as depending on how old it is and the material used in the assembly of the house installation, it may become blocked, due to fouling in the installation, whose particles may come loose once there is water coming through or pressure.

Next, connect the 1/4" white tube, **part no. 51 on flap**, between the 1/4" inlet valve and the connection of the system marked as "feed water/entrada", **image 33**. Make sure that the tube is inserted properly and that the corresponding nuts have been tightened. Ensure that the 1/4" inlet valve remains closed until the end of the installation of the system.

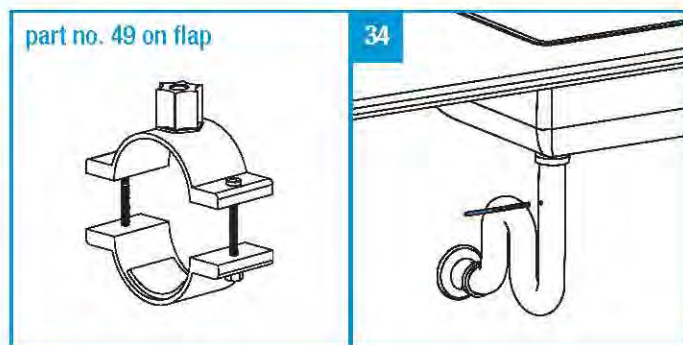


**5.** Afterwards, the drain clamp must be assembled, **part no. 49 on flap**. Bear in mind that this clamp is designed to be assembled on a 40mm diameter drain pipe. Should this not be the diameter of the drain pipe, contact your components supplier to make the correct connection.

Using the drill, and this time with a 6mm bit, make a hole between the mouth of the drain pipe of the sink and the u-bend. (It is recommended to do so on the upper part of the tube, so that any rubbish thrown away from the sink does not block the hole or water flow outlet.) Envisage the necessary space for the assembly of the clamp, **image 34**.

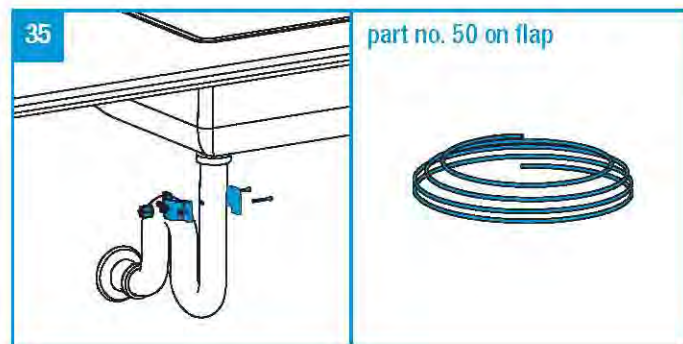
Next, the drain clamp shall be assembled, but making sure that

the hole you have made is completely aligned over the front part of the 1/4" connector (part where the square pad goes). This is done by putting the bit, used for making the 6mm hole, through the hole there is between the clamp and the drain pipe; thereby avoiding any obstacle to the flow of water towards the drain.



Place the nuts in the holes on the bottom part of the clamp and afterwards put in the corresponding screws. The nuts must be screwed in carefully and progressively, alternating between the two. Try not to force the components. **Image 35**.

Connect the 1/4" blue tube, **part no. 50 on flap**, between the thread of the drain clamp and the connection of the system marked as "drain/desagüe", **image 36**.

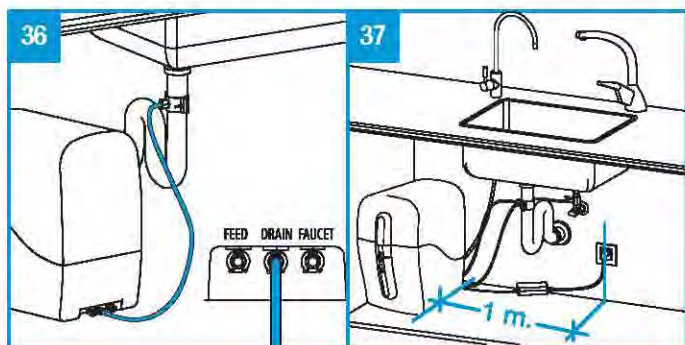


Use the adjustable wrench to ensure that the tube in the nut of the drain clamp is properly tightened (for the proper positioning of the tube in relation to the nut, this should stick out of the front part of the nut about 2 mm).

**6.** If necessary, a power supply (plug) shall be put in near the system (<1m) to power it, according to the national regulation in force, for models **PREMIUM** and **SMART**, **image 37**.

**7.** Make sure that all the joints have been screwed in properly. Remember that when pressure is higher than 3 kg/cm<sup>2</sup>, a pressure regulator (Ref. 5202000090) should be installed between the feed tube and the system, at a pressure of 2,5 kg/





cm<sup>2</sup>. Models **PREMIUM** and **SMART**.

8. Should you wish to feed any other consumption point (faucet, fridge with ice-cube dispenser, etc.), use a 1/4" plastic tube (Ref. 5202000042) and a 1/4" equal tee (Ref. 5202000071) for each extra connection you require.

## 7. START-UP

After installing the system, proceed to the start-up of the system. It is recommended that this be carried out by professional technical personnel and in accordance with the following procedure. Before carrying out the start-up, read *Section 9.2 Hygienisation*, of this manual.

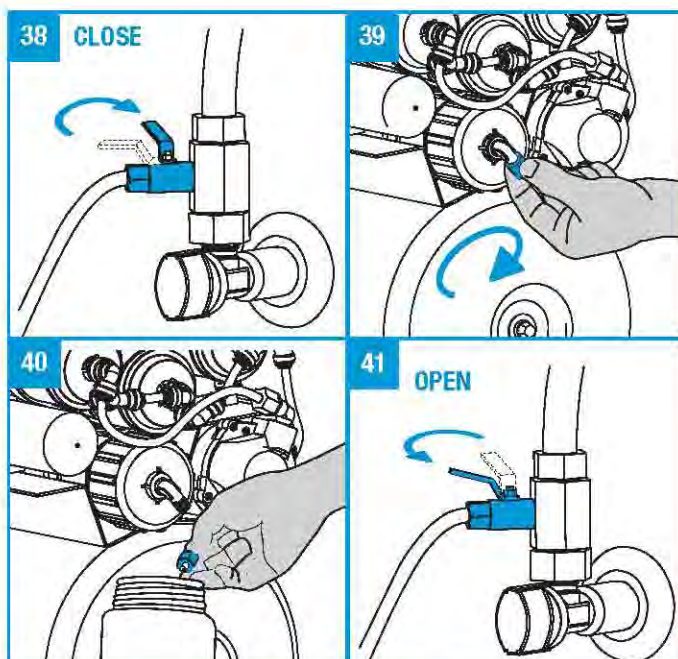
1. Keep the 1/4" inlet valve closed, open the right angle valve and connect the system to the power supply for models **PREMIUM** and **SMART**. **Image 38**. Extract the upper housing of the system.

2. Disconnect the feed tube to the membrane housing or the pump and turn it towards an external vessel. **Images 39 and 40**.

**!** Do not use the faucet of the system to wash the carbon pre-filters, as the carbon dust that you are trying to remove will penetrate the different components of the system, which may lead to their malfunction.

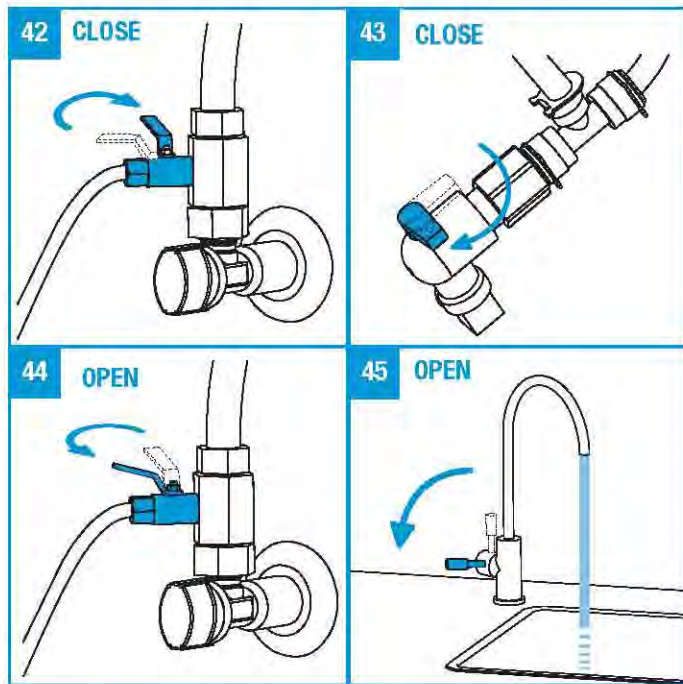
3. Open the Inlet valve, **image 41**, and wash out the filter system until water runs clear. This way, the powder generated by the granulated carbon in the filters during transport and manipulation is removed. This dust must be removed, since it could completely or partially block the reverse osmosis membrane.

4. Close the 1/4" inlet valve and connect again the tube to the entrance of the membrane housing when water stops coming

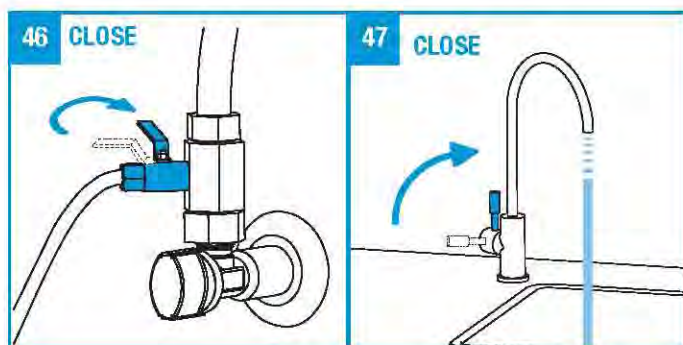


out of it, **image 42**.

5. Wash the carbon post-filter by closing the tank valve, **image 43**. Open the inlet valve, **image 44**, and open as well the faucet of the system, **imagen 45**.



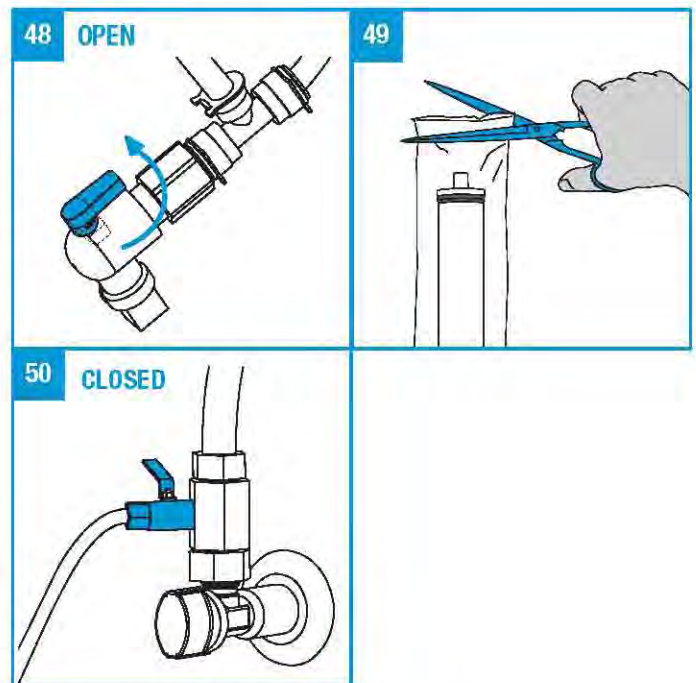
Let water flow through the faucet until it runs clear. The post-filter must be cleaned for the same reason explained in point 3 of this section. Next, close the inlet valve, close the faucet when water stops coming out of it, and then open the tank valve. **Images 46, 47 and 48**.



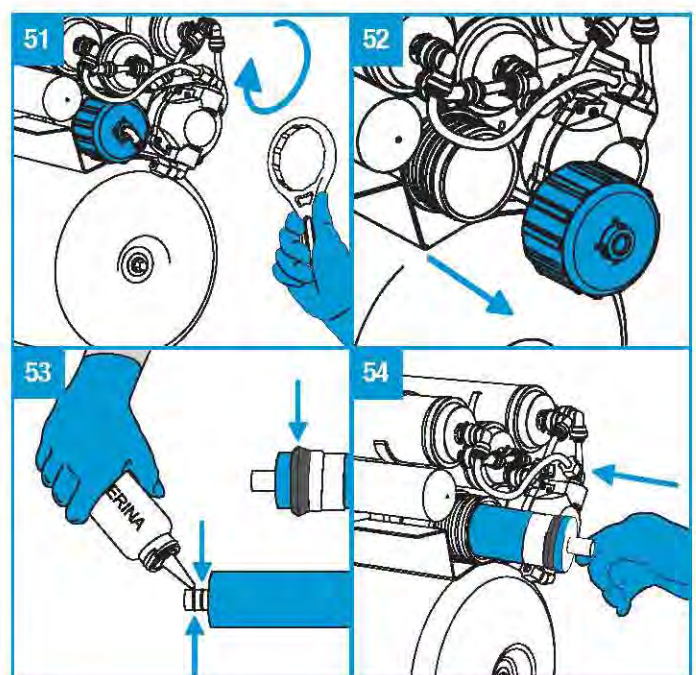
6. Open the wrapping of the membrane and follow the strictest hygienic measures when handling it, **image 49**.

