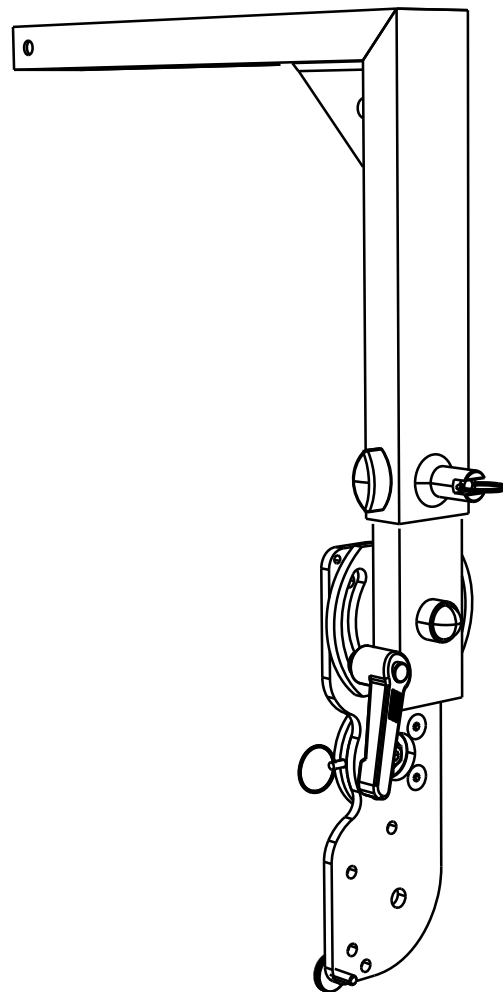
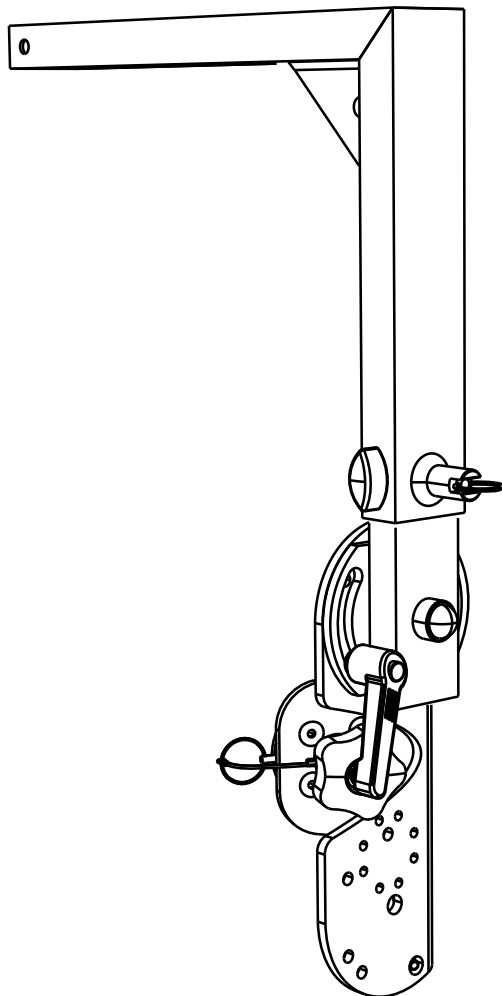


Half-Bracket Rigging System Manual



Version 1.2

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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 speakers 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 Half-Bracket Rigging System!</p> <p>As the Lambda Labs loudspeakers can be flown in various ways with the Half-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 Half-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 7 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 speaker 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 7 „Maintenance“. If any damage or failure of the Half-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 Half-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“
Half-Bracket

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, which appears to read 'Steffen Kroschel', is written over a horizontal line.

Steffen Kroschel, Chief Technology Officer (CTO)



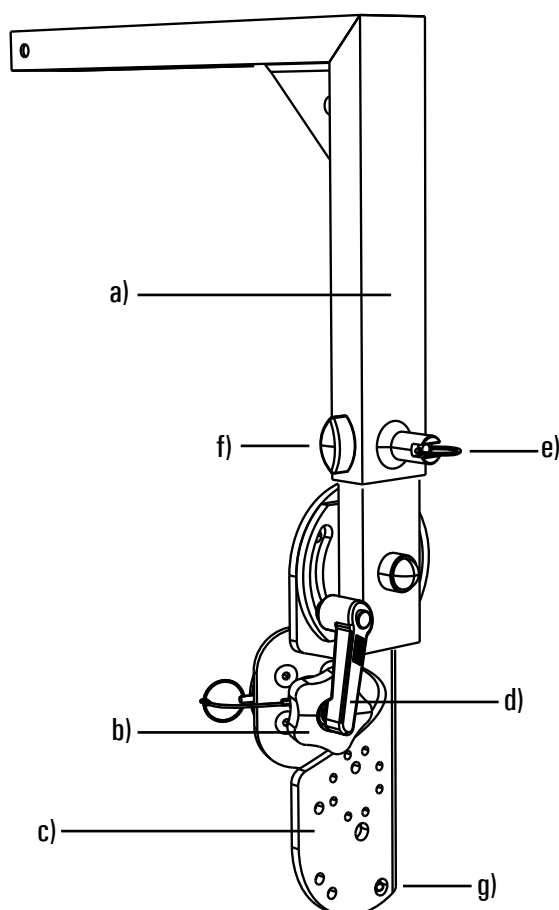
2. Half-Bracket Rigging System: Rigging components

The rigging component **Half-Bracket** can be used with all loudspeakers from the TX- or CX Series. Because of a wide range of possible rigging configurations the Half-Bracket Rigging System can provide, the number and types of required rigging components can vary as well. The following chart shows the main rigging components. This is an introduction to make you familiar with the components and their functions.

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

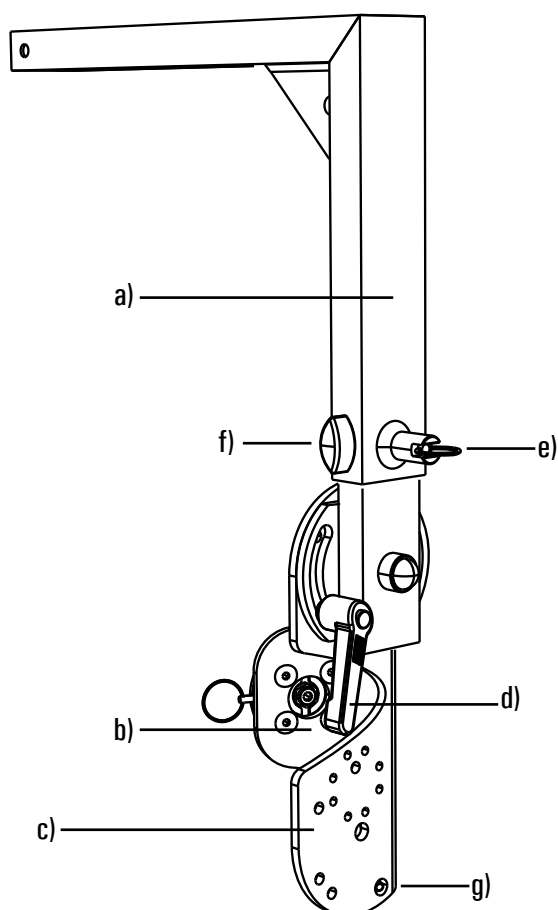
The Half-Bracket is the key element of the Half-Bracket Rigging System. It can be used with every loudspeakers from the TX- and CX Series using the corresponding TX- and CX version respectively. For both versions, it provides vertical rigging options with the additional opportunity to mount the loudspeaker upside down. To make the Half-Bracket fit to every loudspeaker of the TX- and CX Series, its length can be adjusted. The load transfer takes place via the integrated **„EPS“ Express Pin System**. The Half-Bracket can be either connected to a Quick Trigger Clamp or to the **Ceiling/Truss Adapter**. By using the Half-Bracket, the flown speaker can be continuously tilted and rotated by 360 degrees. The Half-Bracket is suitable for both rental environment and for fixed installations.

2.1 Figure 1: Half-Bracket TX Mobile (M)



(Delivery State)

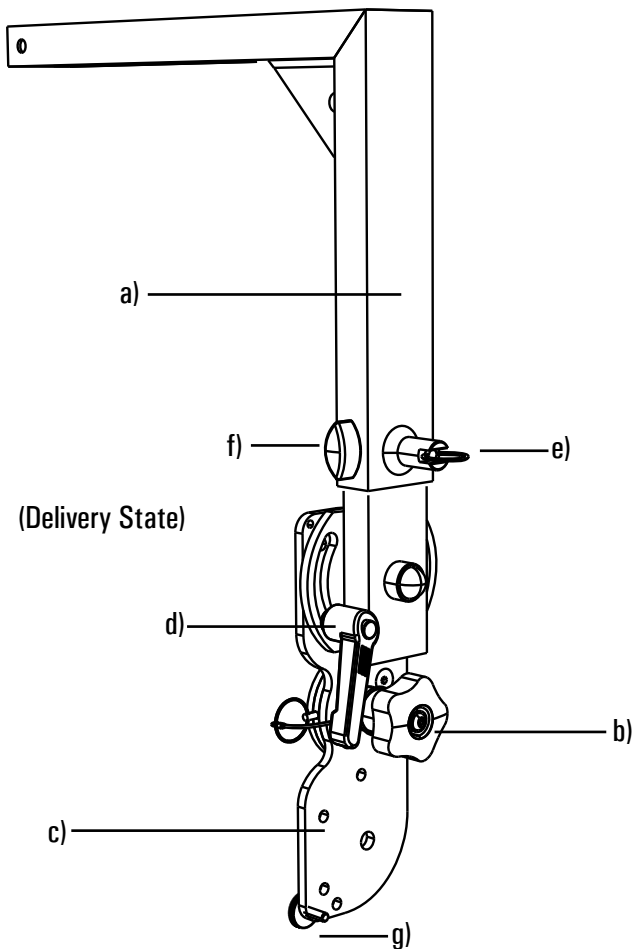
2.1 Figure 2: Half-Bracket TX Installation (I)



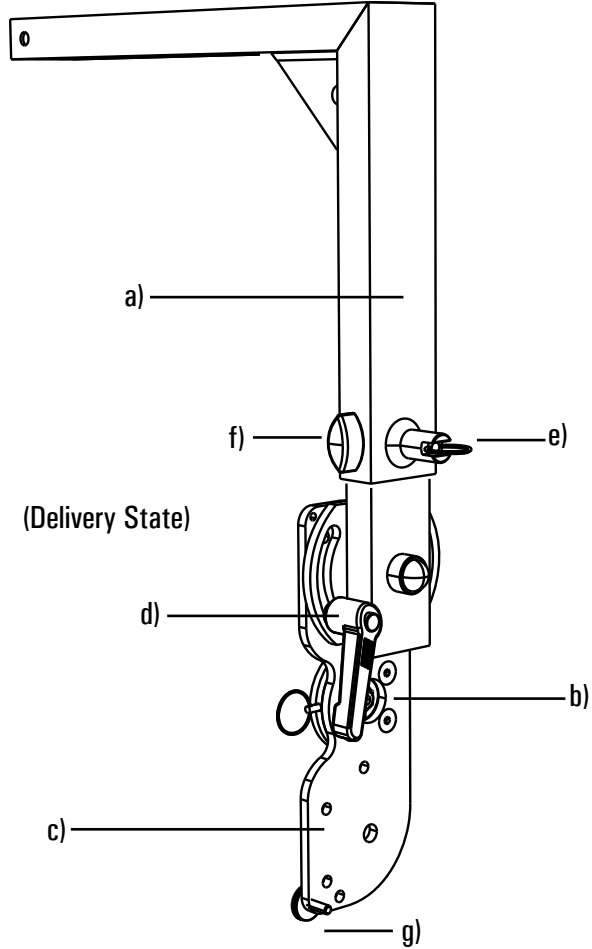
(Delivery State)



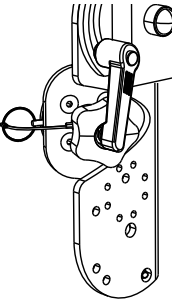
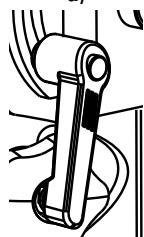
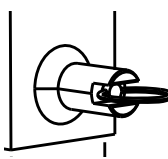
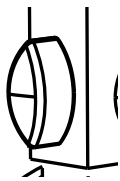
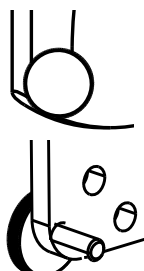
2.1 Figure 3: Half-Bracket CX Mobile (M)



2.1 Figure 4: Half-Bracket CX Installation (I)



PART	DESCRIPTION of 2.1 Figure 1 & 2 & 3 & 4	REFERENCE
a)	<p>Half-Bracket Main Structure</p> <p>The Half-Bracket is the key element of the Half-Bracket Rigging System. Using the Half-Bracket, the following Lambda Labs speakers can be flown:</p> <ul style="list-style-type: none">• Half Bracket TX: TX-1A, TX-2A, TX-3A• Half-Bracket CX: CX-1A, CX-2A, CX-3A <p>The weight of the Half-Bracket TX is 2.8 kg (I) and 2.7kg (M) including all components.</p> <p>The weight of the Half-Bracket CX is 2.4 kg (I) and 2.5kg (M) including all components.</p>	Chapter 3 & 4 & 5 & 6
b)	<p>„EPS“ Express Pin System</p> <p>The Half-Bracket TX/CX is preassembled and is available with 2 versions of the Lambda Labs EPS System:</p> <p>M (Mobile) and I (Installation) Version</p> <p>The EPS enables a fast, safe and optionally backlash free connection at the EPS Rigging Point of the respective loudspeaker.</p> <p>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.</p> <p>The EPS Installation (I) version provides additional tamper-proof properties to protect the components from unauthorized access and needs additional tools to operate.</p>	Chapter 2.1.1 Chapter 3.1 & 3 & 4 & 5 & 6

PART	DESCRIPTION of 2.1 Figure 1 & 2 & 3 & 4	REFERENCE
<p>c)</p> 	<p>Tilting Plate</p> <p>The Tilt Plate on which the speaker is connected via the EPS moves the loudspeaker up or down. The maximum possible tilt angle for all TX/CX speakers in combination with the Half-Bracket is 65°. By shifting the Tilting Fixing Lever, the maximum angle can be extended to 130°. Once the desired angle has been set, the tilt plate is fixed with the Tilting Fixing Lever.</p>	<p>Chapter 3 & 4 & 5 & 6</p>
<p>d)</p> 	<p>Tilting Fixing Lever</p> <p>The Tilting Fixing Lever fixes the desired angle as soon as it has been set with the Tilting Plate. Lifting disengages the Tilting 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.</p>	<p>Chapter 3 & 4 & 5 & 6</p>
<p>e)</p> 	<p>Pull-Pin</p> <p>By pulling out the Pull-Pin the Half-Bracket can be telescoped and therefore adjusted in its length. Once the desired length has been reached, release the Pull-Pin to automatically snapping back into one of the locking holes. The Pull-Pin can remain in the open position by turning it 90 degrees. The Half-Bracket can be extended in 20mm steps, using the various hole positions. The maximum extension is 140mm.</p>	<p>Chapter 3 & 4 & 5 & 6</p>
<p>f)</p> 	<p>Tightening Nut</p> <p>To fix the extension of the Half-Bracket vibration-free, the Tightening Nut can be tightened firmly. Besides, the Tightening Nut acts as an additional safety feature.</p>	<p>Chapter 3 & 4 & 5 & 6</p>
<p>g)</p> 	<p>Support Bolt</p> <p>By turning and approaching the supporting bolt to the outer wall of the cabinet, the loudspeaker is additionally stabilized and can also be precisely aligned.</p>	<p>Chapter 3 & 4 & 5 & 6</p>

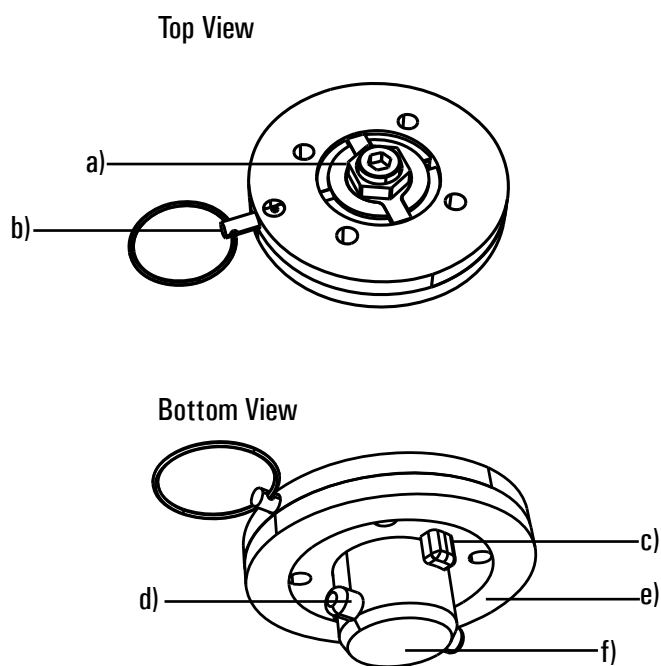
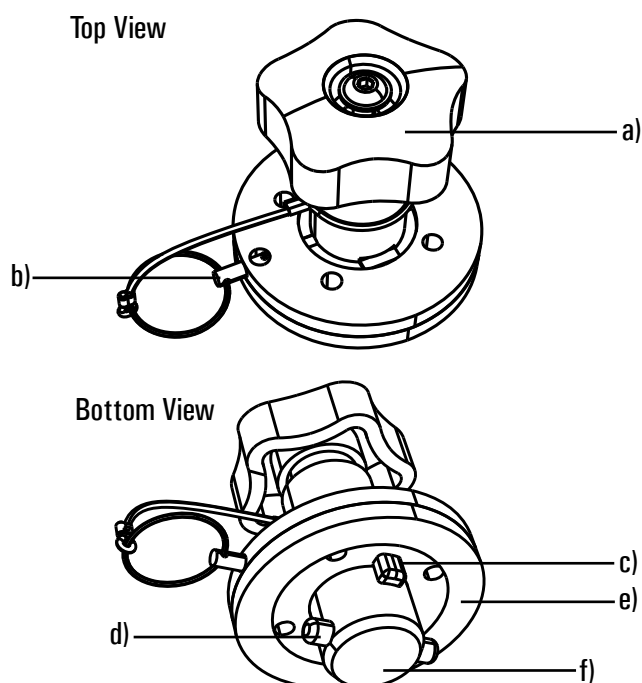


2.1.1. Introducing „EPS“ Express Pin System

The **Express Pin System „EPS“** is a preassembled key element to attach all external Lambda Labs rigging equipment like **Half-Bracket**, **T-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



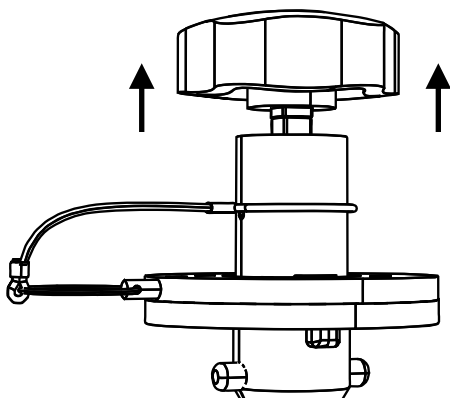
3. Operating the Half-Bracket Rigging System

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 **Half-Bracket** to better demonstrate the functions and the correct way of use. The rigging procedure of Half-Bracket with the preassembled „EPS“ is corresponding to these instructions and always follows the same scheme.

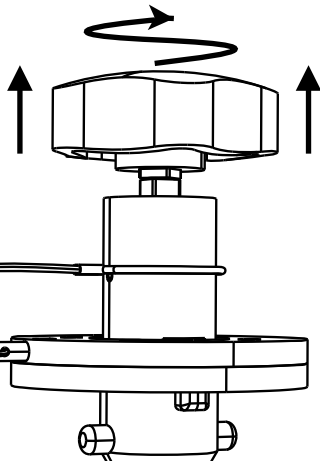
Express Pin System Mobile M

1. In addition to the fast and safe EPS connection from the Half-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 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 position. **STOP** turning immediately when reaching the end position and do **NOT** overturn the end position by force!

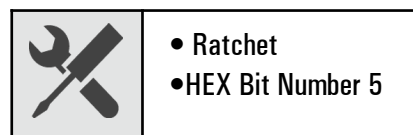
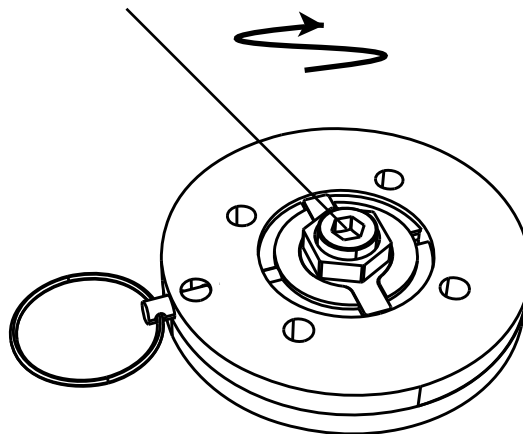
STOP!



