



Product Information

UWE Electric parking heater "Patron"

PRD0286E01en

Description

Area of application

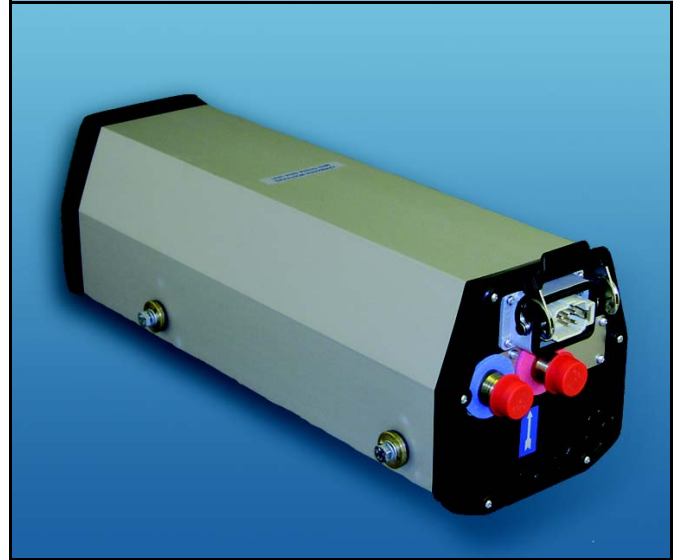
The **UWE Patron** is an electric heater for heating parked buses fitted with a waterborne heating system. The immersion heater, which is available in various power and voltage settings, is fitted in the vehicle and connected to the normal heating system. There are also two other versions: the UWE Transport Patron and the UWE Porto Patron. These are not fitted in the bus but are useful for buses fitted with ramp outlets.

Certification

UWE Patrons have joint Nordic approval and are labelled S N D FI and CE, in accordance with the LVD and EMC directive.

Fitting

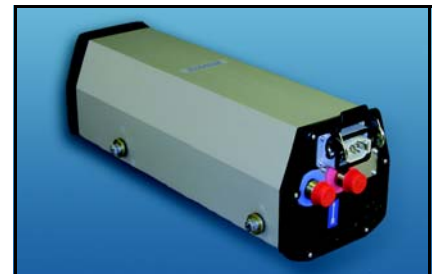
The UWE Patron is supplied with complete connection cabling in lengths as required, and with an instant coupling to the heater. A hose connection for water can be placed on either the right or left of the outlet.



Versions available

UWE Patron

This is the most common version. Manufactured to be fitted in a bus and connected to the existing waterborne heating system. Available in power settings 3000, 6000, 7600 and 9800 watts as 400V 3-phase. The 3000-watt version is also available as 230V 1-phase and 3-phase.



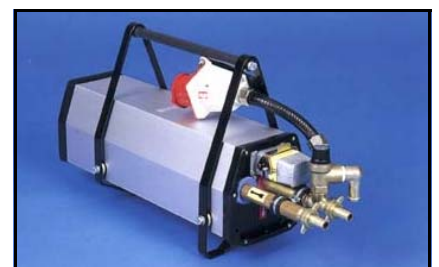
UWE Transport Patron

The version on wheels is used for buses with ramp outlets, suitable for use, for example, when the ramp is full up or when the bus parks outside the depot. Available in power settings 7600 or 9800W, both 400V 3-phase.



