

MFX Brackets & Accessories

MFX-12MC | MFX-15MC

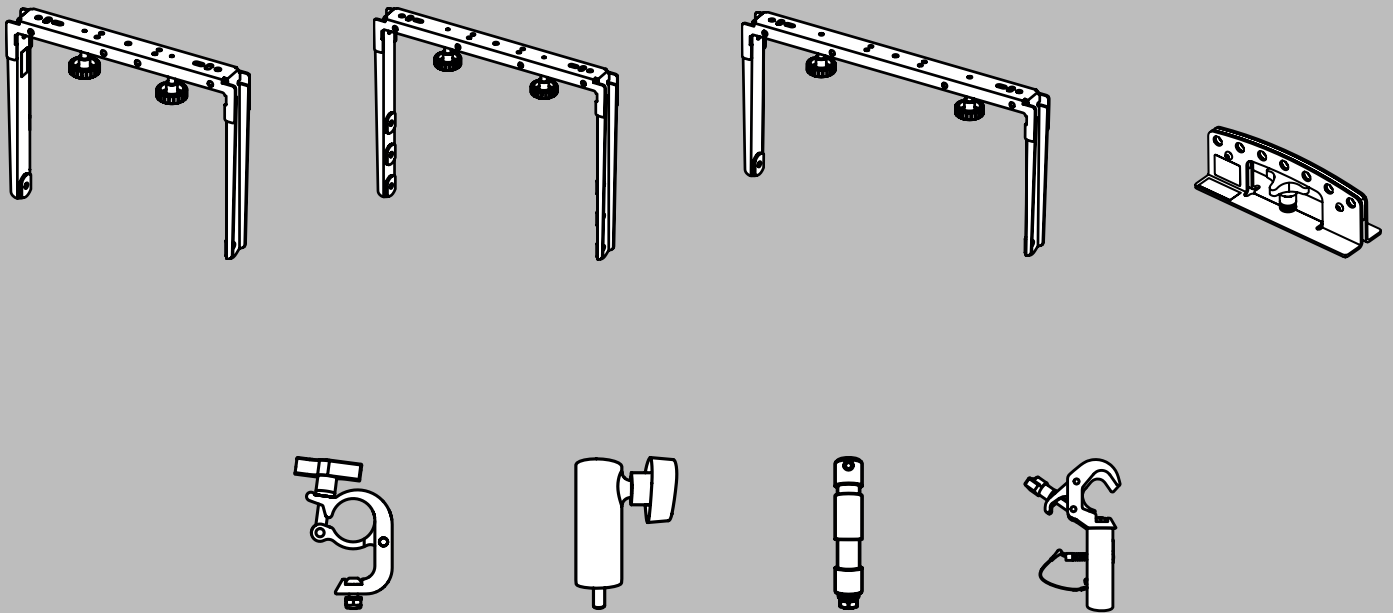
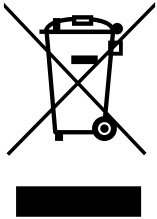


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1 Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with a damp cloth. No harsh chemicals or solvents.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



Old electrical and electronic appliances

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

1.1 Symbols



Warning!

Warning indicates a hazardous situation which, if not avoided, could result in death or serious injury.



Caution!

Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



Notice!

Notice is used to address practices not related to physical injury.



Warning!

Safety glasses, a safety helmet, and safety boots must be used at all times during installation. Failure to do so can result in injury or death.

Symbol	Description	Symbol	Description	Symbol	Description
	Protective headwear shall be worn		Protective eyewear shall be worn		Practice safe lifting
	Protective footwear shall be worn		Protective gloves shall be worn		

1.2 Suspension



Warning!

Read and fully understand the manual and all safety instructions before attempting to suspend this loudspeaker. Qualified professionals must carry out suspension and installation. Follow all applicable local laws and regulations. Incorrect or improper suspension could expose persons to serious injury or death. Carefully inspect loudspeakers and associated hardware for defects or signs of damage before proceeding to suspend the speakers. Inspect all components at least once per year or as local laws and regulations require. If any parts are damaged or suspect, or if there is any doubt as to the proper functioning and safety of the items, stop using them immediately. It is the responsibility of the person installing the assembly to make sure the wall, ceiling, structure, and any attachments are capable of supporting all objects suspended overhead. Never modify Electro-Voice loudspeakers or rigging components or use a partial assembly of rigging components. Only use rigging components with the loudspeaker models they are designed for. Any hardware not provided by Electro-Voice is the responsibility of others. Electro-Voice assumes no liability for any damage or personal injury resulting from improper use, installation, or operation of the product.



Warning!

Always attach a secondary support mechanism with correctly rated equipment when speakers are suspended overhead. In case of failure of the main attachment, the speaker must be prevented from falling without dropping or swinging by a significant amount.



Warning!

Arrays designed for outdoor use must take into account environmental effects such as wind loads, snow or any other condition that exert external forces on the array. Always use a qualified professional to certify outdoor arrays for safety to local environmental conditions.

1.3 Precautions

	<p>These Electro-Voice loudspeakers were designed for use in an environment with ambient temperatures between -20°C (-4°F) and +50°C (122°F).</p>
	<p>MFX Multi-Function Monitors are not designed for direct exposure to rain and/or outdoor environments.</p>
	<p>Electro-Voice loudspeakers are easily capable of generating sound pressure levels sufficient to cause permanent hearing damage. Caution should be taken to avoid prolonged exposure to sound pressure levels exceeding 90 dB.</p>

1.4 Copyright and disclaimer

All rights reserved. No part of this document may be reproduced or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. For information on getting permission for reprints and excerpts, contact Electro-Voice.

All content including specifications, data, and illustrations in this manual are subject to change without prior notice.

1.5

Declaration of conformity

Bosch Security Systems Inc.

