

BOSS Fire Transit Box Installation Guide

The **BOSS Fire® Transit Box** is a cable and pipe transit device used for firestopping multiple services through fire rated barriers to achieve fire rating, up to FRL -/120/120. It can be installed into a variety of fire rated walls, floor and ceiling systems, tested and approved to AS1530.4-2014 and AS4072.1.



Important:

Fire separation is a critical part of life safety in building design and must be treated carefully. Follow the steps below to help ensure your installation is carried out correctly and compliantly.

- Select the BOSS Fire Transit Box for installation only into approved applications, which include FR walls, floors & ceilings. The BOSS Fire Transit Box Technical Data Sheet provides more information on tested and approved systems.
- Penetrations in fire rated barriers can weaken the fire integrity of a building element. Therefore, its recommended to always minimise the size of apertures as much as possible, and select the smallest size BOSS Fire Transit Box available that your installation and configuration requires.
- Ensure that you read and understand the appropriate certification and how it relates to your specific application.
- Ensure the approved applications detailed in test and assessment reports is applicable to your construction detail. Always follow manufacturer's installation instructions and read and understand the information contained in the product Technical Data Sheets.
- Make sure you check your relevant Building Regulations, local laws and AS/NZS Standards to properly understand your obligations.
- Ensure you have an accredited Certifier or 3rd party compliance inspector to check your proposed system before installation. Pre-approval can help to save significant costs and delays and avoid non-compliance.
- For details on 'as-tested' and laboratory assessed systems, contact BOSS Fire at bossfire.com.au or +612 9531-8591

Please note: this documentation contains recommendations by the manufacturer and may not include all methods of installation or compliance available. BOSS Fire & Safety Pty Ltd has provided the below technical information in good faith and to the best of its knowledge. This information was deemed to be correct at the time of publication. BOSS Fire & Safety reserve the right to change any information in this guide at any time. This document may therefore be superseded by new versions. If you are unsure of whether or not this document is a current publication, please contact us to confirm.

This installation guide details the methods required to fit the BOSS Fire Transit Box to the relevant substrate, in either fire walls, floors and FR ceilings.

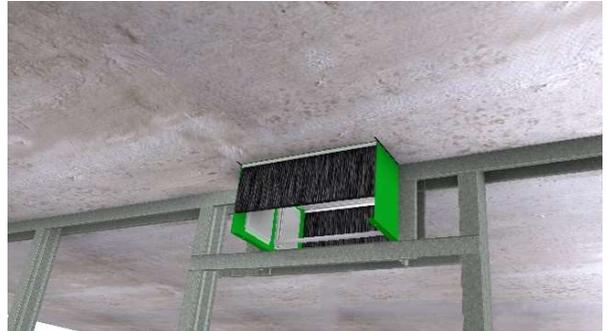
WALLS

NB - an internal Trapeze is provided inside the box for aiding separation between services. Where separation is required, such as between power & data cables, gas or hot/cold water services, correctly position the services on the trapeze and fix into place with cable ties. It is important that services are independently supported of the transit box. Consult AS3500 for more detail on the separation of the services your system contains.



Head of Wall / Soffit Mounted:

- Remove base piece of the transit box by removing four M6 screws.
- Mark the fixing position of the transit box on the soffit ensuring the transit box is centred in the wall section. Apply 10mm bead of FireMastic-300™ sealant across the top of the transit box from left to right. (Non-brush face to non-brush face).
- Fix the box to the underside of the soffit via mounting holes in the top plate, use steel anchors, minimum M8 x 40mm.
- If mounting into a framed or flexible wall, such as steel stud and plasterboard, make sure the wall is framed correctly with trimmer studs, noggins and/or full-length studs within 20mm of the transit box to maintain wall stability (Fig 1). Consult the technical manual of the provider of the wall system for full details.
- Slide the base piece back into the transit box and fit the M6 screws.
- Apply **BOSS FireMastic-300™** to the perimeter of the transit box where it interfaces with the wall lining, on both sides of the wall. This seal should be the minimum 13mm deep (depth of a single layer of fire rated plasterboard) x maximum 20mm wide seal. The **BOSS FireMastic-300** should then be finished with a 25 x 25mm fillet around the perimeter of the box. Masking tape should be used to control the size of the fillet and provide a neat finish.



