

KALDEWEI
Europas Nr.1 in Badewannen



Bedienungs- und Einbauanleitung

Operating and installation instructions

Instructions de service et d'installation

Istruzioni per l'uso e di montaggio

Instrucciones de funcionamiento y montaje

操作及安装手册

Whirlsystem VIVO-VARIO/-PLUS

Operating Instructions

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THE WHIRL BATH

In a world of haste and hurry, a whirl bath is of very special importance. The concentration on your body, the joy you get from water – here you can experience them with all your senses. In the Kaldewei whirl systems, water, air and heat are specifically used for the benefit of your health.

Take a little time and read the operating instructions of your whirl system carefully. In these operating instructions, the pictograms described below are used. They refer to instructions and notes which require your special attention.



The function of the whirl system may be disturbed.



This may damage your health.



Cleaning and care instructions to maintain the high quality and function of the whirl system.

EXPLANATION

- Kaldewei prepared these operating instructions to the best of its knowledge.
- Kaldewei reserves the right to change the contents of the operating instructions without being obliged to inform any third parties.
- Kaldewei reserves the right to modify and improve the technical plant without being obliged to inform any third parties. Please read the attached additional information, if necessary.
- No part of these operating instructions may be reproduced or transferred otherwise without the express approval of Kaldewei.

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Operating Instructions

SYSTEM DESCRIPTION

VIVO-VARIO

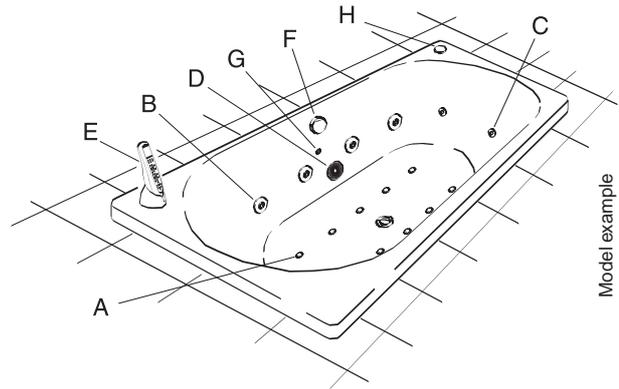
The positive effects of air and water are ideally combined in the VIVO-VARIO. Whether air, water or a combination of both elements – that system satisfies every need in the best possible way. The intensity of the massage jets can be adjusted either automatically by interval operation or by means of the comfort remote control. The desired effect is produced by 22 to 24 nozzles, depending on the type. While the bottom nozzles create the sparkling bubbles, the champagne effect, your skin and muscles are pleasantly massaged by the side nozzles. Additional nozzles integrated in the foot reflex zone and loin areas allow a relaxing massage of your whole body.

VIVO-VARIO-PLUS

In the VIVO-VARIO-PLUS, eight rotating side nozzles still optimize the massaging effect to a further degree and the massage jets reach every part of the body. Depending on the type, 22 to 24 bottom and side nozzles ensure a whirl experience which is both relaxing and regenerating. Above all, the nozzles integrated in the foot reflex zone and loin areas have a considerable share in this. The comfort remote control ensures an ease of operation at any time. VIVO-VARIO-PLUS allows a relaxing massage of the whole body.

THE VIVO-VARIO/PLUS WHIRL SYSTEM:

- 10 or 12 nozzles in the bottom area (A) (depending on the tub model)
- 8 massage nozzles in the side area (B) or 8 rotating massage nozzles in the side area (VIVO-VARIO-PLUS only)
- 2 massage nozzles in the foot area and 2 massage nozzles in the loin area (C)
- 2 suction nozzles (D)
- Radio control with charging station (E)
- Drain and overflow fittings (F)
- Level sensor (G)
- Disinfection equipment (H)



Model example

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Since Kaldewei is a member of the RAL-quality association for whirlpools, its whirlpools and systems are produced to meet the strictest quality criteria as regards safety and hygiene.

For every Kaldewei-whirl system, you are given a 4-year guarantee.



OPTIONAL EQUIPMENT

- Drain and overflow fittings with integrated inlet
- Handrails depending on the tub model
- Spectral light or underwater spotlight
- Water heating

SAFETY NOTES

-  When taking a whirl bath, do not use soap or any other foam or oil baths. Use the essences specifically made for whirl baths only (see manufacturer's instructions).
-  The whirlpool may only be used to take a whirl bath and to clean your body. Do not place any objects into the whirlpool.
-  Please observe the cleaning and care instructions for the whirl system (see page 10).
-  Do not leave children unattended in the whirlpool.
-  Persons who are restricted in motion, as well as older and handicapped persons should be especially careful with a whirl bath.
-  Do not use electrical appliances (such as hair dryers or shavers) near the whirlpool even if the whirlpool is not being used. Electrical appliances in the bathroom have to be placed or attached such that they cannot fall into the whirlpool.
-  Mount a suitable handrail to get out of the whirlpool safely (to be obtained in specialist shops).
-  You must not place any objects in the openings of the massage nozzles while the whirl system is switched either on or off.
-  The openings of the bottom suction must not be covered (e.g. by bathing utensils) when the whirl system is switched on.

MEDICINAL ADVICE

From the point of view of spa doctors (balneologists), the following advice is of fundamental importance.

In principle, everybody who can take a normal bath can also take a whirl bath. But there are a few things that should be kept in mind when taking a whirl bath:

-  The movements of the water further the heat absorption and dissipation of the body. These changes in the body temperature result in an activation of the circulation (strain on the cardiovascular system).
-  Persons suffering from diseases of the central or peripheral circulatory system (coronary heart disease, myocardial infarction, cardiac insufficiency, peripheral arterial occlusive disease) should on principle consult their attending physician. But in general, a water temperature which is similar to the body temperature should be preferred.
-  The water jet leaving the massage nozzles has a massaging effect. With diseases of the leg veins (varicose veins, thrombosis), medical advice should be taken. In general, low massaging effects and cool water temperatures should be preferred.
-  When getting out of a bathtub (whirlpool), there might be a sensation of dizziness affecting your balance and perception and causing a fall. If you tend to get dizzy, you should avoid getting up abruptly, choose a cool to indifferent water temperature, give your legs a cold shower from the feet up to your head and use a suitable essence (horse chestnut, rosemary). Ask your local dealer about access or other bathtub aids.

In case of doubt, you should on principle consult your physician if you suffer from one of the above mentioned diseases or in the case of any other risks to your health.

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TAKING A PROPER WHIRL BATH

Taking a bath in the whirlpool can be relaxing or stimulating, it can be good for your health or re-generating. Taken properly, it may give you a carefree feeling. We have listed a few useful suggestions below which may help you feel fit and healthy.



When taking a whirl bath, do not use soap or any other foam or oil baths. Use the essences specifically made for whirl baths only (see manufacturer's instructions).

	Temperature	On-time	Number of baths	Essences	Remarks
Disturbed circulation	34 °C	15 minutes	4 per week	Horse chestnut, hawthorn, oats	Alternating hot and cold baths, temperature not above 36 °C
Cold	38 °C	30 minutes	3 per week	Eucalyptus, thyme, ivy, mountain pine, camomile	Night rest is recommended afterwards
Disturbed sleep	38 °C	30 minutes	7 per week	Lavender, valerian, balm	
Chronic tiredness	38 °C	25 minutes	7 per week	Lavender, valerian, balm	In the evening before going to bed
Chronic tiredness	30 °C	10 minutes	7 per week	Lemon, mint, camphor, rosemary	In the morning before getting up
State of exhaustion	36 °C	20 minutes	4 per week	Seaweed, rosemary, oats	Especially wholesome in the evening
Stress consequences	37 °C	25 minutes	5 per week	Balm, camomile	
Migraine	32 °C	10 minutes		Rosemary, mint, camomile	If possible, at the beginning of the attack; rest period should at all events be observed afterwards
Muscular soreness	38 °C	10 minutes		Pine-needle, horse chestnut	One whirl bath each before and after sport
Convalescence (after a disease)	34.5 °C	10 minutes	2 per week	Rosemary, oats, hawthorn	If incompatible, the bath should be interrupted - Dosage rather low
Hardening, increase of defensive power	28 °C or less	7 minutes	7 per week	Laurel, camphor, eucalyptus, mint	In the morning
Hardening, increase of defensive power	38 °C or more	7 minutes	7 per week	Laurel, camphor, eucalyptus, mint	In the evening
Climacteric complaints	33 °C	20 minutes	4 per week	Horse chestnut, calamus, St John's wort	

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Operating Instructions

DRAIN AND OVERFLOW FITTINGS

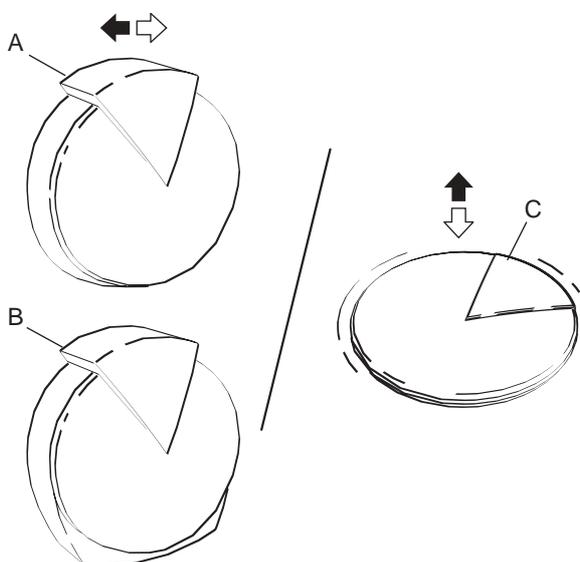
The valve cone on the bottom of the bathtub is moved by turning the setting knob (A or, respectively, B) of the drain and overflow fittings.