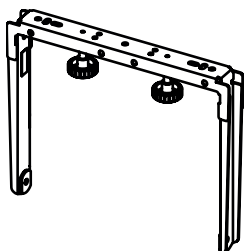
130 Perinton Pkwy, Fairport, NY 14450 USA

Hereby declares conformity to the following standards:

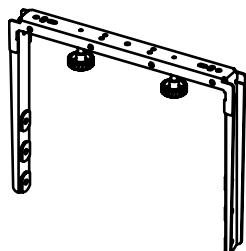
- IEC60065:2014
- RoHS 3 EU 2015/853
- ISO 12100:2010
- DGUV Regulation 17

2 System overview

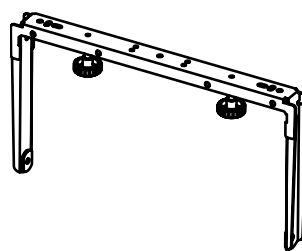
2.1 Brackets and accessories for MFX multi-function monitors



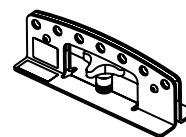
MFX-UB420



MFX-UB500



MFX-UB600



MFX-RB-B



TC-02



PCL-M10



FB-TV



TC-TY

Brackets	Accessories
MFX-UB420 U-Bracket	TC-02 Truss Clamp
MFX-UB500 U-Bracket	PCL-M10 Bracket Pole Mount Adapter
MFX-UB600 U-Bracket	FB-TV Flying Bracket TV Stud
MFX-RB-B Rigging Bar	TC-TV Truss Clamp for TV Stud

Tab. 2.1: Brackets and accessories for MFX Multi-Function Monitors

3 MFX brackets installation

3.1 MFX brackets and rigging bar dimensions

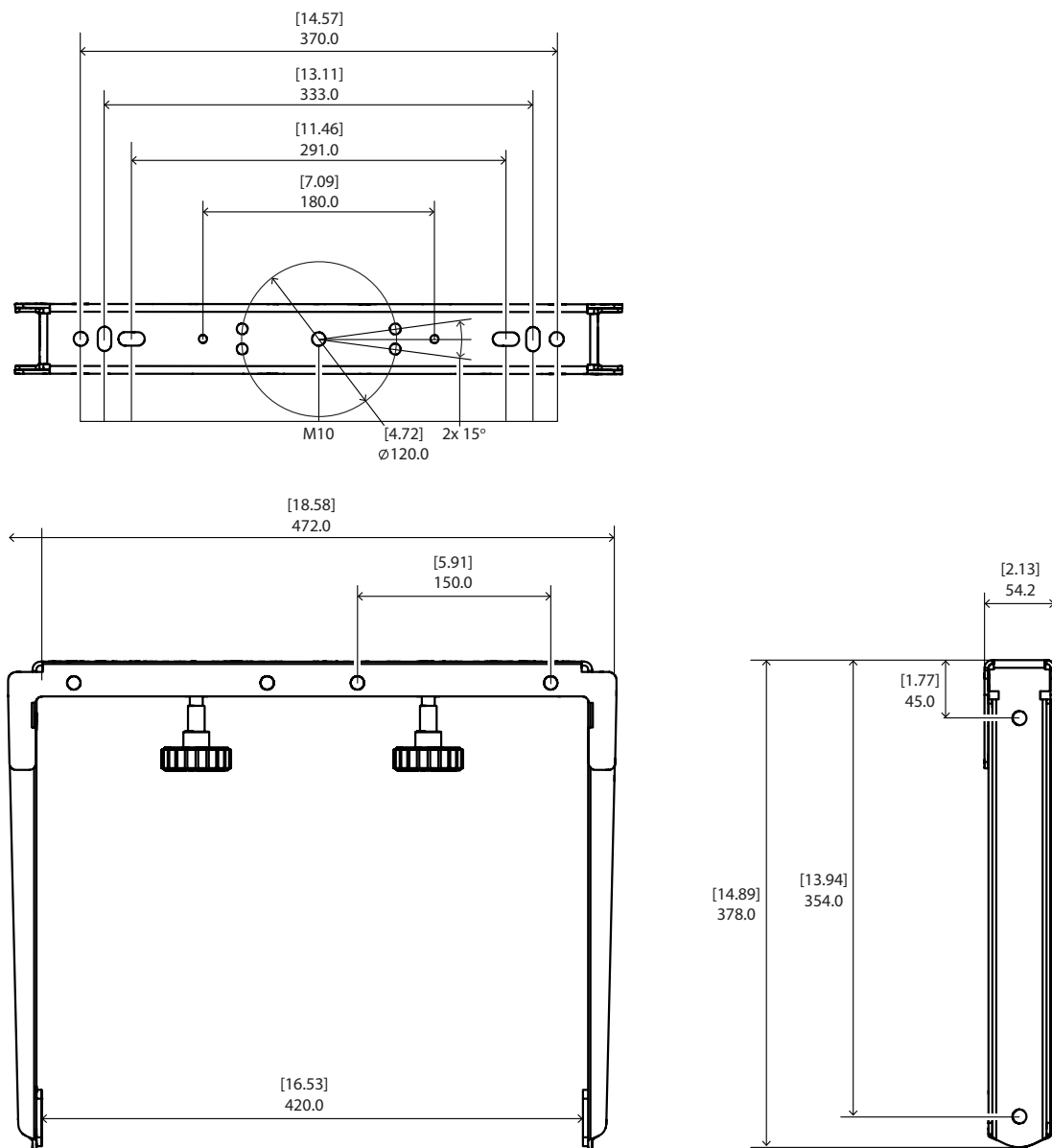


Figure 3.1: UB420 bracket dimensions
 Net weight: 2.55 kg (5.62 lbs)

