EN

Independent domestic hot water tanks

B 650 - 3000 B 802 and 1002

User, installation and service manual

7663148-01 (20/01/2017)

De Dietrich

Contents

1 Safety instructions

1.1 General safety instructions

DANGER

This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are given correct supervision or instruction on using the appliance in complete safety and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance should not be carried out by children without adult supervision.

CAUTION

In order to limit the risk of being scalded, the installation of a thermostatic mixing valve on the domestic hot water flow pipes is obligatory.

The thermostatic mixing valve must be set to maximum at 60°C.

1.2 Recommendations

CAUTION

Do not neglect to service the appliance. Service the appliance regularly to ensure that it operates correctly.

WARNING

Only qualified professionals are authorised to work on the appliance and the installation.

WARNING

Heating water and domestic water must not come into contact with each other. Domestic water must not circulate through the exchanger.

To benefit from extended warranty cover, no modifications must be made to the appliance.

Insulate the pipes to keep heat losses to a minimum.

Only remove the covers for maintenance and breakdown repair operations and put the covers back in place afterwards.

Warning stickers

The instructions and warnings affixed to the appliance must never be removed or covered and must remain legible during the entire lifespan of the appliance. Damaged or illegible instructions and warning stickers must be replaced immediately.

1.3 Liabilities

1.3.1. Manufacturer's liability

Our products are manufactured in compliance with the requirements of the various applicable European Directives. They are therefore supplied with the

CE marking and any documents necessary.

Quality is always our primary focus, and we constantly strive to improve our products. We therefore reserve the right to change the specifications mentioned in this document at any time.

As the manufacturer, we cannot be held liable in the following cases:

Failure to observe the user instructions for the appliance.

Overdue or inadequate maintenance of the appliance.

Failure to observe the installation instructions for the appliance.

1.3.2. Installer's liability

The installer is liable for the installation and initial commissioning of the appliance. The installer must respect the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Carry out installation in compliance with the applicable legislation and standards.
- Perform the initial commissioning and carry out any checks necessary.
- Explain the installation to the user.
- If maintenance is necessary, warn the user of the obligation to check the appliance and keep it in good working order.
- Hand over all manuals to the user.

1.3.3. User's liability

To guarantee optimum operation of the appliance, the user must respect the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Call on qualified professionals to handle installation and initial commissioning.
- Have the installer explain the installation.
- Have the required checks and maintenance carried out by a qualified professional.
- Keep the instruction manuals in good condition close to the appliance.

2 About this manual

2.1 Symbols used

2.1.1. Symbols used in the manual

This manual uses various danger levels to draw attention to special instructions. We do this to improve user safety, to prevent problems and to guarantee correct operation of the appliance.

DANGER

Risk of a dangerous situation causing serious physical injury.

WARNING

Risk of a dangerous situation causing slight physical injury.

CAUTION

Risk of material damage.

Signals important information.

Signals a referral to other manuals or other pages in this manual.

2.1.2. Symbols used on the equipment

Before installing and commissioning the appliance, carefully read the manuals provided.

Dispose of used products through an appropriate recovery and recycling structure.

2.2 Abbreviations

CFC: Chlorofluorocarbon

DHW: Domestic hot water

2.3 Homologations

2.3.1. Certifications

This product complies with the requirements of the following European directives and standards:

- Low Voltage Directive 2006/95/EC.
  - Standard referred to: EN 60.335.1.
  - Standard referred to: EN 60.335.2.21
  - Ecodesign Directive: 2009/125/UE
  - Energy Labeling Directive: 2010/30/UE
- Electromagnetic Compatibility Directive 2004/108/EC.
  - Standards referred to: EN 50.081.1, EN 50.082.1, EN 55.014

2.3.2. Directive 97/23/EC

This product conforms to the requirements of European Directive 97/23/EC, article 3, paragraph 3, on pressure equipment.

3 Technical description

3.1 General description

The B 650 to 3000 appliances are high-performance independent domestic hot water tanks.

The B 650 - 3000 independent domestic hot water tanks are connected to central heating boilers used for heating domestic water.

Main components:

The tanks are made of high quality steel lined with food quality standard enamel vitrified at 850°C, which protects the tank from corrosion.

The heat exchanger welded into the tank is made of smooth tubing;
its external surface, which is in contact with domestic water, is enamelled.

The appliance is insulated by a casing **fitted prior to hydraulic connection,** made from either 100 mm thick polyester fibre
with a polystyrene exterior, or glass wool with an M1-class PVC sleeve (through-holes for tubes to be cut when in place) or inflexible M0-class sleeve (glass wool plus aluminium foil).

The tanks are protected against corrosion by one or more magnesium anodes.

3.2 Technical specifications

Maximum operating temperature:
- primary (exchangers): 95°C
- secondary (tank): 95°C

Maximum operating pressure:
- primary (exchangers): 12 bar
- secondary (tank): 7 bar

Model	B... HR/HS	650	800	1000	1500	2000	2500		3000	
Capacity	L	650	780	980	1500	2000	2500		3000	
DHW coil exchange surface	m^2	4	4	4.4	5.5	5.5	5.5		5.5	
Exchanger volume	L	30.4	30.4	33.4	41.8	41.8	41.8		41.8	
Heat loss coefficient UA (HR)	W/K	1.85	2.12	2.43	2.93	3.71	4.20		4.76	
ê domestic performance (Dt primary 15 K)										
Boiler flow temperature	°C	70	80	70	70	80	70	80	70	80
Temperature data. DHW boiler output 60°C:										
- Max. exchanged power	kW	65	65	71	89	89	89	130	89	155
- Continuous flow	m^3/h	1.2	1.2	1.4	1.7	1.7	1.7	2.5	1.7	3
- Exchanger pressure drop	mWc	1.3	1.3	1.6	3.1	3.1	3.1	6	3.1	8.6
Temperature data. DHW boiler output 45°C:										
- Max. exchanged power	kW	95	95	105	130	130	130	170	130	170
- Continuous flow	m^3/h	2.3	2.3	2.6	3.2	3.2	3.2	4.2	3.2	4.2
Weight	kg	275	290	327	423	460	565		644	

Model		B 802		B 1002	
Tank capacity	l	800		1000	
Back-up volume	l	310		650	
Solar volume	l	490		650	
Exchanger		bottom (solar)	top (boiler)	bottom (solar)	top (boiler)
Exchanger capacity	l	15.2	14.4	16.1	16.0
Exchange surface	m^2	2	1.9	2.1	2.1
Primary flow rate	m^3/h	0.5	3	0.5	3
Water pressure drop	mbar	-	150	-	135
Primary inlet temperature	°C	50 70	70 80	50 70	70 80
Exchanged power (1) (2)	kW	4.5 12.5	29 39	4.8 13.2	32 43
Hourly flow rate (1) (2)	l/h	- -	370 960	- -	410 1050
Maximum flow rate in 10 min at Dt 30 K (1) (3)	l/10 min	-	420	-	465
Heat loss coefficient UA	W/K	2.12		2.43	
Shipping weight	kg	270		335	
(1) Cold water temp. 10°C, (2) DHW temp. 45°C, (3) DHW temp. 40°C, DHW storage temp. 65°C, values measured using the back-up volume only					

Casing insulation:

There are three different types of casing installation available:
- HR: semi-flexible polyester fibre casing
- HS: glass wool casing with M1-class PVC exterior
- MO HR: glass wool casing with M0-class aluminium foil

Two people are required to position the casing.

3.3 Specific ErP information

3.3.1 Recommendations

Note
Only qualified persons are authorised to assemble, install and maintain the installation.

3.3.2 Ecodesign Directive

This product conforms to the requirements of European Directive 2009/125/EC on the ecodesign of energy-related products.

3.3.3 Technical data - Hot water storage tank

Tab.1 Technical parameters for hot water storage tanks

Product name	B 650	B 800	B 1000	B 1500	B 2000	B 2500	B 3000
Storage volume	650	780	980	1500	2000	2500	3000
HR casing static loss	90	116	135	165	197	222	242
HS M1 casing static loss	135	156	175	230	272	290	330
HR M0 casing static loss		154	172	225	268	285	324

Product name	B 802	B 1002
Storage volume	800	1000
HR casing static loss	128	135
HS M1 casing static loss	160	180

3.3.4 Disposal and recycling

Note
Removal and disposal of the domestic hot water tank must be carried out by a qualified installer in accordance with local and national regulations.

