

MANUAL DE INSTALACIÓN
INSTALLATION MANUAL
MANUEL D'INSTALLATION
MONTAGENHANDBUCH
MANUALE D'INSTRUZIONI
MANUAL DE INSTALAÇÃO
INSTALLATIEHANDLEIDING

RELEASE 01 01-2011



EN	19
FR	35
DE	51
IT	67
PT	83

3

99

ES

NE





# **CONTENTS**

1. General details	20
2. Safety warnings	21
2.1. General	21
2.2. Warnings in installation and assembly work	21
2.3. Warnings in maintenance work	21
3. Installation and assembly	22
3.1. Positioning and location of the Spa	22
3.2. Drainage of the Spa	23
3.3. Electrical connection	24
4. Start-up	31
4.1. Filling the Spa	31
5. Troubleshooting	33
6. Declaration of Conformity	34



# **IMPORTANT**

This instructions manual contains fundamental information on the safety measures to be adopted when installing and starting-up the spa. It is therefore essential that both the Fitter and the User read these instructions before assembly and start-up.





This manual contains all the information needed to fully enjoy your SPA. We recommend that you take some time to go over the points detailed below.

If you have any question or doubt on the operation or maintenance of this product, please contact your fitter or local dealer. They are specialists and their professional knowledge will help you to enjoy this product.

IMPORTANT: The manufacturer reserves the right to change the design or specifications without prior notice and without entering into any obligation.





# **ATTENTION - IMPORTANT**

- Before carrying out any work on the Spa, it should be switched off from the electrical supply (differential in the OFF position, or disconnect the mains cable).
- This equipment cannot be connected to a normal plug
- This equipment requires suitable electrical installation. This should be performed by a qualified person following the electrical safety standards of each country.
- The electrical supply of the Spa should always be protected by a highly sensitive differential. A 30 mA differential is recommended.
- Earth connection is essential. The earthing circuit of the building should always be in perfect condition to guarantee the safety of the Spa user. If you have any doubts on this, ensure that the earth circuit is checked by a qualified person. The manufacturer is not responsible for possible damage caused by unsuitable maintenance of the earth circuit.
- Do not connect the electrical equipment (differential in the ON position), if the Spa is empty of water.
- Use a cable of a section suitable to the power of the Spa and the distance to the panel.
- Always observe the instructions included in Safety Warnings chapter of this manual.
- Never try to access an electrical component unless you are qualified or are the Head of Maintenance.

Never handle electrical elements with wet feet.



# 2. SAFETY WARNINGS

### 2.1. GENERAL

- Avoid contact with electrical voltage.
- Carefully follow current regulations regarding accident prevention.
- Any modification on the equipment requires prior authorisation from the manufacturer.
   Original spare parts and accessories authorised by the manufacturer guarantee greater safety.
   The manufacturer of the equipment is exempt from all liability for damages caused by using non-authorised spare parts or accessories.
- During operation, some parts of the equipment are at dangerous electrical voltage levels. Work on each element or equipment can only be performed once it has been disconnected from the mains and having disconnected the start-up devices.
- The user should ensure that assembly and maintenance works are carried out by qualified and authorised persons, and that they have carefully read the installation and service instructions.
- Safety in the operation of the machine can only be guaranteed if installation and service instructions are followed.
- The limits indicated in the electrical control panel cannot be exceeded under any circumstances.
- Contact the Technical Service of the manufacturer or the local dealer of the manufacturer in the event of malfunction or a breakdown.
- The Spa should be installed following current regulations applicable in each country, particularly those referring to electrical safety.
  - There is risk of flooding with this equipment, and therefore it should be installed in an area prepared to collect and drain any water that may overflow (both under and around the spa), owing to its use or possible leaks in any of the circuits. (See the Guarantee).
  - The equipment should be installed in a place which has been properly prepared and where all components of the Spa can be easily accessed. The guarantee does not cover work needed to be carried out to install or replace the product. (See the Guarantee).

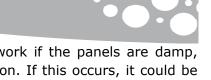
# 2.2. WARNINGS IN INSTALLATION AND ASSEMBLY WORK

- While connecting the electrical cables to the equipment, ensure that the layout inside the
  connection box is correct, check that there are no pieces of cable remaining inside after it is
  closed, and that it is properly earthed.
- Take particular care to ensure that water cannot enter the pumps and live electrical parts.