- If necessary (depending on services used and FRL required), fit **BOSS P40 MAK-Wrap** thermal wrap to both sides of the wall. Refer to 'Wrapping Services' section for more information.

Mid wall mounted – Framed Walls:

- If mounting into a framed or flexible wall, such as steel stud and plasterboard, make sure the wall is framed correctly with additional trimmer studs, noggins and/or full-length studs within 20mm of the transit box to maintain wall lining stability. Consult the technical manual or installation instructions of the provider of the wall system for full details.
- Remove base piece of the transit box by removing four M6 screws.
- Fit the transit box to the underside of a noggin using 12g screws, ensuring that the box is centred across the wall section.
- Slide the base piece back into the transit box and fit the M6 screws
- Apply **FireMastic-300™** to perimeter around transit box on both sides of the wall where it interfaces with the wall lining. Minimum 13mm deep x maximum 20mm annular gap. The **BOSS FireMastic-300** should then be finished with a 25x25mm fillet around the perimeter of the box. Masking tape should be used to control the size of the fillet and provide a neat finish.
- If necessary (depending on services used and FRL required), fit **BOSS P40 MAK-Wrap** thermal wrap to both sides of the wall. Refer to 'Wrapping Services' section for more information.



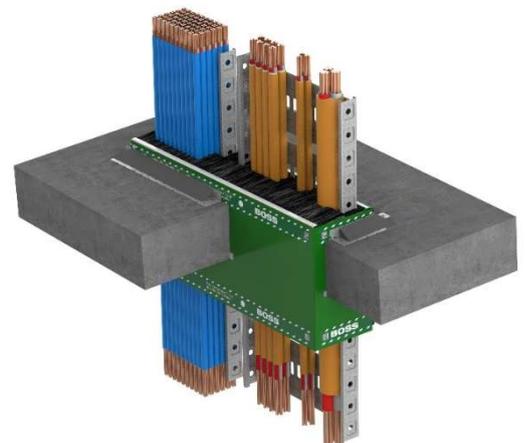
Mid wall mounted – Other Walls:

- Consult the technical manual or installation instructions of the wall provider for any requirements on how to treat wall openings, such as trimming or C-Track sections to surround the aperture.
- Mark the position of the wall profile onto side of the transit box ensuring the transit box will be located central to the wall section. This mark is where the supporting flange bracket will be positioned.
- Fit the flange bracket (minimum 20mm x 20mm x 1mm thick steel angle) to perimeter of the transit box using minimum 8g x 16mm self-drilling screws.
- Fit the transit box to opening within the wall and attached flange bracket to the wall face. Refer to wall manufacturer for screw type appropriate for wall system, ensuring fixings are all-steel.
- Apply **FireMastic-300™** to perimeter around transit box where it interfaces with the wall. Apply a minimum 25mm x 25mm fillet **FireMastic-300™** to perimeter of transit box to both sides of the wall.
- If necessary (depending on services used and FRL required), fit **BOSS 'P40 MAK-Wrap'** thermal wrap to both sides of the wall. Refer to 'Wrapping Services' section for more information.