UWE Porto Patron

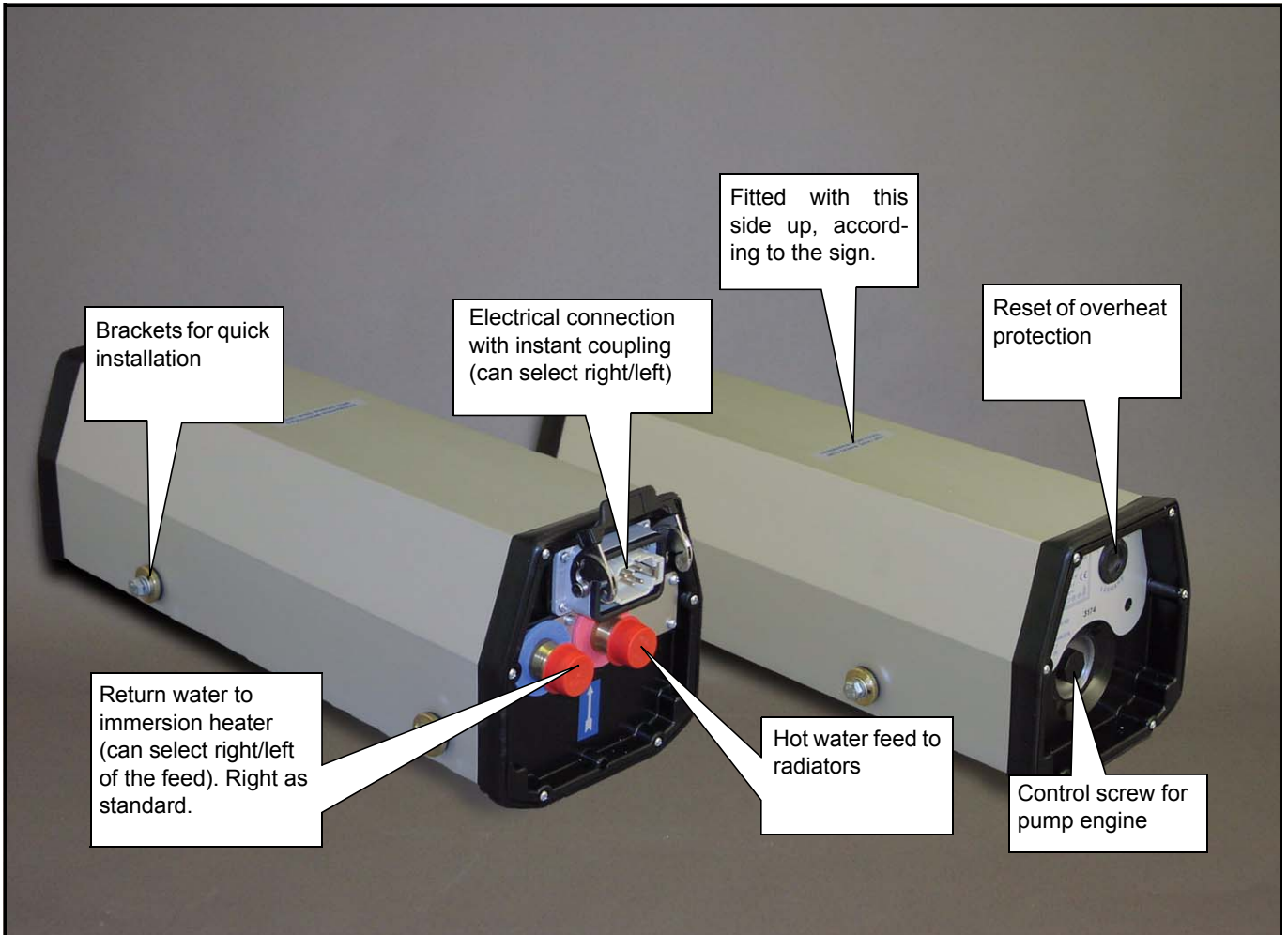
Portable version, which like the "Transport" is used for buses with ramp outputs. Available in power settings 7600 or 9800W, both 400V 3-phase.