### 2.3. WARNINGS IN MAINTENANCE WORK

- Before carrying out any electrical or mechanical maintenance work, make sure that the machine is disconnected from the mains, and that the start-up devices are blocked.
- Do not handle the equipment with wet feet.





• In natural wood panelled Spas, never perform maintenance work if the panels are damp, because their dimensions might vary due to humidity absorption. If this occurs, it could be very difficult to assemble the panels. Wood panels must be completely dry before performing any work on them.

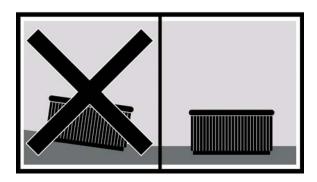
#### 3. INSTALLATION AND ASSEMBLY

Before installing and assembling the Spa, ensure that the packaging of the Spa is in perfect condition. Contact your distributor immediately if the packaging is damaged.

### 3.1. POSITIONING AND LOCATION OF THE SPA

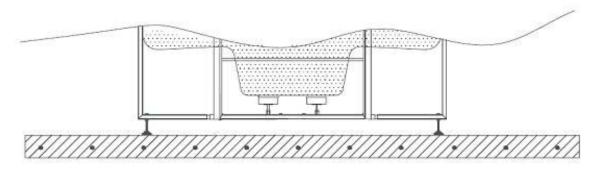
Position the Spa horizontally, placing the whole base of the unit on a smooth, flat and level surface, capable of supporting the weight when used (full of water, plus the weight of the bathers).

The Spa cannot be placed on a curved surface or on blocks.



# 3.1.1 PORTABLE ADJUSTABLE SPAS

Some spas come with a metal structure to facilitate their installation. This structure has several points of support. Before filling the spa, these points of support should be adjusted to ensure they are all in contact with the ground.



Avoid placing the Spa where water could leak into the electrical equipment compartment, and also protect the unit from direct contact with very damp areas.

The side where the motors are located should be fully accessible. In order to carry out maintenance tasks, the location of the Spa should enable it to be moved so that all its sides can be easily accessed.



#### **Outdoor installation**

If an outdoor location is chosen to place the Spa:

• Do not expose the Spa to sunlight when it is empty and without a protection cover. Remember that prolonged exposure to sunlight may damage the surface of the Spa and its accessories. Acrylic rapidly absorbs heat from the sunrays reaching very high temperatures which will damage the Spa.

Maximum absorption temperature is 60°C.





- It is recommended to place the Spa away from trees, as falling leaves may block the filter.
- If the Spa is placed inside glass structures, prevent sunrays shining directly on the Spa through the glass, as the temperature could be excessively hot.

### **Indoor installation**

It is recommended to ensure drainage in the area of the Spa, to prevent water from accumulating around it and to avoid dangerous access areas for bathers.

Remember that the operation of the Spa causes increased damp and therefore, there must be a ventilation system to prevent damp from accumulating which could cause damage in the room where the Spa is located.

The use of a cover reduces heat loss and damp in the room.



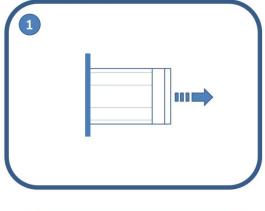
The Spa should not be left empty and uncovered at room temperatures over 20°C or below 4°C.

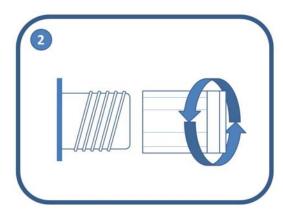
### 3.2. DRAINAGE OF THE SPA

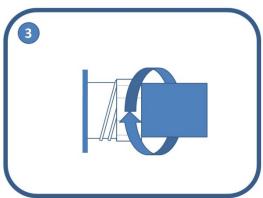
The Spa has a manual emptying system by gravity, through a drainage valve of 3/4". The drainage valve should always be closed. It should only be open when the Spa is emptied. If necessary, a drainage system can be installed to connect the Spa to the general drains of the house. In this case, the steps 5 and 6 are not necessary.