Express Pin System Installation I

1. In addition to the fast and safe EPS connection from the Half-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 you want to check it, take a ratchet with 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



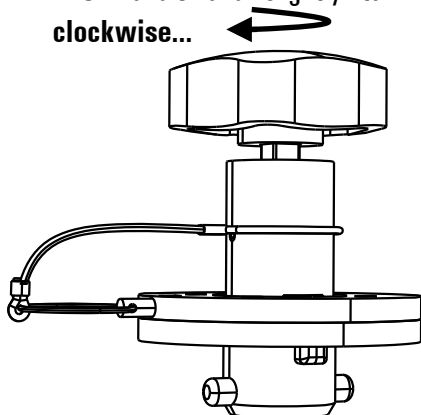
Caution: STOP the turning the EPS Handle immediately when reaching its end position and do **NOT** overturn by force!



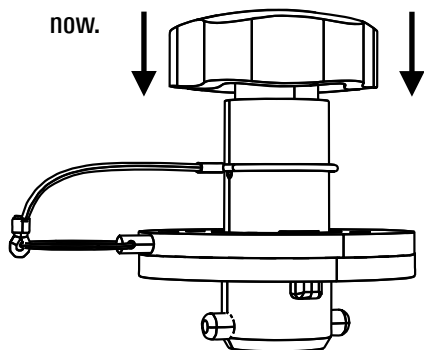
Express Pin System Mobile M

Express Pin System Installation I

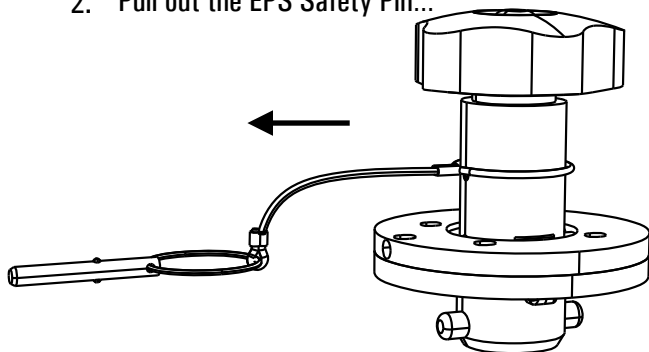
When the end position is reached, stop lifting the EPS Handle and slightly turn the EPS Handle clockwise...



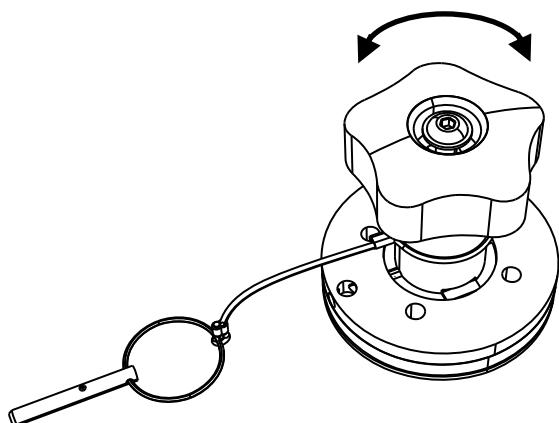
...until it snaps back into the EPS Express Pin's square extension. The EPS is in a released state now.



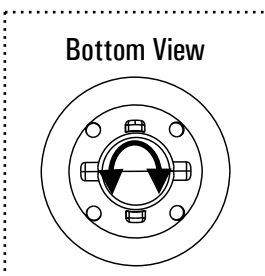
2. Pull out the EPS Safety Pin...



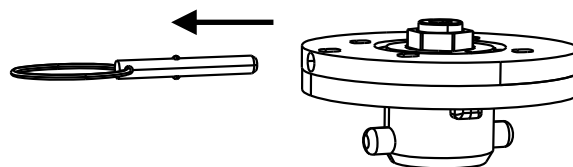
...and turn the EPS Express Pin on the EPS Handle...



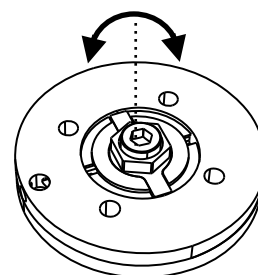
Bottom View



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...

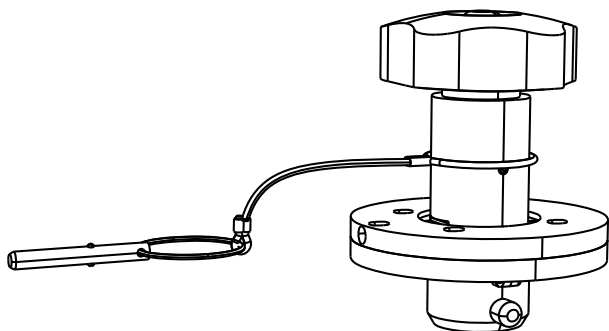


• 14mm Socket Wrench

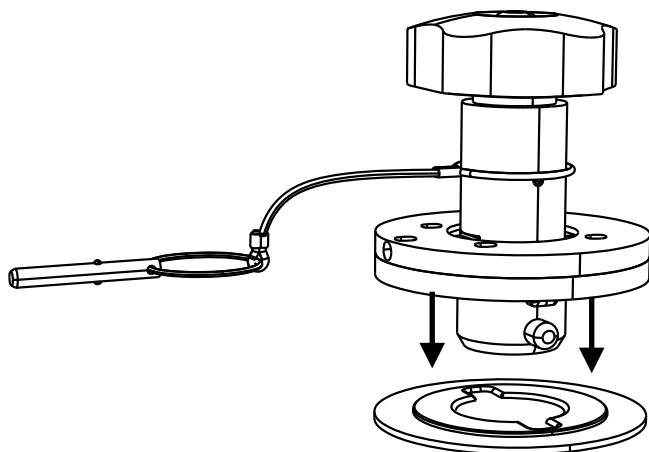


Express Pin System Mobile M

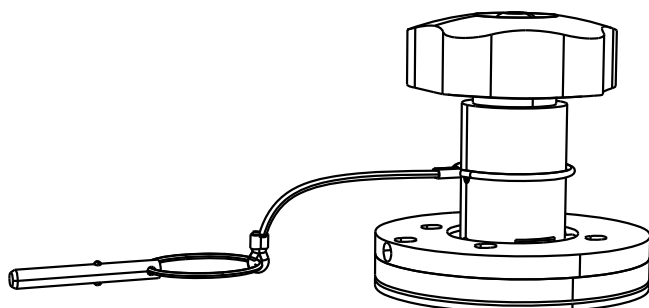
...until the EPS Lock Pin has the same position as the EPS Lock Studs. Alternatively, turn the EPS Express with your fingers.



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.



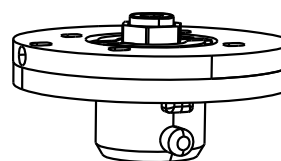
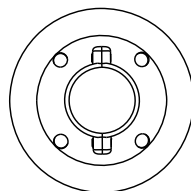
Push it down until the EPS Express Pin is inserted completely.



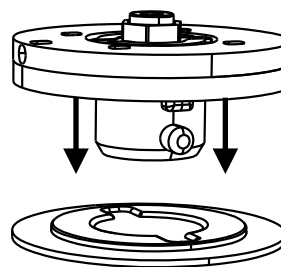
Express Pin System Installation I

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

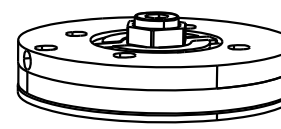
Bottom View



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.

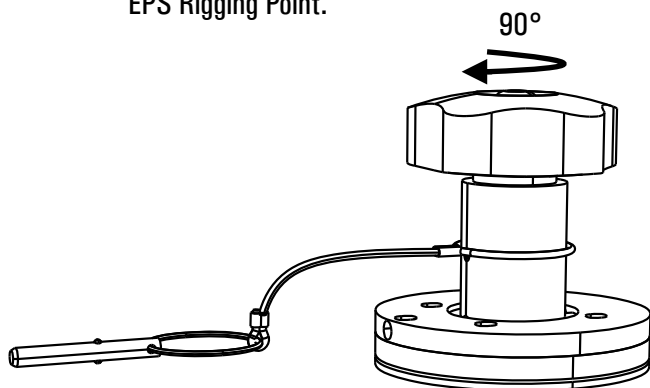


Push it down until the EPS Express Pin is inserted completely.

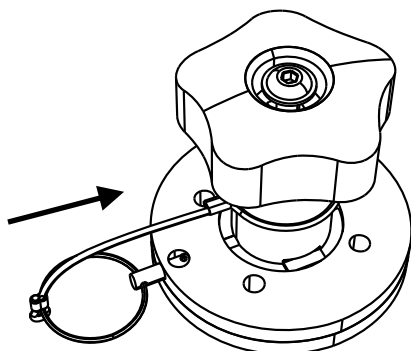


Express Pin System Mobile M

- 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.

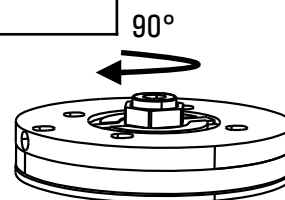


Express Pin System Installation I

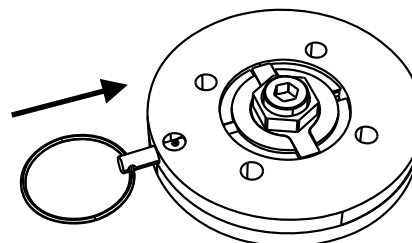
- When the EPS Express Pin is fully inserted, turn the EPS Socket Adapter with a 14mm Socket Wrench **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point.



• 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.



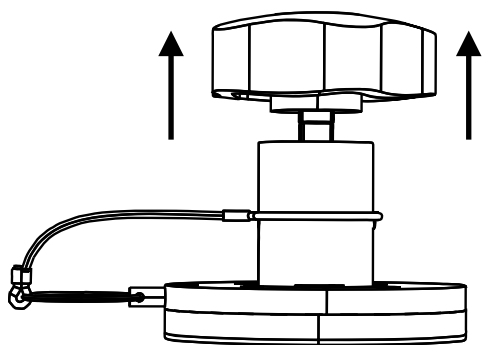
Danger: Always check the correct function of the EPS Safety Pin! Although the EPS Rigging Point is equipped with an additional unlocking safety mechanism inside, never forget to use the EPS Safety Pin! Doublecheck in the case of any doubt!

- 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...

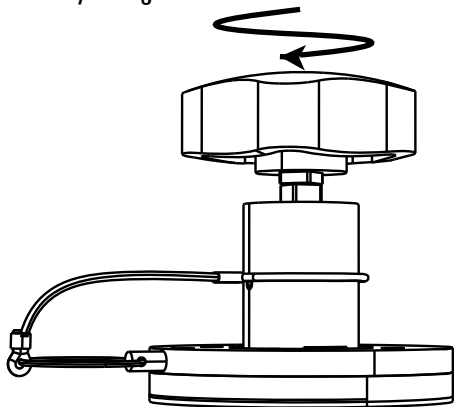
- Optionally, the connection between the EPS and the EPS Rigging Point can be tightened without backlash. To achieve this, the distance between the EPS Lock Pins and the inside of the EPS Rigging Point by tightening the M6 DIN 912 screw. To do this, use a ratchet with a HEX BIT Number 5 (Wrench Size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



Express Pin System Mobile M



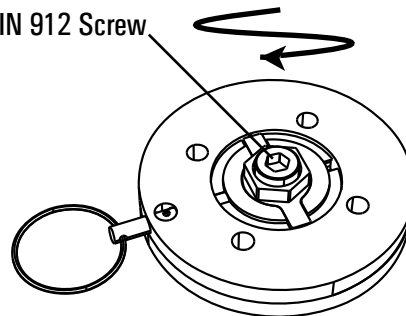
...when the EPS Handle is pulled up completely, keep pulling and turn the EPS Handle **clockwise** until you feel increasing the resistance. It is not necessary to tight it with full force.



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!

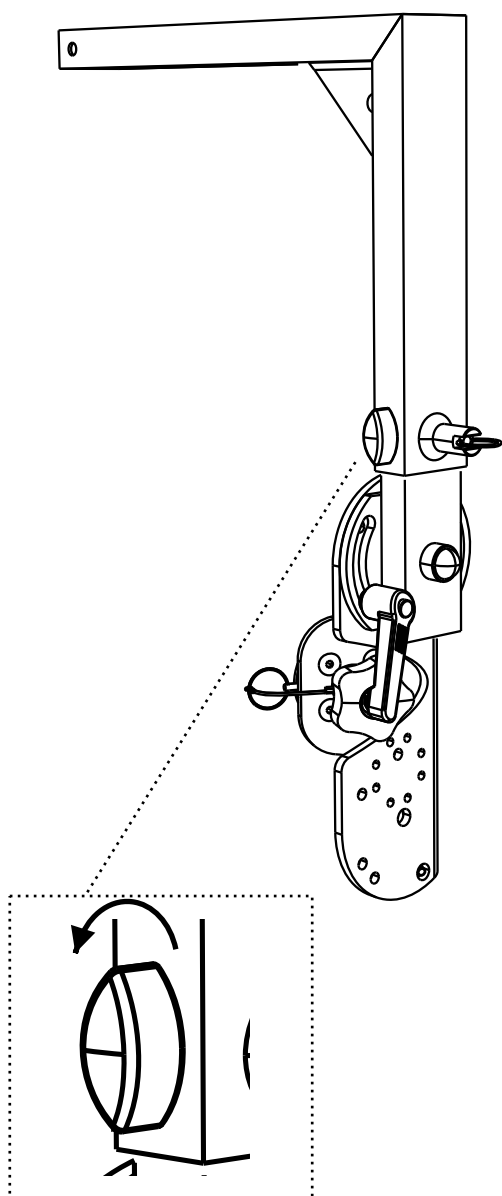


3.2. Operating the Half-Bracket TX

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

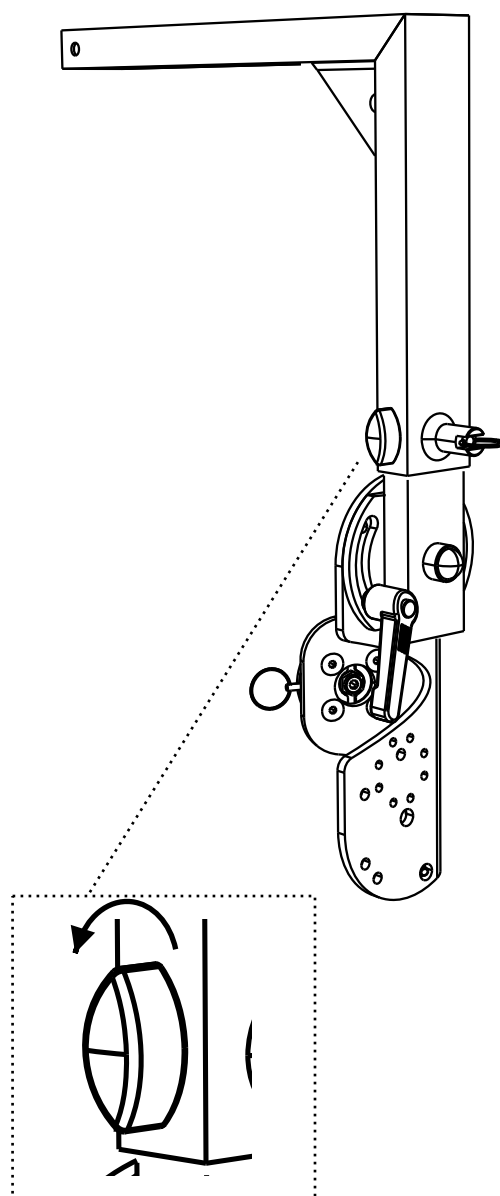
Half-Bracket TX M (Mobile)

1. Take the Half-Bracket and first turn the Tightening Nut **counterclockwise** to release the telescopic extension of the Half-Bracket.



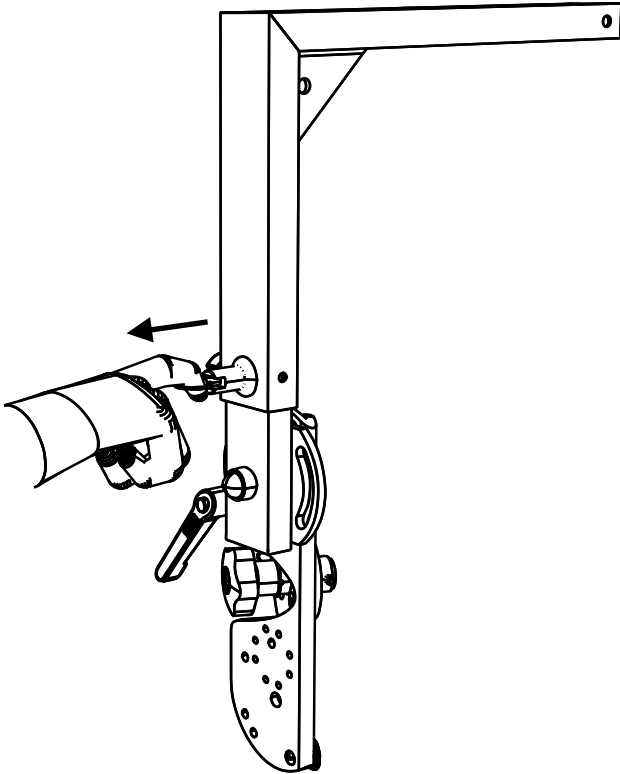
Half-Bracket TX I (Installation)

1. Take the Half-Bracket and first turn the Tightening Nut **counterclockwise** to release the telescopic extension of the Half-Bracket.

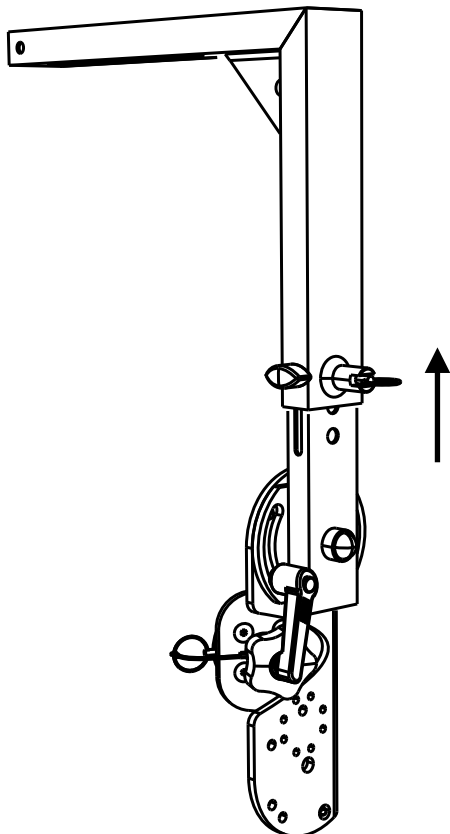


Half-Bracket TX M (Mobile)

Now pull out the Pull-Pin to unlock the telescopic extension of the Half Bracket. Keep pulling the Pull-Pin...

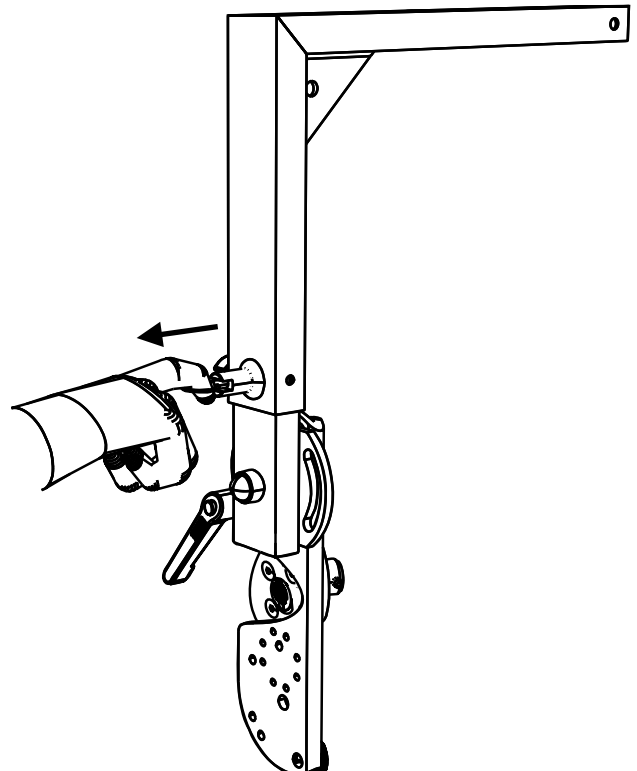


...and extend the Half Bracket to the desired length.