1. Cut the power supply to the domestic hot water tank.
2. Disconnect the cables on the electrical components.
3. Close the domestic water supply stopcock.
4. Drain the installation.
5. Detach all hydraulic connections from the domestic hot water tank outlet.
6. Scrap and recycle the domestic hot water tank in accordance with local and national regulations.

3.3.5 Product sheet - Hot water storage tanks

Tab.1 Product sheet for hot water storage tanks B ... 2

Product name	B 802	B 1002
Storage volume	800	1000
HR casing static loss	128	135
Energy efficiency class	**D**	**D**
HS M1 casing static loss	160	180
Energy efficiency class	**D**	**D**

Tab.2 Product sheet for hot water storage tanks B

Product name	B 650	B 800	B 1000	B 1500	B 2000	B 2500	B 3000
Storage volume	650	780	980	1500	2000	2500	3000
HR casing static loss	90	116	135	165	197	222	242
Energy efficiency class	**D**	**D**	**D**	**D**	**D**	**D**	**D**
HS M1 casing static loss	135	156	175	230	272	290	330
Energy efficiency class	**D**	**D**	**D**	**E**	**E**	**E**	**E**
HR M0 casing static loss		154	172	225	268	285	324
Energy efficiency class		**D**	**D**	**E**	**E**	**E**	**E**

4 Installation

4.1 Installation regulations

CAUTION

The appliance must be installed by a qualified professional in accordance with applicable local and national regulations.

CAUTION

France: all aspects of the installation must comply with the codes of practice and standards (DTU, EN and others) governing work and interventions in individual and collective homes, and other buildings.

DANGER

Limit temperature at draw-off points: the maximum domestic hot water temperature at the draw-off points is the subject of special regulations that vary from country to country in order to protect consumers. These special regulations must be observed during installation

4.2 Package list

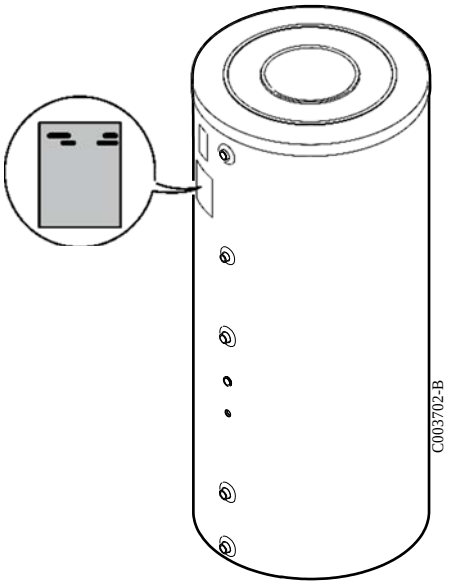
4.2.1. Standard delivery

The delivery includes:

- a DHW tank package including accessories
- a package containing the flexible, semi-flexible or inflexible casing
- an installation, user and service manual.

The unit is delivered on a pallet with a capacity of up to 2000 l for the flexible and semi-flexible casings.

4.3 Choice of the location



4.3.1. Data plate

The data plate affixed to the tank provides important information regarding the appliance: serial number, model, etc.

CAUTION

The data plate must be accessible at all times.

4.3.2. Positioning of the appliance

CAUTION

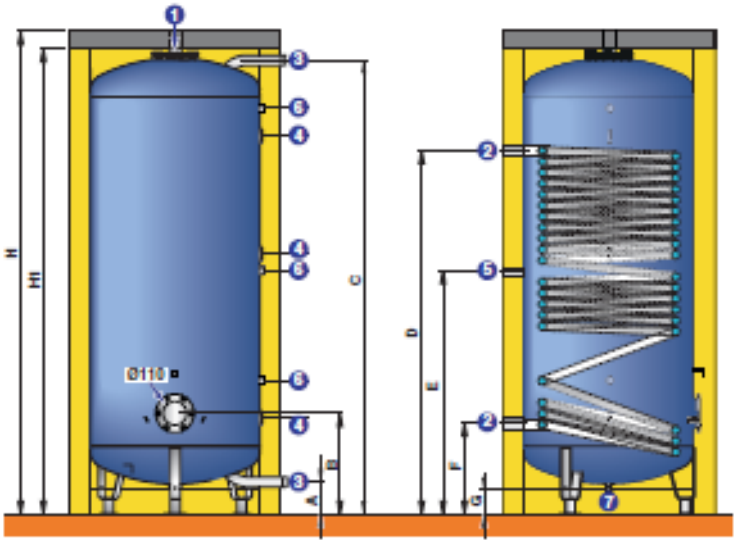
Put the appliance in a frost-free location.

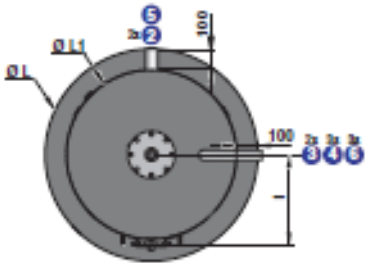
Position the appliance as close as possible to the draw-off points in order to minimise energy losses through the pipes.
Place the appliance on a base frame to facilitate cleaning of the premises.

Install the appliance on a solid, stable structure able to bear its weight.

4.3.3. Main dimensions

B 650 - 3000





B...	Ø ③
600	R 1"1/2
800	R 1"1/2
1000	R 1"1/2
1500	R 1"1/2
2000	R 1"1/2
2500	R 2"
3000	R 2"

① Domestic hot water outlet vent 2"
② Coil exchanger inlet/outlet Rp 1" ½
③ Domestic hot water inlet/outlet
④ Sensor tube, 6 mm diameter
⑤ Recirculation Rp 1"
⑥ Sleeve for sensor tube/anodes 3/4"
⑦ Drain with plug R 3/4"

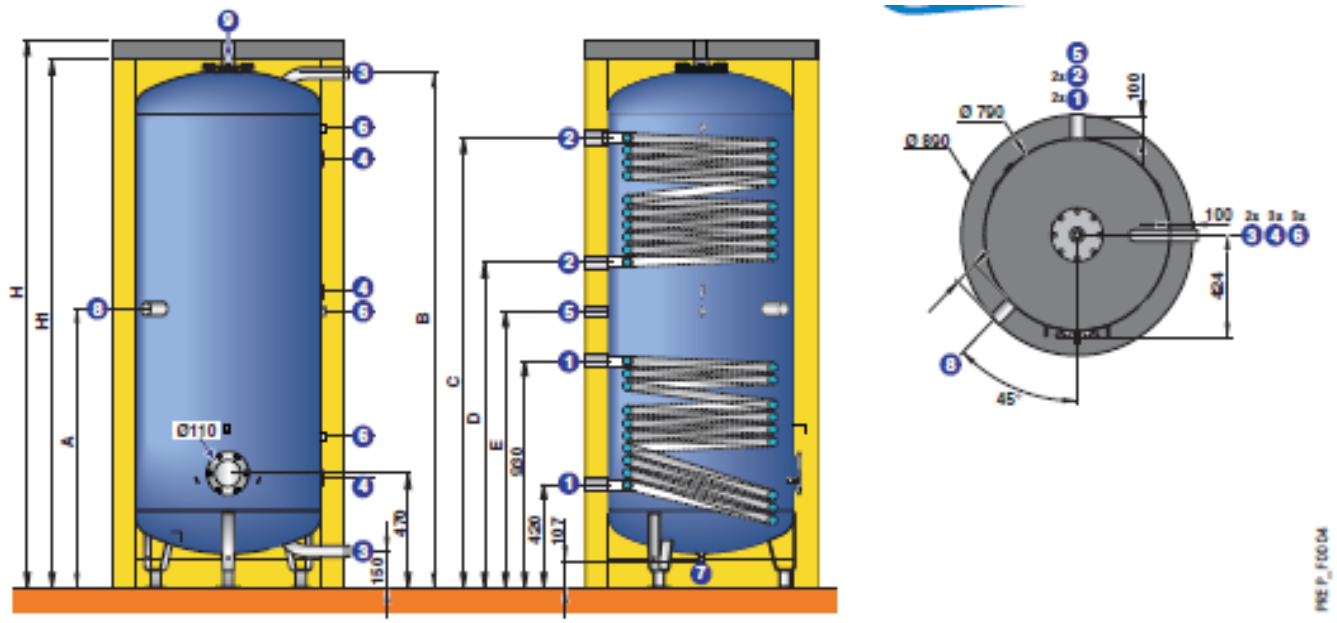
R: threading
Rp: tapping

B...	H	H1	Ø L	Ø L1	A	B	C	D	E	F	G	I
600	1746	1646	990	790	150	470	1588	1338	869	420	107	425
800	2057	1957	990	790	150	470	1899	1338	1025	420	107	425
1000	2273	2173	990	790	150	470	2115	1695	1133	420	107	425
1500	2011	1911	1300	1100	150	502	1799	1542	975	452	59	584
2000	2242	2142	1300	1100	150	502	2040	1542	1095	452	59	584
2500	2036	1936	1600	1400	185	530	1740	1215	963	450	27	-
3000	2198	2098	1600	1400	185	530	1902	1215	1044	450	27	-

