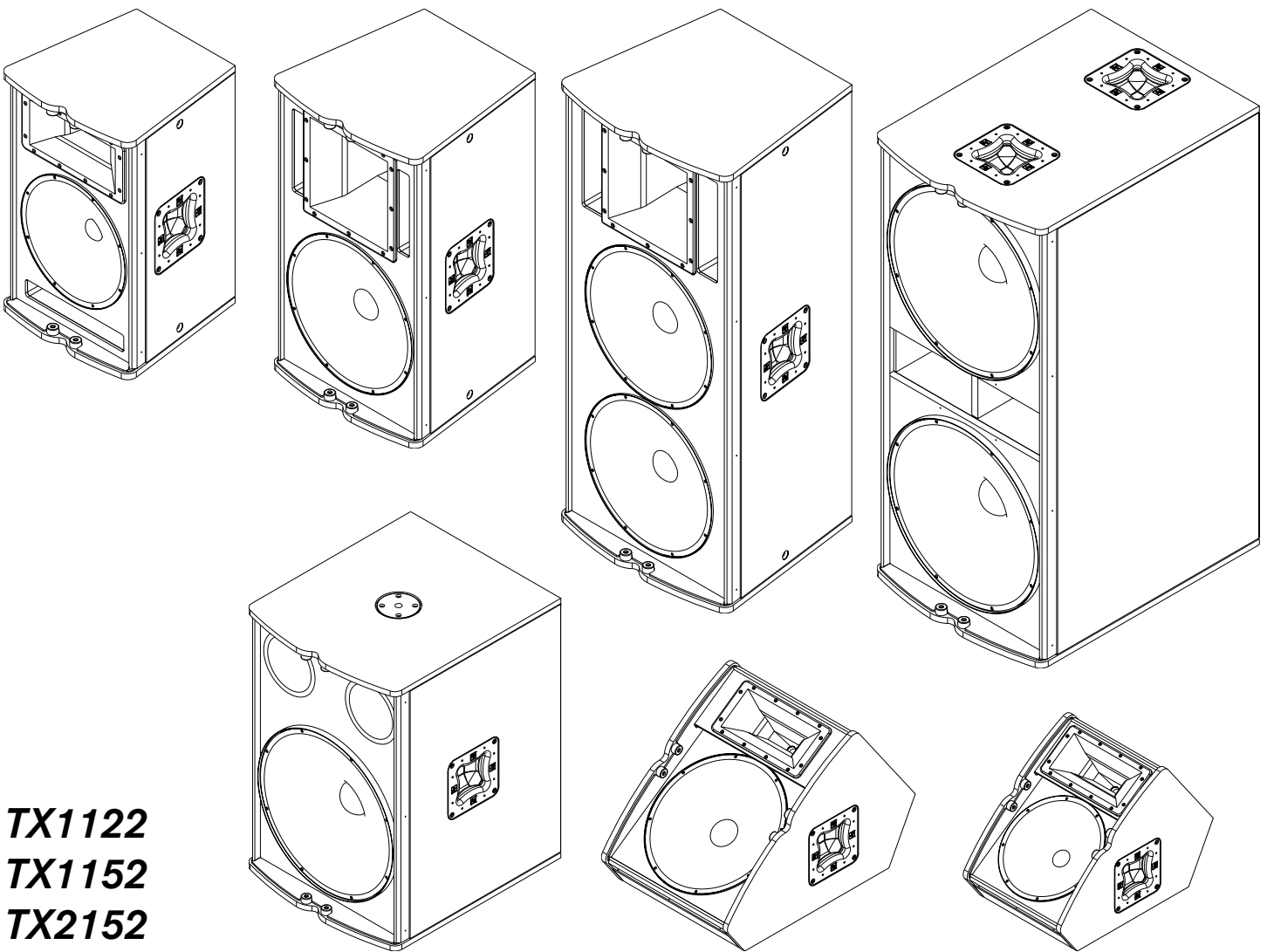


Tour X

Tour X Series Loudspeaker Owner's Manual



TX1122

TX1152

TX2152

TX1181

TX2181

TX1122FM

TX1152FM

Live For Sound
www.electrovoice.com



Tour X

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



The asterisk within an equilateral triangle is intended to inform the user to necessary installation or removal instructions regarding equipment or hardware use relating to the system.

Tour X Series Owner’s Manual

Thank you for choosing the Electro-Voice Tour X series loudspeaker system. Please take time to consult this manual so that you can understand all the features built into your EV system and fully utilize all its performance capabilities.

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Safety First

Suspension: The Electro-Voice TX1122, TX1152, and TX2152 have threaded points that can be used for suspension. Please consult pages 3-6 on properly suspending Tour X models prior to installation.



WARNING: Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of suspending objects overhead.

Electro-Voice strongly recommends that Tour X speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that all loudspeakers are safely installed in accordance with all such regulations. If Tour X loudspeakers are suspended, Electro-Voice strongly recommends that the system be inspected at least once a year. If any sign of weakness or damage is detected, remedial action should be taken immediately. Any hardware used to suspend a Tour X loudspeaker that is not associated with Electro-Voice is the responsibility of others.

Stand Mount: The Electro-Voice TX1122 and TX1152 include 1-3/8" stand mounts for use with tripod stands. Check the specifications of the speaker stand to be certain it is capable of supporting the weight of the speaker. Place the speaker stand on a flat, stable surface and be sure to fully extend the legs of the stand. Do not try to make the stand "taller" and compromise its structural integrity. Do not attempt to suspend more than one speaker on a stand designed for a single speaker. Unless you are confident that you can safely handle lifting the weight of the speaker onto the stand, ask another person to help you place it. Route cables and position the stand so that performers, production crew and audience members will not trip over the stand or cables and pull the speaker system over. Secure the cables with wire ties or tape whenever possible.

Ground Stack: The Electro-Voice TX2152 can be vertically stacked on a TX2181 to elevate the horn above the audience. Unless you can safely lift the weight of the loudspeaker on to the ground stack, have another person to help you place it. The ground stack should be placed on a solid, level surface. When using subs on a surface that is hard or slick, take precautions to prevent the stacks from "walking". When using a ground stack in windy outdoor conditions, when the surface is slippery, or when in adverse conditions, Electro-Voice recommends using a ratchet strap to secure the speakers.