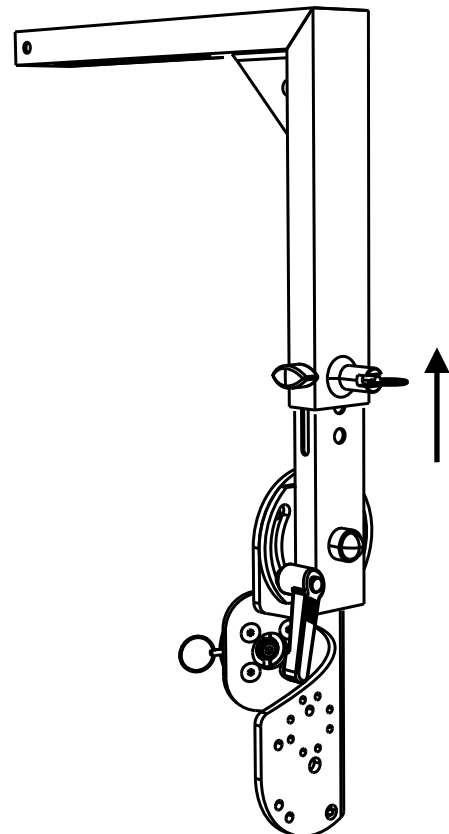


Half-Bracket TX I (Installation)

Now pull out the Pull-Pin to unlock the telescopic extension of the Half Bracket. Keep pulling the Pull-Pin...

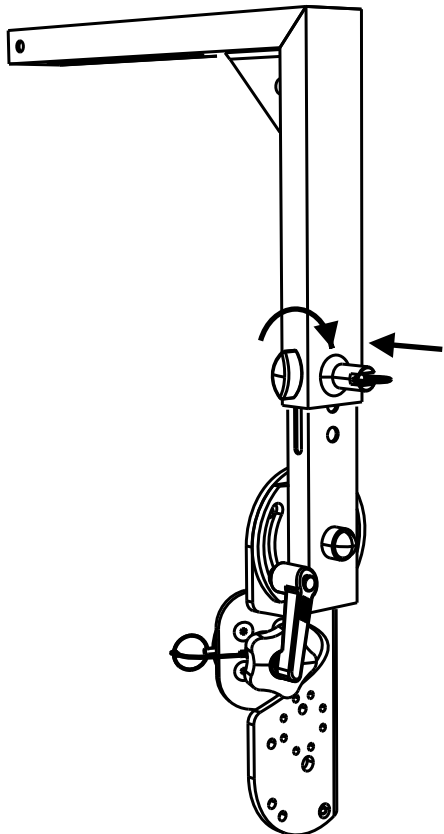


...and extend the Half Bracket to the desired length.



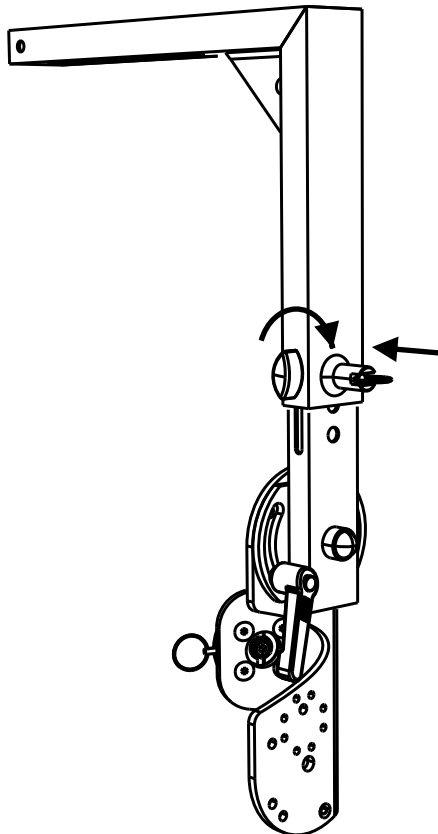
Half-Bracket TX M (Mobile)

When you have reached the desired extension, let the Pull-Pin snap back into the next locking position. Then turn the Tightening Nut **clockwise** to tighten the extension without backlash.



Half-Bracket TX I (Installation)

When you have reached the desired extension, let the Pull-Pin snap back into the next locking position. Then turn the Tightening Nut **clockwise** to tighten the extension without backlash.



Danger: Always check the correct function of the Pull-Pin and if it is inserted completely! Doublecheck in the case of any doubt!



Note: The Pull-Pin can be held in the open position by pulling it out completely and rotating it 90 degrees.

Half-Bracket TX M (Mobile)

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

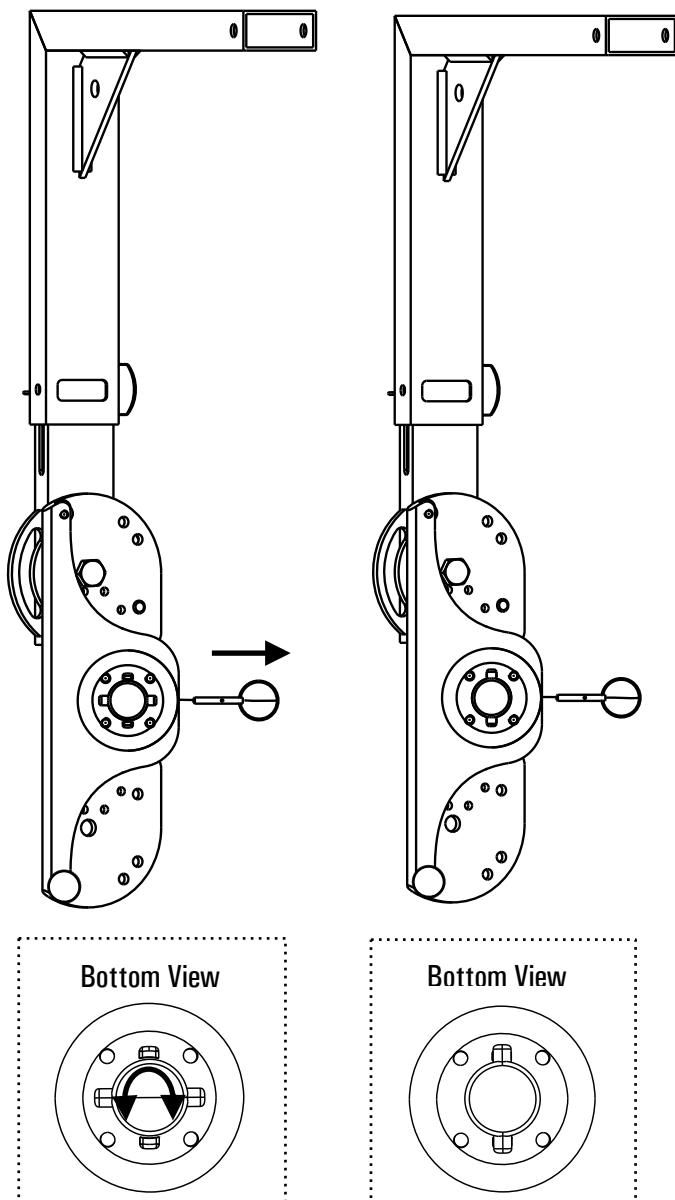
Half-Bracket TX I (Installation)

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

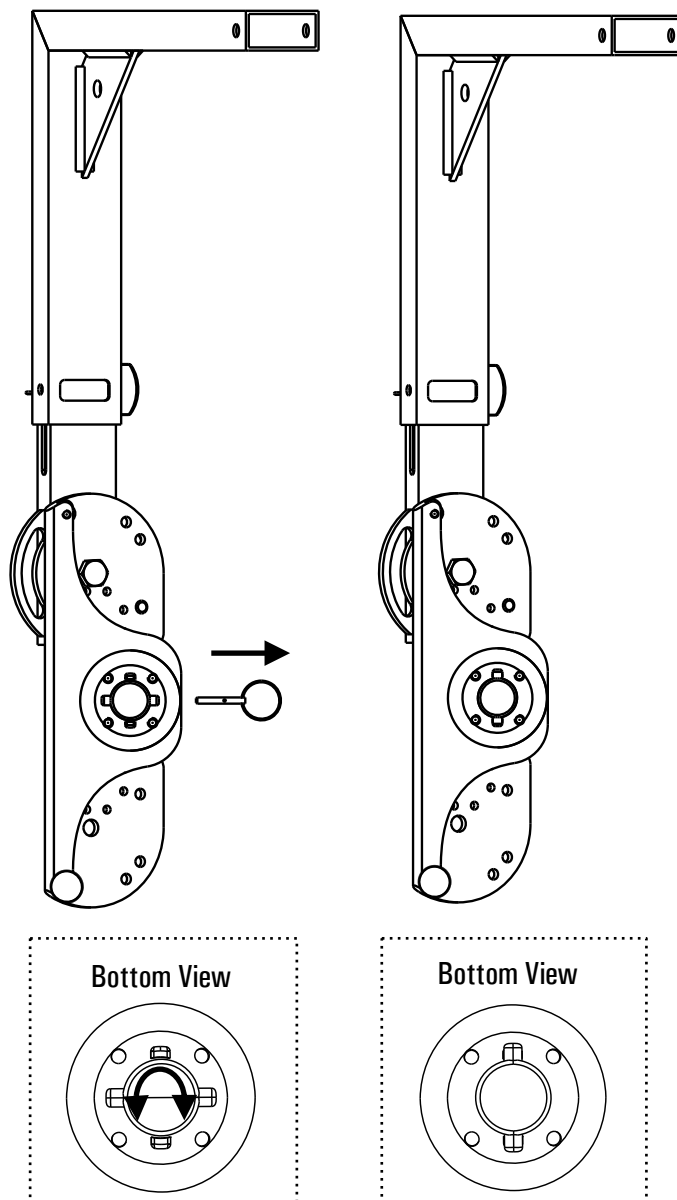


Half-Bracket TX M (Mobile)

Half-Bracket TX I (Installation)



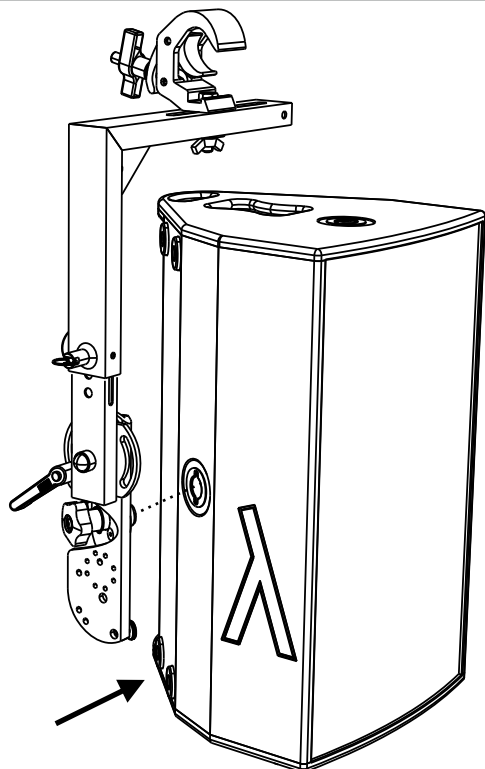
3. Hold the Half-Bracket parallel to the loudspeakers surface and push the EPS Express Pin straight and aligned with the cutouts into the left EPS Rigging Point. Make sure that the Supporting Knob is not in the extended state. If you want to mount the Half Bracket on the right side of the loudspeaker, please refer to Chapter 4. For further details, please refer to Chapter 3.1.



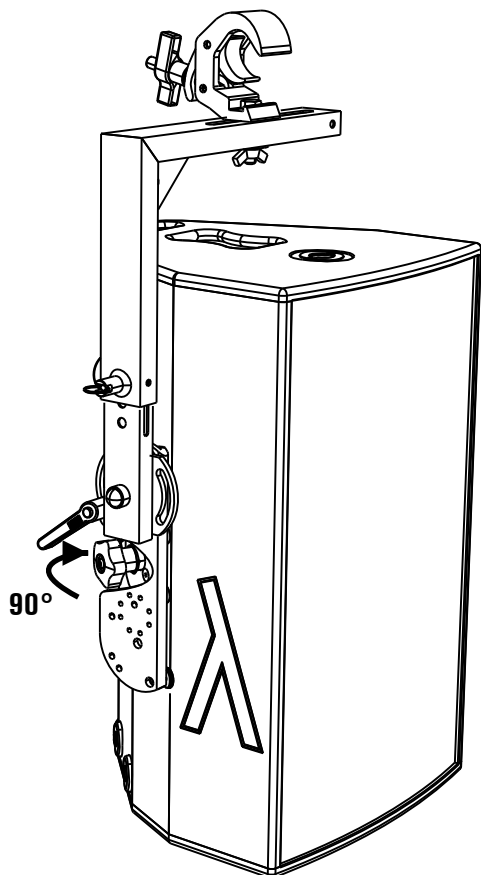
3. Hold the Half-Bracket parallel to the loudspeakers surface and push the EPS Express Pin straight and aligned with the cutouts into the left EPS Rigging Point. Make sure that the Supporting Knob is not in the extended state. If you want to mount the Half Bracket on the right side of the loudspeaker, please refer to Chapter 4. For further details, please refer to Chapter 3.1.



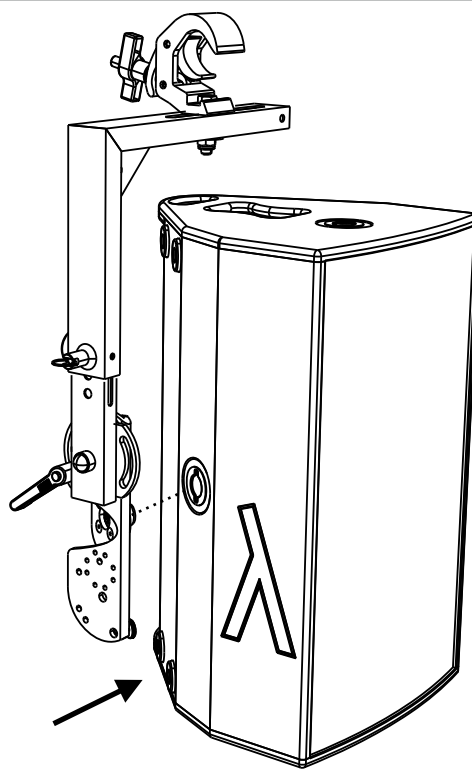
Half-Bracket TX M (Mobile)



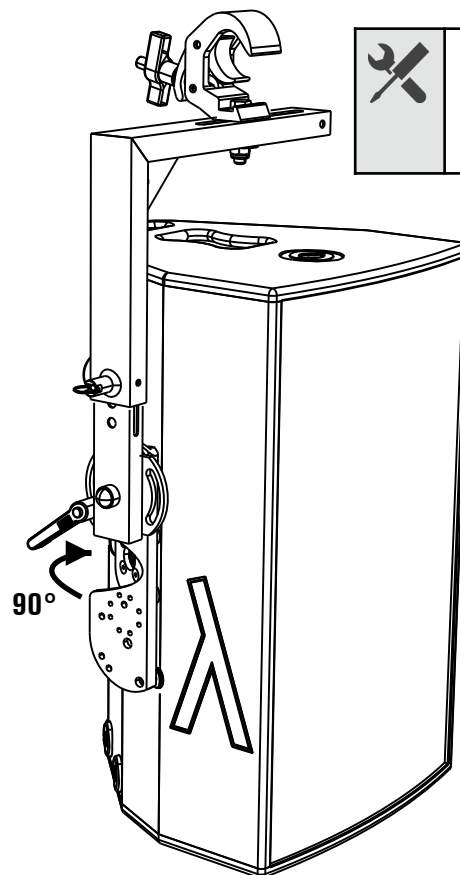
Push it sideways until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.



Half-Bracket TX I (Installation)

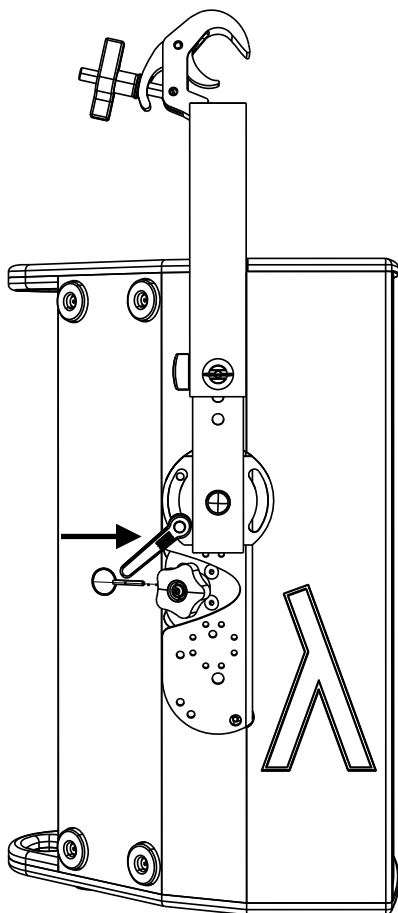


Push it sideways until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.



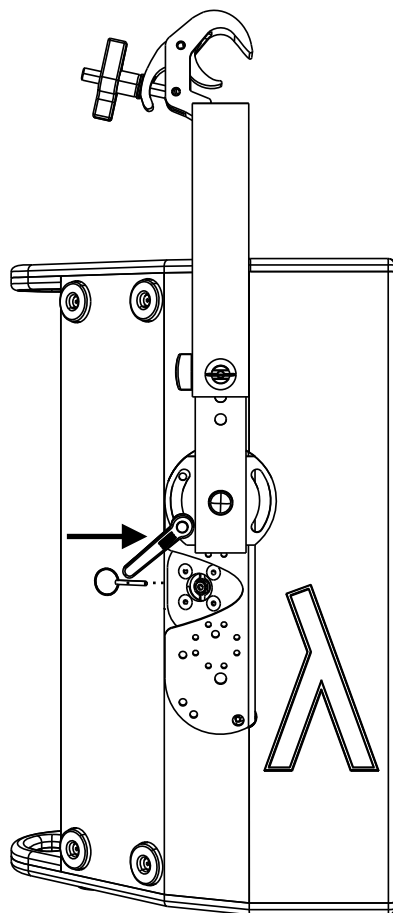
Half-Bracket TX M (Mobile)

4. 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



Half-Bracket TX I (Installation)

4. 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!

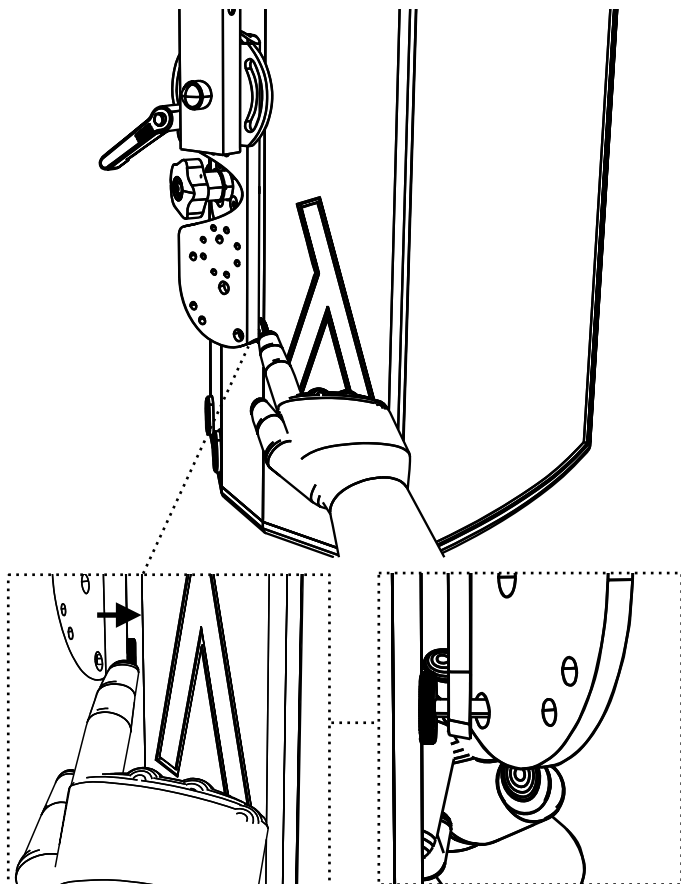


Note: The length of the Half-Bracket can also be adjusted after mounting to the loudspeaker, e.g. to adjust the height of the flown loudspeaker.

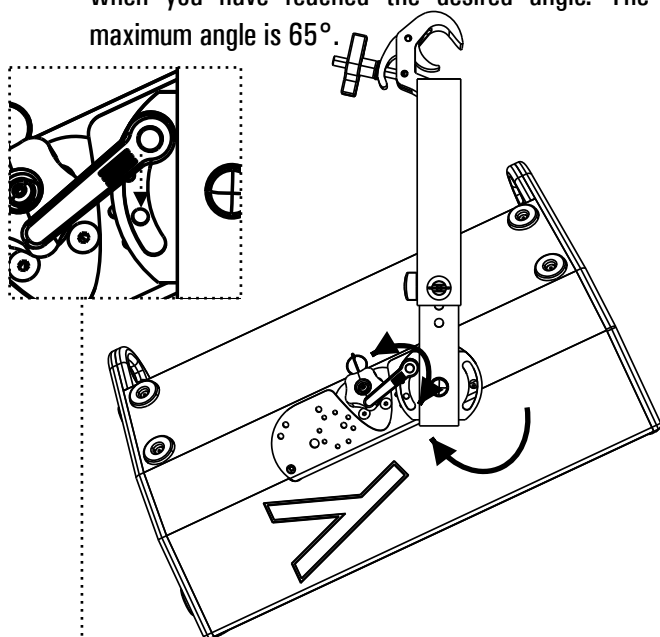


Half-Bracket TX M (Mobile)

5. Turn the Support Bolt until it slightly touches the side of the loudspeaker. This will further stabilize the connection of the Half-Bracket to the speaker and ensures a straight alignment.

