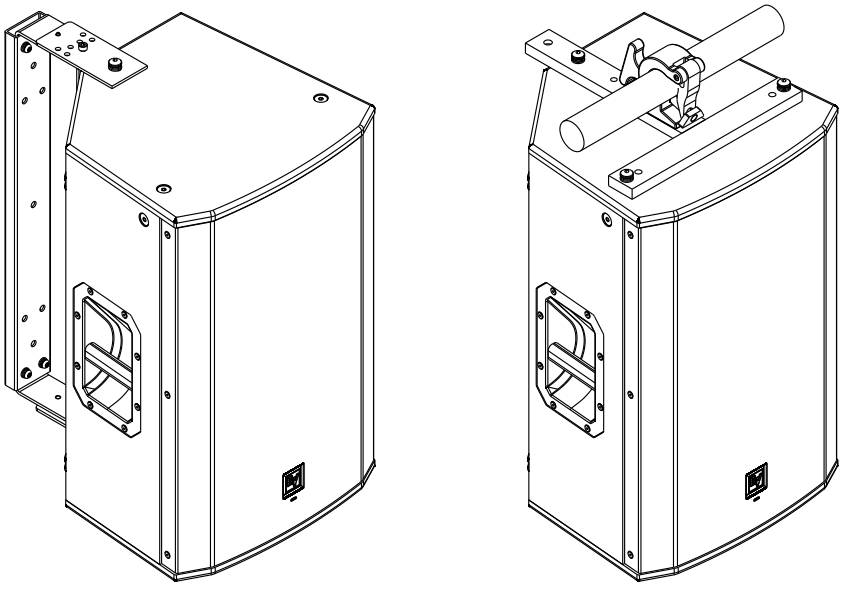
EKX Full-Range Loudspeaker Accessories

EKX-BRKT12, EKX-BRKT15, and EKX-TCA

en | Installation Note



Electro-Voice

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1 Safety

The EKX loudspeaker systems and rigging accessories in this manual have a minimum structural safety factor of 8:1 when used as intended. The safety factor is defined as the ratio of the ultimate-break strength divided by the working-load limit. The ultimate-break strength represents the force at which a part will structurally fail. The working-load limit is the maximum load that the user shall apply. The safety factor provides a margin of safety above the working-load limit to accommodate normal dynamic loading and normal wear.

When EKX loudspeaker systems are suspended using the EKX rigging accessories as illustrated in this manual, the resulting loads will be within the working-load limits of both the loudspeaker systems and the rigging accessories, and a safety factor of at least 8:1 will be maintained. The use of rigging configurations other than recommended by Electro-Voice in this manual for either the EKX loudspeaker systems or EKX rigging accessories are at the risk of the user.

Warning!

Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of suspending objects overhead. Electro-Voice strongly recommends all loudspeakers be suspended taking into account all current national, federal, state, and local laws and regulations. It is the responsibility of the installer to ensure all loudspeakers are safely installed in accordance with all such requirements. When loudspeakers are suspended, Electro-Voice strongly recommends the system be inspected at least once per year or as laws and regulations require. If any sign of weakness or damage is detected, remedial action should be taken immediately. The user is responsible for making sure the wall, ceiling, or structure is capable of supporting all objects suspended overhead. Any hardware used to suspend a loudspeaker not associated with Electro-Voice is the responsibility of others.

Prior to use, inspect the suspension points and associated hardware for any cracks, deformations, broken welds, corrosion, missing or damaged components which could reduce the suspension points strength. Replace any damaged hardware. Never exceed the limitations or maximum recommended load intended for the suspension points. As an added safety measure, it is suggested the user install an extra suspension point back to the building structural supports. This redundant safety point should have as little slack as possible (less than one (1) inch is preferable). Prior to each use, inspect the loudspeaker enclosures for any cracks, deformations, missing or damaged components, which could reduce enclosure strength. Replace any loudspeaker systems damaged or missing hardware.

Warning!

Eyebolts must be fully seated and oriented in the plane of pull. Always use fender washers at least 1.5 inch in diameter and 1/16 inch thick under the eyebolt to distribute the load on the enclosure.

REFERENCE: For more information, see EKX Powered Loudspeaker User Manual (F.01U.308.095) or EKX Passive Loudspeaker User Manual (F.01U.308.100).