Hearing Exposure: Electro-Voice Tour X loudspeakers are capable of producing sound pressure levels sufficient to produce permanent hearing damage. Caution should be taken to avoid prolonged exposure to sound pressure levels exceeding 90 dB.

Moisture: Electro-Voice does not recommend using Tour X loudspeakers in the rain or in high moisture environments without protection.

Tour X

Description

The Electro-Voice Tour X professional loudspeakers are a unique and highly-functional package of pro audio performance, versatility and aesthetics. Many of the design features are taken from EV's many years of experience in designing transducers and loudspeaker systems for high quality concert touring applications. The TX1122, TX1152, and TX2152 are multipurpose full-range loudspeakers that are equally suited for portable and fixed installation applications. The TX1181 and TX2181 subwoofers are designed for low frequency reinforcement of the full-range loudspeakers. The TX1122FM and TX1152FM are purpose-built vertical floor monitors with (patent pending) Signal Synchronized Transducers (SST) for small to medium sized stages.

General System Features

- Low distortion, high excursion SMX and EVS woofers
- DH3 and ND2 compression drivers mated to Constant Directivity horns
- Lightweight and durable enclosures with EVCoat
- High strength, 16GA steel "backbone" design grilles with rotatable logos
- High order crossovers with equalization and HF protection
- Dual NL4 input connectors
- Multi grip handles
- High sensitivity and power handling
- Six (6) M8 or six (6) 3/8-inch or threaded points for eyebolt suspension (TX1122, TX1152, and TX2152 only)
- Signal Synchronized Transducers (TX1122FM and TX1152FM only)

Suspending TX1122, TX1152, and TX2152

The TX1122, TX1152, and TX2152 enclosures have (6) M8 or (6) 3/8-inch threaded points; (3) points on the top of the enclosure and (3) points on the bottom (Figure 1). Forged shoulder eyebolts that are rated for overhead suspension may be used to suspend an individual loudspeaker, such as the EBK-1 or EBK-3 accessory.

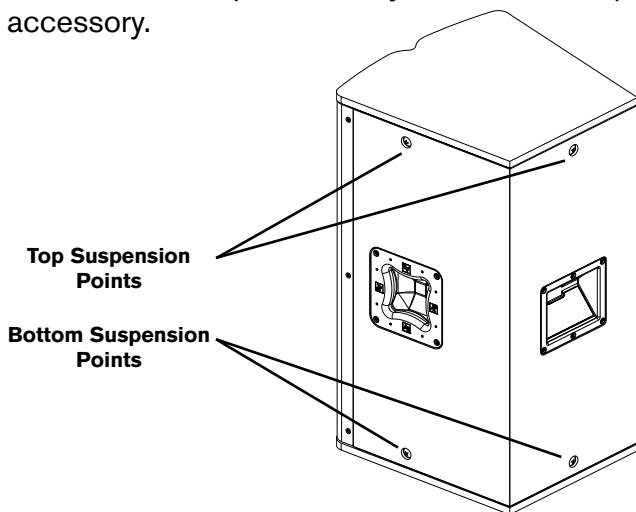


Figure 1a:
TourX Suspension Points
(Right-Top View)

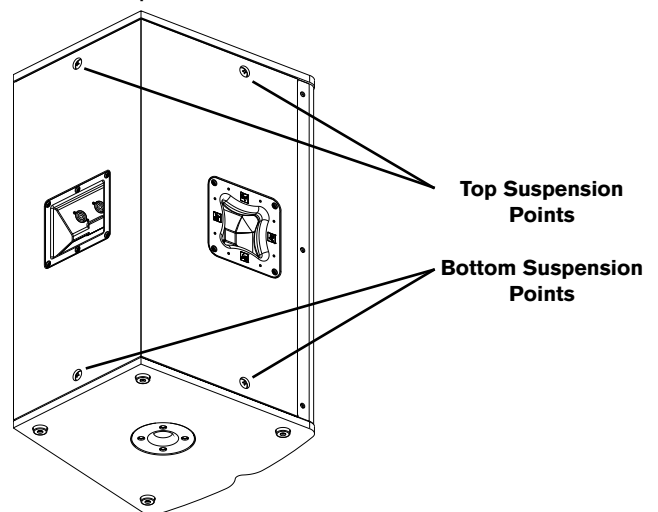


Figure 1b:
TourX Suspension Points
(Left-Bottom View)

Suspending TX1122, TX1152, and TX2152 (continued)

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

To install the eyebolts, remove the M8 or 3/8-inch screw in the desired locations and replace with the fender washer and eyebolt (Figure 2). If the eyebolts are removed, reinstall the screw; otherwise air leaks will occur in the enclosure, resulting in undesirable performance.