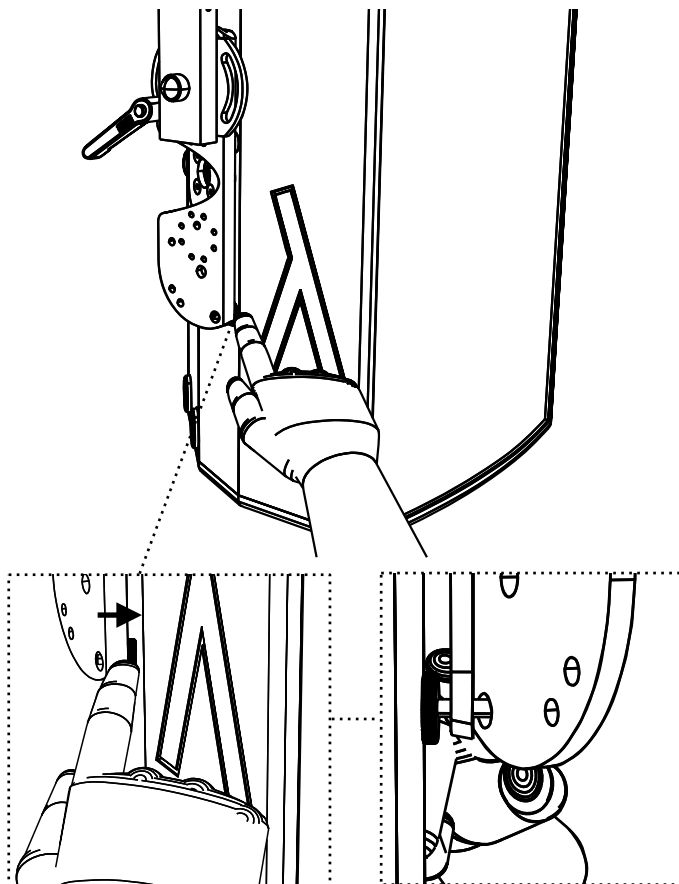


6. Rig the loudspeaker with the help of the Half-Bracket, open the Tilting Fixing Lever and turn the cabinet up or down. Close the Tilting Fixing Lever when you have reached the desired angle. The maximum angle is 65°.

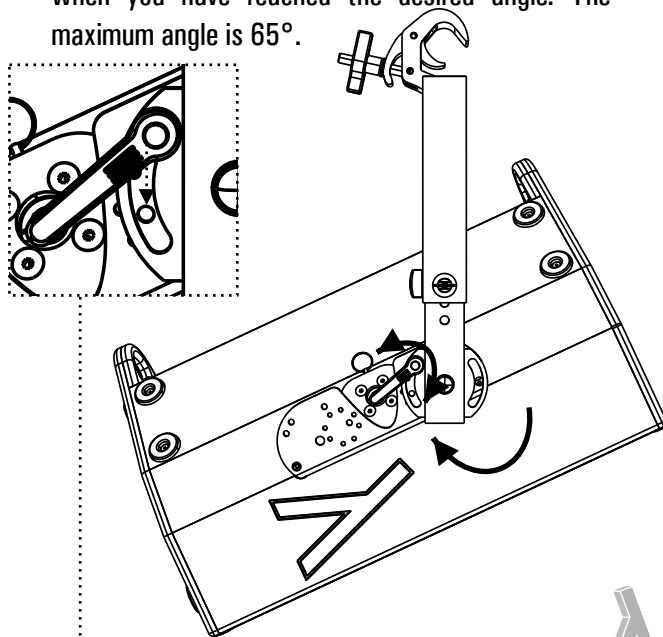


Half-Bracket TX I (Installation)

5. Turn the Support Bolt until it slightly touches the side of the loudspeaker. This will further stabilize the connection of the Half-Bracket to the speaker and ensures a straight alignment.



6. Rig the loudspeaker with the help of the Half-Bracket, open the Tilting Fixing Lever and turn the cabinet up or down. Close the Tilting Fixing Lever when you have reached the desired angle. The maximum angle is 65°.

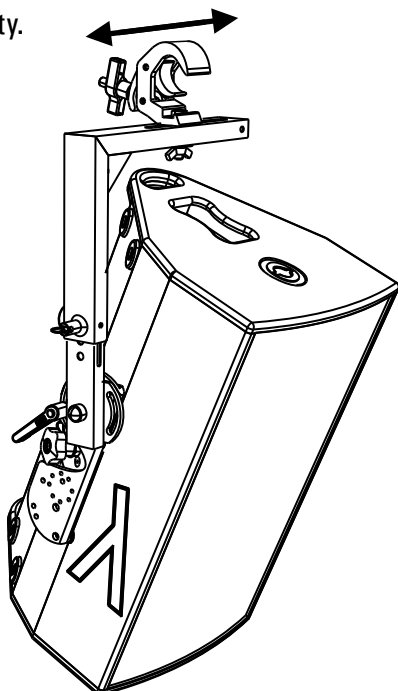


Note: By shifting the Tilting Fixing Lever, the maximum angle can be increased to 130°.

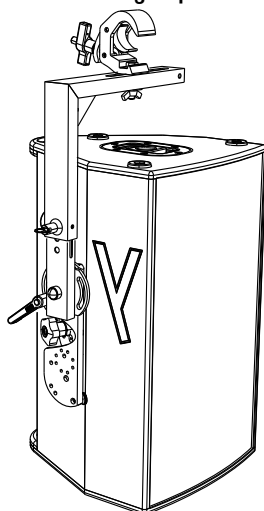


Half-Bracket TX M (Mobile)

If necessary, move the Quick Trigger Clamp to bring the loudspeaker aligned in line with its center of gravity.

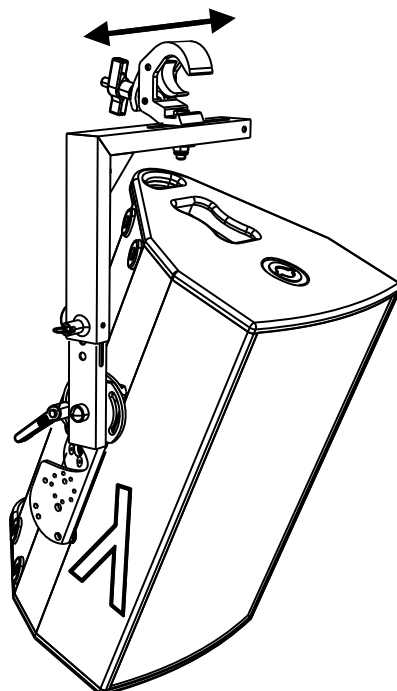


Upside down mounting is possible as well.

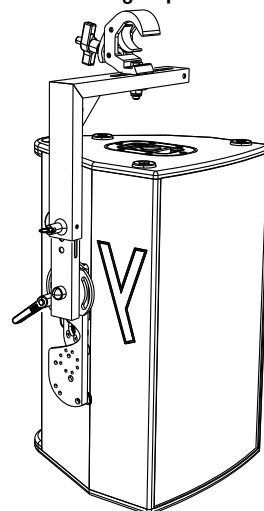


Half-Bracket TX I (Installation)

If necessary, move the Quick Trigger Clamp to bring the loudspeaker aligned in line with its center of gravity.



Upside down mounting is possible as well.



To unmount the Half-Bracket, follow the steps in the reverse order!



Danger: The loudspeaker must be secured with a Second Independent Safety Link in every 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!



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!



Note: The optional rigging items described above can be purchased as a complete set (Loudspeaker Safety Set).

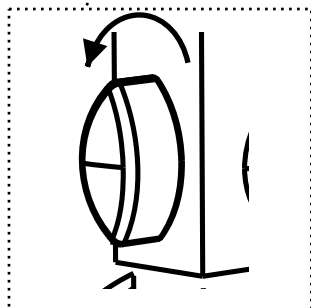
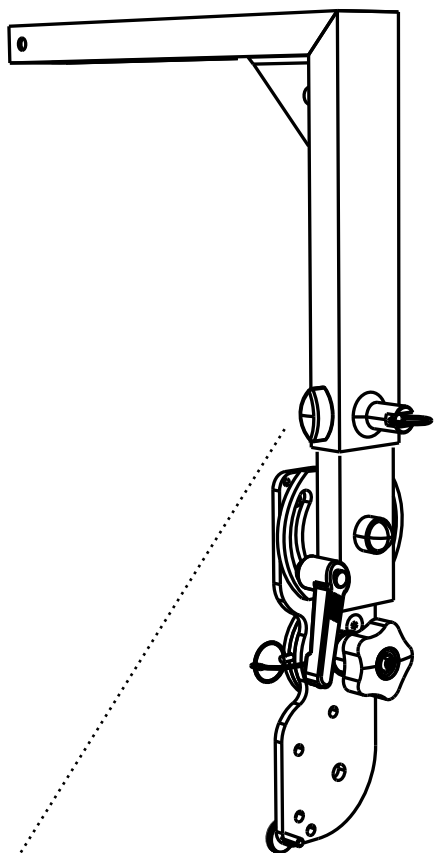


3.3. Operating the Half-Bracket CX

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

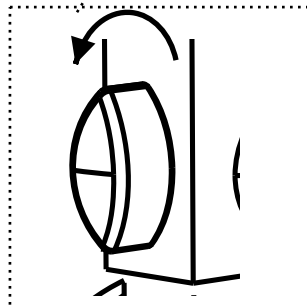
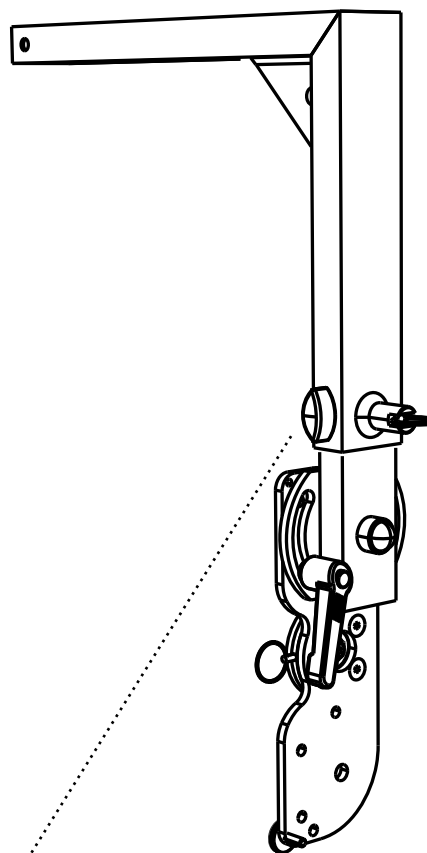
Half-Bracket CX M (Mobile)

1. Take the Half-Bracket and first turn the Tightening Nut **counterclockwise** to release the telescopic extension of the Half-Bracket.



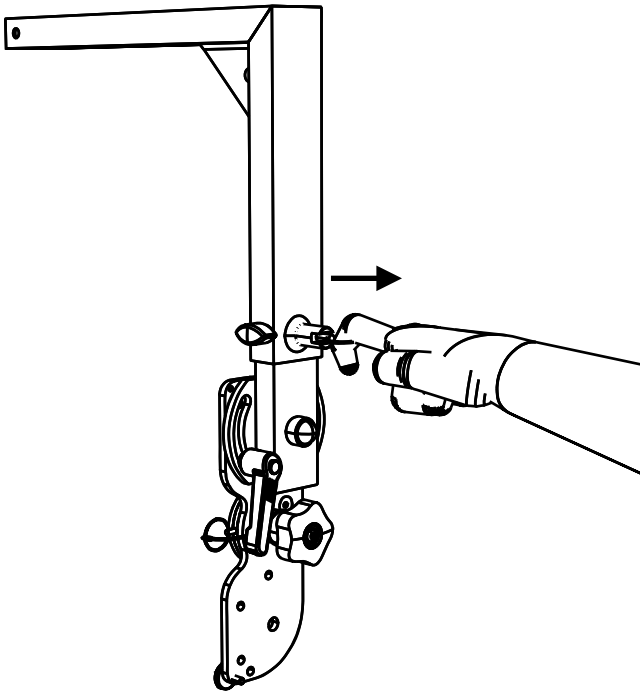
Half-Bracket CX I (Installation)

1. Take the Half-Bracket and first turn the Tightening Nut **counterclockwise** to release the telescopic extension of the Half-Bracket.

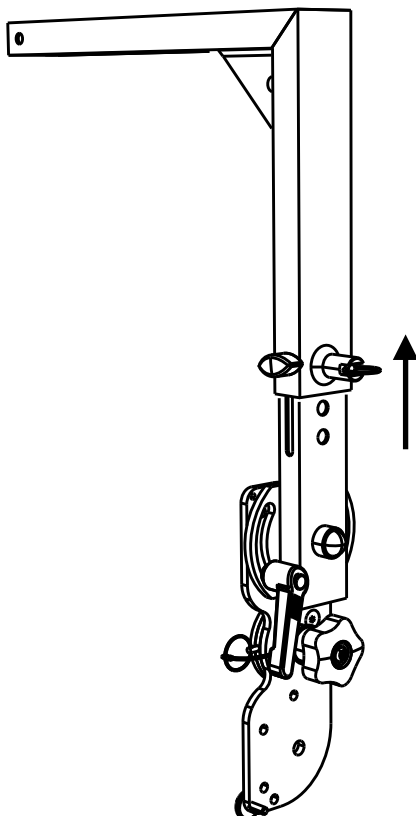


Half-Bracket CX M (Mobile)

Now pull out the Pull-Pin to unlock the telescopic extension of the Half Bracket. Keep pulling the Pull-Pin...

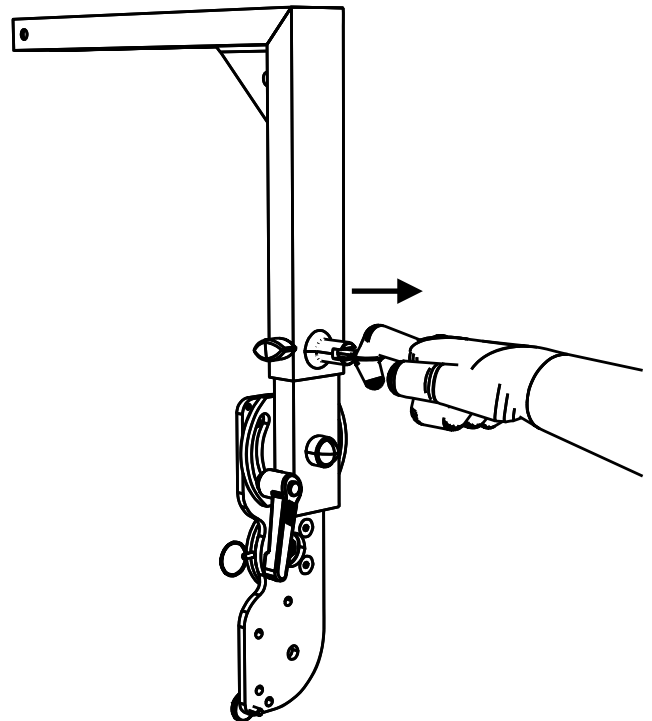


...and extend the Half Bracket to the desired length.

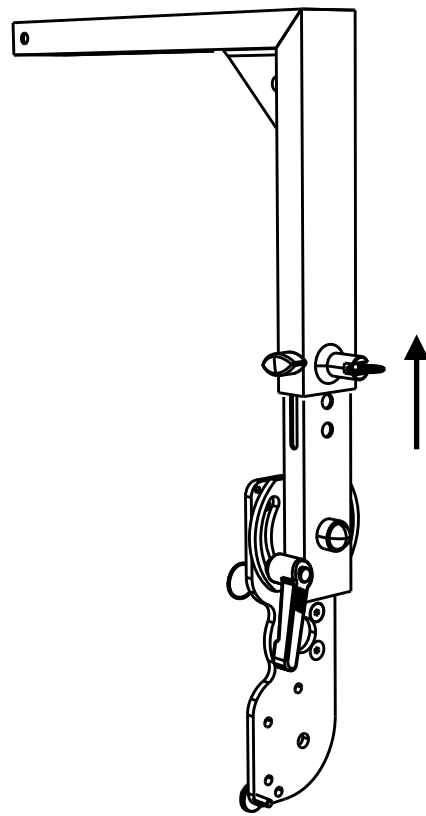


Half-Bracket CX I (Installation)

Now pull out the Pull-Pin to unlock the telescopic extension of the Half Bracket. Keep pulling the Pull-Pin...

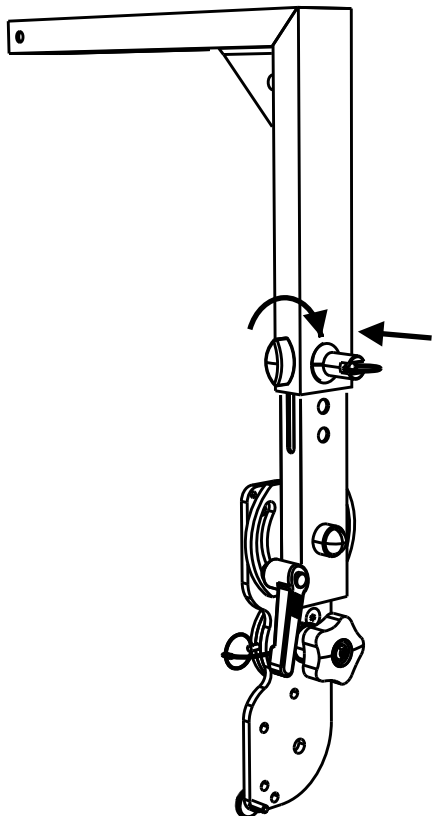


...and extend the Half Bracket to the desired length.



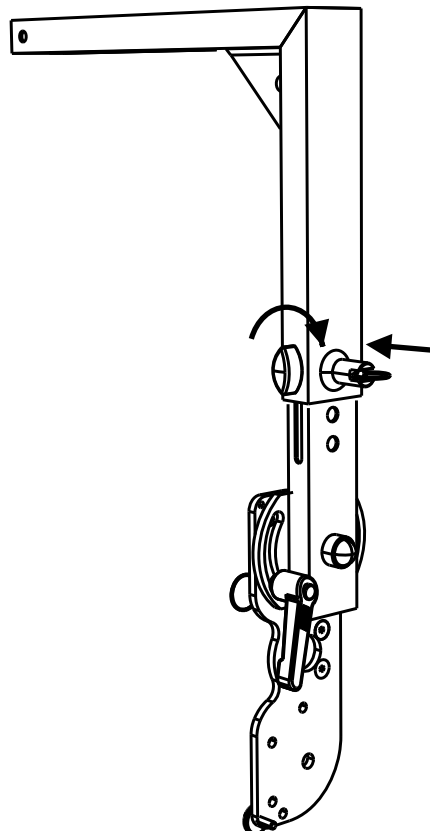
Half-Bracket TX M (Mobile)

When you have reached the desired extension, let the Pull-Pin snap back into the next locking position. Then turn the Tightening Nut **clockwise** to tighten the extension without backlash.



Half-Bracket TX I (Installation)

When you have reached the desired extension, let the Pull-Pin snap back into the next locking position. Then turn the Tightening Nut **clockwise** to tighten the extension without backlash.



Danger: Always check the correct function of the Pull-Pin and if it is inserted completely! Doublecheck in the case of any doubt!



Note: The Pull-Pin can be held in the open position by pulling it out completely and rotating it 90 degrees.