7. The inlet valve must remain closed, **image 50**.

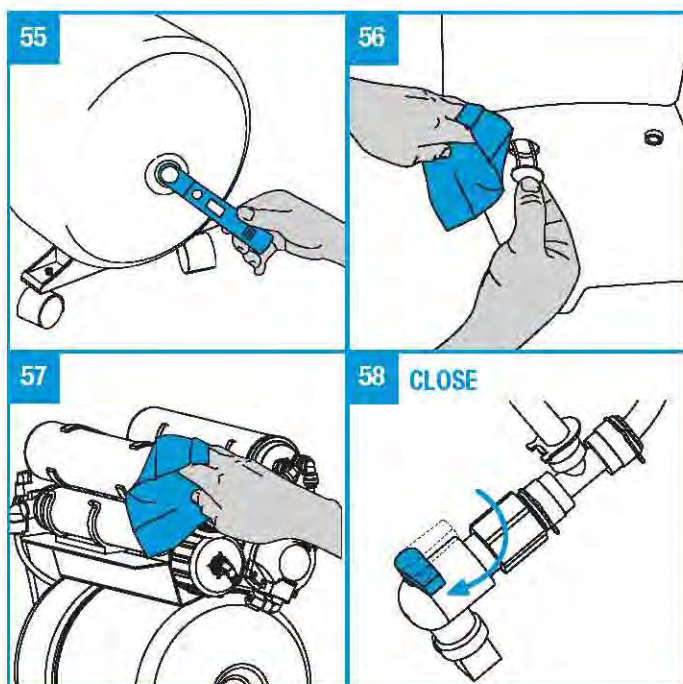
8. Assemble and position the membrane correctly in its housing, and do not forget to lubricate the joints with food-



grade glycerine (Ref. 5202000101). **Images 51, 52, 53 and 54**. Before opening the membrane housing, make sure you have a receptacle ready where you can partially empty it, as it will be full of water. Check the internal pressure of the tank with the portable pressure gauge, which should be of 7psi approx. (0.5 bar). **Image 55**. Should this not be the case, inflate or empty the air chamber of the tank until you obtain the indicated pressure (the tank must not have any water inside).



9. Use a kitchen paper towel to dry all parts that may have got

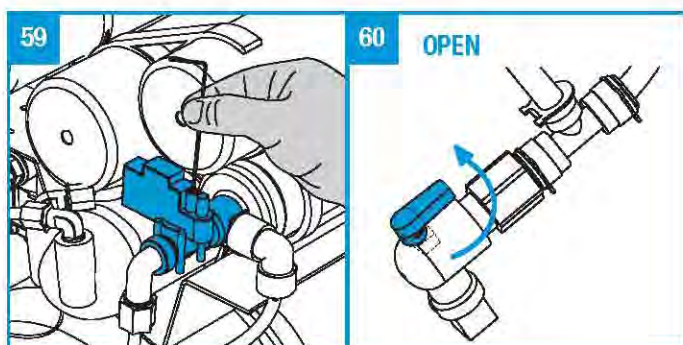


wet, specially the leaking sensor, **images 56 and 57**. Models **PREMIUM** and **SMART**.

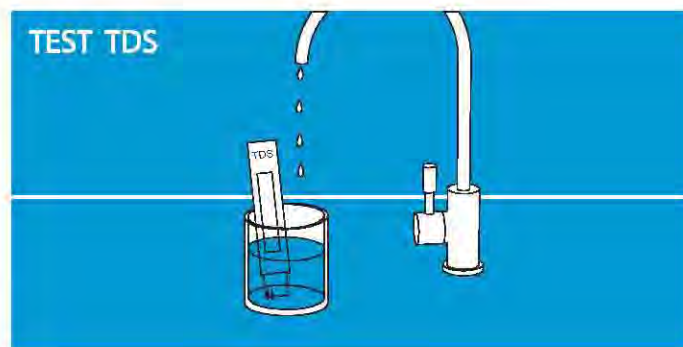
**10.** Close the counter-top faucet, open the inlet valve and keep the power supply on, for models **PREMIUM** and **SMART**, and visually check there are no leaks on the system (for 5 minutes approx.).

To ensure the proper operation of all the components of the system, close the tank valve, thus quickly pressurizing the system. **Image 58.**

Should the pump of the system not stop after operating for some minutes in models **PREMIUM** and **SMART** adjust the tare of the high pressure switch with a no. 2 allen wrench, until the pump stops. **Image 59.** Once everything has been checked, open the tank valve again. **Image 60.**



**11.** Turn on the counter-top faucet and using the conductivity meter or the TDS, check the quality of the water coming out after it has been running for some minutes. Check that the reduction of salts is correct.



**12.** The tank must be emptied twice before consuming the produced water.

**13.** Sometimes, the produced water can be cloudy. This is caused by micro air-bubbles (due to the air pockets there may be inside the system). They do not have any harmful effect on the quality of the drinking water. This appearance of the water will slowly disappear as the air inside the system is removed.

## 8. OPERATION OF THE PALLAS SERIES SYSTEMS

### COMPONENTS OF THE PALLAS SYSTEMS

1	Connection kit and manual inlet valve
2	Sediment filter
3	Granulated Active Carbon filter (GAC)
4	Granulated Active Carbon filter (GAC)
5	Booster pump
6	Reverse osmosis membrane
7	Check valve
8	Flow restrictor
9	Drain clamp
10	Pressure tank
11	Activated carbon post-filter
12	Faucet on counter-top
13	Low pressure switch
14	Inlet electrovalve
15	High pressure switch
16	Flushing electrovalve with flow restrictor
17	Leaking sensor
18	Shut-off valve
19	Permeate pump
20	Water quality detector

See flow diagrams at the end of this section

### 8.1 Description of operation

Tap water to be treated, goes through the manual inlet valve (1) and enters the system going through the sediment filter (2) and the carbon GAC filters (3) and (4).

In this stage of filtration, the particles in suspension, the chlorine and its by-products, and other organic substances are retained.

The flow of water towards the interior of the system is controlled via the 2-way shut-off valve (18) **CLASSIC** / the electrovalve (14) **PREMIUM** and **SMART** / the permeate pump (19) **ADVANCED**.

The water, after leaving the filtration stage, is pushed towards the reverse osmosis membrane (6) via the booster pump (5) **PREMIUM** and **SMART**.

The water pressure against the membrane makes the reverse osmosis process possible.

Purified water is stored in a tank (10) after going through a check valve (7).

Rejected water or water with an excess of salts and other dissolved substances is diverted to the drain (9) for it to be removed by previously going through a flow restrictor (8)

**SMART**, **CLASSIC** and **ADVANCED**. It is also integrated in the flushing electrovalve. (16) **PREMIUM**.

In systems operating without power supply, like **CLASSIC** and **ADVANCED**, when the tank (10) is full, the system stops and the water inlet of the system is cut via a shut-off valve (18) **CLASSIC** or a permeate pump (19) **ADVANCED**. In both cases, the operating principle is based upon the hydrostatic pressure difference among specific components of the system.

The permeate pump (19) **ADVANCED**, improves the performance of systems without pump, by recovering part of the fluid dynamic energy of rejected water before diverting it to the drain.

For models with pump, like **PREMIUM** and **SMART**, when the tank (10) is full, the system stops working thanks to the high pressure switch (15), since it stops the pump (5) and makes the inlet electrovalve (14) get closed.

These systems with pump (5) integrate a low pressure switch (13) as a protection device for the pump (5) against pressure drops in the network. Should this happen, the system would remain with the inlet electrovalve (14) closed, the pump stopped (5) and would only provide the water stored in the tank (10) until the network pressure was re-established.

When the faucet (12) of the system is turned on, the stored water inside the tank (10) goes through a carbon post-filter (11), whose aim is to remove all odours and tastes that water may have retained.

The **PREMIUM** model integrates an auto-flushing system, also known as membrane self-cleaning. Here the flushing electrovalve (16) will automatically and periodically clean the surface of the membrane. Its operation is controlled with an electric circuit.

**PREMIUM** and **SMART** systems integrate a leaking sensor (17), which detects possible water leaks as an additional safety measure. When a leak is detected, the system gets blocked and prevents water from coming inside by closing the electrovalve (14) and stopping the pump (5), should they be in operation. The system will remain blocked until the leak is repaired and will only supply water that is already stored in the tank (10).

## 8.2 User interface

### PREMIUM

**PREMIUM** series systems integrate a state-of-the-art electronic controller, which will efficiently control all the components of the system, in order to optimize its performance, control and inform about water quality, detect failures in the system and help with the maintenance.

As mentioned before, the system integrates a flushing electrovalve (16), whose aim is to expand its service life by flushing the membrane surface. This device is controlled by the electric controller.

The quality of purified water is controlled by the water quality detector (20). To know the quality of the produced water (or as mentioned before, the condition of the reverse osmosis membrane), press the button TEST for some seconds, which is in the frontal part of the system. If the **green LED** on the frontal part lights up permanently, it means that the system is working properly. However, this is not the case if the **green LED is flashing** and beeping a warning signal. If this occurs, contact the technical service of your distributor.

When the leaking sensor (17) detects a leak, the system will be blocked, will beep an acoustic signal for 20" every 7 hours, and the **red LED will flash simply**, until the problem is repaired.

As has been stated above, the PALLAS series systems guarantee the quality of the produced water if used, manipulated and maintained correctly. With this purpose, the **PREMIUM** series will inform, via the **double flashing of the red LED** and the appropriate acoustic signals, when the life of the filters is about to expire and must be replaced in short, or when the filters have exceeded its service life, by **permanently lighting up the red LED** at the front and beeping a 20" acoustic signal every 7 hours.

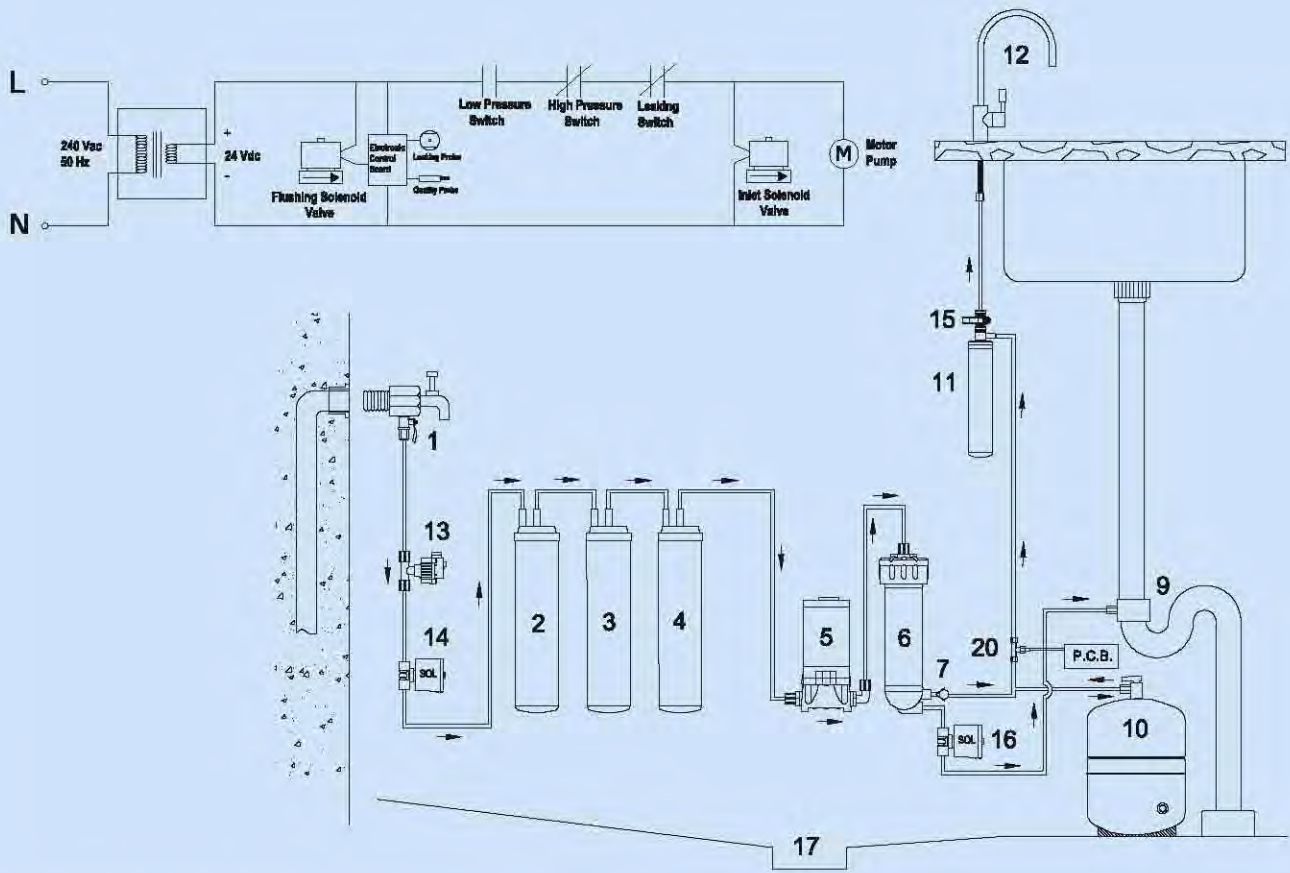
After changing the filters, contact the technical service of your distributor, in order to get the information on how to synchronize the electronic controller of your system

**!** The functional parameters of the system can be configured and modified using the RS-232 interface through PC connection (Ref. 5202000110). For further information contact your supplier.

