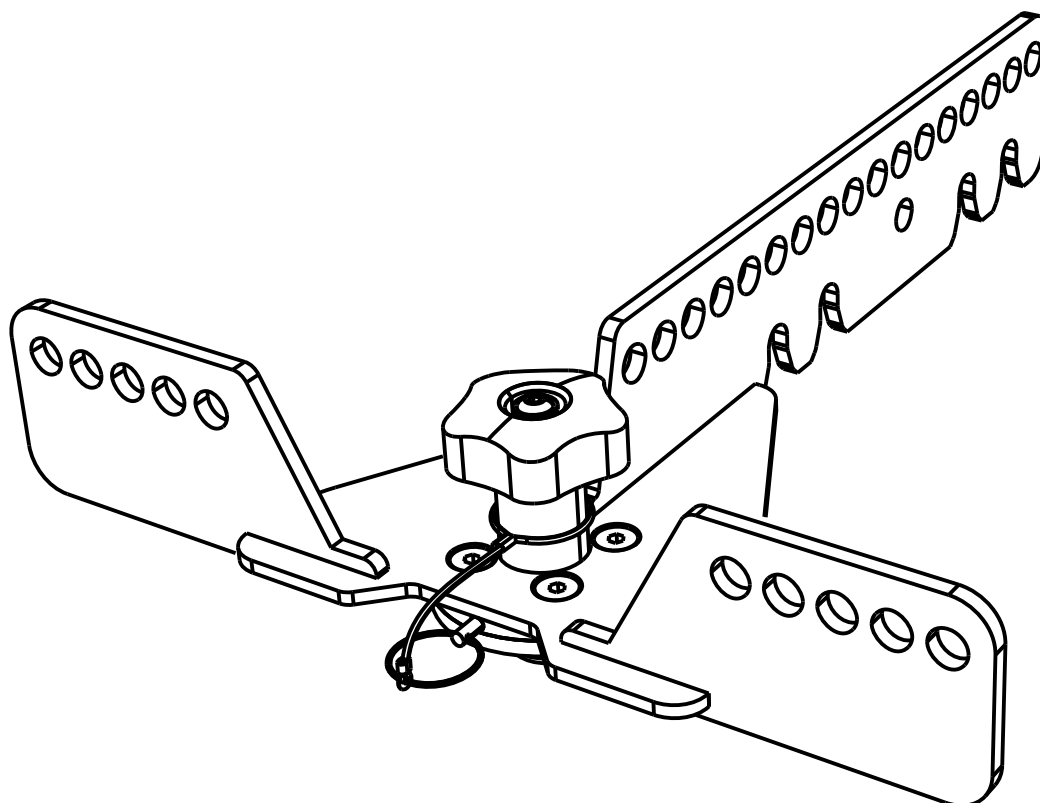


T-Bracket Rigging System Manual



Version 1.2

T-Bracket Rigging System Manual
Version 1.2 05/2020
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This manual is optimized to save paper and to print 2 pages per DIN A4 sheet.

Lambda Labs
professional acoustics



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NOTES:

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1. Safety



This manual contains essential information on product safety, installation and usage. Read this manual carefully in order to become familiar with the operation and usage of the product/s. Read this manual carefully **BEFORE** operating the product/s for the first time! Read the **IMPORTANT GENERAL SAFETY REGULATIONS** you can find on the next pages!

- Keep this manual within reach while operating the product/s all the time!
- As a Lambda Labs products rental partner, always attach the appropriate user manuals to the devices. Should you need additional printed manuals, please order them from Lambda Labs or download a latest version!
- When reselling the product/s, hand over the manual to the new owner and provide written documentation about any changes of the system which may have been applied!
- Always use the latest manual edition! Check our website regularly for updates!



While all information in this manual has been prepared to the best knowledge and with the utmost care, Lambda Labs can not guarantee the accuracy of the documentation in all cases. Lambda Labs disclaims any liability for any errors or omissions that may be inferred from this manual or the products described therein. This does not apply to intent and gross negligence. Technical specifications, as well as dimensions, weight and properties do not constitute guaranteed characteristics. Lambda Labs expressly reserves the right to make changes and modifications in accordance with statutory provisions and to improve product features.

1.1. Declaration of symbols and illustrations of this manual










In order to point out potential sources of danger and application errors, the following symbols and illustrations are used in this manual:

	<p>DANGER:</p> <p>The warning symbol "DANGER" indicates that non-observance may pose a danger to the operator or to other persons in close range and the loudspeaker product!</p>
	<p>CAUTION:</p> <p>The warning symbol "CAUTION" requires the operator to take particular precautions to prevent possible damage to the loudspeaker product!</p>











	<p>ATTENTION:</p> <p>The warning symbol "ATTENTION" indicates that a special attention should be given to certain setup activities or applications!</p>
	<p>NOTE:</p> <p>This illustration notifies the operator about hints and help to simplify and to accelerate the use of the loudspeaker, the setup process or to better understand some contexts.</p>

1.2. IMPORTANT GENERAL SAFETY REGULATIONS

	<p>Intended use!</p> <p>The rigging components described in this manual may ONLY be used with Lambda Labs loudspeakers in accordance with the setup procedures explained! Follow the explanations and instructions strictly! Use only ORIGINAL and APPROVED Lambda Labs rigging parts and equipment!</p>
	<p>Supplementary rigging equipment and suspension points!</p> <p>Lambda Labs is not responsible for any additional and 3rd party rigging components which may be used in the entire rigging process! It is the responsibility of the executing operators that the additional attachment or suspension points are suitable for the intended use and the WLL (Working Load Limit) for ALL used parts is sufficiently dimensioned!</p>
	<p>Qualified operators!</p> <p>The operation as well as the planning of the setup may only be carried out by qualified personnel who are familiar and experienced with the instructions and the implementation of the operating procedures!</p>
	<p>Work safety!    </p> <p>In order to avoid accidents, it is the responsibility of the operator and the contractor to ensure that the local accident prevention regulations are always fulfilled. During the set up process of the loudspeakers and especially the entire rigging process, the operators should always wear head and foot protection, hand protection and possibly ear protection! Never climb on stacked or flown loudspeakers!</p>
	<p>Using the T-Bracket Rigging System!</p> <p>As the Lambda Labs loudspeakers can be flown in various ways with the T-Bracket Rigging System, always refer strictly to the given rigging operations and the related safety instructions of this manual! In the case of any doubt, recheck your setup and/or get in contact with the Lambda Labs support!</p>



	<p>Local safety regulations!</p> <p>Other safety regulations may apply in different countries. If changes occur, get to know the local regulations and if necessary, adapt them to the respective loudspeaker setup. It is the duty and responsibility of the operator to carry out any ground setup and any flown installation in accordance with the local regulations!</p>
	<p>Inspection of rigging components!</p> <p>Check ALL rigging components which are involved in the rigging process of the T-Bracket Rigging System before every use! Even with the slightest doubts about the function and safety of the components, these should not be used! Please refer to Chapter 5 for further instructions about caring and maintaining the rigging components!</p>
	<p>Flown loudspeakers!</p> <p>When lifting a loudspeaker to make it a flown system, the lifting area of the speaker/ cluster must be secured and cleared! Standing under the speaker when being raised, is strictly forbidden! Never leave the loudspeaker unattended during the entire installation process. Always keep watching all rigging components and connection joints during the uplifting procedure! Stop the uplifting procedure if any uncertainty occurs! Lambda Labs recommends to always use a second and independent safety link to upper located suspension points after the setup is ready.</p>
	<p>Dynamic Load (Wind Load)!</p> <p>Lambda Labs does not recommend the use of Lambda Labs loudspeakers with wind forces greater than 6 bft (12.3 m / s, 44 km / h). If the wind force exceeds 8 bft (17.8 m / s, 62 km / h), clear the loudspeaker area, bring down the loudspeakers and secure them!</p>
	<p>Setup area protection!</p> <p>When setting up a system with stacked or flown loudspeaker arrays, secure the entire work area with crowd control barriers. Make sure that the secured area is sufficiently large in proportion to the height of the stack!</p>
	<p>Maintenance!</p> <p>Please refer to Chapter 5 „Maintenance“. If any damage or failure of the T-Bracket Rigging System occurs, please contact the Lambda Labs technical support and wait for further instructions! Do NOT repair or exchange rigging components by yourself and without support from qualified service personnel!</p>
	<p>Manual!</p> <p>Keep this manual within easy reach for operating the T-Bracket Rigging System all the time!</p>
	<p>Storing!</p> <p>Store the devices in a dry, cool and clean environment!</p>



1.3. EC declaration and conformity

Lambda Labs
Austria

Declares that the following products:

Express Pin System „EPS“

T-Bracket

Cluster-Bracket

Vari-Clamp

Are in conformity with the provisions of:

Machinery Directive 2006/42/EC

2011/65/EU, RoHS

To guarantee the safety of the components, the following standards and rules have been complied:

EN ISO 12100-1: 2011 (Mechanical Safety)

DIN 18800 (Mechanical Structure)

BGV-C1 / DGUV Regulation 17 & 18 (Mechanical Standard applied in Germany)



Graz, 17/02/2020

A handwritten signature in black ink, appearing to read 'Steffen Kroschel'.

Steffen Kroschel, Chief Technology Officer (CTO)

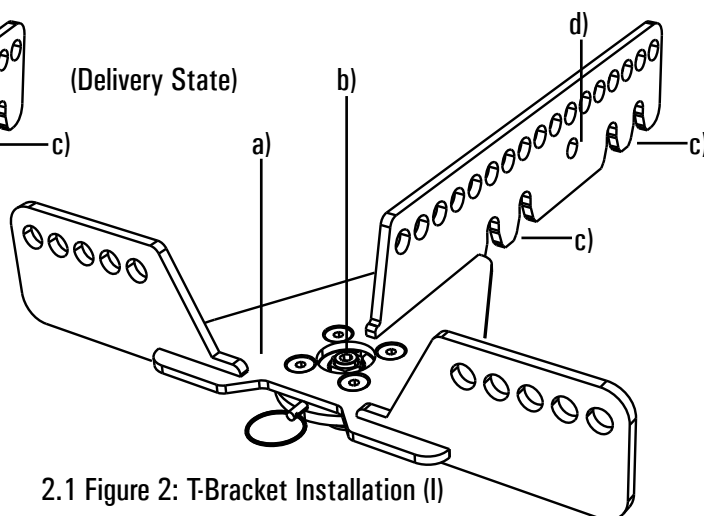
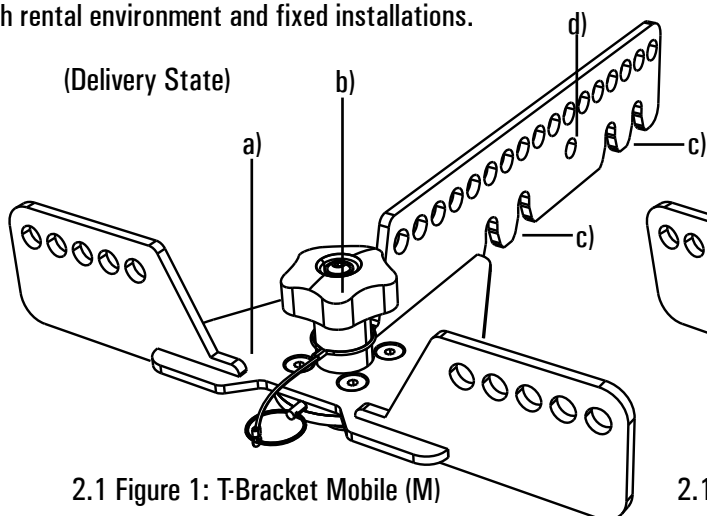


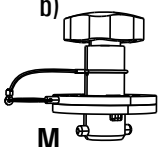
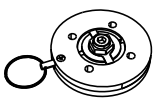
2. T-Bracket Rigging System: Rigging components



The rigging component **T-Bracket** can be used with all speakers from the TX- and CX-Series. It can be combined with the **Cluster Bracket** to set up a cluster compound or with the **Vari-Clamp** and provides vertical and horizontal rigging options. Because of a very wide range of possible rigging configurations the T-Bracket Rigging System can provide, the number of required rigging components can vary as well. The following chart shows and explain the main rigging components. This is an introduction to make you familiar with the components and their functions.

2.1. Introducing T-Bracket & „EPS“ Express Pin System

The **T-Bracket** is the key element of the T-Bracket Rigging System. It can be mounted to the EPS Rigging Points on the Lambda Labs loudspeakers. The load transfer takes place via the integrated **„EPS“ Express Pin System**. The cluster compound can be either rigged to one/several suspension points or to the rotatable and clampable **Vari-Clamp**. By selecting different hole positions in the T-Bracket, the flown loudspeaker can be tilted in certain steps. The T-Bracket is suitable for both rental environment and fixed installations.



PART	DESCRIPTION of 2.1 Figure 1 & 2	REFERENCE
a)	T-Bracket Main Structure The T-Bracket is the key element of the T-Bracket Rigging System. Using the T-Bracket, the following Lambda Labs loudspeakers can be flown: <ul style="list-style-type: none"> TX-Series: TX-1A, TX-2A, TX-3A CX-Series: CX-1A, CX-2A, CX-3A The weight of the T-Bracket is 1.6 kg (I) and 1.7kg (M) including all components.	Chapter 3 Chapter 4
b)  M  I	„EPS“ Express Pin System The T-Bracket is preassembled and is available with 2 versions of the Lambda Labs EPS System: M (Mobile) and I (Installation) Version The EPS enables a fast, safe and optionally backlash free connection at the EPS Rigging Point of the respective loudspeaker. The EPS Mobile (M) version differs from the Installation Version in aspects of safety, tool free usage, size and weight. Exchange among the EPS versions is possible. The EPS Installation (I) version provides additional tamper-proof properties to protect the components from unauthorized access and needs additional tools to operate.	Chapter 2.1.1 Chapter 3

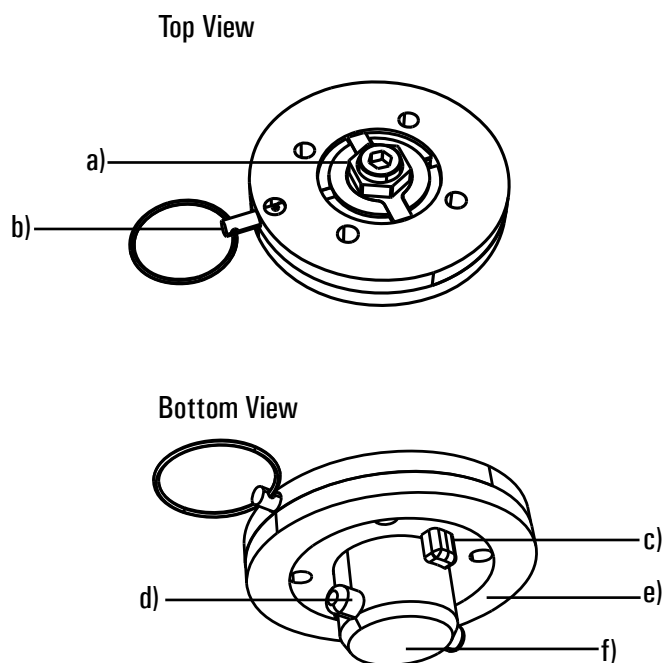
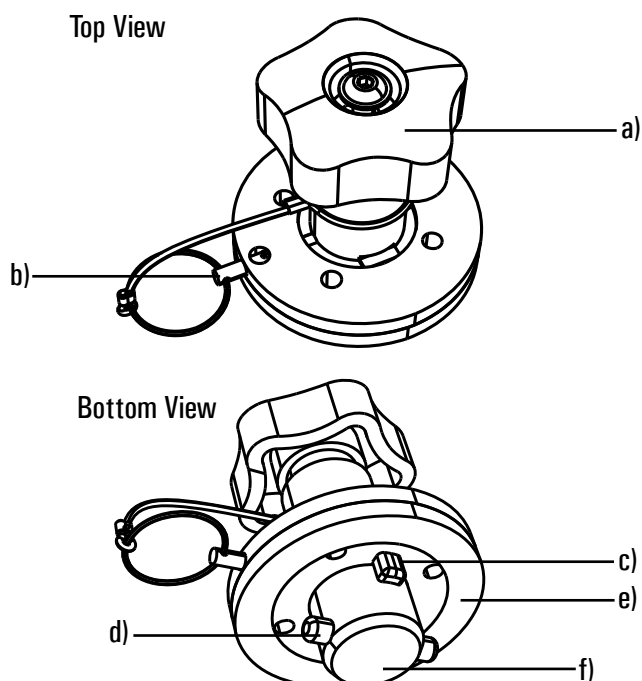
PART	DESCRIPTION of 2.1 Figure 1 & 2	REFERENCE
c) 	<p>T-Bracket Mounting Sections</p> <p>With the use of the T-Bracket in combination with the Cluster-Bracket, all loudspeakers of the Lambda Labs TX-Series can be flown as a horizontal cluster compound with up to 3 cabinets side by side.</p> <p>To mount the Cluster-Bracket to the T-Bracket, the Cluster-Bracket's Load Links must be inserted into the T-Bracket's Mounting Sections.</p>	<p>Chapter 3.3.1</p> <p>Chapter 3.3.2</p>
d) 	<p>T-Bracket Pin Lock Section</p> <p>After attaching the Cluster-Bracket to the T-Bracket like described above, the assembly is locked and connected tightly with the help of the Combi Cluster Pins which are delivered with the Cluster-Bracket.</p>	<p>Chapter 3.3.1</p> <p>Chapter 3.3.2</p>

2.1.1. Introducing „EPS“ Express Pin System

The **Express Pin System „EPS“** is a preassembled key element to attach all external Lambda Labs rigging equipment like **T-Bracket**, **Half-Bracket** and **I-Bracket** to the loudspeakers of the TX & CX Series. Its Express Pin enables a fast, safe and optionally backlash free connection at the EPS Rigging Point of the respective loudspeaker. The EPS Mobile version differs from the Installation version in aspects of safety, tool free usage, size and weight. The EPS Installation version provides additional tamper-proof properties to protect the components from unauthorized access and needs additional tools to operate. If necessary, the EPS versions on the rigging equipment can be exchanged at any time.

2.1.1 Figure 1: Express Pin System Mobile Single View (M)

2.1.1 Figure 2: Express Pin System Installation Single View (I)



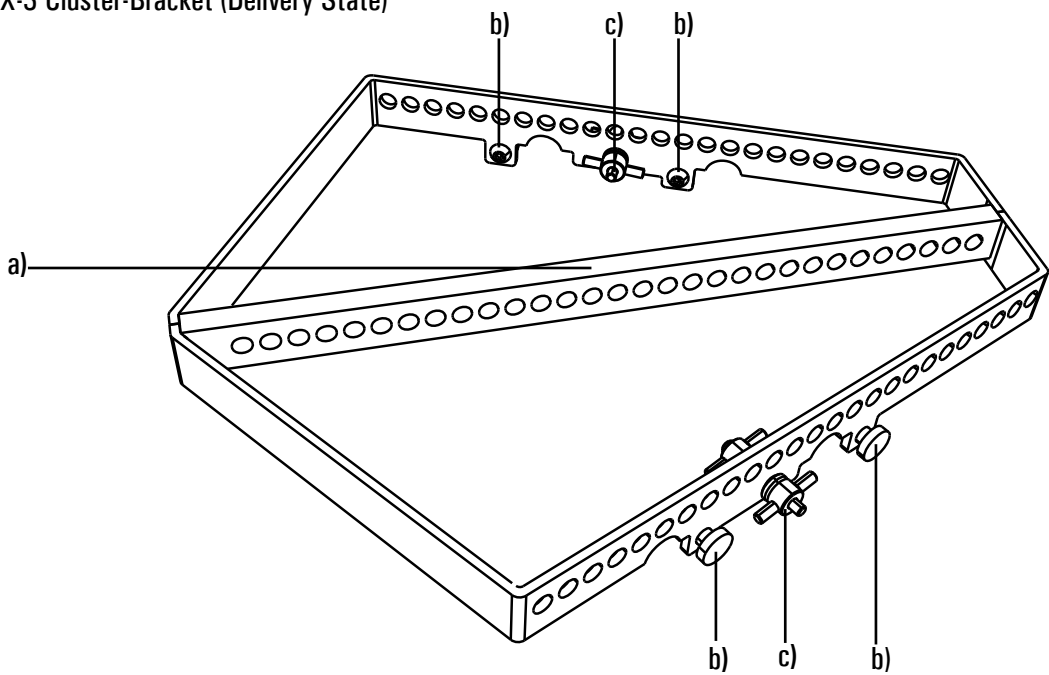
PART	DESCRIPTION of 2.2.1 Figure 1 (M)	DESCRIPTION of 2.2.1 Figure 2 (I)	REFERENCE
a)	EPS Handle Using the EPS Handle, the Express Pin can be plugged into the EPS Rigging Point on the loudspeaker and rotated 90° by hand to establish the connection. By optional lifting up and turning the handle, the connection can also be tightened without backlash.	EPS Socket Adapter Using the EPS Socket Adapter, the Express Pin can be plugged into the EPS Rigging Point on the loudspeaker and rotated 90° with a 14mm Socket Wrench to establish the connection. By optional screwing down the center positioned M6 DIN 912 screw, the connection can also be tightened without backlash.	Chapter 3
b)	EPS Safety Pin The Safety Pin secures the EPS from accidental opening and must always be plugged in!	EPS Safety Pin The Safety Pin secures the EPS from accidental opening and must always be plugged in!	Chapter 3
c)	EPS Lock Studs The EPS Lock Studs ensure correct positioning of the EPS to the EPS Rigging Point on the loudspeaker.	EPS Lock Studs The EPS Lock Studs ensure correct positioning of the EPS to the EPS Rigging Point on the loudspeaker.	Chapter 3
d)	EPS Lock Pin With the Express Pin fully inserted and turning the Express Pin by 90°, the EPS Lock Pin provides a form-fitting and loadable connection.	EPS Lock Pin With the Express Pin fully inserted and turning the Express Pin by 90°, the EPS Lock Pin provides a form-fitting and loadable connection.	Chapter 3
e)	EPS Foam Ring The EPS Foam Ring seals the EPS rigging connection and protects it from dust and splashing water.	EPS Foam Ring The EPS Foam Ring seals the EPS rigging connection and protects it from dust and splashing water.	Chapter 3
f)	EPS Express Pin The Express Pin can be plugged into the EPS Rigging Point on the loudspeaker and rotated 90° by hand to establish the connection.	EPS Express Pin The Express Pin can be plugged into the EPS Rigging Point on the loudspeaker and rotated 90° with a 14mm Socket Wrench to establish the connection.	Chapter 3

2.2. Introducing Cluster-Bracket

By using a **Cluster-Bracket** in combination with the **T-Bracket**, it is possible to rig horizontal clusters of the Lambda Labs TX-Series loudspeakers up to 3 cabinets side by side. Depending on the type of the TX loudspeaker, a different Cluster-Bracket needs to be used. Once inserted into the Cluster Bracket's Load Studs, the connection to the T-Bracket is locked and secured with the **Combi Cluster Pin** which is suited for using with all Cluster-Bracket types. The cluster compound can be either rigged to one/several suspension point/s or to the rotatable and clampable **Vari-Clamp**. By selecting different hole positions on the Cluster-Bracket, the cluster can be tilted in certain steps. The Cluster-Bracket is suitable for both rental environment and for fixed installations.