Half-Bracket TX M (Mobile)

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

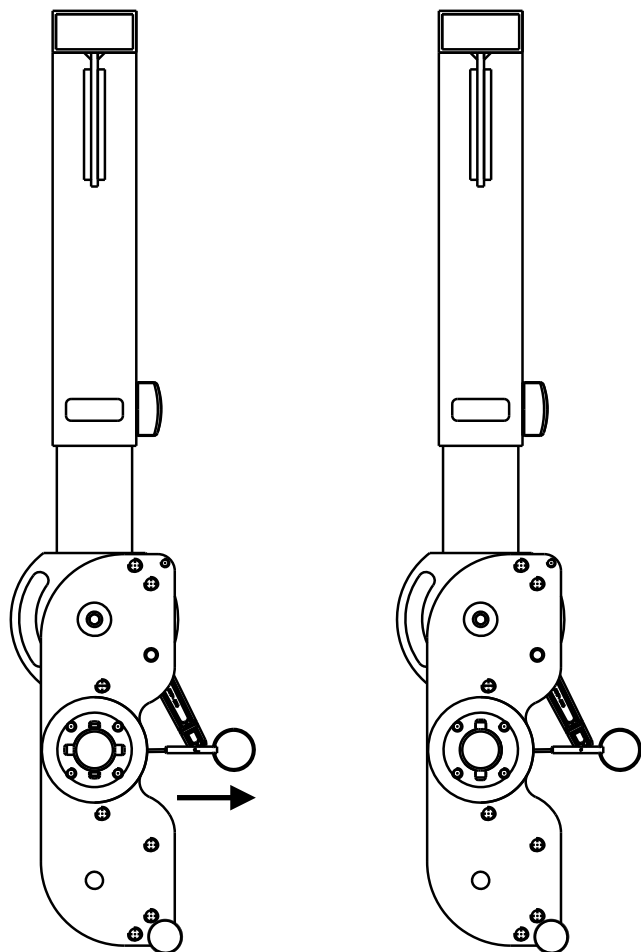
Half-Bracket TX I (Installation)

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

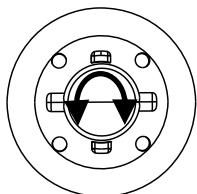


Half-Bracket CX M (Mobile)

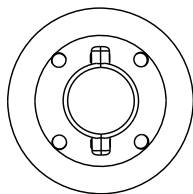
Half-Bracket CX I (Installation)



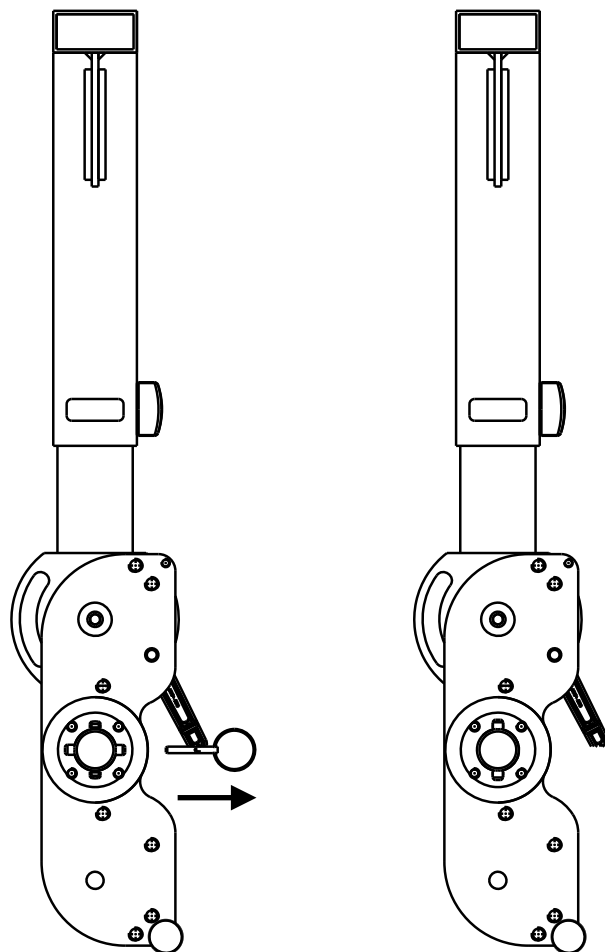
Bottom View



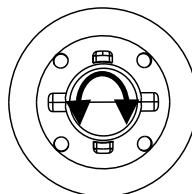
Bottom View



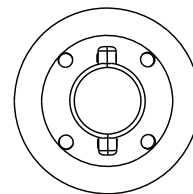
3. Hold the Half-Bracket parallel to the loudspeakers surface and push the EPS Express Pin straight and aligned to the cutouts into the left EPS Rigging Point. Make sure that the Supporting Knob is not in the extended state. If you want to mount the Half Bracket on the right side of the speaker, please refer to Chapter 4. For further details, please refer to Chapter 3.1.



Bottom View



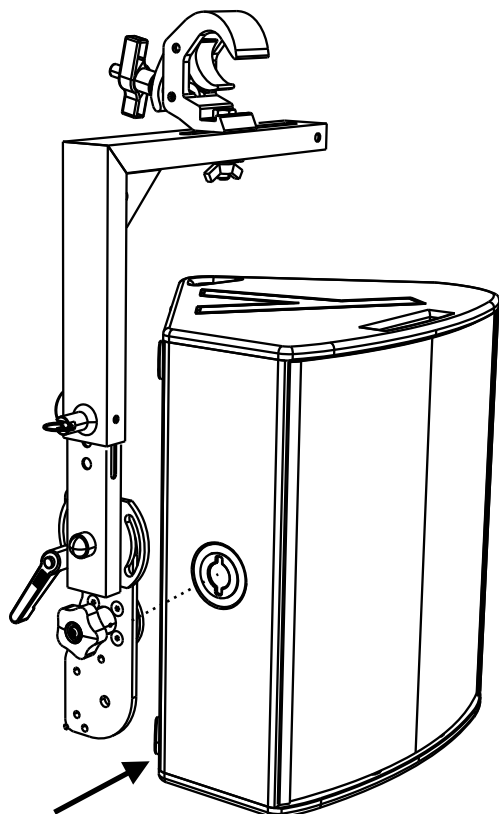
Bottom View



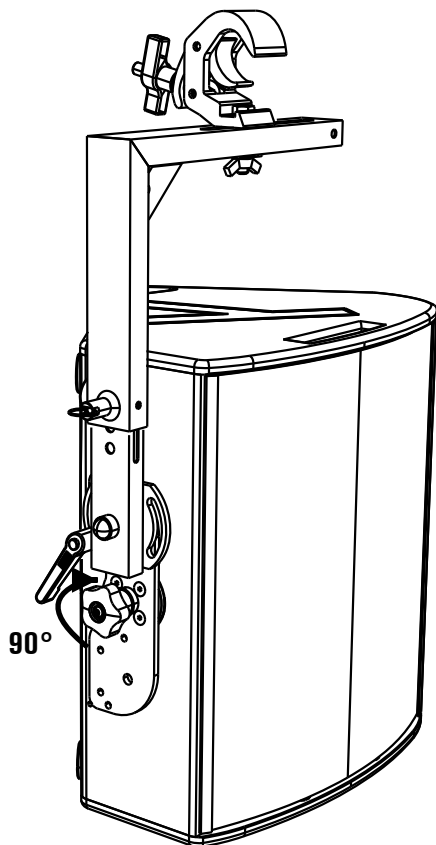
3. Hold the Half-Bracket parallel to the loudspeakers surface and push the EPS Express Pin straight and aligned to the cutouts into the left EPS Rigging Point. Make sure that the Supporting Knob is not in the extended state. If you want to mount the Half Bracket on the right side of the speaker, please refer to Chapter 4. For further details, please refer to Chapter 3.1.



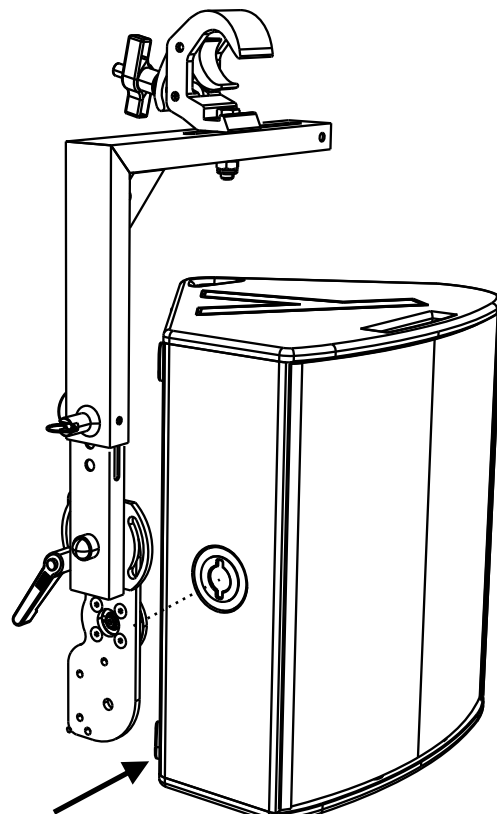
Half-Bracket CX M (Mobile)



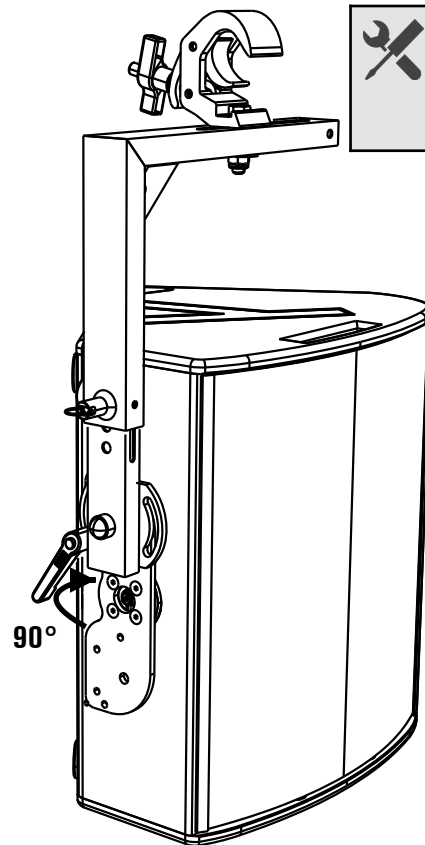
Push it sideways until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.



Half-Bracket CX I (Installation)

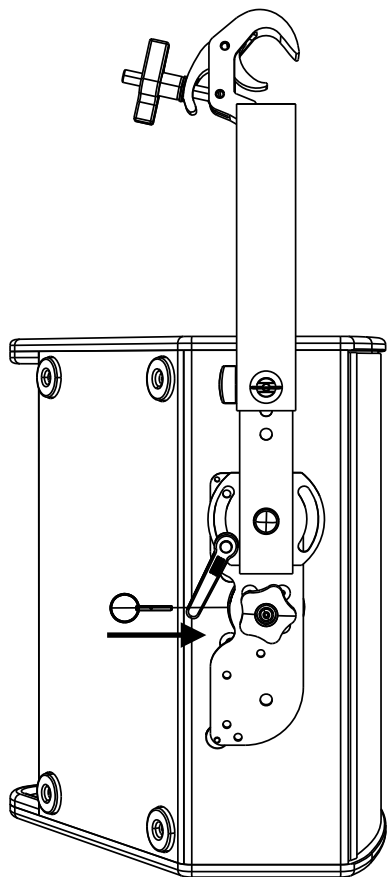


Push it sideways until the EPS Express Pin is inserted completely. When the EPS Express Pin is fully inserted, turn the EPS Handle **clockwise** 90 degrees to establish the form-fitting and loadable connection to the EPS Rigging Point. For further details, please refer to Chapter 3.1.



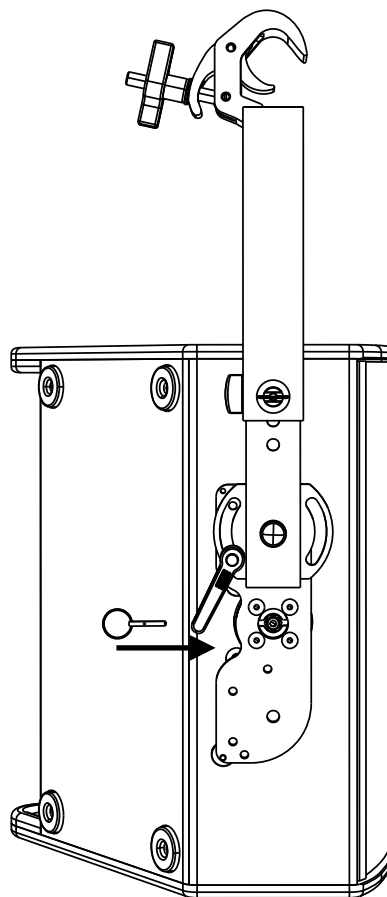
Half-Bracket CX M (Mobile)

4. 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



Half-Bracket CX I (Installation)

4. 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!

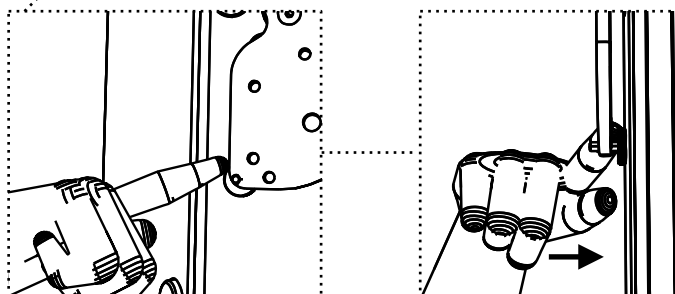
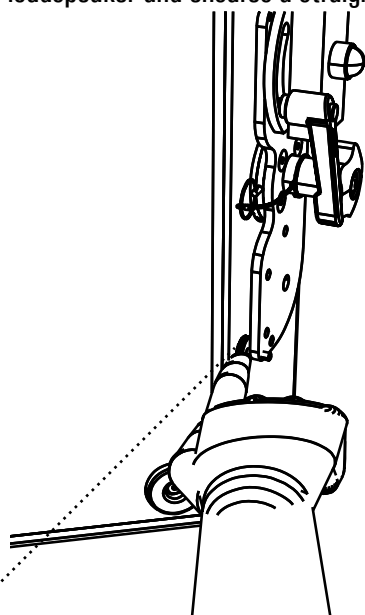


Note: The length of the Half-Bracket can also be adjusted after mounting to the loudspeaker, e.g. to adjust the height of the flown loudspeaker.

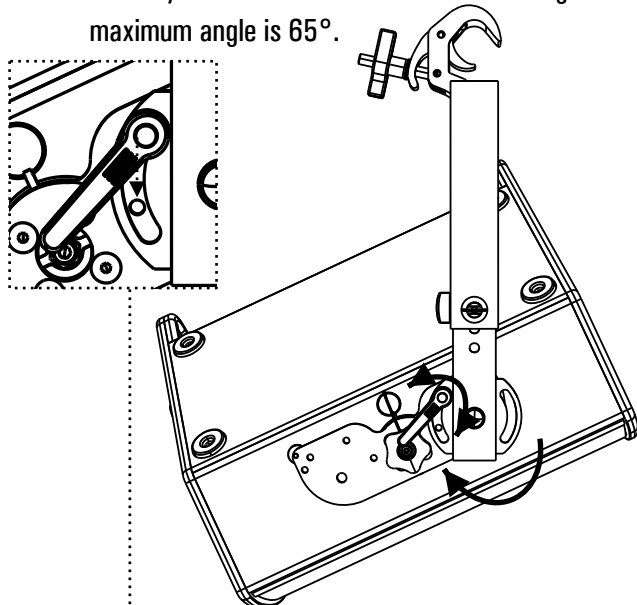


Half-Bracket CX M (Mobile)

- Turn the Support Bolt until it slightly touches the side of the loudspeaker. This will further stabilize the connection of the Half-Bracket to the loudspeaker and ensures a straight alignment.

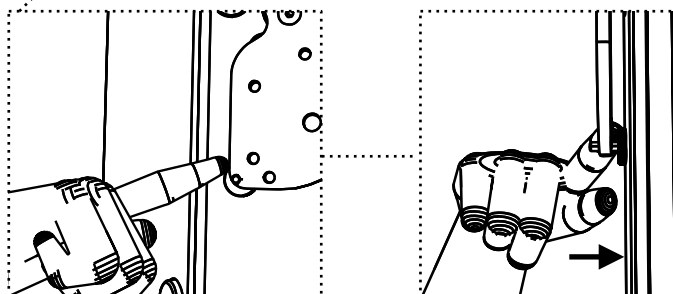
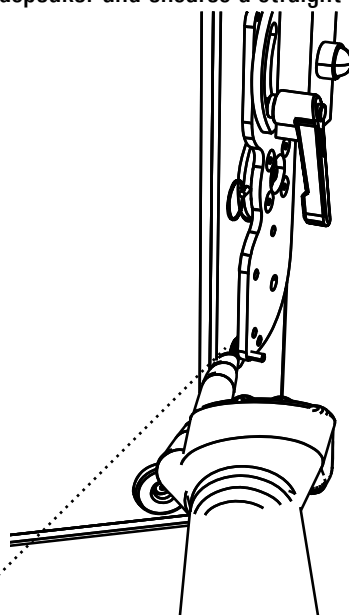


- Rig the loudspeaker with the help of the Half-Bracket, open the Tilting Fixing Lever and turn the cabinet up or down. Close the Tilting Fixing Lever when you have reached the desired angle. The maximum angle is 65°.

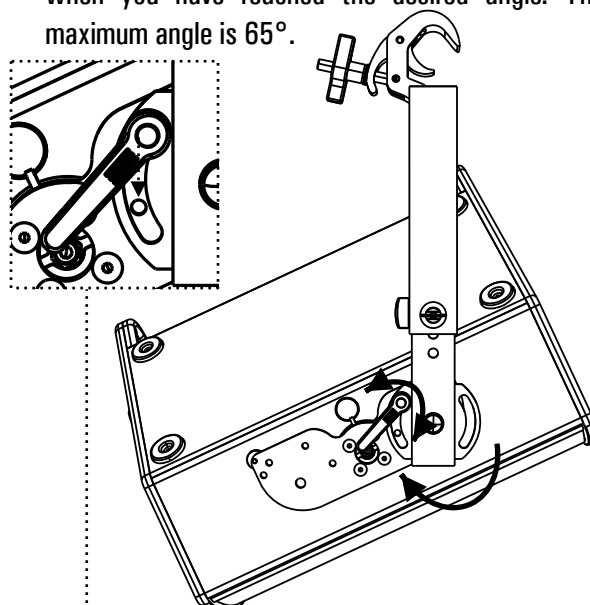


Half-Bracket CX I (Installation)

- Turn the Support Bolt until it slightly touches the side of the loudspeaker. This will further stabilize the connection of the Half-Bracket to the loudspeaker and ensures a straight alignment.



- Rig the loudspeaker with the help of the Half-Bracket, open the Tilting Fixing Lever and turn the cabinet up or down. Close the Tilting Fixing Lever when you have reached the desired angle. The maximum angle is 65°.

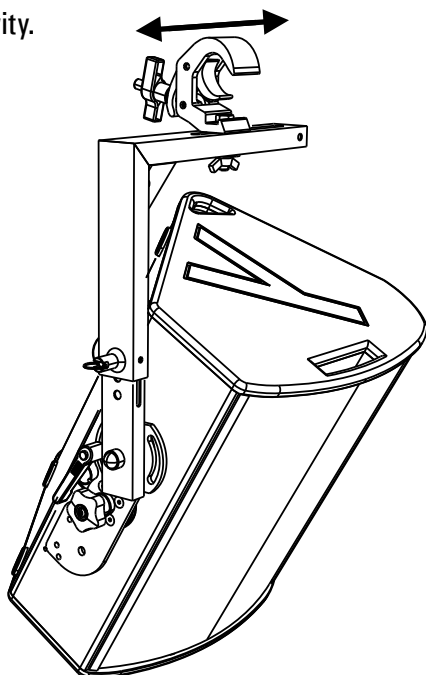


Note: By shifting the Tilting Fixing Lever, the maximum angle can be increased to 130°.



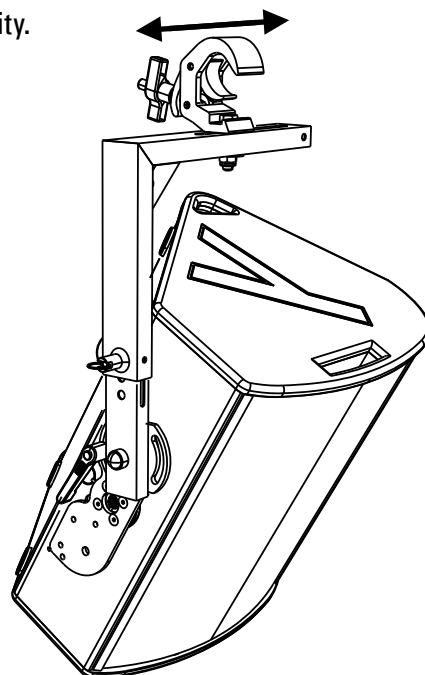
Half-Bracket TX M (Mobile)

If necessary, move the Quick Trigger Clamp to bring the loudspeaker aligned in line with its center of gravity.






Half-Bracket TX I (Installation)

If necessary, move the Quick Trigger Clamp to bring the loudspeaker aligned in line with its center of gravity.



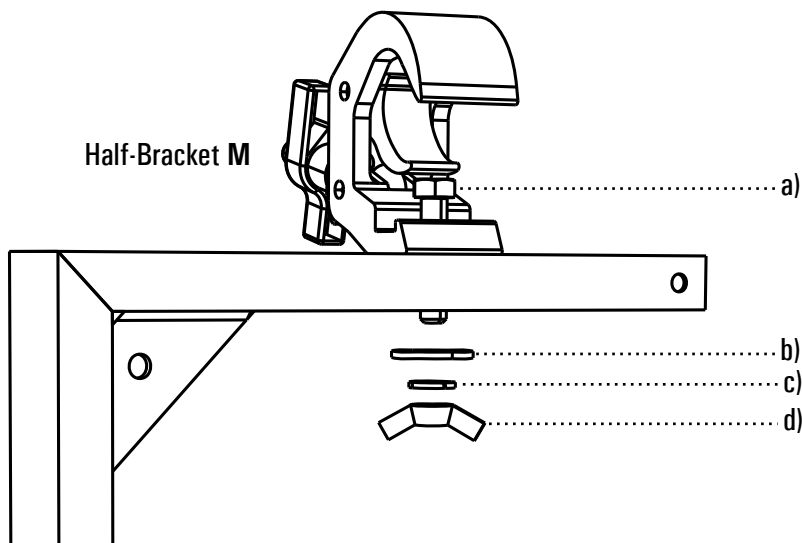
To unmount the Half-Bracket, follow the steps in the reverse order!