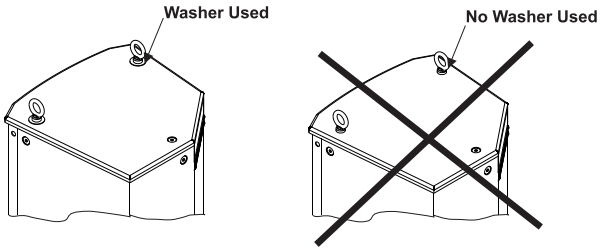


Figure 1.1: Eyebolt shown with and without washer

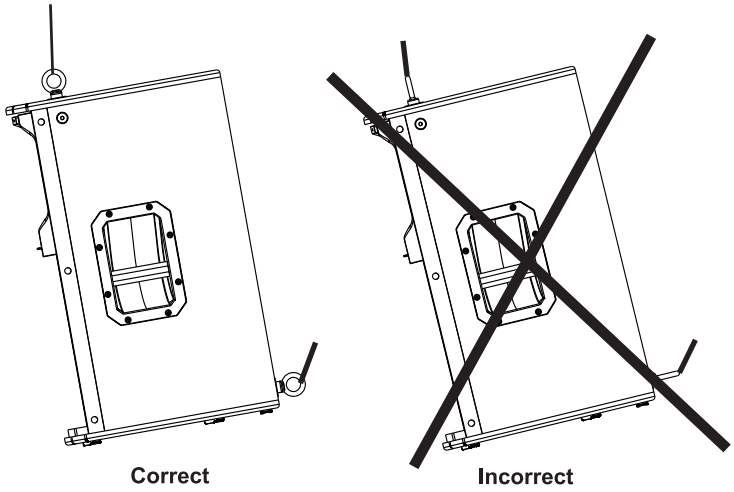


Figure 1.2: Eyebolts shown oriented in the plane of pull

Warning!

Never exceed the limitations or maximum recommended working load for Electro-Voice loudspeakers.

Disregarding this warning could result in serious injury or death.

50 lb per Suspension Point

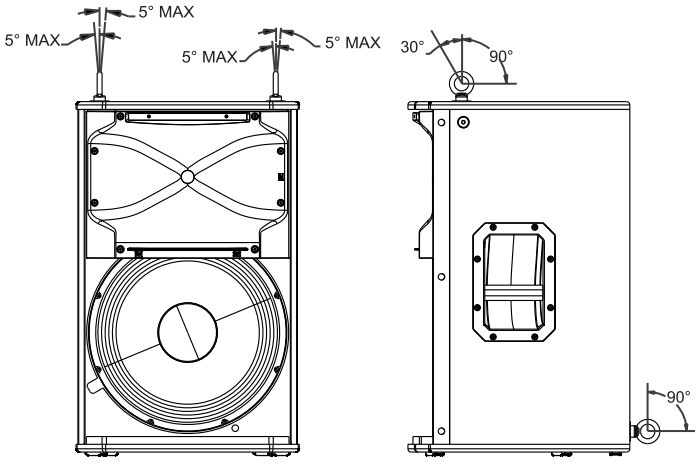


Figure 1.3: Maximum working load - vertical orientation

Warning!
Never suspend EKX loudspeaker in a vertical column array.
Disregarding this warning could result in serious injury or death.

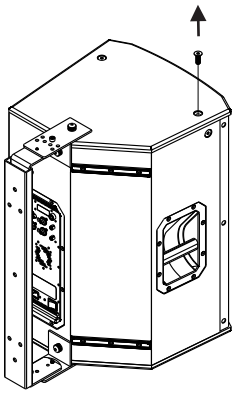
Notice!
If the eyebolts are removed reinstall the screws.
If the screws are not reinstalled air leaks occur in the enclosure, resulting in undesirable performance.

1.1 Safety point

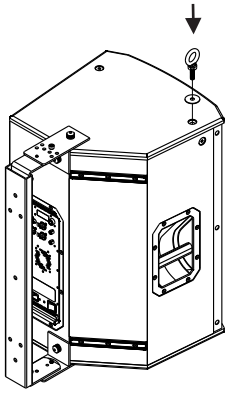
As an added safety measure, it is suggested the user install an extra suspension point back to the building structural supports. This redundant safety point should have as little slack as possible (less than one (1) inch is preferable).

