



THERMOPLUSH - HEATED SEAT UPHOLSTERY



P. R. HAVENER

Warming churches

Manufacturer of the patented quality upholstery (Patent no. 100 44 022, 10 2004 011 128)

HAVENER

Warmth and comfort
for your church



THERMOPLUSH - HEATED SEAT UPHOLSTERY

the church heating that saves up to 90% on heating costs!



THERMOPLUSH provides the ideal answer for heating to protect the valuable structural fabric of buildings and interiors of chapels and churches and to safeguard them from serious damage

Heated pew cushions and runners represent the ideal combination of comfort for churchgoers, preservation of building fabric and significant savings in heating costs. The heat is directed towards the churchgoers.

Heating with THERMOPLUSH does not result in air circulation in the church interior or movement of dust particles nor does it cause condensation. This provides maximum protection for masonry, frescoes, paintings or stucco and prevents organs from going out of tune.

The advantages of our heated seat upholstery speak for themselves! Operating costs are correspondingly low thanks to extremely low energy consumption.

Sample calculation:

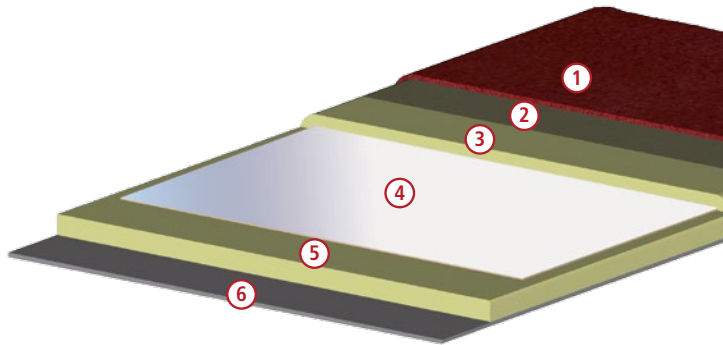
Operating costs for a church with
100 running metres (seating 200) of Thermoplush
heated pew runner

1 hour's heating = € 0,72



Structure of V46-17 heated pew runner

46 volts



Our non-slip pew cushions with built-in carbon heating
70 watt per running metre - 46 volt
Protection class III (low voltage)

1. FABRIC

2. STABILISATION LAYER (PE-LATEX COATING)

3. COMFORT FOAM

4. CARBON HEAT CONDUCTOR

5. FOAM FILLING

Heavy-duty, premium-quality foam,
density 60 kg/m³, compressive strength 8.5

6. NON-SLIP ADHERENT FOAM

5 mm non-slip adherent foam, washable

All materials used are classed as not
easily flammable.



Your advantages at a glance

- Seat pad and heating in one product
- Uses very little energy
- Healthy heat (infrared heat)
- Easy to install
Just place on pew and plug in
- Preserves the building
- Will not slip at all
even when not sat on
- Extremely hard-wearing
The upholstery will not lose its shape,
is dimensionally stable and easy-care.
- Does not cause organs to go out of tune

Technische Daten

Type	V 46-17
Operating voltage	46 V / 50 Hz
Output	approx. 50-70W / running metre at 46 V 50 Hz
Protection class	Class III





FOR THE GOOD OF OUR PLANET



**Our church upholstery made
from recycling material**

Environmental protection – not merely words where we're concerned

We use a recycling fibre for our high-quality velvet fabrics. The basis for the high-quality fabrics used in our upholstery is a regenerated, re-usable fibre, which is produced from waste materials, such as fishing nets and other woven fabric, for example.

What is more, the dye is already applied to the fibre during production and not – as is usually the case – added externally. That saves on fresh water, waste water and energy.

At the same time, recycling here stands for consummate quality, as the yarn results in extremely durable, easy-care fabrics with outstanding colour-fastness – a truly high-end, quality product. The brilliant colours are not affected adversely by UV radiation or yellowing due to age. Even cleaning with agents that contain bleach is not a problem for the recycling fibre.

INSTRUCTIONS FOR ASSEMBLY AND OPERATION

Handover

Please get the customer and person conducting the inspection to sign the completed acceptance report and give it to the supplier of the heated pew runners.