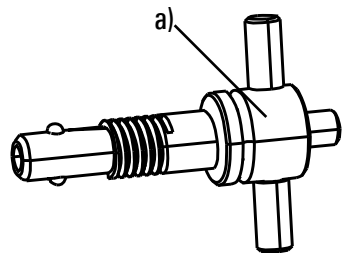
2.2 Figure 1: TX-3 Cluster-Bracket (Delivery State)



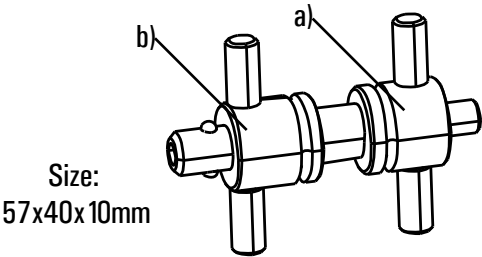
PART	DESCRIPTION of 2.2 Figure 1	REFERENCE
a)	<p>Cluster-Bracket Main Structure</p> <p>The Cluster-Bracket is the key element of the T-Bracket Rigging System to set up a horizontal cluster compound. Using the Cluster-Bracket, the following Lambda Labs loudspeakers can be flown side by side:</p> <ul style="list-style-type: none"> TX-Series: TX-1A, TX-2A, TX-3A <p>The weight of the Cluster-Bracket including all components is:</p> <ul style="list-style-type: none"> TX-1A Cluster-Bracket: 2.3 kg TX-2A Cluster-Bracket: 2.65 kg TX-3A Cluster-Bracket: 3.3 kg 	<p>Chapter 3.3.1</p> <p>Chapter 3.3.2</p>
b)	<p>Cluster-Bracket Load Link</p> <p>The Cluster-Bracket Load Link establishes the load transfer between the T-Bracket and the Cluster-Bracket. Therefore, the Cluster-Bracket's Load Links are to be inserted into the T-Bracket's Cluster-Bracket Mounting Sections.</p>	<p>Chapter 3.3.1</p> <p>Chapter 3.3.2</p>
c)	<p>Combi Cluster Pin</p> <p>The Combi Cluster Pin locks and tightens the connection between the Cluster-Bracket and the T-Bracket. For this, the Combi Cluster Pin is to be inserted through the Cluster-Brackets/T-Brackets Combi Cluster Pin Lock Section and tightened by turning. The Combi Cluster Pin is delivered together with the Cluster-Bracket.</p> <p>Size: 57x40x10mm</p>	<p>Chapter 3.3.1</p> <p>Chapter 3.3.2</p>

2.2.1. Introducing Combi Cluster Pin

2.2.1 Figure 1: Combi Pin



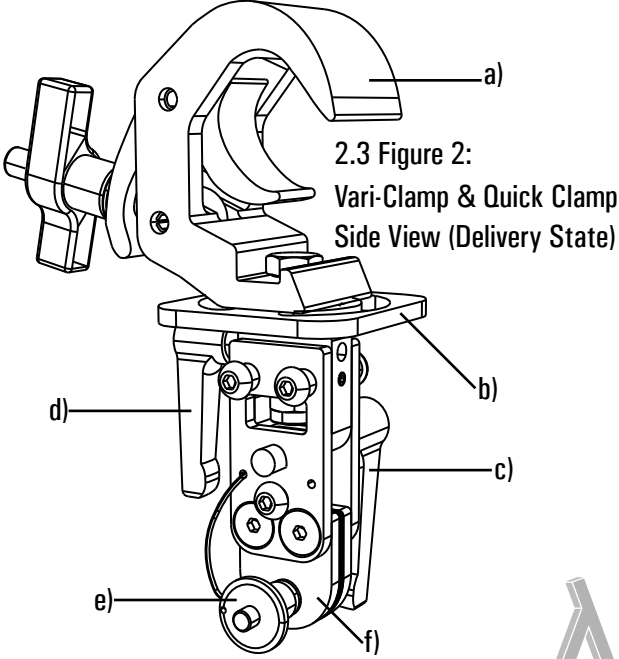
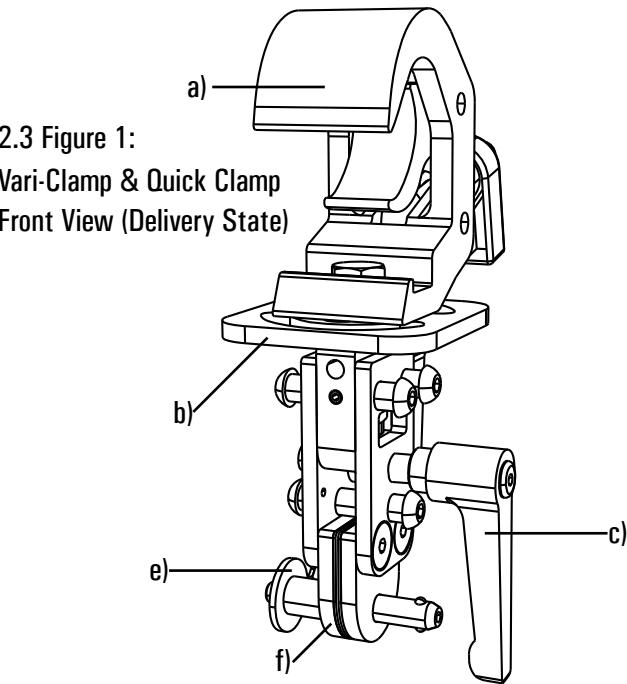
2.2.1 Figure 2: Combi Cluster Pin



PART	DESCRIPTION of 2.2.1 Figure 1&2	REFERENCE
a)	Combi Pin The Combi Cluster Pin is a Ball Lock Pin with an additional M10 thread to use a Combi Pin Counter Bushing with it optionally.	Chapter 3.3.1 Chapter 3.3.2
b)	Combi Pin Counter Bushing By adding the Combi Pin Counter Bushing, the Combi Pin becomes a Combi Cluster Pin. By extracting the balls, the Combi Pin Counter Bushing is secured against accidental unscrewing. The Combi Cluster Pin locks and tightens the connection between the Cluster-Bracket and the T-Bracket. It is delivered together with the Cluster-Bracket.	Chapter 3.3.1 Chapter 3.3.2

2.3. Introducing Vari-Clamp & Quick Clamp

The **Vari-Clamp** in combination with **Quick Clamp** is designed to provide a quick and accurate suspension of individual loudspeakers of the TX- and CX-Series mounted to trusses and pipes. The Vari Clamp’s receiving jaws are infinitely adjustable, allowing for a combination either with the **T-Bracket** or **Cluster-Bracket** in all rigging variations. In addition, the jaws have a clamping function to make it possible to align the speaker ’s rotational direction accurately. By selecting different hole positions in the T-Bracket or the Cluster-Bracket, the flown speaker/cluster can be tilted in certain steps and be rotated up to 360 degrees. The Vari-Clamp & Quick Clamp is suitable for both rental environment and for fixed installations.

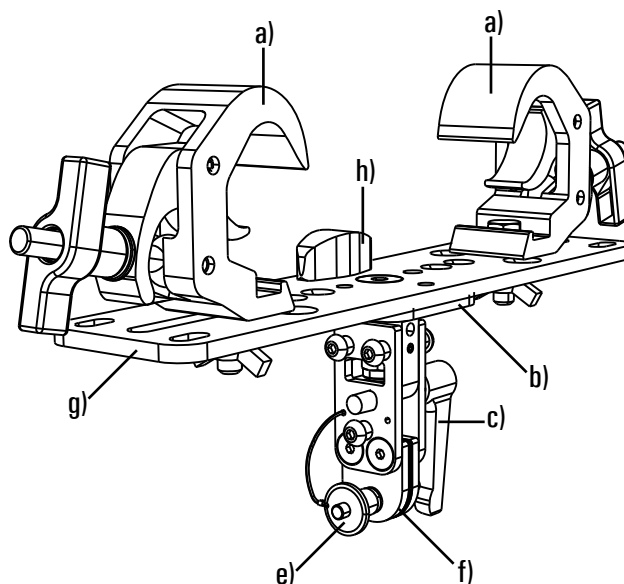
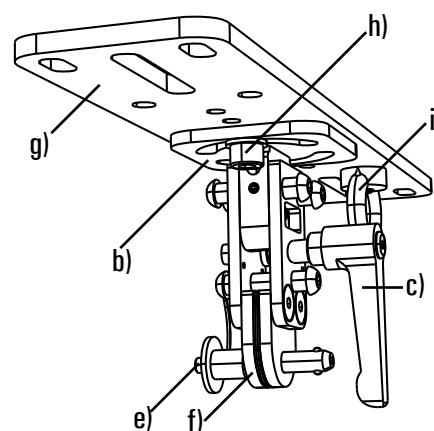
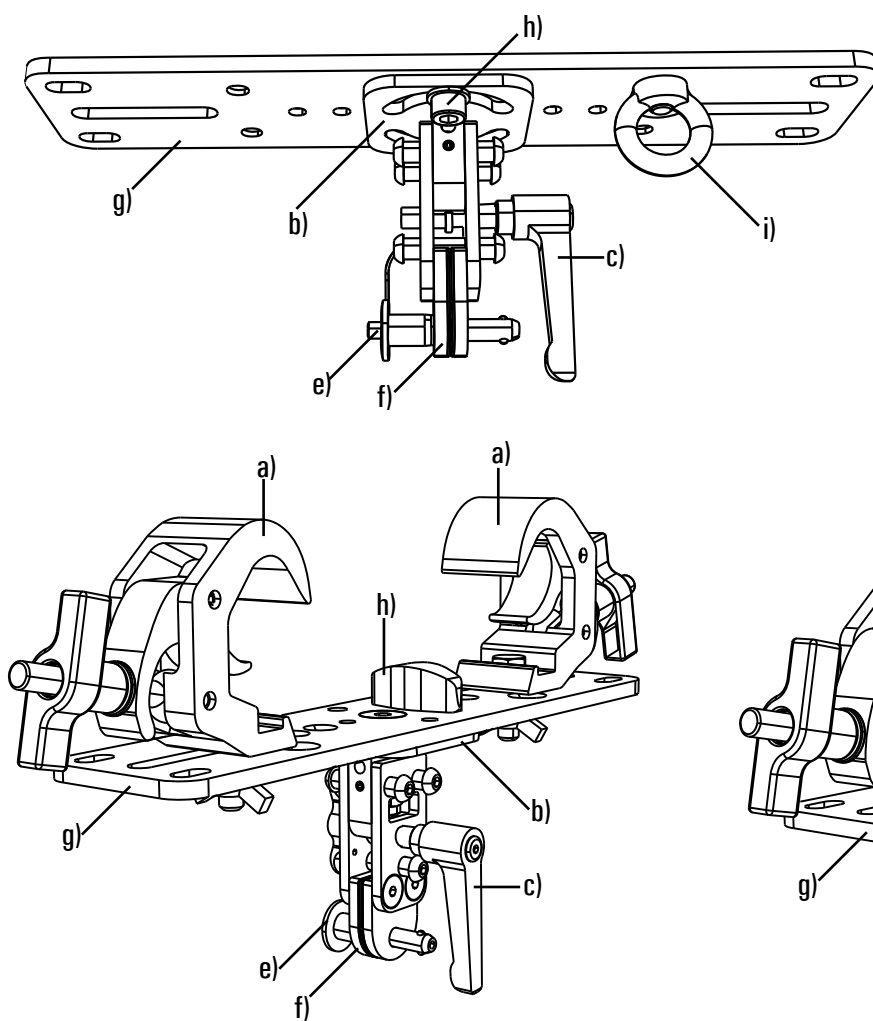


2.3.1. Introducing Vari-Clamp & Ceiling/Truss Adapter

The **Vari-Clamp** in combination with **Ceiling/Truss Adapter** is designed for the suspension of individual loudspeakers of the TX- and CX-Series from ceilings or triangle truss. By selecting different hole positions on the T-Bracket or the Cluster-Bracket, the flown loudspeaker/cluster can be tilted in certain steps and be rotated ± 60 degrees from its center position. The Vari-Clamp & Ceiling/Truss Adapter is suitable for rental environment and for fixed installations as well.

2.3.1 Figure 1: Vari-Clamp & Ceiling Adapter
Orthogonal orientation (Delivery State)

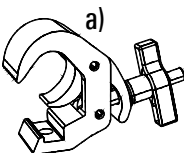
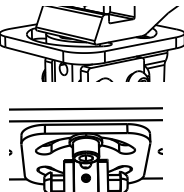
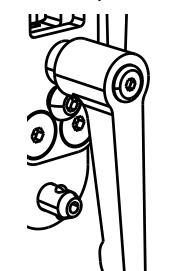
2.3.1 Figure 2: Vari-Clamp & Ceiling Adapter
Parallel orientation (Delivery State)

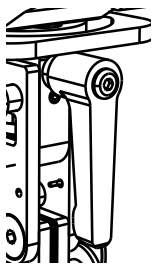
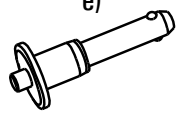
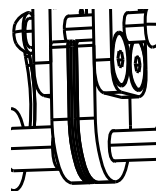
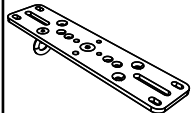
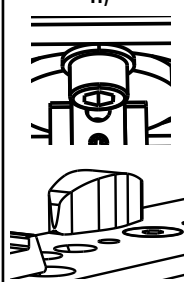



2.3.1 Figure 3: Vari-Clamp & Truss Adapter
Parallel orientation (Delivery State)

2.3.1 Figure 4: Vari-Clamp & Truss Adapter
Orthogonal orientation (Delivery State)



PART	DESCRIPTION of 2.3 Figure 1&2 DESCRIPTION of 2.3.1 Figure 1&2&3&4	REFERENCE
	<p>Vari-Clamp & Quick Clamp In combination with the T-Bracket/Cluster-Bracket, the Vari-Clamp & Quick Clamp allows for a quick and accurate rigging of Lambda Labs loudspeakers to pipes and trusses.</p> <p>The weight of the Vari-Clamp & Quick Clamp is 1.6 kg</p> <p>The Vari-Clamp & Quick Clamp is capable of carrying the following load: 250 kg WLL (Safety Factor 1:5)</p> <p>Vari-Clamp & Ceiling Truss Adapter In combination with the T-Bracket/Cluster-Bracket, the Vari-Clamp & Ceiling / Truss Adapter allows for an accurate rigging of Lambda Labs loudspeakers to ceilings and trusses.</p> <ul style="list-style-type: none"> • The weight of the Vari-Clamp & Ceiling Adapter is 2.8 kg • The weight of the Vari-Clamp & Truss Adapter is 4.4 kg <p>The Vari-Clamp & Ceiling / Truss Adapter is capable of carrying the following load: 250 kg WLL (Safety Factor 1:5)</p>	Chapter 3.4
 <p>a)</p> <p>Size: 107x85x50mm</p> <p>WLL: 250 kg SF 1:5</p>	<p>Quick Clamp Quick Clamp with M12 Screw admission for pipes of 38 to 51mm diameter. The Quick Clamp establishes the load connection from external rigging structures to the Vari-Clamp or the Truss Adapter.</p>	Chapter 3.4
 <p>b)</p>	<p>Rotation Plate In combination with Quick Clamp, the Rotation Plate ensures more support surface and lateral stabilisation. In combination with Ceiling/Truss Adapter, the Rotary Plate fixes the rotational position of the loudspeaker/cluster.</p>	Chapter 3.4
 <p>c)</p>	<p>Adjustment Lever By turning the Adjustment Lever, the Mounting Jaws of the Vari-Clamp can be opened and closed to adapt the possible fixture distance. In addition, the jaws obtain a clamping function by closing them to align the speaker's rotational direction accurately. Lifting disengages the Adjustment Lever and allows it to be turned in either directions to reach a more ideal turning/clamping position. Engagement is achieved by releasing the handle.</p>	Chapter 3.4

PART	DESCRIPTION of 2.3 Figure 1&2 DESCRIPTION of 2.3.1 Figure 1&2&3&4	REFERENCE
<p>d)</p> 	<p>Rotation Fixing Lever</p> <p>By tightening the Rotation Fixing Lever, the desired rotational position of the Vari-Clamp can be fixed. Lifting disengages the Rotation Fixing Lever and allows it to be turned in either directions to reach a more ideal position for tightening. Engagement is achieved by releasing the handle.</p>	Chapter 3.4
<p>e)</p>  <p>Size: 70x28x10mm</p>	<p>10mm Pin</p> <p>The 10mm Pin is a Quick Lock Pin which establishes the load connection between the Vari-Clamp to the T-Bracket or the Cluster Bracket. The 10mm Pin is put through the Receiving Jaws.</p> <p>The Pin is secured with a steel rope.</p>	Chapter 3.4
<p>f)</p> 	<p>Mounting Jaws</p> <p>The Mounting Jaws take the 10mm Pin and can be opened and closed by turning the Adjustment Lever to adapt the possible fixture distance. In addition, the jaws obtain a clamping function when closing them to align the speaker's rotational direction accurately. Flat rubber on the inside of the jaws protects the T-Bracket/Cluster Bracket mounting points.</p>	Chapter 3.4
<p>g)</p> 	<p>Ceiling / Truss Adapter</p> <p>Adapter plate for direct ceiling mount or for rigging the loudspeaker /cluster on a standard triangle truss. The Ceiling Adapter comes with an M10 Ring Nut to provide a suspension point for the mandatory safety rope. The M10 Ring Nut can be mounted at 4 different positions.</p>	Chapter 3.4
<p>h)</p> 	<p>Locking Screw / Nut</p> <p>M10 DIN 912 Screw or M10 Wing Nut to fix the Rotation Plate and the rotational position of the loudspeaker/cluster.</p>	Chapter 3.4
<p>i)</p>  <p>Size: 40 mm WLL: (0° load) 230kg SF 1:5 DIN EN 580</p>	<p>M10 Ring Nut</p> <p>10mm suspension point to mount the mandatory safety rope. The M10 Ring Nut can be mounted at 4 different positions.</p>	Chapter 3.4

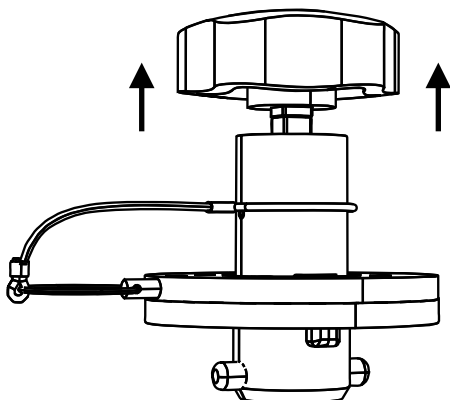
3. Operating the T-Bracket Rigging System

3.1. Operating the „EPS“ Express Pin System

The following „EPS“ Express Pin System operation instructions are explained using a single „EPS“ M (Mobile) & „EPS“ I (Installation) units without T-Bracket to better demonstrate the functions and the correct way of use. The rigging procedure of T-Bracket with the preassembled „EPS“ is corresponding to these instructions and always follows the same scheme.

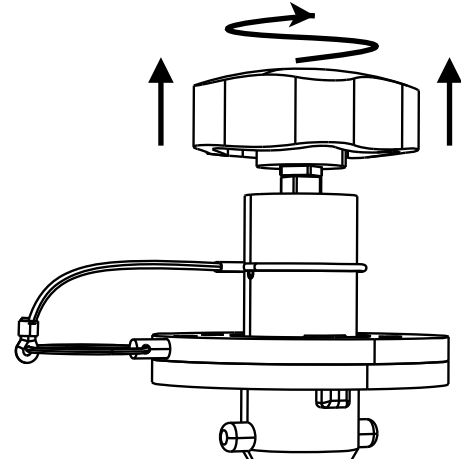
Express Pin System Mobile M

1. In addition to the fast and safe EPS connection from the T-Bracket to the loudspeaker, the connection can also be tightened without backlash. To achieve this, the distance between the EPS Lock Pins and the inside of the EPS Rigging Point is shortened by lifting and turning the EPS Handle. In order to insert and lock the EPS into the EPS Rigging Points, the EPS must be in a released state (Delivery State). If this state is needed to be reached or if you want to check it, lift the EPS Handle first...



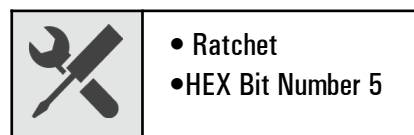
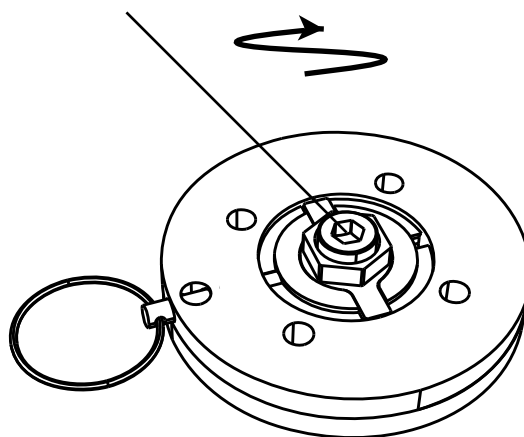
...when the EPS Handle is pulled up completely, keep pulling and turn the EPS Handle **anti-clockwise** until you feel it reaching its end positions. **STOP** turning immediately when reaching the end position and do **NOT** overturn the end position by force!

STOP!



1. In addition to the fast and safe EPS connection from the T-Bracket to the loudspeaker, the connection can also be tightened without backlash. To achieve this, the distance between the EPS Lock Pins and the inside of the EPS Rigging Point is shortened by tightening the M6 DIN 912 screw. In order to insert and lock the EPS into the EPS Rigging Points, the EPS must be in a released state (Delivery State). If this state is needed to be reached or if you want to check it, use a ratchet with a HEX BIT Number 5 (Wrench Size 5mm) or use your fingers to loosen the M6 DIN 912 screw a bit by turning it **anti-clockwise**. Do not screw out the screw completely.

M6 DIN 912 Screw



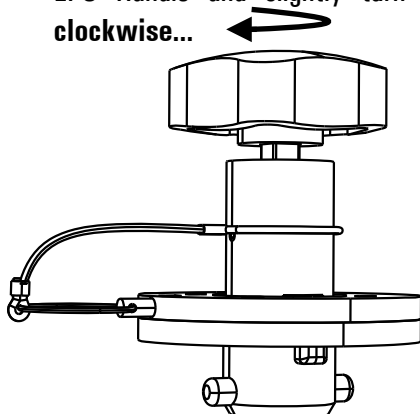
Caution: STOP turning the EPS Handle immediately when reaching its end position and do **NOT** overturn by force!



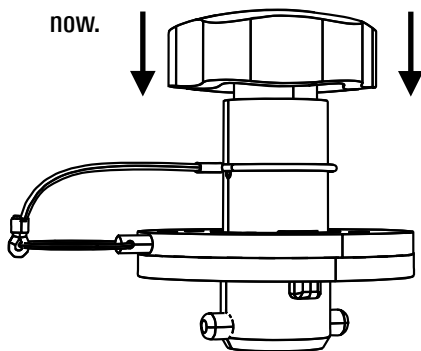
Express Pin System Mobile M

Express Pin System Installation I

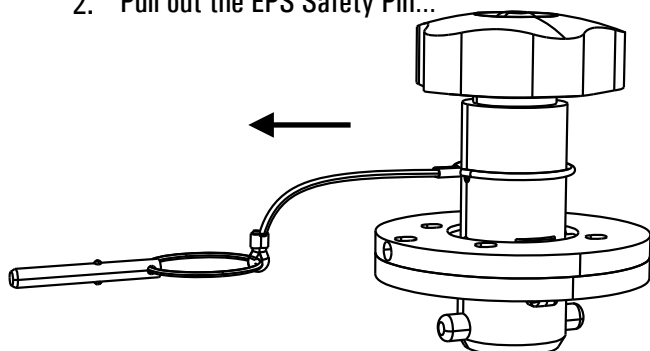
When the end position is reached, stop lifting the EPS Handle and slightly turn the EPS Handle clockwise...



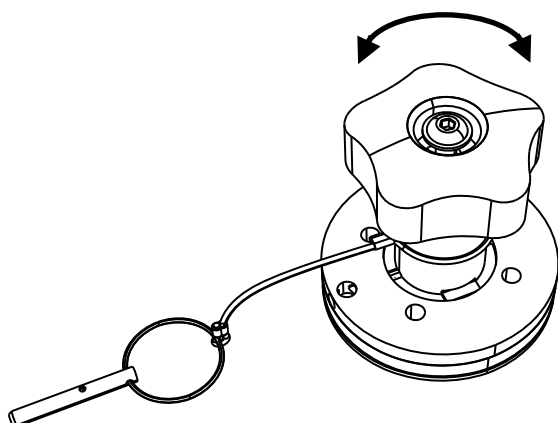
...until it snaps back into the EPS Express Pin's square extension. The EPS is in a released state now.



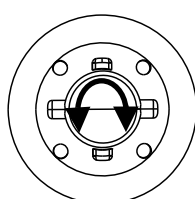
2. Pull out the EPS Safety Pin...



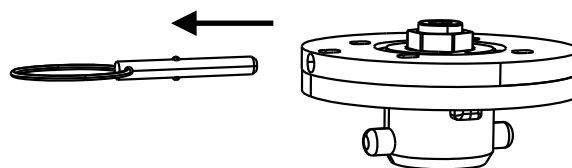
...and turn the EPS Express Pin on the EPS Handle...



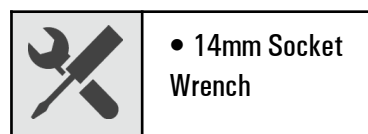
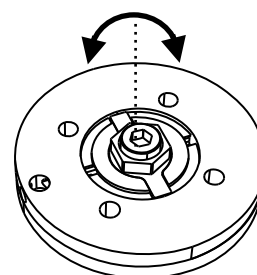
Bottom View



2. Pull out the EPS Safety Pin...



...and turn the EPS Express Pin on the EPS Socket Adapter with the help of a 14mm Socket Wrench...

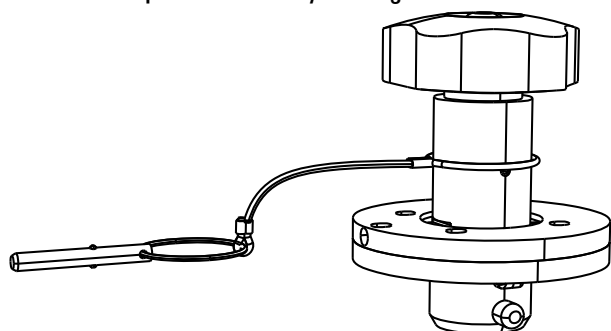


• 14mm Socket Wrench

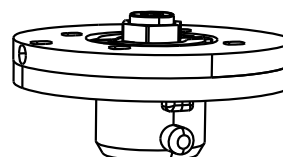
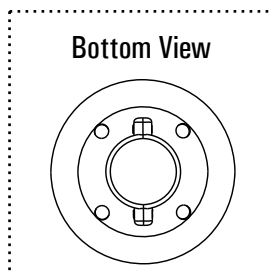
Express Pin System Mobile M

Express Pin System Installation I

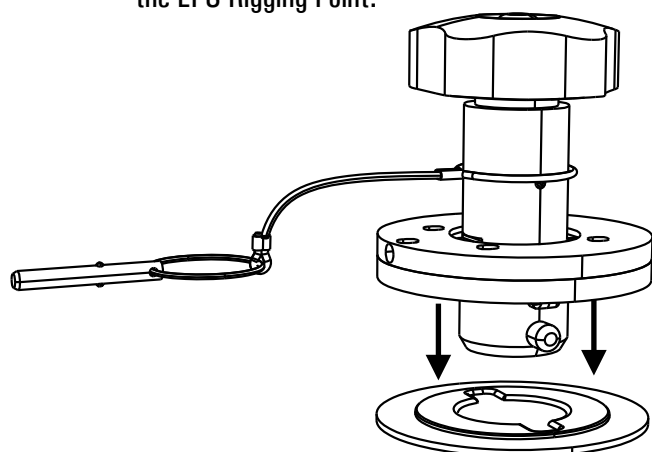
...until the EPS Lock Pin has the same position as the EPS Lock Studs. Alternatively, turn the EPS Express Pin with your fingers.



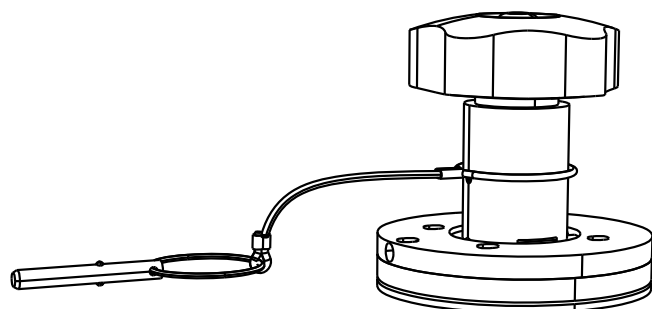
Bottom View



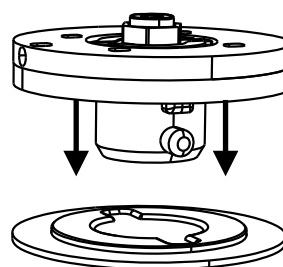
3. Keep the position and push the EPS Express Pin straight and aligned with the cutouts into the EPS Rigging Point. As a result, the EPS Rigging Point's closing lid is pushed automatically into the EPS Rigging Point and comes up again after releasing the EPS. Make sure that there is no dirt or sand on the EPS Rigging Point.



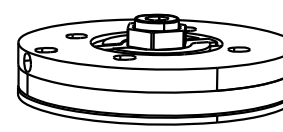
Push it down until the EPS Express Pin is inserted completely.



3. Keep the position and push the EPS Express Pin straight and aligned with the cutouts into the EPS Rigging Point. As a result, the EPS Rigging Point's closing lid is pushed automatically into the EPS Rigging Point and comes up again after releasing the EPS. Make sure that there is no dirt or sand on the EPS Rigging Point.