	Exchanger output (Dt 25 K primary) kW											
	10-55°C				10-60°C				10-45°C			
Primary	65	70	80	85	65	70	80	85	65	70	80	85
B 650	64	80	124	136	32	52	88	104	60	80	112	128
B 800	64	80	124	136	32	52	88	104	60	80	112	128
B 1000	70	88	136	150	35	57	97	114	66	88	123	141
B 1500	88	110	171	187	44	72	121	143	83	110	154	176
B 2000	88	110	171	187	44	72	121	143	83	110	154	176
B 2500	88	110	171	187	44	72	121	143	83	110	154	176
B 3000	88	110	171	187	44	72	121	143	83	110	154	176

	Exchanger output (Dt 15 primary) kW											
	10-55°C				10-60°C				10-45°C			
Primary	65	70	80	85	65	70	80	85	65	70	80	85
B 650	57	76	110	122	46	65	95	114	76	95	125	141
B 800	57	76	110	122	46	65	95	114	76	95	125	141
B 1000	63	84	121	134	50	71	105	125	84	105	138	155
B 1500	78	105	152	167	63	89	131	157	105	131	172	193
B 2000	78	105	152	167	63	89	131	157	105	131	172	193
B 2500	78	105	152	167	63	89	131	157	105	131	172	193
B 3000	78	105	152	167	63	89	131	157	105	131	172	193

B 802 – B1002

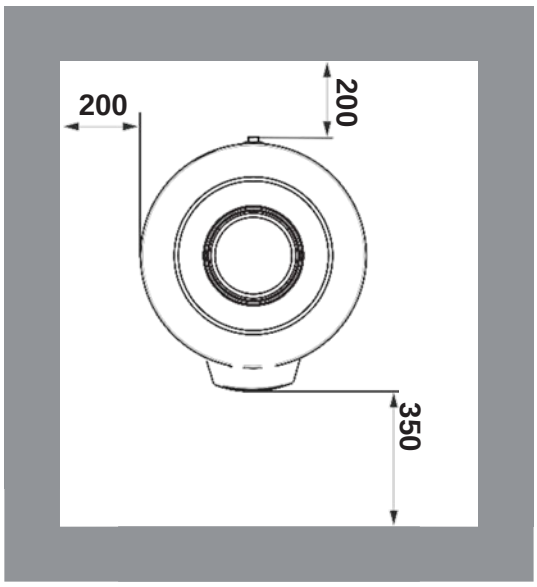


B../2	H	H1	A	B	C	D	E
800	2055	1955	976	1889	1542	1134	1024
1000	2271	2171	1147	2115	1847	1337	1133

① Solar exchanger inlet/outlet Rp 1" 1/2
② Boiler exchanger inlet/outlet Rp 1" 1/2
③ Water storage inlet/outlet Rp 1" 1/2
④ Sensor tube, 6 mm diameter
⑤ Recirculation Rp 1"
⑥ Sleeve for sensor tube/anodes 3/4"
⑦ Drain with plug R 3/4"
⑧ Immersion heater nozzle Rp 1" ½
⑨ Domestic hot water outlet/vent Rp 2"

Switching ratings:
B 802: 2010 mm
B 1002: 2220 mm

4.4 Positioning the appliance



CAUTION

Have 2 people available.

Handle the appliance with gloves.

1. Remove the packaging from the DHW tank but leave the tank on the shipping pallet.
2. Remove the protective packaging.
3. Remove the 3 screws securing the tank to the pallet.
4. Lift the DHW tank and place it in its final position, observing the distances shown on the diagram.

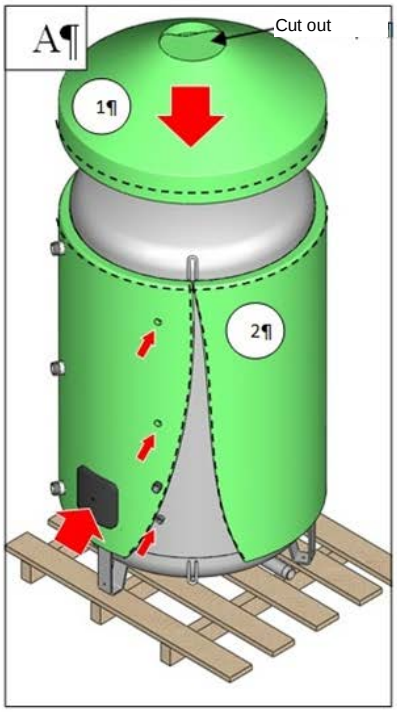
4.5 Positioning the casing and accessories

Two people are required to position the casing.

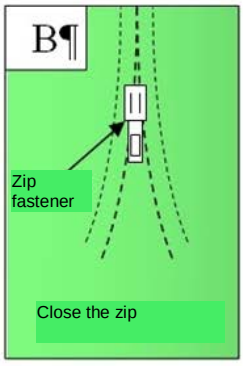
- Ensure that the connection in the base of the top (air vent) and the drain in the base at the bottom are plugged if not in use.
- Put the top insulator in place, take hold of the jacket and rotate it around the tank until the zip is to the side or rear. Keep it approximately 4 cm above the ground and pull tight in order to close the zip (HS) or clip the sections together (HR) down to the bottom.
- Position the cover (HR) and close the zip on the cover (HS) before identifying and cutting out the holes through which the connections and sensor tubes will pass (HS).

4.5.1. Positioning the HS (M1) casing

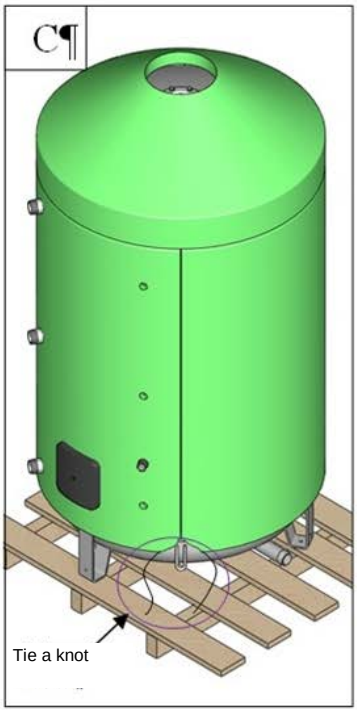
Please note: it is normal for the casing not to have any holes. The holes for joining connections, nozzles, sensor tubes or similar should be cut out in position once the casing has been fitted (see below):



- Put the top section **(1)** including cut-out in place according to **diagram A**.
- Add the vertical section.
- Insert the zip fastener **(diagram B)** for the vertical section **(2)** on the top section **(1)**.
- Close the zip on the top section while unrolling the jacket **(2)** around the tank.
- Close the vertical zip.
- Use a mallet to mark the contours of the connections and other openings to be worked.
- Use the cutter to cut out the holes for the pipes.
- Cut the jacket **A** around the inspection hatch.
- Pull the cord at the base of the jacket tight and tie a knot to hold it in place **(diagram C)**.



Note: The M0 and M1 jackets are not part of the electrical kit, they are provided in a different package.



Identifying and cutting out the holes for connections:

Identify all the side **connections**, as well as the **sensor tubes** using the mallet or a clean hammer and cut out the insulation jacket around the connection sleeve using a cutter.




Take care to cut the jacket around the connections carefully and with precision in order to avoid gaping holes around the connections, which, aside from spoiling the appearance, will also have an adverse effect on the tank insulation.

After exposing all the connections, pull the cord at the bottom of the jacket tight and tie a knot in it.

