

INSTALLATION AND OPERATING INSTRUCTIONS

"carlo" INFRARED PEW RADIATORS

"carlo" Loysch GmbH, 3390 Melk,
Pielacher Straße 50, Austria
Tel. +43 (0) 27 52 / 529 11
Fax +43 (0) 27 52 / 529 11 21
office@carlo.at, www.carlo.at

1. GENERAL, WARNINGS, SAFETY

"carlo" infrared pew radiators are intended solely for horizontal installation underneath the seats of benches and church pews which are secured into place (or which are heavier than 18 kg). They are fixed heaters for dry areas.



Children younger than 3 years of age must be kept away unless under supervision at all times. Children between 3 and 8 years of age may only switch the device on and off when under supervision or have been told about safe usage of the device, and when they have understood the resultant risks (with the proviso that the devices are positioned or installed in their normal places of use). Children between 3 and 8 years of age may not insert the plug into the socket, regulate the device, clean the device or carry out user maintenance.

Caution – some parts of the products can become very hot and cause burns. Special caution must be exercised when children and others in need of protection are present.

WARNING: These devices are not fitted with a room temperature controller. The heaters may not be used in small rooms where there are people who are unable to leave the room by themselves (unless continual monitoring is guaranteed).

These devices have an integrated, automatically resetting protection temperature restrictor which switches off when the devices become too hot. Once the housing has cooled sufficiently, switching back on is automatic. Nevertheless, ensure that "carlo" infrared pew radiators are not covered and heat dissipation is unhindered (in order to prevent heat accumulation). Do not poke anything into the devices as this poses a risk of accidents and damage to the devices.

Note: When paints, solvents, adhesives or the like are used in a heated room, producing vapour which can ignite due to the temperature of the heating element (approx. 190°C), such as when the wooden pedestal is sealed, it is important to ensure that the "carlo" infrared pew radiators are switched off and cooled down to room temperature.

"carlo" infrared pew radiators are so-called "dark radiators". A special non-breakable, coated heating element with high radiation capacity generates mild, long-wave infrared radiation heat.

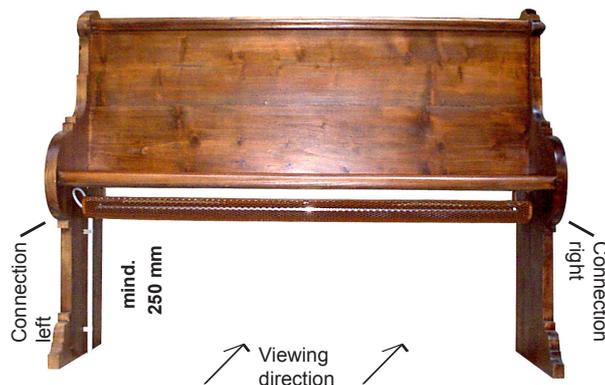
"carlo" infrared pew radiators reach their nominal heat output after a heat-up phase of about 15 minutes. Switching on the heaters at least 15 minutes before services start is therefore recommended. "carlo" infrared pew radiators can be operated with time controllers, room thermostats, power regulator devices, etc. This ensures that the heating system is always switched off after services (preventing unwanted usage and so keeping energy bills down). Changing the power output to the ideal level is also possible during services.

Only specialist electricians may establish the electrical connection. Please read and follow the instructions and recommendations in Sections 1 - 7 carefully.

Voltage supply: 230 V 50 Hz

2. INSTALLATION

"carlo" infrared pew radiators are intended to be secured horizontally underneath banks and church pews which are secured into place (or weight more than 18 kg). The grate opening must be facing the front edge of the bank. The assembly brackets included (which ensure the necessary spacing of 28 mm) are used for attachment to the underside of the bench. Two assembly brackets are provided for each device - they are screwed to the top of the device at the pre-punched holes with the sheet metal screws provided.