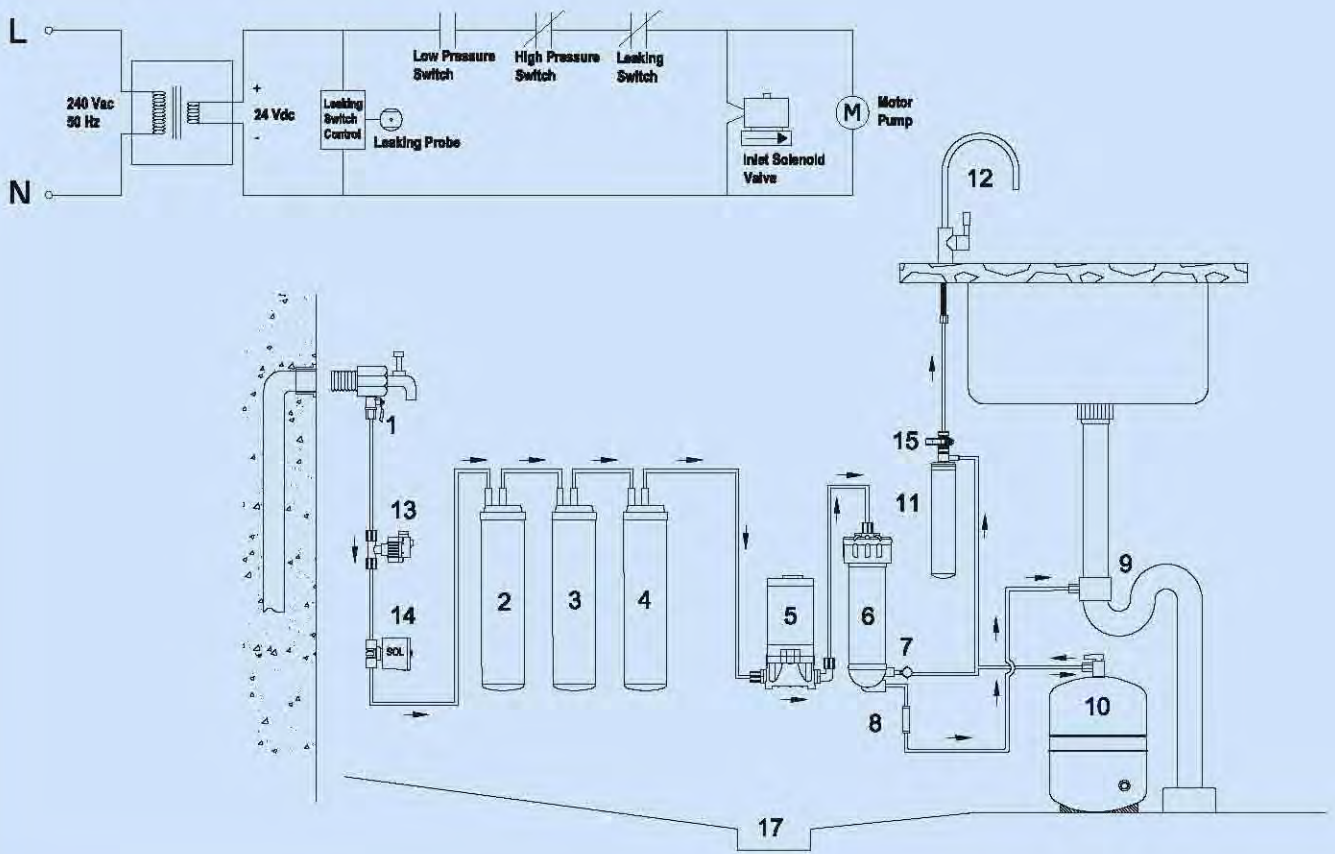
LIGHT INDICATORS	MEANING
<b>BLUE LED:</b> LIGHTED	<b>Power on.</b> The system has no power supply.
<b>BLUE LED:</b> OFF	<b>Power off.</b> The system has no power supply.
<b>RED LED:</b> SIMPLE FLASHING	<b>Leaking.</b> A water leak has been detected. System blocked*.
<b>GREEN LED:</b> SIMPLE FLASHING, while pushing the front button.	<b>Low quality.</b> Low water quality*.
<b>GREEN LED:</b> LIGHTED, while pushing the front button.	<b>Good quality.</b> Good water quality.
<b>RED LED:</b> DOUBLE FLASHING	<b>Warning filter time.</b> Filter change alarm. Filters must be changed in short*.
<b>RED LED:</b> LIGHTED	<b>Change filter.</b> Filter change alarm. Filters can no longer be used*.

\*Contact the Technical Assistance Service.

### PALLAS PREMIUM

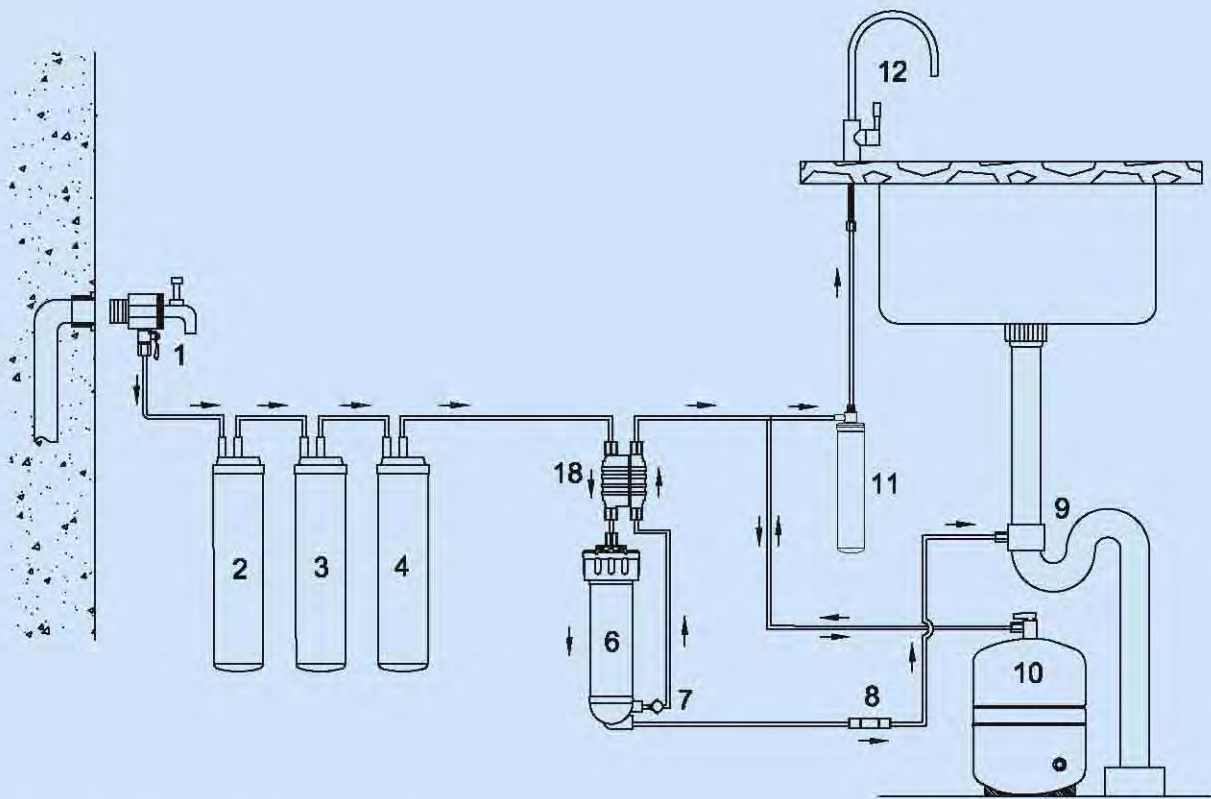


### PALLAS SMART

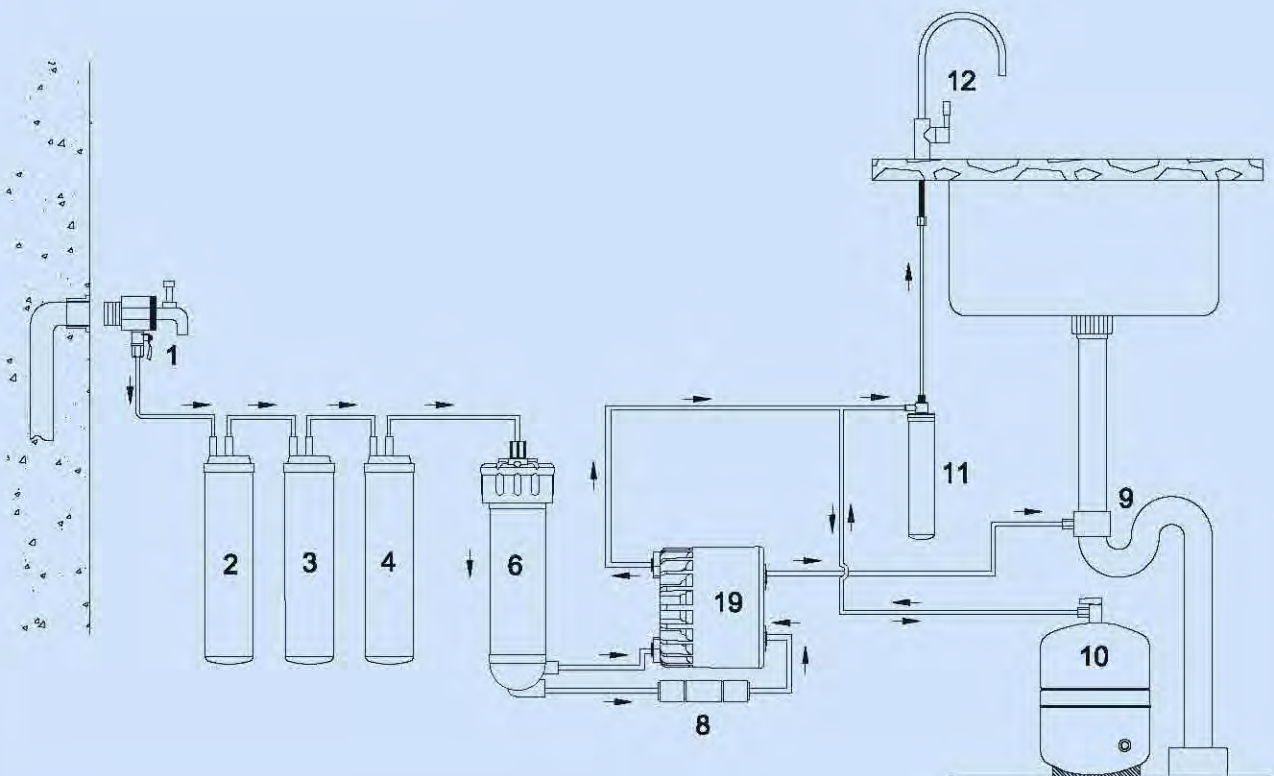


ENGLISH

**PALLAS CLASSIC**



**PALLAS ADVANCED**



## 9. MAINTENANCE / CONSUMABLES

It is important that the maintenance of your system is carried out by an official service of the PALLAS series, which will use original spare parts and offer you information, a maintenance contract and a service guarantee. Any manipulation of the system or use of a spare part that is not original, by a company or person that is not a member of our distributors shall invalidate the guarantee of your system as well as that of your distributor.

**WARNING: Some of the components of your system, such as the sediments pre-filter, the granulated active carbon filters, the reverse osmosis membrane and the activated carbon post-filters, are consumables and have a limited service life.**

Their service life will depend on the quality of the local water and on specific aspects such as extreme turbidity, high chlorine levels, excess of iron, etc.

**!** With the aim of guaranteeing the quality of the water supplied by your system, it should have a regular maintenance carried out by skilled technical personnel.