TURNING CLOCKWISE ⇨ :

The valve cone (C) on the bottom of the bathtub is lowered and the whirlpool can be filled with water.

TURNING COUNTER-CLOCKWISE ⇐ :

The valve cone (C) on the bottom of the bathtub is lifted and the water runs out.

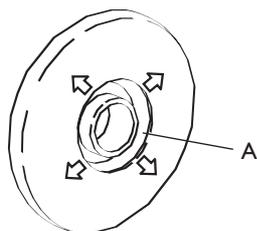


A = Design without integrated inlet

B = Design with integrated inlet

MASSAGE NOZZLES VIVO-VARIO

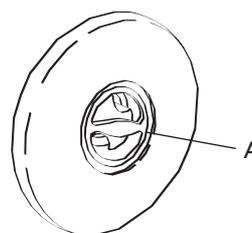
The swivelling inserts (A) of the massage nozzles are adjustable. By resetting the swivelling inserts (A), you can individually adjust the nozzles to your height.



! You must not place any objects in the openings of the massage nozzles while the whirl system is switched either on or off.

MASSAGENOZZLES VIVO-VARIO-PLUS

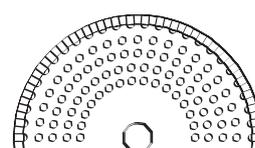
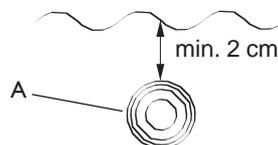
The massage nozzles in the side area of the VIVO-VARIO-PLUS whirl system are provided with rotary bodies running on bearings (A). Hitting the baffle plates of the rotary body, the water jet of the pump is deflected and the rotary bodies of the massage nozzles start to turn.



! Do not put any objects into the openings of the rotational elements - whether the whirl system is switched on or not.

LEVEL SENSOR

The whirlpool is to be filled until the water level is at least 2 cm above the level sensor (A).



! The whirl system turns off automatically if the water drops below the minimum water level.

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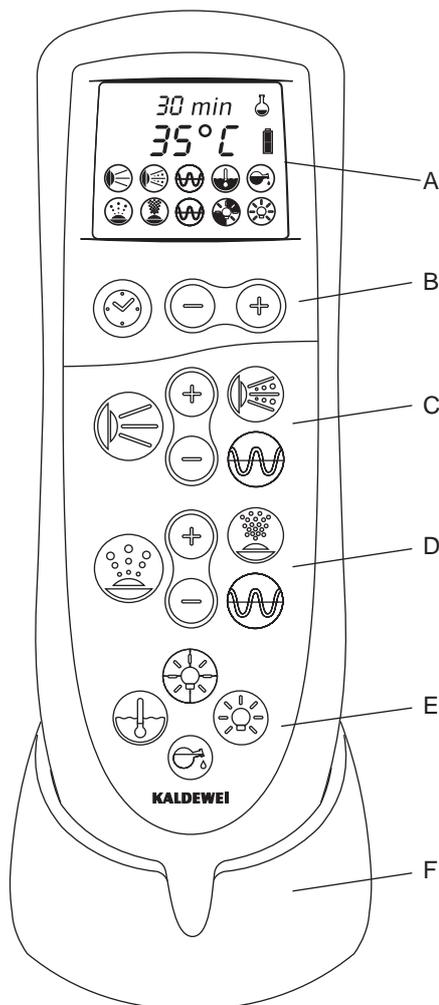
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Operating Instructions

RADIO CONTROL

The VIVO-VARIO whirl system is provided with a waterproof radio control which serves to call the operating states described below. The operating states selected, the remaining bathing time and the present water temperature are shown on the display inter alia.



- A = Display
- B = Adjustment of the remaining bathing time
- C = Operation of the massage nozzles in the side area
- D = Operation of the nozzles in the bottom area
- E = Operation of the additional functions
- F = Charging station

POWER SUPPLY OF THE RADIO CONTROL

The radio control is supplied with power by an internal nickel-metal hydride battery.

 The battery is not charged upon delivery. For initial charging of the remote control, it is recommended to charge the battery completely (approx. 48 hours).

 The electronic control system of the charging station guarantees that the battery is not overcharged.

 Old and defective radio control equipment must not be disposed of along with the normal domestic rubbish, but in cooperation with the local and governmental refuse collection departments and in accordance with the relevant statutory directives.

 In case the battery should drain during the whirl operation, the radio control has to be placed in the charging station for recharging. The whirl bath can be continued with the last setting stored and automatically stops at the end of the remaining bathing time. If the whirl bath is to be stopped at once, the water has to be drained. If the water level falls below the minimum level, the whirl system is switched off automatically.

 If possible, the radio control should always be kept in the charging station, in particular if the whirl system is not used for a longer term.

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STANDBY STATE OF THE RADIO CONTROL

There are three different standby states of the radio control equipment.

CHARGING STATE:

If the radio control is placed in the charging station, the battery is charged with the symbol on the display flashing. The charge level of the battery – full, semifull and empty – is indicated on the display of the radio control equipment. It is possible to operate the whirl system while the radio control battery is being charged.

ACTIVE MODE:

In active mode, the remote control receiver and the display with background lighting are switched on. With a completely charged battery, the operating time of the active mode is approx. 2 hours. The system changes automatically to standby mode 30 seconds after the last key stroke.

STANDBY MODE:

In standby mode, the remote control receiver and the display with background lighting are switched off. With a completely charged battery, the operating time in standby mode is approx. 14 days. Pressing any key will return the system to active mode.

DISPLAY INDICATIONS

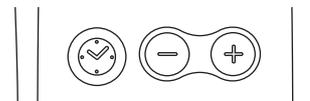
In the active state, with the background lighting switched on, the radio control equipment continuously displays the following information:



- A = Remaining bathing time
- B = Present water temperature (in degrees Celsius)
- C = Disinfectant level
- D = Battery charge level (full = two fields, semifull = one field, empty = no field)
- E = Operating condition of the whirl system
- F = Operating condition of the additional functions (heating optional, spectral light optional, underwater spotlight optional, disinfection program)

ADJUSTMENT OF THE REMAINING BATHING TIME

As soon as the whirl operation is switched on, the on-time of the whirl system is preset to 30 minutes.



-  REMAINING BATHING TIME KEY (+):
Extend the remaining bathing time

The remaining bathing time is extended by the minute up to a maximum running time of 99 minutes.

-  REMAINING BATHING TIME KEY (-):
Shorten the remaining bathing time

The remaining bathing time is shortened by the minute to the minimum running time of 1 minute.

The adjusted bathing time is indicated on the display.

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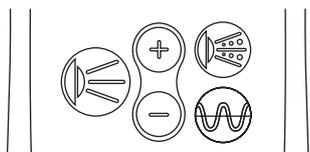
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Operating Instructions

OPERATION OF THE SIDE NOZZLES



MASSAGE NOZZLE (ON/OFF) KEY:

Switching the massage nozzles in the side area and the air admixture on and off

Requirement: The massage nozzles cannot be switched on until the minimum water level (2 cm above level sensor) has been reached.



PLUS KEY (+):

Increase the whirl intensity

The whirl intensity is increased up to the maximum value by pressing the (+) key.



MINUS KEY (-):

Reduce the whirl intensity

The whirl intensity is reduced to the minimum value by pressing the (-) key.



AIR MIXING (ON/OFF) KEY:

Switching the air admixture on and off

If, when pressing the (AIR MIXING) key, the laterally arranged massage nozzles are not switched on, the pump feeding the side area is switched on automatically.

Pressing the (AIR MIXING) key again, the air admixture is switched off and the pump feeding the side area remains in operation.



INTERVAL KEY:

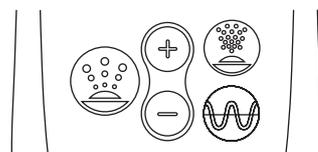
Switching the interval function on and off

Automatic increase or lowering of the whirl intensity during the on-time.

Requirement: The whirl operation is switched on.

The selected operating states are indicated on the display by the appropriate symbols.

OPERATION OF THE BOTTOM NOZZLES



BOTTOM NOZZLES (ON/OFF) KEY:

Switching the bottom nozzles and the air admixture on and off

Requirement: The bottom nozzles cannot be switched on until the minimum water level (2 cm above level sensor) has been reached.