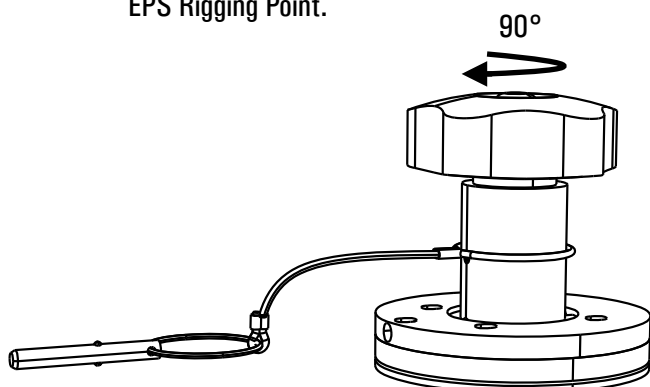


Push it down until the EPS Express Pin is inserted completely.

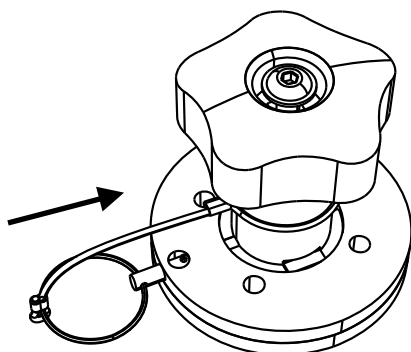


Express Pin System Mobile M

- When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point.



- Reinsert the EPS Safety Pin to lock the EPS. The EPS Safety Pin can only be inserted when the 90 degrees position of the EPS Express Pin has been reached. Verify the correct position if necessary.

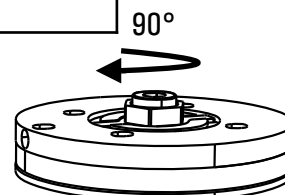


Express Pin System Installation I

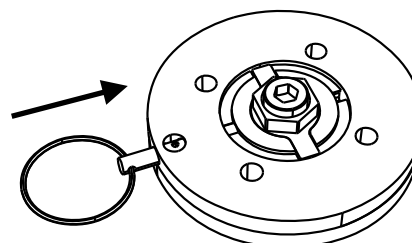
- When the EPS Express Pin is fully inserted, turn the EPS Socket Adapter with a 14mm Socket Wrench **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point.



• 14mm Socket Wrench



- Reinsert the EPS Safety Pin to lock the EPS. The EPS Safety Pin can only be inserted when the 90 degrees position of the EPS Express Pin has been reached. Verify the correct position if necessary.



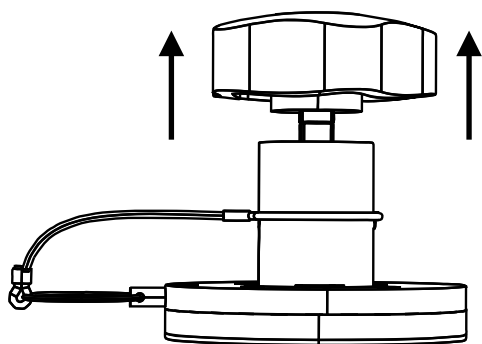
Danger: Always check the correct function of the EPS Safety Pin! Although the EPS Rigging Point is equipped with an additional unlocking safety mechanism inside, never forget to use the EPS Safety Pin! Doublecheck in the case of any doubt!

- Optionally, the connection between the EPS and the EPS Rigging Point can be tightened without backlash. To achieve this, the distance between the EPS Lock Pins and the inside of the EPS Rigging Point is shortened by lifting and turning the EPS Handle. To do this, lift the EPS Handle first...

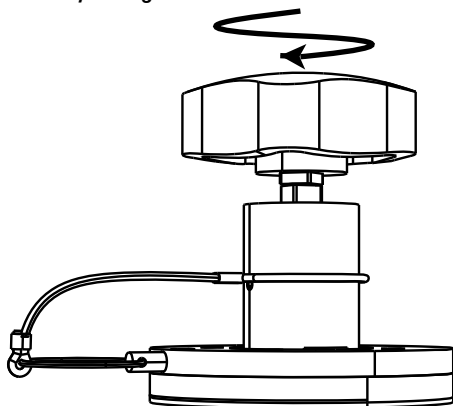
- Optionally, the connection between the EPS and the EPS Rigging Point can be tightened without backlash. To achieve this, the distance between the EPS Lock Pins and the inside of the EPS Rigging Point by tightening the M6 DIN 912 screw. To do this, use a ratchet with with a HEX BIT Number 5 (Wrench Size 5mm) to screw down the M6 DIN 912 screw by turning it **clockwise**.



Express Pin System Mobile M



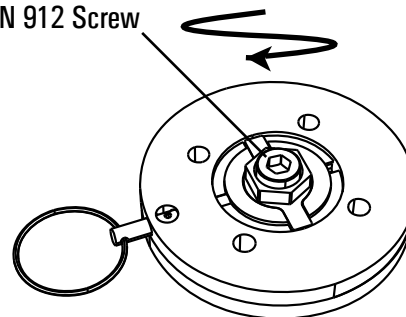
...when the EPS Handle is pulled up completely, keep pulling and turn the EPS Handle **clockwise** until you feel increasing the resistance. It is not necessary to tight it with full force.



To untight the EPS again, keep the EPS Safety Pin inserted and turn the EPS Handle **anti-clockwise** until you feel it reached its end position. For further details, please refer to **Step 1 of this chapter**. **STOP turning immediately when reaching the end position and do NOT overturn by force!** Alternatively, take out the EPS Safety Pin first and turn the EPS Handle **anti-clockwise** until it turns the EPS Express Pin as well to release the EPS.

Express Pin System Installation I

M6 DIN 912 Screw



- Ratchet
- HEX Bit Number 5



Caution: Fix the screw with a maximum torque of **8 Nm!**

To release the EPS connection, follow the steps in the reverse order!



Caution: STOP turning the EPS Handle immediately when reaching the end position and do NOT overturn by force!

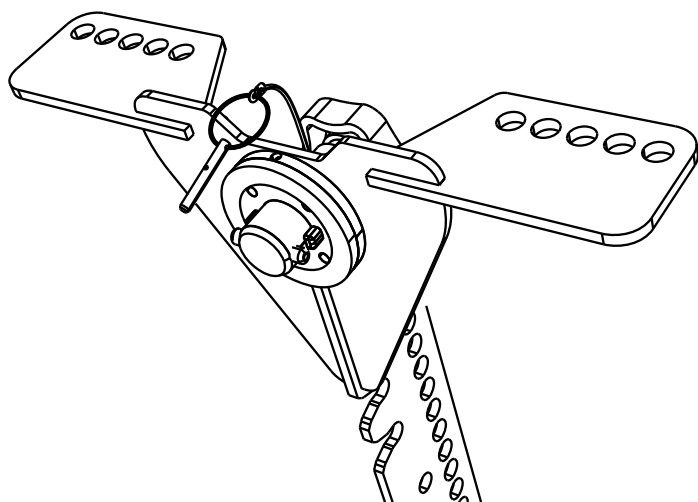
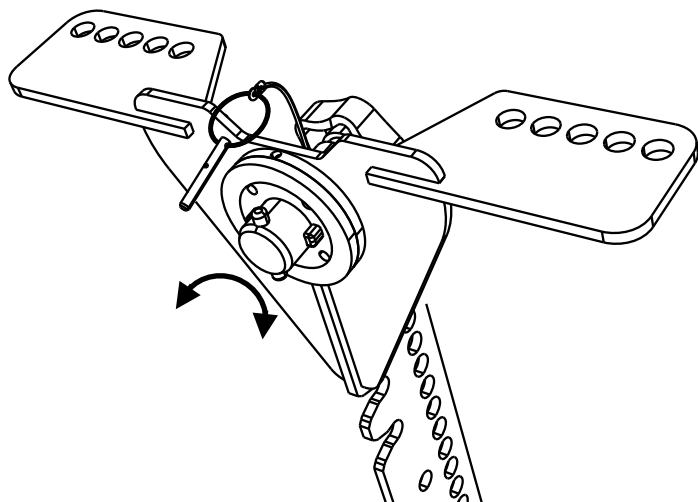


3.2. Operating the T-Bracket

The rigging component **T-Bracket** can be used for all loudspeakers from the TX- and CX-Series. The following T-Bracket operation instructions are explained using the T-Bracket **M** (Mobile) & T-Bracket **I** (Installation) together with a TX-2A loudspeaker. The rigging procedure of the T-Bracket shown in this chapter is corresponding to all other speakers of the TX- and CX-Series and always follows the same scheme. Please refer to Chapter 3.1 „**Operating the „EPS“ Express Pin System**“ as well!

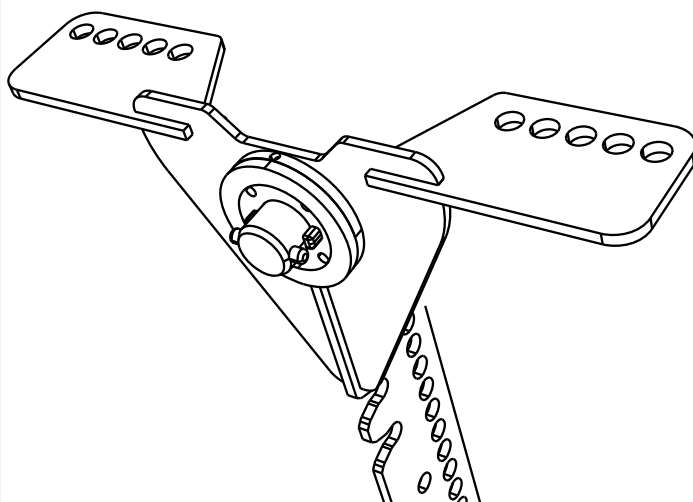
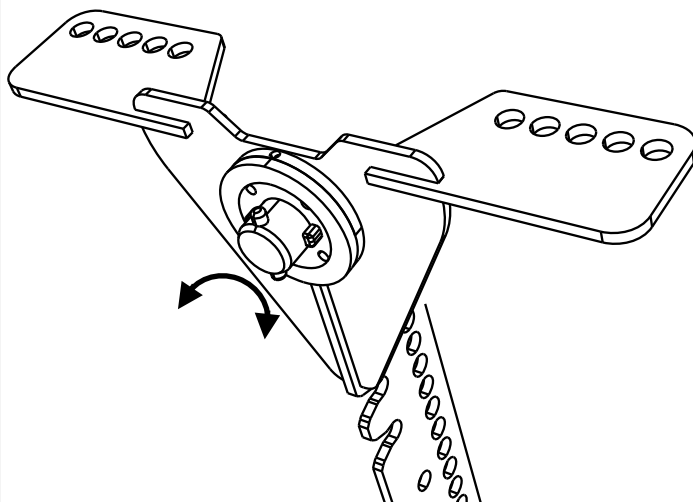
T-Bracket **M** (Mobile)

1. Take a T-Bracket and prepare the preassembled EPS for connection to the EPS Rigging Point. Make sure the EPS is in a released state. For details on EPS preparation, please refer to Chapter 3.1.



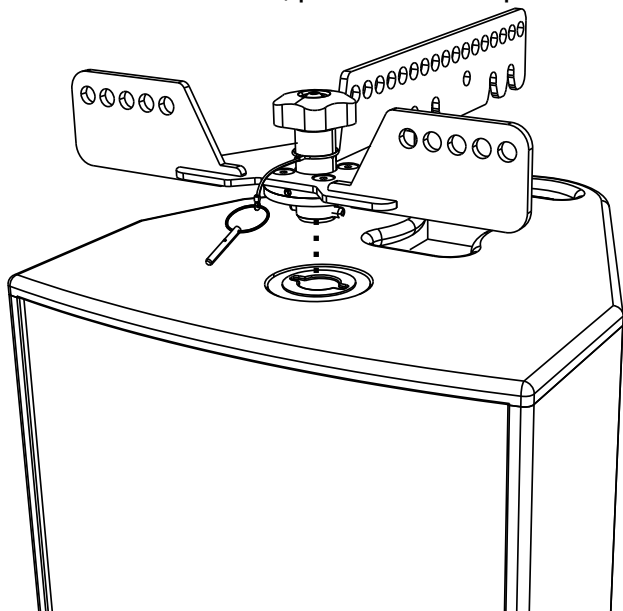
T-Bracket **I** (Installation)

1. Take a T-Bracket and prepare the preassembled EPS for connection to the EPS Rigging Point. Make sure the EPS is in a released state. For details on EPS preparation, please refer to Chapter 3.1.

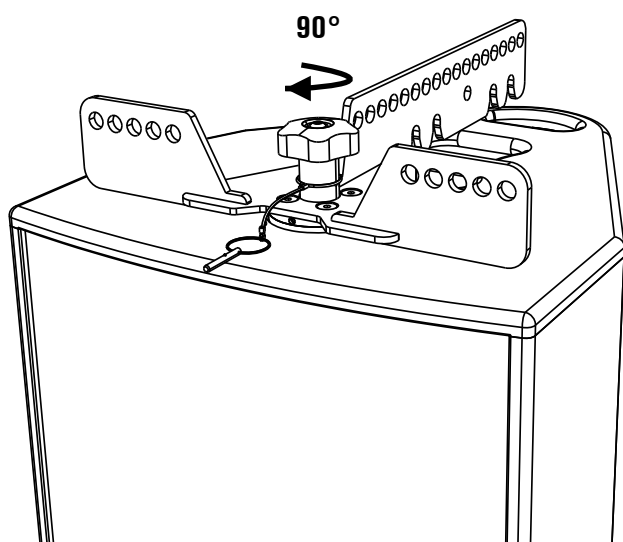


T-Bracket M (Mobile)

2. Hold the T-Bracket parallel to the loudspeaker's top plate surface/side plate surface and push the EPS Express Pin straight and aligned with the cutouts into the EPS Rigging Point of your choice. For further details, please refer to Chapter 3.1.

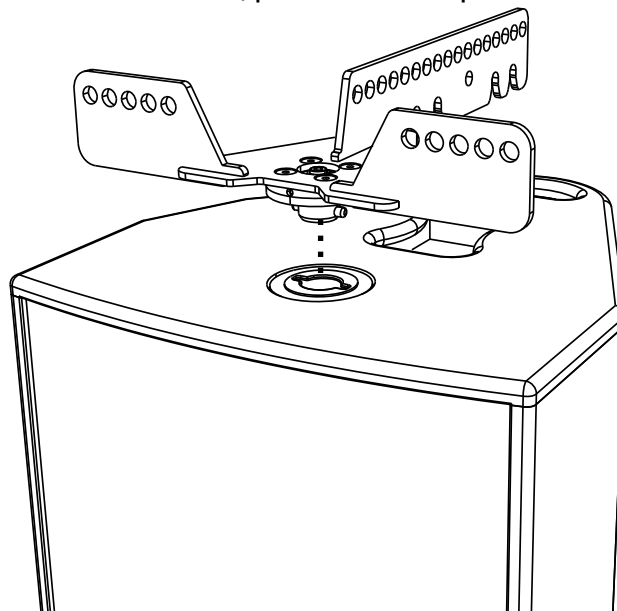


Push it down until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.

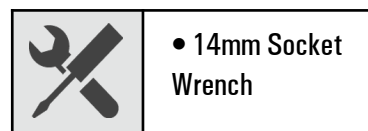
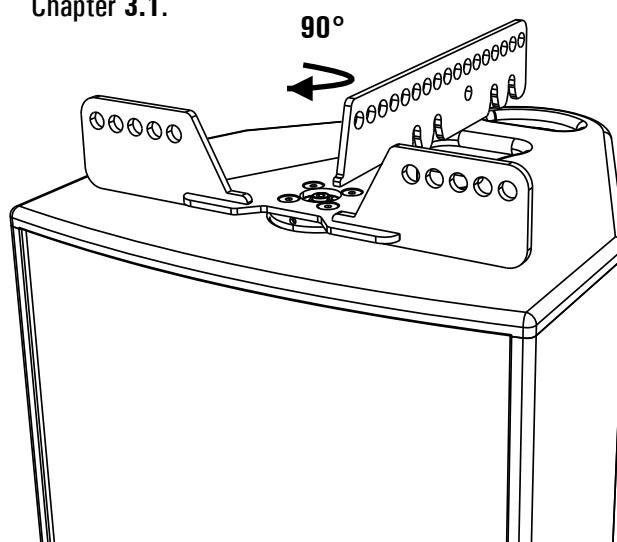


T-Bracket I (Installation)

2. Hold the T-Bracket parallel to the loudspeaker's top plate surface/side plate surface and push the EPS Express Pin straight and aligned with the cutouts into the EPS Rigging Point of your choice. For further details, please refer to Chapter 3.1.

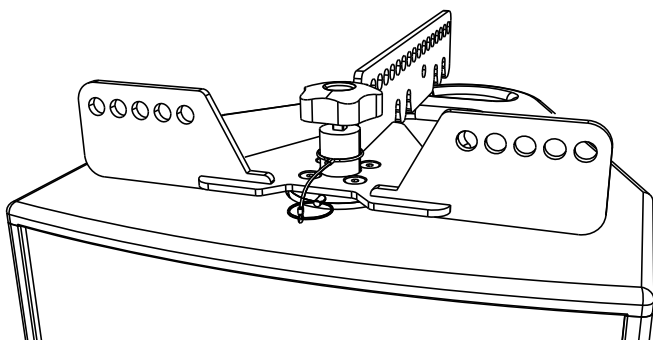


Push it down until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Socket Adapter with a 14mm Socket Wrench **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.



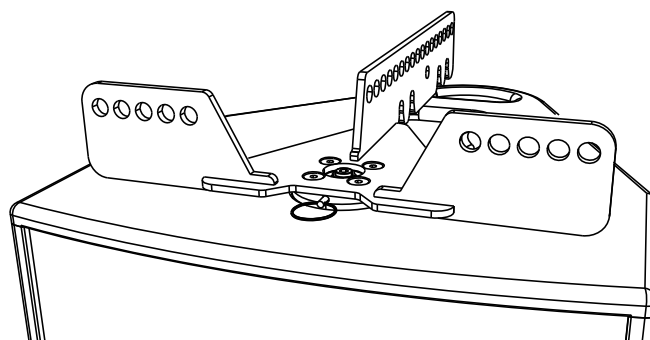
T-Bracket M (Mobile)

3. Reinsert the EPS Safety Pin to lock the EPS. Optionally, the connection between the EPS and the EPS Rigging Point can be tightened without backlash. For further details, please refer to Chapter 3.1



T-Bracket I (Installation)

3. Reinsert the EPS Safety Pin to lock the EPS. Optionally, the connection between the EPS and the EPS Rigging Point can be tightened without backlash. For further details, please refer to Chapter 3.1.



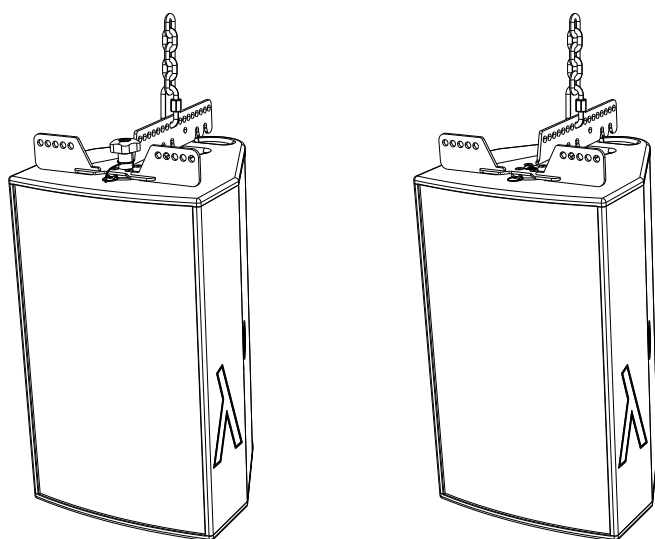
Danger: Always check the correct function of the EPS Safety Pin! Although the EPS Rigging Point is equipped with an additional unlocking safety mechanism inside, never forget to use the EPS Safety Pin! Doublecheck in the case of any doubt!

3.2.1. T-Bracket Rigging Options (T-Bracket only)

The rigging component **T-Bracket** can be used with all loudspeakers from the TX- and CX-Series. It provides a wide range of vertical and horizontal rigging options:

T-Bracket M (Mobile)

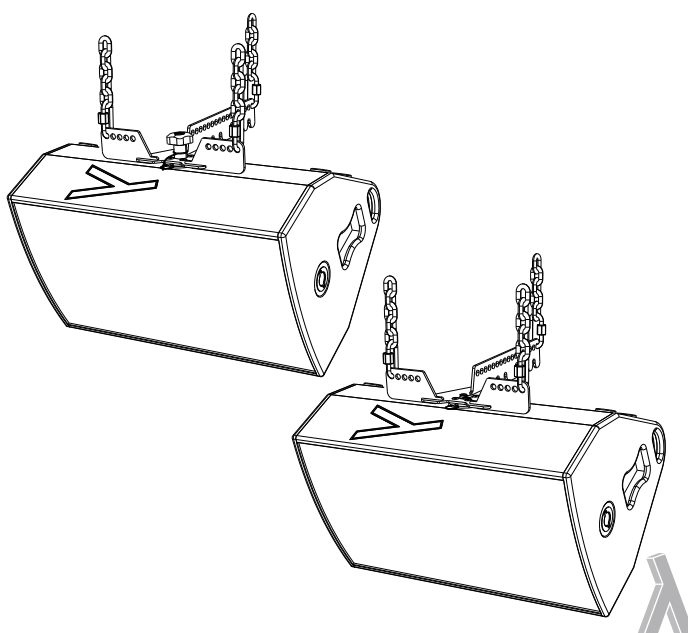
TX-Series vertical speaker position

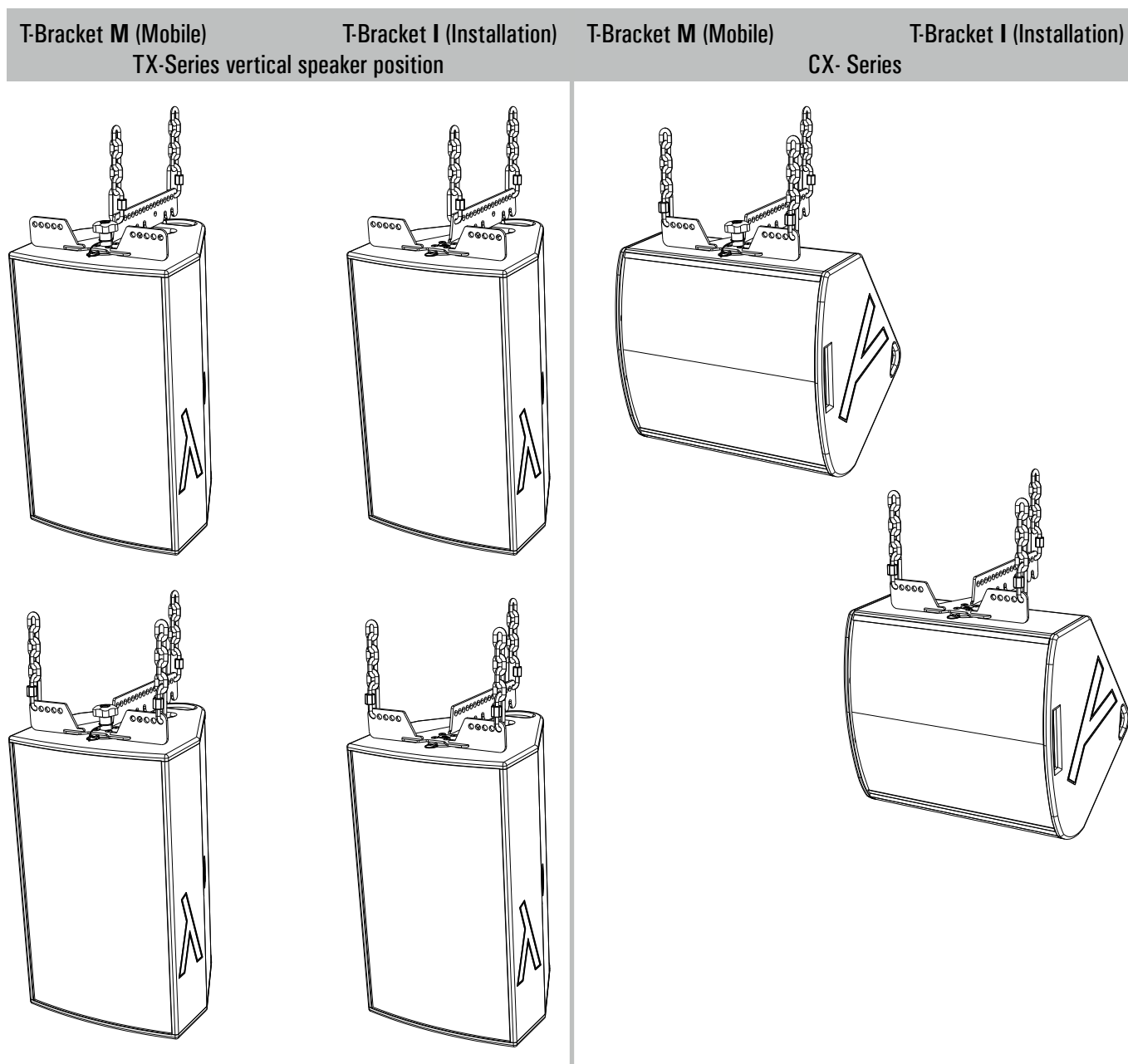


T-Bracket I (Installation)

T-Bracket M (Mobile)

TX- Series horizontal speaker position





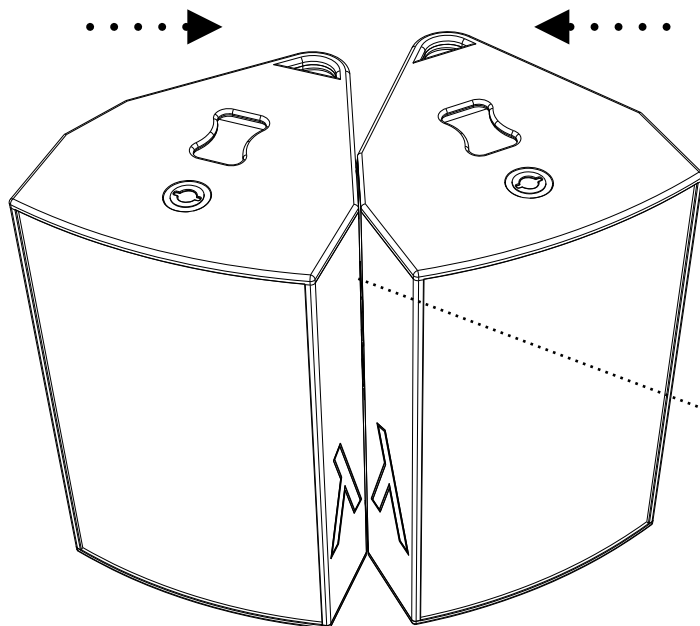
Danger: The loudspeaker must be secured with a Second Independent Safety Link in any case! A 6mm Safety Rope is to be attached to the back of the loudspeaker. For further details, refer to the individual Loudspeaker Manuals as well!