To **add a safety point**, do the following:

1. Remove **one (1) of the screws** from the top of the loudspeaker.



2. Replace the **screw** with one (1) eyebolt and one (1) washer.



3. Tether the **safety point** back to the building structural supports.
   An added safety point is established back to the structural supports.

2 Installation

Thank you for choosing an EKX loudspeaker accessory. This installation guide describes how to install the wall mount brackets and truss adapter used with EKX full-range loudspeaker systems.

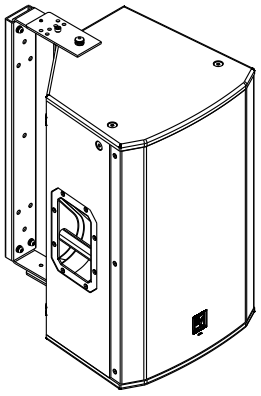
EKX Full-Range Loudspeaker Accessory Guide

Loudspeaker	Wall Mount Bracket	Truss Adapter	M10 Eyebolt Kit
EKX-12 and EKX-12P	EKX-BRKT12	ETX-TCA	EBK-M10-3PACK
EKX-15 and EKX-15P	EKX-BRKT15	ETX-TCA	EBK-M10-3PACK

For more information, see EBK-M10 Eyebolt Attachment Kit Installation Instructions (F.01U.303.870).

2.1 Wall mount bracket

The wall mount bracket is used to mount an EKX-12, EKX-15, EKX-12P, or EKX-15P full-range loudspeaker to the wall.



The wall mount bracket kit contains the following:

Quantity:	Description:
1	EKX Full-Range Loudspeaker Accessories Installation Note (F.01U.308.107)
1	Allen Wrench
4	M10 Split Lock Washers
4	M10 Flat Washers
4	M10 Button Head Screws
2	M8 Socket Head Cap Screws
1	T-Bracket
1	T-Bracket with hook
1	U-Bracket

Table 2.1: Wall mount kit components

Attaching the T-Brackets

Use the correct size wall mount bracket kit designed for your EKX-12, EKX-15, EKX-12P or EKX-15P full-range loudspeaker. The EKX-15 loudspeaker is shown in the illustrations. For more information, see *EKX Full-Range Loudspeaker Accessory Guide, page 7*.

To **attach the T-Brackets to EKX-12, EKX-15, EKX-12P, or EKX-15P loudspeaker**, do the following:

1. Using an Allen wrench (supplied), remove the **four (4) rear suspension point M10 screws** from the loudspeaker.

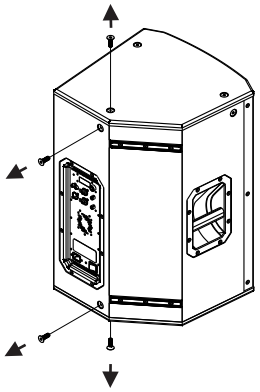


Figure 2.1: Removing screws

2. Align the **T-Bracket with the holes** on the top and rear of the loudspeaker (Vertical).
   OR
   Align the **T-Bracket with the holes** on the right and rear of the loudspeaker (Horizontal).

Notice!

When mounting a loudspeaker horizontally, the T-Bracket with hook needs to be installed on the left side as you face the front of the loudspeaker.

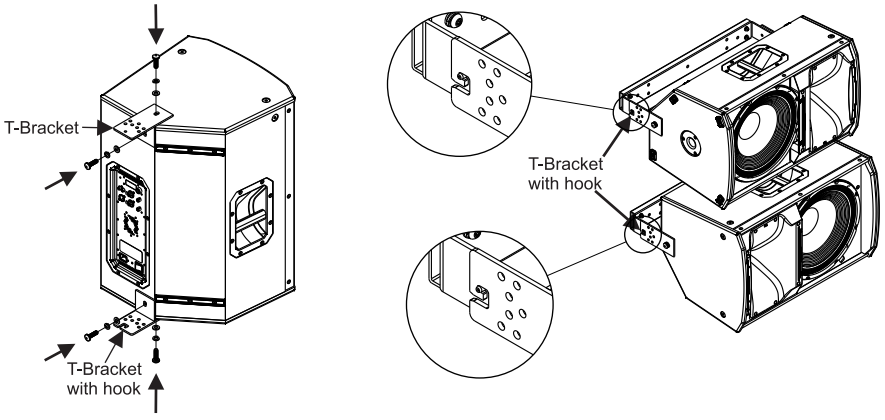


Figure 2.2: T-Brackets Vertical (left) Horizontal (right)

3. Insert **two (2) of the M10 button head screws, two (2) M10 split lock washers,** and **two (2) M10 flat washers (supplied)**.
4. Tighten the **two (2) M10 button head screws**.
   The T-bracket is secured to the loudspeaker.