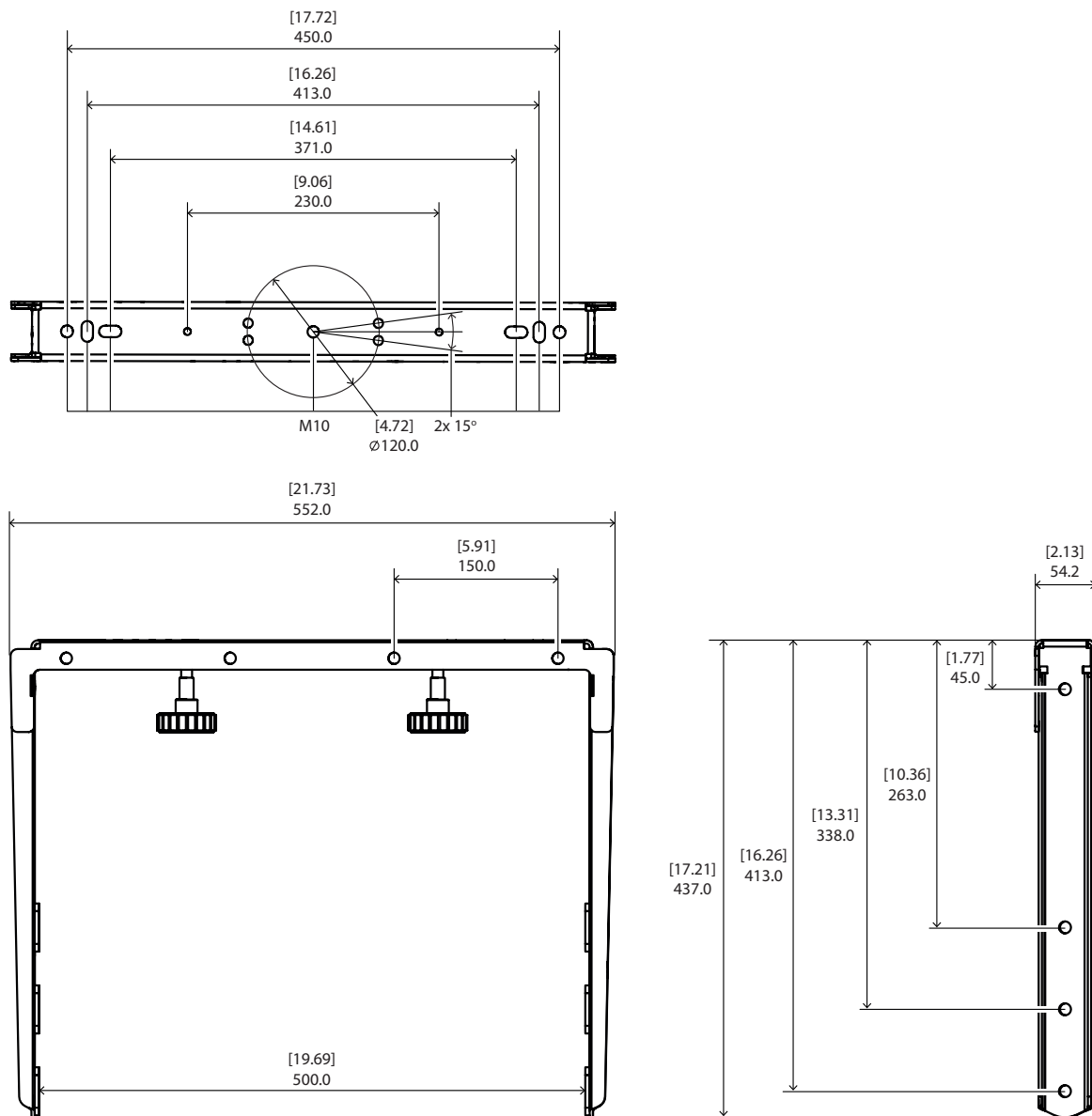


Figure 3.2: UB500 bracket dimensions

Net weight: 2.90 kg (6.39 lbs)