3.3. Operating the T-Bracket & Cluster-Bracket

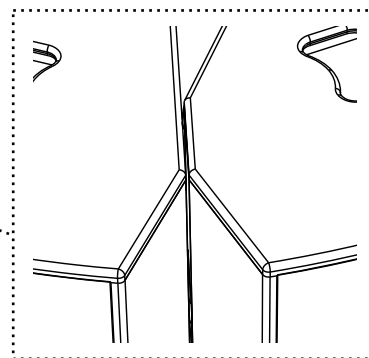
By using a **Cluster-Bracket** in combination with the **T-Bracket**, it is possible to rig horizontal clusters of the Lambda Labs TX-Series loudspeakers up to 3 cabinets side by side. The following Cluster-Bracket operation instructions are explained using the TX-3 Cluster-Bracket together with a TX-3A speaker. The rigging procedure of the Cluster-Bracket shown in this chapter is corresponding to other Cluster-Brackets as well and always follows the same scheme. Please refer to Chapter 3.1 „Operating the „EPS“ Express Pin System“ & 3.2 „Operating the T-Bracket“ as well!



3.3.1. Double Speaker Rigging

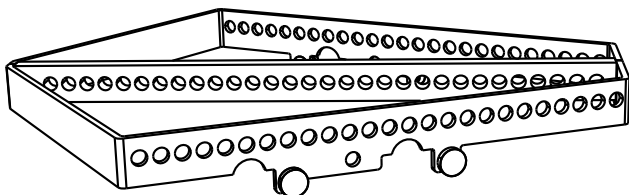


1. Place two TX-Series loudspeakers close to each other on the floor. Make sure that the edges of the speakers are at the same level. Now prepare the EPS of the T-Brackets you like to use with the EPS Rigging Points like described in Chapter 3.1 & 3.2 as well.

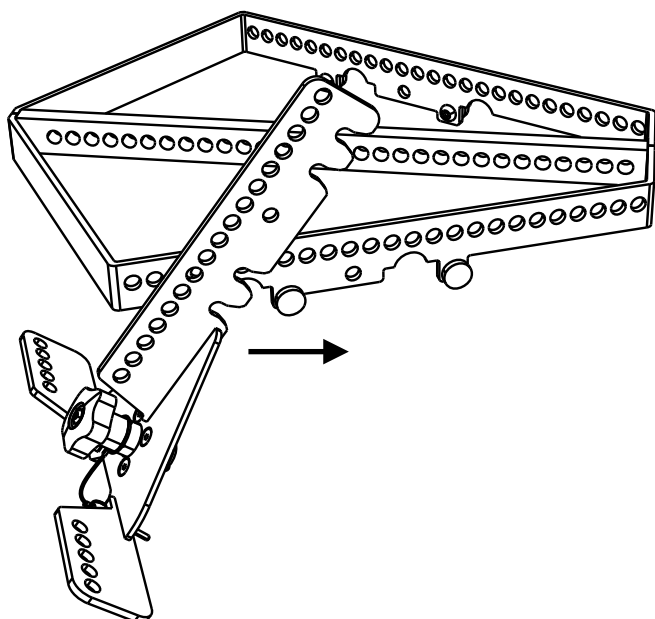


T-Bracket M (Mobile)

2. Take the Cluster-Bracket in your hand, release the Combi Cluster Pins...

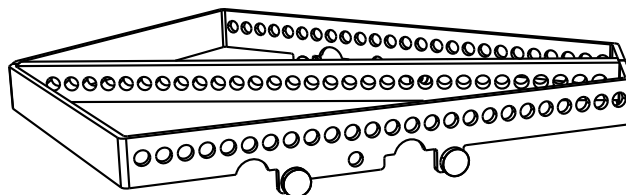


...and rotate the first T-Bracket with the other hand around the corresponding Mounting Section...

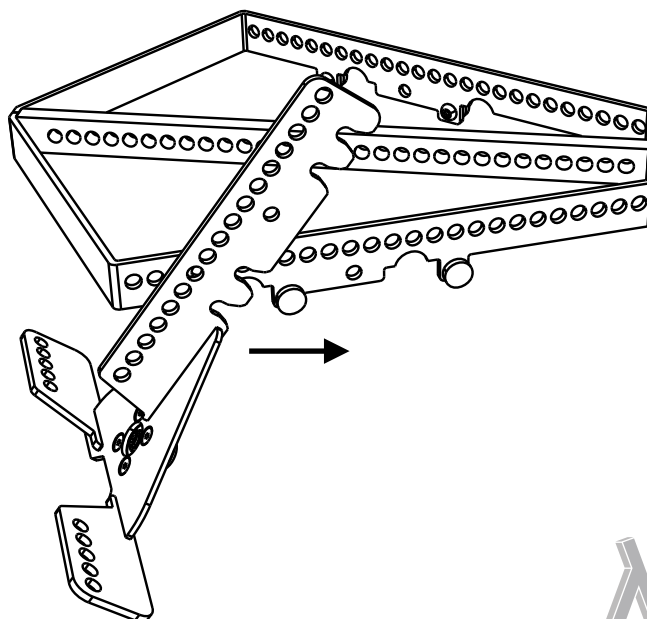


T-Bracket I (Installation)

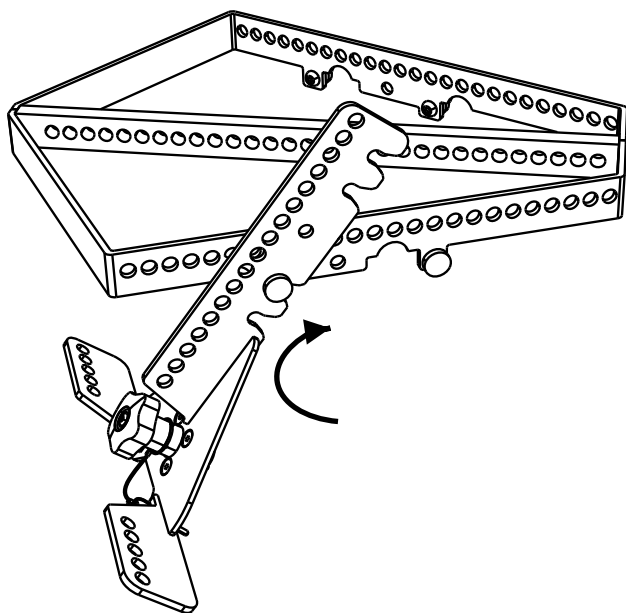
2. Take the Cluster-Bracket in your hand, release the ombi Cluster Pins...



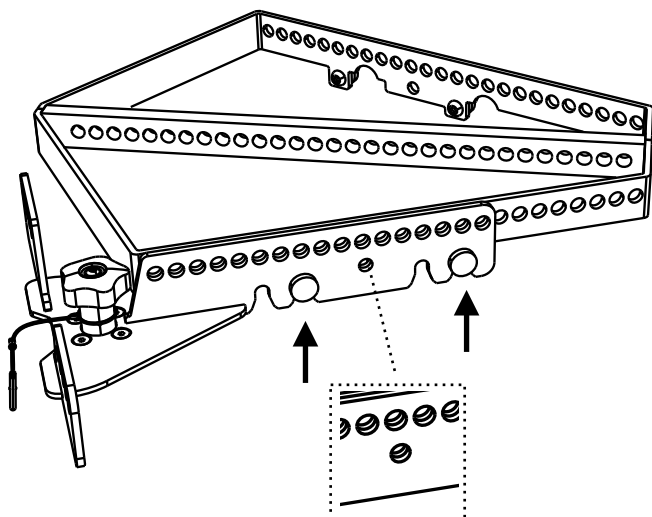
...and rotate the first T-Bracket with the other hand around the corresponding Mounting Section...



T-Bracket M (Mobile)



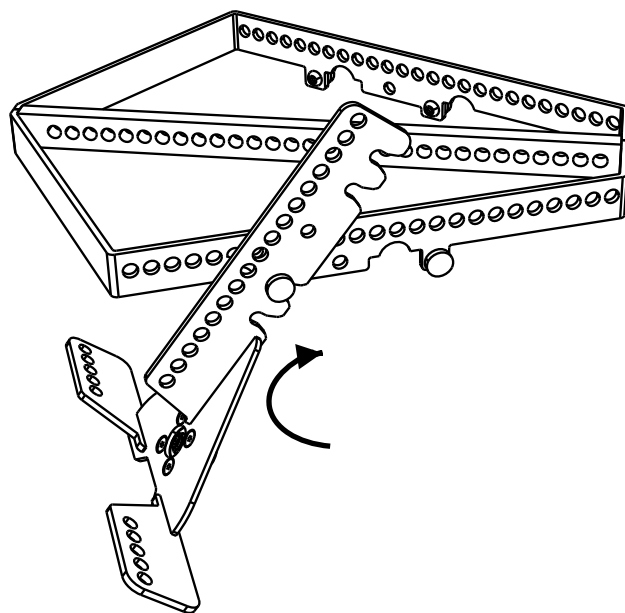
...into the Cluster Bracket Load Links.



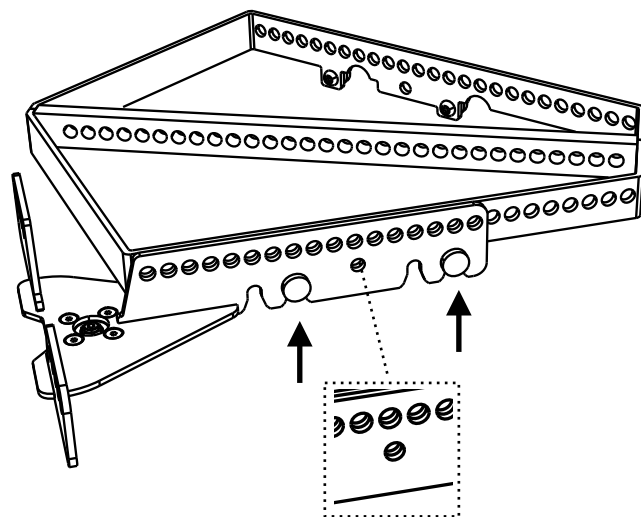
Make sure to use the correct T-Bracket Mounting Sections for each side of the Cluster Bracket, as these are not symmetrical. For the left T-Bracket viewed from the front, use the second Mounting Sections. You can also check the correct mounting position by checking the Pin Lock Sections for congruence.

3. Hold the assembly together with one hand while rotating the second T-Bracket into the Cluster-Bracket as previously with the other hand.

T-Bracket I (Installation)



...into the Cluster Bracket Load Links.

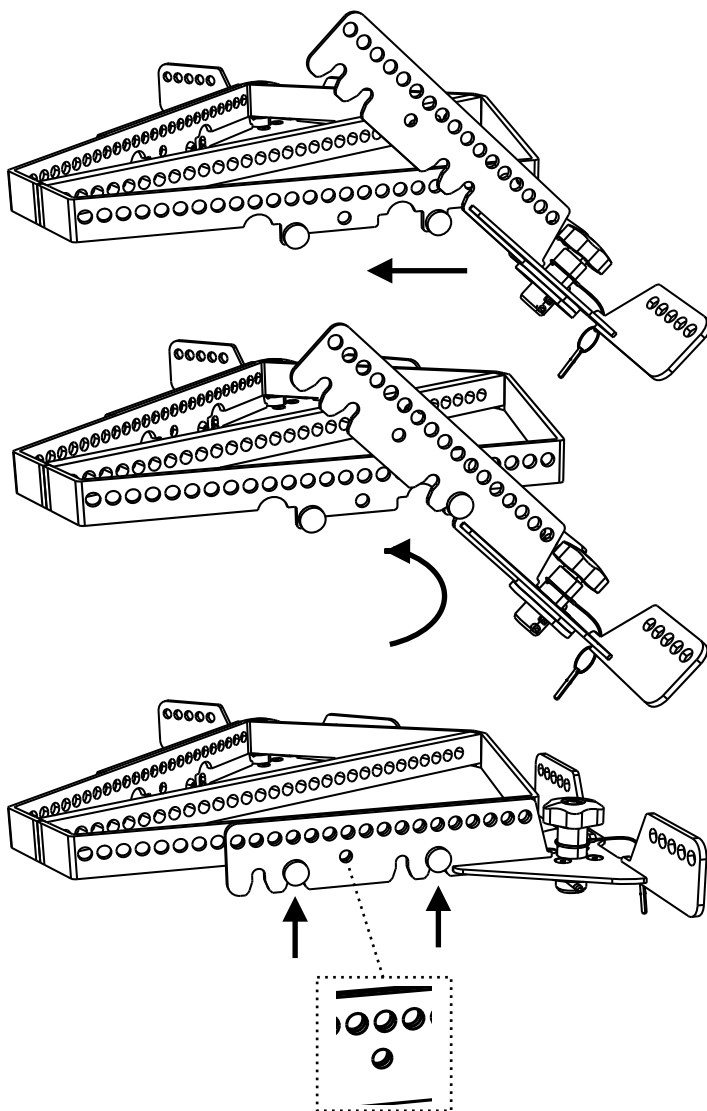


Make sure to use the correct T-Bracket Mounting Sections for each side of the Cluster Bracket, as these are not symmetrical. For the left T-Bracket viewed from the front, use the second Mounting Sections. You can also check the correct mounting position by checking the Pin Lock Sections for congruence.

3. Hold the assembly together with one hand while rotating the second T-Bracket into the Cluster-Bracket as previously with the other hand.

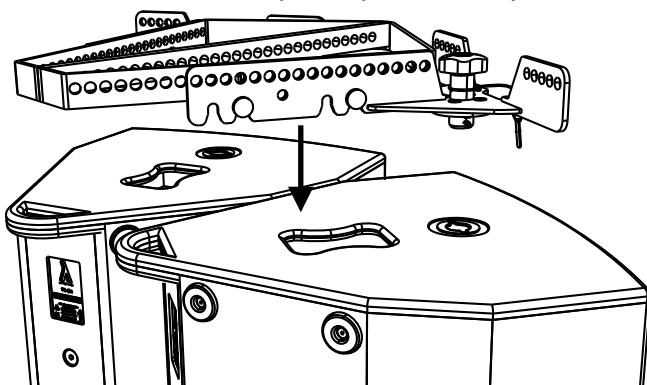


T-Bracket M (Mobile)

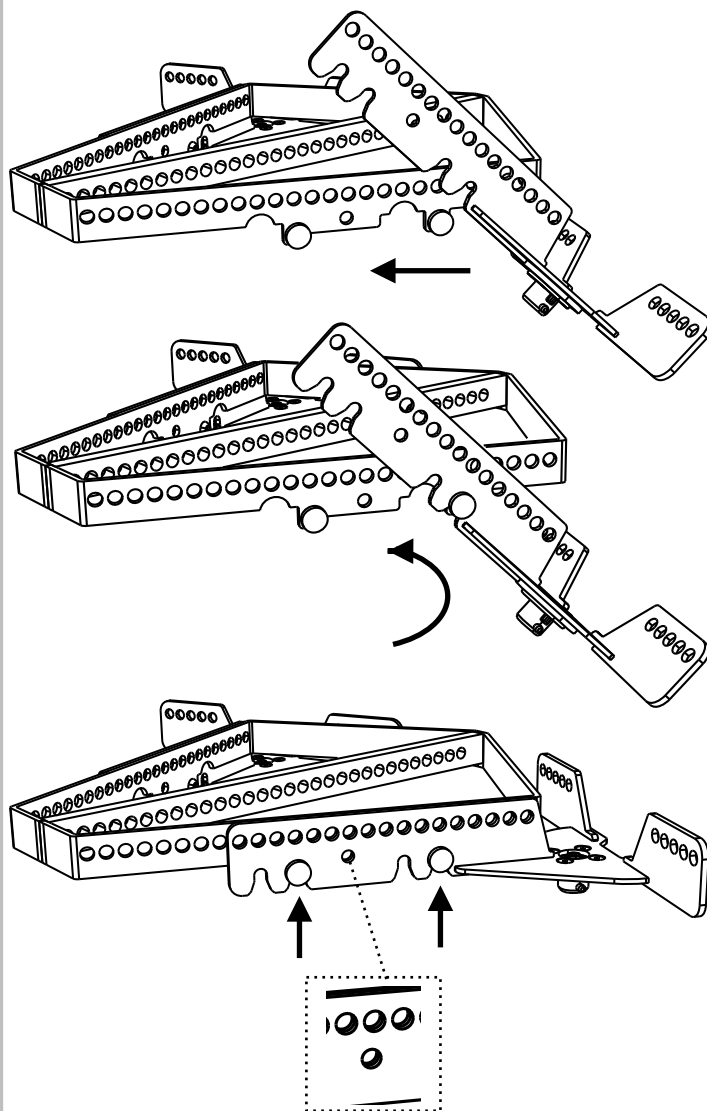


Make sure to use the correct T-Bracket Mounting Sections for each side of the Cluster Bracket, as these are not symmetrical. For the right T-Bracket viewed from the front, use the first Mounting Sections. You can also check the correct mounting position by checking the Pin Lock Sections for congruence.

4. Place the assembly loosely on the loudspeakers.

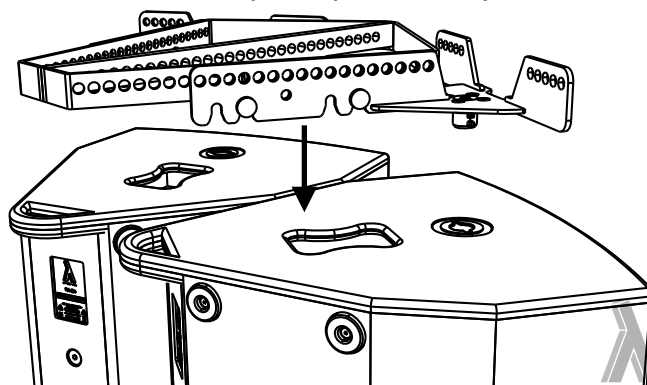


T-Bracket I (Installation)



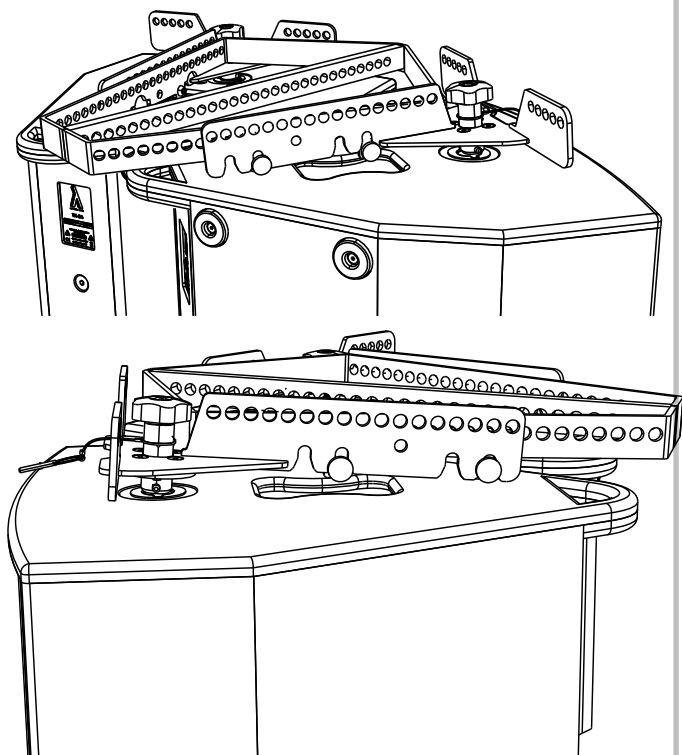
Make sure to use the correct T-Bracket Mounting Sections for each side of the Cluster Bracket, as these are not symmetrical. For the right T-Bracket viewed from the front, use the first Mounting Sections. You can also check the correct mounting position by checking the Pin Lock Sections for congruence.

4. Place the assembly loosely on the loudspeakers.

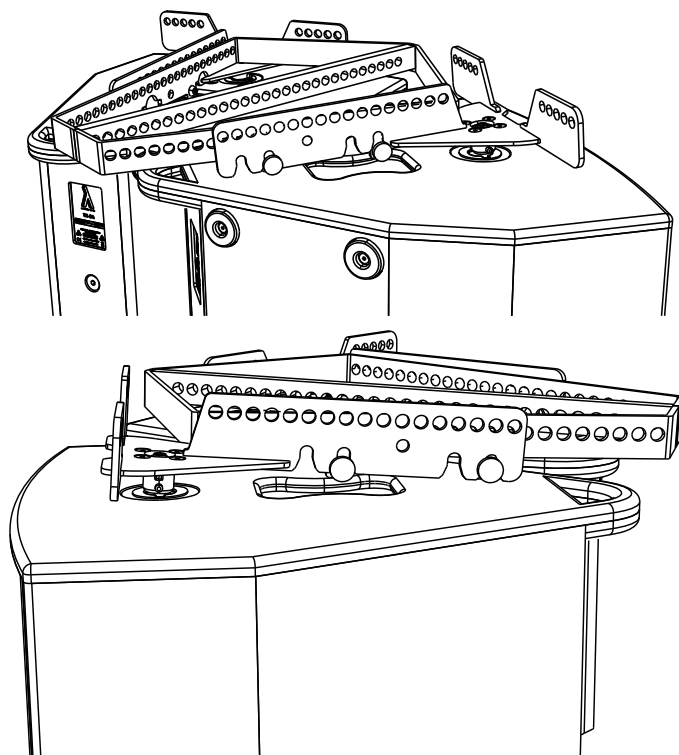
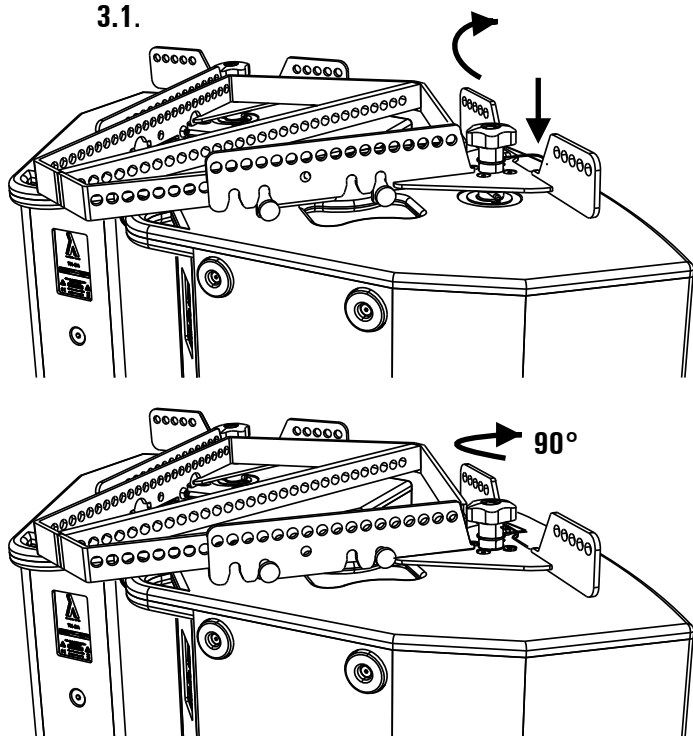


T-Bracket M (Mobile)

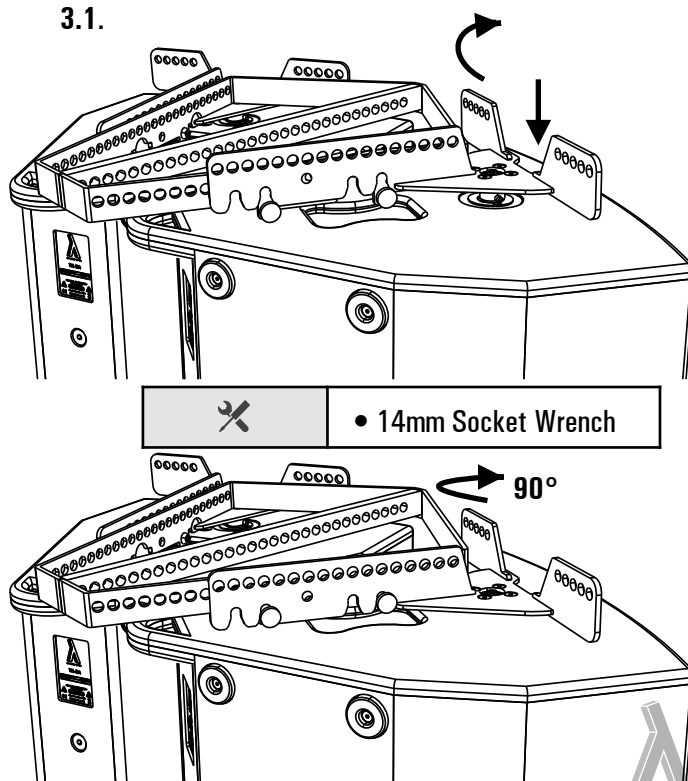
T-Bracket I (Installation)





Then turn a T-Bracket slightly to insert the EPS straightly into the EPS Rigging Point. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. Put the EPS Safety Pin but do not tight the EPS in this step. Make sure to keep the approximate position of the Cluster-Bracket while inserting the EPS. For further details, please refer to Chapter 3.1.



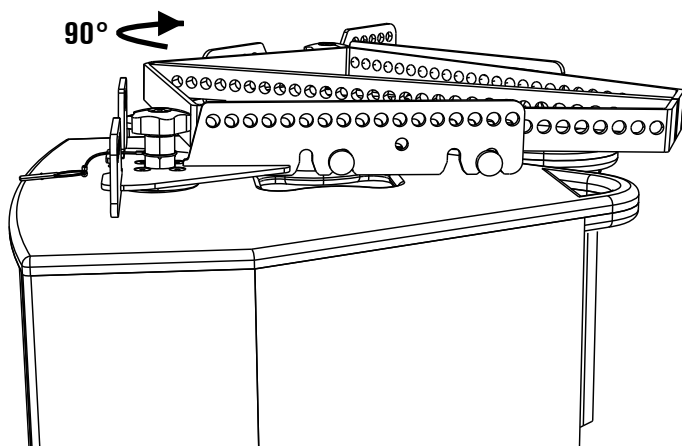
Then turn a T-Bracket slightly to insert the EPS straightly into the EPS Rigging Point. When the EPS Express Pin is fully inserted, turn the EPS Socket Adapter with a 14mm Socket Wrench **clockwise** about 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. Put the EPS Safety Pin but do not tight the EPS in this step. For further details, please refer to Chapter 3.1.