PLUS KEY (+):

Increase the whirl intensity

The whirl intensity is increased up to the maximum value by pressing the (+) key.



MINUS KEY (-):

Reduce the whirl intensity

The whirl intensity is reduced to the minimum value by pressing the (-) key.



CHAMPAGNE EFFECT (ON/OFF) KEY:

Switching the champagne effect on and off

If, when pressing the (CHAMPAGNE EFFECT) key, the bottom nozzles are not switched on, the blower for the bottom area is switched on automatically.

Pressing the (CHAMPAGNE EFFECT) key again, the champagne effect is switched off and the blower for the bottom area remains in operation.



INTERVAL KEY:

Switching the interval function on and off

Automatic increase or lowering of the whirl intensity during the on-time.

Requirement: The whirl operation is switched on.

The selected operating states are indicated on the display by the appropriate symbols.

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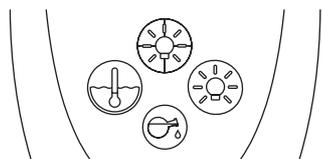
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OPERATION OF THE ADDITIONAL FUNCTIONS



WATER HEATER (ON/OFF) KEY:

Switching the water heater on and off (optional)

Requirement: The massage nozzles in the side area are switched on. If the massage nozzles in the side area are switched off, the water heater will also be switched off.

When first switching on the massage nozzles in the side area, the current water temperature will be stored. When switching on the water heater, the stored water temperature is maintained or, respectively, restored.

The water temperature can be set by simultaneously pressing the keys WATER HEATER and REMAINING BATHING TIME (+)/REMAINING BATHING TIME (-).



WATER HEATER KEY AND REMAINING BATHING TIME KEY (+):

Increasing water temperature

The water temperature is increased by degrees up to a maximum of 45° C.



The water temperature during whirlbathing should not be higher than the body temperature. Taking a whirlbath at higher water temperatures may cause health damage.



WATER HEATER KEY AND REMAINING BATHING TIME KEY (-):

Decreasing water temperature

The water temperature is decreased by degrees. For this, the water heater is switched off until the desired water temperature is reached



SPECTRAL LIGHT (ON/OFF) KEY:

Switching the spectral light on and off (optional)

First key depression: The spectral light is switched on. The spectral light performs a self-test (automatic change of colours).

Next key depression: The change of colours stops at the colour lighting up at the moment the key is pressed.

Next key depression: The change of colours is continued. The change of colours can be stopped and continued as often as you like.

Key depression for approx. 3 seconds: The spectral light is switched off.



UNDERWATER SPOTLIGHT (ON/OFF) KEY:

Switching the underwater spotlight on and off (optional)

Requirement: The spectral light or the underwater spotlight cannot be switched on until the minimum water level (2 cm above level sensor) has been reached.



DISINFECTION PROGRAM:

Starting the disinfection program

Simultaneous pressing of the keys DISINFECTION and REMAINING BATHING TIME (+) will start the disinfection program (see Page 11).

Requirement: The disinfection program cannot be started until the minimum water level (2 cm above level sensor) has been reached.

The selected operating states are indicated on the display by the appropriate symbols.

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CLEANING THE WHIRLPOOL

The whirlpool can be cleaned easily and without any effort. With the correct care and proper treatment, you will enjoy your whirlpool for a long time.

Please observe the cleaning and care instructions to avoid any technical defects.

- **Normally**, it is sufficient to rinse the whirlpool with hot water and to wipe it out with a soft and dustfree cloth or chamois after taking a bath.
- **If slightly soiled**, a cleansing agent with a neutral pH-value (5-7, e.g. washing-up liquid or neutral soap) and a soft sponge and/or cloth should be used.
- **If badly soiled**, the deposits should be soaked for a while (approx. 10-15 minutes) and the pool should then be cleaned again, if necessary.
- **With lime deposits:** Remove deposits with a water/vinegar solution (ratio 1:1, no vinegar concentrate) or with a dilute deliming agent.

To avoid lime deposits, keep the fittings tightly closed and remove any residual water left in the pool after you have taken a bath.



Use liquid household cleansing agents available on the market only. Observe the respective manufacturer's instructions.



Do not use scouring or sand-containing cleansing agents. Chlorine-containing disinfectants or aggressive cleaners (e.g. acetone, cellulose thinner, naphtha) may attack or bleach the coated whirlpool components and enamelled surfaces.



Only use soft cloths or sponges to clean the surfaces. Under no circumstances should scrubbing brushes/sponges, steel wool or other tools be used.

CLEANING THE NOZZLES

CLEANING THE NOZZLES IN THE BOTTOM AREA:

If the bottom nozzles are badly soiled, the bores in the air jet covers can be cleaned by piercing them with a toothpick.

CLEANING THE MASSAGE NOZZLES IN THE SIDE AREA:

If the massage nozzles in the side area are soiled, the swivelling insert is moved several times (cleared) and finally rinsed with fresh water.

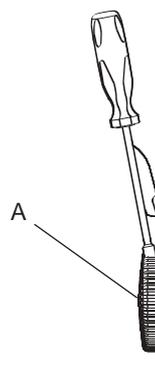
CLEANING THE SUCTION NOZZLE:

When the suction nozzle is soiled, manually remove soil (e.g. hair).

- Carefully prize up the cover of the suction nozzle (A) by means of a screwdriver.
- Clean the inside suction screen and the cover of the suction nozzle and subsequently rinse with clear water.



In the event that the whirl system performance is reduced, it is urgently required that you clean the suction nozzle.



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CLEANING THE DRAIN AND OVERFLOW FITTINGS

The surfaces of the drain and overflow fittings are rinsed with hot water and wiped dry with a soft and dustfree cloth or chamois.

If the waste pipe is soiled or clogged, it can be cleaned by means of cleansing agents available on the market.



When using cleansing agents, please, observe the manufacturer's instructions and warning notes.

CLEANING THE REST WATER PISTON:

In the event that the whirlpool loses water during a bath, the rest water piston must be cleaned. The rest water piston is cleaned by repeatedly opening and closing the drain and overflow fittings while the whirl system is switched on.

CLEANING THE RADIO CONTROL



The radio control equipment and the charging station are cleaned with a soft and moist cloth only.

DISINFECTION



Prior to first startup and after every prolonged non-use, the whirl system must be disinfected as a prophylactic against health impairments.

For disinfecting the whirlpool, you can use the Kaldewei disinfectant to be obtained in specialist shops. It is especially suited for the various materials of the Kaldewei whirl components.



Please observe the manufacturer's instructions and warning notes on the disinfectants.

DISINFECTION PROGRAM:

Simultaneous pressing of the keys DISINFECTATION and REMAINING BATHING TIME (+) will start the disinfection program (see Page 9).

The automatic disinfection program takes approx. 7 minutes and is indicated by a blinking symbol in the remote control display. After 30 seconds, the display goes off and will go on again by simply pressing any key. The disinfection program can be interrupted while the display is on by pressing any key on the remote control.



After completion of the automatic disinfection program – the symbol in the remote control display is no longer blinking – the whirlpool must be drained manually.

PROGRAM FLOW:

- Selected operating modes, spotlights and heater are automatically switched off.
- Whirl system is switched on at the lowest pump intensity.
- Add disinfectant to the water.
- Whirl system is switched off.
- Whirl system is again switched on at the lowest blower intensity.
- Whirl system is switched off.
- The symbol for the disinfection program is permanently displayed in the remote control display.
- Drain whirlpool by opening the drain and overflow fittings (manually).
- After the whirlpool is drained, the whirl system is automatically blow dried.
- After completion of the blow dry cycle, the symbol for the disinfection program goes off.

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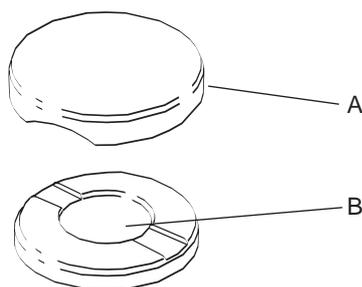
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FILLING THE DISINFECTATION EQUIPMENT

If the symbol of the disinfectant level flashes on the display of the radio control, the reservoir is almost empty. The disinfectant has to be topped up.

- Remove the cover of the reservoir (A).
- Refill disinfectant into the reservoir opening (B).
- Close the reservoir.



Pour the disinfectant slowly to allow the air included in the reservoir to escape.



Make sure not to spill the disinfectant. Any disinfectant spilled has to be rinsed off with water immediately. Use a funnel for topping up, if necessary.

REST-WATER FREE DRAINAGE

A rest-water free drainage of the whirl system is ensured by the special arrangement of lines and units after the valve cone in the floor of the bathtub is opened. After the whirlpool is drained, additionally rinse the massage nozzles with the jet of the handheld shower set while the drain fitting remains open.

AUTOMATIC BLOW-DRYING

After draining the whirlpool, the whirl system is automatically blown dry for approx. 3 minutes at the lowest blower intensity.