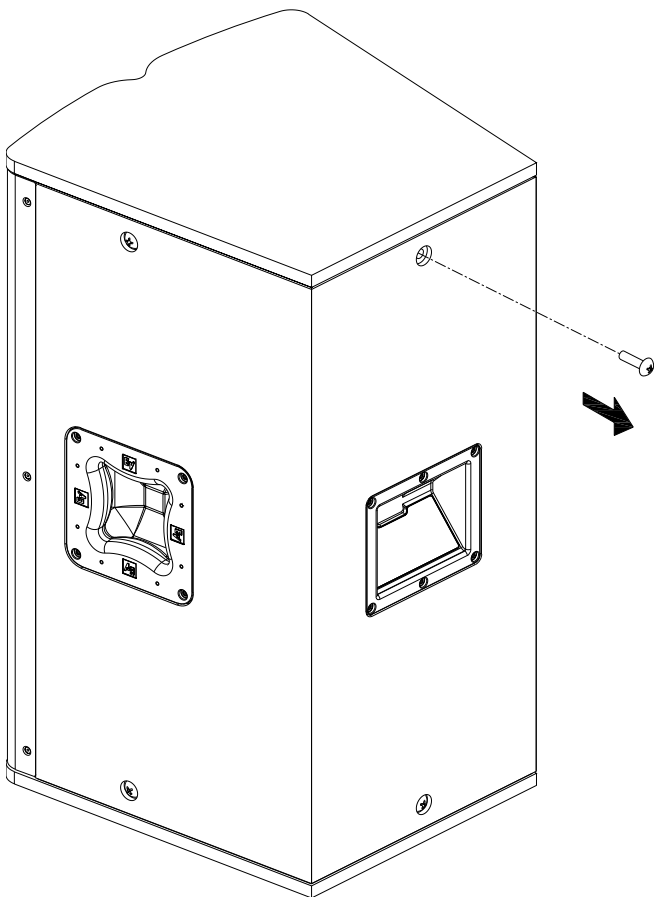


Figure 2a:
*Removing the M8 or 3/8-inch
Screws from the Loudspeaker*

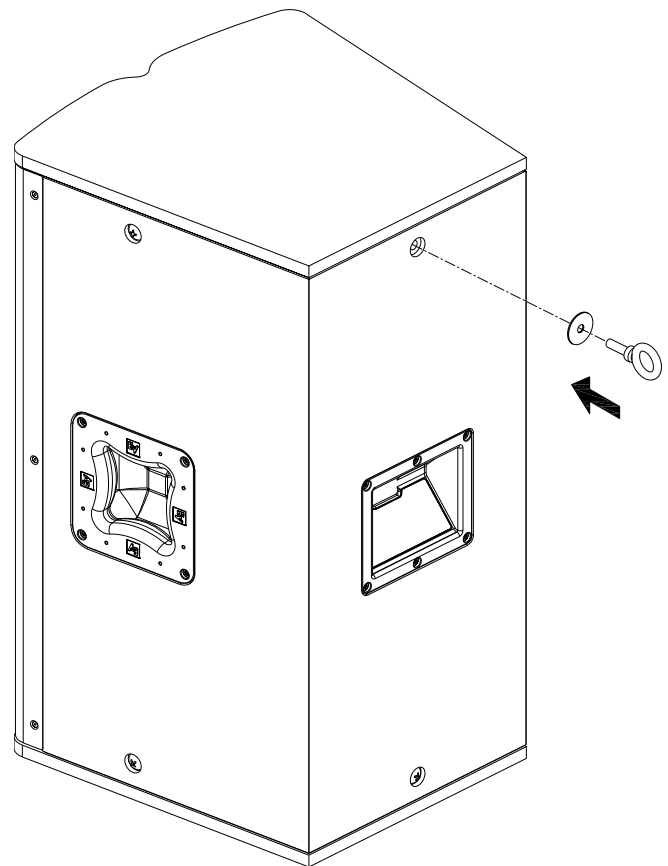


Figure 2b:
*Installing the Fender Washers and
Eyebolts to the Loudspeaker*

Tour X

Suspending TX1122, TX1152, and TX2152 (continued)



WARNING: Eyebolts must be fully seated and orient in the plane of pull as shown. Always use fender washers at least 1.5" in diameter and 1/16" thick under the eyebolt to distribute the load on the enclosure (Figure 3). See Figures 5-6 on proper ways to suspend a Tour X loudspeaker.

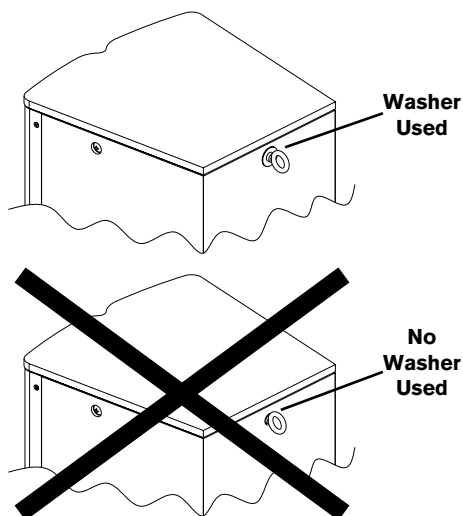


Figure 3a:
Eyebolt Shown with and
without Washer

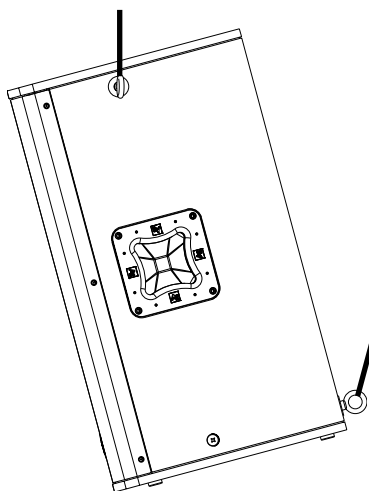


Figure 3b:
Eyebolts Shown Oriented in the
Plane of Pull (CORRECT)

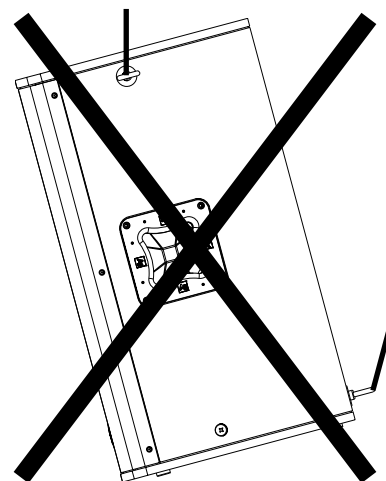


Figure 3c:
Eyebolts not Oriented in the Plane
of Pull (INCORRECT)

