



## Downlight Mitt™

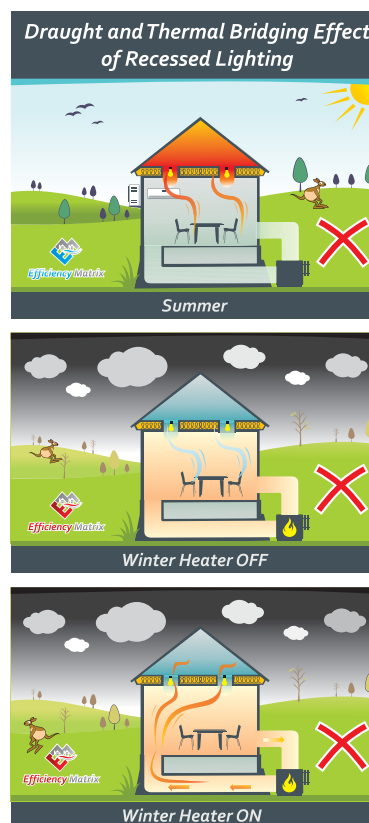
Focusing on maintaining the integrity of the building envelope for energy efficiency, sound proofings and fire ratings. Recessed lighting and in ceiling speakers, are great additions to any building but they turn your roof into Swiss cheese with regards to heating, cooling, fire-rating and sound-proofing. The Downlight Mitt is manufactured from an intumescent material, it stops airflow and provides an R-value around the fitting. Due to its thermal insulating properties it extends the building envelope around devices built into the building envelope. In warmer climates the Downlight Mitt assists to restrict heat from your roof area mixing in with your living area air.



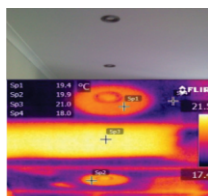
\* Save up to 30 kW/h per year per downlight on heating / cooling

### Key Features

- ✓ Complies with AS/NZS 5110 as a combination barrier with select LED products. <http://efficiencymatrix.com.au/downlight-cover-support/>
- ✓ Complies with AS/NZS 3000:2007, assisting in keeping control gear away from insulation.
- ✓ Complies with AS/NZS 60598.1 and 60598.2.2 which now calls up AS/NZS 5110
- ✓ Bushfire and Commercial specification. Maintains fire protection performance of the ceiling. AS 1530 part 4
- ✓ Provides thermal Insulation with an R value of .5 above and around the fitting.
- ✓ Removes insulation clearances for energy efficiency to reduce heating and cooling costs.
- ✓ Draught proofing
- ✓ Control Gear can be mounted/fixed with a cable tie out of the way of insulation.
- ✓ Cover can be fitted from above or below the ceiling. (Below ceiling installation requires a 80mm cut out)
- ✓ Prevents combustible materials and debris from coming into contact with the light fitting.
- ✓ Up to 2 Hour Fire rating. Capable of withstanding temperatures of 1000°C
- ✓ Acoustic benefits (sound proofing) RW34 and double stack for RW38+CTR

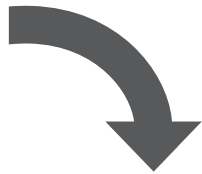


Thermal imaging of an Efficiency Matrix Cover installed showing insulation capabilities compared to an R-3.5 Insulation Batt Downlight cover wall thickness is 8mm



The Downlight Mitt and Loft Mitt are for:

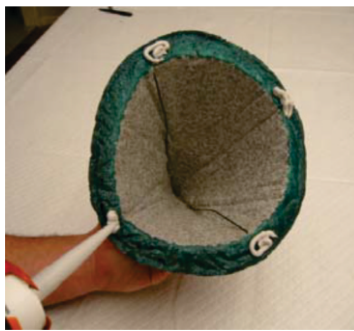
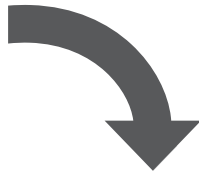
1. Safety Dust Proofing
2. Building Envelope Air tightness
3. Sound proofing
4. Fire rating
5. R-Value consistency



Ensure that control gear is installed with clearances from insulation and installed according to manufacturers requirements. Insulation must only be installed up to 200mm to the sides of the cover.

- Insert wire into top uppermost slits and push legs through the Mitt.
- For Electronic transformers, loosely cable tie around the control gear on the 240 volt side. Hook, tighten, and trim the cable tie.
- For Ironcore Transformers hook transformer directly onto the hook via fixing holes at the 240V end of the unit.
- Fold Mitt and push through downlight hole.
- Cut ends of wire so as not to protrude from light fitting. (Optional, knock the wire end into plaster with pliers)
- Proceed to reinstall Fitting and Lamp.