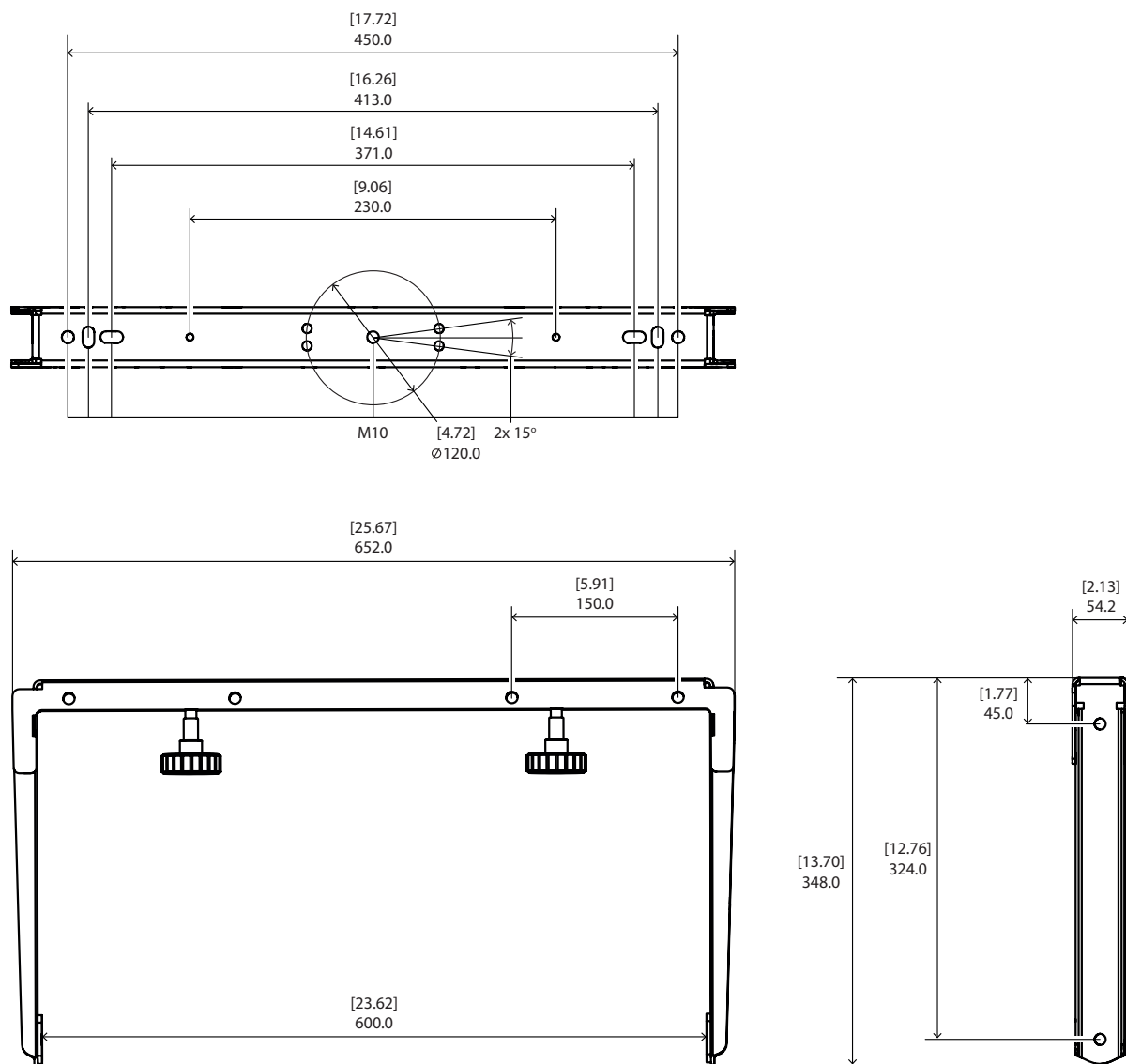


Figure 3.3: UB600 bracket dimensions

Net weight: 2.55 kg (5.62 lbs)

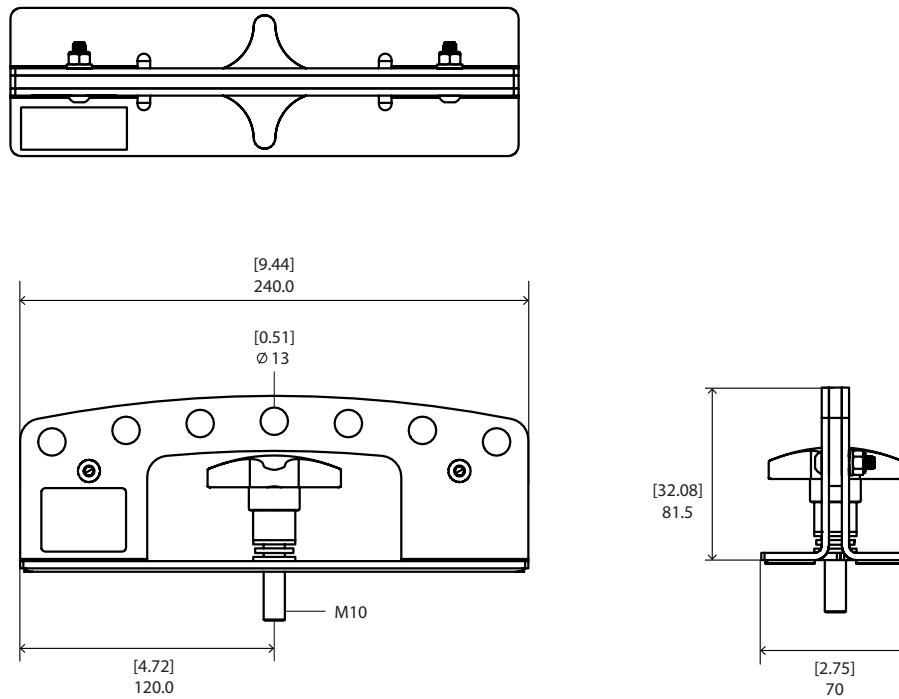
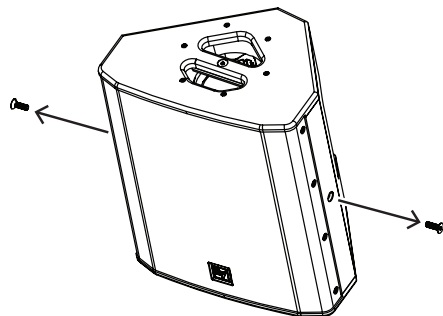


Figure 3.4: MFX-RB-B rigging bar dimensions
 Net weight: 1.43 kg (3.15 lbs)

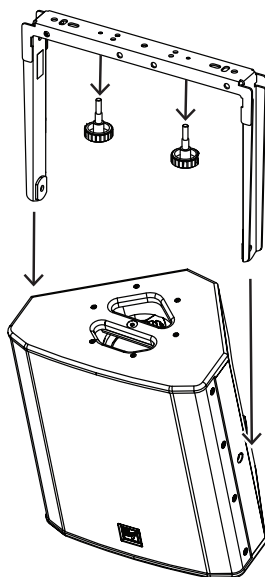
3.2 MFX-UB420

The MFX-UB420 U-Bracket functions as a flying bracket or support yoke for the MFX-12MC in vertical orientation.

