

## Fire & Acoustic Socket/Switch Box Inserts

The use of recessed switch and socket boxes in walls is wide spread in private, public and commercial buildings. The internal walls create the required barriers to air leakage, fire and acoustic transmission.

However, once a hole is made in the wall for a recessed switch or socket box, the ability of the wall to protect against air leakage, fire and acoustic transmission is significantly reduced.

In timber-framed buildings the prevention of fire entering wall cavities and attacking the structure is critical to the overall fire integrity of the building.

To combat this, **Aico** and its manufacturing partner, as part of its continuing development of energy saving, passive fire and acoustic solutions, has developed the **Airtight, Fire and Acoustic Rated Socket/Switch Box Insert**.



Firecap Switch/Socket Insert fitted into dry lining box



Firecap Switch/Socket Insert in metal socket box

### Key Features & Customer Benefits

- **2-Hour Fire Rated**
- **Acoustically Rated to 67dB**
- **Reduces Air Leakage by at least 78% on typical socket box designs**
- **Robust Detail Approved**
- **Simple and quick to install**
- **No adhesives & no mess**
- **Easy to check and inspect**
- **Suitable for metal & plastic boxes**
- **Helps minimise heat loss into wall**
- **Help to minimise heat loss and air leakage into wall cavity**
- **Replaces expensive plasterboard lining or putty pads**
- **Highly cost effective**
- **Can be retro fitted to existing sockets**

### TEST DATA

**Aico Firecap Socket/Switch Box Inserts have been successfully tested as follows:**

#### Fire Testing

Fire tested to BS EN 1364-1 and to the principles of BS EN 1363-1:1999

Constructions covered: Plasterboard partition

Duration of effective protection: 120 minutes integrity & insulation

Test Report No's: Chilt/RF08071 AR1 & Chilt/IF08039

#### Acoustic Testing

Acoustically tested under UKAS conditions at BRE Laboratories in accordance with BS EN ISO 140-3:1995 and BS EN ISO 717-1:1997

Test Report No: 247-373

#### Airtightness Testing

Tested to BS EN 1026:2000 over a pressure range of 2-50 Pa

#### Robust Detail Approved

Permitted for use in Robust Detail Timber & Metal Frame Walls

# Fire & Acoustic Socket/Switch Box Inserts

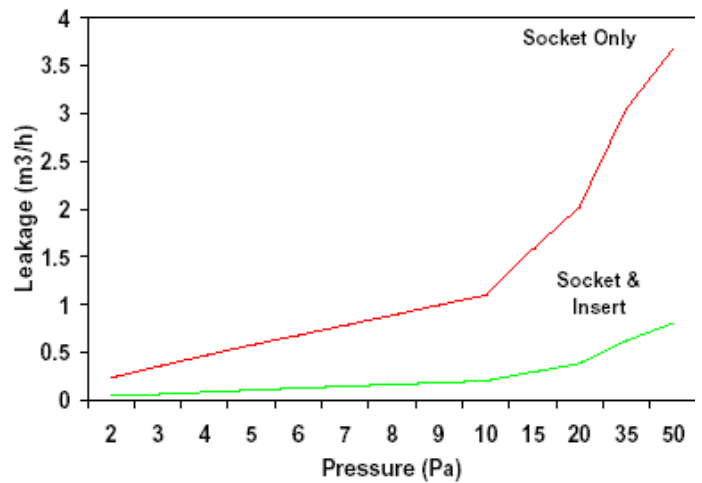


## Firecap Socket/Switch Box Inserts

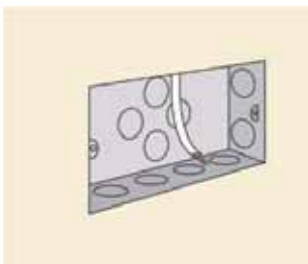
The Inserts have been developed to provide maximum protection for penetrations created by the introduction of both single and double recessed socket boxes.

In a fire situation, the fire is unable to penetrate the insert, which provides both integrity and thermal insulation reducing the risk of fire spread within the cavity and through the partition. Any penetration in the wall also provides a path for air, thus creating heat loss and drafts. The fitting of a Firecap Socket/Switch Box Insert also reduces this problem.

Air Leakage Rate With & Without Socket Box Insert



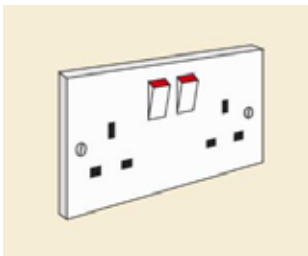
## Fitting Instructions



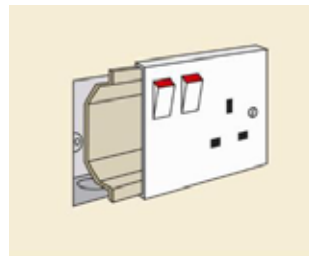
**Step 1**  
Make a small tight hole through the insert ready for the cable



**Step 2**  
Pass the cable through the insert and fit the insert into the socket/switch box



**Step 3**  
Fit socket/switch as normal. Screws can pass through the insert.



**Step 4**  
The flange of the insert should be hidden by the socket/switch. Any rough edges can be trimmed.

## Sizes Available

Firecap Socket Box Inserts are available to suit all common single or double socket boxes in both 35mm and 47mm depths:

**AFB1:** Single Socket box insert - 35mm Depth

**AFC1:** Single Socket Box Insert - 47mm Depth

**AFB2:** Double Socket Box insert - 35mm Depth

**AFC2:** Double Socket Box Insert - 47mm Depth



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