TROUBLE SHOOTING

In the case of malfunctions and defects of the whirl system, please, inform an authorized dealer or the Kaldewei after-sales service. In this case, you should have the name and serial number of your whirl system (see cover of manual) ready.



The inspection chamber of the whirl system may be opened by authorized dealers or by the Kaldewei after-sales service only.



Have malfunctions and defects eliminated by authorized dealers or the Kaldewei after-sales service only.

If you wish to ask any questions about your whirl system, please, do not hesitate to contact the Kaldewei after-sales service.

KALDEWEI AFTER-SALES SERVICE:

Phone +49 (0) 23 82 - 785-0 /-230
 Facsimile +49 (0) 23 82 - 785-200 /-305
 E-Mail service@kaldewei.de

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INSTALLATION INSTRUCTIONS FOR SANITARY FITTER

Take a little time and read the installation instructions of this whirl system carefully. In these installation instructions, the pictograms described below are used. They refer to instructions and notes which require your special attention.



The function of the whirl system may be disturbed.



Your health or that of the person(s) using the whirl system may be damaged.

EXPLANATION

- Kaldewei prepared these operating instructions to the best of its knowledge.
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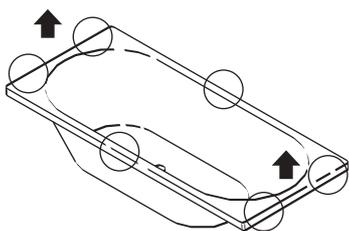
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TRANSPORT

The following instructions have to be observed when transporting the Kaldewei whirl systems:

1. Handle the whirlpool with utmost care.
2. Transport the whirlpool in its transport box only and avoid bumping.
3. When carrying the whirlpool, hold on to the sides only – never to the instrument enclosures or hose systems.



Kaldewei shall not assume any liability for damage incurred due to improper intermediate storage and for damage in transport resulting from the non-compliance with the above instructions.

SCOPE OF SUPPLY

Kaldewei whirl systems are completely preassembled in the workshop and are subjected to extensive quality and functional checks.



When factory-installed components are modified, the pledge of warranty will become invalid.

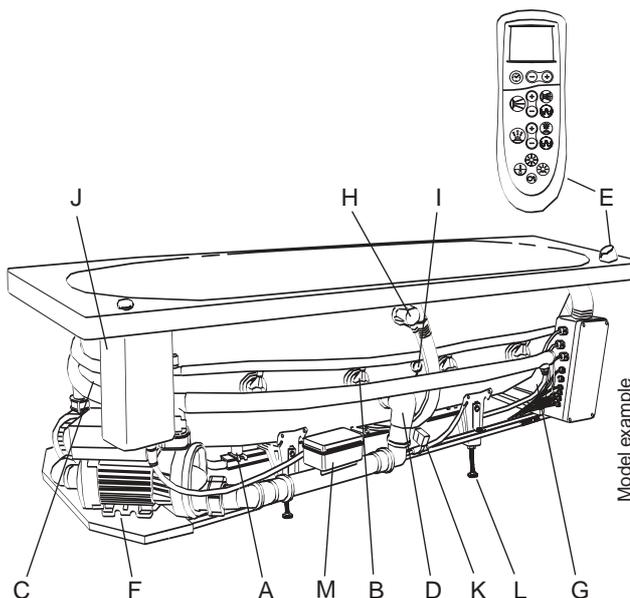


Check the supply for completeness and possible transport damage immediately upon delivery of the whirlpool.

VIVO-VARIO/PLUS WHIRL SYSTEM:

- Piping system with 10 or 12 nozzles in the bottom area (A) (depending on the bathtub model) with drainage of rest water
- Piping system with 8 massage nozzles in the side area (B) or, respectively, 8 rotating massage nozzles in the side area (only VIVO-VARIO-PLUS) and 2 massage nozzles in the foot area and 2 massage nozzles in the area of the lower back (C)

- 2 suction nozzles (D)
- Radio control with charging station (E)
- 2 pumps for the nozzles in the bottom and side areas (F)
- 1 blower for the nozzles in the bottom area (G)
- 1 blower for the massage nozzles in the side area (VIVO-VARIO-PLUS)
- 2 double safety pipe coils for the nozzles in the bottom and side areas
- Whirlpool with drain and overflow fittings and preassembled siphon trap (H)
- Level sensor (I)
- Disinfection equipment (J) with disinfection valve (K)
- Height-adjustable feet (L)



OPTIONAL EQUIPMENT

- Drain and overflow fittings with integrated inlet
- Handrails depending on the tub model
- Spectral light and/or underwater spotlight
- Water heating (M)

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Installation Instructions
Sanitary fitter

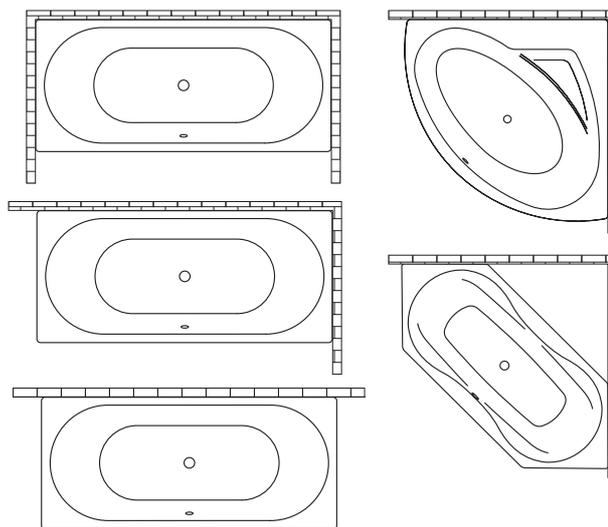
BINDING INSTALLATION INSTRUCTIONS

-  Installation of the whirlpool must be carried out by an authorized sanitary shop.
-  Connection of the whirl system to the electrical mains must be carried out by an authorized electrical shop.
-  During the installation, protect the whirlpool surfaces and the whirl system from damage.
-  Avoid soiling of any kind which might cause obstructions when installing the waste pipe.
-  Pipework, hose connections and unions remain unaffected when installing the whirl system.
-  When factory-installed components are modified, the pledge of warranty will become invalid.
-  Upon completion of the work (performed by the sanitary and electrical fitters), the whirl system has to be subjected to a functional check (see page 18).
-  All work has to be performed using special technical tools.
-  When installing the whirlpool, extensive sound insulation measures have to be taken (see pages below).

SETTING UP THE WHIRLPOOL

The floor space required for the whirlpool and the attached equipment results from the outer dimensions of the whirl system. Within that area, the entire equipment has been installed in the workshop ready for connection.

-  When setting up the tub models Centroform (model no. 118), Megaform oval (model no. 184/2184) and Classic (model no. 108/2108), a 15 mm projection of the system components on the long sides has to be observed.
-  When setting up the tub models Centroform (model no. 118) and Megaform oval (model no. 184/2184), a projection of the system components in the area of the radii at the head and foot has to be observed.
-  The tub model Mega-form-Extra-6 (model no. 182/2182) cannot be set up at an acute angle in one corner of the room since otherwise the technical equipment would no longer be accessible.
-  When setting up the tub model Puntaform (model no. 910/2910), additional supporting strips have to be provided in the corner of the room.



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CONNECTION OF THE DRAIN AND OVERFLOW FITTINGS

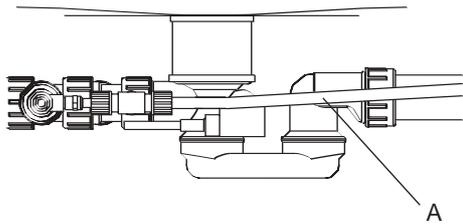
- Connect the drain and overflow fittings to the local sewerage.



Pay attention to the proper fit of the screwed and plug-in connections.



The position of the rest water drainage hoses (A) may not be changed.



FILLING THE BATHTUB

- Close the drain and overflow fittings and fill the whirlpool with water.



The water remains in the whirlpool while the bathtub casing is mounted.

ALIGNMENT OF THE WHIRLPOOL

The height-adjustable feet enable easy and safe alignment of the whirlpool.



The height-adjustable feet only serve as aids to set up the whirlpool in exactly horizontal position. Additional bathtub fixing devices must be mounted.



The black sound-isolating elements (A) must be set with their hard, light-coloured coated side on the outside into the blue foot caps (B).

- To align the whirlpool, turn the height-adjustable feet (C) in or out.

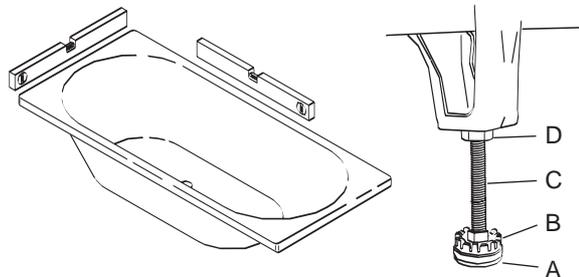


Align the bathtub in exactly horizontal position by means of a spirit level to ensure a reliable water drainage (drainage test).