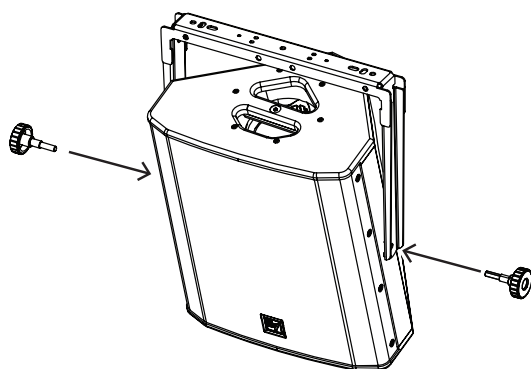
1. Remove the (2) M10 screws on the sides of the loudspeaker.

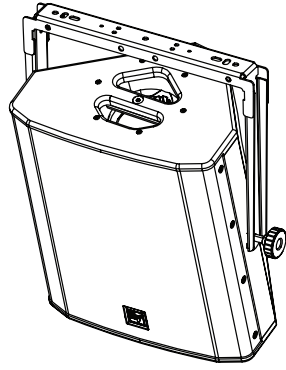


2. Remove the hand wheels screwed to the bracket.
3. Align the bracket with the loudspeaker.



4. Insert the (2) hand wheels through the bracket and into the loudspeaker.





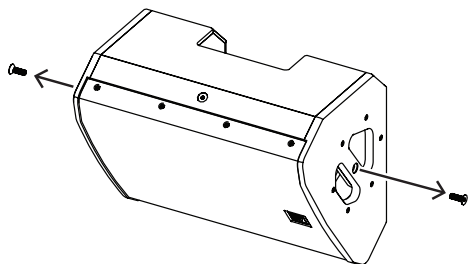
5. Tighten the hand wheels after tilting the loudspeaker to the desired position.

3.3 MFX-UB500

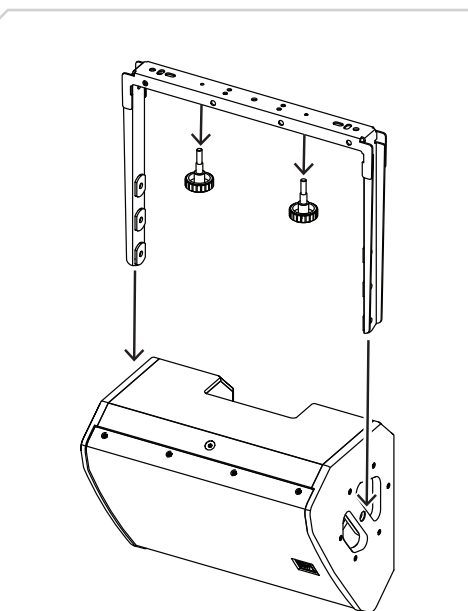
The MFX-UB500 can function as:

- U-Bracket for the MFX-12MC in horizontal orientation.
- Flying bracket or support yoke for the MFX-15MC in vertical orientation.

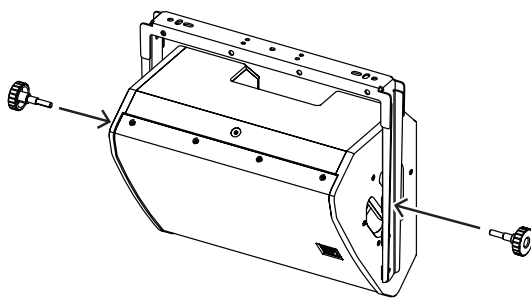
MFX-UB500 as U-Bracket for the MFX-12MC in horizontal orientation



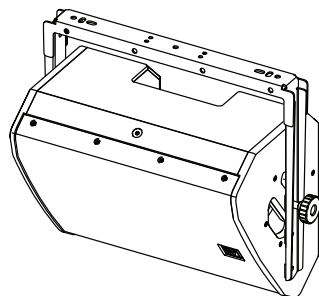
1. Remove the (2) M10 screws on the sides of the loudspeaker.



2. Remove the hand wheels screwed to the bracket.
3. Align the bracket with the loudspeaker.

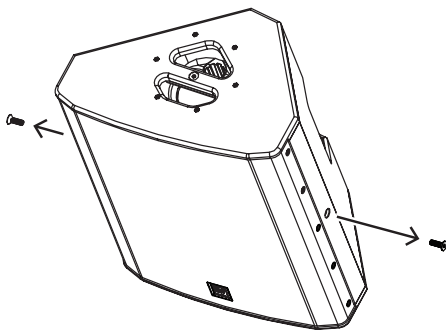


4. Insert the (2) hand wheels through the bracket at the desired mounting hole and into the loudspeaker.

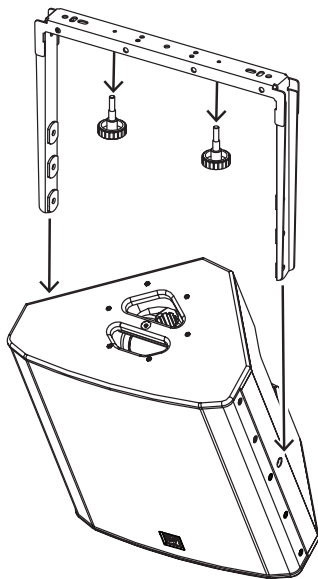


5. Tighten the hand wheels after tilting the loudspeaker to the desired position.

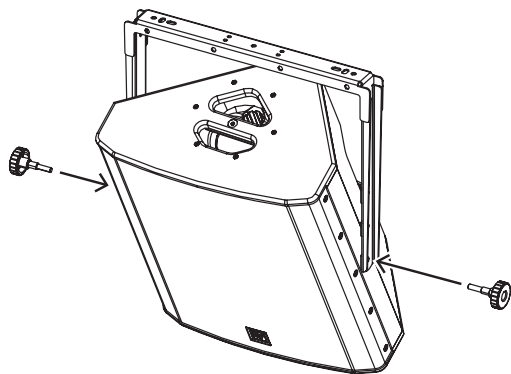
MFX-UB500 as a flying bracket or support yoke for the MFX-15MC in vertical orientation



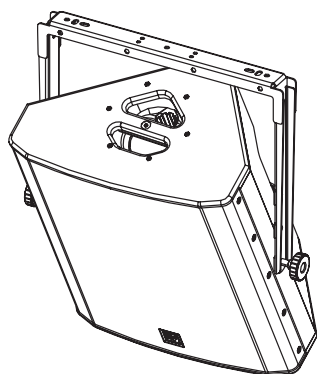
1. Remove the (2) M10 screws on the sides of the loudspeaker.