### MAINTENANCE RECOMMENDATIONS FROM YOUR OFFICIAL DISTRIBUTOR OF THE PALLAS SERIES

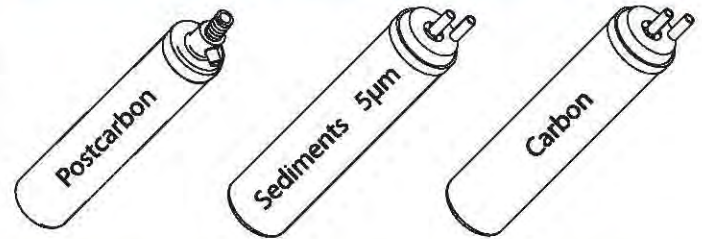
Sediment pre-filter:	Maximum 12 months.
Carbon pre-filters:	Maximum 12 months.
Reverse osmosis membrane:	Every 3 years approx. in soft water < 15 °F
Post-filters:	From 12 to 24 months.
Hygienisation:	Start-up Every 6-12 months. Each time components in contact with water are accessed or water has not been consumed for more than a month.

**NOTE:** The membrane must be replaced if a specific compound exceeds the maximum allowed limit for drinking water according to the national regulation in force.

An excess of a compound (total chlorine, turbidity, hardness, etc.) can lead to a reduction in the service life of the filters and certain components. These maintenance tips are guidelines. Your official distributor of the PALLAS series will determine the duration of the consumables according to the water quality and the expected consumption.

**!** All consumables are supplied with an individual packaging, which has been specially designed to guarantee hygienic conditions during storage and transport. Apply the necessary hygiene precautions after removing the packaging and during the manipulation of the different connectors and components.

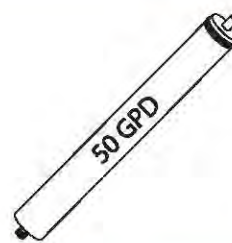
### ORIGINAL PALLAS CONSUMABLES



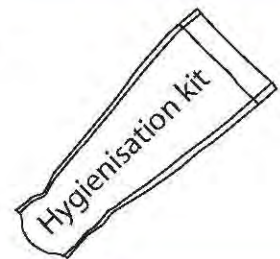
Carbon post-filter  
Ref. 5202000058

5µm sediment filter.  
REF. 5202000056

GAC carbon pre-filter.  
REF. 5202000057



50 GPD membrane.  
REF. 5202000041



Hygienisation kit.  
REF. 5202000107

See the hygienic conditions that must be taken into consideration during the manipulation of the system, described in previous sections.

#### WARNING:

**Prior to dismantling the system, ensure that you have all the necessary material and enough space to carry out the maintenance operations (see section 6 Installation).**

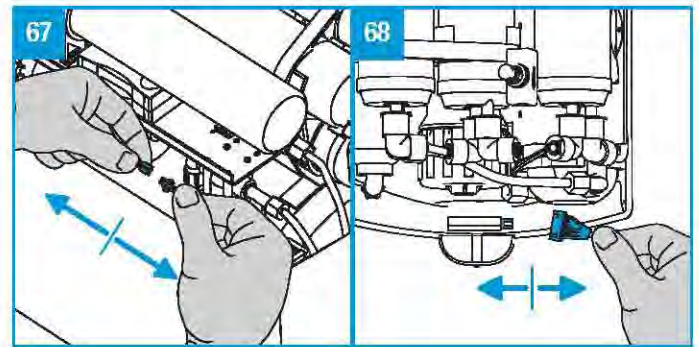
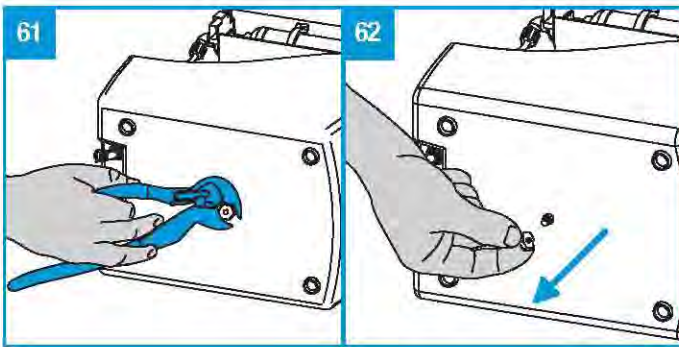
**Work in a properly lit area, under the proper hygiene conditions and with enough space to carry out the maintenance comfortably.**

### 9.1 How to change filters

1. Close the manual inlet valve, empty the tank of the system by opening the faucet, unplug it, in models **PREMIUM** and **SMART** and disconnect the three tubes located on the rear side of the system. Extract the upper housing of the system.

2. The PALLAS series systems have been designed for an easy and comfortable maintenance. Should it be necessary to access the internal parts of the system, unscrew the nut at the bottom of the system. **Images 61 and 62.**





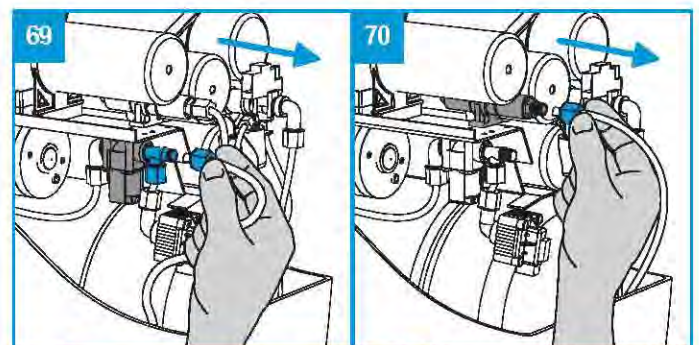
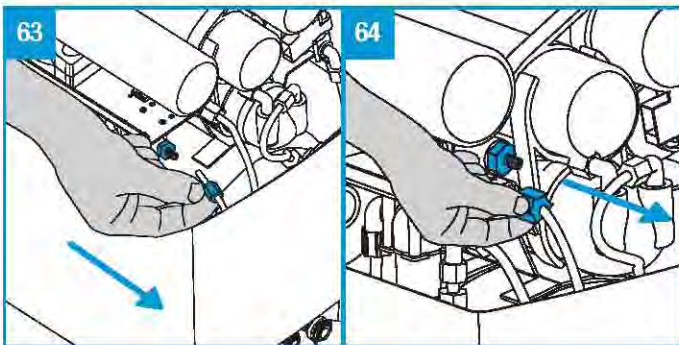
3. Remove the filtration set from the system. In order to do so, follow the instructions below according to each model:

**SMART**

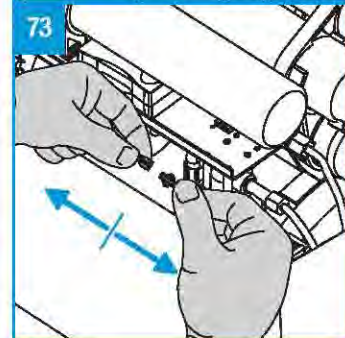
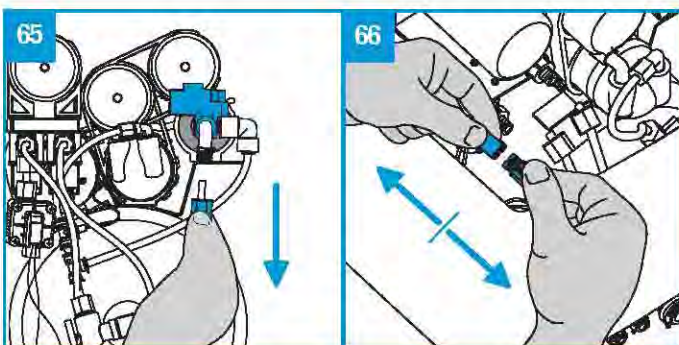
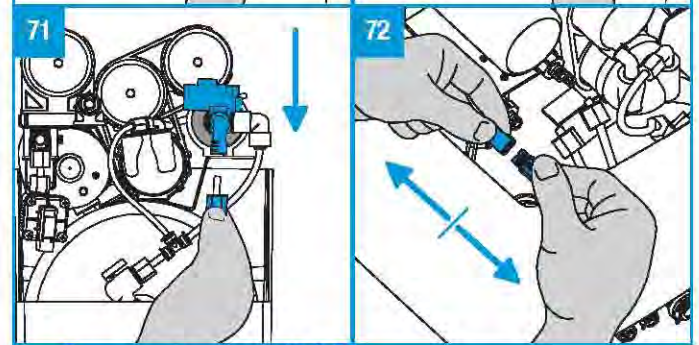
Disconnect the tubes, the inlet electrovalve and the outlet of the flow restrictor. **Images 69 and 70.** Disconnect the tube at the central connection of the post-filter's outlet, which is located at the outlet of the high pressure switch, **image 71.** Then disconnect the electric connectors and unplug the power supply and the leaking sensor. **Images 72 and 73.**

**PREMIUM**

Disconnect the inlet tubes to the inlet and flushing electrovalves. **Images 63 and 64.**



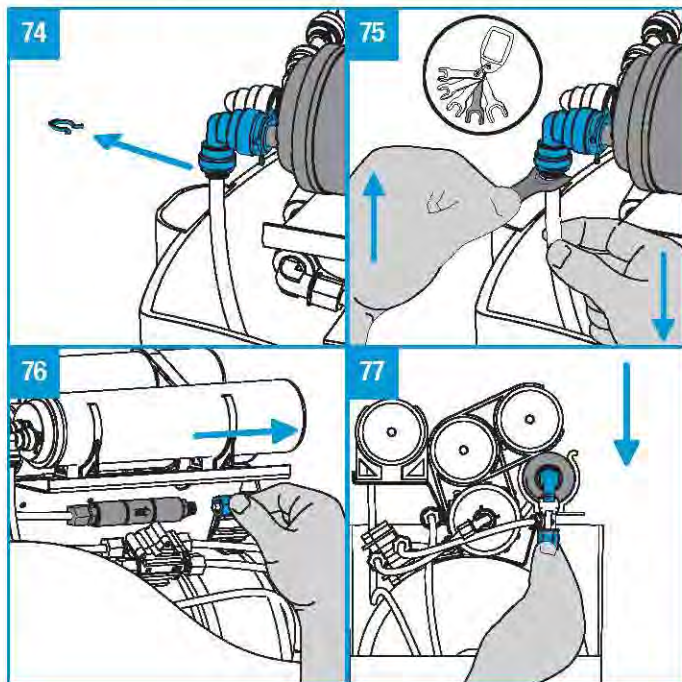
Disconnect the tube at the outlet of the post-filter, which is located at the outlet of the high pressure switch, **image 65.**



Disconnect all electric connectors and unplug the power supply, the leaking sensor and the frontal LED board ones, **images 66, 67 and 68.**

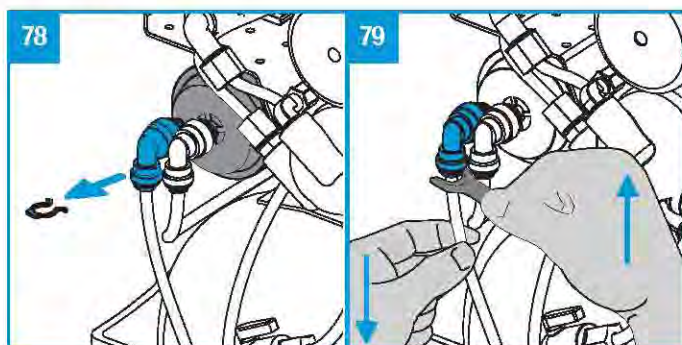
**CLASSIC**

Disconnect the inlet tube at the elbow of the sediment filter. To do so, take out the locking clip and use the disassembly wrench for quick-fittings (ref. 5202000109) or the bottom of the membrane housing wrench (ref. 5202000103). **Images 74 and 75.** Disconnect the outlet tube of the flow restrictor, **image 76.** Disconnect the outlet tube at the central connection of the post-filter. **Image 77.**

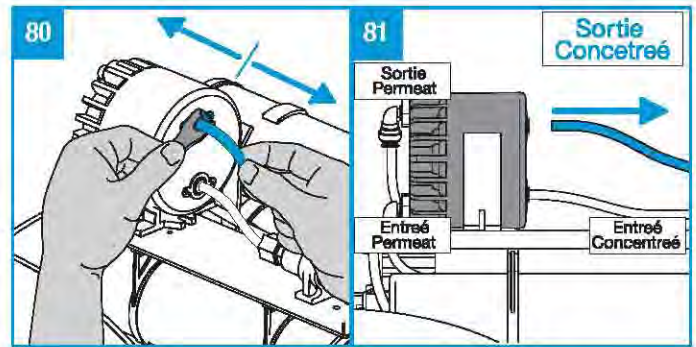


**ADVANCED**

Disconnect the inlet tube at the elbow of the sediment filter. Take out the locking clip and use the disassembly wrench for quick-fittings or the bottom of the membrane housing wrench. **Images 78 and 79.**



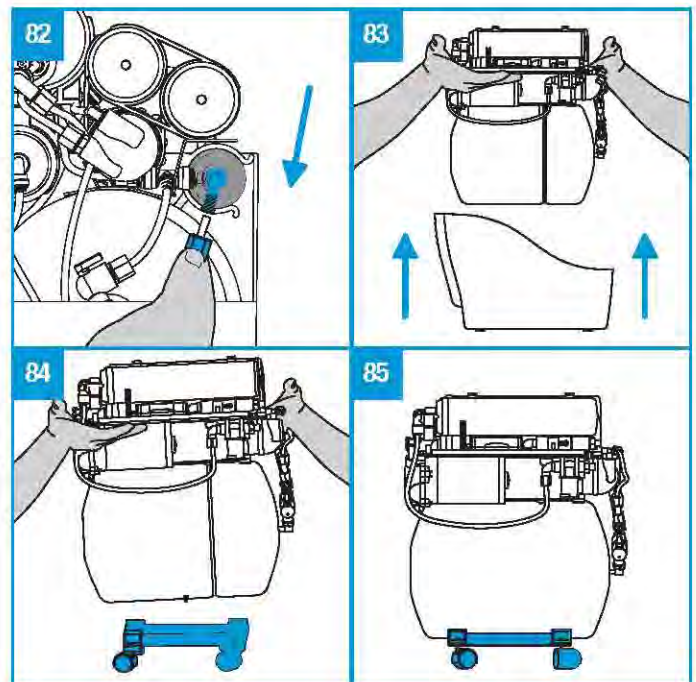
Disconnect the outlet tube of the permeate pump to the drain, "sortie-concentrée", **images 80 and 81.**



Disconnect the outlet tube at the central connection of the post-filter, **image 82.**

**!** Please have in mind that both the permeate and concentrate outlets of the pump must be on its upper side to guarantee a proper operation.