The assembly brackets are screwed onto the underside of the bench with wooden screws (with a maximum diameter of 4 mm and a minimum length of 20 mm; not included in the delivery). The minimum clearances must be observed. The clearance of 28 mm between the underside of the bench and the top of the device may not be increased with additional distances. The devices may not be installed directly underneath a wall power socket. "carlo" infrared pew radiators have a plug and socket, and so need NOT BE OPENED UP for the electrical connection.

The clearances MAY NOT BE SHORTER than the minimum clearances given below.

Minimum clearances:

- From the grid edge to the front edge of the seat: 50 mm
- From the rear edge of the housing to the rear edge of the seat / rear of the bench: 10 mm
- On the side between device and bench supports: 60 mm
- On the side between 2 devices: 100 mm
- To combustible materials within the grid area: 100 mm
- Between the underside of the device and the floor: 250 mm

Fixed distance between the underside of the bench and the top of the device: 28 mm This is guaranteed with original installation brackets.

Caution: There is a risk of heat accumulation if the bench has strengthening strips on the front. The device manufacturer must be contacted prior to installation, or air outlet slits made in the strengthening strips.

3. ELECTRICAL CONNECTION

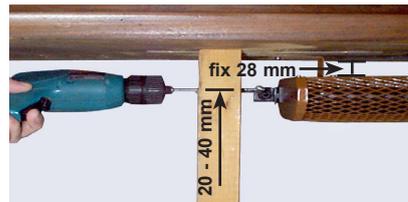
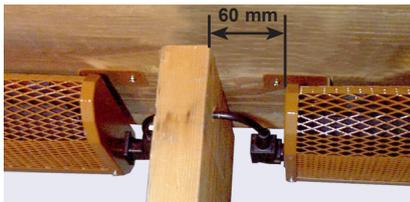
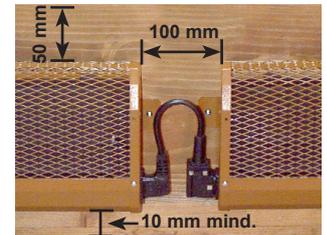
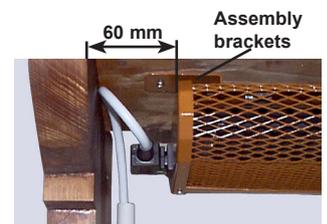
Only a specialist may establish the electrical connection. During installation work, conformance to applicable regulations for installing high-voltage systems with a maximum nominal voltage of 1000 V (EN Parts 1 - 4) is a requirement. If the heaters have a fixed connection to the power supply system, an all-phase isolator having a 3 mm contact opening as a minimum must be installed (such as an automatic cut-out or earth leakage circuit breaker). A check must be carried out before installation on whether the mains voltage matches the operating voltage specified on the nameplate.

All "carlo" infrared pew radiators are through-wired with 1.0 mm² heat-resistant cabling, meaning further devices (up to a maximum total nominal power of 2200 W, including the intrinsic power of devices) can be connected to a pew radiator. Every pew group is connected to 3 or 6 pews to 3/N/PE (~400V) in a star connection. All infrared pew radiators are Protective Class I devices with nominal voltage 230 V~.

The electric connection is established on the mains side with the angled plug socket included (max. clamping area 1.5 mm²) on the front left or right of the device (looking at the front edge of the seat from the front).

Other devices are connected to the socket on the opposite side of the mains connector (maximum total capacity 2000 W). Available as an accessory for this is a 500 mm long device connector line (3 x 1 mm²) with a permanent, one-piece angled plug socket.

For centre feet, it may be the case that holes have to be drilled for the cable feedthrough (∅ 10 mm long as in the photo).



4. OPERATION

A check must be carried out before initial use on whether the mains voltage matches the operating voltage specified on the nameplate. Check that all plug connections are correctly seated.

Heating for the first time can generate a smell. It is therefore advisable to switch on all devices for a period of at least 45 minutes before initial use.

5. HEATING MODE, SAFETY AND MAINTENANCE

"carlo" infrared pew radiators satisfy the relevant safety regulations for electrical equipment. Given their low surface temperatures, "carlo" infrared pew radiators are approved for installation underneath benches and church pews in line with European standard EN 60335-2-30. Checks for proper condition must be carried out regularly (such as during weekly cleaning work) in line with ÖVE-E5 Part 1/1989 and ÖVE-EN50110. The obligation in § 12.1.6 for routine checking of the electrical equipment of the heating system is satisfied with (at least) annual cleaning and inspection measures prior to commencement of the heating period.