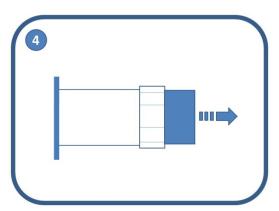


# **Operation of the valve is:**









### 3.3. ELECTRICAL CONNECTION



# **ATTENTION - VERY IMPORTANT**

- This equipment cannot be connected to a normal plug.
- This equipment requires suitable electrical installation. This should be done by a specialised fitter following local electrical safety regulations of each country.
- The electrical input of the Spa should always be protected by a highly sensitive differential. A 30 mA differential is recommended.
- Earthing connection is essential.
- Use a suitable section cable bearing in mind the power of the Spa and distance to the control panel.
- Always follow instructions given in the Safety Warnings chapter of this manual







### ATTENTION - RISK OF ELECTRIC DISCHARGE

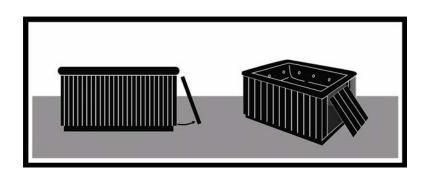
- The electrical supply should be switched off (differential in the OFF position or disconnect the cable from the mains) before carrying out any work.
- Never try to access an electrical component unless you are qualified or are the Head of Maintenance.
- Always use suitable personal protection equipment and tools when handling electrical equipment.
- Never access electrical elements if you are wet, particularly if you have wet feet.
- Do not connect the electrical equipment (differential in the ON position), if the Spa is empty of water.

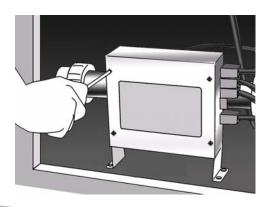
Follow these steps to connect the Spa:

# 3.3.1 Locate the electrical panel of the Spa

Locate the electrical control panel; to do this, open the side panel to access the electrical components. The door is anchored by screws.

The control cabinet is the box that is in front of the electrical heater element. To open it the four screws on the front cover must be unscrewed.

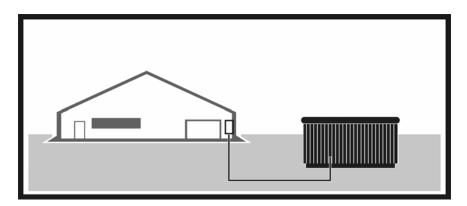




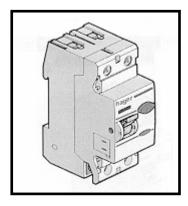


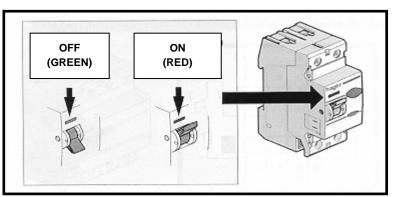
# 3.3.2 Installation of the differential

- The electrical installation should incorporate a high-sensitive 2-pole differential in the general mains input panel (the differential is not supplied with the Spa).
- ATTENTION It is essential that the owner of the Spa tests the differential switch at least once a month, to check its good working order.



Check that the differential is in the OFF position. Do not place the differential in the ON position until the Spa is filled with water.





### 3.3.3 Connect the electrical control panel of the Spa to the differential switch.

Before carrying out any work on the Spa, make sure it is disconnected from the mains (differential switch in the OFF position, or disconnect the cable from the mains).

Use a suitable cable from the differential switch to the electric cabinet of the Spa, depending on the location and applicable law. The cable section will vary depending on the Spa model and the distance of the installation.

The required kW are indicated in the appendix *Technical Specifications of the Spa*. The maximum power must be considered, depending on the "High Amp" or "Low Amp" configuration.





# High Amp/Low Amp setting

Power consumption can vary considerably depending on the spa setting selected. Therefore, the type of installation chosen will determine the amount of electricity consumed.

### LOW AMP:

This setting disconnects the electric heater when any of the massage pumps are working, which reduces electricity consumption. This is the manufacturer's default configuration.

# **HIGH AMP:**

This setting makes it possible for all spa components to work at the same time. This type of installation consumes more power.

Changing from a low amp to a high amp setting is achieved thanks to the switches on the switchboard.