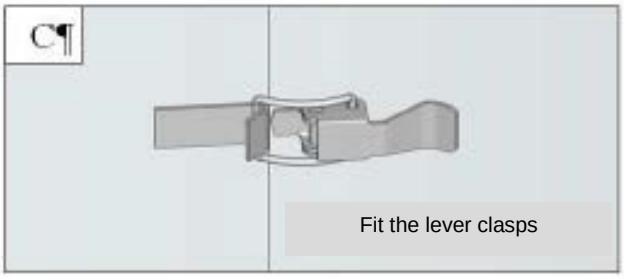
4.5.2. Positioning the HR (M0) casing

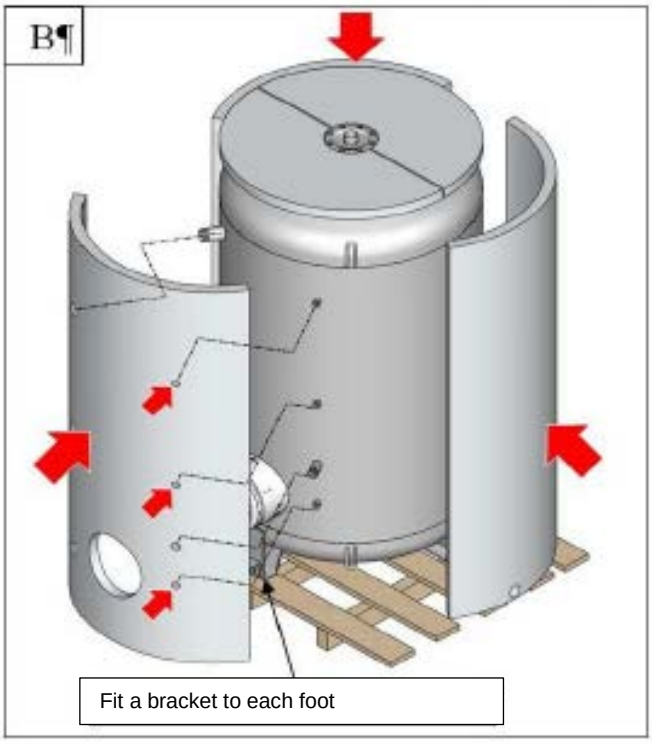
Unpack the shells and place them near the water heater.

Position panels A&B (or +) against the tank by pressing on the top end.

Close the lever clasps C.

Note: once fitted, the panels stop the top section from moving.

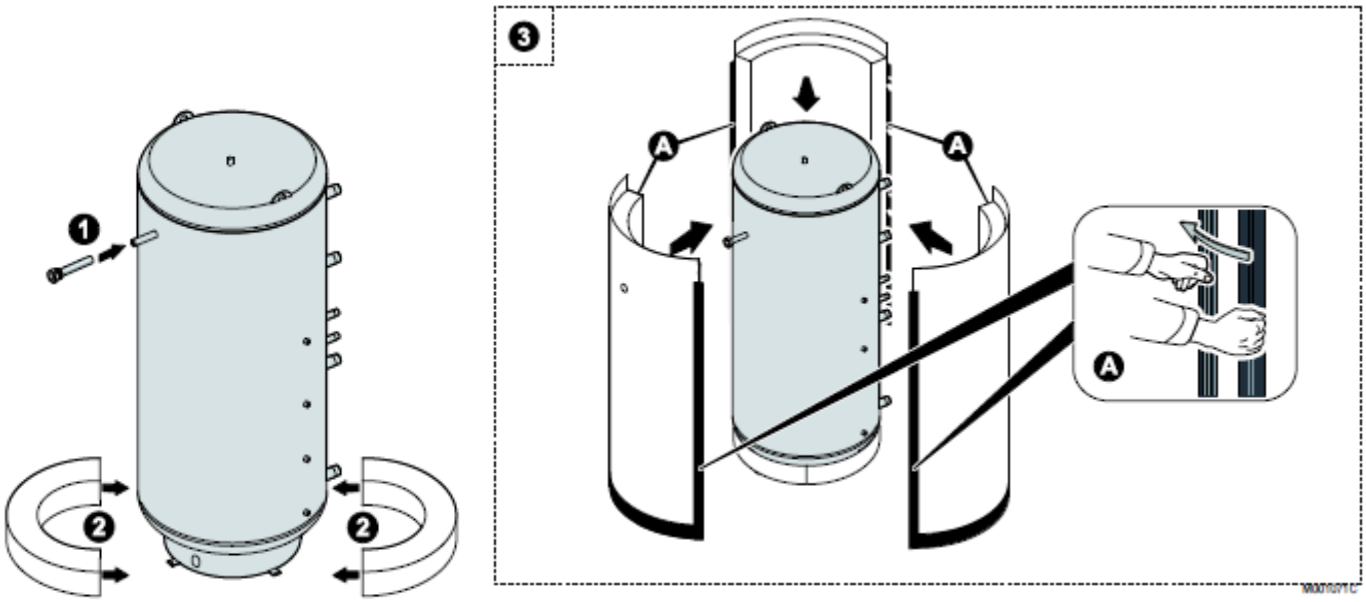


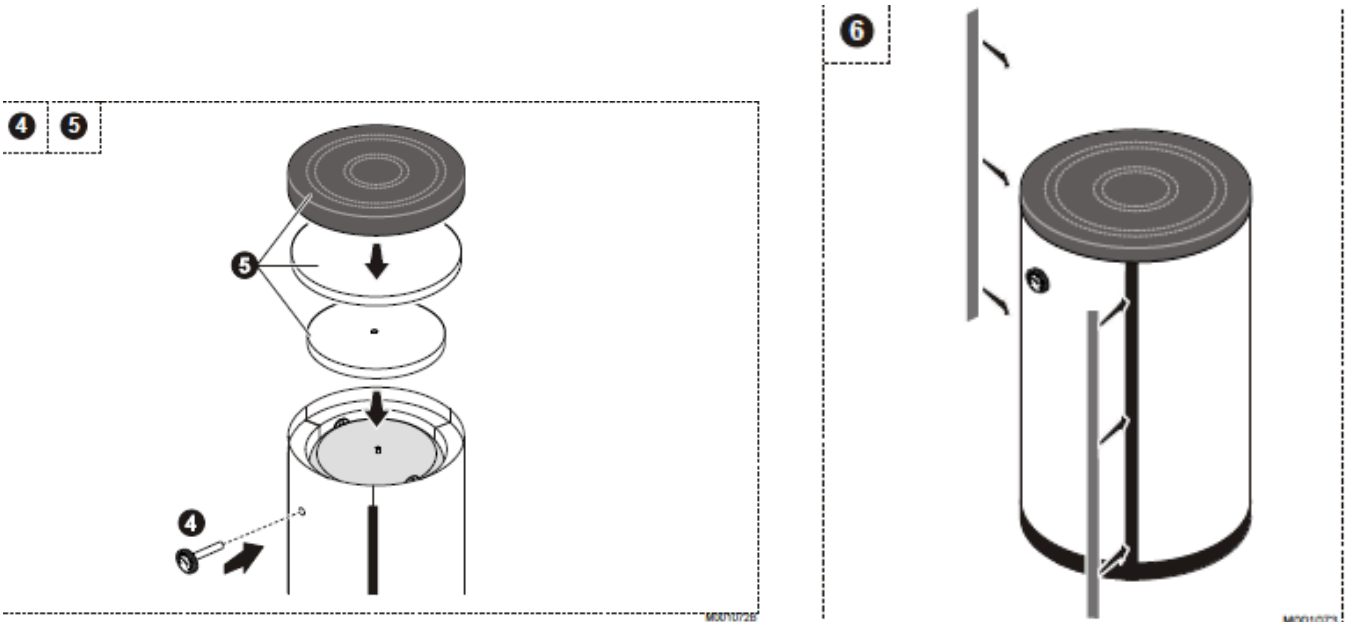


4.5.3. Positioning the HR casing

Depending on the model, this type of casing can be fitted after connecting the tank.

Fit it in position.





4.5.4. Fit the accessories

Mg anodes:

It is obligatory to assemble either the anodes supplied with the tank or at least one of the ACI anodes from our dimensioned sales drawing to guarantee protection of the tank.

The ACI anodes are not compatible with immersion heater options.