5. Align the **T-Bracket with hook** with the holes on the bottom and rear of the loudspeaker (Vertical).
   OR
   Align the **T-Bracket with hook** with the holes on the left and rear of the loudspeaker (Horizontal).

Notice!
When mounting a loudspeaker horizontally, the T-Bracket with the hook needs to be installed on the left side as you face the front of the loudspeaker.

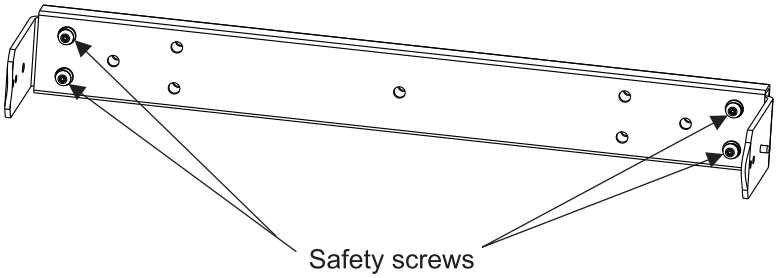
6. Insert **two (2) of the M10 button head screws, two (2) M10 split lock washers,** and **two (2) M10 flat washers (supplied)**.
7. Tighten the **two (2) M10 button head screws**.
   The T-bracket with hook is secured to the loudspeaker.

Mounting U-Bracket to the wall
The wall mount U-Bracket is used to mount a loudspeaker to the wall.

Caution!
Due to the weight of the Electro-Voice loudspeaker system, it is imperative the bracket is properly secured to the wall. The choice of fastener (not supplied) will be determined by the material and construction of the mounting surface. The user is responsible to ensure the mounting surface and fasteners are capable of supporting the weight of the loudspeaker.

Caution!
Two (2) person lift and placement is recommended for the heavier loudspeakers. Single person lift and placement of heavier loudspeakers could cause injury.

Notice!
Do not remove the four (4) safety screws in the wall mount bracket.



The U-Bracket is not designed for the safety screws to be removed.

Notice!
The wall U-Bracket mounting holes accept M10 or 3/8-inch fasteners. The horizontal holes are located 16-inches apart for attachment to studs.

To wall mount an EKX-12, EKX-15, EKX-12P, or EKX-15P, do the following:

1. Using the fasteners suitable for the wall material (not supplied), attach the **U-Bracket** to the wall in a vertical or horizontal position.

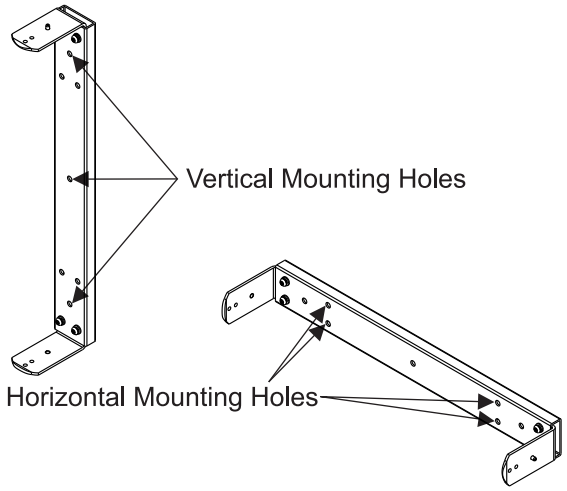


Figure 2.3: U-bracket

2. Using two (2) hands lift the **loudspeaker**.
3. Place the **T-Bracket** onto the pivot pin on top of the U-Bracket.

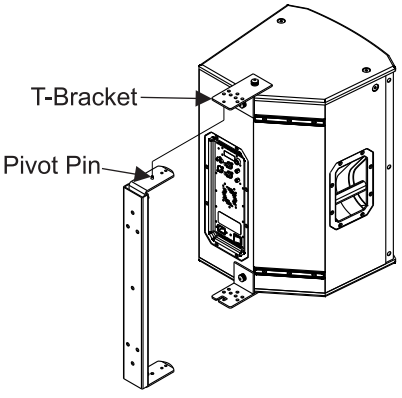


Figure 2.4: U-bracket onto pivot pin

4. Ensuring the lower U-Bracket pivot pin is securely placed in the notch; guide the **T-Bracket with hook** into position.
   The loudspeaker is loosely hung and allows you to position the loudspeaker.