	<p>Danger: The speaker must be secured with a Second Independent Safety Link in every 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!</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 mentioned optional rigging items described above can be purchased as complete set (Loudspeaker Safety Set).</p>



3.4. Quick Trigger Clamp Mounting

Mounting the Quick Trigger Clamp to the Half-Bracket:

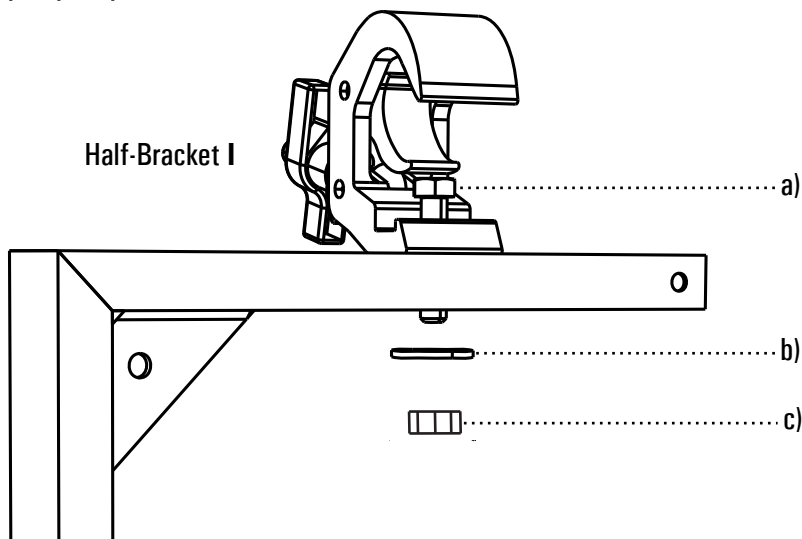


a) M12 DIN 933 Screw (black)

b) M12 washer (black)

c) M12 snap ring (black)

d) M12 wing screw (black)



a) M12 DIN 933 Screw (black)

b) M12 washer (black)

c) M12 self-locking nut (black)



Note: Order the items described above as „Quick Trigger Mounting Set“. Only use Lambda Labs original and approved items!

4. Converting the Half-Bracket from Left to Right Hand Version

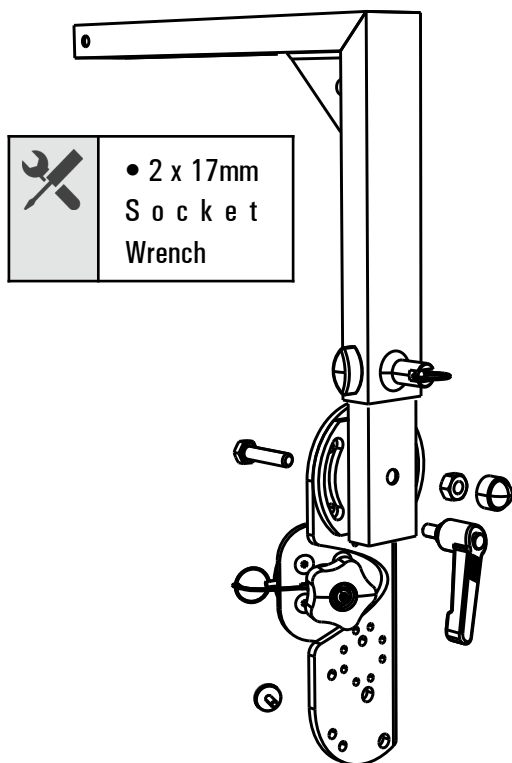
4.1. Converting the Half-Bracket TX

The delivery state of the **Half-Bracket TX** is for mounting the Half-Bracket on the left side of the loudspeaker. To meet symmetrical requirements or to obtain an ideal position in fixed installations, the Half Bracket can be converted to be mounted on the right side of the loudspeaker. The following conversion instructions are explained using the Half-Bracket TX **M** (Mobile) & Half-Bracket TX **I** (Installation).

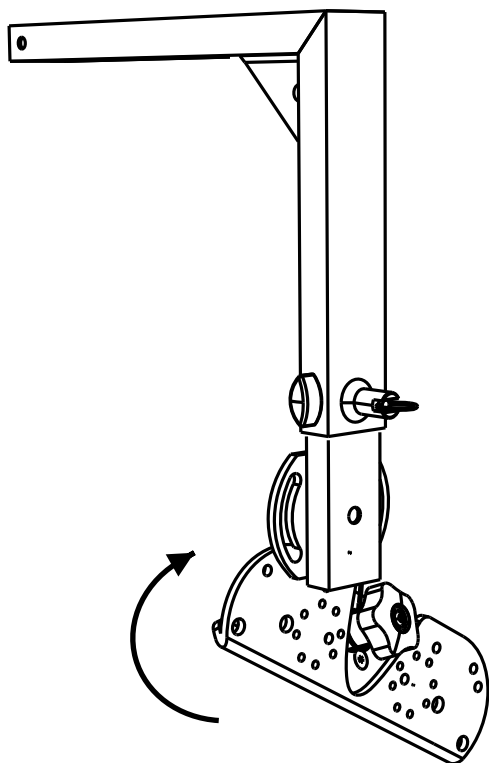


Half-Bracket TX M (Mobile)

1. Disassemble the Half-Bracket as shown in the illustration. Keep the items at a safe place.

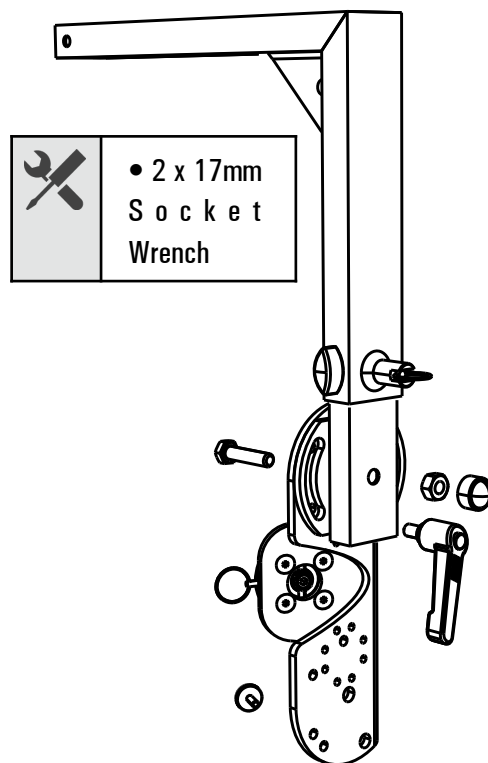


2. Turn around the tilting plate. Wipe the applied grease with a cloth and apply it to the other side of the tilting plate.

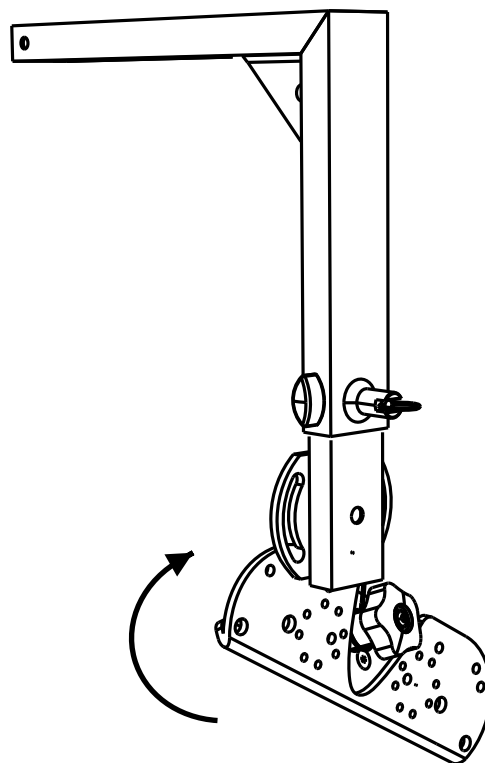


Half-Bracket TX I (Installation)

1. Disassemble the Half-Bracket as shown in the illustration. Keep the items at a safe place.

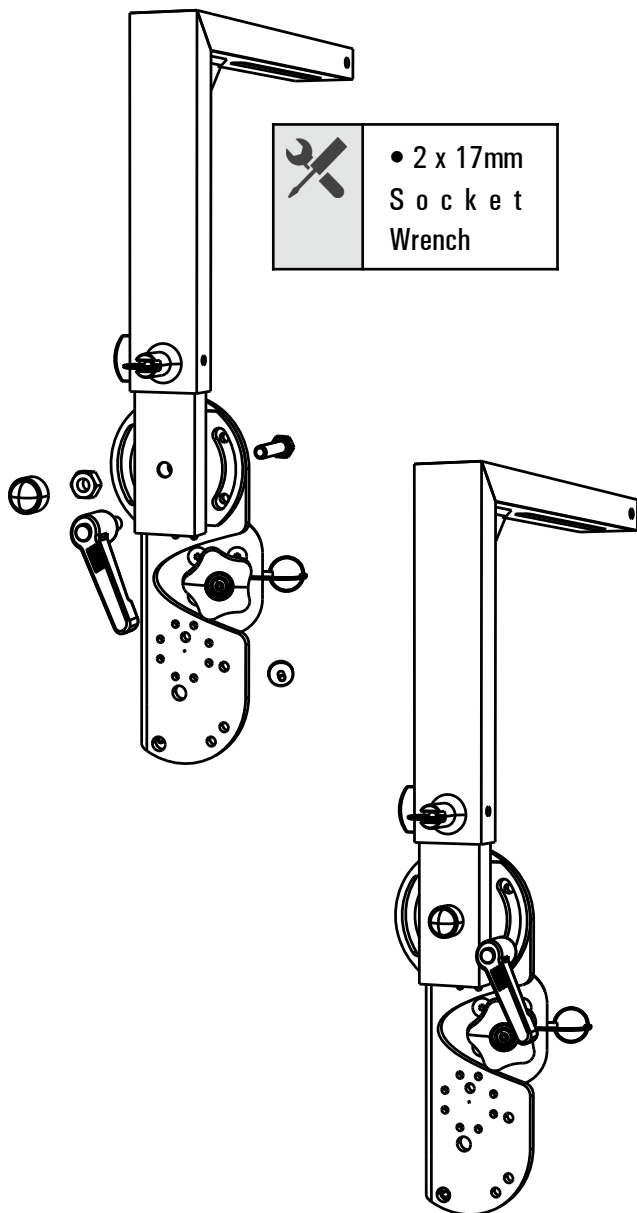


2. Turn around the tilting plate. Wipe the applied grease with a cloth and apply it to the other side of the tilting plate.



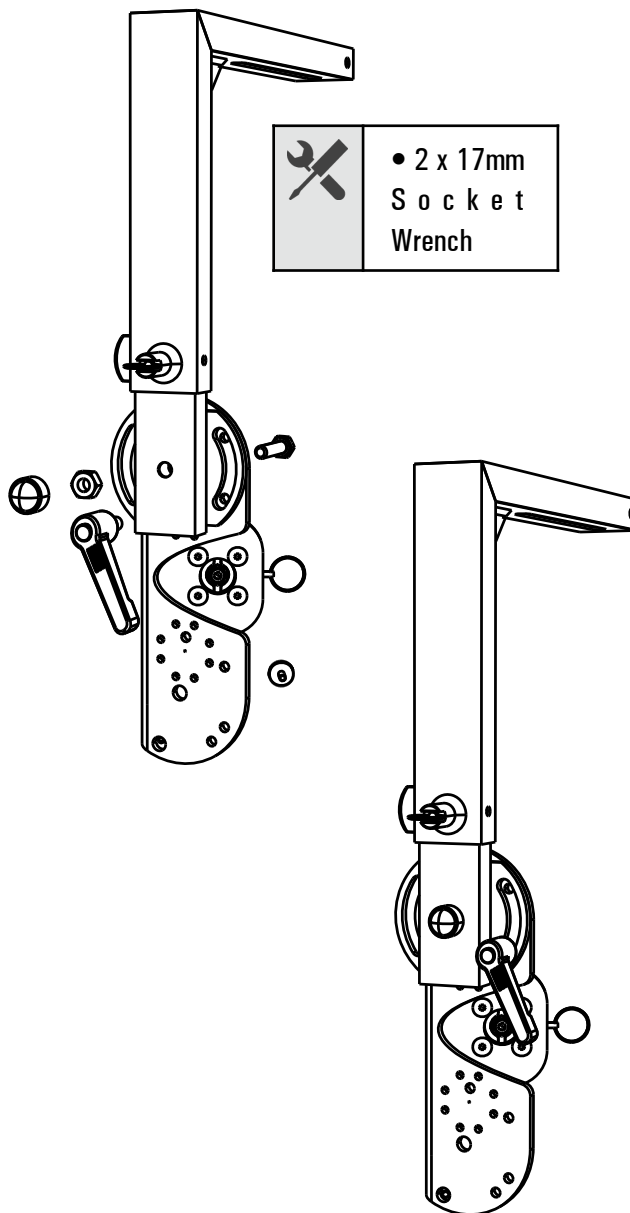
Half-Bracket TX M (Mobile)

3. Assemble the Half-Bracket as shown in the picture. Make sure that the Tilting Plate rotates easily, but allows as little backlash as possible.



Half-Bracket TX I (Installation)

3. Assemble the Half-Bracket as shown in the picture. Make sure that the Tilting Plate rotates easily, but allows as little backlash as possible.



Danger: Make sure that all items are installed correctly! Doublecheck in the case of any doubt!

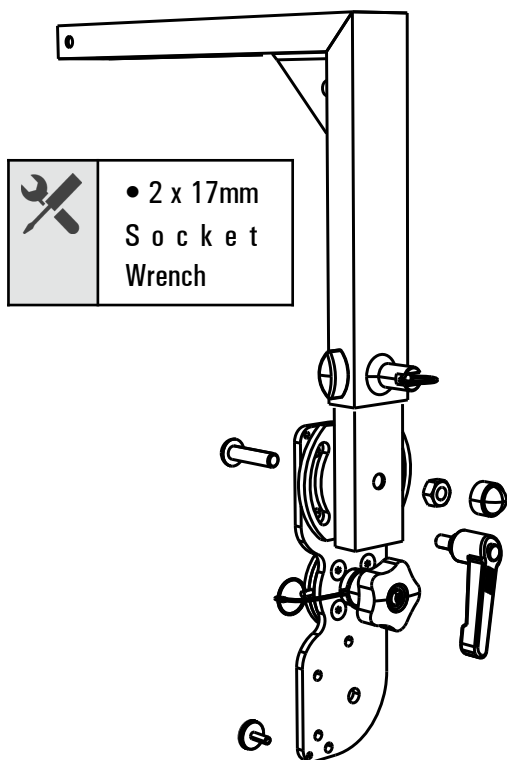
4.2. Converting the Half-Bracket CX

The delivery state of the **Half-Bracket CX** is for mounting the Half-Bracket on the left side of the loudspeaker. To meet symmetrical requirements or to obtain an ideal position in fixed installations, the Half Bracket can be converted to be mounted on the other side of the loudspeaker. The following conversion instructions are explained using the Half-Bracket CX M (Mobile) & Half-Bracket CX I (Installation).

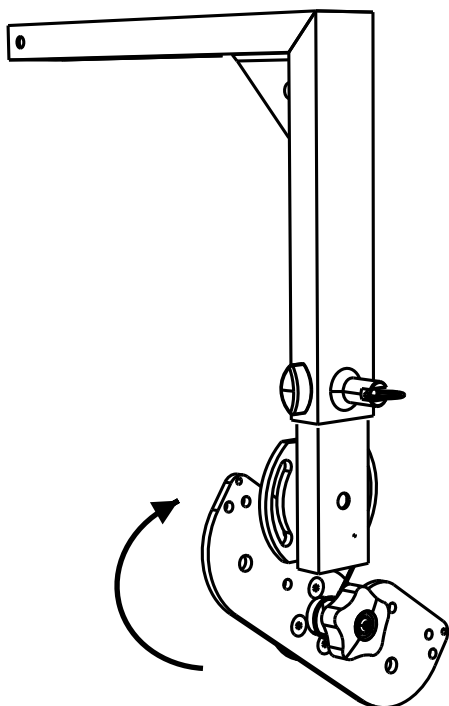


Half-Bracket CX M (Mobile)

1. Disassemble the Half-Bracket as shown in the illustration. Keep the items at a safe place.

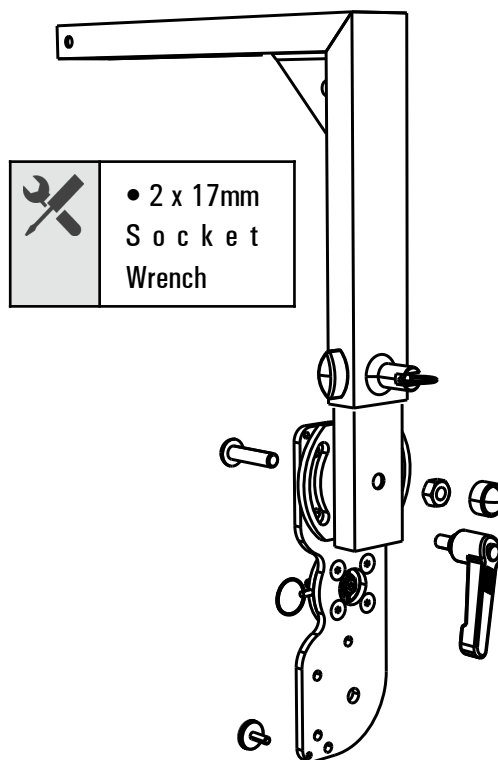


2. Turn around the tilting plate. Wipe the applied grease with a cloth and apply it to the other side of the tilting plate.

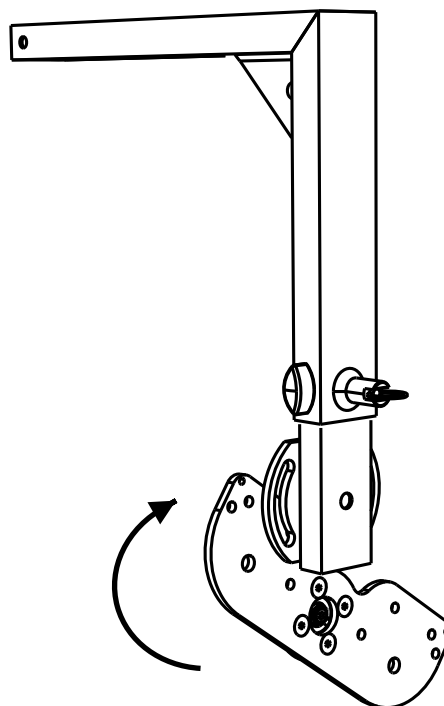


Half-Bracket CX I (Installation)

1. Disassemble the Half-Bracket as shown in the illustration. Keep the items at a safe place.

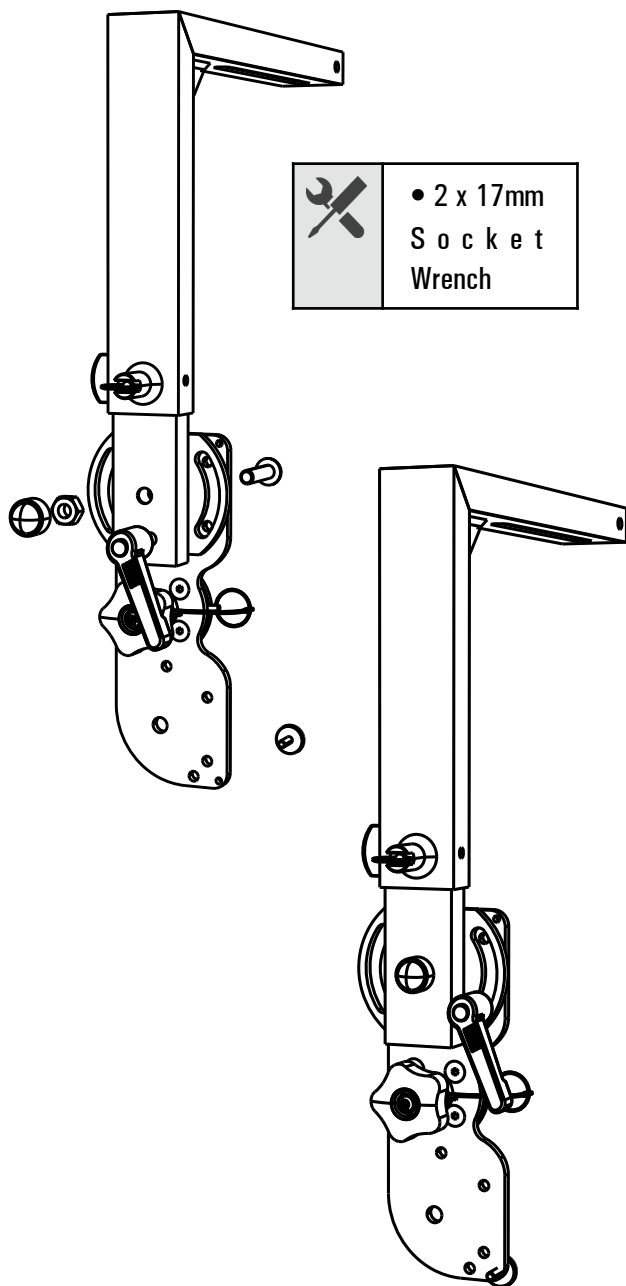


2. Turn around the tilting plate. Wipe the applied grease with a cloth and apply it to the other side of the tilting plate.