Children younger than 3 years of age must be kept away unless under supervision at all times.

Children between 3 and 8 years of age may only switch the device on and off when under supervision or after having been told about safe usage of the device, and when they have understood the resultant risks (with the proviso that the devices are positioned or installed in their normal places of use). Children between 3 and 8 years of age may not insert the plug into the socket, regulate the device, clean the device **or carry out user maintenance**.

Caution – some parts of the products can become very hot and cause burns. Special caution must be exercised when children and others in need of protection are present.

WARNING:

These devices are not fitted with a room temperature controller. The heaters may not be used in small rooms where there are people who are unable to leave the room by themselves (unless continual monitoring is guaranteed).

These devices have an integrated, automatically resetting protection temperature restrictor which switches off when the devices become too hot. Once the housing has cooled sufficiently, switching back on is automatic. Nevertheless, ensure that "carlo" infrared pew radiators are not covered and heat dissipation is unhindered (to prevent heat accumulation). Do not poke anything into the devices as this poses a risk of accidents and damage to the devices.

Note: When paints, solvents, adhesives and the like are used in a heated room, producing vapour which can ignite due to the temperature of the heating element (approx. 190°C), such as when the wooden pedestal is sealed, it is important to ensure that the "carlo" infrared pew radiators are switched off and cooled to room temperature.

"carlo" infrared pew radiators are "dark radiators". A special non-breakable, coated heating element with high radiation capacity generates mild, long-wave infrared radiation heat.

"carlo" infrared pew radiators reach their nominal heat output after a heat-up phase of about 15 minutes. Switching on the heaters 15 minutes before services start is therefore recommended. "carlo" infrared pew radiators can be operated with time controllers, room thermostats, power regulator devices, etc. This ensures that the heating system is always switched off after services (preventing unwanted usage and so keeping energy bills down). Changing the power output to the ideal level is also possible during services. Defective devices and connector cables must be replaced. Plugs pulled out must be reinserted. Any dust deposits must be removed. The work must be carried out by specialist personnel. The installer of the system is instructed to explain correct usage and maintenance to the operator.

6. LABELLING AND CE CONFORMITY

ÖVE quality mark

CE mark to Directive 2006/95/EG



certificate Nr.: 55-034-08

This certificate forms the basis for the EC declaration of conformity and CE marking by the manufacturer or its representative, and certifies conformity with the aforementioned standards as laid down in Low Voltage Directive 2006/95/EC.

These installation and operating instructions must be kept in a safe place, and be passed on with the "carlo" infrared pew radiators in the event of a change of owner or user.

7. TECHNICAL DETAILS

Nominal voltage: 230 V~
 bracket

Protection class: I

Dimensions: 185 x 60 mm (WxH) + 28 mm installation

Order Nr.	Mains connection	Device length/ mm	Power rating	Order Nr.	Mains connection	Device length/ mm	Power rating
EBST00500	links	500	200 W	EBST0050R	rechts	500	200 W
EBST00600	links	600	240 W	EBST0060R	rechts	600	240 W
EBST00700	links	700	280 W	EBST0070R	rechts	700	280 W
EBST00800	links	800	320 W	EBST0080R	rechts	800	320 W
EBST00900	links	900	360 W	EBST0090R	rechts	900	360 W
EBST01000	links	1000	400 W	EBST0100R	rechts	1000	400 W
EBST01100	links	1100	440 W	EBST0110R	rechts	1100	440 W
EBST01200	links	1200	480 W	EBST0120R	rechts	1200	480 W
EBST01300	links	1300	520 W	EBST0130R	rechts	1300	520 W
EBST01400	links	1400	560 W	EBST0140R	rechts	1400	560 W
EBST01500	links	1500	600 W	EBST0150R	rechts	1500	600 W