4. Extract all the internal set and place it on the support (ref. 5202000108), so as to work comfortably. **Images 83, 84 and 85.**



5. Proceed to change the sediment and carbon pre-filters as outlined below:

**WARNING:** The PALLAS filters have an inlet and an outlet that are not interchangeable. The inlet of filters is the stem marked as IN (side) and the outlet corresponds to the stem marked as OUT (centre).

In the same line, the side stem of the PALLAS car-

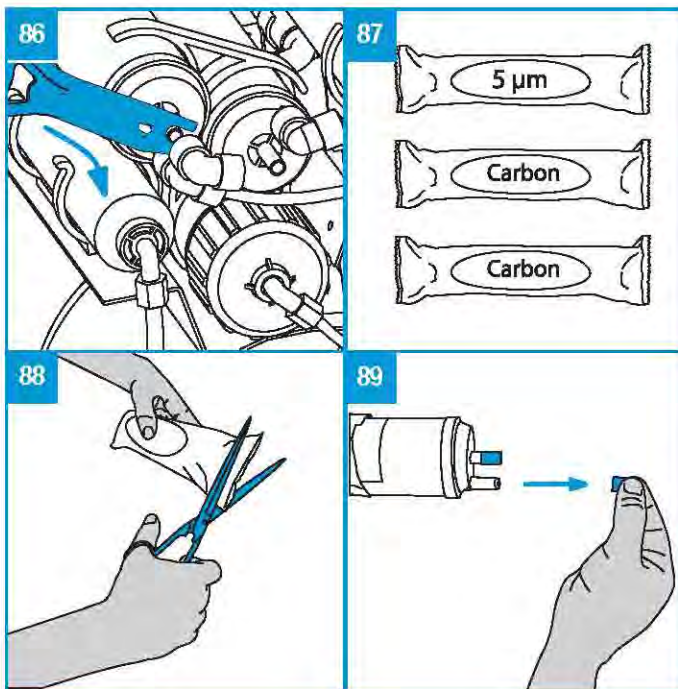
bon post-filter corresponds to the inlet, and the central threaded connection to the outlet.

Before disassembling the filters, pay attention to the original layout and follow it. Should you have any queries, check this manual or contact the Technical Assistance Service of your distributor.

5. Use the membrane housing wrench or the quick-fitting disassembly wrench to extract the fittings of the PALLAS filters stems. Place the yoke between the filter and the fitting, and apply pressure while pulling the fitting out and extracting it from the filters stem. **Image 86.**

Have a receptacle ready or a kitchen paper towel, as filters may drip. Unwrap the new PALLAS filter and remove the protective caps from the stems.

Assemble and connect in the same position and direction (paying attention to the inlet and outlet) as the original filter, **images 87, 88 and 89.** Proceed in the same way for the rest of the PALLAS filters.



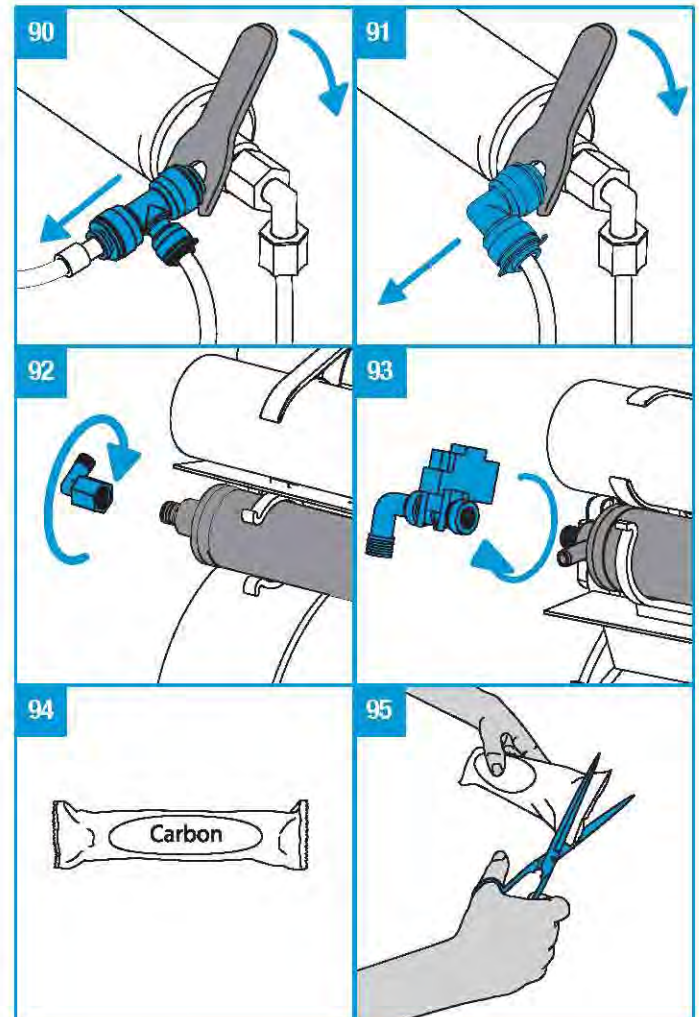
6. Replace the post-filter if necessary. Using the quick-fitting disassembly wrench or the membrane housing wrench, extract the fitting on the side stem, which corresponds to the inlet of the post-filter, by gently levering on it. **Images 90 and 91.**

For models **ADVANCED** and **CLASSIC**, unscrew the outlet fitting of the post-filter. **Image 92.**

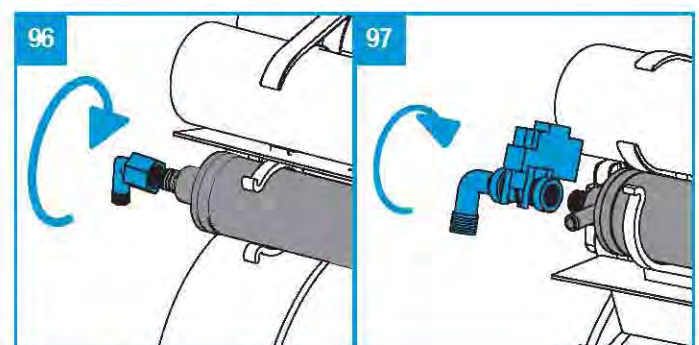
For models **PREMIUM** and **SMART**,

unscrew the high pressure switch together with the elbow at the outlet of the post-filter. **Image 93.**

After unwrapping the new post-filter and removing the protective caps, apply the necessary hygiene precautions during manipulation. **Images 94 and 95.**

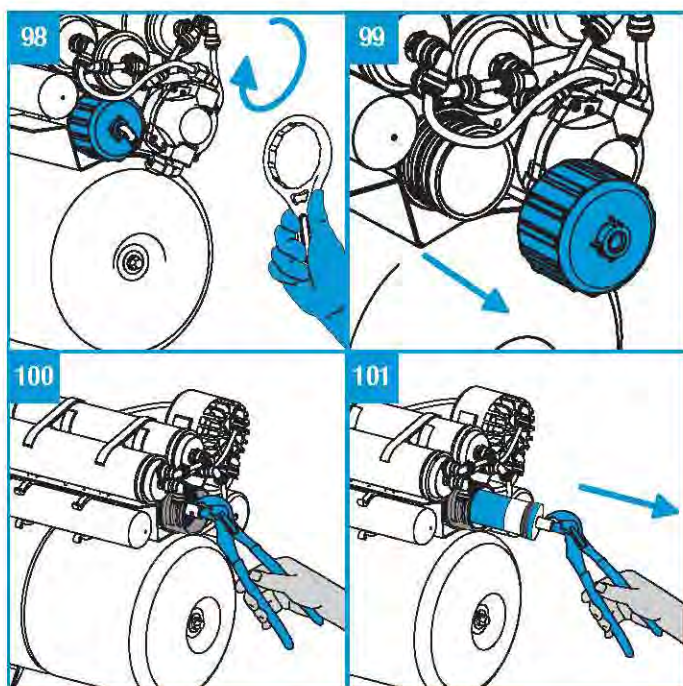


Apply Teflon in the central connection of the post-filter, if necessary. Then screw the corresponding fitting, **ADVANCED** and **CLASSIC** **image 96**, or the high pressure switch, **PREMIUM** and **SMART** **image 97.** Check previously if tap water contains chlorine.



The stem at the inlet of the post-filter must be placed in the same position as before, in order to not to force the components. Connect the corresponding quick-fittings, that were previously dismantled.

7. Replace the membrane (if necessary). With this purpose, remove the membrane from its housing. Use the membrane housing wrench to unscrew the cap and a clean tool only for removing the membrane from the inside. **Images 98, 99, 100 and 101.**



Insert the new membrane as outlined in *Section 7 Start-up*.

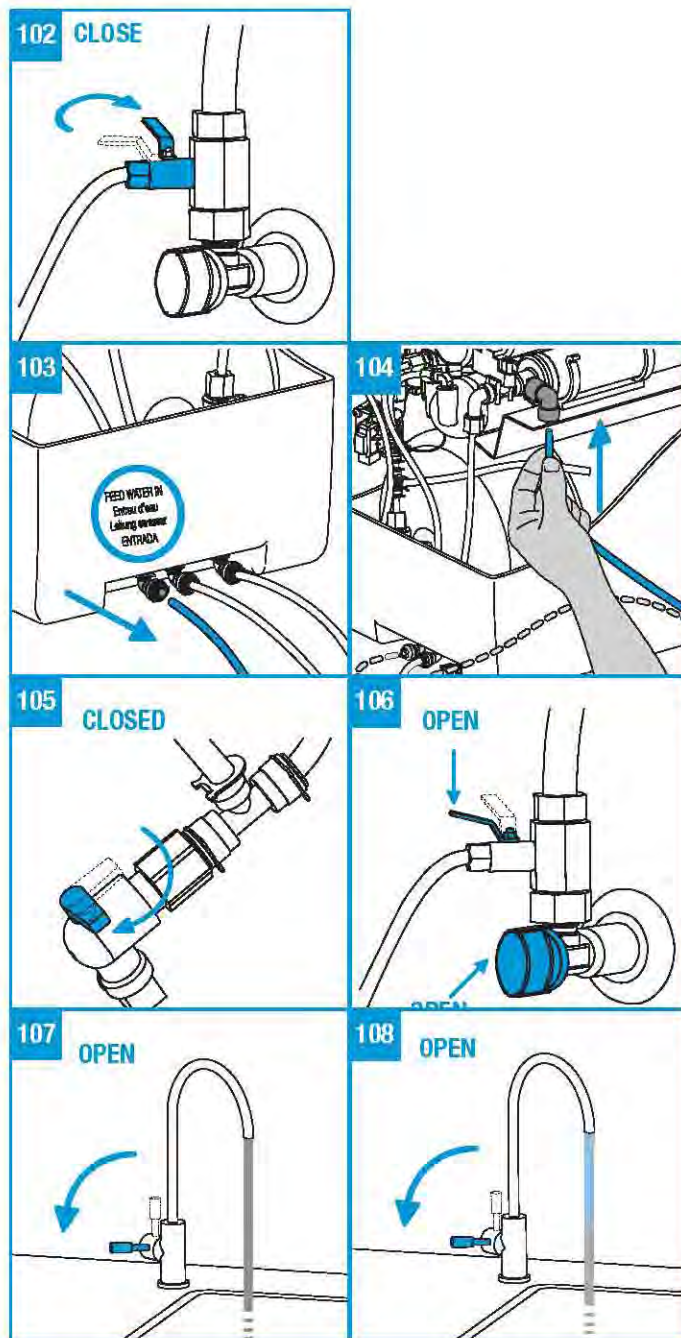
8. Assemble the filtration set inside the housings of the system and connect the corresponding electrical and hydraulic connectors that were previously unplugged, both external and internal.