Function

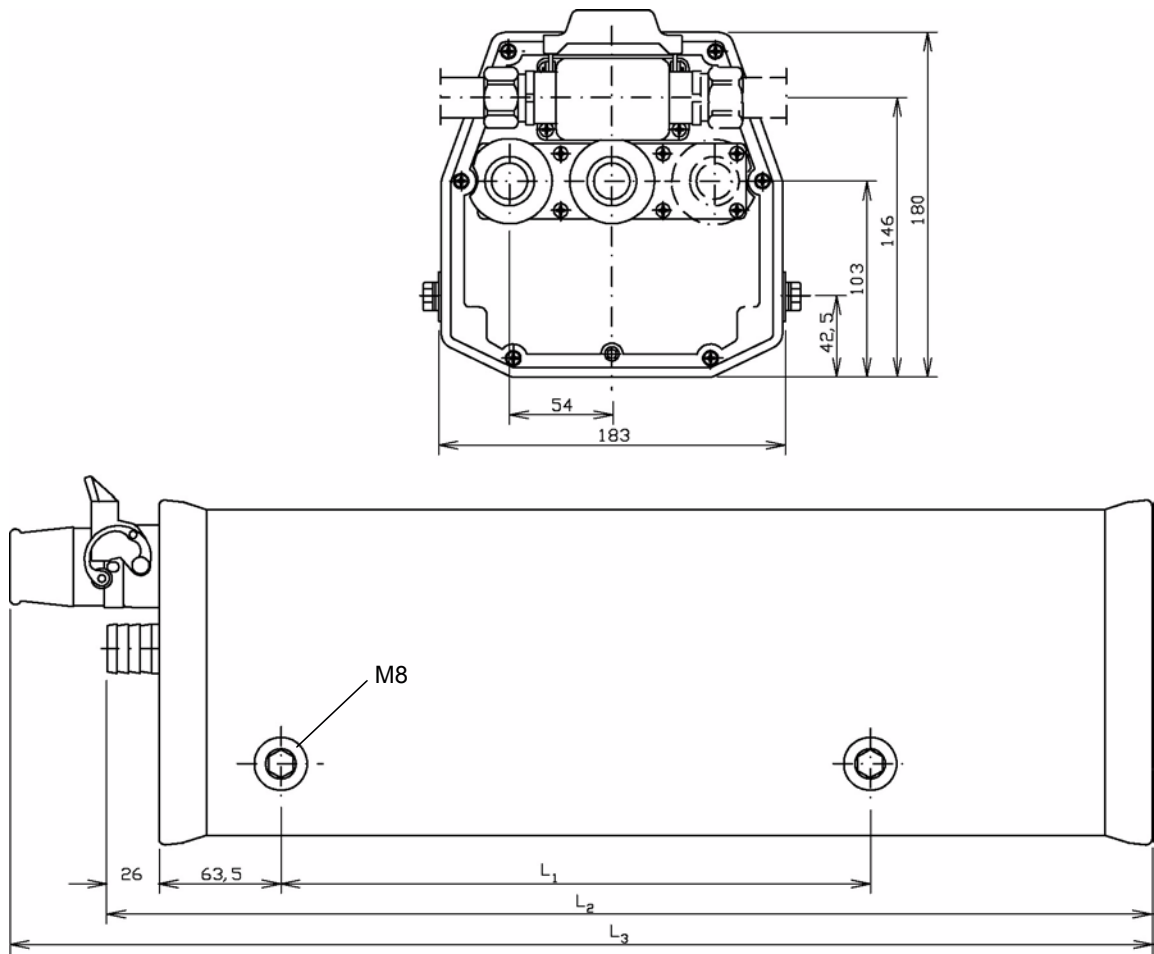
The UWE Patron consists of a water tank with electric heating fitted with a circulation pump. The actual heating chamber contains heating coils that the water flows past in a circulating movement for maximum heat absorption. A connection for electricity and water supply/return is easily accessible on one of the ends. The whole device is contained in a matt anodised aluminium case with discreet, compact design. The immersion heater is available for both 230V and 400V voltage, in various power settings (see product range).

Picture: UWE Patron 7600W



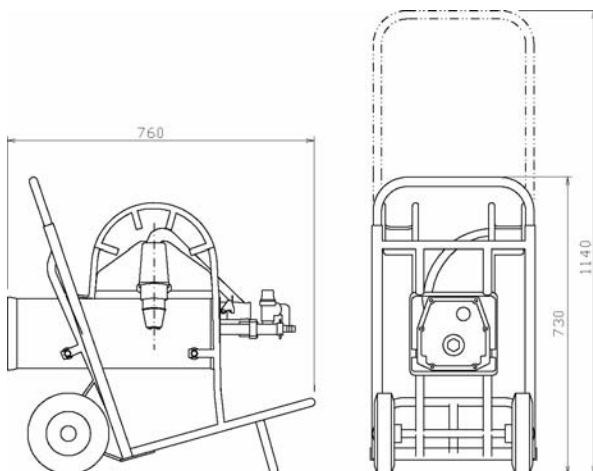
Technical data

Dimensions (mm)