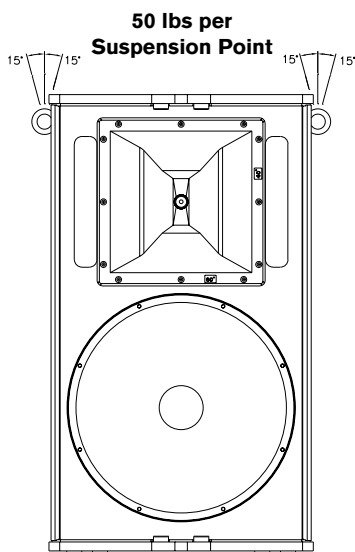


Figure 4a:
Maximum Working Load -
Vertical Orientation

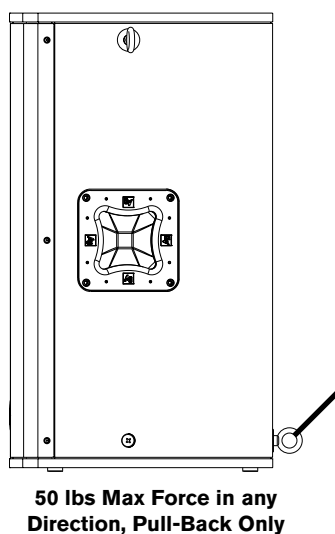


Figure 4b:
Maximum Working Load -
Pull-Back (Rear) Point

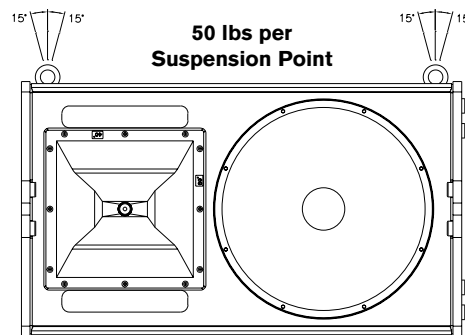


Figure 4c:
Maximum Working Load -
Horizontal Orientation
Electro-Voice Tour X Owner's Manual

Suspending TX1122, TX1152, and TX2152 (continued)

WARNING: Suspension points are to be used for a single enclosure only, never arrays. Never exceed the limitations or maximum recommended working load for the TX1122, TX1152, and TX2152 systems.

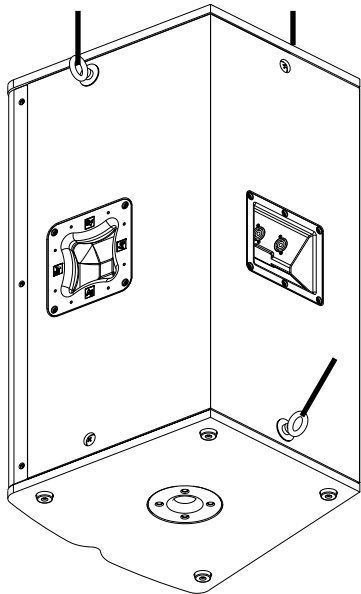


Figure 5a:
Tour X Vertically Suspended
(CORRECT)

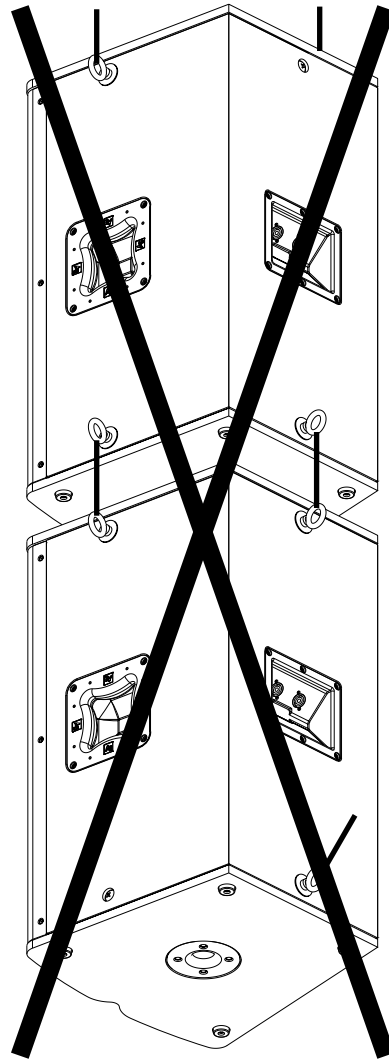


Figure 5b:
Tour X Vertically Suspended
(INCORRECT)

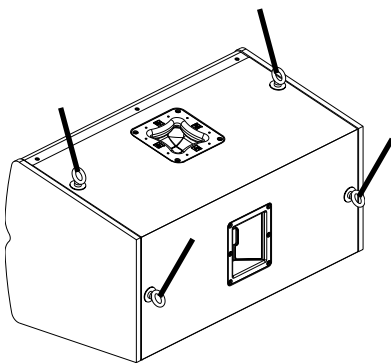


Figure 6a:
Tour X Horizontally Suspended
(CORRECT)

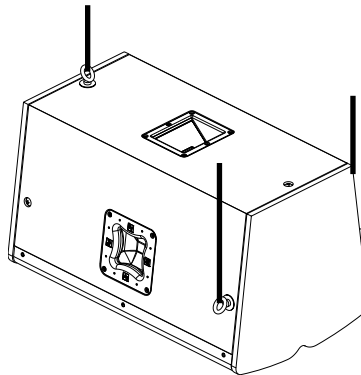


Figure 6b:
Tour X Horizontally Suspended
(CORRECT)

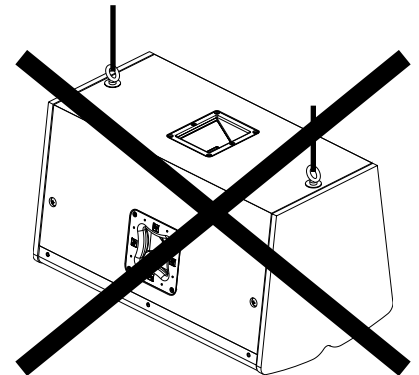


Figure 6c:
Tour X Horizontally Suspended
(INCORRECT)

Tour X

Rotating the Horn on TX1152 and TX2152

The TX1152 and TX2152 loudspeakers have horns that can be rotated to change the coverage pattern. The coverage pattern angles are indicated on the horn flange.

1. Remove the (6 or 8) screws that attach the grille to the enclosure (Figure 8).
2. Remove the (12) screws that attach the horn to the enclosure, and disconnect the wires that attach the compression driver to the input panel (Figure 9).
3. Rotate the horn 90° to the desired vertical coverage pattern (Figure 10).
4. Reconnect the wires that attach the compression driver to the input panel (reverse of Figure 9). The yellow wire corresponds to the positive terminal, and the yellow and black wire corresponds to the negative terminal. Reattach the horn to the enclosure using the (12) screws.
5. Reattach the grille using the (6 or 8) screws (reverse of Figure 8).