9. Wash the carbon pre-filters as outlined in *Section 7 Start-up*.

10. Wash the carbon post-filter as outlined below: Keep the inlet valve of the system closed. **Image 102.** Disconnect the tube to the inlet of the system, and connect it to the inlet fitting of the post-filter, which corresponds to the side stem. **Images 103 and 104.**

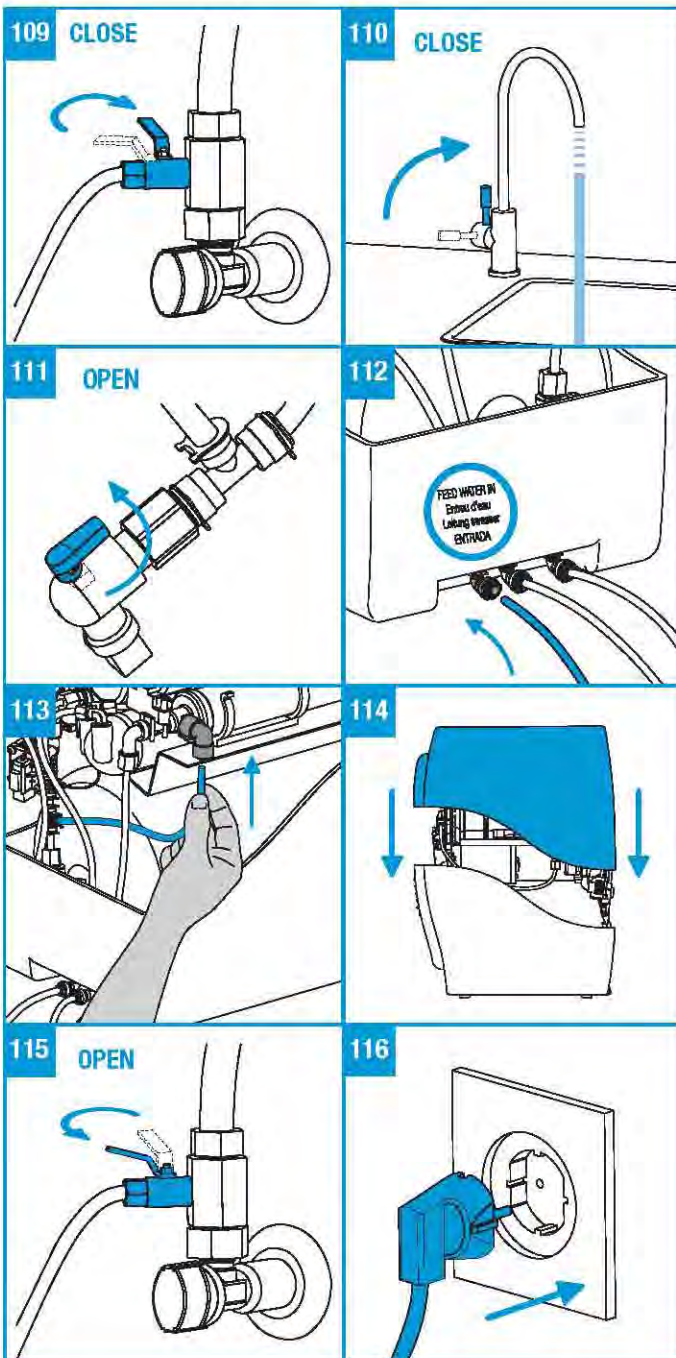
Close the tank valve, open the inlet valve and the faucet of the system. **Images 105, 106 and 107.**

Wash the carbon post-filter for some minutes until water runs clean through the faucet. **Image 108.** Thus removing the carbon dust that the transportation may have caused.



Then close the inlet valve, when water stops coming out of the faucet, turn it off, open the tank valve and connect the tubes both at the inlet of the system and the post-filter, using the corresponding fittings. **Images 109, 110, 111, 112 and 113.**

11. Check that all fittings are properly connected, place the upper casing of the system, open the inlet valve and plug the system to the power supply **PREMIUM** and **SMART**. **Images 114, 115 and 116.** After changing the filters, contact the technical service of your distributor, in order to get the information on how to synchronize the electronic controller of your system, model **PREMIUM**.



## 9.2. Hygienization

It is recommended to hygienise the system when necessary, and as frequently as instructed, by following these steps:

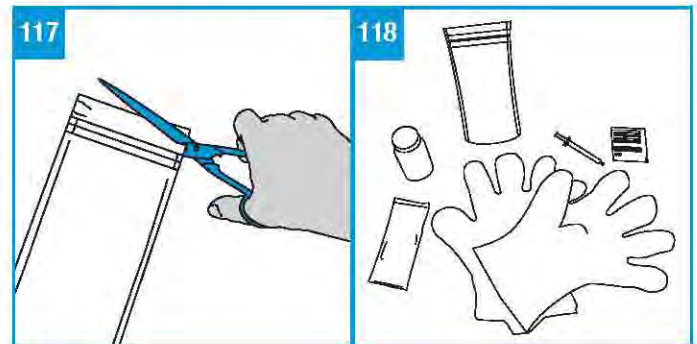
**1.** Change and wash the filters and the post-filter, as outlined in *Section 9.1 How to change filters*.

**2.** The membrane housing must be empty. Extract the membrane as indicated in *Section 9.1 How to change filters* and

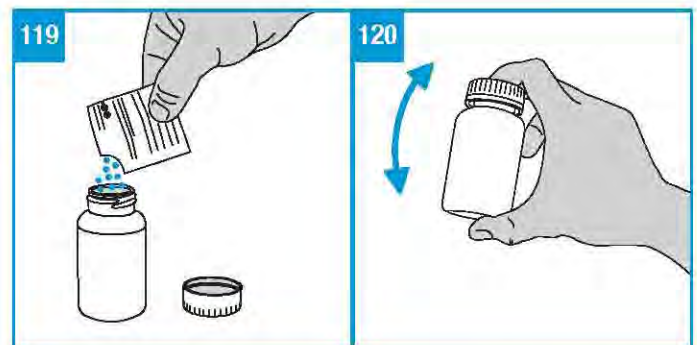
carry out the hygienization as follows:

**3.** Keep the 1/4" inlet valve closed, empty the tank and keep the tank valve open.

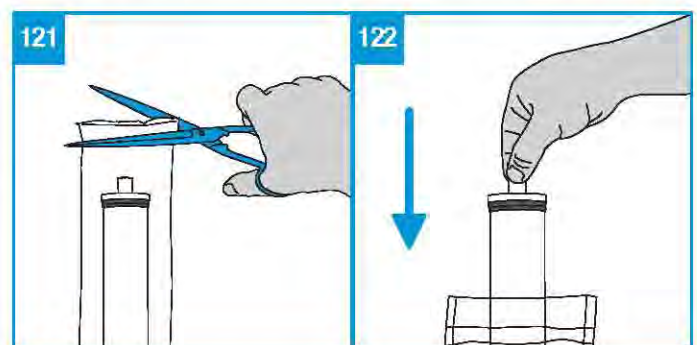
**4.** Cut the top of the hygienization kit and place the contents onto a clean surface, in order to reduce the contamination risk. **Images 117 and 118.**



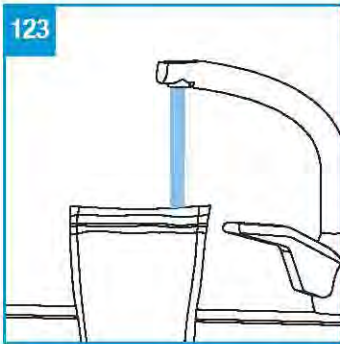
**5.** Empty the contents of the Osmobac hygienisation bag into the 150 ml bottle, fill it with tap water and shake it until it is completely dissolved (approximately 2 minutes). **Images 119 and 120.**



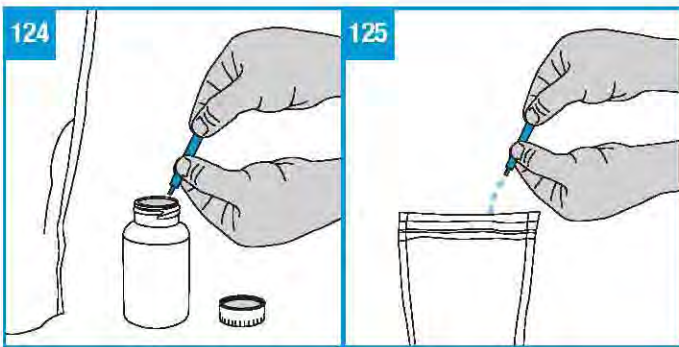
**6.** If the membrane is new, unwrap it, **image 121**, and introduce it in the plastic bag of the kit to hygienise it. **Imagen 122.**



Then fill the bag with tap water while the membrane is inside, until it is completely covered, **image 123**. Use the syringe

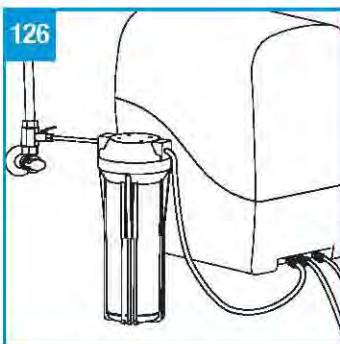


to collect 2 ml of the previously prepared Osmobac solution, empty it into the plastic bag, close it and move it to blend the mixture. Leave it there between 15 and 30 minutes. **Images 124 and 125.**



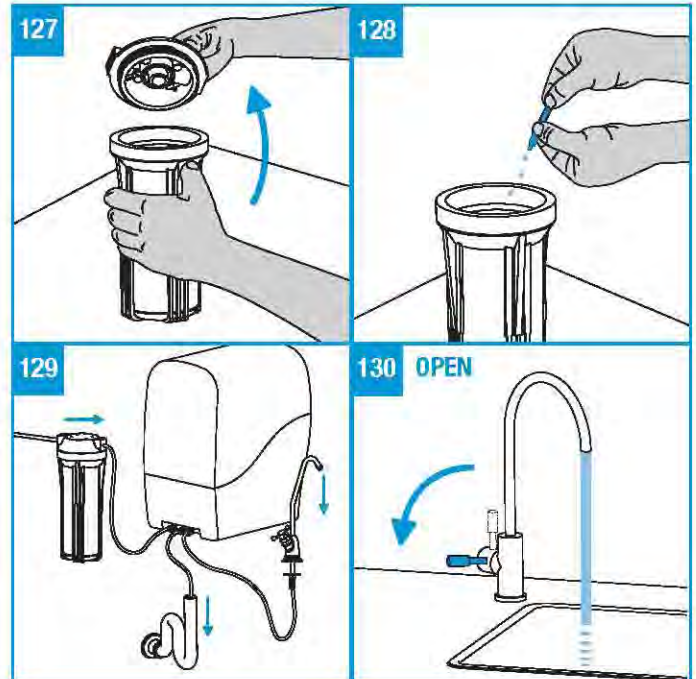
**7.** Disconnect the Inlet tube of the system, marked as "feed-entrada".

**8.** Lay the filter housing between the water inlet and the system and place it on a vessel, cloth or inside the sink. **Image 126.**

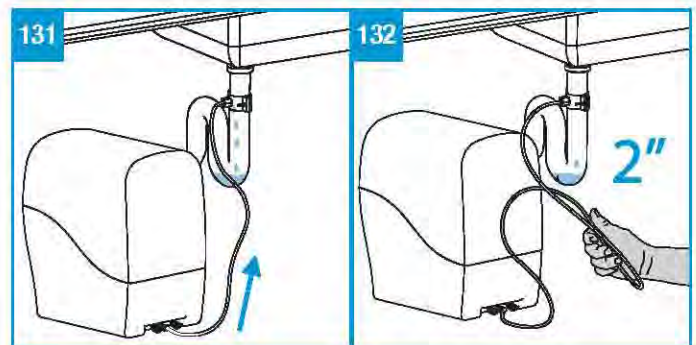


**9.** Open the filter housing and pour 15 ml of the Osmobac solution inside (this quantity can be dosed with the syringe). **Images 127 and 128.**

**10.** Close the filter housing and open the inlet valve and the faucet of the osmosis system on the counter-top. **Images 129 and 130.**

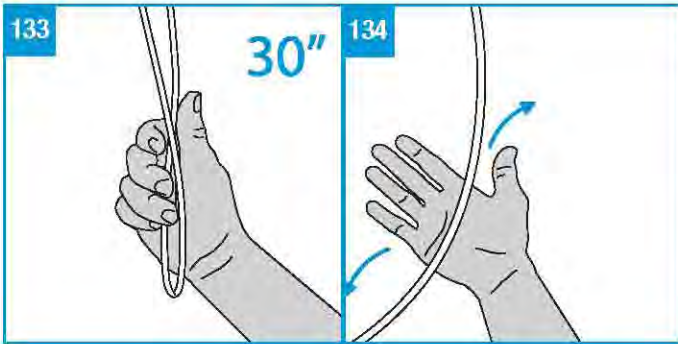


**11.** Let the product in the filter housing flow through the system until water comes out through the counter-top faucet of the system and the drain. Then close the counter-top faucet. In **PREMIUM** models, when water starts coming out of the drain tube towards the drain, strangulate the pipe after 2 seconds, preventing water to flow through to the drain. **Images 131 and 132.**



Keep strangulating the drain tube for 30 seconds, while water is coming out of the system's faucet. **Images 133 and 134.** Repeat this procedure every 30 seconds, starting from point 9.