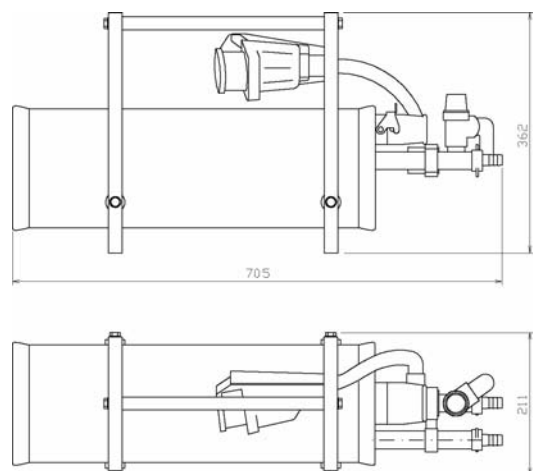


Art. no	17076	17104	17077	17078	17080	17079
L1	311	311	311	211	211	111
L2	550	550	550	450	450	350
L3	600	600	600	500	500	400

Transport



Porto



Product range

UWE Patron

The UWE Patron is supplied with a 5-metre extension cable from the bus to the mains. When ordering, the length of the internal cable must be specified (this includes the instant coupling to the heater and mains connection, see accessories next page).

Name	Power	Voltage	Power cons.	Weight, kg	Water conn.	Article no.
UWE Patron	9800 W	400V 3-phase	15 A	12.5	25 mm	17076
UWE Patron	9800 W (4900)*	400V 3-phase	15 A (7.5)	12.5	25 mm	17104
UWE Patron	7600 W	400V 3-phase	11 A	12.5	25 mm	17077
UWE Patron	6000 W (3000 W)*	400V 3-phase	10 A (5 A)	10.5	25 mm	17078
UWE Patron	6000 W (3000 W)*	230V 3-phase	15 A (8 A)	10.5	25 mm	17080
UWE Patron	3000 W (2000 W)*	230V 1-phase	14 A (10 A)	9	25 mm	17079

* power can be switched using knob on end

UWE Transport Immersion Heater

The UWE Transport Patron is supplied complete with a 5-metre extension cable.


Name	Power	Voltage	Power cons.	Water conn.	Article no.
UWE Transport Patron	9800 W	400V 3-phase	15 A	16 mm	17082
UWE Transport Patron	7600 W	400V 3-phase	11 A	16 mm	17083

UWE Porto Immersion Heater

The UWE Porto Patron is supplied complete with a 5-metre extension cable.

Name	Power	Voltage	Power cons.	Water conn.	Article no.
UWE Porto Patron	9800 W	400V 3-phase	15 A	16 mm	17084
UWE Porto Patron	7600 W	400V 3-phase	11 A	16 mm	17085

Accessories

Name		Article no.
<p>Input cable in bus, 1 metre When ordering, the length must be specified, part nr 17081.</p>		
UWE Patron input cable with cable contact, 5-pole 400 V		17106
UWE Patron input cable with cable contact, 7-pole 400 V		17107
UWE Patron input cable with cable contact, 4-pole 230 V 3-phase		17108
UWE Patron input cable with cable contact, 3-pole 230 V 1-phase		17109
Extension cabling (over 1 metre input cable)		
UWE Patron cabling by the metre		17081
Connection box with timer		
UWE Patron connection box with timer		17086

UWE Verken AB
Box 262
S-601 04 Norrköping, Sweden
Phone +46 11 24 88 00
Fax +46 11 12 47 04



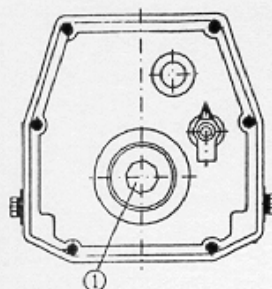
Installation instruction for ELDI bus heating aggregate:

912320101 912330301 9130301 91761 91981 9149491

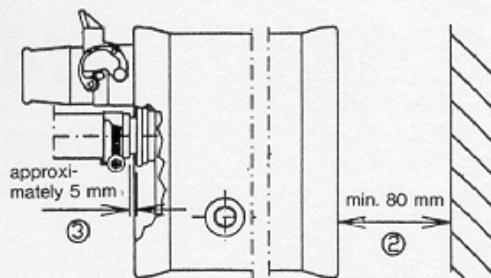


Installation may only be carried out with materials supplied and approved by ELDI PRODUKTER. If installation is carried out with other materials, it must be carried out under the supervision of a qualified installer.