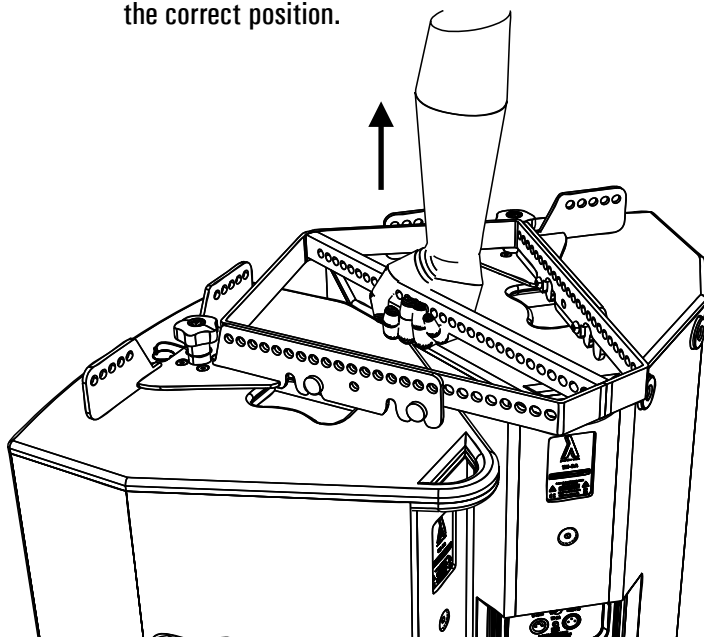
	<p>Note: Do NOT tight the EPS in this step! Wait until the entire cluster is fully assembled and tighten the EPS only after Step 5. For further details, please refer to Chapter 3.1.</p>
	<p>Danger: Always check the correct function of the EPS Safety Pin! Although the EPS Rigging Point is equipped with an additional unlocking safety mechanism inside, never forget to use the EPS Safety Pin! Doublecheck in the case of any doubt!</p>

T-Bracket M (Mobile)

Repeat this procedure for the second T-Bracket.

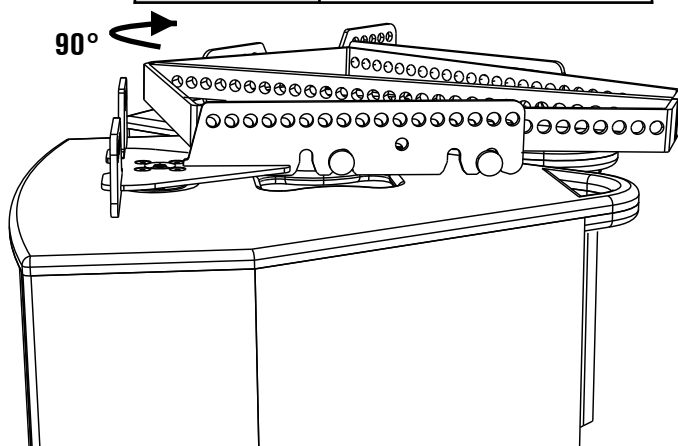
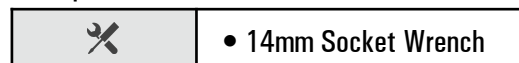


5. Take the Combi Cluster Pins in hand. Take the Cluster-Bracket with your other hand at the middle bar and pull it straight up. This will put the Cluster-Bracket in the right position for inserting the Combi Cluster Pin. Additionally, the loudspeakers are automatically pulled together and moved into the correct position.

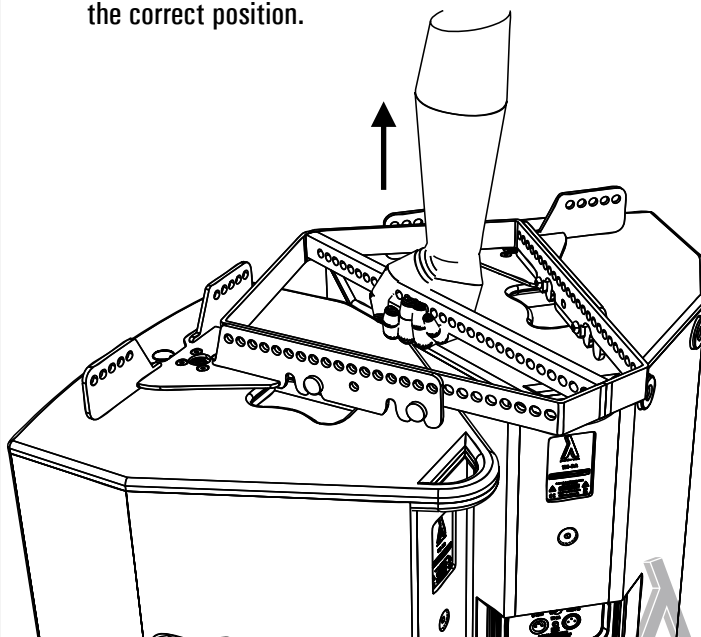


T-Bracket I (Installation)

Repeat this procedure for the second T-Bracket.

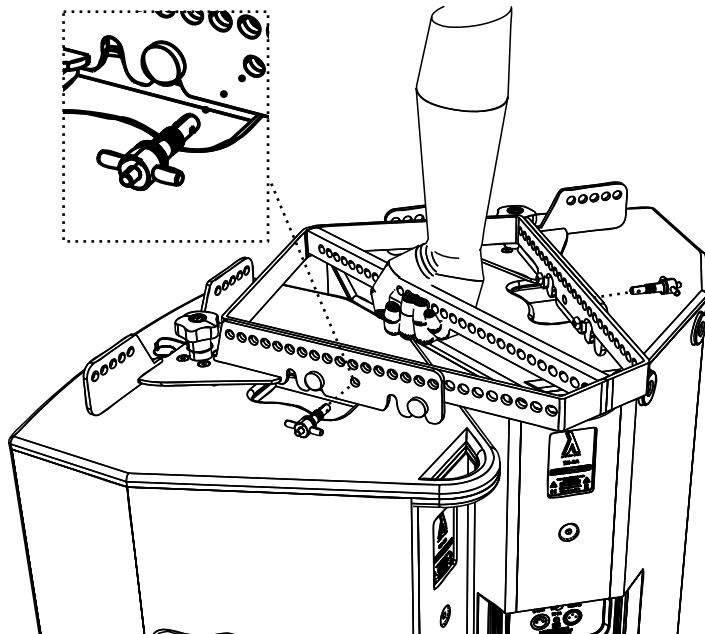


5. Take the Combi Cluster Pins in hand. Take the Cluster-Bracket with your other hand at the middle bar and pull it straight up. This will put the Cluster-Bracket in the right position for inserting the Combi Cluster Pin. Additionally, the loudspeakers are automatically pulled together and moved into the correct position.

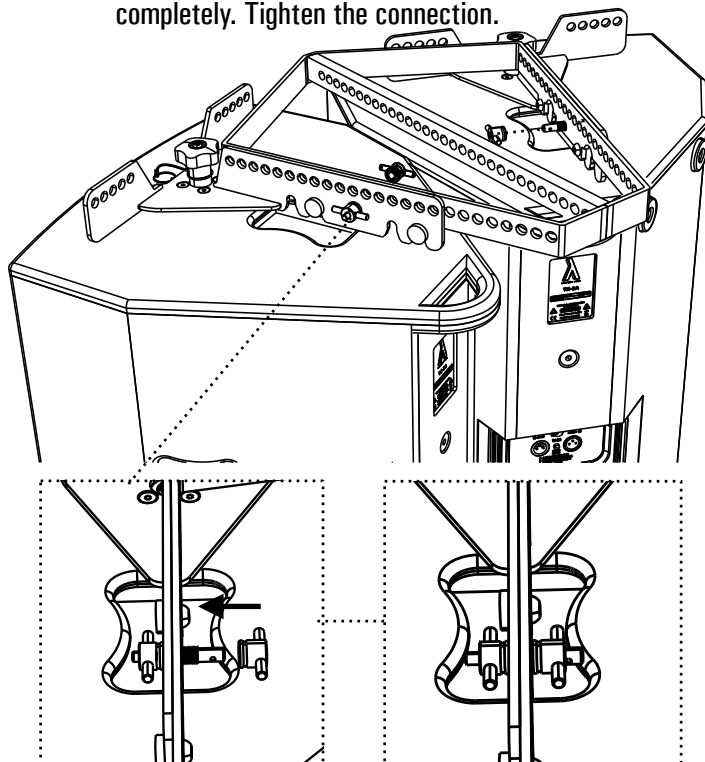


T-Bracket M (Mobile)

Hold the Cluster-Bracket while inserting the first Combi Cluster Pin from the outside through the Pin Lock Sections of the T-Bracket/Cluster Bracket, which are now congruent. Do the same with the second Combi Cluster Pin.

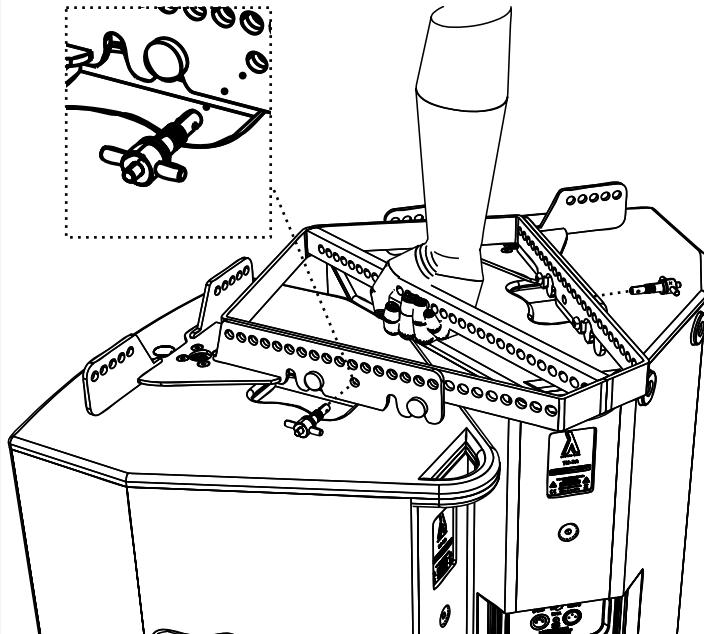


Lock the inserted Combi Cluster Pins with the Combi Pin Bushings. Press the release button of the Combi Cluster Pin to contract the locking balls **before** screwing on the Combi Pin Counter Bushings. Make sure to expand the locking balls **after** screwing on the Combi Pin Counter Bushing completely. Tighten the connection.

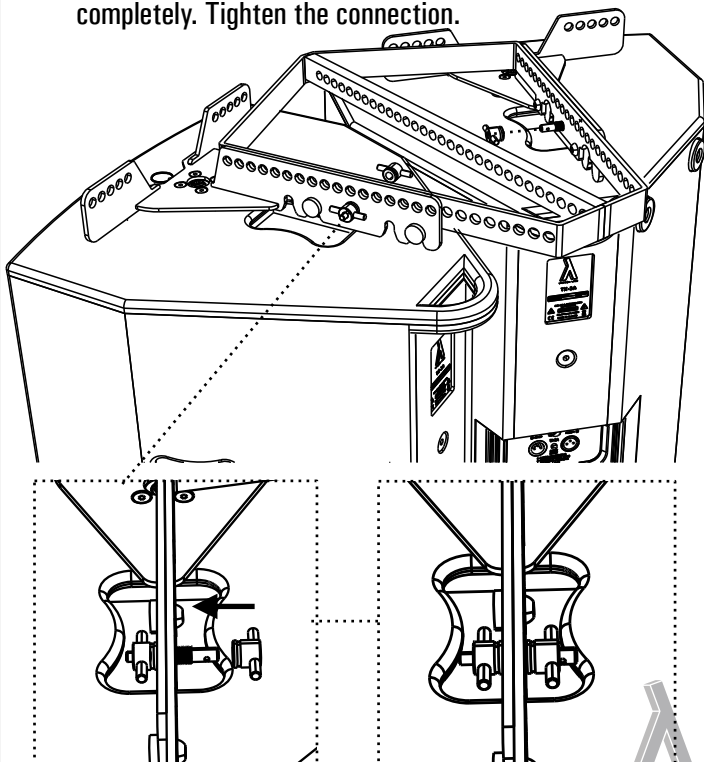




T-Bracket I (Installation)

Hold the Cluster-Bracket while inserting the first Combi Cluster Pin from the outside through the Pin Lock Sections of the T-Bracket/Cluster Bracket, which are now congruent. Do the same with the second Combi Cluster Pin.



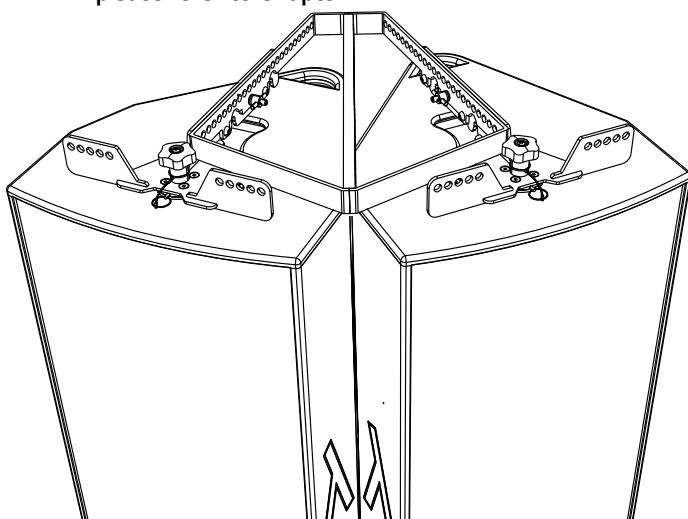
Lock the inserted Combi Cluster Pins with the Combi Pin Bushings. Press the release button of the Combi Cluster Pin to contract the locking balls **before** screwing on the Combi Pin Counter Bushings. Make sure to expand the locking balls **after** screwing on the Combi Pin Counter Bushing completely. Tighten the connection.



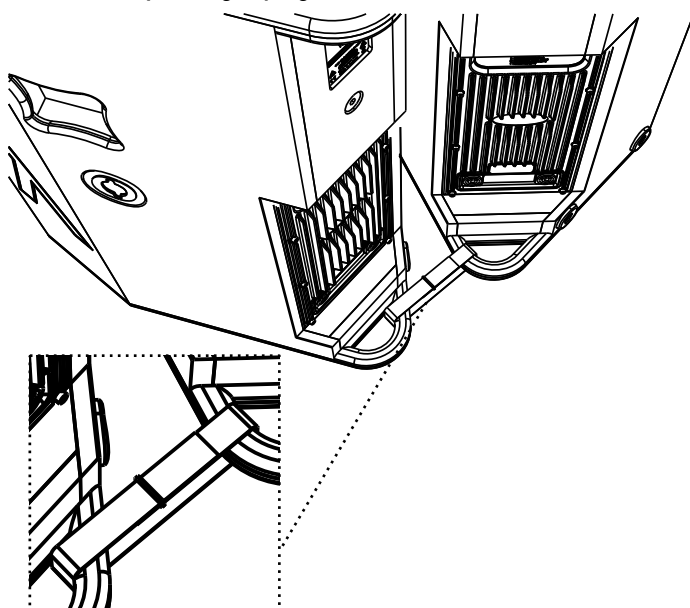
	<p>Danger: Always check the correct function of the Combi Cluster Pin! Always check if all Combi Cluster Pins are inserted and locked! Doublecheck in the case of any doubt!</p>
	<p>Caution: Never screw the Combi Pin Counter Bushings against the expanded locking balls in any case!</p>

T-Bracket M (Mobile)

6. It is recommended to tighten the connection between the EPS and the EPS Rigging Point to get a connection without backlash and therefore a more tight and stiff cluster. For further details, please refer to Chapter 3.1

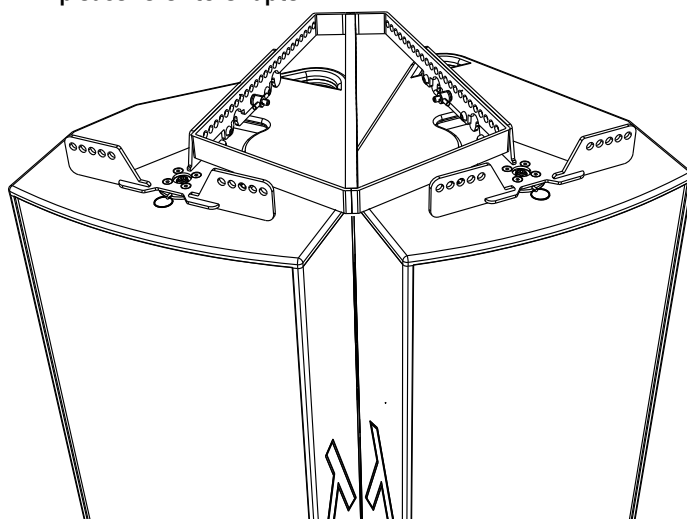


Fix the cluster additionally with the supplied Velcro strap. A slightly tightened connection is sufficient.

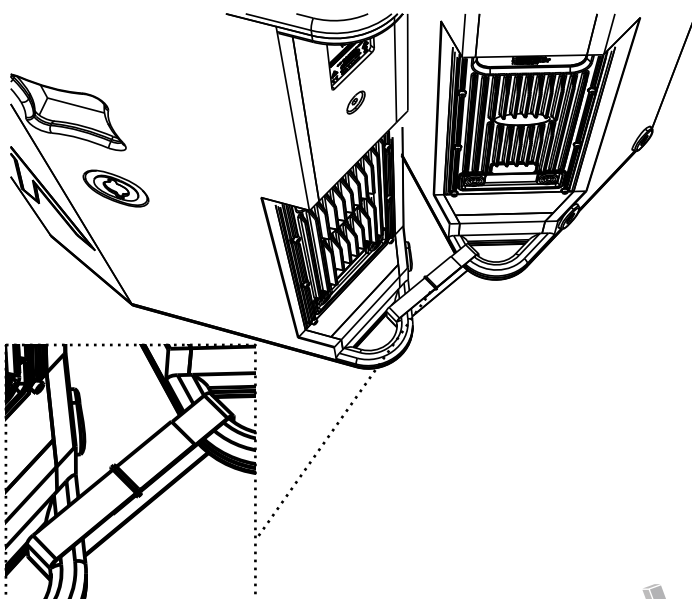


T-Bracket I (Installation)

6. It is recommended to tighten the connection between the EPS and the EPS Rigging Point to get a connection without backlash and therefore a more tight and stiff cluster. For further details, please refer to Chapter 3.1






Fix the cluster additionally with the supplied Velcro strap. A slightly tightened connection is sufficient.

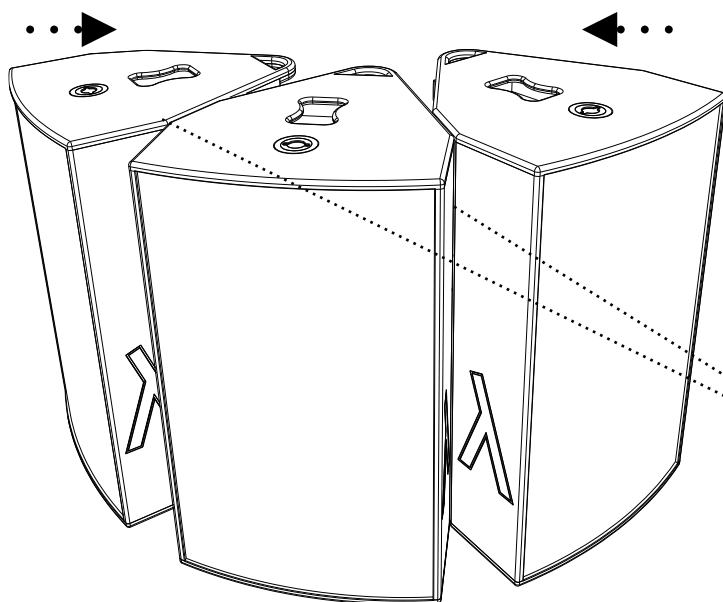


To disassemble the cluster, follow the steps in the reverse order!

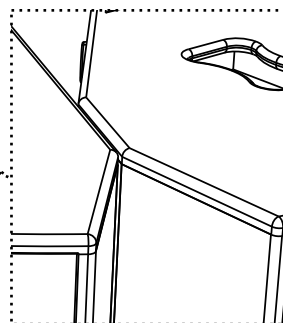


	<p>Danger: The loudspeaker and the Cluster-Bracket must be secured with a Second Independent Safety Link in any case! A 6mm Safety Rope is to be attached to the back of the loudspeaker. A 10mm Safety Rope is to be attached to the Cluster-Bracket. For further details, refer to the individual Loudspeaker Manuals as well!</p>
	<p>Danger: The Safety Ropes must be tightened in a way that the height of fall of the object to be secured is minimized! A height of fall of max. 0.2 m should not be exceeded under any circumstances! Check the rigging items involved regularly!</p>
	<p>Note: The optional rigging items described above can be purchased as a complete set (Loudspeaker Safety Set).</p>

3.3.2. Triple Speaker Rigging

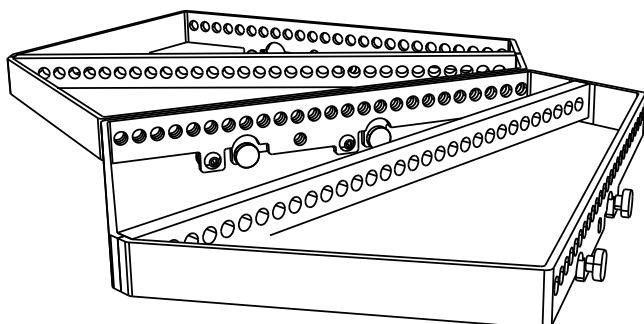


1. Place three TX-Series loudspeakers close to each other on the floor. Make sure that the edges of the speakers are at the same level. Now prepare the EPS of the T-Brackets you like to use with the EPS Rigging Points as described in Chapter 3.1 & 3.2 as well.



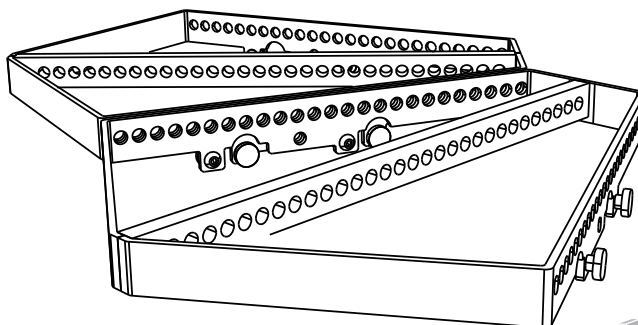
T-Bracket M (Mobile)

2. It is recommended to assemble the triple speaker cluster by two people. Take two Cluster-Brackets in your hand/s or put it on a supporting surface, release the Combi Cluster Pins...



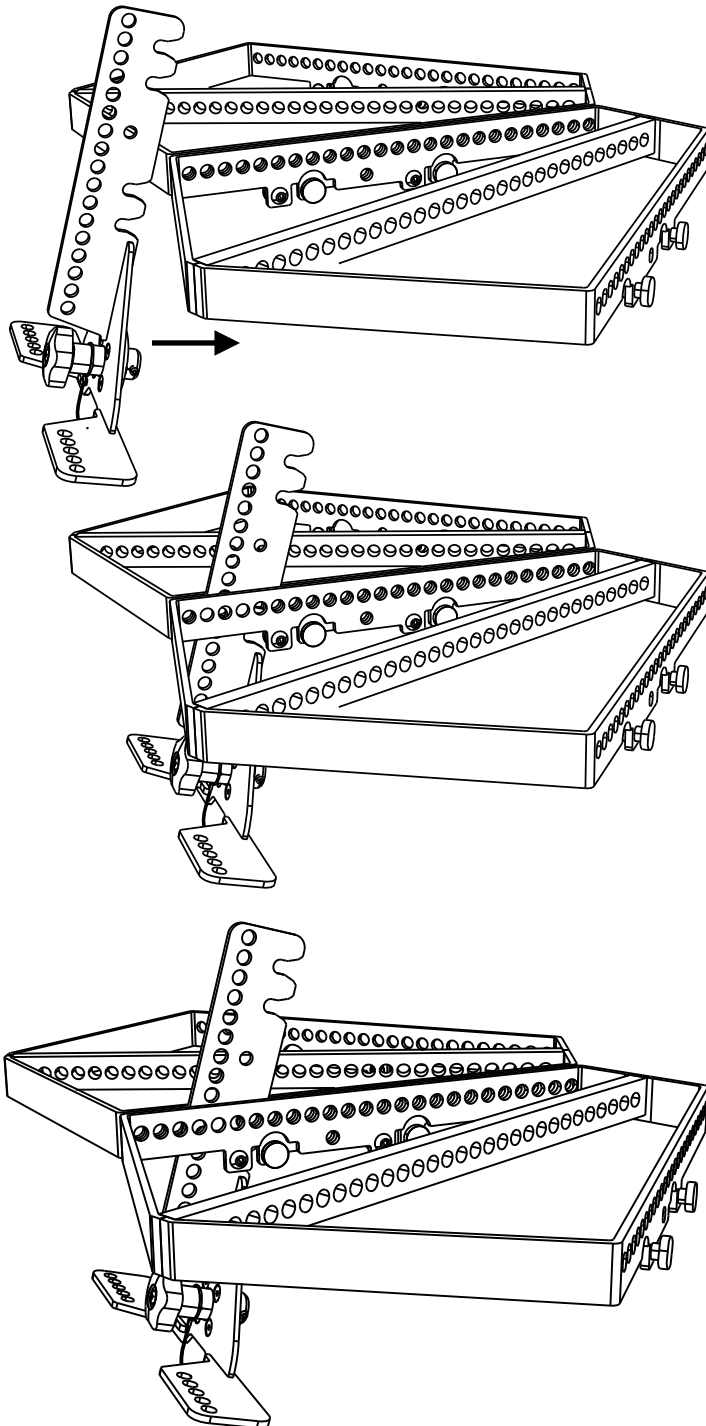
T-Bracket I (Installation)

2. It is recommended to assemble the triple speaker cluster by two people. Take two Cluster-Brackets in your hand/s or put it on a supporting surface, release the Combi Cluster Pins...