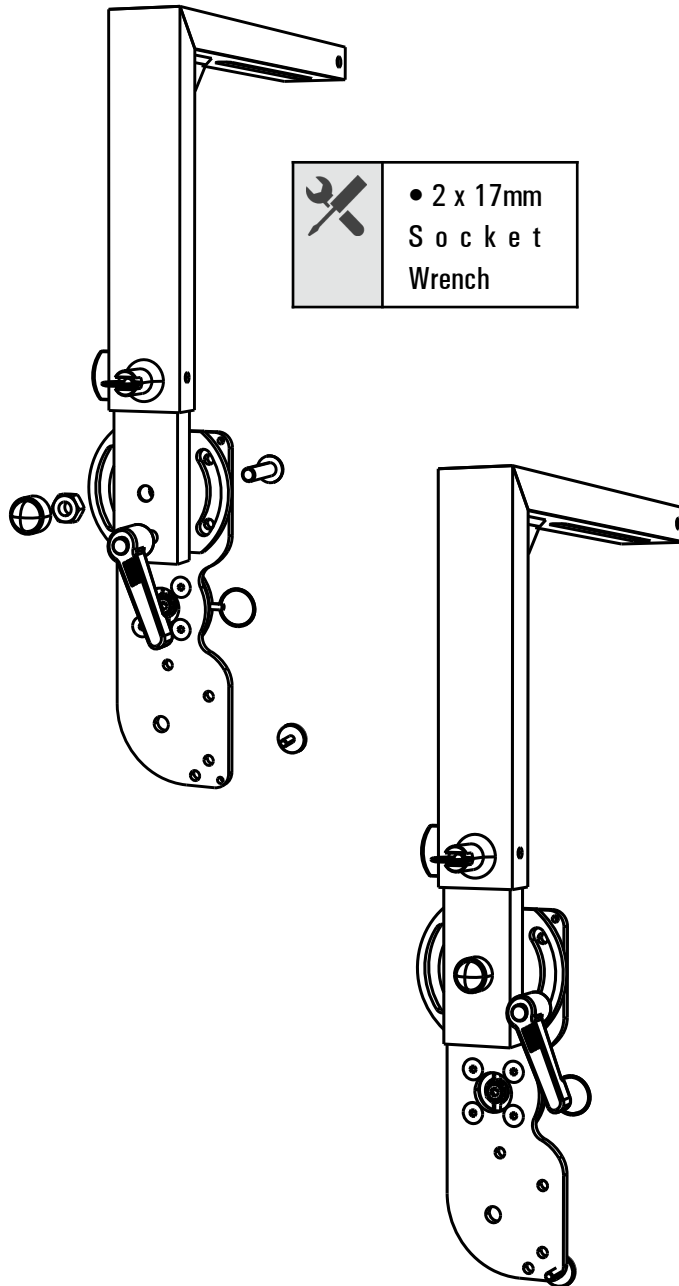
Half-Bracket CX M (Mobile)

3. Assemble the Half-Bracket as shown in the picture. Make sure that the Tilting Plate rotates easily, but allows as little backlash as possible.



Half-Bracket CX I (Installation)

3. Assemble the Half-Bracket as shown in the picture. Make sure that the Tilting Plate rotates easily, but allows as little backlash as possible.



Danger: Make sure that all items are installed correctly! Doublecheck in the case of any doubt!



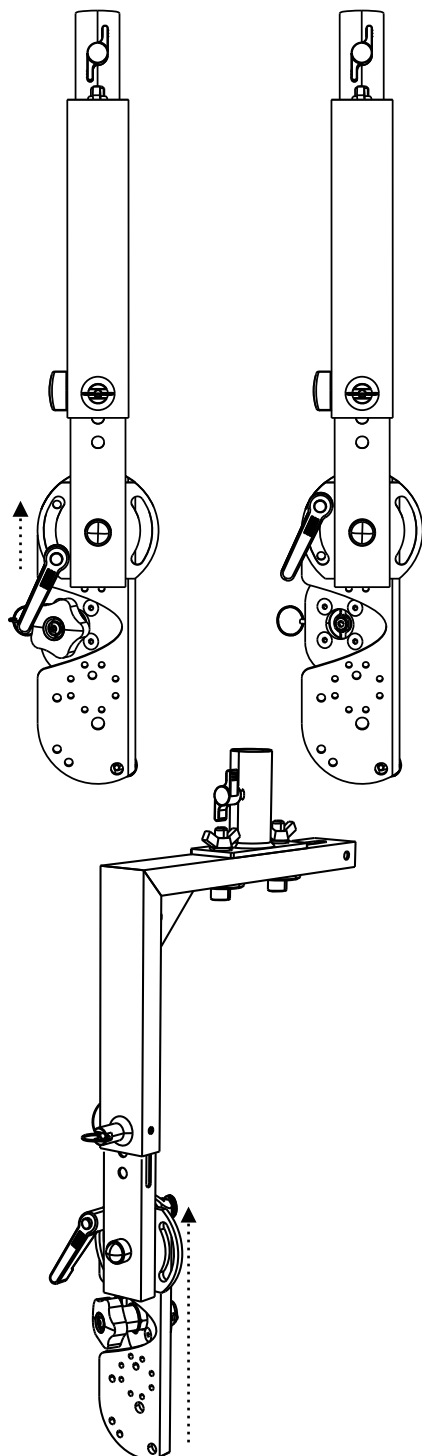
5. Converting the Half-Bracket to use on a Speaker Stand

5.1. Converting the Half-Bracket TX

The Half-Bracket can also be used on loudspeaker stands and wall mounts with 35mm pipe diameter. The following conversion instructions are explained using the Half-Bracket TX M (Mobile) & Half-Bracket TX I (Installation).

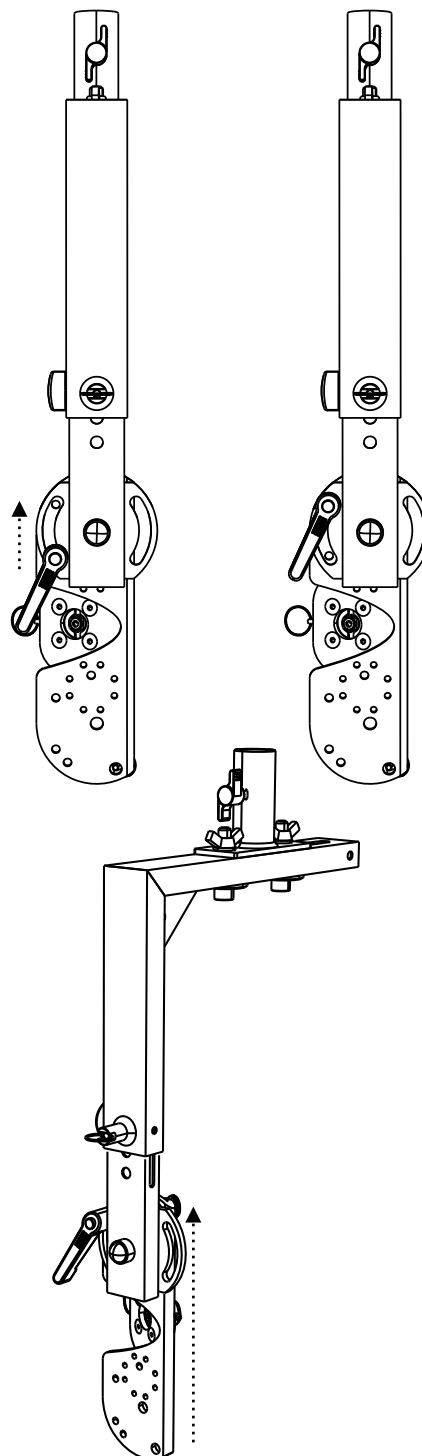
Half-Bracket TX M (Mobile)

1. To use the Half-Bracket upside down on a Speaker Stand, shift the Tilting Fixing Lever and Supporting Bolt as shown in the illustrations. For further details, please refer to Chapter 3.2.



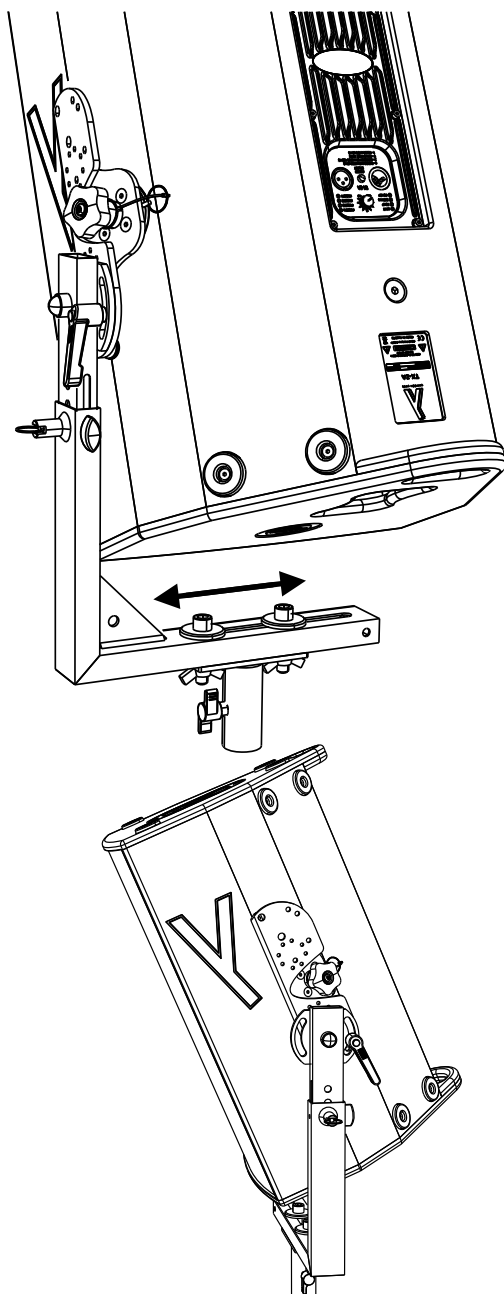
Half-Bracket TX I (Installation)

1. To use the Half-Bracket upside down on a Speaker Stand, shift the Tilting Fixing Lever and Supporting Bolt as shown in the illustrations. For further details, please refer to Chapter 3.2.



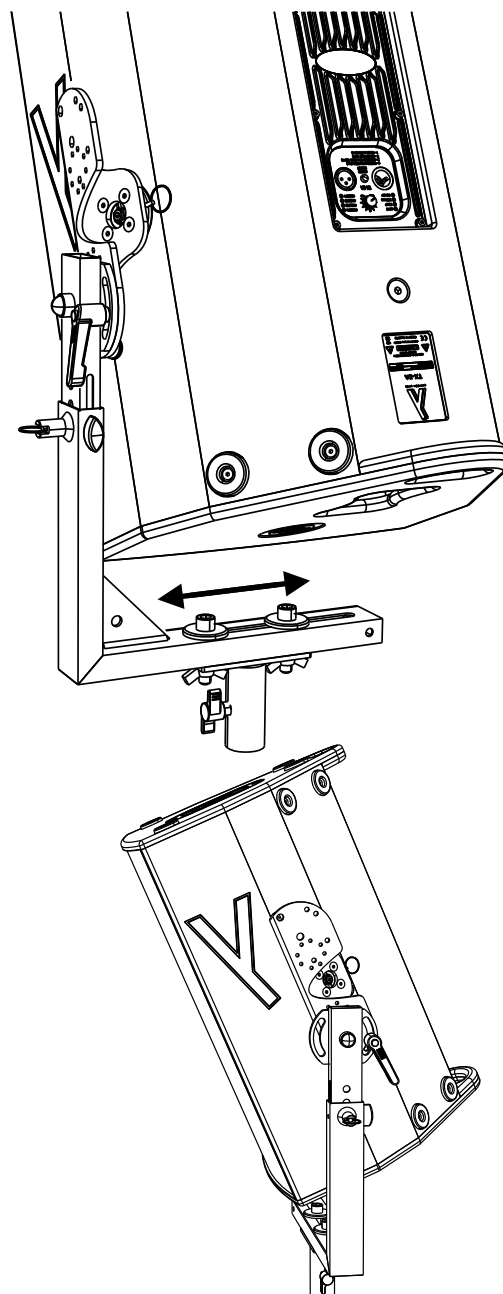
Half-Bracket TX M (Mobile)

- Put the Half-Bracket with the already mounted Stand Adapter on the loudspeaker stand and tilt the loudspeaker until you have reached the desired angle. The Stand Adapter is suitable for all stand types and wall mounts with 35mm diameter pipes. If necessary, move the Stand Adapter to bring the loudspeaker aligned in line with its center of gravity. For further details, please refer to Chapter 5.3 „Stand Adapter Mounting“.



Half-Bracket TX I (Installation)

- Put the Half-Bracket with the already mounted Stand Adapter on the loudspeaker stand and tilt the loudspeaker until you have reached the desired angle. The Stand Adapter is suitable for all stand types and wall mounts with 35mm diameter pipes. If necessary, move the Stand Adapter to bring the loudspeaker aligned in line with its center of gravity. For further details, please refer to Chapter 5.3 „Stand Adapter Mounting“.



Danger: Always ensure a good stability of the loudspeaker, especially when using it with speaker stands. When placing the loudspeaker on the ground or platforms, make sure the area is even and capable to carry the total load! Secure the loudspeaker with straps to the ground or suitable platforms!

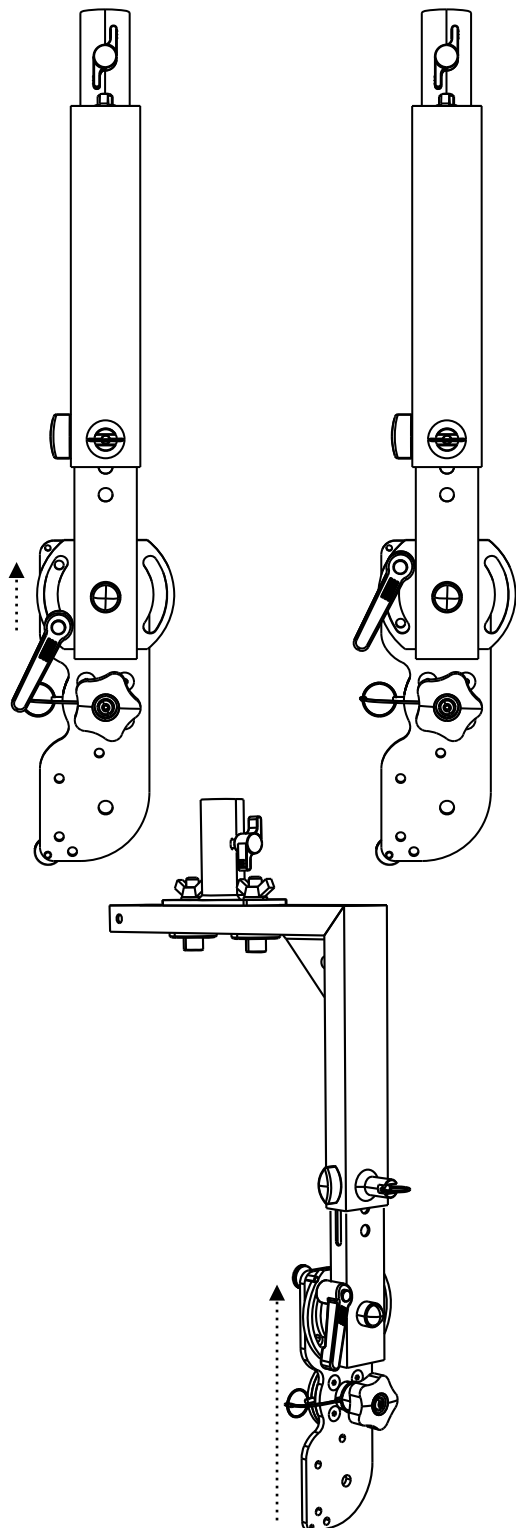


5.2. Converting the Half-Bracket CX

The Half-Bracket can also be used on a speaker stands and wall mounts with 35mm pipe diameter. The following conversion instructions are explained using the Half-Bracket CX M (Mobile) & Half-Bracket TX I (Installation).

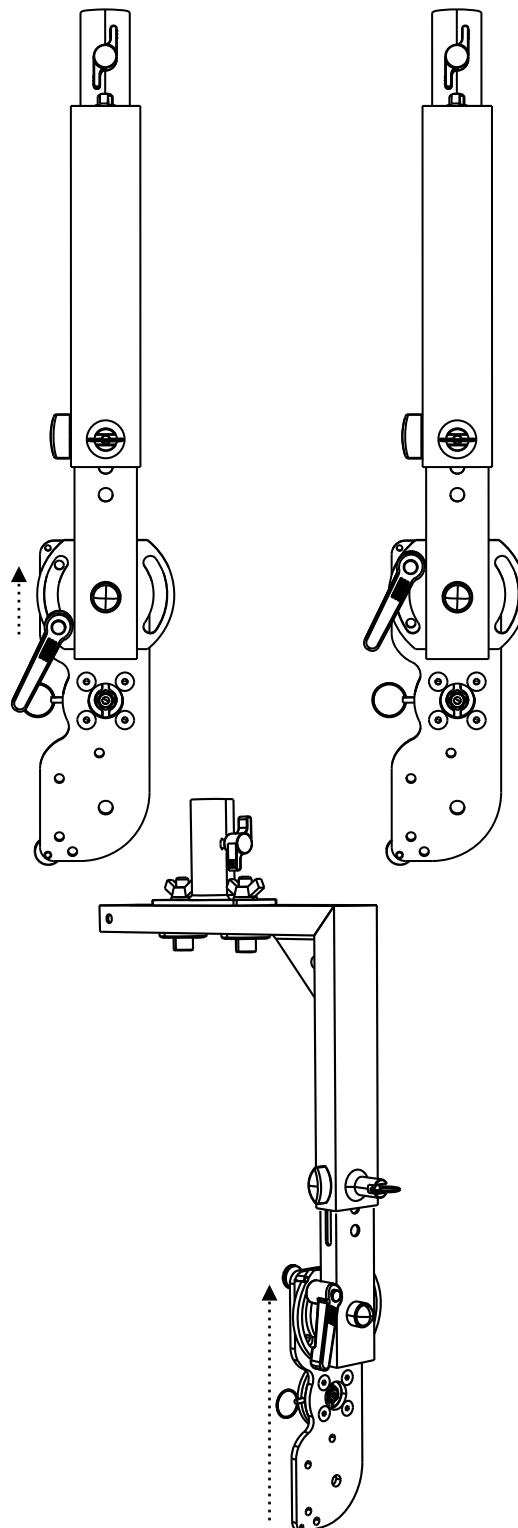
Half-Bracket CX M (Mobile)

1. To use the Half-Bracket upside down on a Speaker Stand, shift the Tilting Fixing Lever and Supporting Bolt as shown in the illustrations. For further details, please refer to Chapter 3.2.



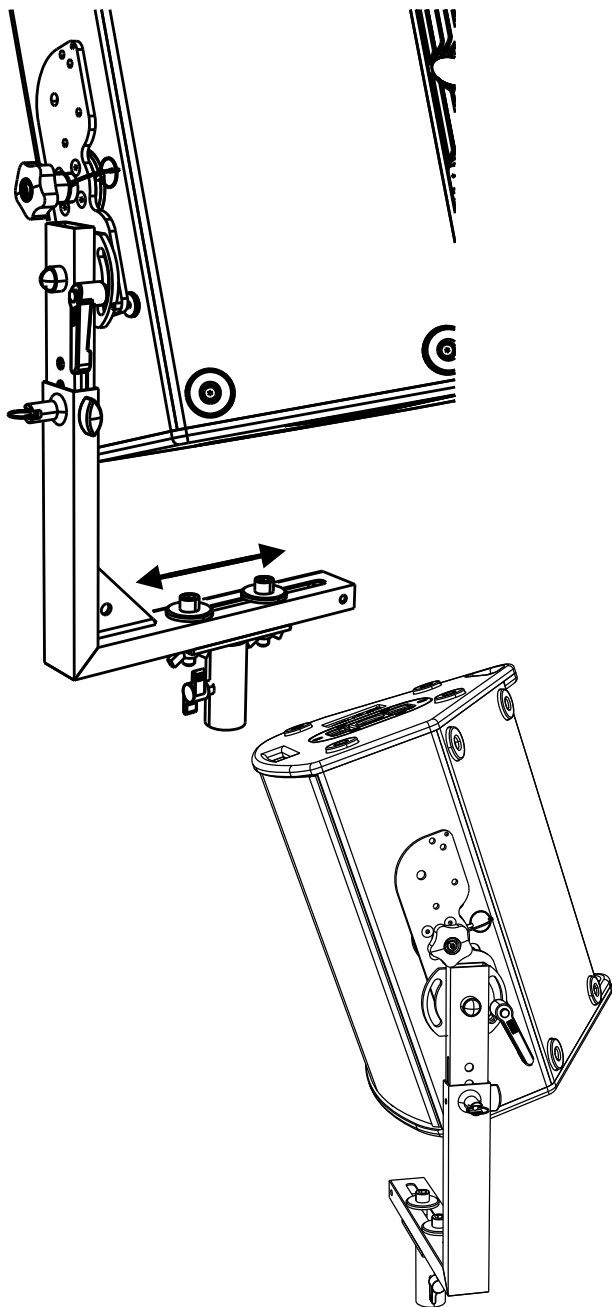
Half-Bracket CX I (Installation)

1. To use the Half-Bracket upside down on a Speaker Stand, shift the Tilting Fixing Lever and Supporting Bolt as shown in the illustrations. For further details, please refer to Chapter 3.2.