Transport and installation

Delivery of product

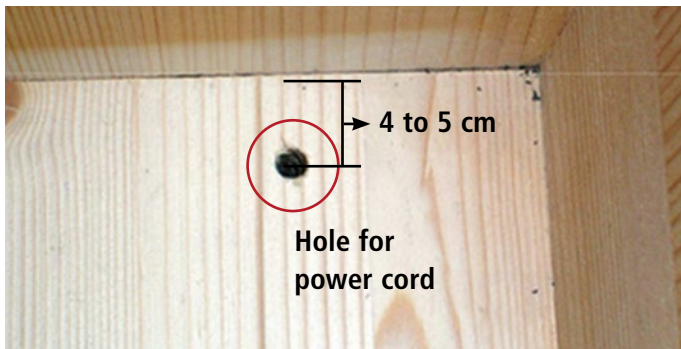
Delivery is made in appropriate packing units, depending on the individual project.

Instructions for transport and storage

Interim storage should only be in dry rooms.

Preparing for installation

In preparation for connection of the heating for the pew runners by an authorised electrician, drill a 10 mm dia. hole through the pew for the opening for the cable on the side prepared for the terminal box (see illustration). Pew surfaces must be cleaned before installation. There should be no stray objects lying on the pew.



Placing the heated pew runner in position

The heated pew runners are made to measure and will already have been labelled in the factory with letters and numbers in accordance with the list of part measurements. This ensures that each heated cushion can be allocated to the correct pew without any difficulty (e.g. A1 = 1st pew in row A) in accordance with the enclosed bill of materials. Remove upholstery from the packaging and place on the intended pew with the fabric side facing upwards and the connection side (cable opening) facing the opening for the cable.

Power cords

Pass the power cord for the heated pew runner through the drill hole. Form a small loop and put it in front of the hole to relieve the load (see illustration). Now connect the plug to the transformer coupler.

The loop should be long enough for the heated pew runner to be lifted up later on when the pew is cleaned.



Wiring the electrical connection

Connect the power cable for the heated pew runner to the transformer socket. This is plugged into the 46V outlet of the isolation transformer. Please observe the installation instructions for the isolation transformer.

Wire the connection in accordance with standards and regulations applicable at the place of installation and following the circuit diagram.



Installing the isolation transformer

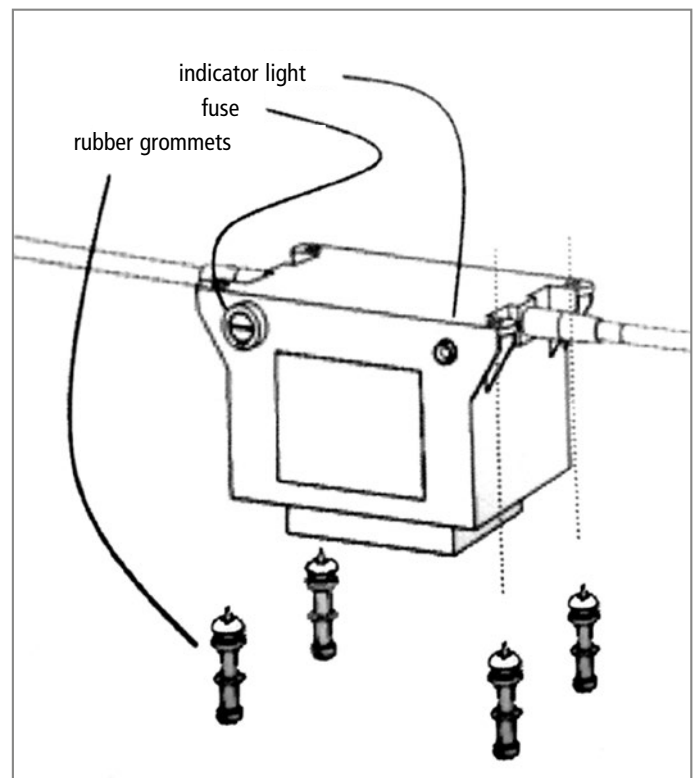
The isolation transformers are fitted with an indicator light, a safety fuse and a thermal fuse.

They are usually installed on the underside of each pew. Refer to the individual customer's installation diagram for the exact position. The isolation transformers are attached using the enclosed rubber grommets (vibration damping) and the wood screws. Only tighten the screws so far that the rubber grommets are not squashed, as otherwise this will impair the damping properties.

The output of the isolation transformer depends on what length pew has been chosen and is specified in the job schedule. The isolation transformers are connected to the power supply for the relevant junction box.