Bear in mind that every time that the filter housing must be opened, the inlet valve must be closed and the faucet turned on. Wait until the system has no pressure (10 seconds) and throw away some of the water contained inside the filter housing, in order to refill it the Osmobac solution in the quantity shown in point 9. Repeat this procedure five times before going on to the following step.



**12.** When filling the filter housing for the last time, pour 30 ml of the Osmobac solution, open the inlet valve, turn off the faucet of the system, and allow the system to pressurise for 1 minute, closing the inlet valve immediately afterwards.

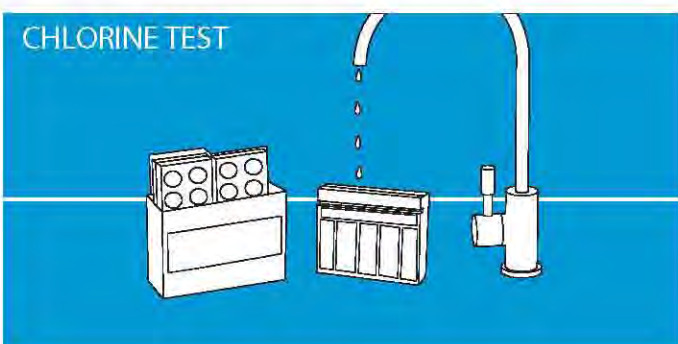
Only for **PREMIUM** models. After turning on the faucet of the system, strangulate the drain tube when water starts coming out of it towards the drain. After having pressurised the system for one minute, close the inlet valve and let the drain tube go.

**13.** Allow between 15 and 30 minutes for the product to settle inside the system.

**14.** While you are waiting, dismantle the filter housing used to dose the Osmobac and connect the inlet tube to the connection "feed, entrada" of the system.

**15.** After this time, turn on the counter-top faucet of the system, empty the tank and wait until water stops coming out. Then plug the system to the power supply and open the 1/4" inlet valve, allowing tap water to move the product and residues of the hygienisation through the counter-top faucet for 5 minutes. Then turn off the counter-top faucet and wait for 2 minutes. Afterwards, close the Inlet valve and turn on the counter-top faucet in order to empty the tank. Wait until water stops coming out.

*Check the chlorine concentration at the faucet of the system using a chlorine measurer.*

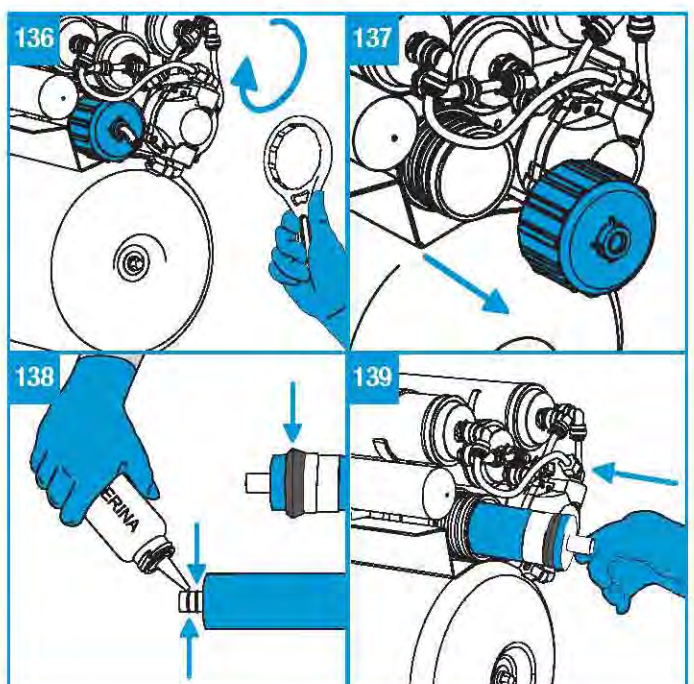


**!** Repeat this control and rinsing process until the total chlorine concentration is below 1 mg/l (1 ppm).

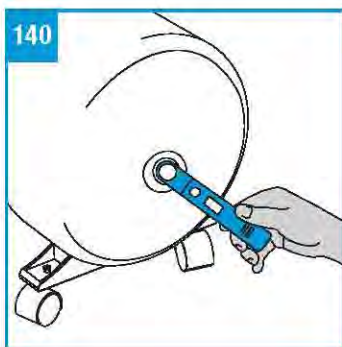
**16.** Put on the gloves supplied with the kit. Rinse the membrane with tap water for a short period. **Image 135.**



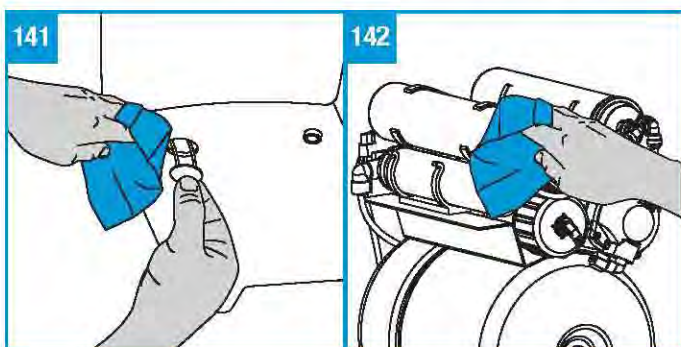
**17.** Once the rinsing is done, the inlet valve must remain closed and the system, unplugged, for models **PREMIUM** and **SMART**. Following the strictest hygienic measures, insert and position the membrane correctly inside its housing, lubricating its joints with food-grade glycerine beforehand. **Images 136, 137, 138 and 139.** Before opening the membrane housing, make sure you have a receptacle ready where you can partially empty it, as it will be full of water. Check the internal pressure of the tank with the air pressure measurer, which should be of 7psi approx. (0.5 bar). **Image 140.** Should this not be the case, inflate or empty the air chamber of the tank until you obtain the indicated pressure.



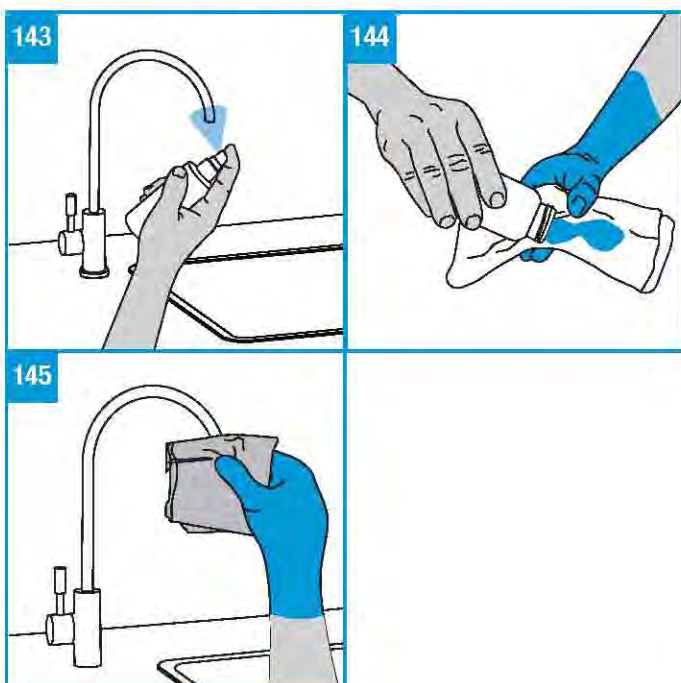
**18.** Using the dampened cloth supplied with the hygienisa-



tion kit, clean the system. Dry the leaking sensor and all the parts that may have got wet, using a kitchen paper towel, in models **PREMIUM** and **SMART**. **Images 141 and 142.**



Pay special attention to the hygienization of the faucet spout. Use the Oxibac spray (Ref. 5202000099) and disposable kitchen paper towel, **image 143**, or soak the paper towel with the remainder of the Osmobac solution. **Image 144**. Rub the spout and the end of the faucet with the paper. Do not touch it directly with the hands. **Image 145.**



**!** Under no circumstances must you use a hand towel or a multiuse cloth for cleaning the kitchen. Hands must not have any direct contact with the hygienising products.

**19.** Now the system has been properly hygienised.

**20.** Since hygienization and rinsing do not guarantee the complete removal of all residues (carbon dust in filters, tank cleaning, hygienization residues, etc.), the tank must be emptied twice before consuming the produced water.

**21.** All materials used to carry out the hygienization, must be thrown away in the appropriate recycling bins.



## 10. GUIDE FOR THE IDENTIFICATION AND SOLUTION OF PROBLEMS

SYMPTOM	CAUSE	SOLUTION
<b>1. Leak from faucet.</b>	Pieces to turn off the faucet are worn. Joint is pinched or worn.	Replace the faucet. Change the joints.
<b>2. Leak outside the system in the sink's cupboard.</b>	Leak from faucet's base. From the drain. From the inlet. From tubes feeding the system.	Check the state of the faucet and replace it if necessary. Tighten or replace. Check there is enough teflon in the inlet valve or replace it. They are too close to the wall. The locking clip is missing. They are in a bad condition (replace them) or they have not been properly pushed into fittings.
<b>3. No production.</b>	There is no water supply. There is an internal leak inside the system. <b>PREMIUM SMART</b> Inlet electrovalve is closed. <b>PREMIUM SMART</b> The pre-filter is blocked. The membrane is blocked. Flushing electrovalve is open <b>PREMIUM</b> . Restrictor blocked. There is no power supply <b>PREMIUM SMART</b> Shut-off valve defective or not properly connected. <b>CLASSIC</b> Permeate pump is defective or not properly connected. <b>ADVANCED</b>	Wait until water supply is re-established. Search the leaking point and repair it. Dry the leaking sensor. Check the state of the coil and clean it. Replace it, if necessary. Change filter. Change the membrane. Check the state of the restrictor. If blocked, clean and replace the flushing electrovalve <b>PREMIUM</b> Clean or replace. Check the power supply of the house. Check the output voltage of the transformer, (if there is no voltage or it is not enough, replace it). Check the operation, wiring, and/or replace if necessary. Check the operation, wiring, and/or replace if necessary. Check that the inlets of rejection and permeate are located on the upper side of the pump.
<b>4. Low production.</b>	Low pressure at the inlet of the membrane. Inlet valve is partially closed. Tank valve is closed. Tank has no pressure Tank has a hole. Pre-filter is dirty. Membrane is too blocked. Pump is in a bad condition <b>PREMIUM SMART</b> Rejection is too high. Permeate pump is in a bad condition. <b>ADVANCED</b>	Check the network pressure, and install a pump and a low pressure switch if necessary. Open it. Open it. Check the tank pressure and, if necessary, pressurise it until 7 PSI (without water inside) Check if there is water coming out of the valve used to pressurise the tank. Replace it. Check the output flow of the post-filter and, if necessary, replace it. Check the production flow. If it is too low and the pressure is correct, replace it. Check that the pump generates between 6 and 7 kg/cm <sup>2</sup> at the inlet of the membrane housing If not, replace the pump head or the complete pump. Check the flow of the restrictor, and replace it if necessary. <b>SMART CLASSIC ADVANCED</b> Check the flow and operation of the flushing electrovalve. <b>PREMIUM</b> Check/replace.
<b>5. Excessive production.</b>	Membrane housing is in a bad condition. Membrane housing is empty. O-rings are in a bad condition. Tubes are not properly connected.	Rejection and production may be connected. Replace the membrane housing or its housing. Put the membrane in. Rejection and production are connected. Replace the o-rings or the membrane. Check the system flow diagram, the water flows and the quality.
<b>6. High TDS.</b>	Membrane housing is in a bad condition. Membrane joints are pinched.	Rejection and production are connected. Replace the o-rings and/or the membrane. Replace the o-rings and/or the membrane.
<b>7. Metallic, bitter or acid taste.</b>	The pH of the water is low.	Install a remineralising post-filter before the tank.