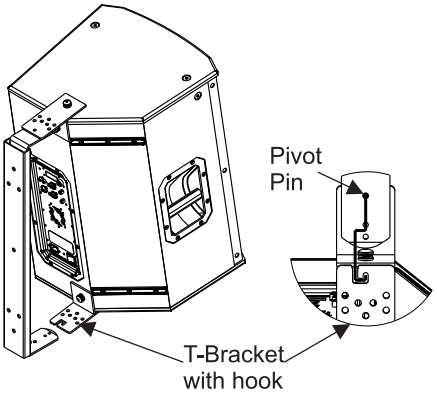


Figure 2.5: Guide onto U-bracket

5. Position the **loudspeaker** to the desired angle.

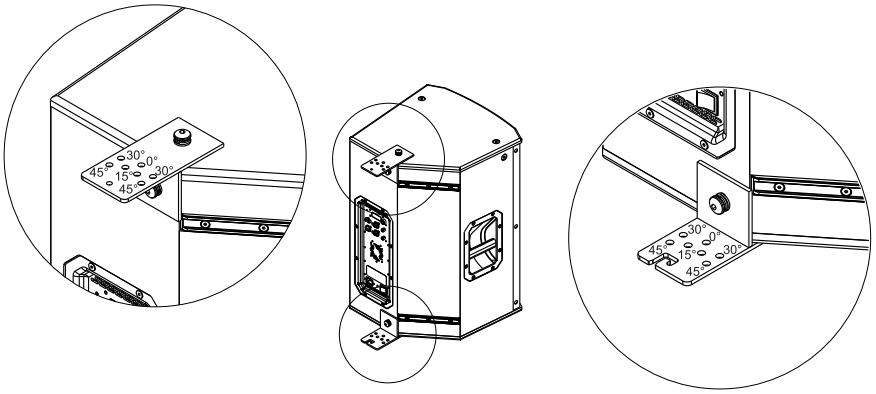


Figure 2.6: Angle degrees

6. Insert **one (1) M8 socket head cap screw (supplied) into each T-Bracket** at the desired angle.

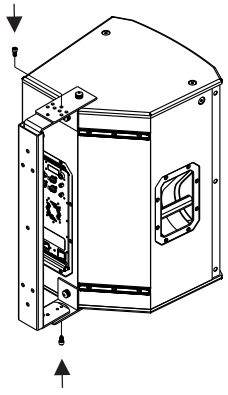


Figure 2.7: Secure loudspeaker

7. Tighten the **two (2) M8 socket head cap screws (supplied)** sufficiently so the loudspeaker does not rotate.
   The loudspeaker is set to the desired angle.

For more information, see *Safety point, page 6*.

2.2 Truss adapter

The truss adapter is used to suspend an EKX-12, EKX-15, EKX-12P, or EKX-15P full-range loudspeaker on 1.5-inch to 2-inch truss tubing.

The truss adaptor kits contain the following:

Quantity:	Description:
1	EKX Full-Range Loudspeaker Accessories Installation Note (F.01U.308.107)
1	HEX L-KEY, 6MM, Long Arm
3	M10 Split Lock Washers
3	M10 Button Head Screws
1	Truss Clamp (with bolt and washer attached)
1	Bracket
1	M10 Fender Washer
1	M10 Forged Steel Shoulder Eyebolt

Table 2.2: Truss adapter kit components

Vertical adjustment of the truss clamp

The vertical adjustment allows the loudspeaker to be suspended at a natural down angle to achieve the desired coverage. If the down angle required is in between the vertical adjustment locations, use the smaller vertical adjustment location and a pull-back eyebolt. For more information, see *Suspending the truss adapter, page 15*.