<u>Table</u>	1	# of Hi-Speed		
		Pumps/Blower		
Before Heat Disable				
<u>A2</u>	<u>A10</u>			
OFF	OFF	0		
ON	OFF	1		
OFF	ON	2		
ON	ON	3		

### **IMPORTANT:**

The Electric Specification Sheet attached to the manual indicates both the "Low Amp" and the "High Amp" power. To determine the cable section of the electrical installation, see the values indicated in this sheet and the following table:

Table of required sections, distance and power

		kW required										
		2.1	2.5	2.8	3.2	3.5	4.4	5.3	6.2	7.0	7.9	8.8
		Nominal section of the cable in mm <sup>2</sup>										
9	6 – 11 m	2.5	2.5	2.5	2.5	4	4	6	10	10	10	10
istance	11 - 15 m	2.5	2.5	4	4	4	6	6	10	10	10	10
٥	15 – 20 m	4	4	4	6	6	6	10	10	10	16	16

For longer distances, increase the cable section accordingly.





Some configurations may require installing 1 32A line, 2 16A lines or even one three-phase line (3  $\times$  16A) to cover the power required by the Spa.

The different configuration options of the electrical control panel are explained further on in this Installation Manual.

Remember that the installation and any changes in the electric configuration must be carried out by qualified personnel, following the current regulations in each country.

The manufacturer shall not be responsible for any damage caused by an improper installation or an installation performed by non-qualified personnel.



Pay attention to the position of the maximum consumption switch.

The Spa will not operate properly if a cable not corresponding to the distance and power of the Spa is used, and the electrical circuits may overheat which may cause an electrical accident. Always use cable with the suitable section of maximum consumption. In the event of doubt between two values, always use the cable with the greater section.

To connect the supply to the electrical panel of the Spa, locate the packing gland positioned at one end of the electrical panel.

Make sure that there is no electric current in the connection cable (differential switch in the OFF position).

Take the cable to the Spa electrical panel.

Open the cover of the electrical cabinet, insert the feed cable through the free side .

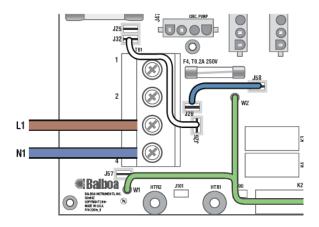
Attention: the indicated blue cable is neutral, and the brown cable indicates the line or phase.

Fasten the terminals as indicated in the following diagrams and the type of electrical supply.

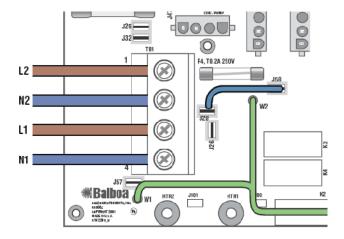




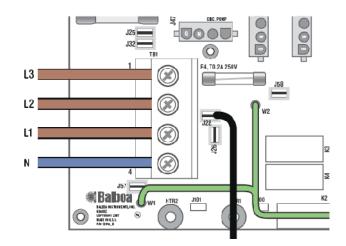
# Single line 1x16A or 1x32A



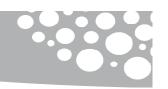
# Double line 2x16A



# Three-phase line





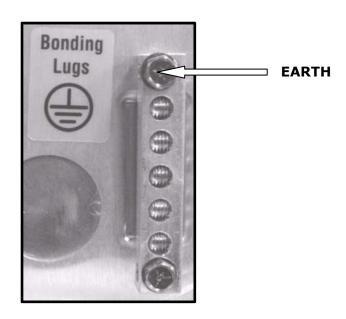




# Correct earthing is essential

The earthing circuit of the building should always be in perfect condition to guarantee the safety of Spa users. If you have any doubts on this, ensure that the earthing circuit is checked by a duly qualified person. The manufacturer will not be held responsible for possible damage caused by incorrect maintenance of the earthing circuit.

Fasten the earth cable (yellow and green) to the terminal on the outside of the control cabinet as shown in the following diagram:





Do not connect the electricity (differential in the *ON* position) until the Spa is filled with water



### 4. START-UP





# Before start-up, read the following points carefully.

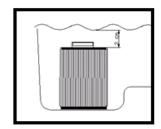
### 4.1. FILLING THE SPA

The Spa does not have a specific filling system. It is recommended to use a manual filling system with a garden hose or similar.