## 10. Guide for the identification and solution of problems

SYMPTOM	CAUSE	SOLUTION
8. Plastic or synthetic taste.	Post-filter is blocked.	Change the post-filter.
9. Unpleasant taste and odour.	Contamination.	Change the filters, the membrane and hygienise the system.
10. Water has a white colour.	Air in the system.	Wait. This is not a problem. This appearance of the water will slowly disappear as the air inside the system is removed.
11. Rejection does not stop.	Inlet electrovalve is dirty or worn. <b>PREMIUM SMART</b> Tank has not enough pressure. High pressure switch needs to be adjusted or is broken. <b>PREMIUM SMART</b> Shut-off valve is worn. <b>CLASSIC</b> Inlet electrovalve is dirty or worn. <b>PREMIUM SMART</b> The flushing electrovalve is open. <b>PREMIUM</b>	Check if rejection stops when the system is unplugged. If not, clean or replace. When the tank is empty, check there is an air pressure of 0.5 kg/cm <sup>2</sup> or 7 PSI. Check the adjustment and replace it if necessary. Check and replace. Check if rejection stops when the system is unplugged. If not, clean or replace. Check the operation.
12. The system turns on sporadically, without water consumption.	Check valve is in a bad condition. There is a leak somewhere in the system or the faucet. Excessive pressure at inlet.	Replace. Repair the product or replace the faucet. Install a pressure regulator at the inlet.
13. The system does not start.	There is no water supply. There is no power supply. <b>PREMIUM SMART</b> PC board is in a bad condition. <b>PREMIUM SMART</b> Inlet electrovalve or booster pump are in a bad condition. <b>PREMIUM SMART</b>	Check the state of the inlet valve of the house and the system. Check the general power supply. Check the output voltage of the transformer and replace it if necessary. Check the electrical wiring. Check the state of the pressure switches, and if the wiring is correct. Check the state of the leaking sensor and replace it if necessary. Check the wiring and the state of the board. Replace it, if necessary. Check the voltage and/or replace it if necessary.
14. The system turns constantly on and off.	Pressure is too low at inlet (below 0.75 bar). Low or high pressure switches are in a bad condition. <b>PREMIUM SMART</b> PC board is in a bad condition. <b>PREMIUM SMART</b> The coil of the inlet electrovalve is in a bad condition. <b>PREMIUM SMART</b> The coil of the flushing electrovalve is in a bad condition. <b>PREMIUM</b> Short circuit in a component or wiring. <b>PREMIUM SMART</b>	Bridge the low pressure switch. Replace it. Replace it. Replace it. Replace it. Detect, repair and/or replace it.

SYMPTOM	CAUSE	SOLUTION
<b>15. The pump does not generate any pressure, but is working.</b> <b>SMART</b>	The diaphragm is in a bad condition. Transformer is in a bad condition.	Replace the diaphragm or the whole pump. Check and replace.
<b>16. Leaking sensor is not working</b> <b>SMART</b>	Leaking sensor is in a bad condition. PC board is in a bad condition.	Replace the sensor and the wiring. Check and/or replace.
<b>17. RED LED WITH SIMPLE FLASHING at the front, Beep for 20 sec. every 7 h, system is blocked.</b> <b>PREMIUM</b>	A leak has been detected.	Disconnect the aerial connector of the leaking sensor, start the system up to identify and repair the leak. Dry the leaking sensor and plug again.
<b>18. RED LED WITH DOUBLE FLASHING</b> <b>PREMIUM</b>	Filter change alarm. Filters are about to expire their service life	Contact the Technical Service of your distributor. Service. Change filters and maintenance.
<b>19. RED LED: LIGHTED . Beep for 20 sec. every 7h.</b> <b>PREMIUM</b>	The service life of the filters has expired. Must be replaced immediately.	Contact the Technical Service of your distributor. Service. Change filters and maintenance.
<b>20. GREEN LED IS FLASHING + front button is pushed.</b> <b>PREMIUM</b>	Low water quality. Membrane is not properly installed or its service life is about to expire.	Contact the Technical Service of your distributor. Service. Check the installation and membrane. Check the probe and the water quality control system.
<b>21. BLUE LED: OFF</b> <b>PREMIUM</b>	The system has no power supply. Electrical failure	Check the general power supply. Check the pc board, the transformer and the front panel. If defective, replace.

**11. Maintenance Service Book**

DATE		SERVICE TYPE	NAME, SIGNATURE AND AUTHORISED STAMP	
/	/	<input type="checkbox"/> START-UP	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	STAMP	
/	/	<input type="checkbox"/> REPAIR		
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> REPAIR	STAMP	
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> REPAIR	STAMP	
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> REPAIR	STAMP	
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> REPAIR	STAMP	
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		
/	/	<input type="checkbox"/> COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/> REPAIR	STAMP	
/	/	<input type="checkbox"/> HYGIENIZATION		
/	/	<input type="checkbox"/> OTHERS		

ENGLISH

# EC DECLARATION Guarantee

## EC DECLARATION

We DECLARE, hereby under our sole responsibility, that: the reverse osmosis system for water filtration or human consumption, **PALLAS** brand: **Classic, Advanced, Smart and Premium** with serial no.: according to manufacture, complies with the following regulations and standards: **EN-12100-1, EN12100-2, EN-55014-1:2000/A1:2001, EN-61000-3 2:2000/ A1:2001, EN-61000-3-3:1995/A1:2001, EN-61558-2-6** and fulfills the essential requirements from directives: **98/37/CE, 73/23/CEE, 89/336/CEE.**

Name and position of the authorised person:  
**Mr Eddy Albrecht / General Manager of PWG.**  
Date: **21/7/2010.**

Signature and stamp:

**Eddy Albrecht**  
**General Manager PWG** POLLET WATER GROUP N.V.  
Textelestraat 13  
B - 8790 WAREGEM  
Tel. 056 76 20 50  
Fax 056 40 37 04



POLLET WATER GROUP · www.pwg.be

## GUARANTEE CERTIFICATE OF PALLAS SERIES

### SYSTEM GUARANTEE FOR THE END USER:

The distributor guarantees its systems for two (2) years against any manufacturing defect. The guarantee comprises the repair and replacement of defective parts by authorised personnel from the Distributor or the Official Technical Service Assistance (TAS), in the place of installation or their workshops. The guarantee includes the labour and shipment costs that may arise.

**PWG** shall not offer guarantee for parts suffering usual wear and tear, lack of maintenance, hits and other faults due to the improper use of the system outside specifications and operating limitations indicated by the manufacturer. Likewise the guarantee will not be valid in the event of misuse, or in those cases where it has been modified or repaired by personnel that do not belong to the distributor or the official TAS. All the replaced parts under guarantee shall remain the property of **PWG**.

**PWG** shall be held responsible for the lack of conformity when this refers to the origin, identity or compliance of the products, according to its nature and purpose. Taking into account the technical specifications of the systems, it is essential, for the guarantee to be valid, that the technical conditions of the installation and operation are fulfilled. Should this conditions not be fulfilled, the guarantee would remain invalid, taking into account the importance of the system's use as well as the conditions and operating limitations in which it must operate. The distributor must guarantee that the installed system is appropriate for the improvement of the quality of water that is going to be treated, according to the technical specifications of the system and the regulations in force.

The distributor must guarantee the proper installation and start-up of the system, according to the instructions provided by the manufacturer and the regulations in force. Furthermore, it shall be held responsible for the lack of conformity due to an inaccurate application, installation or start-up of the system.

For any claims under guarantee you are required to provide the receipt of purchase. The term of the 2-year guarantee starts on the date of purchase of the system in your distributor. Should you suffer any problem with the system while it is under guarantee, contact your distributor.

### COMPANY AND/OR AUTHORISED TECHNICIAN:

Company and/or technician, date and signature:

**!** **NOTE FOR THE COMPANY AND/OR AUTHORISED TECHNICIAN:** The information marked with (\*) must be filled in by the technician and copied by him from the **INSTALLATION AND START-UP REGISTRATION SHEET OF THE SYSTEM.**

**The system is installed and in operation as required by the client, and for this to be officially recorded:**

\*Pre-treatment of the RO system:

\*Input hardness of the RO system [°F]:

\*Input TDS of the RO system [ppm]:

\*Input pressure of the RO system [bar]:

\*TDS of produced water (faucet) [ppm]:

### \*Result of the installation and start-up sheet

CORRECT.  OTHERS:

The owner of the system has been properly and clearly informed about the use, manipulation and maintenance of the system, in order to guarantee a proper operation and the quality of produced water. To such effect, a maintenance contract has been offered.

\*Ref. of the maintenance contract

ACCEPTS the maintenance contract.

DOES NOT ACCEPT the maintenance contract.

For further information, to report a breakdown or that the system is not working properly, and to request maintenance or the assistance of a technician, previously read the sections on how to operate the system, and detection and solution of problems, in this manual and contact the distributor or company where the system was purchased.

S/O

Adhesive label

P/N

for the identification

S/N

of the installed system.

## INSTALLATION AND START-UP REGISTRATION SHEET OF THE SYSTEM

**NOTES FOR THE TECHNICIAN:** Read this manual carefully. Should you have any queries, please contact the Technical Assistance Service (TAS) of your distributor.

The information marked with (\*) **must be fulfilled and copied by the technician from the GUARANTEE CERTIFICATE SHEET.**

The technician/distributor must keep this sheet and provide it to SWG if required to do so, in order to improve the after-sales service and the customer service.

The technician carrying out the installation and start-up of the system must have the appropriate skills to do so.

S/O	Adhesive label
P/N	for the identification
S/N	of the installed system.

### INFORMATION CONCERNING THE USE OF THE SYSTEM:

Origin of the water to be treated:

- Public network supply.  
 Others: \_\_\_\_\_  
 \_\_\_\_\_

\*Pre-treatment of the RO system: \_\_\_\_\_

\*Input hardness of the RO system [°F]: \_\_\_\_\_

\*Input TDS of the RO system [ppm]: \_\_\_\_\_

\*Input pressure of the RO system [bar]: \_\_\_\_\_

Input chlorine concentration of the RO system [ppm]: \_\_\_\_\_

### CONTROL OF THE INSTALLATION STEPS:

- Washing of carbon pre-filters.  
 Washing of carbon post-filter.  
 Membrane installation.  
 Hygienisation according to the described protocol.  
 Chlorine concentration in faucet after flushing: \_\_\_\_\_  
 Checking of flow restrictor.  
 High pressure switch setting.  
 Revision and connectors.  
 Watertightness of pressurised system.  
 \*TDS of produced water (counter-top faucet) [ppm]: \_\_\_\_\_  
 Provide clear information about the proper use, manipulation and maintenance of the system to guarantee a proper operation and the quality of produced water. Since a proper maintenance of the system is essential to guarantee the quality of the produced water, a maintenance contract must be offered to the owner, in order to have skilled technicians carry out the maintenance.

### GUARANTEE OF THE SYSTEM FOR THE DISTRIBUTOR:

PWG shall only be held responsible for the replacement of parts showing a lack of conformity. The repair of the system and the costs that may arise (labour, transport costs, travelling expenses, etc.) will be assumed by the distributor according to that agreed in the general conditions of sales and contracting, hence the distributor will not have the right to claim these costs to the manufacturer.

### OBSERVATIONS

\*Result of the installation and start-up:

CORRECT (system is installed and works properly. Produced water is appropriate for the intended use.)

OTHERS: \_\_\_\_\_  
 \_\_\_\_\_

### IDENTIFICATION OF THE AUTHORISED TECHNICIAN:

Company and/or technician, date and signature:

### ACCEPTANCE OF THE SYSTEM'S OWNER:

I have been informed clearly about the use, manipulation and maintenance of the system, and I have been offered a maintenance contract as well as been informed on how to contact the Customer Service, in order to request information, report a breakdown or that the system is not working properly, request maintenance or the assistance of a technician.

Comments \_\_\_\_\_  
 \_\_\_\_\_

\*Ref. of the maintenance contract \_\_\_\_\_

- ACCEPTS the maintenance contract.  
 DOES NOT ACCEPT the maintenance contract.

Model / Ref.: \_\_\_\_\_

Owner Mr./Mrs.: \_\_\_\_\_  
 \_\_\_\_\_

Street: \_\_\_\_\_  
 \_\_\_\_\_

Telephone/s: \_\_\_\_\_  
 \_\_\_\_\_

City: \_\_\_\_\_

County: \_\_\_\_\_ Zip code: \_\_\_\_\_

Date and signature:

## 11. Maintenance Service Book

DATE		SERVICE TYPE		NAME, SIGNATURE AND AUTHORISED STAMP	
/	/	<input type="checkbox"/>	START-UP	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	STAMP	
/	/	<input type="checkbox"/>	REPAIR		
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	REPAIR	STAMP	
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	REPAIR	STAMP	
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	REPAIR	STAMP	
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	REPAIR	STAMP	
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		
/	/	<input type="checkbox"/>	COMPLETE MAINTENANCE	TECHNICIAN	<input type="checkbox"/> ORDINARY <input type="checkbox"/> EXTRAORDINARY <input type="checkbox"/> GUARANTEE
/	/	<input type="checkbox"/>	REPAIR	STAMP	
/	/	<input type="checkbox"/>	HYGIENIZATION		
/	/	<input type="checkbox"/>	OTHERS		