T-Bracket M (Mobile)

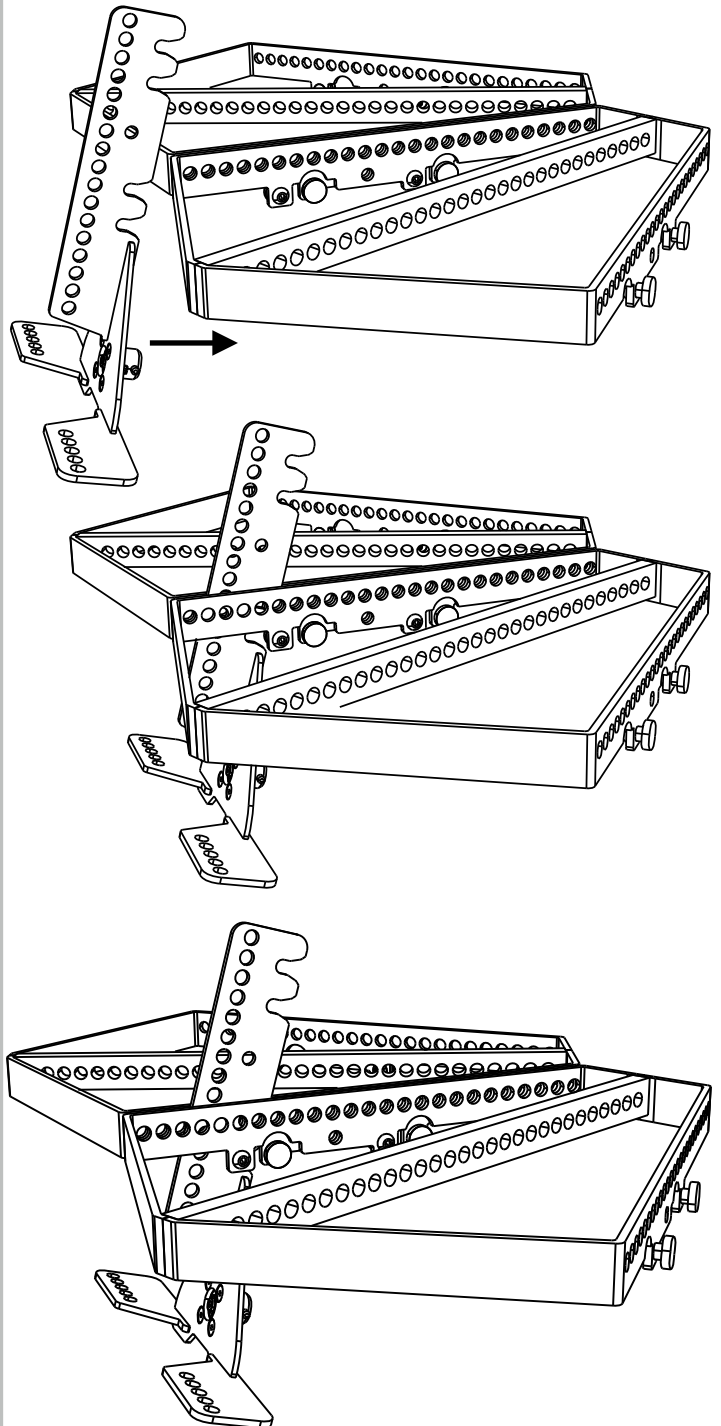
...insert the middle T-Bracket between the two tightly positioned Cluster-Brackets...



...and rotate the T-Bracket around the first Mounting Section...

T-Bracket I (Installation)

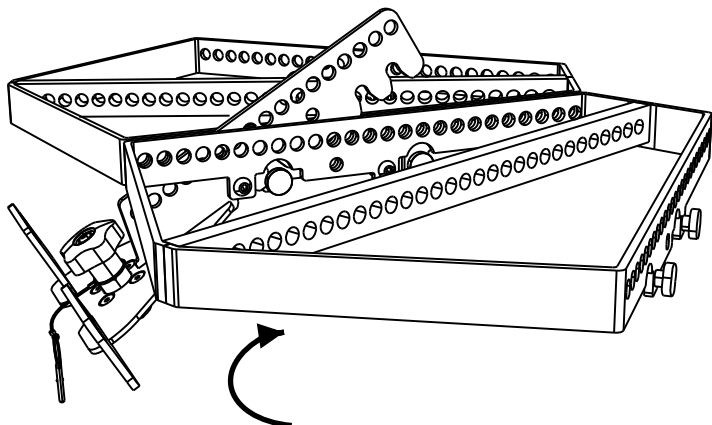
...insert the middle T-Bracket between the two tightly positioned Cluster-Brackets...



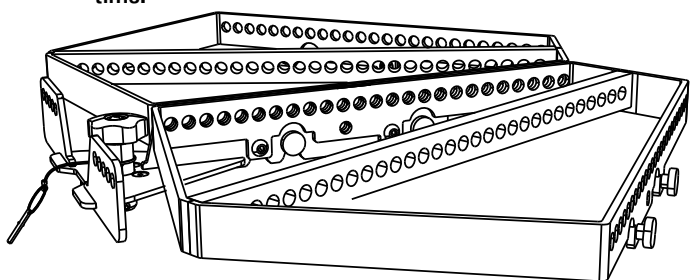
...and rotate the T-Bracket around the first Mounting Section...



T-Bracket M (Mobile)

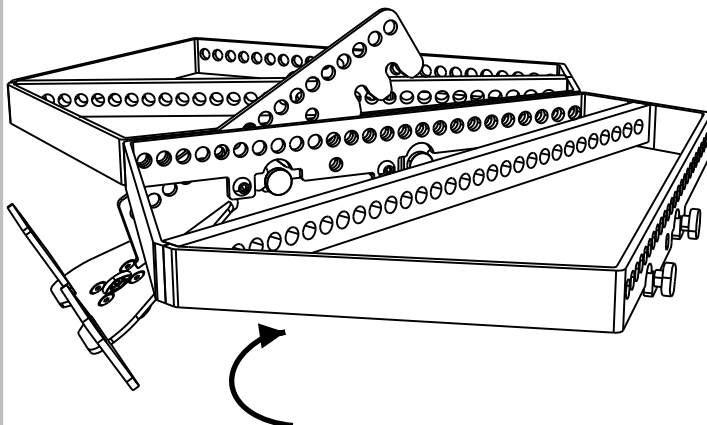


...into BOTH Cluster Bracket Load Links at the same time.

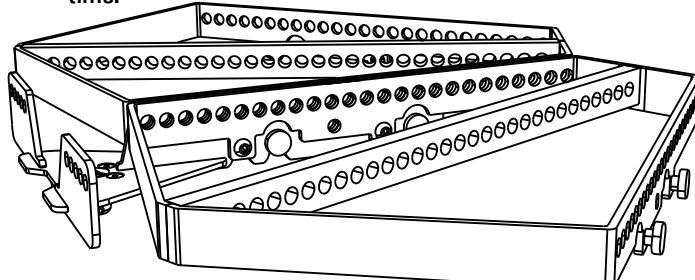


3. Hold the assembly together while rotating the second and third T-Bracket into the Cluster-Brackets. From now on, follow the corresponding instructions given in Chapter 3.3.1 Step 3-6.

T-Bracket I (Installation)



...into BOTH Cluster Bracket Load Links at the same time.



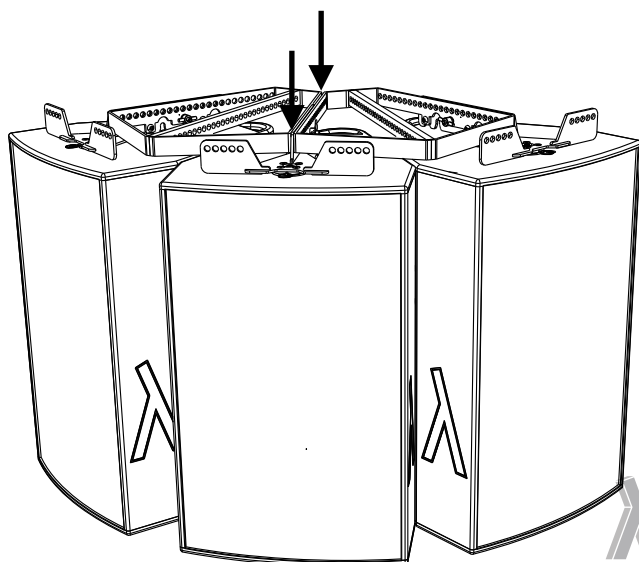
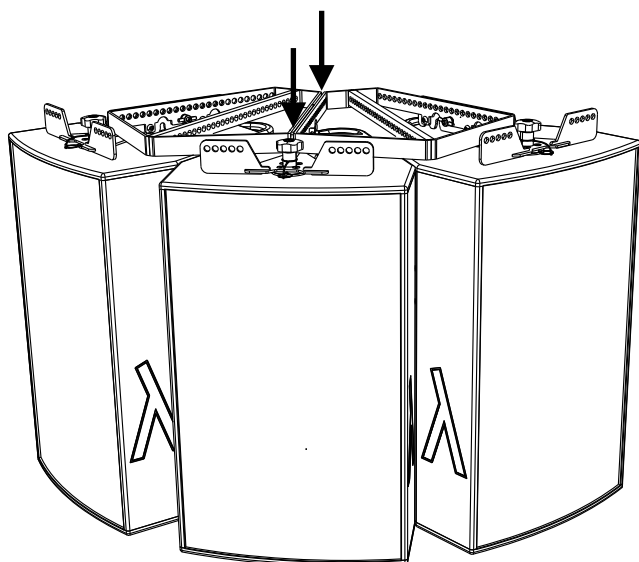
3. Hold the assembly together while rotating the second and third T-Bracket into the Cluster-Brackets. From now on, follow the corresponding instructions given in Chapter 3.3.1 Step 3-6.



Caution: By setting up a triple speaker cluster, the mounting of two additional Combi Cluster Pins at the very front and very back hole positions of the middle area is obligatory! If you plan to set up a triple cluster, please get in contact with Lambda Labs to order additional Combi Cluster Pins.



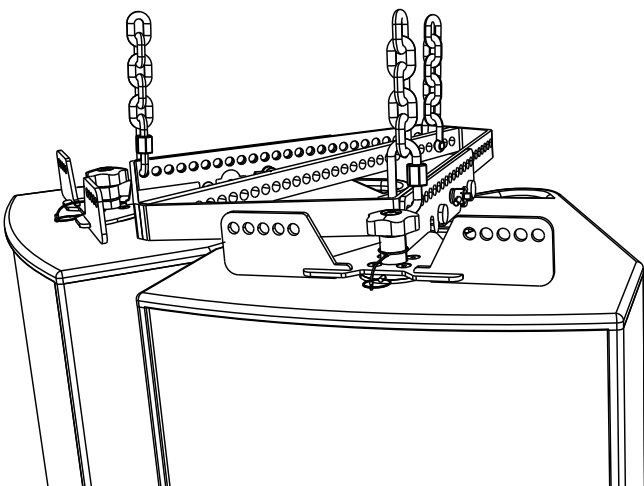
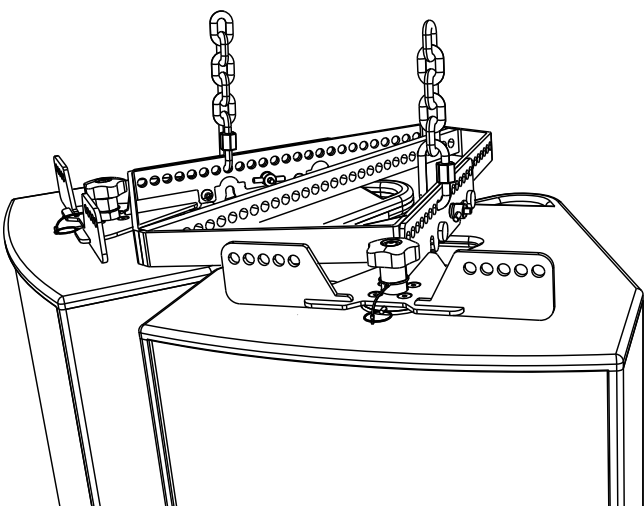
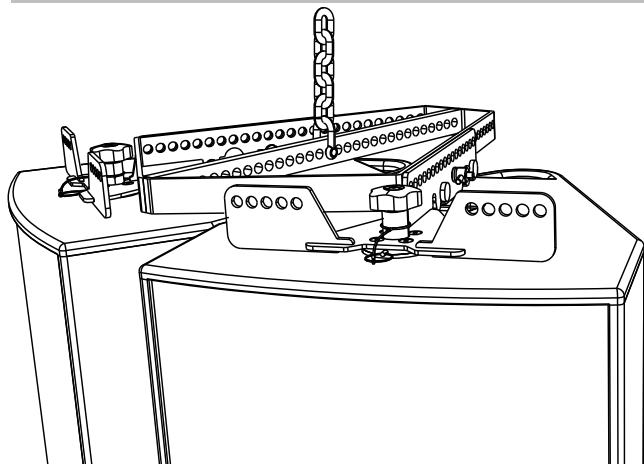
Caution: By setting up a triple speaker cluster, the mounting of two additional Combi Cluster Pins at the very front and very back hole positions of the middle area is obligatory! If you plan to set up a triple cluster, please get in contact with Lambda Labs to order additional Combi Cluster Pins.



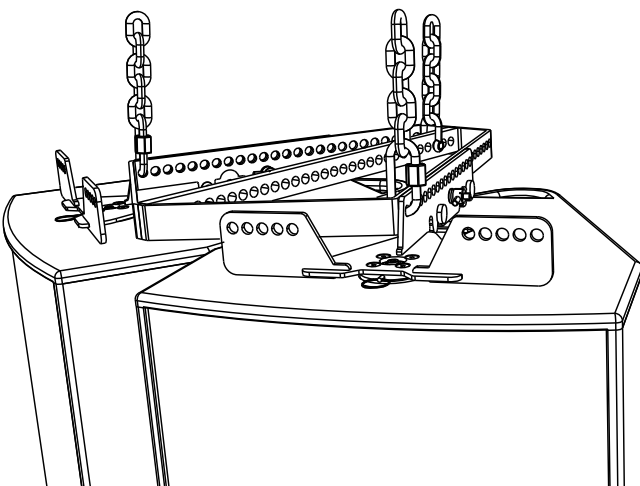
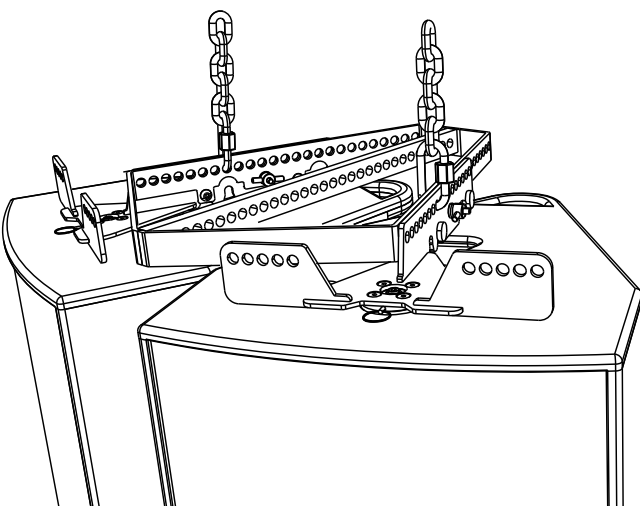
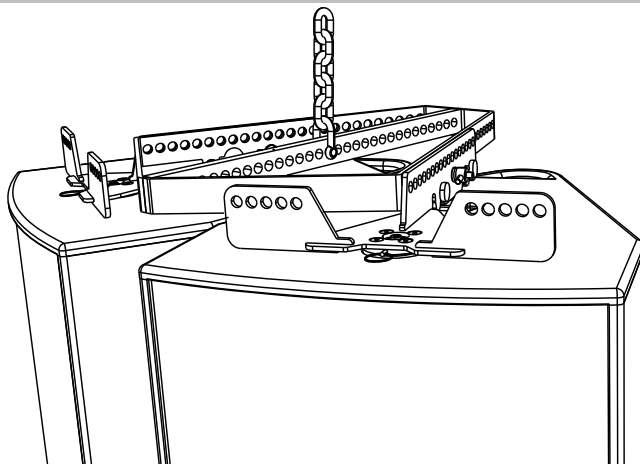
3.3.3. Cluster Rigging Options (without Vari-Clamp)

The rigging component **Cluster-Bracket** can be used with the loudspeakers from the TX-Series. It provides a wide range of rigging options:

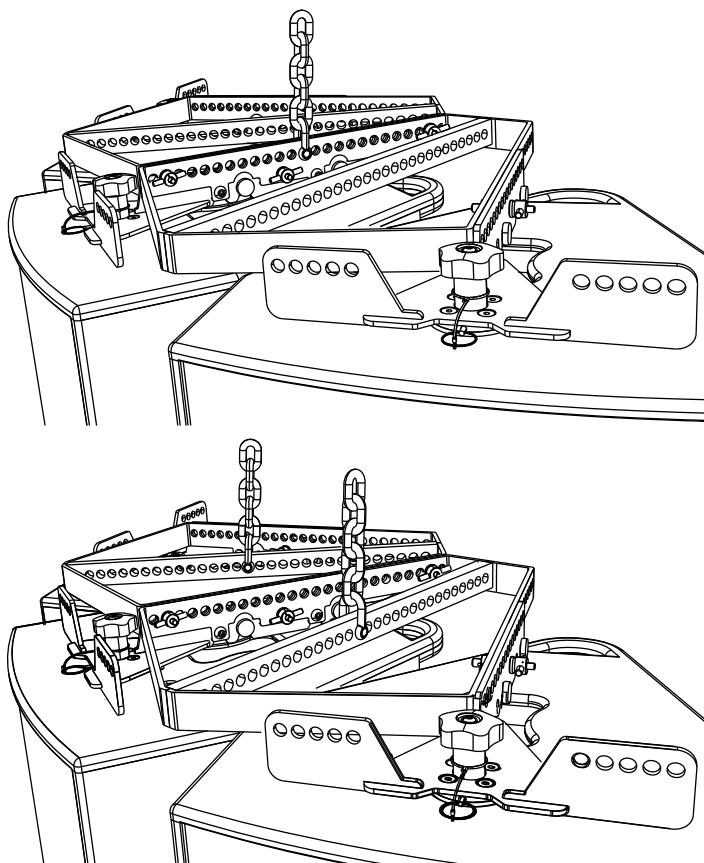
Cluster-Bracket with T-Bracket M (Mobile)



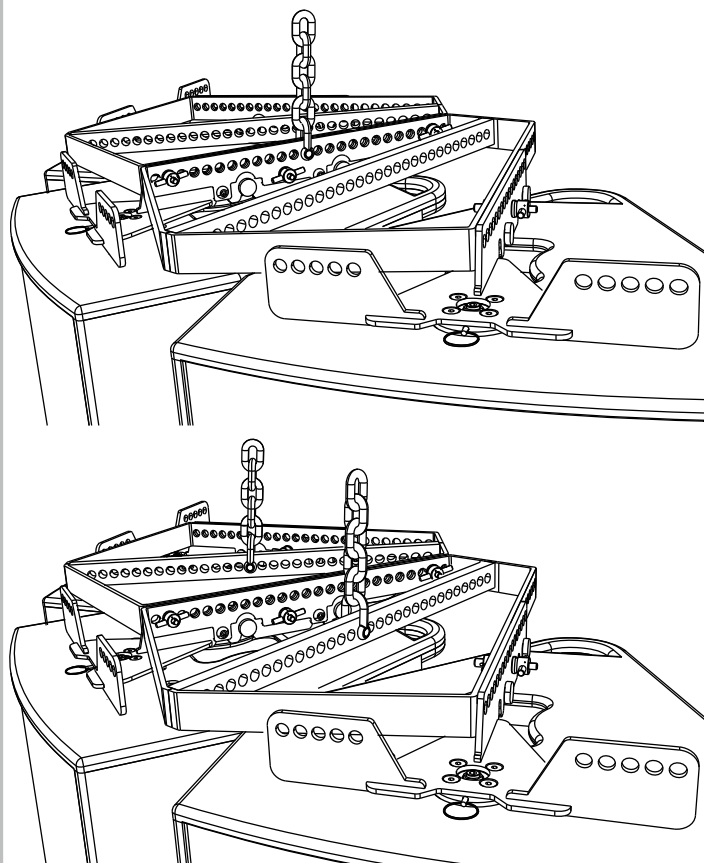
Cluster-Bracket with T-Bracket I (Installation)



Cluster-Bracket with T-Bracket M (Mobile)



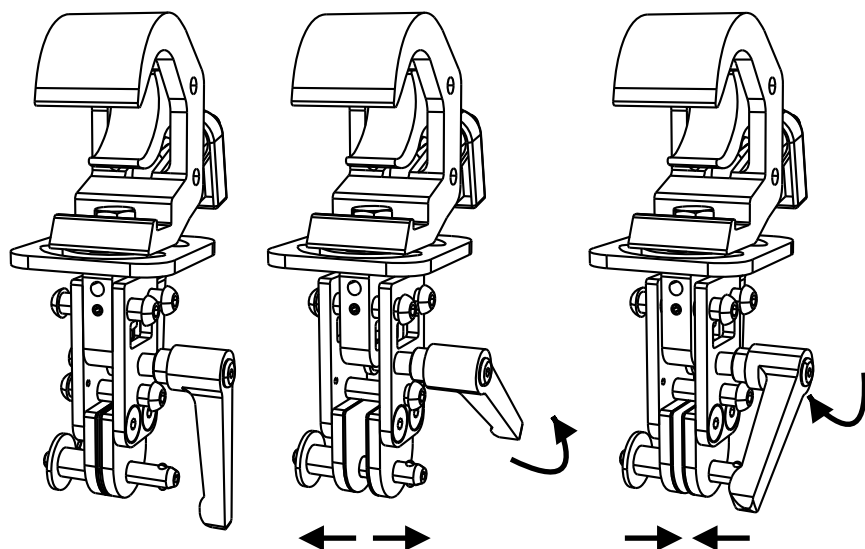
Cluster-Bracket with T-Bracket I (Installation)



3.4. Operating the Vari-Clamp

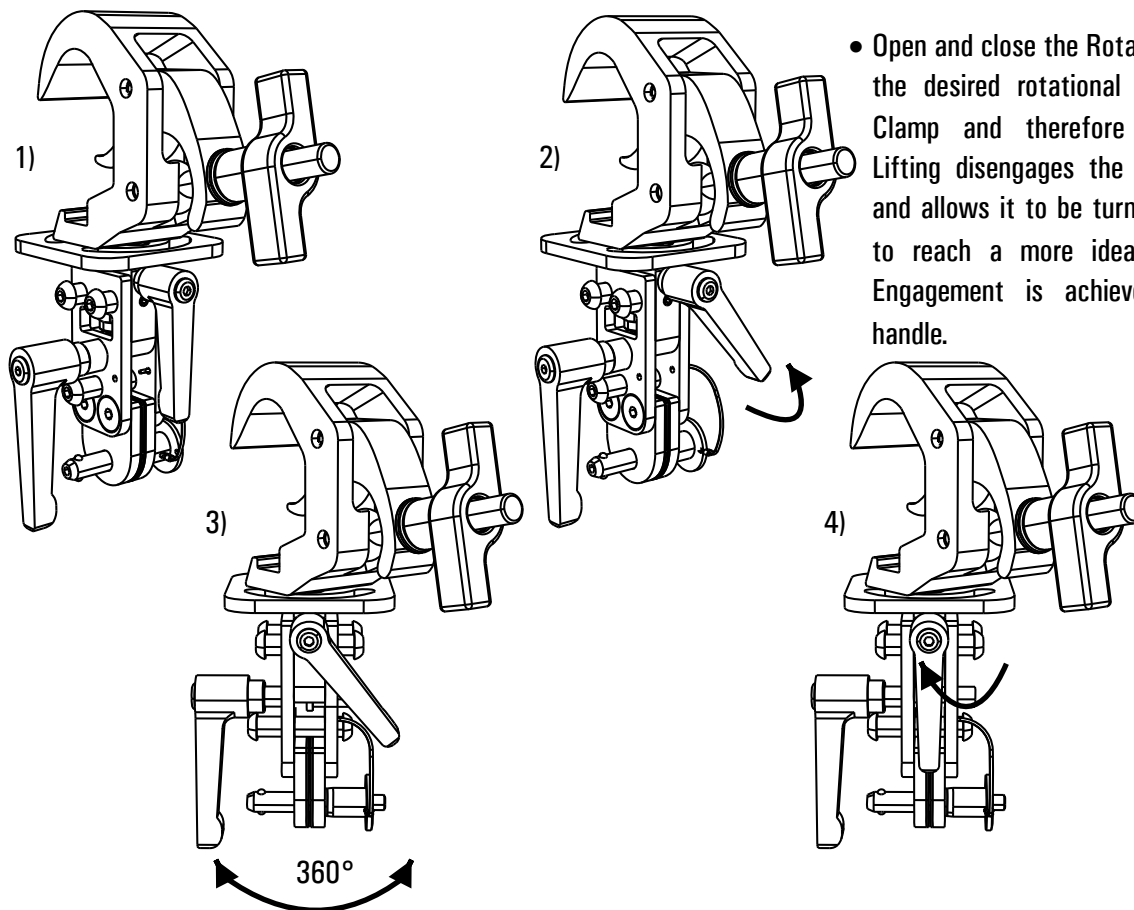
The **Vari-Clamp** is designed for a quick and accurate suspension of individual loudspeakers of the TX- and CX-Series. The Vari Clamp's mounting jaws are infinitely adjustable, allowing for combination either with the **T-Bracket** or **Cluster-Bracket** in all rigging varieties. In addition, the jaws have a clamping function to make it possible to align the speaker's rotational direction accurately. Please refer to Chapter 3.1 „Operating the „EPS“ Express Pin System“ & 3.2 „Operating the T-Bracket“ & 3.3 Operating the T-Bracket / Cluster-Bracket as well!

3.4.1. Operating the Vari-Clamp & Quick Clamp: General Function Principle



- Turn the Adjustment Lever to open and close the Receiving Jaws of the Vari-Clamp to adapt the possible fixture distance. In addition, the jaws obtain a clamping function when closing them to set the loudspeaker's rotational direction accurately. Lifting disengages the Adjustment Lever and allows it to be turned in either directions to reach a more ideal turning/clamping position.