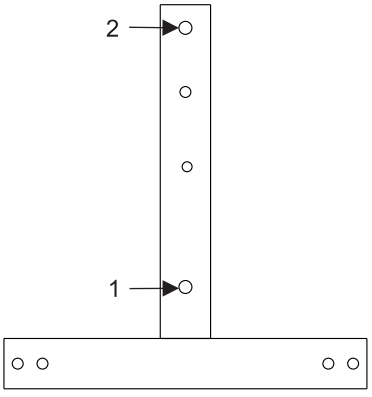


Figure 2.8: Vertical adjustment

Vertical Adjustment	EKX-12	EKX-15	EKX-12P	EKX-15P
1	-1.5°	2.0°	-1.5°	2.0°
2	-34.5° down	-29.5° down	-34.5° down	-29.5° down

Table 2.3: Approximate natural down angle reference

Attaching the truss clamp to the bracket

The truss clamp illustration shows vertical adjustment 1.

To **attach the truss clamp to the bracket**, do the following:

1. Remove the **bolt** and **washer (supplied)** from the truss clamp.
   Save the bolt and washer.
2. Align the **truss clamp (A)** with the desired vertical adjustment.

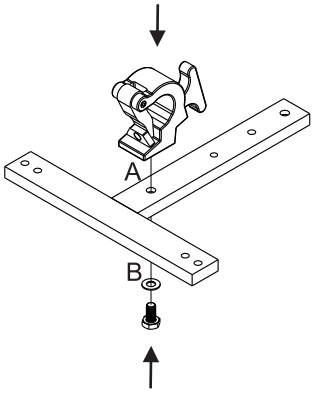


Figure 2.9: Truss clamp and bracket

3. Insert the **bolt** and **washer (B)** through the truss bracket into the truss clamp.
   Use the bolt and washer removed from step 1.
4. Tighten the **bolt (B)**.
   The truss clamp is secured to the bracket.

Attaching the truss adapter

Use the correct size truss adapter designed for your EKX-12, EKX-15, EKX-12P, or EKX-15P full-range loudspeaker loudspeaker. The EKX-15 loudspeaker is shown in the illustrations with the truss adapter in vertical adjustment 1. For more information, see *EKX Full-Range Loudspeaker Accessory Guide, page 7* and *Vertical adjustment of the truss clamp, page 12*.

To **attach the truss adaptor to the EKX-12, EKX-15, EKX-12P, or EKX-15P loudspeaker**, do the following:

1. Using the L-Key (supplied), remove **three (3) M10 screws** from the top of the loudspeaker.

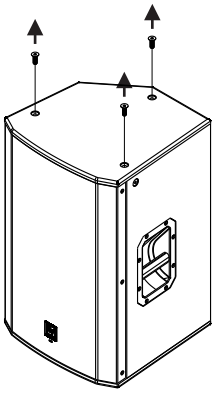


Figure 2.10: Removing screws

2. Align the **holes** on the bracket fitting the loudspeaker size.

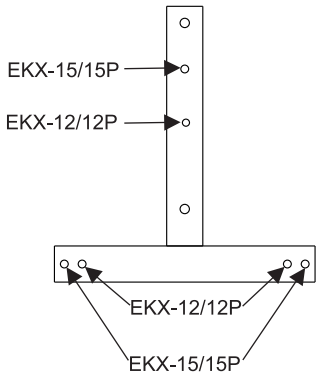


Figure 2.11: Truss adapters by loudspeaker size

3. Insert **three (3) M10 button head screws, three (3) M10 split lock washers,** and **three (3) flat washers (supplied)**.

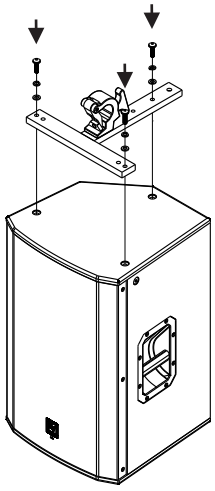


Figure 2.12: Attach truss adapter to loudspeaker

4. Tighten the **three (3) M10 button head screws (supplied)**.
   The truss adapter is secured to the top of the loudspeaker.

Suspending the truss adapter

Caution!
Two (2) person lift and placement is recommended for the heavier loudspeakers. Single person lift and placement of heavier loudspeakers could cause injury.