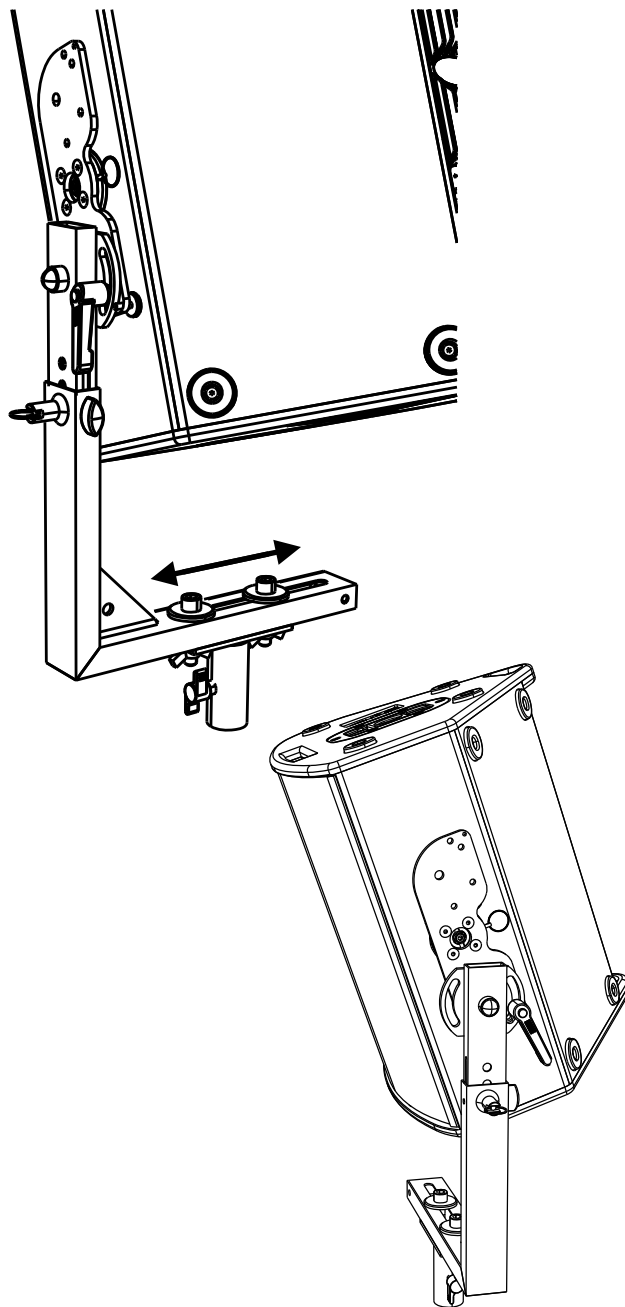
Half-Bracket CX M (Mobile)

- Put the Half-Bracket with the already mounted Stand Adapter on the speaker stand and tilt the loudspeaker until you have reached the desired angle. The Stand Adapter is suitable for all stand types and wall mounts with 35mm diameter pipes. If necessary, move the Stand Adapter to bring the loudspeaker aligned in line with its center of gravity. For further details, please refer to Chapter 5.3 „Stand Adapter Mounting“.



Half-Bracket CX I (Installation)

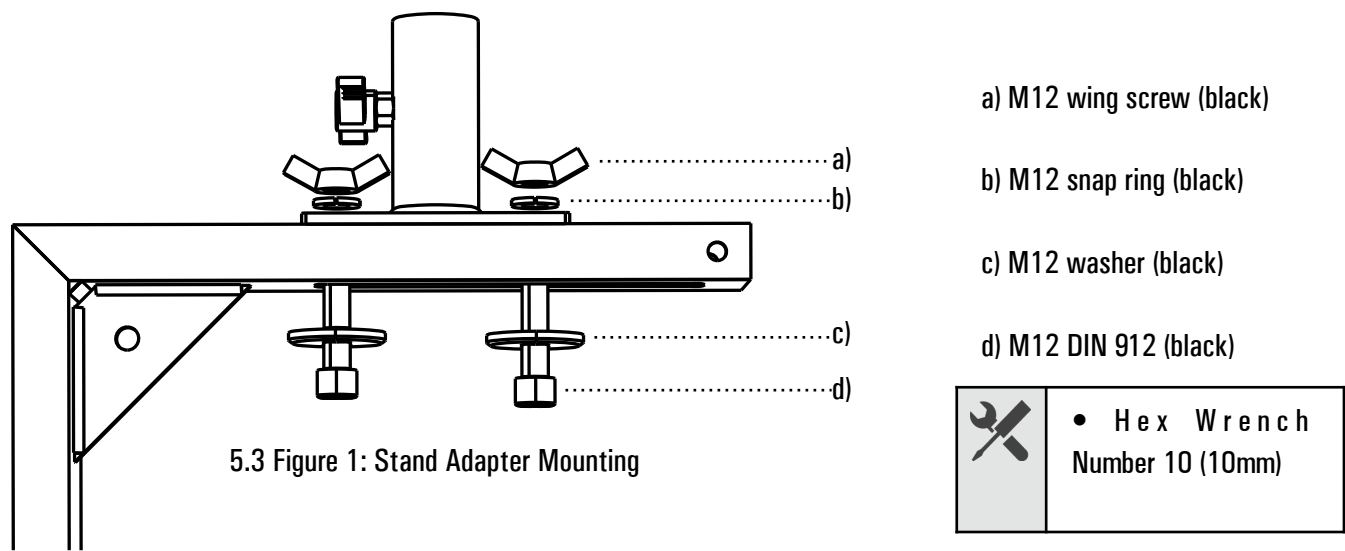
- Put the Half-Bracket with the already mounted Stand Adapter on the speaker stand and tilt the loudspeaker until you have reached the desired angle. The Stand Adapter is suitable for all stand types and wall mounts with 35mm diameter pipes. If necessary, move the Stand Adapter to bring the loudspeaker aligned in line with its center of gravity. For further details, please refer to Chapter 5.3 „Stand Adapter Mounting“.



Danger: Always ensure a good stability of the loudspeaker, especially when using it with speaker stands. When placing the loudspeaker on the ground or platforms, make sure the area is even and capable to carry the total load! Secure the loudspeaker with straps to the ground or suitable platforms!

5.3. Stand Adapter Mounting

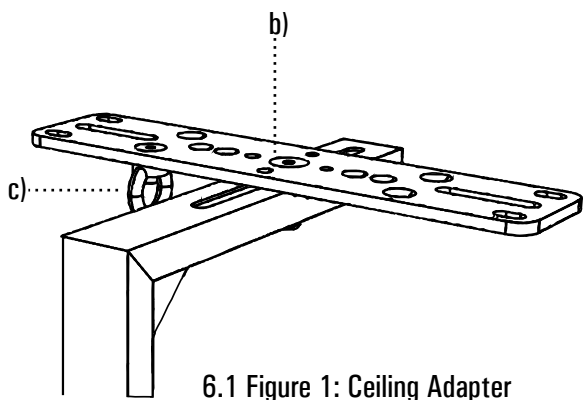
Mounting the Stand Adapter to the Half-Bracket:



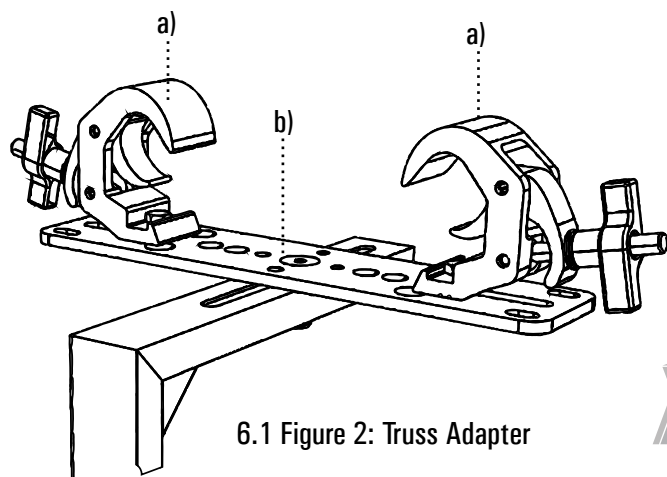
PART	DESCRIPTION of 5.3 Figure 1	REFERENCE
	Stand Adapter The Stand Adapter extends the Half-Bracket of the TX- and CX Series for rotating and tilting stand admission. The Stand Adapter is suitable for all stand types and wall mounts with 35mm diameter pipes.	Chapter 5
	Danger: Make sure that all items are installed correctly! Doublecheck in the case of any doubt!	
	Note: Order the items described above as „Stand Adapter Mounting Set“. Only use Lambda Labs original and approved items!	

6. Half-Bracket Advanced Options

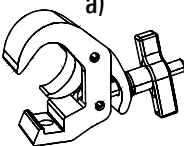
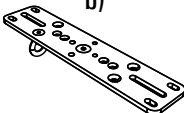


The Half-Bracket can be combined with the Ceiling/Truss Adapter. Use the Adapter plate for direct ceiling mount or for rigging the loudspeaker /cluster to a standard triangle truss.



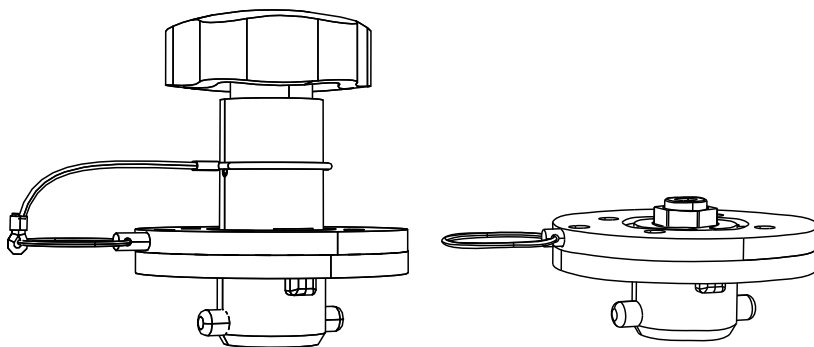
6.1 Figure 1: Ceiling Adapter



6.1 Figure 2: Truss Adapter

PART	DESCRIPTION of 6.1 Figure 1&2	REFERENCE
<p>a)</p>  <p>Size: 107x85x50mm 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 Truss Adapter.</p>	<p>Chapter 3.4 & 3 & 4 & 5 & 6</p>
<p>b)</p> 	<p>Ceiling / Truss Adapter Adapter plate for direct ceiling mounting or for rigging the loudspeaker / cluster between 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>	<p>Chapter 6</p>
<p>c)</p>  <p>Size: 40 mm WLL: (0° load) 230kg SF 1:5 DIN EN 580</p>	<p>M10 Ring Nut 10mm suspension point to mount the mandatory safety rope. The M10 Ring Nut can be mounted at 4 different positions.</p>	<p>Chapter 6</p>
	<p>Note: Order the items described above as „Ceiling/Truss Adapter Mounting Set“. Only use Lambda Labs original and approved items!</p>	

7. Maintenance

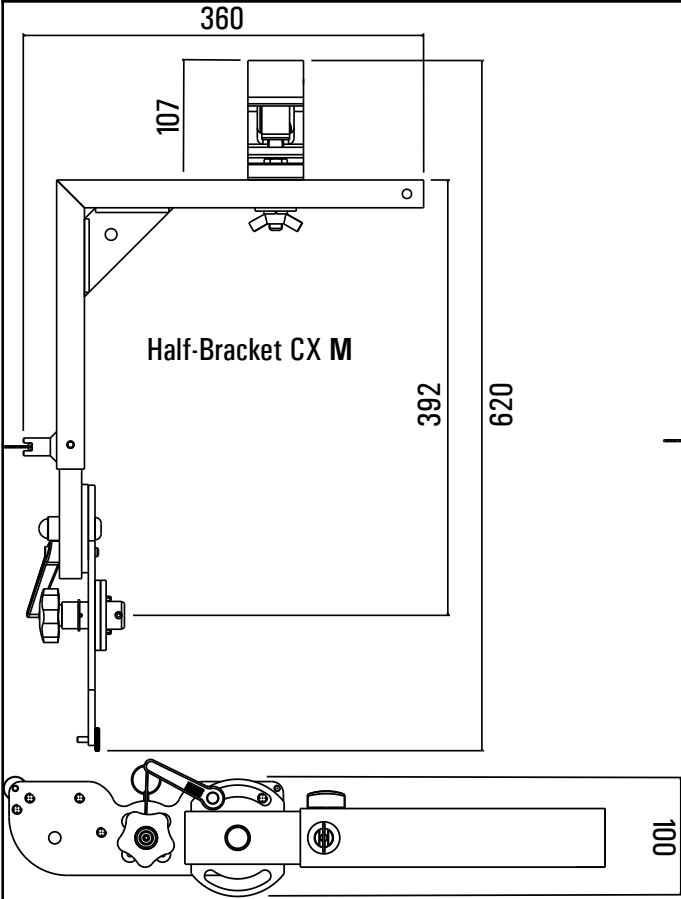
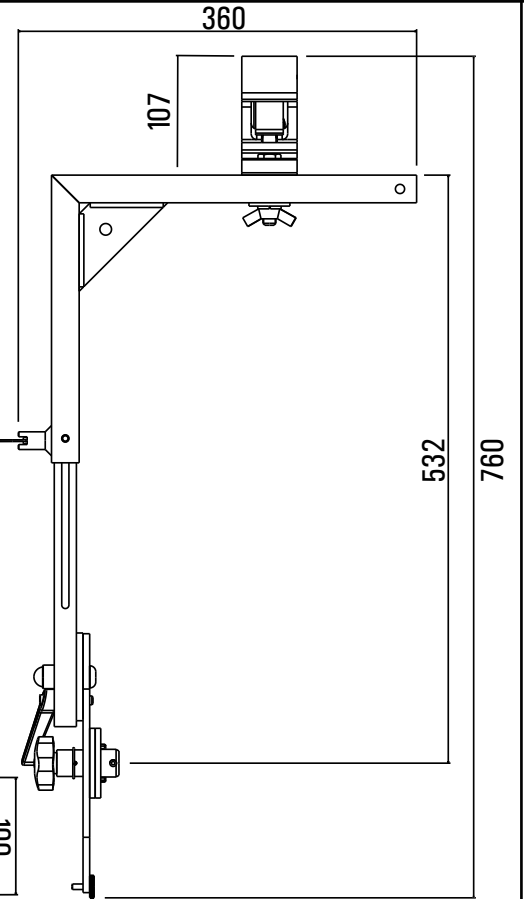
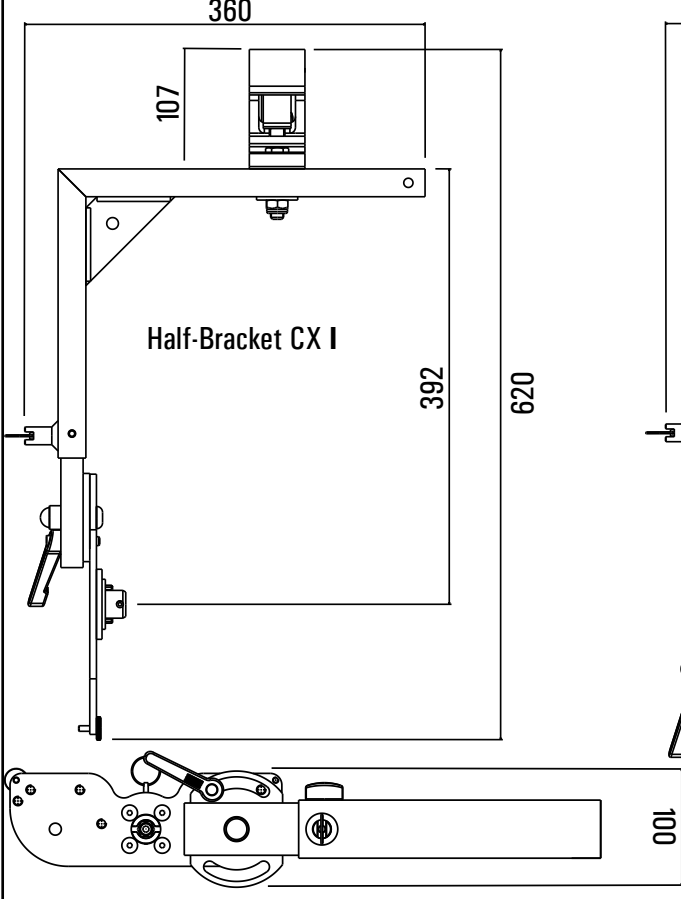
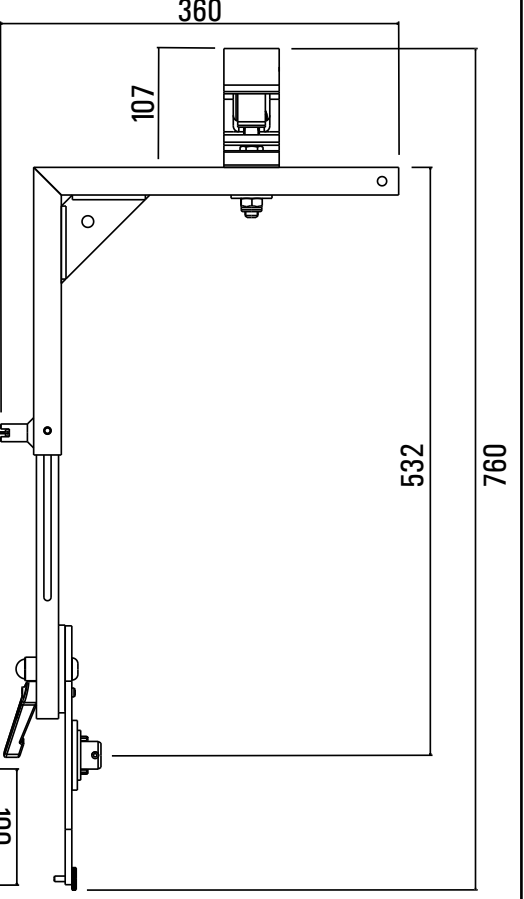


- Clean and protect ALL metal parts of the EPS with WD 40 and/or Rolimeco 1. For salty environments, Rolimeco 5. is recommended. **Do not use ANY other cleaning supplies on these areas!**

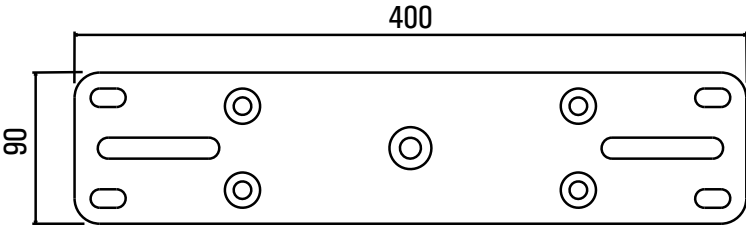
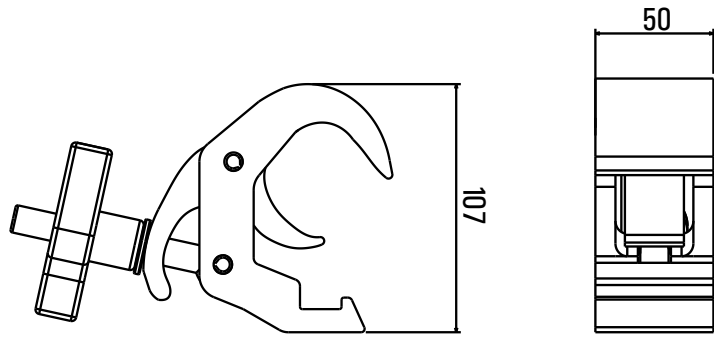
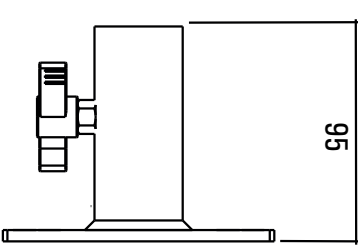


6. Dimensions

Dimensions (mm)		Weight
		<div>2,9 kg / 6,4 lbs</div> <div>incl. Quick Trigger Clamp</div> <div>3,7 kg / 8,2 lbs</div>
		<div>2,8 kg / 6,2 lbs</div> <div>incl. Quick Trigger Clamp</div> <div>3,6 kg / 7,9 lbs</div>

Dimensions (mm)		Weight
		2,45 kg / 5,4 lbs
		incl. Quick Trigger Clamp 3,25 kg / 7,2 lbs
		2,35 kg / 5,2 lbs
		incl. Quick Trigger Clamp 3,15 kg / 7,0 lbs



Dimensions (mm)		Weight
<div><p>Thickness: 8mm</p><p>Ceiling / Truss Adapter</p></div>		2,0 kg / 4,4 lbs
<div><p>Quick Trigger Clamp Pipe Diameter: 38-51mm</p></div>		0,8 kg / 1,8 lbs
<div><p>Stand Adapter For 35mm stands and wall mounts</p></div>		0,4 kg / 0,9 lbs

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7. Drilling Template Ceiling/Truss Adapter