2. Remove the hand wheels screwed to the bracket.
3. Align the bracket with the loudspeaker.



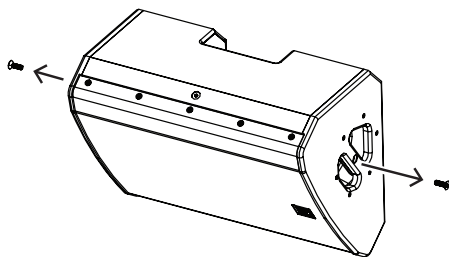
- 4. Insert the (2) hand wheels through the bracket and into the loudspeaker.



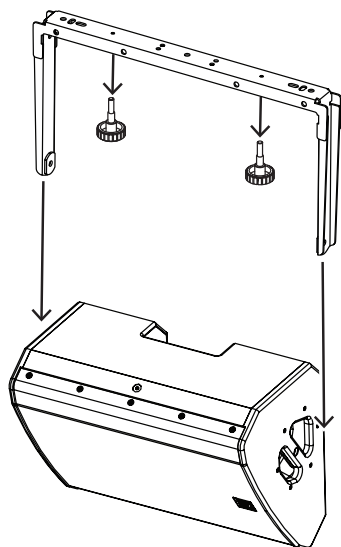
- 5. Tighten the hand wheels after tilting the loudspeaker to the desired position.

3.4 MFX-UB600

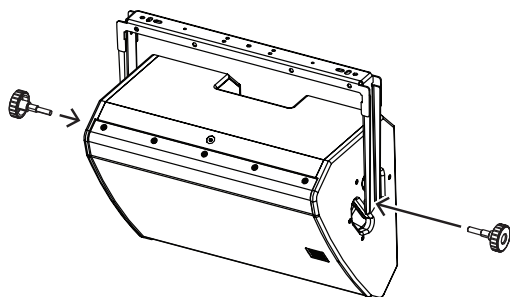
The MFX-UB600 functions as a U-Bracket for the MFX-15MC in horizontal orientation.



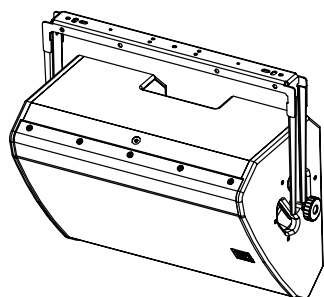
1. Remove the (2) M10 screws on the sides of the loudspeaker.



2. Remove the hand wheels screwed to the bracket. Align the bracket with the loudspeaker.



3. Insert the (2) hand wheels through the bracket and into the loudspeaker.

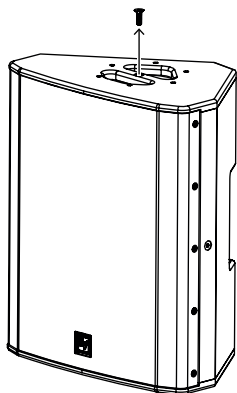


4. Tighten the hand wheels after tilting the loudspeaker to the desired position.

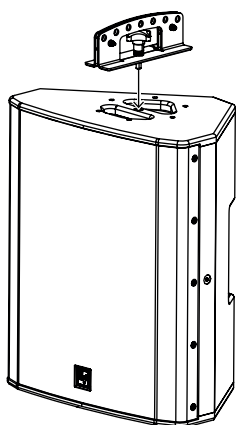
3.5

MFX-RB-B

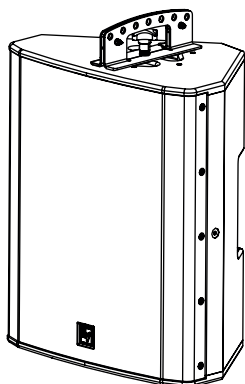
The MFX-RB-B functions as a rigging bar for the MFX loudspeaker and comes with 7 separate aiming angles.



1. Remove the M10 screw on the top of the loudspeaker.

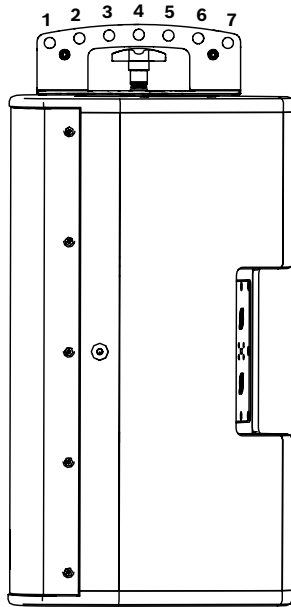


2. Align the rigging bar with the loudspeaker.
3. Insert the hand wheel of the rigging bar through the M10 hole of the loudspeaker.