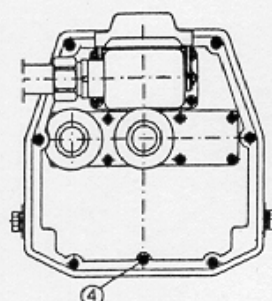
For the connection cable between the device intake and the wall socket, oil-resistant tough rubber sheath cable of type not lighter than RDO must be used. The cable area must be 2.5 mm². A connection cable with a length of 5 m is supplied with the heater. Type 912320101 is connected to a 230 V single-phase 16A wall socket; "MUST ONLY BE CONNECTED TO AN EARTHED SOCKET". Type 912330301 to a 230 V three-phase 16A wall socket. Other types to 400 V 3 N 16 A.



Place the aggregate under a seat or in a (shielded) area arranged for the aggregate in, for example, the luggage compartment. The aggregate must be mounted level, horizontally or suspended by its mounting bolts. See the sign on the heater, "THE HEATER MUST BE INSTALLED WITH THIS SIDE UP". The pump side of the heater must not be placed closer than 80 mm to a wall so that it is possible to reach the control screw of the pump, see item 1, and to reset the over-heating protection, see item 2. When connecting the hoses, ensure that there is a distance of 5 mm between the marking ring and the hose, see item 3.



In order to avoid dryout at the first startup, fill the heater with water mixed with glycol before connecting the hoses. Before connecting to the water system, check the direction of flow so that connection is to the heater with the outlet in the centre, see the arrow and red ring. The inlet to the heater is in the branch pipe, blue ring. Aerate the heater before it is connected to the mains. Mount the enclosed hose for discharge of any condensation water, see item 4.

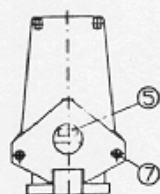


The device intake must be placed so that it is protected against spraying and mechanical damage. Installation must take place so that the pin is directed obliquely downwards so that any incoming water can run out. There is a weak area on the device intake to make a hole for condensation water. See items 5 and 6.

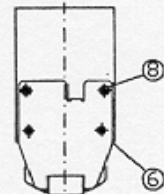
Ensure that the location is such that the connection cable, which must be handled with care, is not damaged and that the bonnet, doors and other sharp objects do not press against the cable, thereby damaging the insulation. Ensure that the device intake's mounting screws in the riveted holes have good contact to the bodywork so that the latter has protective earthing. See items 7 and 8. If the device intake is located so that the bodywork does not have protective earthing, an earth cable with a minimum area of 4 mm² must be connected to one of the mounting screws in the riveted holes and to a place on the bodywork which has been scraped well clean. See items 7 and 8. NB: the internal earth connection must be continuous from the bodywork to the earthed intake. Check that the earth connection is intact with a suitable instrument.

The flexible hose which constitutes the protection for the connection cable between the device intake and the heater must be laid and fixed so that it cannot come into contact with or come too close to hot parts. Pay particular attention here to the proximity to the turbo aggregate and exhaust pipe.

3-, 4- and 5-pole intake



7-pole intake



Maintenance instructions

The connection cable must be examined for signs of damage or ageing. A damaged cable must be replaced immediately. Check that the earth connection is intact at regular intervals. Check the intake, clean the pin, if necessary, etc. When connecting the heater when it has not been used for a long time, for example after the summer, check that the pump has not stuck fast. This is done as follows: loosen the pump's control screw, see item 1. By turning it to the left, pull out the screw and turn it; when the screw goes into the pump rotor's groove, turn the screw and see whether the pump rotor rotates. If not: remove the casing, take a suitable tool and try to loosen the pump rotor. If the pump rotor then turns easily, leave the screws in the groove, connect the heater and ensure that the pump rotor rotates. If everything is OK, reset the control screw with the casing and screw it securely back into place in the pump again. If not, or if it is not possible to loosen the pump rotor, replace the heater. Replacement heaters are available from ELDI PRODUKTER.



ELDIPRODUKTER AB

Selaövägen 1

S-124 59 Bandhagen

Telefon Nat 08 749 21 77
Int +46 8 749 21 77

Nat 08 86 74 34
Telefax Int +46 8 86 74 34