Put the magnesium anodes in position (not included in the BRP & BRPE range):

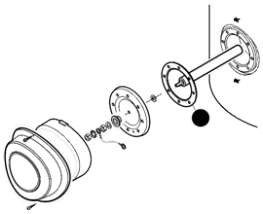
The anodes are supplied on the pallet to be mounted on the ¾ - 20/27 positions on the exterior of the tanks

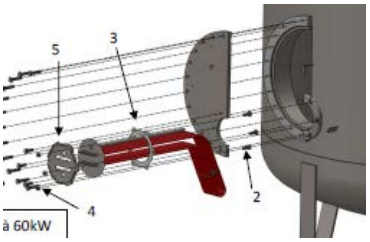
Optional electrical heating elements:

The optional electrical heating elements can be mounted on the lateral flange DN110 instead of on the original cover:

Either via the socket flange (AJ 163) in the optional accessories package for the heating elements to be screwed on 1''1/2

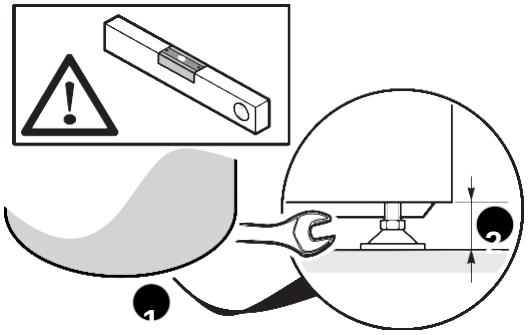
Or directly in its place with the brazed heating elements on flange DN110.





Assembly details can be found in the manuals for the optional electrical kits

4.6 Levelling



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The domestic hot water tank is levelled using 3 feet screwed onto the base of the domestic hot water tank or using blocks.

1. Screw on the 3 adjustable feet or place the blocks under the feet in order to level the appliance.

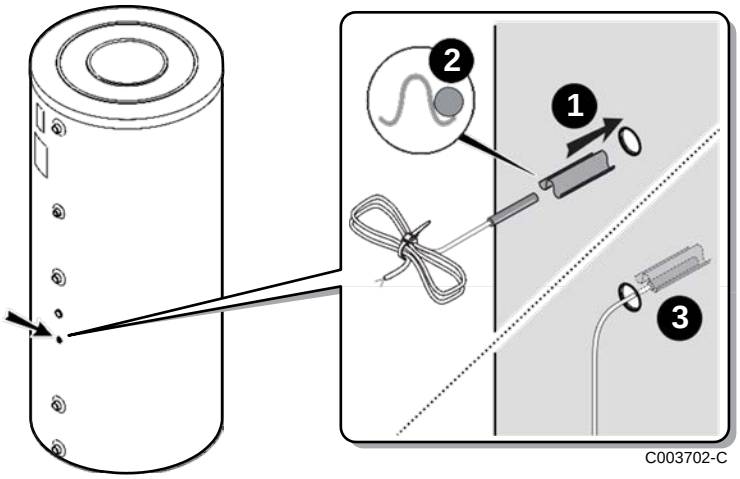
Adjustment range for the feet: 10 mm (2).

Use metal blocks under the feet of the tank if necessary.

CAUTION

Do not place blocks of any material other than steel under the domestic hot water tank.

4.7 Positioning the domestic hot water sensor



1. Fit the sensor in the sensor tube which will have already been installed in one of the chosen connectors, using the sensor tube separator.

The position of the sensor tube for the DHW sensor depends on the generator and the use of the tank.

With boilers:

High DHW requirement (semi-accumulated production)
=> bottom position

Moderate DHW requirement (accumulated production)
=> middle position

With PAC or solar:

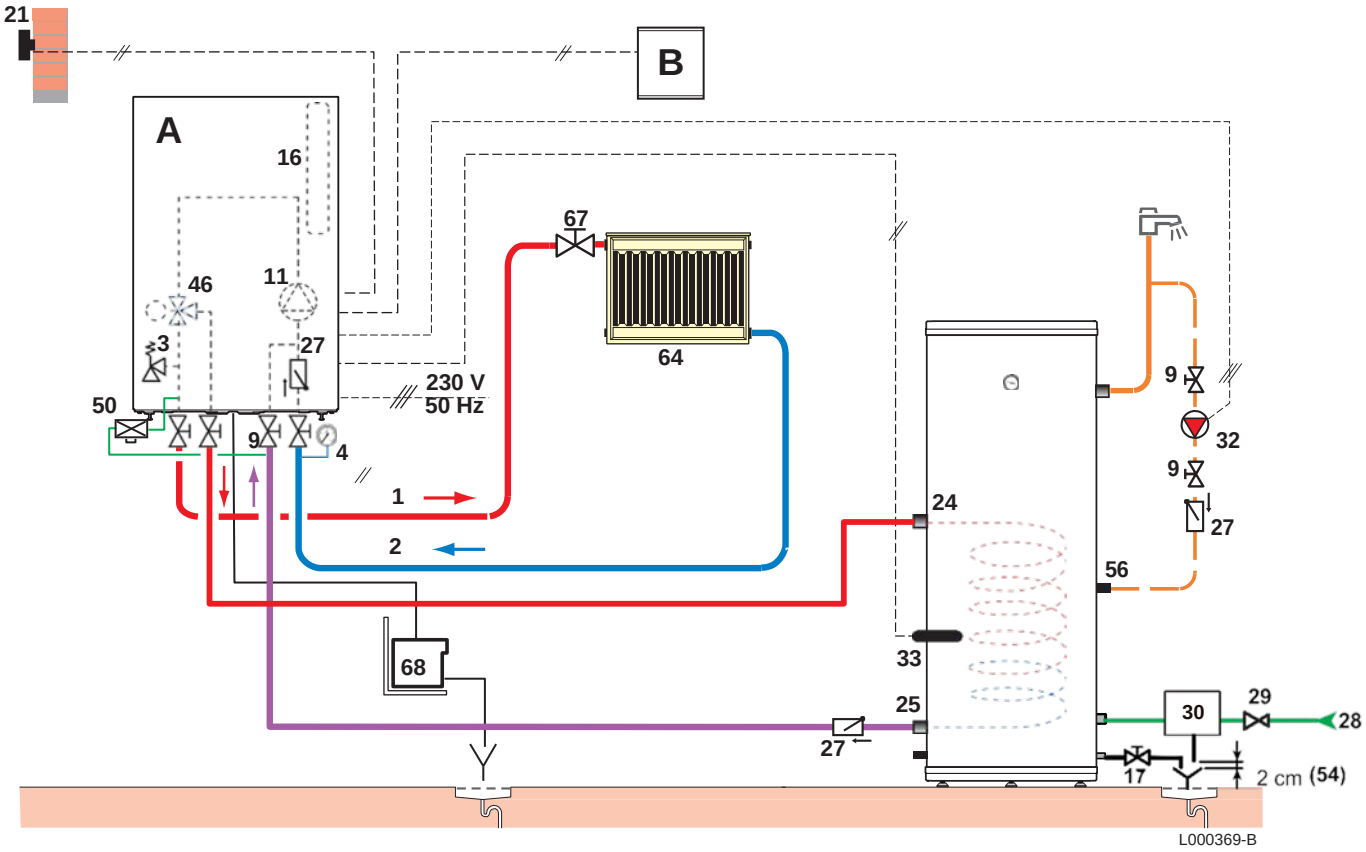
⇨ Bottom position

2. Check that the sensors are correctly positioned in the sensor tube.
3. Check the mounting of the sensor tube separator.