4. Tighten the hand wheel.

Determining aiming angles with the MFX rigging bar



Hole number	MFX-12MC	MFX-15MC
1	19.5°	15.6°
2	13.3°	9.8°
3	6.5°	4.0°
4	0°	-1.8°
5	-7.05°	-7.7°
6	-13.7°	-13.2°
7	-20.3°	-18.9°

4 MFX accessories installation

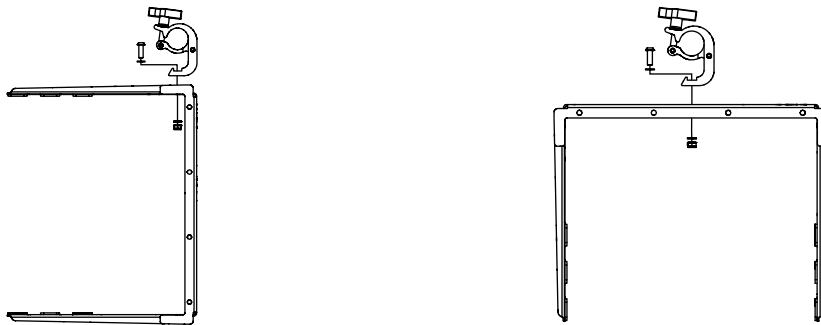
4.1 TC-02 Truss clamp

The TC-02 Truss clamp is used to attach a bracket to a truss, or the loudspeaker directly to a truss.

To attach the TC-02 Truss clamp to the bracket you need the following included hardware:

- 1 M10 screw
- 1 M10 lock washer
- 1 M10 flat washer
- 1 M10 nut

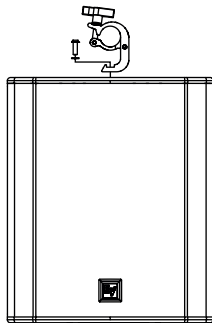
1. Place the lock washer between the M10 screw and Truss Clamp.
2. Place the flat washer between the bracket and the nut.
3. Tighten the screw and nut.



To attach the TC-02 Truss clamp directly to the speaker you need the following included hardware:

- 1 M10 screw
- 1 M10 lock washer
- 1 M10 flat washer

1. Remove the M10 screw on the top of the speaker.
2. Place the lock washer between the M10 screw and Truss Clamp.
3. Insert the screw into the speaker and tighten fully.



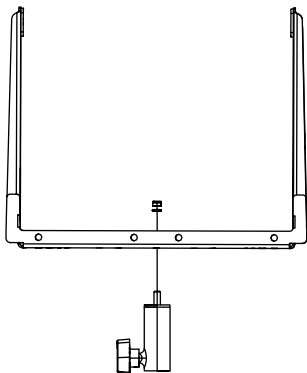
4.2 PCL-M10

The PCL-M10 is an adapter with a 35mm pole mount Receptacle and an M10 threaded screw attachment. It can be attached to brackets or the speaker directly and then mounted on a speaker stand or pole.

To attach the PCL-M10 to the bracket you need the following included hardware:

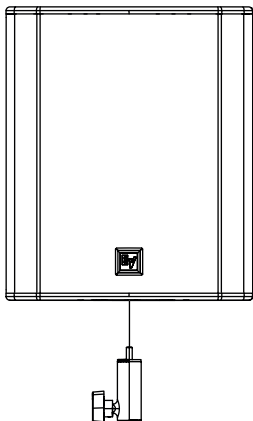
- 1 M10 screw
- 1 M10 flat washer
- 1 M10 nut

1. Place the PCL-M10 through the bracket.
2. Place the M10 washer and then the M10 nut onto the M10 threaded screw of the PCL-M10.
3. Tighten the M10 nut, securing the PCL-M10 to the bracket.



To attach the PCL-M10 directly to the speaker:

1. Remove the M10 screw on the bottom of the speaker.
2. Screw the PCL-M10 all the way into the speaker.
3. Tighten fully.

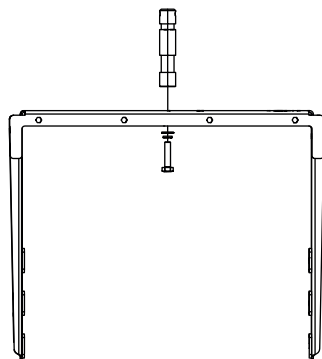


4.3 FB-TV Flying Bracket TV Stud

The FB-TV Flying Bracket TV Stud is used to provide a quick-release connection to other TV Stud accessories.

To attach the FB-TV Stud to the bracket you need the following included hardware:

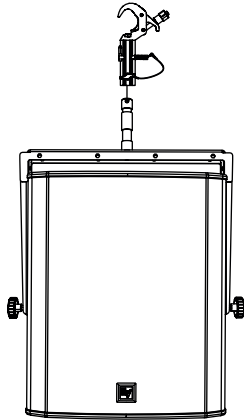
- 1 M10 screw
 - 1 M10 flat washer
1. Place the M10 flat washer onto the M10 screw.
 2. Insert the M10 screw through the U-bracket and into the FB-TV Stud.
 3. Tighten the screw.



4.4 TC-TV Truss Clamp TV Stud

The TC-TV Truss Clamp TV Stud has a quick release feature and is used together with the FB-TV Flying Bracket TV Stud.

1. Slide the TC-TV clamp onto the FB-TV stud.
2. Insert the safety pin through the lock hole and secure it by swiveling the lock tab 90° so that it is parallel to the clamp sleeve.
3. Tighten the lock screw on the clamp.