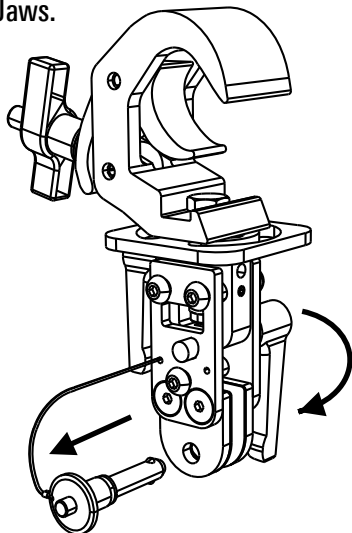
- Open and close the Rotation Fixing Lever to fix the desired rotational position of the Vari-Clamp and therefore the speaker/cluster. Lifting disengages the Rotation Fixing Lever and allows it to be turned in either directions to reach a more ideal tightening position. Engagement is achieved by releasing the handle.

3.4.2. Operating the Vari-Clamp & Quick Clamp: Speaker/Cluster Rigging

The following **Vari-Clamp & Quick Clamp** operation instructions are explained using a TX-2 loudspeaker. The rigging procedure of the Vari-Clamp & Quick Clamp in combination with a **T-Bracket** shown in this chapter is corresponding to the rigging procedure in combination with a **Cluster-Bracket** and always follows the same scheme. Please refer to Chapter 3.1 „Operating the „EPS“ Express Pin System“ & 3.2 „Operating the T-Bracket“ & 3.3 Operating the T-Bracket / Cluster-Bracket as well!

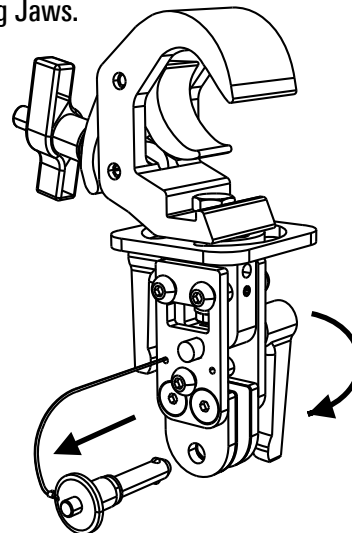
T-Bracket M (Mobile)

1. Take out the 10mm Pin by pushing the release button and turn the Adjustment Lever to open the Mounting Jaws.



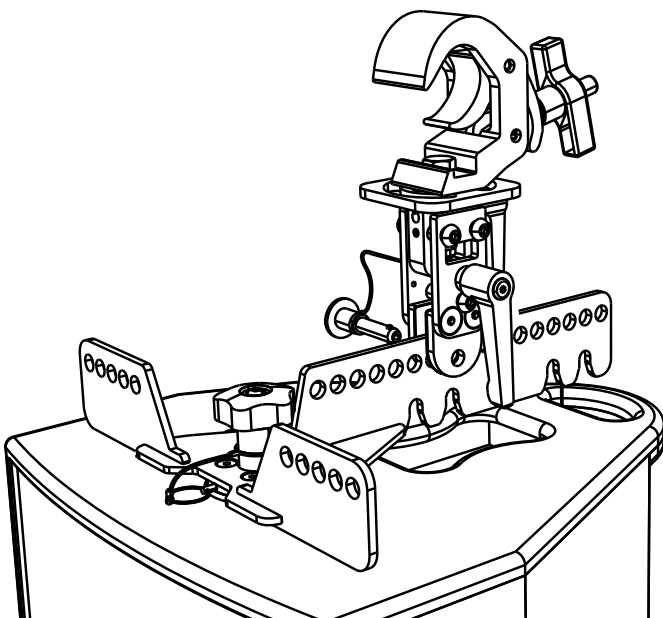
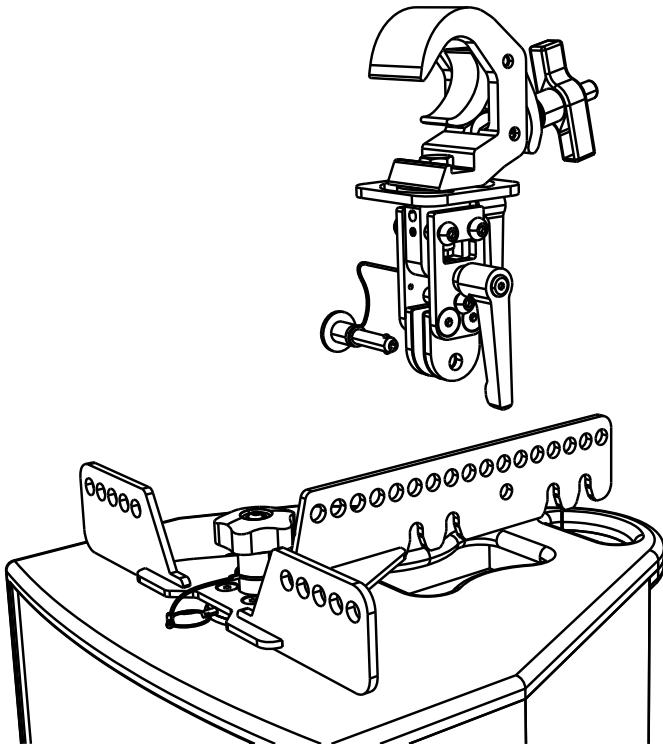
T-Bracket I (Installation)

1. Take out the 10mm Pin by pushing the release button and turn the Adjustment Lever to open the Mounting Jaws.



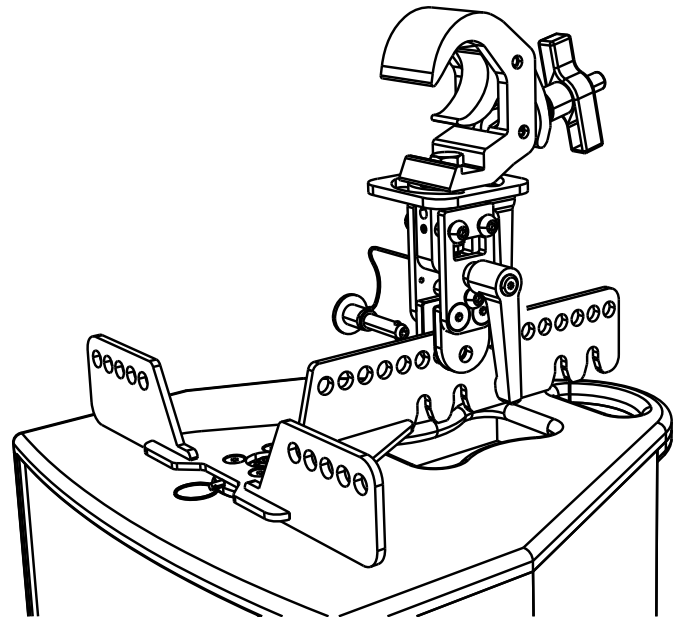
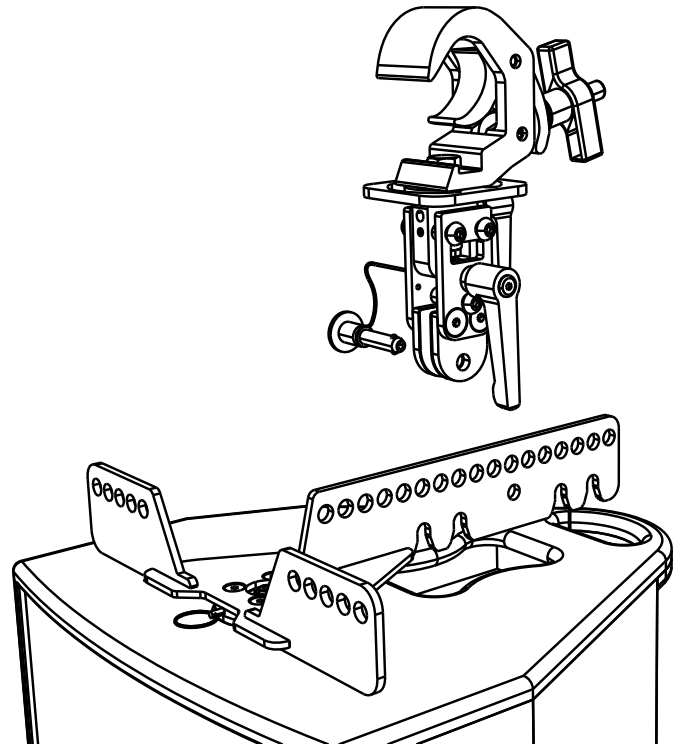
T-Bracket M (Mobile)

2. Open the Mounting Jaws wide enough to comfortably mount the corresponding bracket.



T-Bracket I (Installation)

2. Open the Mounting Jaws wide enough to comfortably mount the corresponding bracket.

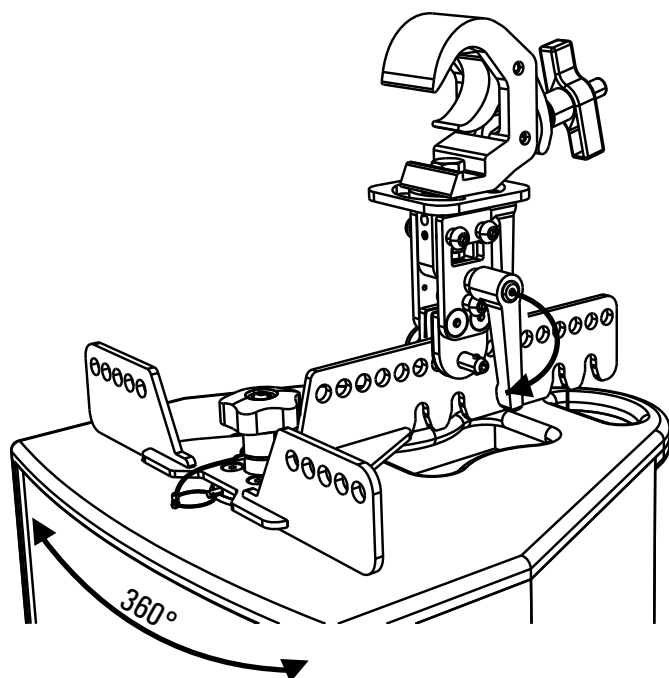
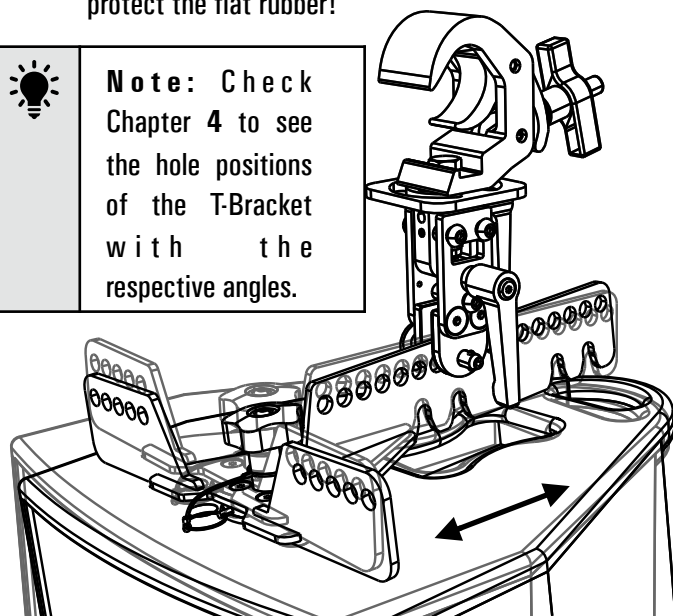


T-Bracket M (Mobile)

3. Reenter the 10mm Pin. By selecting different hole positions in the T-Bracket/Cluster-Bracket, the flown speaker/cluster can be tilted in certain steps and then be rotated by 360 degrees. Do **NOT** clamp the Mounting Jaws until the T-Bracket/Cluster-Bracket have reached their final angular position to protect the flat rubber!



Note: Check Chapter 4 to see the hole positions of the T-Bracket with the respective angles.

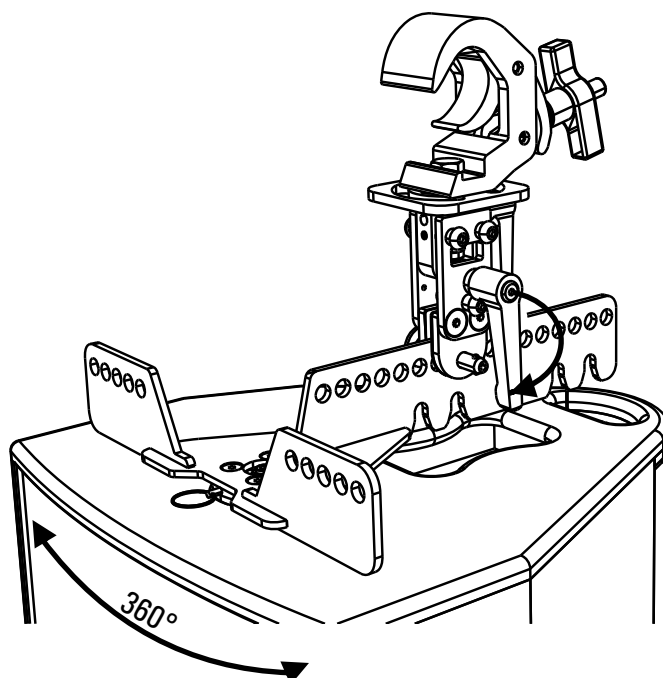
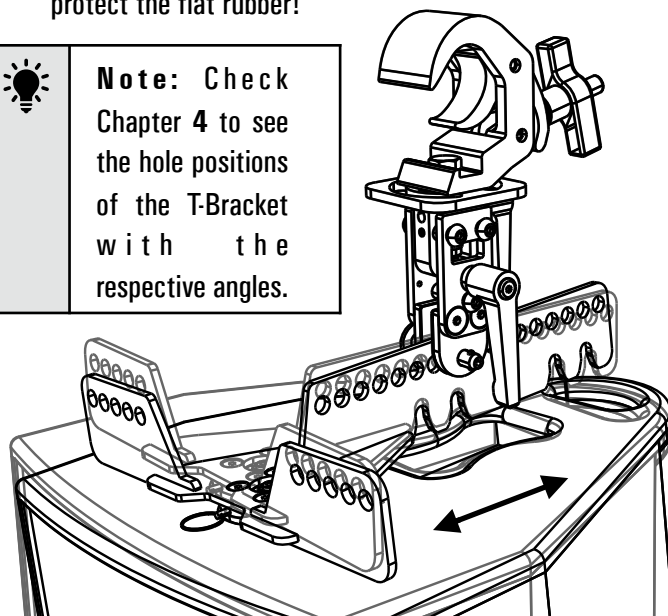


T-Bracket I (Installation)

3. Reenter the 10mm Pin. By selecting different hole positions in the T-Bracket/Cluster-Bracket, the flown speaker/cluster can be tilted in certain steps and then be rotated by 360 degrees. Do **NOT** clamp the Mounting Jaws until the T-Bracket/Cluster-Bracket have reached their final angular position to protect the flat rubber!



Note: Check Chapter 4 to see the hole positions of the T-Bracket with the respective angles.



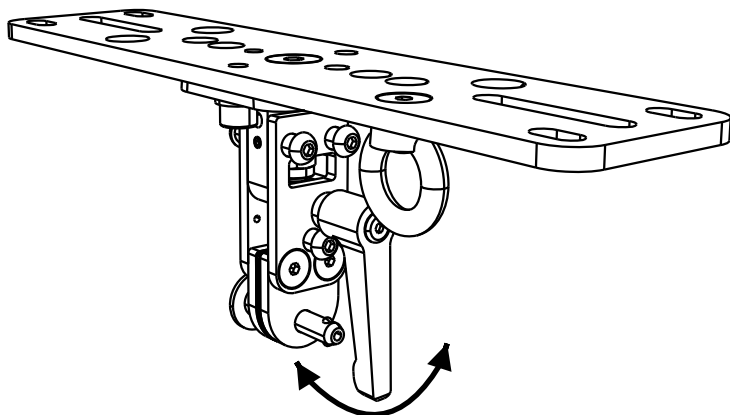
Danger: Always check the correct function of the 10mm Pin! Pull the 10mm-Pin to check if it is locked correctly and safely! Doublecheck in the case of any doubt!



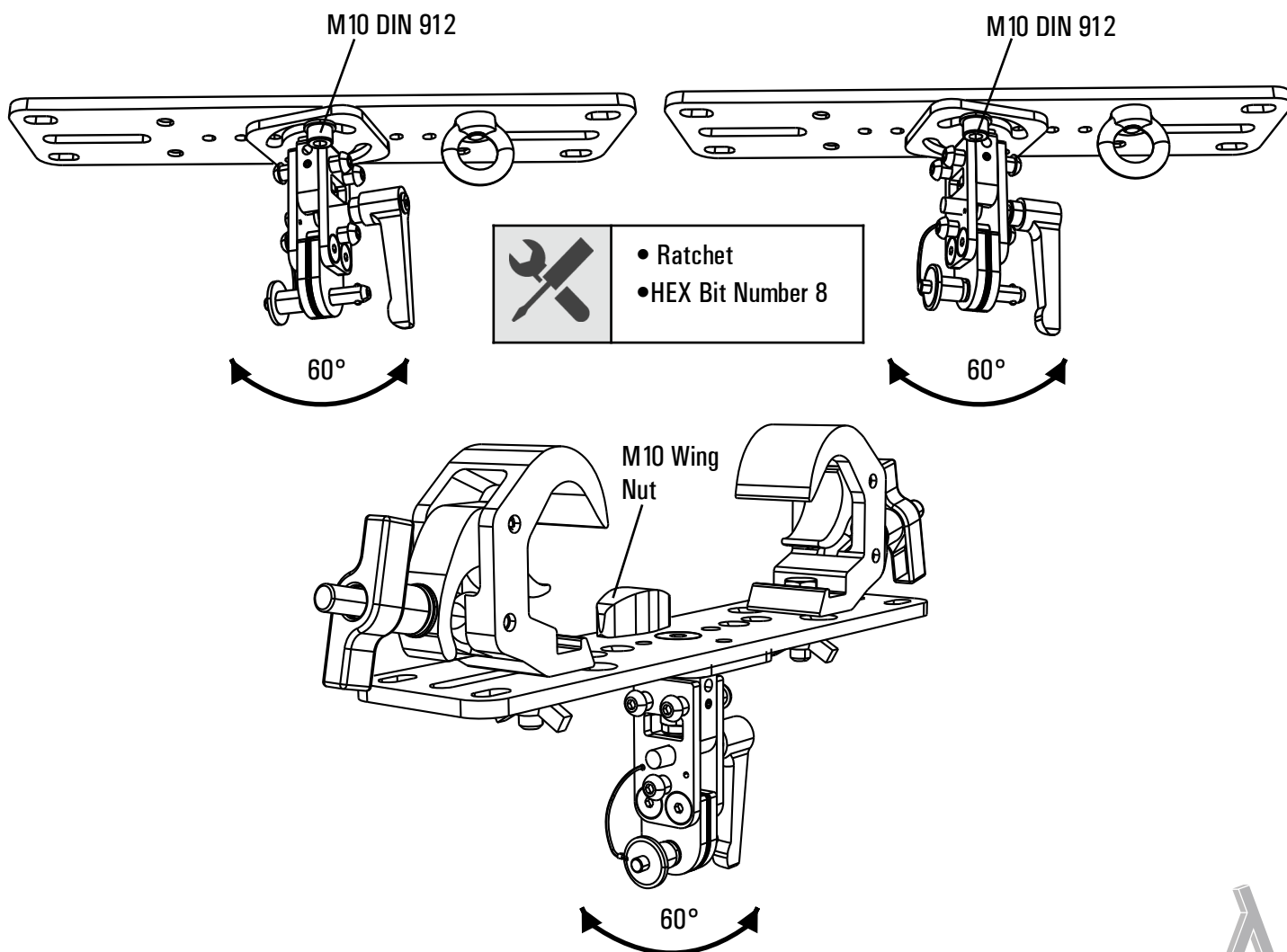


Caution: Do NOT clamp the Mounting Jaws until the T-Bracket/Cluster-Bracket have reached their final angular position to protect the flat rubber!

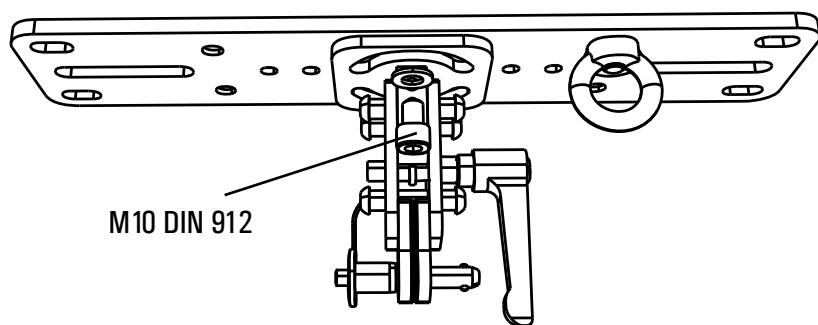
3.4.3. Operating the Vari-Clamp & Ceiling/Truss Adapter: General Function Principle



- Turn the Adjustment Lever to open and close the Receiving Jaws of the Vari-Clamp to adapt the possible fixture distance. In addition, the jaws obtain a clamping function when closing them to set the speaker's rotational direction accurately. Lifting disengages the Adjustment Lever and allows it to be turned in either directions to reach a more ideal turning/clamping position.
- Open and close the M10 DIN 912 Screw or the M10 Wing Nut to fix the Rotation Plate and therefore the desired rotational position of the loudspeaker/cluster.



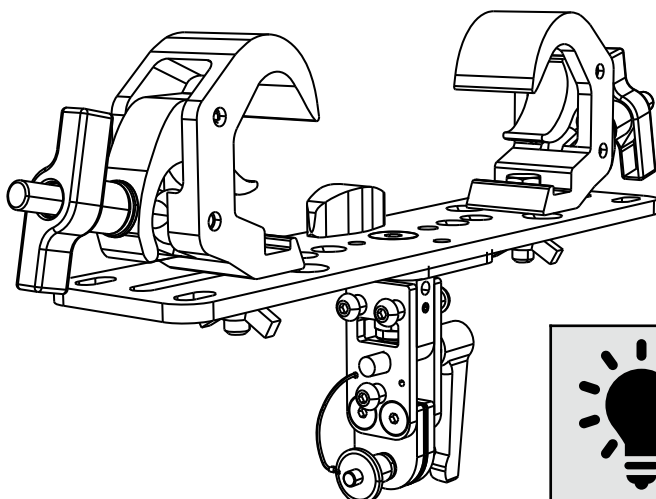
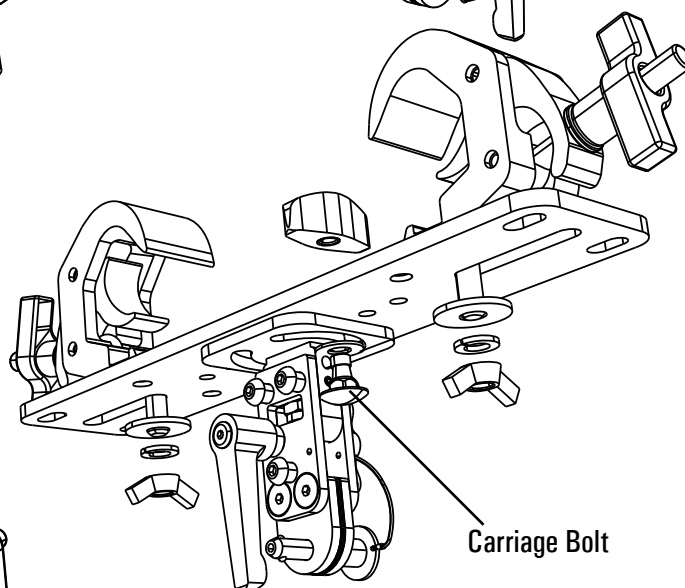
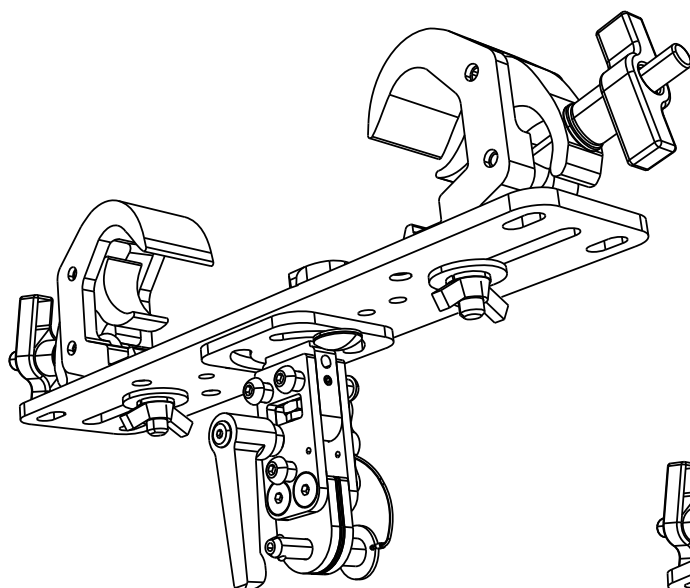
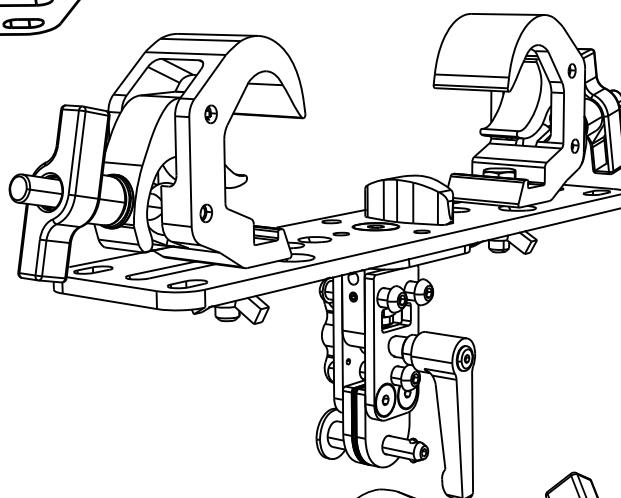
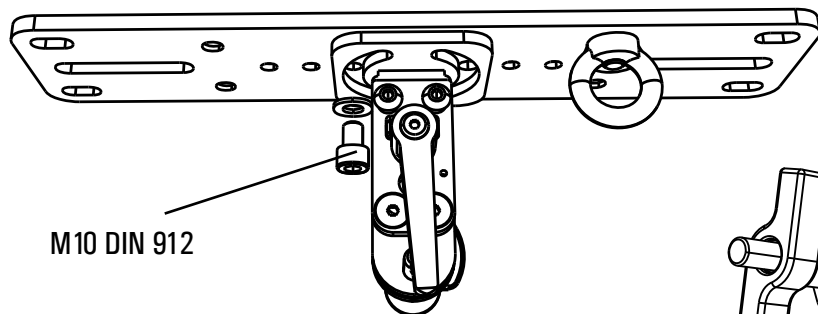
3.4.4. Operating the Vari-Clamp & Ceiling/Truss Adapter: Changing Mounting Direction



- Remove the M10 DIN 912 / M10 Wing Nut & Carriage Bolt and turn the Vari-Clamp by 90 degrees. Then reinsert the screw.