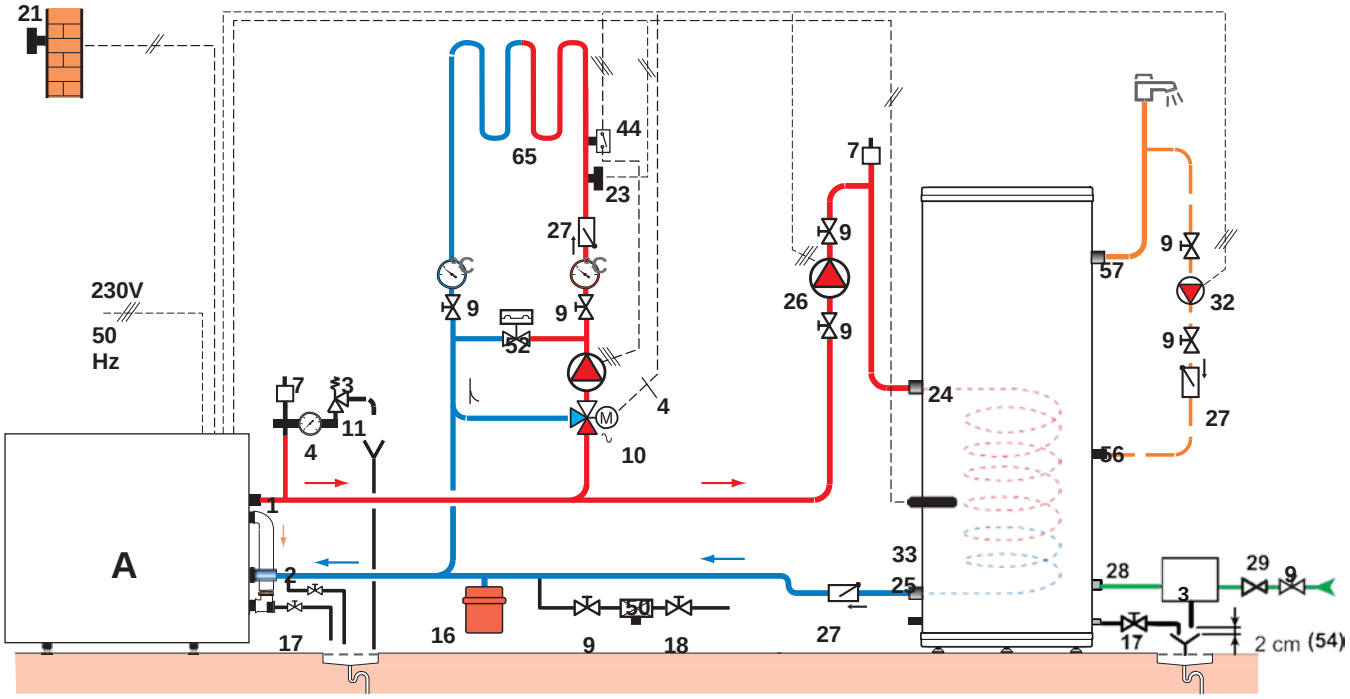
4.8 Hydraulic installation diagram

The generator or solar circuit is connected to the exchanger for the generator flow tank (inlet) at the top of the exchanger and to the return (outlet) at the bottom.
For B…2 models, the solar circuit or PAC is connected to the exchanger at the bottom of the tank and the boiler back-up at the top of the coil.

4.8.1. Example with a wall-mounted boiler or a heat pump

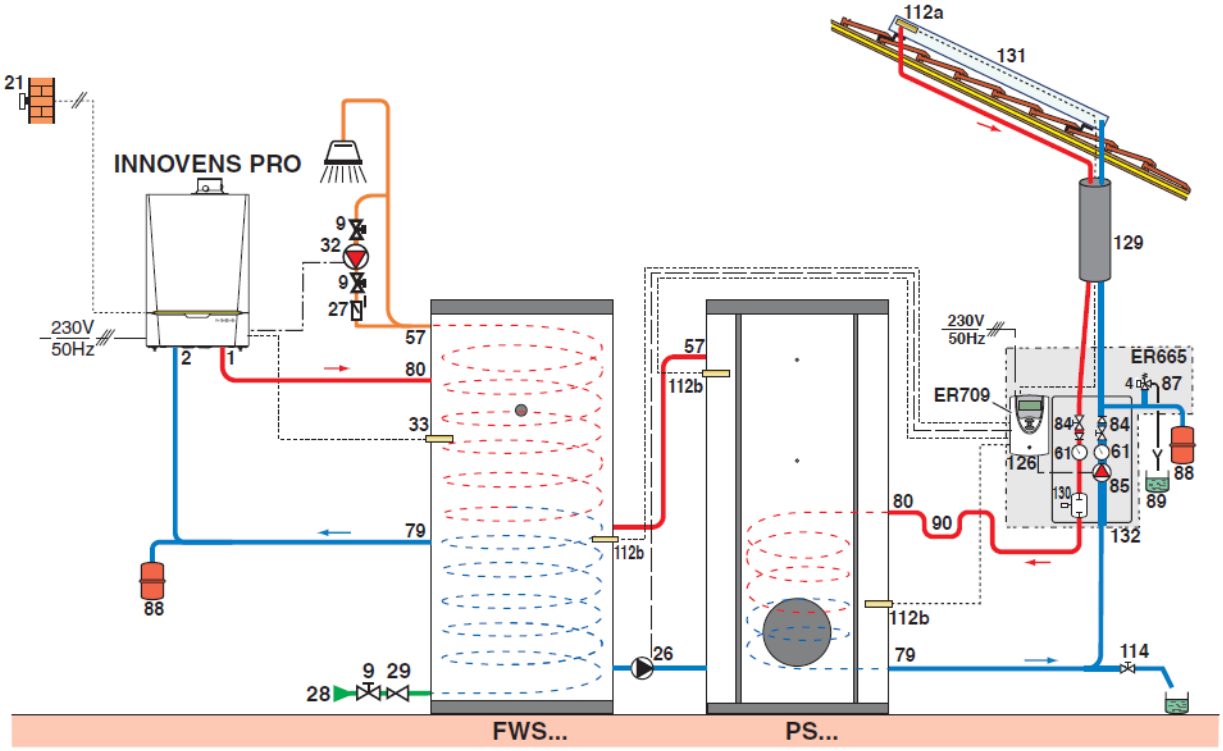


4.8.2. Example with a floor standing boiler



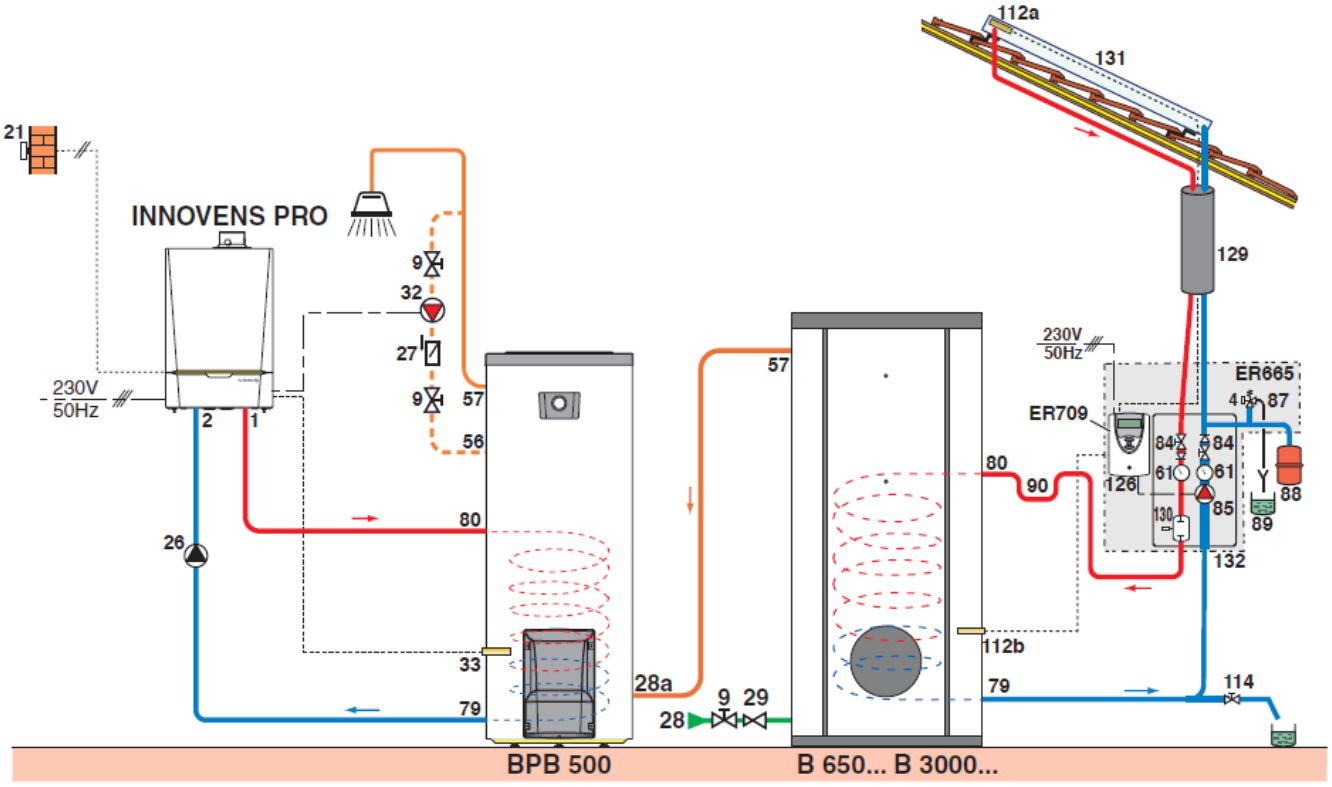
4.8.3. Example of connection to a solar circuit