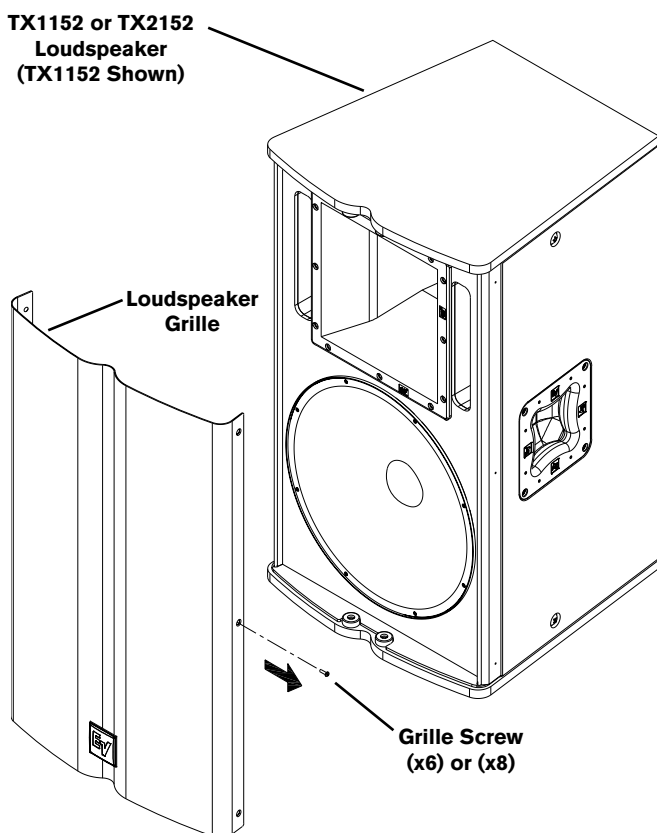


Figure 8:
Removing the Grille from the Enclosure

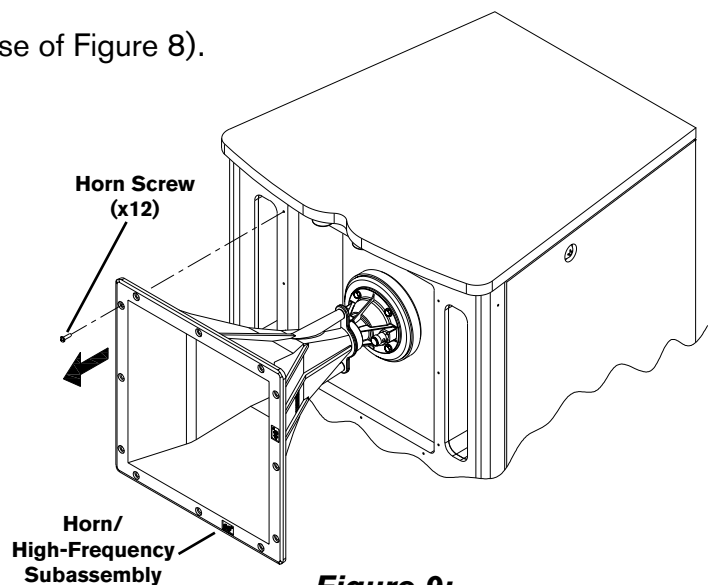


Figure 9:
Removing the Horn from the Enclosure

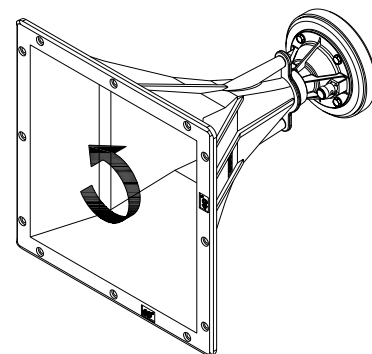


Figure 10:
Rotating the Horn to Desired Horn Pattern

Rotating the Logo

All Tour X loudspeakers have logos that can be rotated (horizontally or vertically) to the user's desired orientation. The logo is mounted on a spacer that has the signature "backbone" notch profile of Tour X grilles.

1. Remove the six (6) or eight (8) screws that attach the grille to the enclosure (Figure 8).
2. Remove the one (1) screw on the back of the grille that attaches the spacer to the grille (Figure 11).
3. Rotate the logo and spacer (in increments of 90°) to the desired orientation (Figure 12).
4. Reattach the spacer to the grille using the one (1) screw (reverse of Figure 11). Be sure that the screw is tight enough so as not to rattle during use, but not so tight the logo warps inward.
5. Reattach the grille using the six (6) or eight (8) screws (reverse of Figure 8).