When aligning the whirlpool, make sure that the four feet with the sound absorbers (A) are all standing firmly on the ground.

- After the alignment, secure the height-adjustable feet against displacing by means of the hexagon nut (D).



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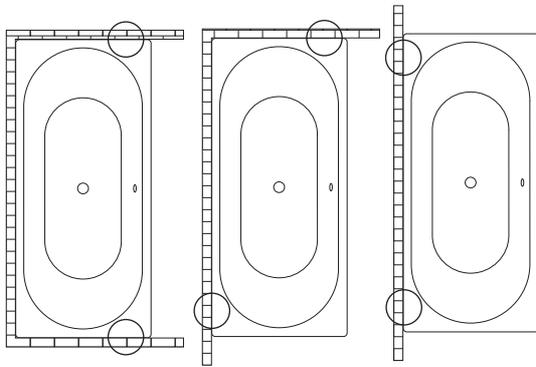
BATHTUB FIXING DEVICES AND SOUND INSULATION

- Fasten the whirlpool in the shown positions by means of bathtub anchors (not included in the scope of supply).

 When installing the bathtub fixing devices or sound insulation sets available in sanitary shops, the manufacturer's instructions have to be observed.

 Parts mounted to the whirl system must not be removed.

AREAS FOR THE ATTACHMENT OF BATHTUB FIXING DEVICES:



Taking builder's requirements into account, and using the Kaldewei bathtub sound-insulation set BWS, the Kaldewei VIVO-VARIO/PLUS whirl system will be in compliance with DIN 4109/A1 "Sound insulation in building construction". Due to its high whirl power, with maximum power output, the VIVO-VARIO-PLUS system will not drop under the limit values required by the DIN standard.

Kaldewei bathtub sound-insulation set BWS
(Article number: 6876.7559.0000)

CONNECTION TO ELECTRICAL MAINS

After the whirlpool has been fastened, the work of the sanitary fitter is completed for the time being and the electrical fitter's work must be performed (from Page 23 of these installation instructions).

 The connection of the whirl system to the electrical mains may only be carried out by a licensed electrical fitter.

 The electrical fitter must be provided with the installation instructions (or copies of pages 23 to 32) until his work is completed.

FURTHER ON PAGE 23:



Installation Instructions
Electrical fitter

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Sanitary fitter

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Sanitary fitter

FUNCTIONAL CHECK

After the whirlpool has been set up, the drain and overflow fittings connected and the work of the electrical fitter completed, the whirl system has to be subjected to a functional check.



When supplied, the battery of the radio control is not charged; therefore, the radio control equipment has to be placed in the charging station before performing the functional check. During the functional check, the radio control equipment remains in the charging station.

1. VISUAL INSPECTION

- Check the whirl system for visible damage.
- Check the whirlpool for horizontal installation (drainage test).
- Check the proper attachment of fixing devices and sound insulation.
- Check the whirlpool for cleanness.



The pipework, hose connections or unions and electrical equipment of the shop-mounted whirl system remain unaffected.

2. FUNCTIONAL CHECK WITH THE WHIRLPOOL EMPTY

- It is not possible to switch on the whirl system and the optional underwater spotlight or spectral light (see operating instructions, page 9).

3. FILLING THE WHIRLPOOL

- Close the drain and overflow fittings.
- Fill the whirlpool with water up to a level of at least 2 cm above the level sensor.
- Wait for 10 minutes, then carry out a leakage test.

4. FUNCTIONAL CHECK OF THE RADIO CONTROL EQUIPMENT

- Check the radio control equipment for visible damage.
- Check the charge level of the radio control equipment.
- Check the current water temperature and the correctness of the country-specific unit.

- Check the preset remaining bathing time (30 minutes).
- Extend or shorten the remaining bathing time and check the change of the bathing time on the display.

5. FUNCTIONAL CHECK OF THE SIDE NOZZLES

- Switch on the side nozzles of the whirl system and let them run for about 10 minutes.
- Let the whirl system run alternately at minimum and maximum intensities (see operating instructions, page 8).
- Let the whirl system run at maximum intensity and check, by switching the air mixing controller on and off, whether the water leaving the side nozzles forms more or less bubbles (see operating instructions, page 8).
- Switch on the interval function and let it run (for an automatic increase and/or reduction of the intensity during the on-time - see operating instructions, page 8).
- Switch off the side nozzles of the whirl system.

6. FUNCTIONAL CHECK OF THE BOTTOM NOZZLES

- Switch on the bottom nozzles of the whirl system and let them run for about 10 minutes.
- Let the whirl system run alternately at minimum and maximum intensities (see operating instructions, page 8).
- Let the whirl system run at maximum intensity and check, by switching the champagne effect on and off, whether the water leaving the bottom nozzles forms more or less bubbles (see operating instructions, page 8).
- Switch on the interval function and let it run (for an automatic increase and/or reduction of the intensity during the on-time - see operating instructions, page 8).
- Switch off the bottom nozzles of the whirl system.

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7. FUNCTIONAL CHECK OF THE SPECTRAL LIGHT

- Switch on the optional spectral light when the whirlpool is filled with water.
- The spectral light performs a self-test (automatic change of colours).
- Wait for 2 minutes, then check the automatic change of colours.
- Press the spectral light key again – the change of colours is stopped.
- Press the spectral light key again – the change of colours is continued.
- Press the spectral light key for approx. 3 seconds – the spectral light is switched off.

8. FUNCTIONAL CHECK OF THE UNDERWATER SPOTLIGHT

- Switch the optional underwater spotlight on and off when the whirlpool is filled with water.

9. DRAINING THE WHIRLPOOL

- Switch on the optional underwater spotlight or the spectral light.
- Switch on all the functions of the whirl operation.
- Open the drain and overflow fittings and let the water drain off.
- Check the waste pipes (siphon) for leakages.
- With the water running out, the optional underwater spotlight or the spectral light and all the functions of the whirl operation have to switch off automatically as soon as the water level falls below the level sensor.



If the whirl system has to be readjusted or defective components exchanged, the complete functional check has to be repeated.

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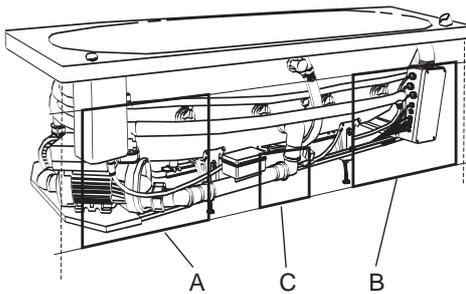
BRICKWORK LINING OR CASING OF THE WHIRLPOOL

After the functional check, the whirlpool can be brick-lined and tiled.

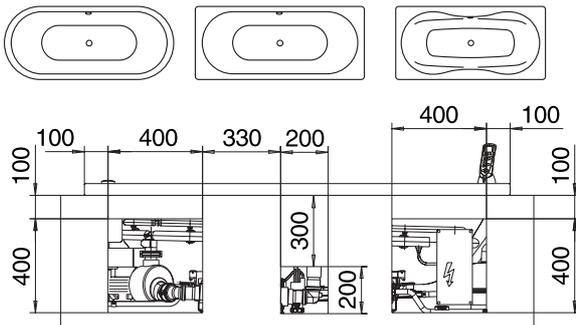
! The brickwork lining or other casing has to be installed keeping a minimum distance of 15 mm from the system components.

For any servicing work possibly to be performed, two inspection openings with a minimum size of 400 mm x 400 mm (height x width) have to be provided in the direct vicinity of the pump casings (A) and the blowers (B).

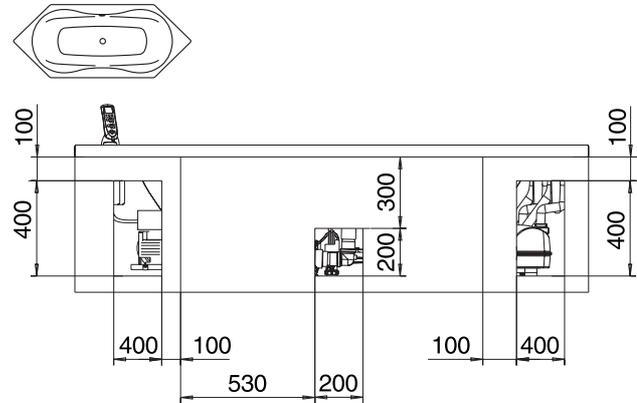
An additional inspection opening of a minimum size of 200 mm x 200 mm is to be provided in the immediate vicinity of the disinfection valve or the optional water heater (C), respectively.