- Ratchet
- HEX Bit Number 8





Note: Order the mentioned items above as a Truss Adapter/Quick Trigger Mounting Set. Only use Lambda Labs original and approved items!



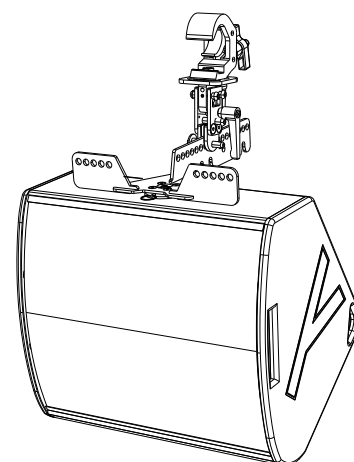
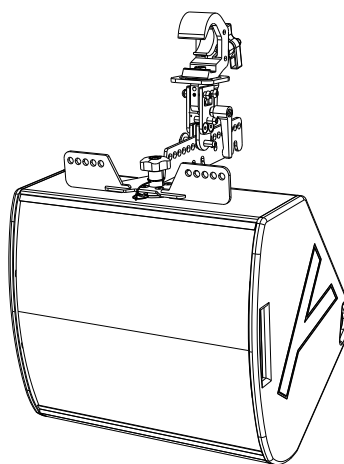
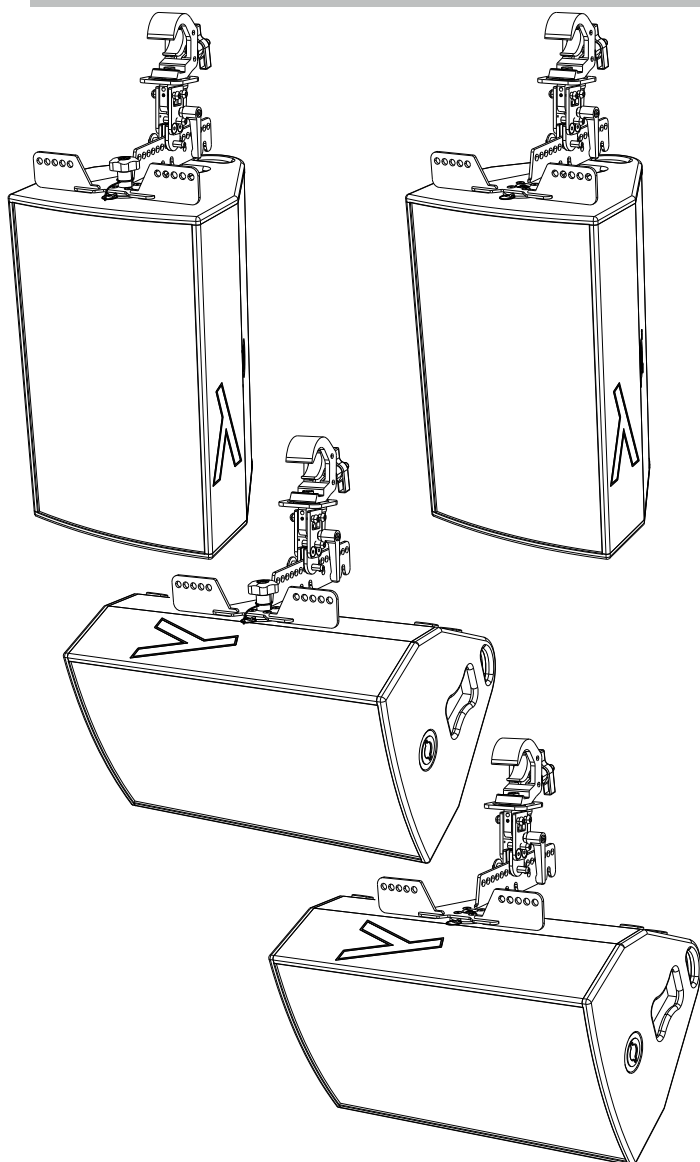
3.4.5. Operating the Vari-Clamp & Ceiling/Truss Adapter: Speaker/Cluster Rigging

Please refer to Chapter 3.4.2. Please refer to Chapter 3.1 „Operating the „EPS“ Express Pin System“ & 3.2 „Operating the T-Bracket“ & 3.3 Operating the T-Bracket / Cluster-Bracket as well!

	<p>Danger: Always check the correct function of the 10mm Pin! Pull the 10mm-Pin to check if it is locked correctly and safely! Doublecheck in the case of any doubt!</p>
	<p>Caution: Do NOT clamp the Mounting Jaws until the T-Bracket/Cluster-Bracket have reached their final angular position to protect the flat rubber!</p>

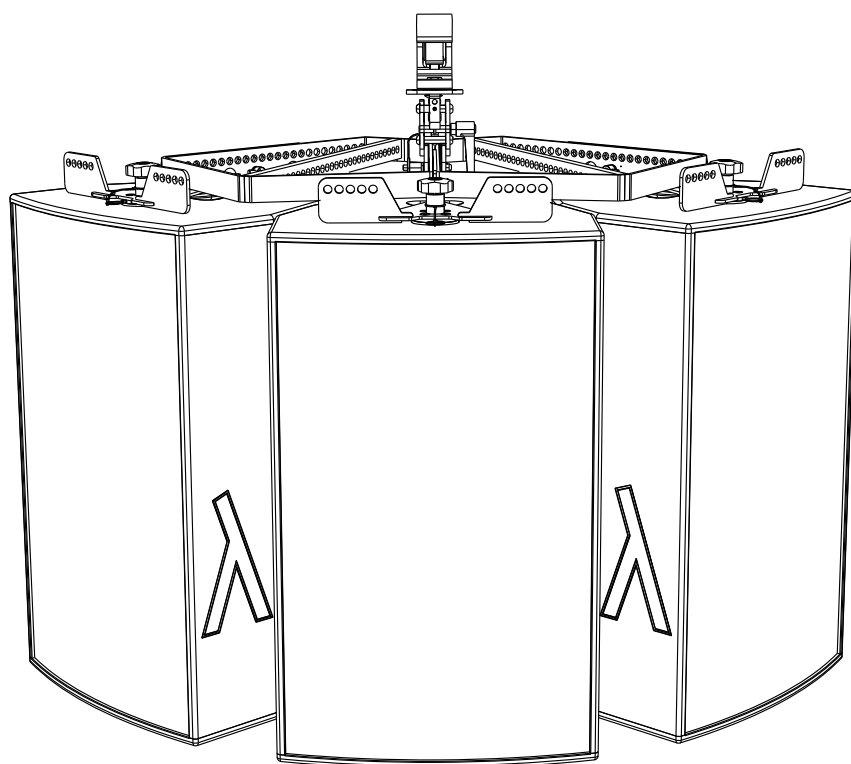
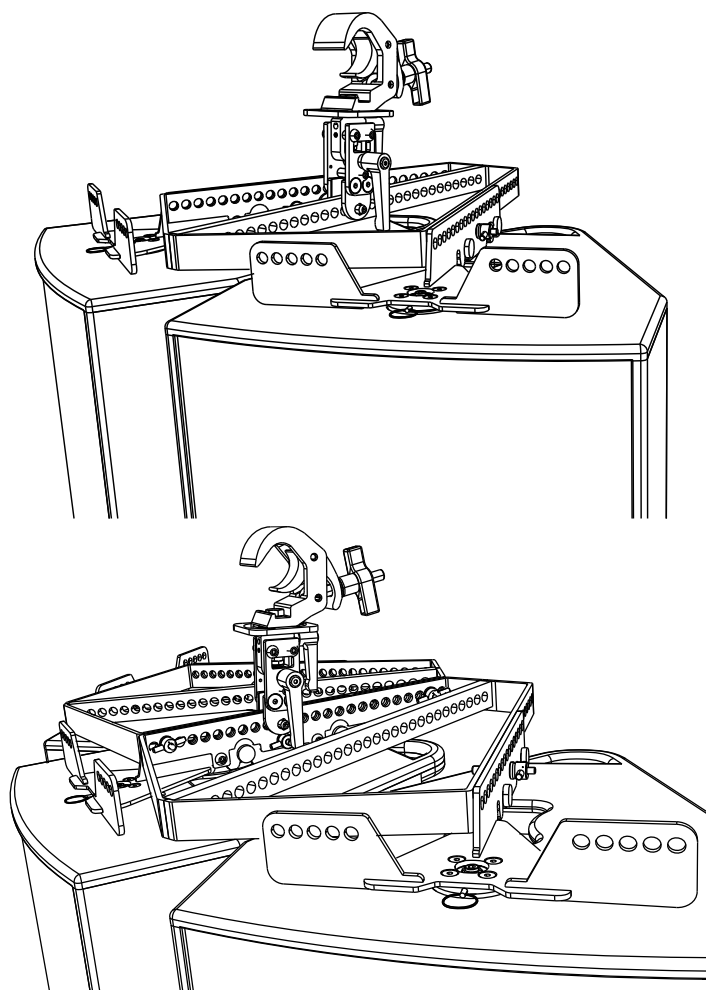
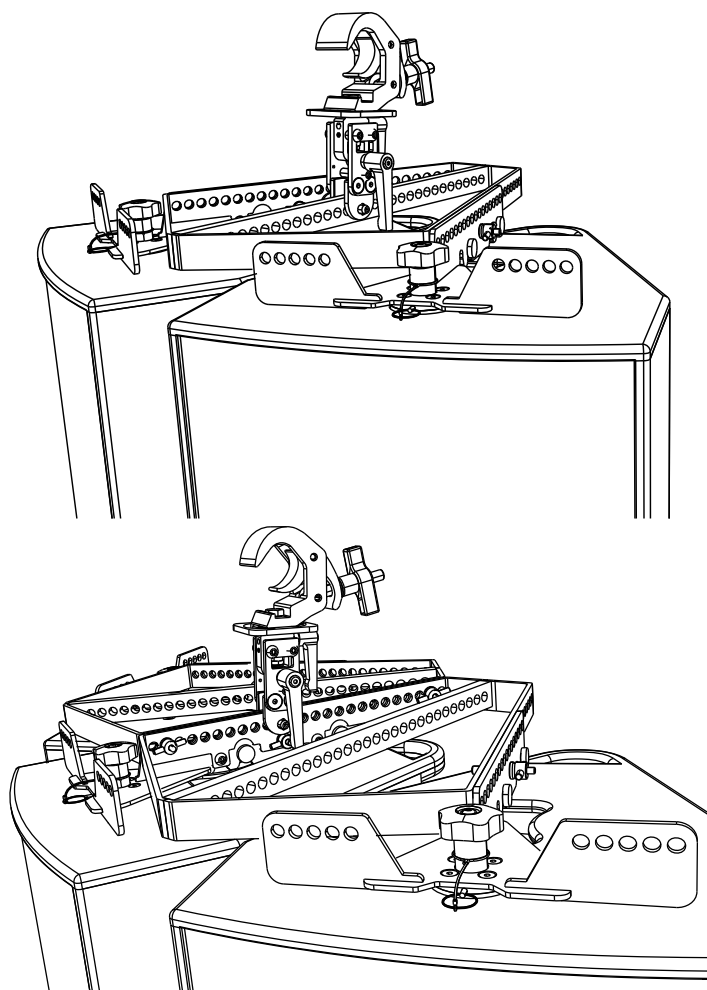
3.4.6. T-Bracket/Cluster Bracket Rigging Options with Vari-Clamp

T-Bracket M (Mobile)	T-Bracket I (Installation)	T-Bracket M (Mobile)	T-Bracket I (Installation)
TX-Series		CX-Series	



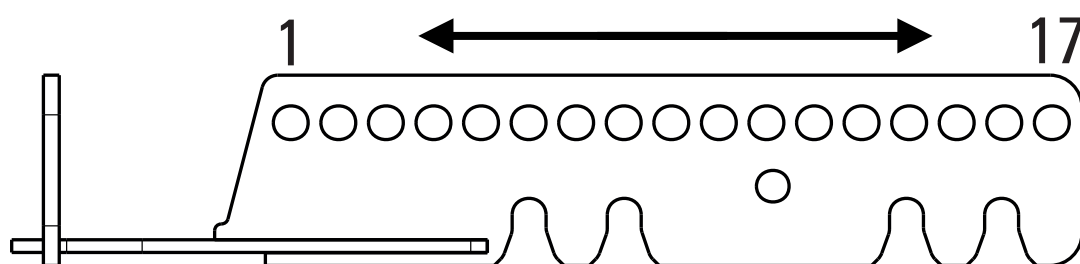
Cluster-Bracket with T-Bracket M (Mobile)

Cluster-Bracket with T-Bracket I (Installation)



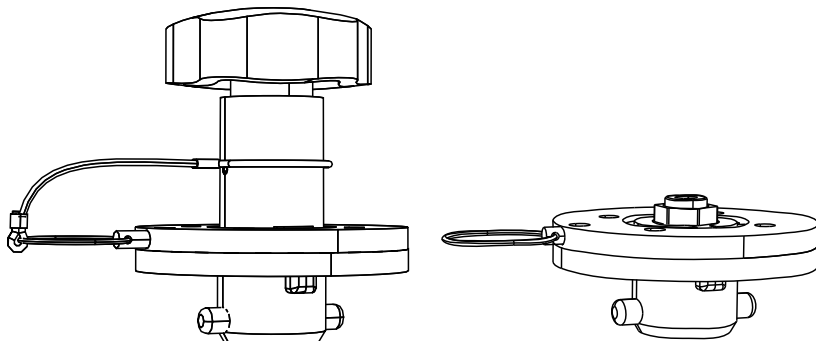
4. T-Bracket Angle Table

Hole Position	TX-1A (vertical)	TX-2A (vertical)	TX-3A (vertical)	CX-1A	CX-2A	CX-3A
1	0,0°	-1,0°	-4,5°	6,5°	1,3°	-3,1°
2	3,6°	2,1°	-2,3°	11,8°	4,9°	0,6°
3	5,6°	4,8°	-0,3°	16,4°	7,9°	2,3°
4	8,9°	6,8°	1,8°	21,3°	11,7°	5,5°
5	11,9°	9,9°	3,8°	26,2°	15,3°	8,4°
6	14,8°	12,5°	5,3°	30,4°	18,7°	11,4°
7	17,7°	15,6°	7,4°	34,0°	21,6°	14,1°
8	21,1°	17,6°	9,7°	37,7°	25,0°	17,0°
9	23,6°	20,5°	11,6°	40,7°	27,9°	19,6°
10	26,5°	22,7°	13,7°	43,7°	30,7°	22,2°
11	28,6°	25,0°	15,8°	45,8°	33,0°	24,6°
12	31,0°	27,6°	17,4°	48,9°	35,8°	26,9°
13	33,4°	29,7°	19,3°	51,3°	37,6°	29,3°
14	35,2°	31,0°	21,2°	52,9°	39,9°	31,3°
15	37,0°	33,3°	22,9°	55,3°	41,6°	33,4°
16	38,4°	35,0°	24,4°	55,5°	43,6°	53,3°
17	40,2°	37,0°	26,2°	55,9°	45,3°	37,2°

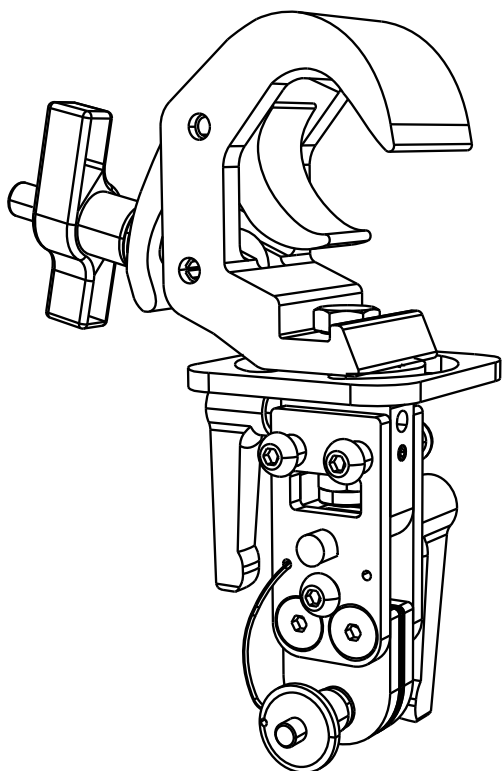


5. Maintenance

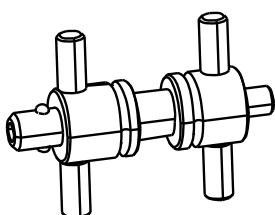
In order to keep selected parts of the T-Bracket System in a good condition and to preserve its deep black colour, follow the description for performing maintenance below from time to time or after long and intense use. Repeat these steps more often when installed in a salty environment like sea shores:



- Clean and protect ALL metal parts of the EPS with WD 40 and/or Rolimeco 1. For salty environments, Rolimeco 5. is recommended. **Do not use ANY other cleaning supplies on these areas!**



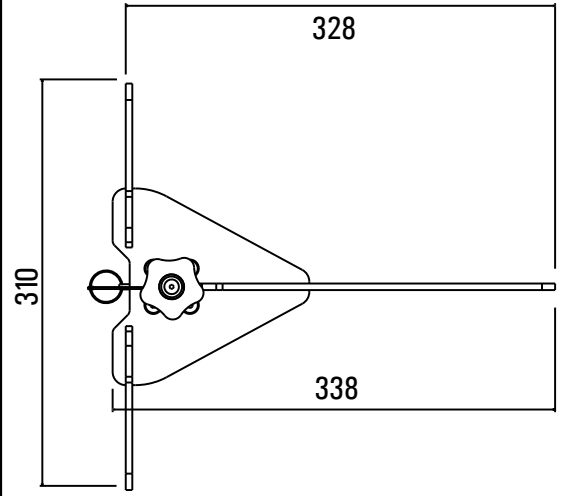
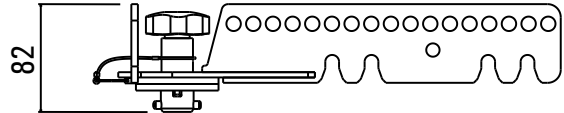
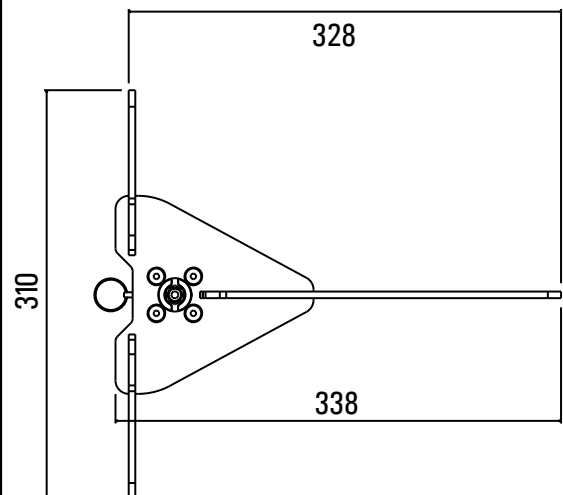
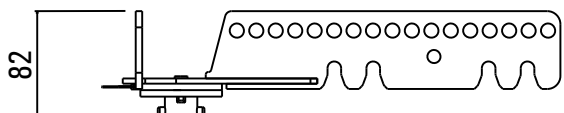
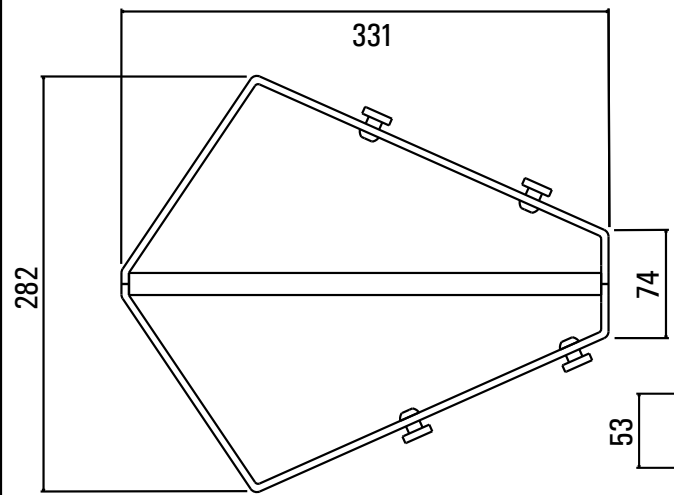
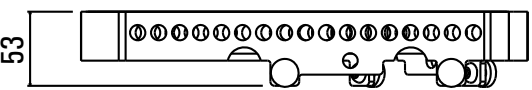
- Clean and protect ALL not painted parts of the Vari-Clamp with WD 40 and/or Rolimeco 1. For salty environments, Rolimeco 5. is recommended. **Do not use ANY other cleaning supplies on these areas!**



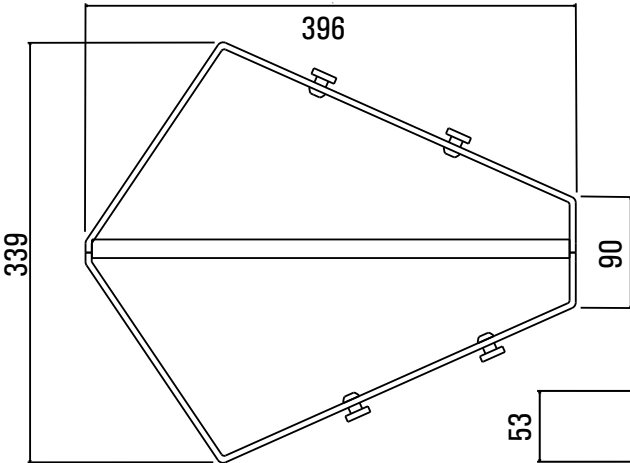
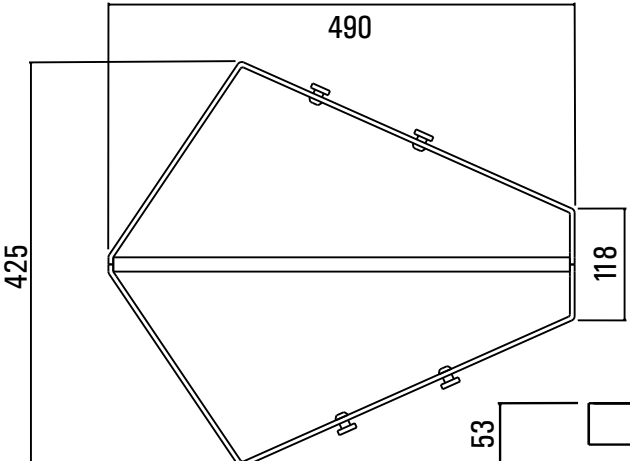
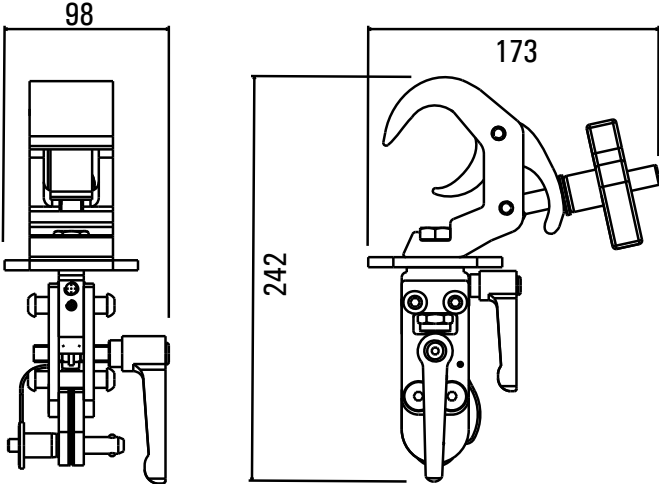
- Clean and protect the whole Combi Cluster Pin with WD 40 and/or Rolimeco 1. For salty environments, Rolimeco 5. is recommended. **Do not use ANY other cleaning supplies on these areas!**



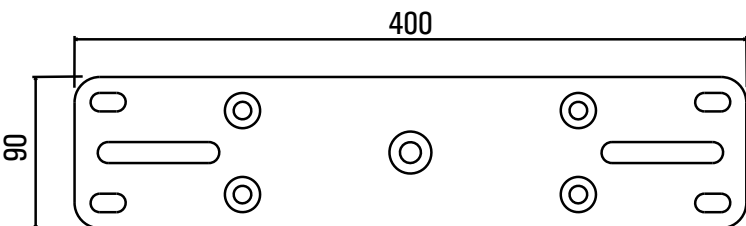
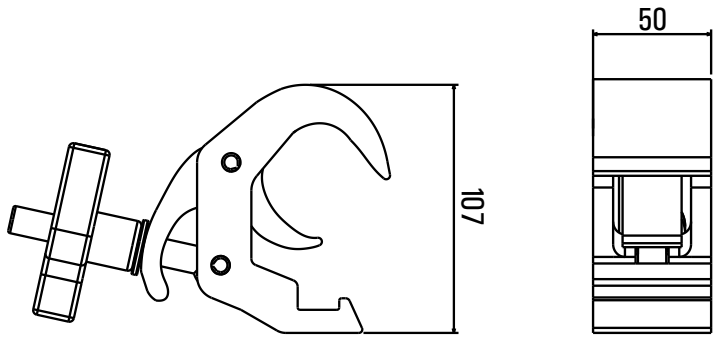
6. Dimensions

Dimensions (mm)		Weight
	<p>T-Bracket M</p> 	1,7 kg / 3,8 lbs
	<p>T-Bracket I</p> 	1,6 kg / 3,5 lbs
	<p>Cluster-Bracket TX-1</p> 	2,3 kg / 5 lbs



Dimensions (mm)		Weight
 <p>Cluster-Bracket TX-2</p>		2,65 kg / 5,8 lbs
 <p>Cluster-Bracket TX-3</p>		3,3 kg / 7,3 lbs
 <p>Vari Clamp & Quick Clamp</p>		1,6 kg / 3,5 lbs



Dimensions (mm)		Weight
<div><p>400</p><p>90</p><p>Thickness: 8mm</p><p>Ceiling / Truss Adapter</p></div>		2,0 kg / 4,4 lbs
<div><p>107</p><p>50</p><p>Quick Trigger Clamp Pipe Diameter: 38-51mm</p></div>		0,8 kg / 1,8 lbs

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7. Drilling Template Ceiling/Truss Adapter