Observe VDE specifications during installation with regard to cable cross-section and fuse protection.

The relevant plug for the heated pew runner is connected later to the 46 V outlet (cable and plug) for the isolation transformer.



Instructions for cable routing

Choose the shortest path for wiring to the transformer in order to avoid trip hazards. Please observe accident prevention regulations.

Allow enough room to insert the plug into the transformer sockets. Also make sure you observe building regulations for sites of historic interest when carrying out wiring.





Commissioning

Initial operation

The following steps must be taken prior to initial start-up:

- Only use the heated pew runners when placed flat in position.
- Make sure you adhere to our technical documentation / wiring diagrams and guidelines!
- Check all terminal connections in the heated pew runner to make sure they are complete.
- Start up the entire system, test working order of all connected heated pew runners (carry out test run).

N.B.: refer to operating instructions for heating controls for initial use of the 46-volt heated pew runner.

The 46-volt heated pew runner has undergone safety testing. The integrated heating adheres to the guidelines for electro-magnetic compatibility and low voltage devices. Conformity has been demonstrated; the relevant documents are available from the manufacturer. As the user, you must observe these operating instructions in order to maintain this condition and to ensure safe operation.

Acceptance test

Procedure in conformance with the acceptance certificate (see appendix).



Maintenance and servicing

Servicing

The heated pew runner needs no servicing apart from occasional cleaning.

Malfunction

The heated pew runner has been designed for many years of continuous operation. Nonetheless faults may of course occur. For troubleshooting see operating instructions for heating controls.

CAUTION! Only authorised staff are allowed to carry out work on the electrical installation and the mains supply should be disconnected for this (main fuse for heating).



Operator obligations

The operator undertakes to check any safety devices connected upstream at regular intervals. Check that the heated pew runner is in good condition, e.g. during regular scheduled cleaning (visual check).

If it can be assumed that safe operation is no longer possible, the heated pew runner must be taken out of use.



Adjusting temperature Heated pew runner

Correct temperature settings depend on the following factors:

Ambient temperature

The colder the ambient or room temperature, the higher the output needs to be set. The temperature in churches hardly fluctuates at all. Therefore it is usually only necessary to make adjustments once in autumn and in spring.

Seating times

As soon as visitors stand up or kneel down (seat unoccupied), the surface of the seat upholstery cools down slightly but warms up again fast as soon as the seat is occupied again.

In the event of a church concert however, the visitor remains seated without interruption and their body heat therefore continuously counteracts the effect of the heated upholstery. In this case, 10% heat output is sufficient as a rule.

By tweaking the warm-up time and the heat output, you can adjust the heated pew runners to suit your particular requirements.

Generally the following applies: a seat temperature of 30°C to 35°C maximum is enough and is perceived as pleasant.



Regulation of heating

There are two different versions of the controls



3kW compact controls with wall-mounted plastic housing



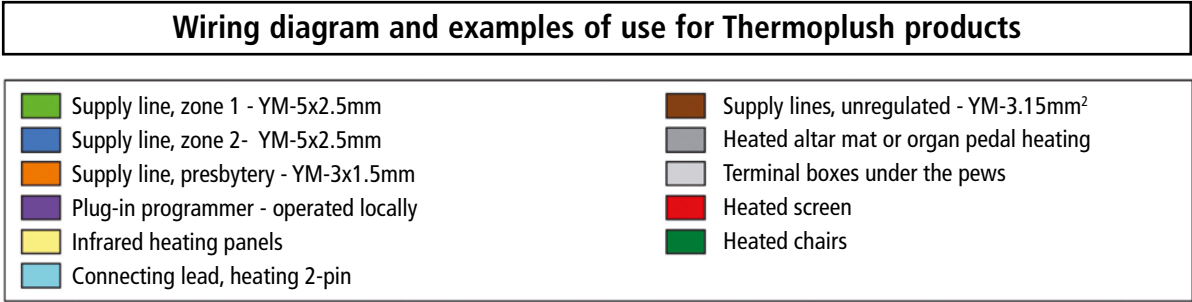
10kW and 20kW controls with wall-mounted sheet steel housing