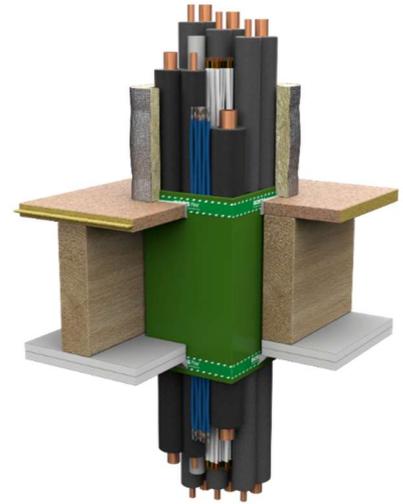
FLOOR SLABS

- Mark the proposed position of the top surface of concrete slab onto side of the transit box, ensuring the transit box will protrude through top of slab approximately 30mm. This mark is where the supporting flange bracket will be positioned
- Using minimum 20mm x 40mm x 1mm steel angle, fit the flange bracket with the 20mm side of angle to transit box using 8g x 16mm self-drilling screws. The 40mm face of the bracket is so fit against the face of the slab.
- Lower the transit box to aperture, fixing the flange bracket into concrete using minimum M8 x 40mm all-steel masonry anchors.
- Under the slab: Apply **FireMastic-300™** sealant to perimeter gap on underside of concrete slab.
- On top of the slab: Apply minimum 20mm x 20mm fillet of **FireMastic-300™** sealant to perimeter of transit box over the top of flange bracket. Use masking tape to control fillet size and provide a neat finish.
- If necessary (depending on services used and FRL required), fit **BOSS 'P40 MAK-Wrap'** thermal wrap to top side of the slab. Refer to 'Wrapping Services' section for more information.



FR CEILING / CEILING FLOOR SYSTEMS

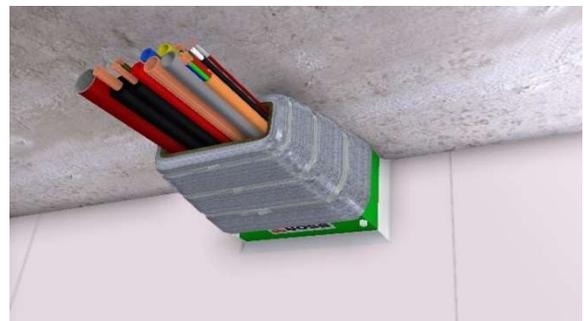
- When mounting into a framed ceiling or ceiling/floor system, make sure the system is framed correctly with additional trimmer steel studs, noggins or bearers, and/or full length studs or bearers within 20mm of the transit box. Consult the technical manual or installation instructions of the provider of the ceiling or ceiling floor system for full details.
- Mark the proposed position of ceiling profile on the side of the transit box ensuring the transit box will protrude through the underside of the ceiling 20mm. This mark is where the supporting flange bracket will be positioned
- Using minimum 20mm x 40mm x 1mm angle for the flange bracket, fit 20mm side of flange bracket to the end of the transit box using minimum 8g x 12mm all-steel screws.
- Fix the transit box into ceiling aperture, fixing the angle using approved all-steel plasterboard screws.
- Apply **FireMastic-300™** sealant to the interface between the transit box and the plasterboard / flooring on both the upper and lower faces (ceiling and floor side).
- Apply minimum 20mm x 25mm fillet of **FireMastic-300™** sealant to perimeter of transit box over the top of angle mount on ceiling side.
- If necessary (depending on services used and FRL required), fit **BOSS 'P40 MAK-Wrap'** thermal wrap to top side of the ceiling / floor system. Refer to '*Wrapping Services*' section for more information.



WRAPPING SERVICES

The **BOSS P40 MAK-Wrap** is a foil-faced rockwool thermal wrap used to insulate services from heat transfer. By wrapping the services that penetrate the fire barrier and pass through the transit box, the FRL can be increased to a maximum of -/120/120.

Whether your configuration requires wrapping of services or not will be determined by the FRL required and the services that penetrate the fire barrier. Ensure you read and understand the test reports or compliance data to ensure your services are adequately protected.



To apply the **BOSS P40 MAK-Wrap**:

- Place the **P40-MAK Wrap** on the services and wrap all the way around the bundled services, overlapping the previous layer by 90 degrees and use aluminium foil tape to hold the end of the wrap in place prior to ties being fitted.
- Use either metal tie wire (1mm diameter) or steel cable ties to tightly secure the wrap to the services. Use a minimum of 2 ties nominally 50mm in from each end of the wrap.
- Lastly, use aluminium foil tape to cover exposed mineral fibres between the foil backing and the services at the open ends of the wrap for a neat aesthetic finish.
- For walls, repeat process on other side of the wall. For slabs and ceilings, only required top side only.

