Application Note #791



Revision A July 2021

Alisse Keypads - Round Backbox Installation Best Practices

English

Overview

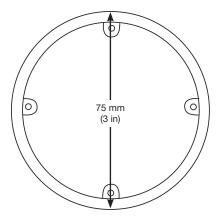
Once installed, the Alisse keypad is a beautiful wall control designed to be elegant and discreet. To ensure the best installation possible, this document outlines the international Alisse keypad installation best practices.

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Backbox Selection

Many backboxes are well-suited to be used for Alisse installations with some exceptions. To ensure that the keypad's adapter will be able to cover the backbox and its installation, the backboxes used for one-column, two-column, and three-column units should have a diameter of 75 mm (3 in). In order to ensure spacing exists for the connector and wiring, the depth of any backbox should be greater than 35 mm (1.4 in). Alisse keypads ship with a special QS connector that allows them to be installed in a 35 mm (1.4 in) deep backbox. Using a standard QS connector requires a deeper backbox.



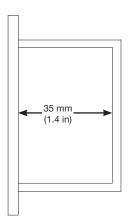


Figure 1: Visual depiction of backbox size limitations.



International Style Round Wallbox: Screw Spacing: 60.3 mm (2.4 in) (red arrows) Recommended Lutron Part Number: EBB-1-RD* EBB-15-RD*

* Please reference page 9 for information on other manufacturer's backboxes.

Wall Inspection and Preparation

One of the most important factors to consider in any Alisse installation is the flatness of the wall. A non-flat wall could be caused by various factors that include decorative wall coverings (tile, stone, etc.), plaster not evenly applied, plasterboard spackle applied but not sanded evenly, etc. This non-flat wall could create a gap between the adapter and wall or the faceplate and adapter. If the gap is too large, the snaps in one or more corners may disengage which will cause rocking, or in some extreme cases the unit will not be able to be installed into the adapter or may disengage over time.

To confirm the wall you are working on is flat, we recommend using a straight edge and holding it against the wall at the desired installation location, as shown in the photo below. There should be no visible gap between the straight edge and the wall in the area of your installation. We recommend checking flatness in both the horizontal and vertical directions.

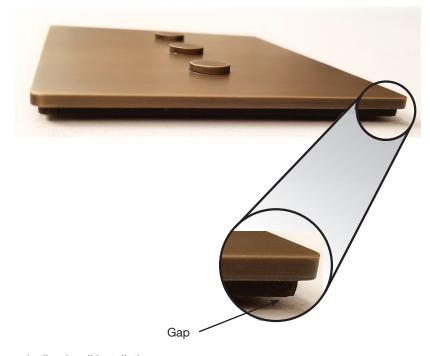


Photo of straight edge used to evaluate wall flatness.

Cutting Holes in Wall

Debris or burrs left from hole construction can cause gaps to exist between the wall and the Alisse keypad.





Before and after photos of debris and burr created during a dry lined wall installation.

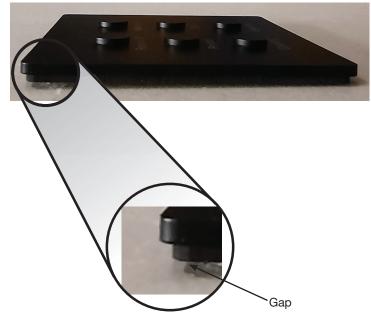


Example of an installation with a flat wall and deburred hole.

Backbox Installation

Prepare the wall and backbox hole as described in the previous sections. Install the backbox to ensure it is as flat and flush to the wall as possible. The goal of this installation is to ensure that the unit cannot shift on the wall under normal use while minimizing the gap between the wall and the adapter.





Example of a protruding backbox and its impact on the keypad.



Example of an installation with a flat wall and flush mounted backbox.

Mounting Screws

The Alisse keypad must be mounted using the horizontal (left/right) screw holes. It cannot be mounted using the vertical screw holes (if present), on your backbox.