To **suspend the truss adapter**, do the following:

1. Remove the **M10 screw** from the suspension point below the amplifier.

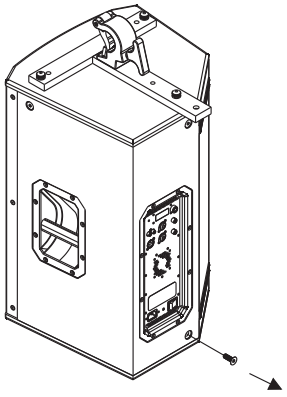


Figure 2.13: Remove suspension screw

2. Insert **one (1) eyebolt** and **one (1) fender washer (supplied)**.

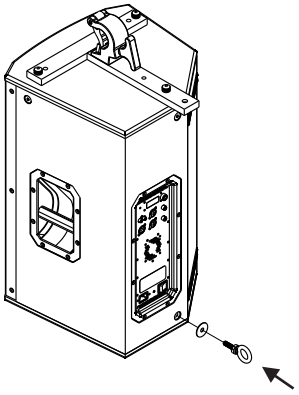


Figure 2.14: Attach eyebolt

3. Tighten the **eyebolt (supplied)**.
   The eyebolt is secured to the loudspeaker.
4. Using two (2) hands lift the **loudspeaker**.

5. Guide the **truss clamp** onto the truss tubing.

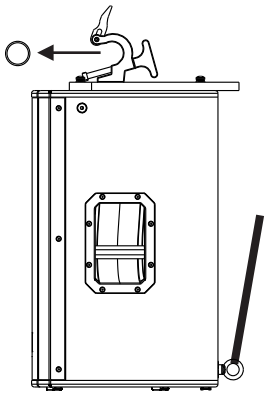


Figure 2.15: Guide truss clamp

6. Close the **truss clamp** onto the truss tubing.
   The truss adapter hangs securely from the truss tubing.

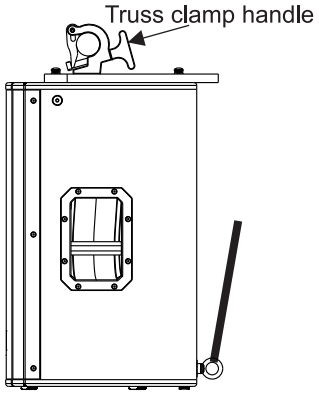


Figure 2.16: Close truss clamp

7. Set the **desired down angle**.
8. Tighten the **truss clamp handle.**

3 Technical data

Wall mount brackets

Shipping Dimensions (H x W x D):	(3.5 in x 25.7 in x 6.5 in) 89 mm x 654 mm x 165 mm
Net Weight:	4.7 kg (10.4 lb)
Shipping Weight:	5.4 kg (11.9 lb)

Table 3.1: EKX-BRKT12 wall mount bracket specifications

Shipping Dimensions (H x W x D):	(3.5 in x 28.5 in x 6.5 in) 89 mm x 724 mm x 165 mm
Net Weight:	5.1 kg (11.2 lb)
Shipping Weight:	5.7 kg (12.6 lb)

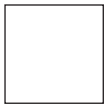
Table 3.2: EKX-BRKT15 wall mount bracket specifications

Truss adapter

Shipping Dimensions (H x W x D):	(16.5 in x 16.5 in x 4.5 in) 419 mm x 419 mm x 114 mm
Net Weight:	2.8 kg (6.17 lb)
Shipping Weight:	3.4 kg (7.5 lb)

Table 3.3: EKX-TCA truss adapter specifications

4 Product labels



Electro-Voice

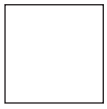
EKX-BRKT12

CE

Mat/N: F01U303395

Bosch Sicherheitssysteme GmbH
85626 Grasbrunn, Germany

Bosch Security Systems Inc.
Fairport, NY, 14450 USA
Made in the USA of
Domestic & Foreign Content



Electro-Voice

EKX-BRKT15

CE

Mat/N: F01U303396

Bosch Sicherheitssysteme GmbH
85626 Grasbrunn, Germany

Bosch Security Systems Inc.
Fairport, NY, 14450 USA
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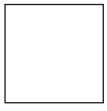

Electro-Voice

EKX-TCA

CE

Mat/N: F01U307178

Bosch Sicherheitssysteme GmbH
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5 Notes

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