Instantaneous DHW production: solar pre-heating and instantaneous production via FWS

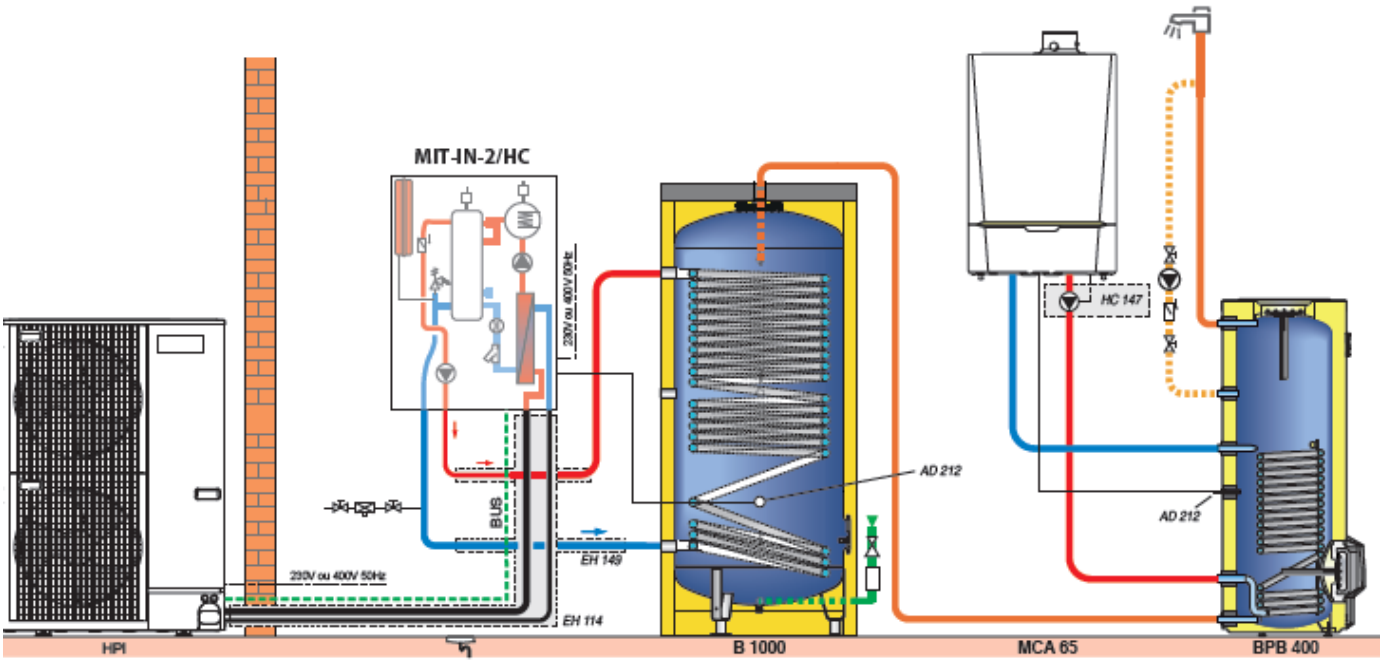


FWSS

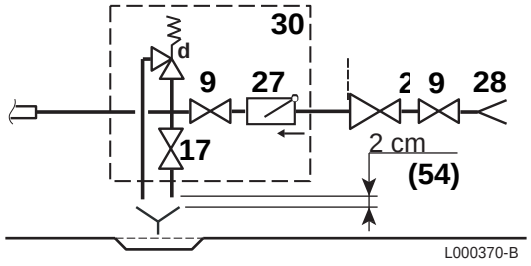
Accumulated DHW production: solar pre-heating and boiler production



4.8.4. Example of connection to PAC

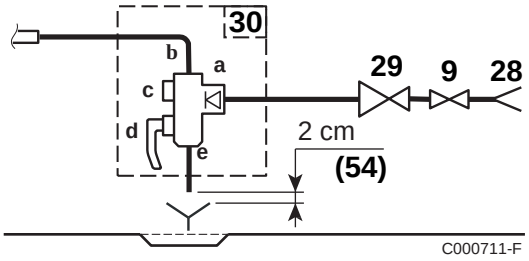


4.8.5. Safety unit (except France)



9	Isolation valve
28	Domestic cold water inlet
29	Pressure reducer
30	Safety unit
54	End of the discharge pipe free and visible 2 to 4 cm above the flow funnel
17	Drain valve
27	Non-return valve
d	Safety valve 0.7 MPa (7 bar) Germany: safety valve 10 bar (1.0 MPa) maximum

4.8.6. Safety unit (only for France)



9	Isolation valve
28	Domestic cold water inlet
29	Pressure reducer
30	Safety unit
54	End of the discharge pipe free and visible 2 to 4 cm above the flow funnel
a	Cold water inlet with an integrated non-return valve
b	Connection to the cold water inlet on the domestic hot water tank
c	Stop cock
d	Safety valve 0.7 MPa (7 bar)
e	Drain opening

4.9 Hydraulic connections

4.9.1. Hydraulic connection of the primary circuit (exchanger circuit)

See "hydraulic installation diagram"

To connect the 150 l to 300 l tanks hydraulically to the boiler (on the left- or right-hand side), use the hydraulic connection kits provided as optional extras.
For connection using these kits, refer to the instructions delivered with them.

4.9.2. Connecting the tank to the domestic water circuit (secondary circuit)

When making the connection, it is imperative that the standards and corresponding local directives be respected. Insulate the pipes to keep heat losses to a minimum.

Belgium: make the connections in accordance with Belgaqua technical instructions.

Specific precautions

Before making the connection, **flush the domestic water inlet pipes** in order to prevent metal or other particles entering the tank of the appliance.

Provision for Switzerland

Make the connections according to the requirements of the Société Suisse de l'Industrie du Gaz et des Eaux. Comply with local requirements from water distribution plants.

Safety valve

CAUTION

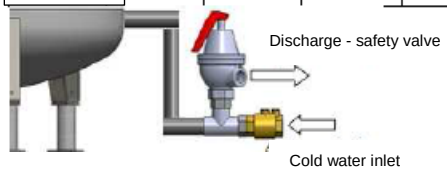
In accordance with safety rules, a safety valve calibrated to 7 bar (0.7 MPa) is mounted on the tank's domestic cold water inlet.

France: We recommend NF-marked hydraulic diaphragm safety units.

Integrate the safety valve in the cold water circuit.

Install the safety valve close to the tank in a place with easy access.

Capacity in litres	500	750	1000	1500	2000	2500	3000
Connection diameter	1"1/2	1"1/2	1"1/2	2"	2"	2"	2"



Sizing

The diameter of the safety unit and its connection to the tank must be at least equal to the diameter of the domestic cold water inlet on the tank.

There must be no cut-off devices between the safety valve or unit and the domestic hot water tank.

The flow pipe on the safety valve or unit must not be blocked.

To avoid obstructing the flow of water in the event of overpressure:

The safety unit discharge pipe must have a continuous, adequate gradient.

The cross section of the discharge pipe from the safety unit must be at least equal to the cross section of the opening on the safety unit outlet.

Germany: Define the dimensions of the safety valve in accordance with the DIN 1988 standard.

Tank capacity (litres)	Minimum dimension of the inlet connection on the safety valve	Heating output (kW) (max.)
< 200	R or Rp 1/2	75
200 to 1000	R or Rp 3/4	150

Fit the safety valve above the DHW tank to avoid draining the tank during servicing.
Install a drainage valve at the lowest point on the tank.

Isolation valves

Hydraulically isolate the primary and domestic circuits with stop valves to facilitate maintenance on the DHW tank. The valves make it possible to carry out maintenance on the tank and its components without draining the entire installation.

These valves are also used to isolate the tank when conducting a pressurised check on the tightness of the installation if the test pressure is greater than the admissible operating pressure for the tank.

