

Heated Seat Cushions

Summary: Portable battery or mains powered heated cushion/pads available for individual seats or pews. Ideal for intermittent, short periods of use, where there are no pews. Also a helpful option when installing under pew heating is not possible.





Walser heated seat cushion and separate power pack.

A thermal imaging camera picture of the cushion

How do heated seat cushions work?

There are several types of heated cushions available for either individual seats or whole pews, with options for battery-powered or mains powered. There are a few options to consider before purchasing them: some offer a pressure sensor switch so they turn off when the occupant stands up. Some have a seat cushion only; others have a back section too. The power used- and therefore the heat production - all vary. If any mains-powered heated pew cushions were to be installed power supplies would need to be run to each pew to avoid any trailing cables.

Suitable churches

Heated seat cushions are most suitable for churches where electric under pew heating is not possible due to moveable chairs, or where there are historic pews that do not gain a faculty for under pew heating. They can be useful as alternative heating source for small congregations in large churches e.g. mid-week services, or to provide extra warmth for specific individuals to enable less mains heating to be used.

Pros and Cons

Pros:	Cons:
Portable and flexible so can be used exactly when	Mild warmth supplied, unlikely to be enough
and where needed	alone in winter
Can increase comfort in autumn and spring for	Need to be charged between use (battery-
some church members more vulnerable to the	powered version)
cold	
Relatively inexpensive	Need to be stored somewhere dry
Quickly implementable	
Church members could purchase their own and	
use at home too	
Can usually be installed on a single phase	
electricity supply	

Churches in the diocese that have used them

St Mary the Virgin, Mentmore is trialling five heated seat cushions from Thaw.

Known UK product suppliers and estimated price brackets

There is a range of prices and variation in the warmth provided. Heated seat cushions are really helpful where there will be under a dozen people seated on chairs for quite a short meeting. Heated pew runners are closer to under pew heating in price and the choice should be considered carefully (St John the Baptist, Colerne, in the Diocese of Bristol has chosen heated pew runners, with overhead supplementary heating, instead of under pew heating).

Sit and Heat (Sit and Heat)

- Rechargeable battery powered seat and mains powered pew options, pressure sensor on/off switches
- Chair and pew options
- Seat options with and without backs
- 30 or 40watts power use (20 cushions for 1.25hr service used ~1kWh)
- Last through a service on a charge
- Prices: ~£200 per chair cushion (seat and back), £450 for a 2m pew cushion (seat only, more with heated back too)
- Foam padding may need replacing over time
- Case study by Tony Allwood St Edmundsbury and Ipswich Diocese 2022/3 largely positive feedback.

KovoSchmidt (Pew Heating)

- Only mains powered options which need to be plugged in for use
- Only pew cushions, not individual seats (also do heated mats e.g. for behind altar or children's area)
- 230V systems, central control box
- Best to turn on those required 20 minutes before a service to warm; a safety timer turns them off after 2 hours

- Indicative price: 30 metres of cushions (for c. 60 adults) ~£9.5k+VAT, 50 metres ~£11.5k+VAT, plus extra cable installation costs if tricky e.g. locating cables sensitively considering heritage, or practically.
- Case study <u>here</u>

P. R. Havener (Thermoplush)

- "Thermoplush" heated seat pads (they also have mains powered heated pew runners)
- Battery powered rechargeable battery pack 10,000 mAh 14W/5V sold with the seat cushions
- Last 2 hours on a charge
- Various colours and textures of velvet
- Price for one seat pad with powerpack ~£100 (119€) + VAT + shipping to UK

Ororo (Ororowear)

- Battery powered rechargeable battery pack (4800 mAh, 7.4volts) can be purchased with cushion, or you can use your own power bank of the same capacity
- Chair seat option only
- With a Mini 5K battery, the cushion stays warm for 5.5 hours when heated on high, 9.5 hours when heated on medium, and 11 hours when heated on low
- Prices: ~£65 without power pack, ~£120 with

Stoov (Stoov)

- Seat cushion called "One" 40x40cm, 4 colours available
- 3 heat settings, 32°C (lasts 5 hours), 37°C (lasts 3.5hours), 42°C (lasts 2.5 hours)
- Price: ~£110 with rechargeable 2600 mAh, 10.8V battery pack
- Or "The Big Hug" a blanket style seat cover heating seat and back ~£110 in grey
- 3 heat settings, 32°C (lasts 3 hours), 37°C (lasts 2 hours), 42°C (lasts 1.5 hours) with above battery (or you can them with get a 4500 mAh, longer lasting battery for £135)

Thaw (no company website but sold by various UK outdoor gear shops e.g. <u>Cotswold Outdoor</u>)

- Battery powered with 10,000 mAh USB-A DC5V/2A output rechargeable battery pack, manual on/off switch
- Chair seat option only
- Can use at three heat levels 43, 52 or 58°C lasting for 5, 4 or 2.5 hours respectively
- *Price: ~£60 with micro USB cable & rechargeable battery pack.*

Walser (currently out of stock, but similar products available online)

- Originally designed for cars, require a USB battery pack (such as those used to recharge mobile phones)
- Self-build kit, you need to purchase cushion, power packs and multiport USB chargers separately
- 5W power use, low power therefore mild warmth produced
- Lasts about 1.5hrs with 2000 mAh battery pack, manual on/off button (NB some alternatives need a higher capacity battery pack)
- Price: ~£25-30 a chair
- Detailed <u>case study</u> page with links to a technical guidance note and YouTube video



Thaw heated seat cushion - Photo credit T. Mundy

NB For all rechargeable power packs/batteries a location and a volunteer will be needed to charge then between uses. Multiple USB charger stations may be needed and if charging lots of cushions the time taken will be a consideration.

The above is a list of suppliers we have identified, it is not exhaustive and is not a recommendation of these products or suppliers – all of which will have different pros and cons. All known major suppliers at the time of writing have been included (there may be re-sellers of these products too). If further suppliers are known, we would invite details of these to be shared with the diocese so that this list can be updated.

What permissions are currently needed under the faculty jurisdiction rules?

The purchase and use of heated seat cushions would fall under List B if large numbers are purchased, in order to confirm storage and charging arrangements. This would be decided on a case by case basis.

Portable Appliance Testing (PAT) would be needed.

Permission would be required to add new power sockets for the plug-in pew cushions, and also in the unlikely scenario that an upgrade to three phase electricity supply is needed to power a significant number of mains powered cushions.

<u>Glossary</u>

mAh – milliamp hours, a measure of power over time i.e. the capacity of the battery/power pack.

V – volts, a unit of electric potential

W - watts, a unit of power

Contact details of Oxford Environment Team for further support and information

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This is one of a collection of heating guidance notes available here.