Proceed as follows:

- Before starting filling the Spa, locate the drain valve (see "Locating the drain valve") and ensure that it is in the CLOSED position.
- Fill the Spa through the top, with clean water, to the level indicated on the label placed in the skimmer area (water should cover the filter by at least 3 cm.).





# **4.1.1 FILLING PRIVATE OVERFLOW SPAS**

It is recommended to fill the spa manually using a garden hose or a similar system.

Proceed as follows:

Before filling the spa, find the drainage valves and ensure they are all closed, except for the safety outlet, which should always be open.

Fill the spa from above using clean water until the spa starts to overflow.

Fill the three pumps with at least 15 cm of water so that the filter pump does not take in air when working normally.

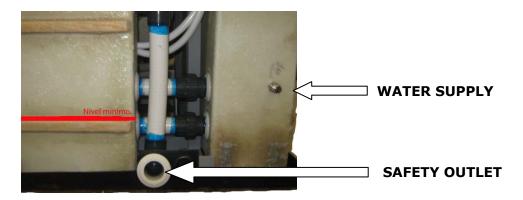
Connect the water supply to one of the tanks' inlets.



Before opening the filter lid ensure that the 3 valves that regulate the filtration circuit are closed. If they are open the spa would be emptied through the filter







The spa has a filling system that works using a ball cock. The outlet of the ball cock must be connected to the mains supply at a constant water pressure.

When the spa loses water as a result of evaporation, the system automatically fills the tanks. The compensation tanks have a safety outlet for removing water.



### **WARNING**

THE COMPENSATION TANKS OF PRIVATE OVERFLOW SPAS HAVE A LIMITED CAPACITY.

THEY CAN HOLD 280 LITRES OF WATER, EQUIVALENT TO 4 PARTIALLY SUBMERGED PEOPLE.

USERS SHOULD ENTER THE SPA ONE BY ONE AND SLOWLY TO ENABLE THE TANKS TO ABSORB THE DISPLACED WATER AND PREVENT WATER FROM FLOWING OUT OF THE SPA.



### **WARNING**

During the filling process, water should be prevented from entering electrical parts.

If seawater is used in the Spa, the circuit components will quickly deteriorate.

Do not fill the Spa with hot water, as this could trigger off the safety thermostat and damage equipment and connections.

Once the Spa has been filled with water, connect the electrical equipment by placing the differential switch in the On position (See Electrical Connection).

Do not use the Spa without first carefully reading all the information detailed in the following points:





- Adjust water pH between 7.2 and 7.4 (see Water maintenance).
- Add all required chemical products recommended in Water maintenance (Maintenance Manual)
- Select the required temperature (see *Control Keyboard of the Spa*). Remember that if the water is cold, it may take 24 hours to reach a temperature of 38°C.
- Before using the Spa, check the pH values once again in case they have changed with the treatments indicated above.

# 5. TROUBLESHOOTING

PROBLEMS	REASONS	SOLUTIONS			
Insufficient flow of filtered water.	Filter is blocked by dirt.	Wash the filter.			
The massage pump of the <i>Jets</i> does not work. Spa does not work.	The cable of the digital control panel is disconnected from the board.  No electrical supply  Differential is disconnected	Connect the cable to the board. Check that the pump is connected to the electric control panel. Connect the differential.			
The massage pump of the air Blower does not work.	The cable of the digital control panel is disconnected from the board.  No electrical supply  The pump has disconnected owing to overheating.	Connect the cable to the board. Check that the pump is connected to the electric control panel. Let it cool for about 3 hours and then start-up the pump again.			
Water leaks out through the Venturi	quarter to open and close the water flow. If this trim makes a	Open the jet. Remove the jet. Pull the outer trim about 2 cm. Unscrew the jet turning anti-clockwise. Once it has been dismantled, replace the jet, by screwing in a clockwise direction. Press the outer trim back into place.			
Limited airflow in the Jets.	Venturis are closed.	Open the <i>Venturis</i> .			
Reduced airflow.	Starter brushes of the motor are worn.	Change the pump.			
The water does not reach the required temperature.	Probe is damaged. Check programmed temperature	Replace the temperature probe. Programme the temperature			

Note: In the section *Diagnosis message of the control panel (User Manual)*, the diagnosis messages to solve possible breakdowns are indicated.