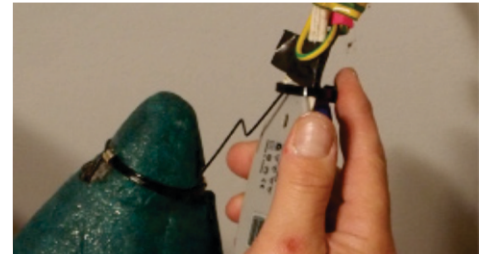




**Warning**

This Method will not provide a fire rating

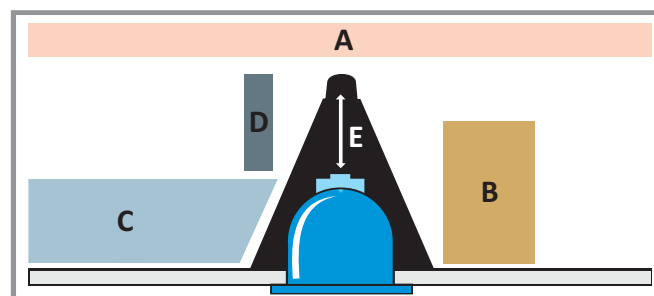
- Insert wire through top uppermost slits and push through mitt.
- Cut off wire extensions and bend wire slightly then push into the side of the Mitt. (Adds support to the cover for transformer holder.)
- Dab a fire rated mastic to 4 even points or all around the base of the Mitt.
- Ensure surface is free of dust and dirt prior to Mitt placement.
- For Electronic transformers, stick the plastic wire mount on the rear of electronic transformer at the 240 volt side.
- For Ironcore Transformers hook transformer directly onto the hook via fixing holes on the 240V end of the unit.
- Proceed to install Fitting and Lamp.



### Warning (Must be read prior to Installation)

1. In order to achieve an up to 2 hour fire rating our downlight covers must be installed with their wire fixing and the downlight cover cannot be modified.
2. Do not cover with insulation above line for AS/NZS 5110:2011 Covers
3. Ensure that Approved LED lamps or Efficiency Matrix Certified lamps are utilised.
4. Ensure that Mitt being utilised has 10mm minimum clearance from light fitting when installed with wire fixing.
5. Before the install of a Mitt product ensure that the power supply is isolated from the main switch.
6. Non ventilated Mitt install is recommended for gimble fittings, not fixed head fittings, or fittings with no openings to the living area.
7. Do not carry out any modifications to the Mitt without consulting Efficiency Matrix. (Especially critical for fire ratings.)
8. Ensure that installation method (Above and Below ceiling) is carried out accordingly.
9. Ensure that installation method for transformer (Above and Below Ceiling) is carried out accordingly. Transformer is not to be installed within Mitt area.
10. Ensure that area within Mitt is clear of dirt and debris prior to installation.
11. All downlight fittings must adhere to the Lamp requirements.
12. All electrical 240V wiring work must be undertaken by a licensed electrician.
13. For fittings that have structural members in the way of the Mitt, mastic may be used but the Mitt must clear the compatible (Supported LED/Halogen) fitting by at least 10mm.
14. All Our Covers must be installed with the supplied wire fixing into plaster in order to be certified with a fire rating.
15. Ventilated mitts (Basic Mitt) must not have any insulation covering the enclosure where there is a chance that the ventilation holes maybe obstructed.
16. Our downlight covers assist in the compliance to standards AS 1530 Part 4 and AS 3959 for fire ratings over recessed lighting and in-ceiling speakers.

Ceiling Retrofit	Air Tight No ventilation	With Electronic Transformer		With Ironcore Transformer		Fixed Head (70mm)		Gimble Fitting (80mm+)		240V recessed (95mm+)	
Install Method	N/A	Below	Above	Below	Above	Below	Above	Below	Above	Below	Above
Downlight Mitt	✓	✓	✓	✗	✓	✗	✗	✓	✓	✗	✗
Loft Mitt	✓	✗	✓	✗	✓	✗	✓	✗	✓	✓	✓



Dimension	AS/NZS 5110 Compatible Combination Luminaires	ESV Incandescent Lamp	ESV Halogen Lamp
A - Clearance above luminaire	0mm	50mm	200mm
B - Side clearance to structure member	0mm	100mm	200mm
C - Clearance to thermal insulation	0mm	50mm	200mm
D - Clearance to supply transformer	0mm	50mm	50mm
E - Mitt clearance to Light fitting	0mm	N/A	N/A