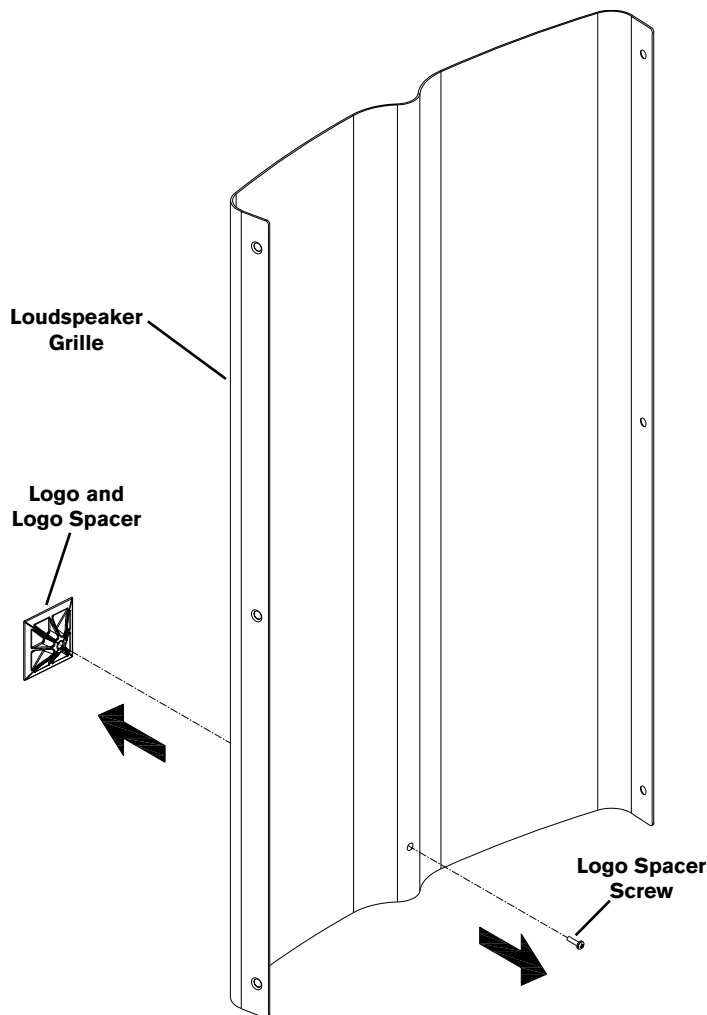


Figure 11:
*Removing the Screw from
the back of the Grille*

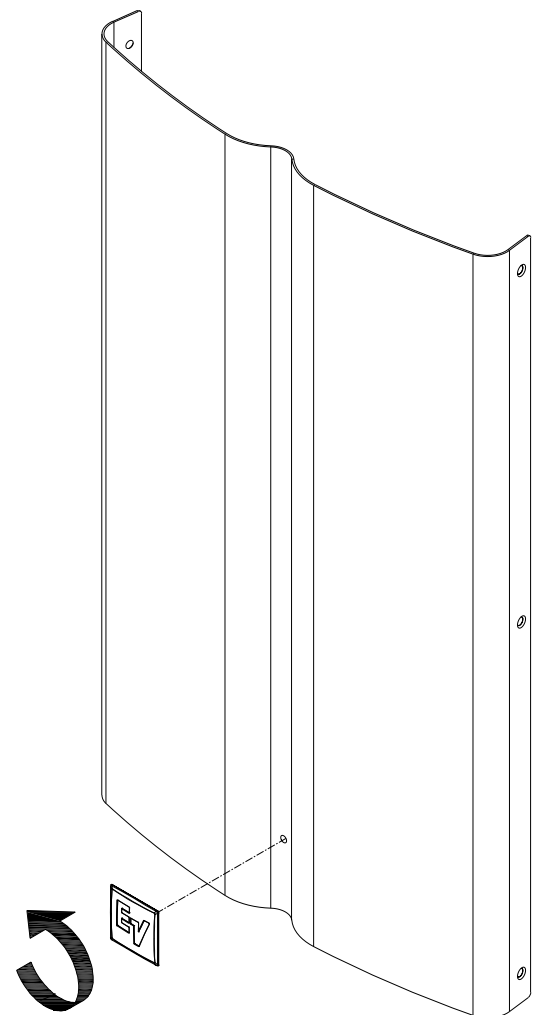


Figure 12:
*Rotating the Logo and Spacer to
the Desired Orientation*

Tour X

TX-W1 Wheel Kit for TX1181 and TX2181

The TX1181 and TX2181 loudspeakers have six (6) mounting points for the TX-W1 Wheel Kit on their rear panels. The TX-W1 Wheel Kit is made up of two (2) skid plates with two (2) castors on each skid plate. When mounted on the rear of a TX1181 or TX2181, they can greatly reduce setup time and virtually eliminate the need to carry subwoofers.

1. Remove the six (6) screws on the rear of the TX1181 or TX2181 loudspeaker (Figure 13).
2. Align the three (3) holes at the top of the loudspeaker with the three (3) holes of the skid plate. Install three (3) screws back into the rear of the TX1181 or TX2181 loudspeaker. Repeat this step at the bottom of the loudspeaker, ensuring all six (6) screws are tight (Figure 14).

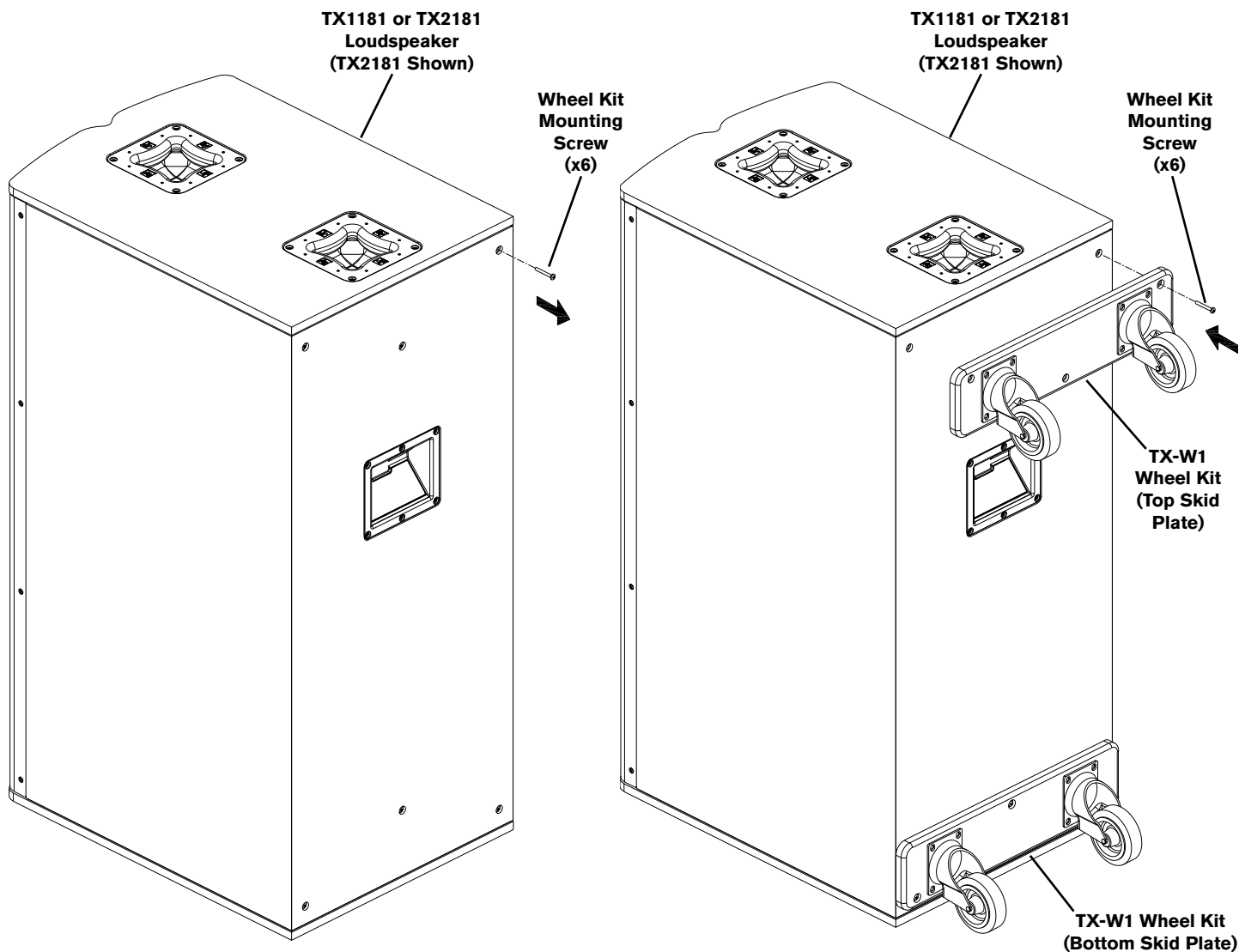


Figure 13:

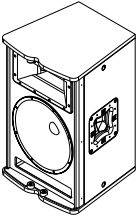
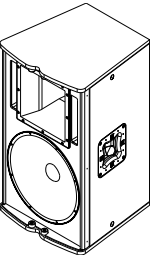
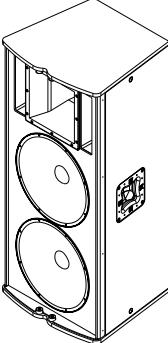
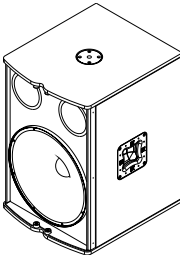
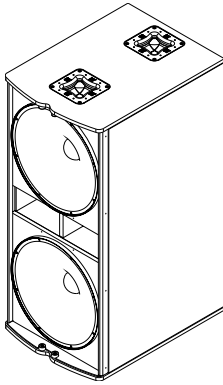
Removing the six (6) Screws from the Rear of a TX1181 or TX2181 (shown)

Figure 14:

Attaching the TX-W1 and six (6) Screws to the Rear of a TX1181 or TX2181 (shown)



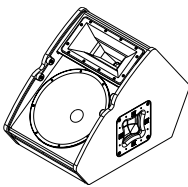
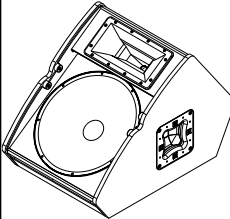
Specifications

| Model | TX1122 | TX1152 | TX2152 | TX1181 | TX2181 |
|----------------------------|--|---|--|---|---|
| |  |  |  |  |  |
| Freq. Response (-3 dB): | 60 Hz - 20 kHz ¹ | 55 Hz - 20 kHz ¹ | 55 Hz - 13 kHz ¹ | 50 Hz - 160 Hz ¹ | |
| Freq. Range (-10 dB): | 45 Hz - 20 kHz ¹ | 40 Hz - 20 kHz ¹ | 50 Hz - 18 kHz ¹ | 45 Hz - 700 Hz ¹ | 40 Hz - 1.5 kHz ¹ |
| Rec. Hipass Frequency: | 45 Hz | 40 Hz | 40 Hz | 30 Hz | N/A |
| Rec. Low pass Freq.: | N/A | | | | 80 Hz - 120 Hz |
| Axial Sensitivity: | 97 dB (1W/1m) ¹ | 100 dB (1W/1m) ¹ | 103 dB (1W/1m) ¹ | 100 dB (1W/1m) ¹ | 103 dB (1W/1m) ¹ |
| Max. Calculated SPL: | 130 dB | 133 dB | 139 dB | 132 dB | 138 dB |
| Coverage (Horiz. x Vert.): | 90° x 50° | 60° x 40° or 40° x 60° | | Omnidirectional | |
| Power Handling: | 500W Continuous, 2000W Peak | | 1000W Continuous, 4000W Peak | 500W Continuous, 2000W Peak | 1000W Continuous, 4000W Peak |
| LF Transducer(s): | SMX2120, 12 in (305 mm) Driver | SMX2151, 15 in (381 mm) Driver | (2) SMX2151, 15 in (381 mm) Drivers | EVS-18S, 18 in (457 mm) Driver | (2) EVS-18S, 18 in (457 mm) Drivers |
| HF Transducer: | DH3, 1 in (25.4 mm) exit Compression Driver | | ND2, 1 in (25.4 mm) exit Neodymium Compression Driver | N/A | |
| Crossover Frequency: | 1750 Hz | 1650 Hz | 1750 Hz | N/A | |
| Nominal Impedance: | 8 Ohms | | 4 Ohms | 8 Ohms | 4 Ohms |
| Minimum Impedance: | 5.4 Ohms | 5.6 Ohms | 3.1 Ohms | 7.5 Ohms | 2.9 Ohms |
| Connectors: | (2) Neutrik Speakon NL4's | | | | |
| Enclosure Material: | Plywood and MDF with EVCoat | | | | |
| Grille: | 16GA Steel, Black Powdercoat, with Rotatable Logo | | | | |
| Suspension: | (6) M8 or (6) 3/8-inch Threaded Points - (2) on each side of Enclosure, and (2) on rear of Enclosure | | | N/A | |
| Dimensions (H x W x D): | 24.3 in x 15.0 in x 15.0 in (618 mm x 382 mm x 380 mm) | 30.6 in x 17.5 in x 17.5 in (778 mm x 446 mm x 446 mm) | 45.5 in x 20.0 in x 18.5 in (1156 mm x 508 mm x 471 mm) | 30.3 in x 20.0 in x 23.3 in (769 mm x 508 mm x 591 mm) | 45.5 in x 20.0 in x 27.2 in (1156 mm x 508 mm x 691 mm) |
| Net Weight: | 44.5 lb (20.2 kg) | 61.2 lb (27.8 kg) | 94.3 lb (42.8 kg) | 74.5 lb (33.8 kg) | 123.5 lb (56.1 kg) |
| Shipping Weight: | 50.0 lb (22.7 kg) | 68.7 lb (31.2 kg) | 105.8 lb (48.0 kg) | 88.0 lb (40.0 kg) | 139.0 lb (63.1 kg) |
| Accessories: | EBK-1 EBK-3 TSP-1 TSS-1 | | EBK-1 EBK-3 | TX-W1 PCL35 | TX-W1 |

¹ Half Space Measurement.