Pol Ind Cervera Avda. Pla d'Urgell, 2-8 25200 - Cervera

Spain

Е PRODUCTOS: NL PRODUKTEN: GB PRODUCTS:

PRODUKTE:

D

S PRODUKTER: Ν PRODUKTER:

SPAS CON MUEBLE SPAS IN WOOD **CLADDING** 

F PRODUITS: DK PRODUKTER: Ι SF TOUTTEET: PRODOTTI: Р PRODUTOS: GR ITPIONTA:

#### **DECLARACION DE CONFORMIDAD**

Los productos arriba mencionados se hallan conformes a: Directiva 89/336/CEE (Compatibilidad Electromagnética), Directiva 73/23/CEE (Baja Tensión) y la Norma Europea EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994.

#### **EVIDENCE OF CONFORMITY**

The products listed above are in compliance with: Directive 89/336/CEE (Electromagnetic Compatibility), Directive 73/23/CEE (Low Voltage) and with the European Standard EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994.

#### KONFORMITÄTSERKLÄRUNG

Die oben angeführten Produkte entsprechen Sicherheitsebestimmungen der Richtlinien der Flektromagnetischen Verträglich 89/336/FG der Niederspannungs Richtlinien 73/23/EG, un der europäischen Vorrschrift EN60335-1:1995 EN60335-2 - 60:991+A52 :1994.

#### DECLARATION CONFORMITÉ

Les produits mentionnés ci-dessus sont conformes aux : Directive Compatibilité Electromagnétique 89/336/CEE, Directive Basse Tension 73/23/CEE et à la Norme Européenne EN 60335-1:1995 EN 60335-2 -60:1991+A52:1994.

### DICHIARAZIONE DI CONFOMITÀ

I prodotti su elencati sono conformi alle seguenti : Directtiva 89/336/CEE (Compatibilita elettromagnetica), Directtiva 73/23/CEE (Bassa Tensione) e alla Norma Europea EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994

# DECLARAÇÃO DE CONFORMIDADE

Os produtos acima mencionado estão conforme a : Directiva 89/336/CEE (Compatibilidade Electromagnética), Directiva 73/23/CEE (Baixa tensão) e a Norma Europeia EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994

#### CONFOMITEITSVERKLARING

Bovenstaande produkten voldoen aan veiligheidsvoorschriften van de,Richtlijn Electromagnetische compatibiliteit 89/336/EEG, laagspannings richtlijn 73/23/EEG en aan de Europese norm EN 60335-1:1995 - EN 60335-2 -60:1991+A52:1994.

### FÖRSÄKRAM OM ÖVERENSSTÄMMELSE

Ovansående produkter ä i överenstämmelse med: Direktiv 89/336/CEE (Elektromagnestik kompatibilitet), Direktiv 73/23/CEE (Lågspänning) och med Europeisk Standard EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994.

### **OVERENSSTEMMELESESERKL**ÆRING

Ovenstående produkter oppfyller betingelsene elektromagnetiskdirektiv 89/336/EU, lavpenningsdirektiv EU73/23, og Europeisk Standard EN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994.

### **OVERENSSTEMMELSESERKÆRING**

De ovennævnte varer er i overensstemmelse med : Direktiv-89/336/EU (Elektromagnetisk forenelighed), Direktiv- 73/23 EU (Lavspænding) og i overensstemmelse med den europæiske standard EN 60335-1:1995 - EN 60335-2 -60:1991+A52:1994.

### VAKUUTUS YHDENMUKAISUUDESTA

Yllämainiut tuotteet ovat yhdenmukaisia direktiivin EU/89/336 (Elektromagneettinen yhdenmuskaisuus), direktiivin EU/73/23 (Matalajännite)sekä eurooppalaisen standarinEN 60335-1:1995 - EN 60335-2 -60 :1991+A52 :1994

### ΑΗΑΩΣΗ ΣΥΜΒΑΤΟΤΗΤΑΣ

Τα παραπαίνω προτόντα είναι συμφωνα με την Οδηγία 89/336/ΕΕ, (Ηλεκτρομαγνημκηζ Συμβατστηταζ) την Οδηγία 73/23/ΕΕ (Χαμηληζ Τασηζ) κου με τον Ευρωπατκό Κανονίσμό EN60335-1:1995-ΕN 60335-2 -60:1991+A52:1994.