CAUTION

If the mains pipes are made of copper, fit a sleeve made of steel, cast iron or any other insulating material between the tank's hot water outlet and the pipes to prevent corrosion to the connection.

Connecting the domestic cold water

Make the connection to the cold water supply according to the hydraulic installation diagram.

The components used for the connection to the cold water supply must comply with the prevailing standards and regulations in the country concerned.

Install a water drain in the boiler room and a funnel-siphon for the safety unit.
Fit a non-return valve to the domestic cold water circuit.

Pressure reducer

If the supply pressure exceeds 80% of the calibration of the safety valve or unit (e.g. 5.5 bar/0.55 MPa) for a safety unit calibrated to 7 bar (0.7 MPa), a pressure reducer must be installed upstream of the appliance. Install the pressure reducer downstream of the water meter in such a way as to ensure the same pressure in all of the system's pipes.

Domestic hot water circulation loop

To guarantee the availability of hot water as soon as the taps are turned on, a circulation loop between the draw-off points and the recirculation pipes in the domestic hot water tank can be installed. A non-return valve must be included in this loop.

Run the domestic hot water circulation loop via the boiler control system or an additional timer program to optimise energy consumption.

Measures to prevent hot water flow return

Fit a non-return valve to the domestic cold water circuit.

5 Commissioning

5.1 Protection against Legionella (for the 500 l model only)

WARNING

It is obligatory that the domestic hot water tanks have a capacity greater than 400 litres in order to comply with the "Protection against Legionella" order (France: Order of 30th November 2005 - Germany: 2011 TrinkwV - Drinking Water Ordinance of 1st November 2011 - Other countries: observe the applicable regulations).

Apply one of the two settings below:

The domestic hot water at the appliance outlet must be at a temperature of 55°C or above at all times.

The domestic hot water must be brought up to a minimum temperature for a minimum duration at least once every 24 hours. See table below:

Minimum temperature maintenance time (minutes)	Water temperature (°C)
2	70 or above
4	65
60	60

5.2 Commissioning the appliance

CAUTION

Initial commissioning must be carried out by a qualified professional.

1. Flush the domestic water circuit and fill the tank through the cold water inlet pipe.
2. Open a hot water tap.
3. Completely fill the domestic hot water tank via the cold water inlet pipe, leaving the hot water tap open.
4. Close the hot water tap when the water flow is regular and there are no noises in the pipes.

5. Carefully vent all of the domestic hot water pipes by repeating steps 2 to 4 for each hot water tap.

Carefully degas the domestic hot water tank and the distribution network in order to eliminate noises and hammering caused by trapped air moving in the pipes during draw-off.

6. Vent the DHW tank exchanger circuit using the air vent provided for this purpose.
7. Check the safety devices (particularly the valve or safety unit), referring to the instructions provided with these components.

CAUTION

During the heating process, a certain amount of water may escape via the safety valve or unit because of the expansion of the water. This phenomenon is perfectly normal and must under no circumstances be prevented.

5.3 Domestic water quality

In regions where the water is very hard (TH > 20°F), we recommend adding a softener.
Water hardness must always be between 12°F and 20°F to be capable of providing effective protection against corrosion.
The softener does not invalidate the warranty, provided that it is:

- certified and regulated according to industry codes of practice and the recommendations provided in the softener manual
- checked regularly
- maintained regularly.

6 Checking and maintenance

6.1 General instructions

CAUTION

Maintenance operations must be carried out by a qualified professional.

Use only genuine spare parts.

6.2 Checking the safety valve or unit

Operate the safety valve or unit at least **once** a month to check that it is running correctly. This check provides forewarning of any occurrences of excess pressure that may damage the domestic hot water tank.

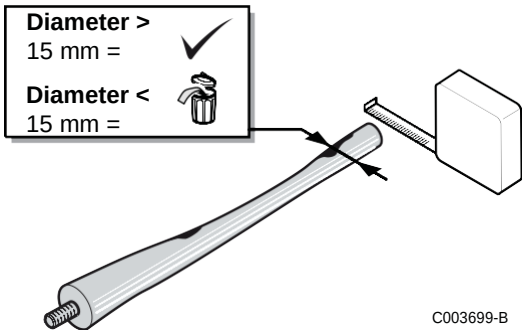
WARNING

Failure to comply with this maintenance rule may cause the DHW tank to deteriorate and
void its warranty.

6.3 Cleaning the casing material

Clean the outside of appliances using a damp cloth and a mild detergent.

6.4 Checking the magnesium anode



Check the condition of the anode at the end of the first year. After the first check and in light of the degree of wear of the anode, it is necessary to determine the frequency of future checks. The magnesium anode must be checked at least every 2 years.

1. Remove the inspection hatches.
   See the "Removing the inspection hatches" chapter.
2. Descale the DHW tank if necessary.
   See the "Descaling" chapter
3. Measure the diameter of the anode.
   Replace the anode if its diameter is less than 15 mm.
4. Reassemble the anode/inspection hatch unit.
   See the "Reassembling the inspection hatches" chapter

6.5 Descaling

In hard water regions, annual descaling of the appliance is recommended in order to maintain its performance.

1. Remove the inspection hatches.
   See the "Removing the inspection hatches" chapter
2. Check the magnesium anode each time the hatch is opened.
   See the "Checking the magnesium anode" chapter
3. Remove limescale deposits in the form of sludge or strips from the bottom of the tank. However, do not touch the limescale adhering to the walls of the tank as it provides effective protection against corrosion and improves the insulation of the domestic hot water tank.
4. Remove limescale deposits from the exchanger to guarantee its performance.
5. Remount the unit.
   See the "Refitting the inspection hatches" chapter

6.6 Maintenance form

No.	Date	Checks made	Remarks	By	Signature

7 Spare parts

7.1 General

When it is observed subsequent to inspection or maintenance work that a component in the appliance needs to be replaced, use only original spare parts or recommended spare parts and equipment.

To order a spare part, give the reference number shown on the list.

7.2 Replacement parts

8 Warranty

8.1 General

You have just purchased one of our appliances and we thank you for the trust you have placed in our products.

Please note that your appliance will provide good service for a longer period of time if it is regularly checked and maintained.

Your installer and our customer support network are at your disposal at all times.

8.2 Warranty terms

France: the following provisions are not exclusive of the buyer being able to benefit from the legal warranty stipulated in Articles 1641 to 1648 of the Civil Code.

Belgium: the following provisions regarding the contractual warranty are not exclusive of the buyer being able to benefit from the legal provisions applicable in Belgium regarding hidden defects.

Switzerland: the warranty is applied in accordance with the terms of sale, delivery and warranty of the company selling the **De Dietrich** products.

Portugal: the following provisions do not adversely affect consumers' rights, as laid down in Decree-Law 67/2003 of 8 April amended by Decree-Law 84/2008 of 21 May, warranties relating to sales of consumer goods and other implementing rules.

Other countries : the following provisions do not affect the application, in favour of the buyer, of the legal provisions with regard to hidden defects that are applicable in the buyer's country.

This appliance comes with a warranty that covers all manufacturing faults; the warranty period will commence on the date of purchase stated on the installer's invoice.
The warranty period is stated in our price list.

As a manufacturer, we can by no means be held liable if the appliance is used incorrectly, is poorly maintained or not maintained at all, or is not installed correctly (it is your responsibility to ensure that installation is carried out by a qualified installer).

In particular, we cannot be held liable for material damage, intangible losses or physical injury resulting from an installation that does not comply with:

- legal or regulatory requirements or provisions laid down by the local authorities
- national or local regulations and special provisions relating to the installation
- our manuals and installation instructions, in particular in terms of regular maintenance of the appliances
- the rules of good workmanship.

Our warranty is limited to the replacement or repair of the parts found to be defective by our technical services team, excluding labour, transfer and transport costs.

Our warranty does not cover replacement or repair costs for parts that may become defective due to normal wear, incorrect usage, the intervention of unqualified third parties, inadequate or insufficient supervision or maintenance, a mains supply that is not appropriate or the use of unsuitable or poor quality fuel.

The warranty is only valid for sub-sets such as motors, pumps, electrical valves, etc. if these parts have never been dismantled.

The rights stated in European Directive 99/44/EEC, implemented by legal decree no. 24 dated 2 February 2002 and published in Government Gazette no. 57 dated 8 March 2002, remain in force.

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