Safety and monitoring equipment

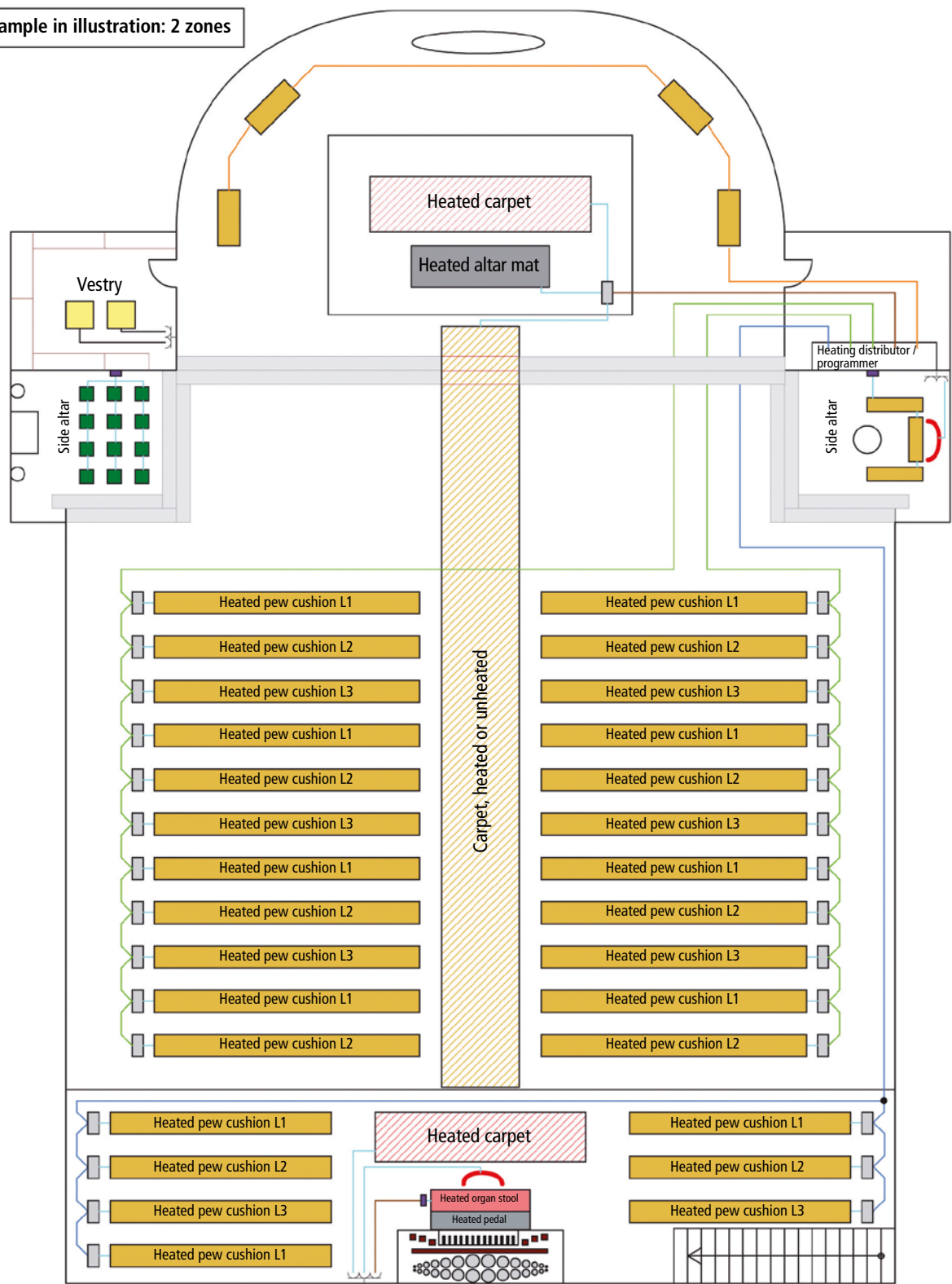
Caution! Only connect the heated pew runner with an appropriate control system from an authorised specialist electrical supplier.

Connecting leads: 2-pole; (protection class III)

Example of wiring diagram



Example in illustration: 2 zones



HAVENER

Warmth and comfort for your church

The pew runners and seat pads are made to fit the measurements of your pews and chairs exactly. You are choosing: consummate quality!

Request our catalogue now: Telephone:
+49 (0) 68 31 / 85 2 39



Help that really gets where
it's needed:

**we donate 20 cents to
SOS Children's Villages
for every metre of pew
runner we sell!**



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Warming churches

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