5 Secondary Safety

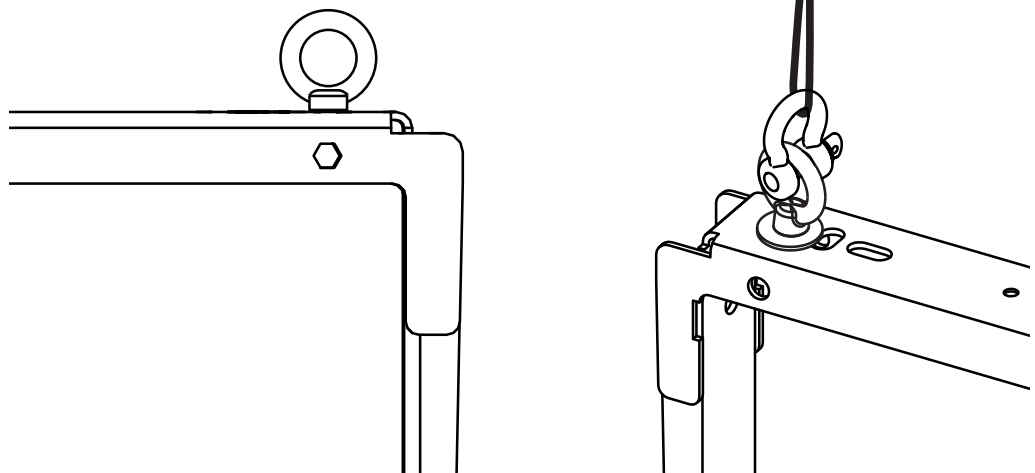
In addition to the primary means of mounting or suspension, all loudspeaker cabinets, arrays, or clusters must be securely attached to an independent, secondary means of suspension using rigging components with correct and appropriate load ratings. The secondary safety system should connect the loudspeaker system, bracket or flying grid to a unique anchor or fly point that is mechanically separate from that used by the primary suspension. Both the primary and secondary support systems must be capable of bearing the full weight of all attached loudspeakers.

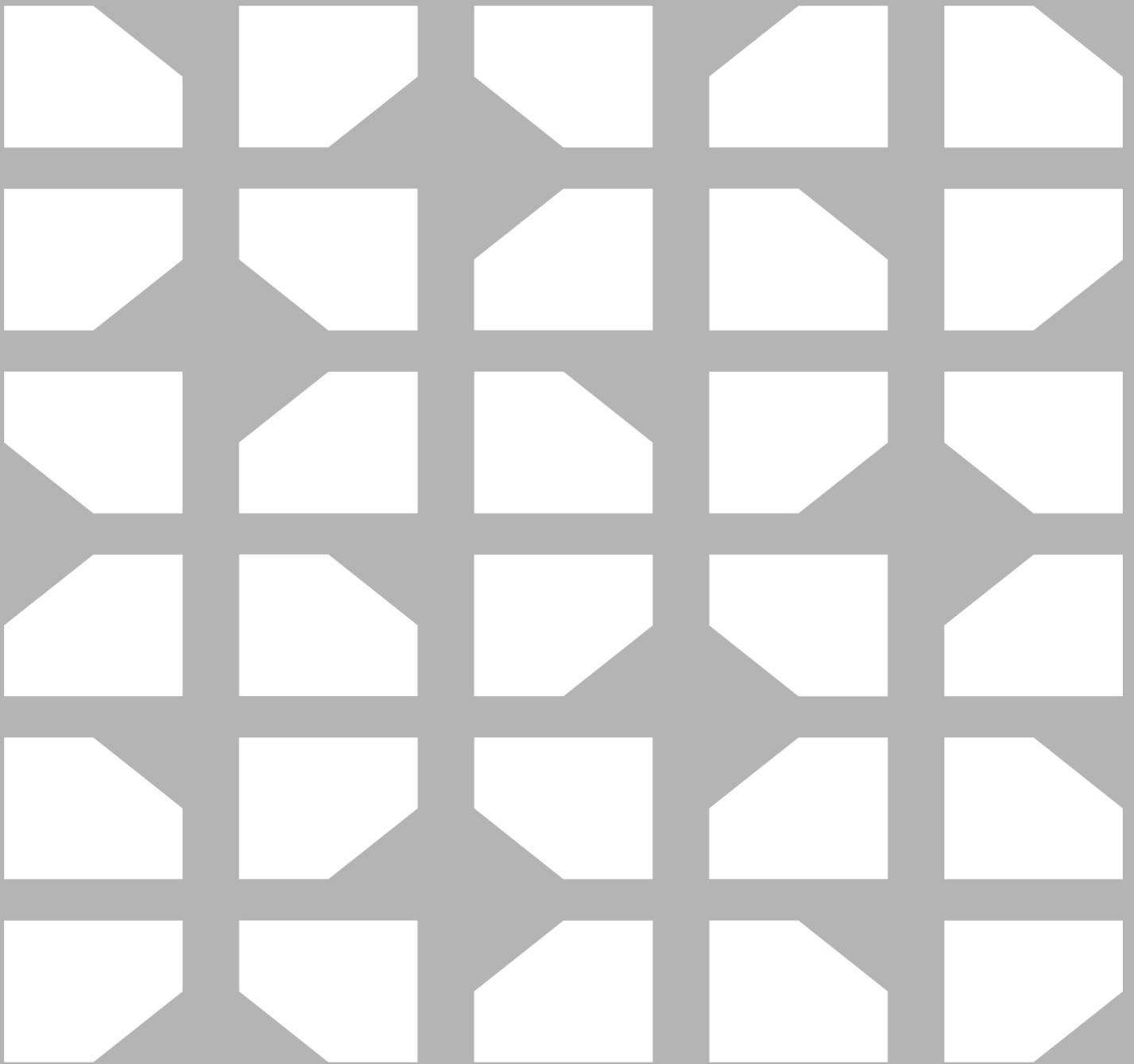
Steel wire ropes, steel chains or other means of suspension with approved construction, load capacity, and fire rating (when appropriate) should be used as the basis of the secondary support system. When attached, each cable or chain should have a small amount of slack but normally no more than 20mm (¾ inch). The secondary support system must be implemented in such a way that - in the event that the main suspension fails - the entire loudspeaker system will be caught with minimal drop and sway when the secondary suspension system is engaged.

Qualified professionals must specify all secondary safety components, attachment methods, and anchor or fly points. Follow all applicable local laws and regulations.

Example of secondary support mechanism

1. Attach an M10 Eye-Bolt to the bracket
2. Attach a steel wire rope to the eye-bolt with an appropriate shackle.
3. Secure the other end of the wire rope to a mechanically separate attachment point.
4. Leave approximately 20 mm (¾ inch) slack.





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