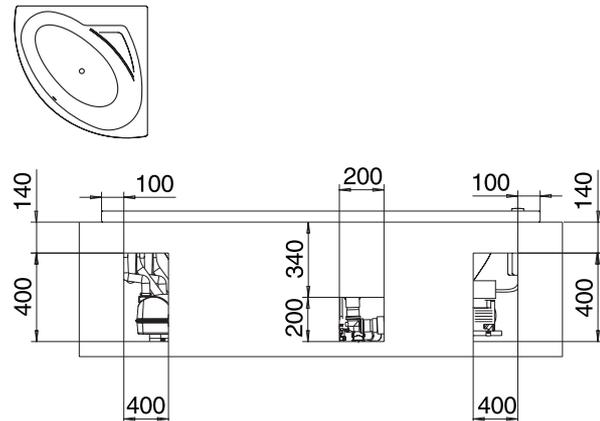
INSPECTION OPENINGS - CLASSIC, CENTROFORM, MEGAFORM:



INSPECTION OPENINGS - MEGAFORM-EXTRA-6:



INSPECTION OPENINGS - PUNTAFORM:



! For the operation of the whirl system it is absolutely necessary that air can circulate underneath the pool. An air grid with a ventilation cross section of at least 80 cm² has to be provided in the blower area.

! When setting up the tub model Puntaform (model no. 910-3/2910-3) with a Kaldewei panel, this must not be sealed or pointed with silicone to guarantee the circulation of air.

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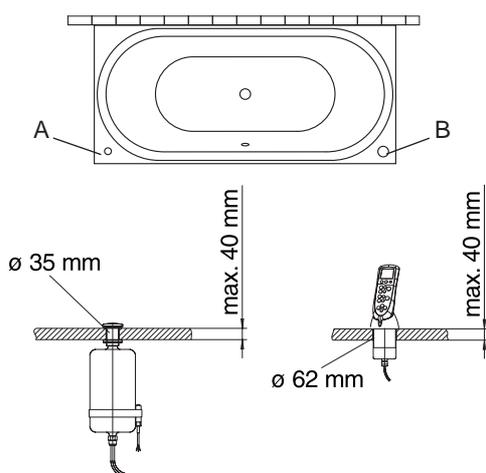
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Installation Instructions
Sanitary fitter

BATHTUB MODEL CENTROFORM/ MEGAFORM OVAL:

With bathtub models Centroform (model no. 118) and Megaform oval (model no. 184/2184), openings must be provided for fixing the charge station and the disinfection equipment. The distance of the opening center to the edge of the bathtub should be approx. 80 mm.



! In the area of the openings to be made, the thickness of the brickwork lining must not exceed 40 mm.

A = Opening to mount the disinfection equipment, 35 mm diameter

B = Opening to mount the charging station, 62 mm diameter

TROUBLE SHOOTING

In the case of malfunctions and defects of the whirl system, please, inform an authorized dealer or the Kaldewei after-sales service. In this case, you should have the name and serial number of your whirl system (see cover of manual) ready.

! The inspection chamber of the whirl system may be opened by authorized dealers or by the Kaldewei after-sales service only.

! Have malfunctions and defects eliminated by skilled personnel only.

If you wish to ask any questions about this whirl system, please, do not hesitate to contact the Kaldewei after-sales service.

KALDEWEI AFTER-SALES SERVICE:

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 E-Mail service@kaldewei.de

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Installation Instructions
Sanitary fitter

INSTALLATION INSTRUCTIONS FOR ELECTRICAL FITTER

Take a little time and read the installation instructions of this whirl system carefully. In these installation instructions, the pictograms described below are used. They refer to instructions and notes which require your special attention.



The function of the whirl system may be disturbed.



Your health or that of the person(s) using the whirl system may be damaged.

EXPLANATION

- Kaldewei prepared these installation instructions to the best of its knowledge.
- Kaldewei reserves the right to change the contents of the installation instructions without being obliged to inform any third parties.
- Kaldewei reserves the right to modify and improve the technical plant without being obliged to inform any third parties. Please read the attached additional information, if necessary.
- No part of these installation instructions may be reproduced or transferred otherwise without the express approval of Kaldewei.

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Electrical fitter

ELECTRICAL COMPONENTS

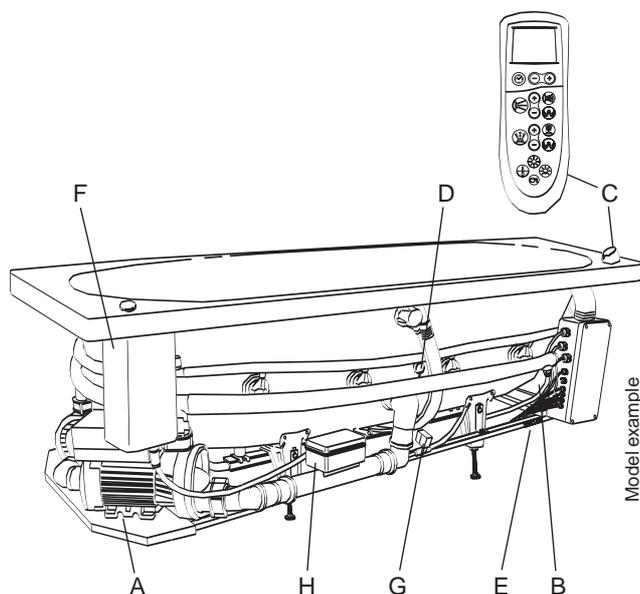
The entire electrical equipment of the Kaldewei-whirl systems has been shop-mounted ready for connection. Kaldewei-whirl systems are subjected to extensive quality and functional checks.



When factory-installed components are modified, the pledge of warranty will become invalid.

VIVO-VARIO/PLUS WHIRL SYSTEM:

- 1 pump 600 W for the bottom nozzles (A)
- 1 pump 1150 W for the massage nozzles in the side area (A)
- 1 blower 700 W for the bottom nozzles (B)
- 1 blower 700 W for the massage nozzles in the side area (B) (VIVO-VARIO-PLUS only)
- Radio control equipment with charging station (C)
- Level sensor (D)
- Equipotential bonding strip (E)
- Disinfection equipment (F) with disinfection valve (G)
- Connecting cable 3 x 2.5 mm² (VIVO-VARIO/PLUS without water heating)
- Connecting cable 5 x 2.5 mm² (VIVO-VARIO/PLUS with water heating)



OPTIONAL EQUIPMENT

- Underwater spotlight 12 V/35 W with safety transformer or spectral light
- Water heating 3000 W (H)

TECHNICAL DATA

Power input VIVO-VARIO with water heating	5485W
Power input VIVO-VARIO-PLUS with water heating	6185W
Nominal input pump (side)	1150 W
Nominal input pump (bottom)	600 W
Nominal input blower VIVO-VARIO	700 W
Nominal input blower VIVO-VARIO-PLUS	2 x 700 W
Mains connection VIVO-VARIO/PLUS without water heating	230 V 50/60 cps 16 A
Mains connection VIVO-VARIO/PLUS with water heating	3 x 230 V 50/60 cps 16 A
Lead cross section VIVO-VARIO/PLUS without water heating	3 x 2.5 mm ²
Lead cross section VIVO-VARIO/PLUS with water heating	5 x 2.5 mm ²
Safety class	IP65
Operation	Radio control

OPTIONAL EQUIPMENT:

Nominal input spotlight (12 V)	35 W
Nominal input spectral light	8 W
Nominal input water heating	3000 W

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Installation Instructions
Electrical filter

BINDING INSTALLATION INSTRUCTIONS

-  The electrical connection of the whirl system may only be carried out by a licensed specialized electrical shop, in accordance with DIN VDE 0100.
-  Kaldewei whirl systems are designed for home use and must be connected in accordance with the local regulations of public utility companies.
-  In the supply line, an all-poles disconnecting main switch must be provided with a minimum 3 mm contact gap for switching off the whirl system (non-use, service work).
-  Protect the whirlpool surface and the whirl system from damage during electrical connection work.
-  Avoid soiling of any kind. In particular, avoid soiling which might cause clogging of the drain.
-  Piping and hose connections or fittings remain untouched during the electrical installation of the whirl system.
-  When factory-installed components are modified, the pledge of warranty will become invalid.
-  All work is to be done with the standard tools used in the trade.

VIVO-VARIO/PLUS WITHOUT HEATING:

-  For the electrical connection of the whirl system, a separate supply line 3 x 2.5 mm² as well as a 4 mm² line for equipotential bonding must be available, provided by the customer.
-  Depending on the model, the whirl system must be connected to a.c. voltage 230 V 50 Hz (50 Hz model) or, respectively, 230 V 60 Hz (60 Hz model).
-  The electrical connection of the whirl system must be protected against short circuiting with a 16 A fuse and may only be via an earth-leakage circuit breaker (30 mA).

VIVO-VARIO/PLUS WITH HEATING:

-  For the electrical connection of the whirl system, a separate supply line 5 x 2.5 mm² as well as a 4 mm² line for equipotential bonding must be available, provided by the customer.
-  Depending on the model, the whirl system must be connected to a.c. voltage 3 x 230 V 50 Hz (50 Hz model) or, respectively, 3 x 230 V 60 Hz (60 Hz model).
-  The electrical connection of the whirl system must be protected against short circuiting with a 16 A fuse per phase. The common neutral conductor and the earthing must be connected to a 3-phase r.c.c.b. with 30 mA trip current.
-  Before switching on the whirl system, the neutral conductor must be checked. When connecting the whirl system without a neutral conductor, the components are subjected to undue operating voltage which would result in their destruction.

