

# INSTALLATION AND OPERATING INSTRUCTIONS

## THERMODOM SEAT HEATERS

(model EFB.....)

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### 1) GENERAL, WARNINGS

"carlo" Thermodom seat heaters are electric heater covers for the seat heating on church pews. They are fixed heaters for dry areas, and are only seat heaters (no room heaters).



**Note:** "carlo" Thermodom seat heaters have no protection from overheating. Therefore, they must not be covered permanently. Failure to comply can result in heat accumulation (representing a risk of fire). Unattended use is not permitted.

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 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** - do not poke any sharp objects into the device. Mechanical damage of any kind (such as extraneous objects inside, cuts, ...) can expose live parts. THERE MAY BE NO KINKS IN CABLING

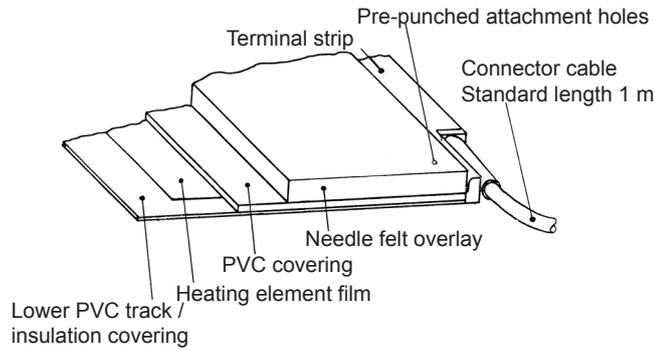
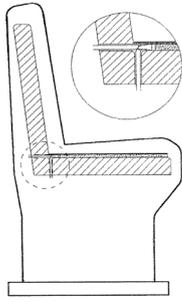
Only specialist electricians may establish the electrical connection. Please carefully read and follow the instructions and recommendation in Sections 1 - 7. Voltage supply: 230 V 50 Hz

### 2) INSTALLATION

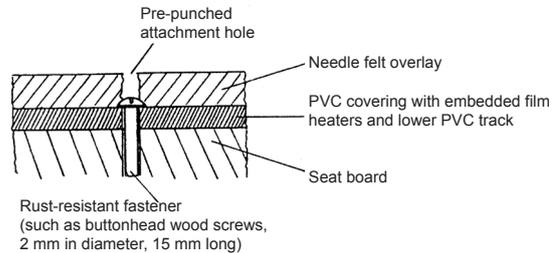
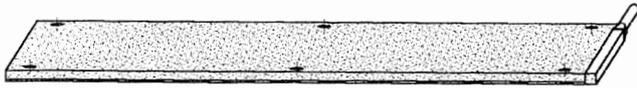
Larger seat heater systems are delivered coiled up. To prevent damage, they may only be unrolled when their temperature is high enough (minimum 15°C). "carlo" Thermodom seat heaters may only be placed on level church pews. Ensure that no nails or screw heads are sticking out. No work may be carried out on the seat heaters (such as drilling and cutting) because this can expose live parts. Always remember that the seat heaters are connected to a 230 V supply.

They may not be installed directly underneath a wall power socket.

For larger systems, the seat heaters made exactly to pew specifications are numbered on the back of the terminal strips. These numbers are used to assign the heaters to the relevant pews. The heaters are fixed heating elements. Loosely placing them on pews is not permitted. The seat heaters must be secured with rust-resistant buttonhead wood screws (2 mm in diameter and at least 15 mm long) or pins (2 mm in diameter) through the attachment holes pre-punched at the factory.



Place the "carlo" Thermodom seat heaters on the seats and mark out the place for the cable feedthrough hole (through either the back rest or seat board). Drill the cable feedthrough, place the seat heater on the seat and thread through the cable. Use corrosion-protected fasteners (brass screws or stainless steel tacks) to secure the seat heater to the pew. Go down to the PVC mat laminate in the pre-punched holes with the screws or tacks. The pre-punched holes are easily identifiable on the back of the mats. Plug the holes with the easily pliable felt to prevent clothing getting caught up and the fasteners from being seen.



### 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.

"carlo" Thermodom seat heaters come as standard with a 1 m YML 2x0.75 mm<sup>2</sup> connector cable. If the mains connector cable is damaged, it must be replaced by the manufacturer (to avert potential hazards).

The cable must be laid on the inside of the side face, and preferably be covered by a profiled wooden strip. Then the electrical connection in the base box must be established. Only a locally authorised specialist may establish the electrical connection. Whilst the devices are being installed, conformance to applicable regulations for installing high-voltage systems with a maximum nominal voltage of 1000 V 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).

#### Technical details:

#### **EFB.....**

Nominal voltage:	AC 230 V
Nominal power:	30-400 W (60 W/m)
Protection class:	II (protective insulation)
Safety class:	IP 41 (protection from dripping water)

#### 4) INITIAL USE

A check must be carried out before initial use on whether the mains voltage matches the operating voltage specified on the nameplate. New seat heaters can generate a slight smell initially - this stops by itself after a while. Damaged heating mats may not be used.

#### 5) HEATING MODE, SAFETY AND MAINTENANCE

**Note:** "carlo" Thermodom seat heaters have no temperature regulators. To prevent them from over heating, they may not be covered. Permanent, or only partial, covering with heavy textiles which are impervious to heat (such as clothing) causes an accumulation of heat, and so represents a fire risk.

"carlo" Thermodom heaters are rated in a way that there is a temperature increase of about 20°C on the felt surface. External temperature regulation or heating time restriction is permitted.

"carlo" Thermodom heaters satisfy the relevant safety regulations for electrical equipment. 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 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**.

"carlo" Thermodom seat heaters require no maintenance. Ensure however that no damaged mats are used. Therefore regularly check "carlo" Thermodom heaters prior to use for damage and penetration by extraneous objects. To do this, isolate the heating mats from the supply (all phases) and guard them from being switched on again.

Usage of the mats must be stopped immediately in the event of damage of any kind (such as cuts, breakages, broken terminal strips or defective connector cables). Seat heaters can be returned to the manufacturer - who then decides on potential repair. Repairs can only be carried out by the manufacturer.

#### Cleaning:

The upper side of the seat heater comprises a felt overlay bonded to the heating element. This can be brushed down when dry.

## 6) LABELLING AND CE CONFORMITY

"carlo" Thermodom seat heaters satisfy the relevant safety regulations for electrical equipment for domestic and similar purposes.

### Tested and certified to:

ÖVE/ÖNORM EN 60335-1:2012-11-01  
ÖVE/ÖNORM EN 60335-2-30:2013-03-01

ÖVE/ÖNORM EN 55014-1:2012-06-01  
ÖVE/ÖNORM EN 55014-2:2009-08-01  
ÖVE/ÖNORM EN 62233:2009-01-01

ÖVE/ÖNORM EN 61000-3-2:2010-05-01  
ÖVE/ÖNORM EN 61000-3-3:2014-04-01



certifikate Nr.: 55-026-16

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" Thermodom seat heaters in the event of a change of owner or user.