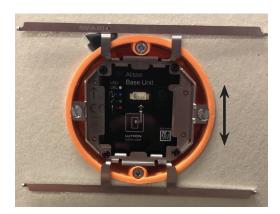


Horizontal mount



Not compatible with vertical mount

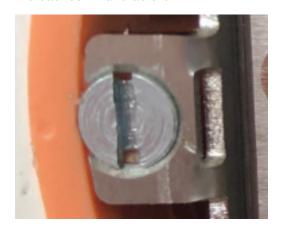
The backbox must be installed horizontally with the mounting screws being as level as possible.



Backbox is mounted slightly rotated. The mounting screws are not level, therefore, the keypad will not be level. There is limited adjustability in the adapter. Use a level to check that the backbox is properly mounted horizontally. If not, you may be able to adjust it. For all backbox types, loosen the screws used to mount the backbox. Rotate the backbox slightly until the unit mounting screws are horizontal. Retighten the box mounting screws that secure it to the wall. If your backbox is a masonry mounted box, it cannot be adjusted easily. It would need to be uninstalled and reinstalled properly.

Mounting Screws (continued)

Flathead countersunk screws are preferable for mounting the Alisse adapter to the backbox. Lutron does not provide screws, as the screw size/thread pitch are not standardized across backbox manufacturers. Screws are provided by the backbox manufacturer.



The low profile of the flat countersunk screw head won't interfere with the keypad assembly.

If your backbox is supplied with panhead screws you will need to drive the screw so that the head does not protrude past the edge of the box.





Flathead countersunk - Preferred screw head type.



Panhead – Not preferred. If your backbox was supplied with panhead screws see the following section for Best Practices with Panhead Screws.

Best Practices with Panhead Screws

For 1C and 2C units

Drive the panhead screw in as far as possible while keeping the adapter arms flat against the wall surface. Do not overtighten such that adapter arms raise off the surface of the wall.



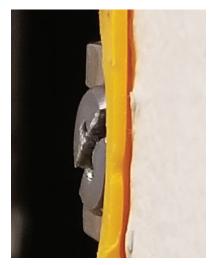
CORRECT Adapter flat against wall.



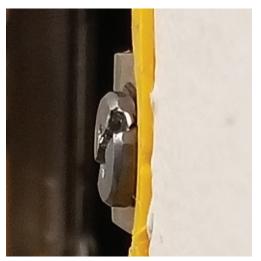
NOT CORRECT Screw over-driven. Adapter raised off of wall.

For 3C units

For 3C units, panhead screws should be driven in such that the top of the screw heads are flush with the lip of the backbox.



CORRECT Panhead screw flush with backbox.



NOT CORRECT Panhead screw protrudes past backbox, not flush with backbox.

Manufacturer's Backboxes (tested by Lutron)

Compatible Boxes

Make	Model	Mounting (Wall Style)	Depth (mm)	Base Unit Fit	Compatibility
Simet	PV60K	Cavity/Hollow	38.5	Good	Good
Kaiser (Lutron)	9064-01 (EBB-1-RD)	Cavity/Hollow	62	Good	Good
F-Tronics	E135	Cavity/Hollow	35	Good	Good
Legrand	0800-51	Cavity/Hollow	50	Good	Good*
Legrand	0800-41	Cavity/Hollow	40	Good	Good*
Legrand	080108/ 080109	Masonry	40	Good	Good*
Legrand	0801-01	Multi-material	40	Fits, but tight	Good*
Legrand	0801-21	Multi-material	50	Fits, but tight	Good*

Not Recommended Boxes

Make	Model	Mounting (Wall Style)	Depth (mm)	Base Unit Fit	Compatibility
Debflex	718300	Masonry	40	Good	Okay
Debflex	718361	Cavity/Hollow	40	Fits, but tight	Okay
ELKO	E135	Cavity/Hollow	54	Good	Okay
Vimar	V71701	Cavity/Hollow	50	Good	Poor

Non-Compatible Boxes

Make	Model	Mounting (Wall Style)	Depth (mm)	Base Unit Fit	Compatibility
Legrand	080021H	Cavity/Hollow	40	Will not fit	No
Debflex	718361	Cavity/Hollow	40	Will not fit	No
ELKO	E135	Cavity/Hollow	48	Will not fit	No

^{*} See previous section **Best Practices with Panhead Screws** for use of backboxes supplied with panhead screws.



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