CONTROLS AND TERMINAL BOX

- Only a licensed electrical fitter is allowed to open the control boxes (pumps, blower, main control).
-  In case of unauthorized opening of the control boxes and the terminal box, any warranty claim versus Kaldewei shall expire.

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Installation Instructions
Electrical fitter

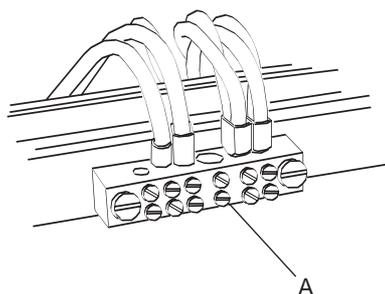
EQUIPOTENTIAL BONDING

The whirl system is internally cabled with a protective conductor.

- Connect the equipotential bonding (A) of the whirl system to the local equipotential bonding strip.

TYPE:

Earthing cable - green/yellow, min. 4 mm², copper



MAINS CONNECTION

- Connect the whirl system with the connecting cable 3 x 2.5 mm² or, respectively, 5 x 2.5 mm² to the customer's supply line via the corresponding terminal box.



Complete the electrical connection of the whirl system in de-energized condition.



The supply line must provide an all-poles disconnecting main switch with a minimum 3 mm contact gap for switching off the whirl system (non-use, service work).



Standard EN 60 335-2-60 concerning whirl systems prescribes: "Operational equipment must be permanently connected to a fixed wired line. Devices containing electrical components must be set up or fastened so that they cannot drop into the bathtub."



Parts of the whirl system which contain live parts must be inaccessible for persons using the bath.

VIVO-VARIO/PLUS WITHOUT HEATING:



The electrical connection of the whirl system must be protected against short circuiting with a 16 A fuse and may only be via an earth-leakage circuit breaker (30 mA).

VIVO-VARIO/PLUS WITH HEATING:



The electrical connection of the whirl system must be protected against short circuiting with a 16 A fuse per phase. The common neutral conductor and the earthing must be connected to a 3-phase r.c.c.b. with 30 mA trip current.

ELECTRICAL OPERATION TEST

Upon completion of the electrical connection work, the whirl system has to be subjected to an electrical operation test.

1. VISUAL INSPECTION

- Check the whirl system for visible damage.
- Check the 16 A fuse.
- Check the current-operated earth-leakage circuit breaker (30 mA).
- Check the all-pole disconnecting mains switch.
- Check the cable joints for proper fit.
- Check the insulation of the cable joints.



Pipework, hose connections and unions remain unaffected by the electrical connection of the whirl system.

2. FUNCTIONAL TEST

After the electrical operation test, the whirl system can be handed over to the sanitary fitter.

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TROUBLE SHOOTING

In the case of malfunctions and defects of the whirl system, please, inform an authorized dealer or the Kaldewei after-sales service. In this case, you should have the name and serial number of your whirl system (see cover of manual) ready.



The inspection chamber of the whirl system may be opened by authorized dealers or by the Kaldewei after-sales service only.



Have malfunctions and defects eliminated by authorized dealers or the Kaldewei after-sales service only.

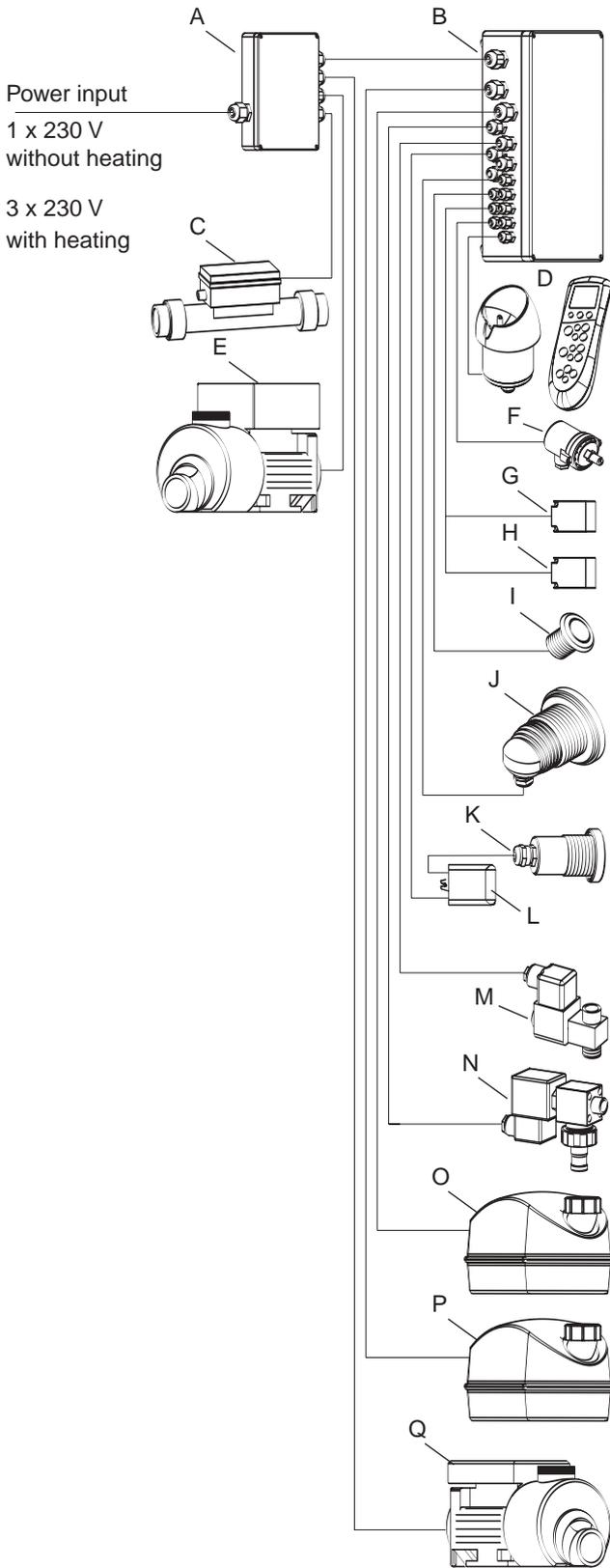
If you wish to ask any questions about your whirl system, please, do not hesitate to contact the Kaldewei after-sales service.

KALDEWEI AFTER-SALES SERVICE:

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Facsimile +49 (0) 23 82 - 785-200 /-305
E-Mail service@kaldewei.de

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TERMINAL DIAGRAM



- A = Terminal box
- B = Control
- C = Water heating (3000 W, 230 V)
- D = Charge station/remote control
- E = Pump for nozzles in side area (1100 W, 230 V)
- F = Pressure switch (heating, 12 V)
- G = Level sensor (disinfection, 12 V)
- H = Level sensor (blow drying, 12 V)
- I = Level sensor (whirl operation, 12 V)
- J = Spectral light (12 V)
- K = Underwater spotlight (35 W, 12 V)
- L = Safety transformer (230 V)
- M = Disinfection valve (8,8 W, 12 V)
- N = Venturi valve (11 W, 12 V)
- O = Blower for bottom nozzles (700 W, 230 V)
- P = Blower for nozzles in side area (700 W, 230 V)
- Q = Pump for bottom nozzles (600 W, 230 V)

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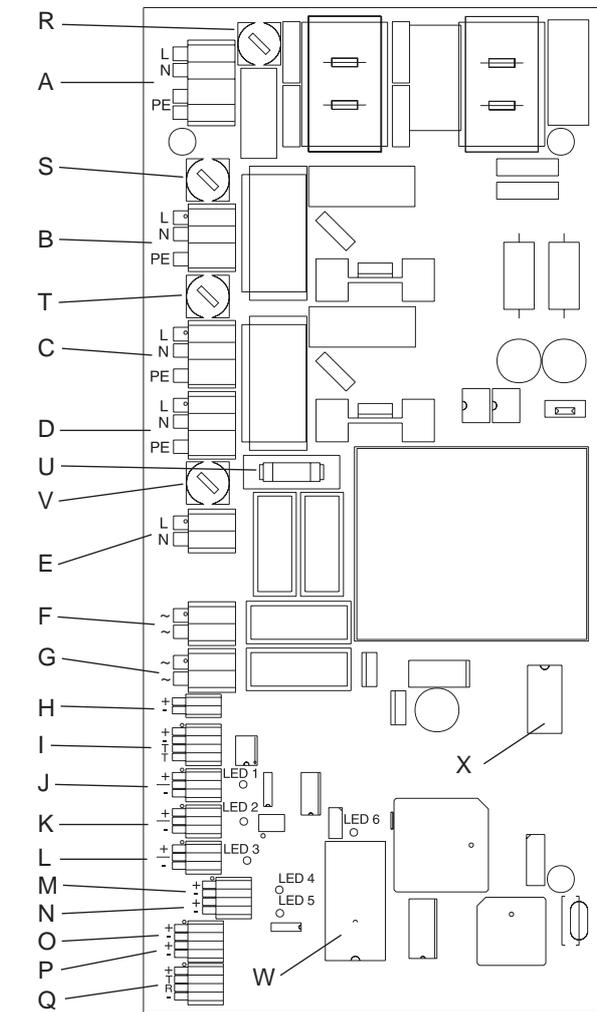
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Installation Instructions
Electrical fitter

TERMINAL PLAN MAIN CONTROL



A = Power input 3 x 1.5 mm²

L	brown/black
N	blue
PE	yellow/green

B = Blower for bottom nozzles

L	brown/black
N	blue
PE	yellow/green

C = Blower for nozzles in side area

L	brown/black
N	blue
PE	yellow/green

D = Pump for bottom nozzles

L	brown/black
N	blue
PE	yellow/green

E = Underwater spotlight

L	brown
N	blue

F = Venturi valve

~	brown
~	blue

G = Disinfection valve

~	brown
~	blue

H = Water heating

+	brown
-	white

I = Spectral light

+	white
-	brown
T	green
T	yellow

J = Level sensor (whirl operation)

+	white
S	brown
-	green

K = Level sensor (blow drying)

+	brown
S	black
-	blue

L = Level sensor (disinfection)

+	brown
S	black
-	blue

M = Temperature sensor

+	brown
-	white

N = Pressure switch (heating)

+	brown
-	blue

O = Pump for nozzles in side area (control line)

+	brown
-	white

P = Pump for bottom nozzles (control line)

+	brown
-	white

Q = Charge station/remote control

+	yellow
TX	green
RX	white
-	brown

Continuation, see Page 30

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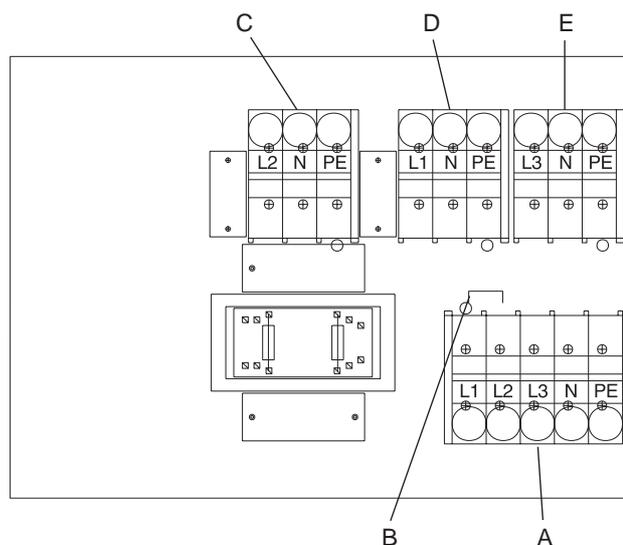
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Installation Instructions
Electrical fitter

Continuation of Page 29:

- R = Fuse, power input (10 AT)
- S = Fuse, blower for bottom nozzles (4 AT)
- T = Fuse, blower for nozzles in side area (4 AT)
- U = Fuse, pump for bottom nozzles (4 AT)
- V = Fuse, underwater spotlight (315 mA)
- W = Eprom
- X = DIP switch
- LED 1 = Control light level sensor (whirl operation)
- LED 2 = Control light level sensor (dry blowing)
- LED 3 = Control light disinfection
- LED 4 = Control light temperature sensor
- LED 5 = Control light pressure switch (heating)
- LED 6 = Life light control

TERMINAL PLAN TERMINAL BOX



A = Power input

VIVO-VARIO/PLUS without heating

L1	brown/black
N	blue
PE	yellow/green

VIVO-VARIO/PLUS without heating

L1	brown/black
L2	brown/black
L3	brown/black
N	blue
PE	yellow/green



Before switching on the whirl system, the neutral conductor must be checked. When connecting the whirl system without a neutral conductor, the components are subjected to undue operating voltage which would result in their destruction.

B = Bridge (only for whirl system without heating)

C = Pump nozzles in side area

L2	brown/black
N	blue
PE	yellow/green

D = Control

L1	brown/black
N	blue
PE	yellow/green

E = Heating

L3	brown/black
N	blue
PE	yellow/green

D

GB

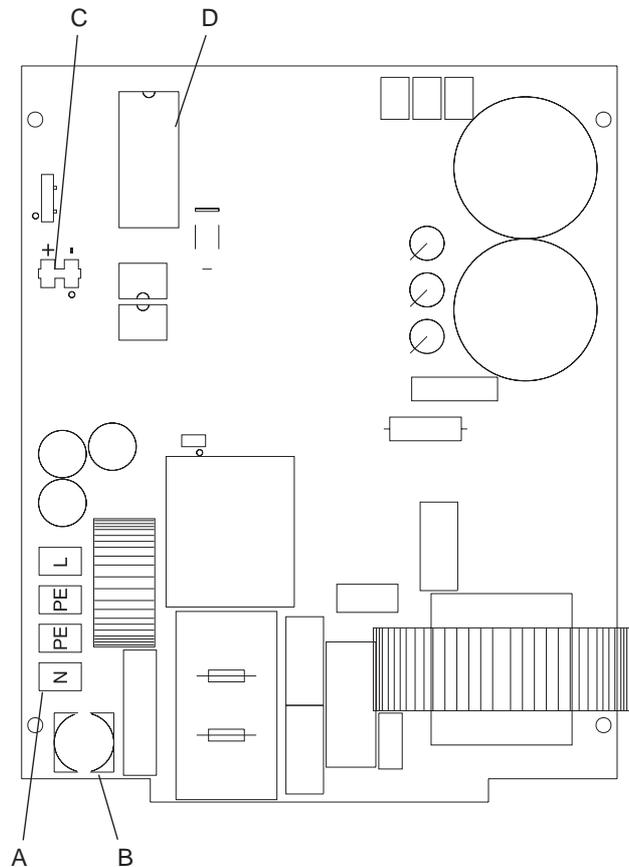
F

I

E

Installation Instructions
Electrical fitter

TERMINAL PLAN, PUMP SIDE NOZZLES



A = Power input 3 x 1.5 mm²

L	brown/black
N	blue
PE	yellow/green

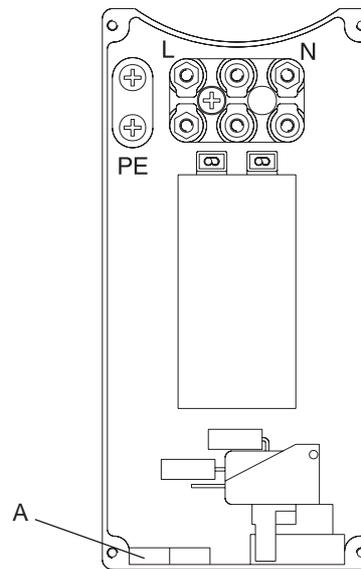
B = Fuse (6.3 AT)

C = Control line 2 x 0.5 mm²

L	brown/black
N	blue

D = Processor

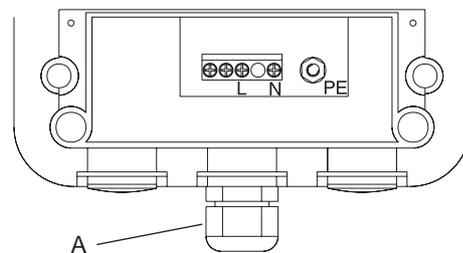
TERMINAL PLAN, PUMP BOTTOM NOZZLES



A = Power input 3 x 0.75 mm²

L	brown/black
N	blue
PE	yellow/green

TERMINAL PLAN, BLOWER BOTTOM AND SIDE NOZZLES



A = Power input 3 x 1.5 mm²

L	brown/black
N	blue
PE	yellow/green

D

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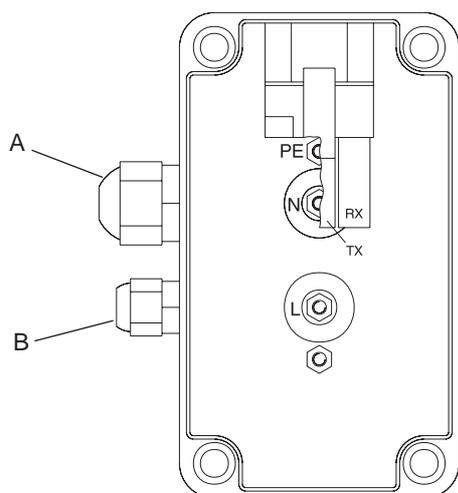
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Installation Instructions
Electrical filter

TERMINAL PLAN WATER HEATING



A = Power input 3 x 1.5 mm²

L brown/black

N blue

PE yellow/green

B = Control line 2 x 0.75 mm²

TX brown

RX blue (white)

D

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Installation Instructions
Electrical fitter

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