Tour X

Specifications (continued)

| Model | TX1122FM | TX1152FM |
|----------------------------|---|--|
| |  |  |
| Freq. Response (-3 dB): | 70 Hz - 20 kHz ¹ | 65 Hz - 20 kHz ¹ |
| Freq. Range (-10 dB): | 55 Hz - 20 kHz ¹ | 45 Hz - 20 kHz ¹ |
| Rec. Hipass Frequency: | 60 Hz | 45 Hz |
| Rec. Low pass Freq.: | N/A | |
| Axial Sensitivity: | 99 dB (1W/1m) ¹ | 100 dB (1W/1m) ¹ |
| Max. Calculated SPL: | 132 dB | 133 dB |
| Coverage (Horiz. x Vert.): | 90° x 50° | |
| Power Handling: | 500W Continuous, 2000W Peak | |
| LF Transducer(s): | SMX2121, 12 in (305 mm) Driver | SMX2151, 15 in (381 mm) Driver |
| HF Transducer: | DH3, 1 in (25.4 mm) exit Compression Driver | |
| Crossover Frequency: | 1600 Hz | 1750 Hz |
| Nominal Impedance: | 8 Ohms | |
| Minimum Impedance: | 6.4 Ohms | 6.2 Ohms |
| Connectors: | (2) Neutrik Speakon NL4's | |
| Enclosure Material: | Plywood and MDF with EVCoat | |
| Grille: | 16GA Steel, Black Powdercoat, with Rotatable Logo | |
| Suspension: | N/A | |
| Dimensions (H x W x D): | 17.3 in x 14.3 in x 22.6 in (440 mm x 364 mm x 573 mm) | 18.7 in x 17.3 in x 25.8 in (475 mm x 439 mm x 655 mm) |
| Net Weight: | 43.7 lb (19.8 kg) | 51.9 lb (23.5 kg) |
| Shipping Weight: | 49.2 lb (22.4 kg) | 59.4 lb (27.0 kg) |
| Accessories (Part Number) | N/A | |

¹ Half Space Measurement.

Recommended Configurations

Examples of typical configurations using Tour X series loudspeakers:

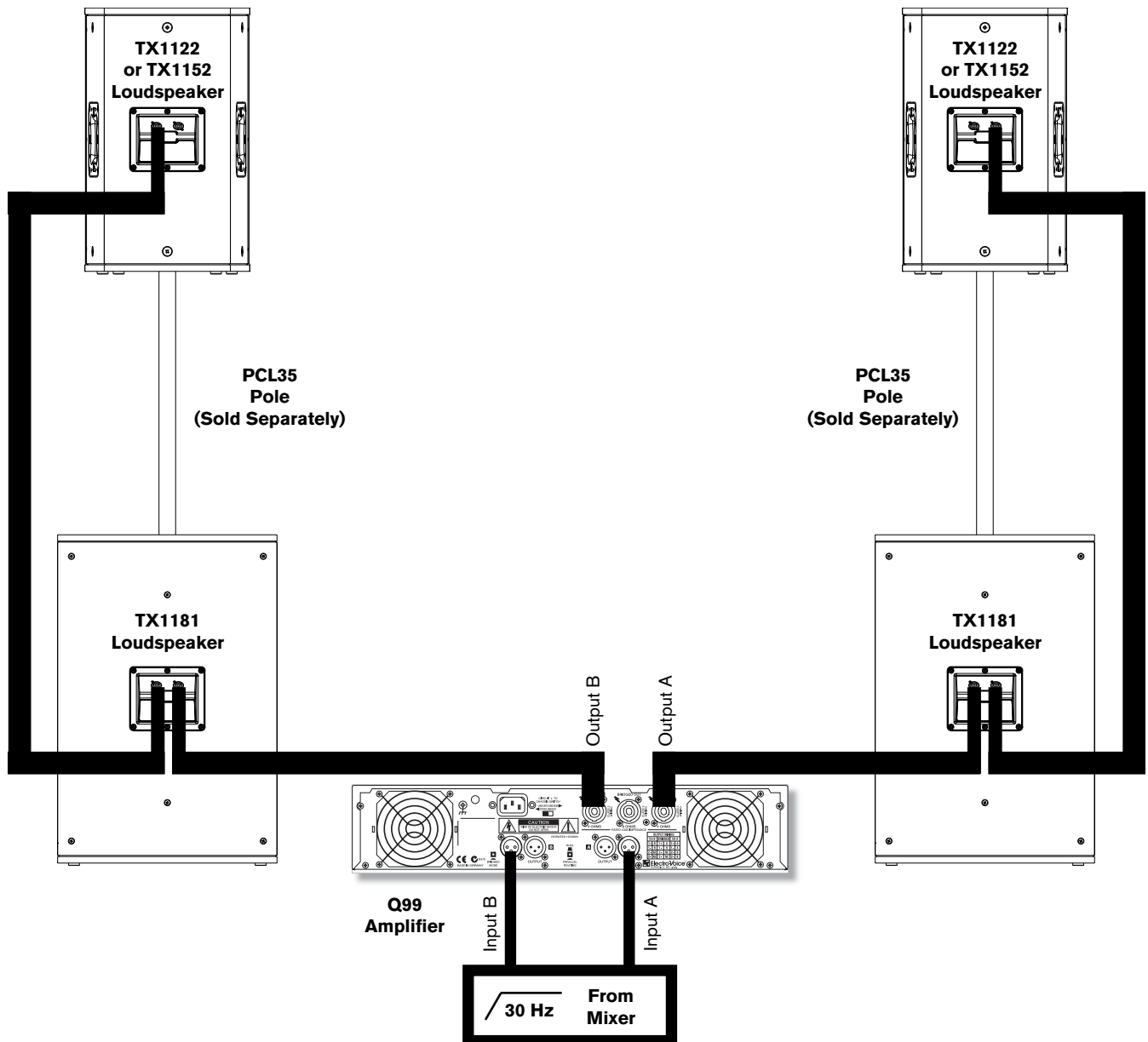


Figure 14a:

One (1) TX1122 (or TX1152) and one (1) TX1181 per side, paralleled, on one (1) Q99 Amplifier

Tour X

Recommended Configurations (continued)

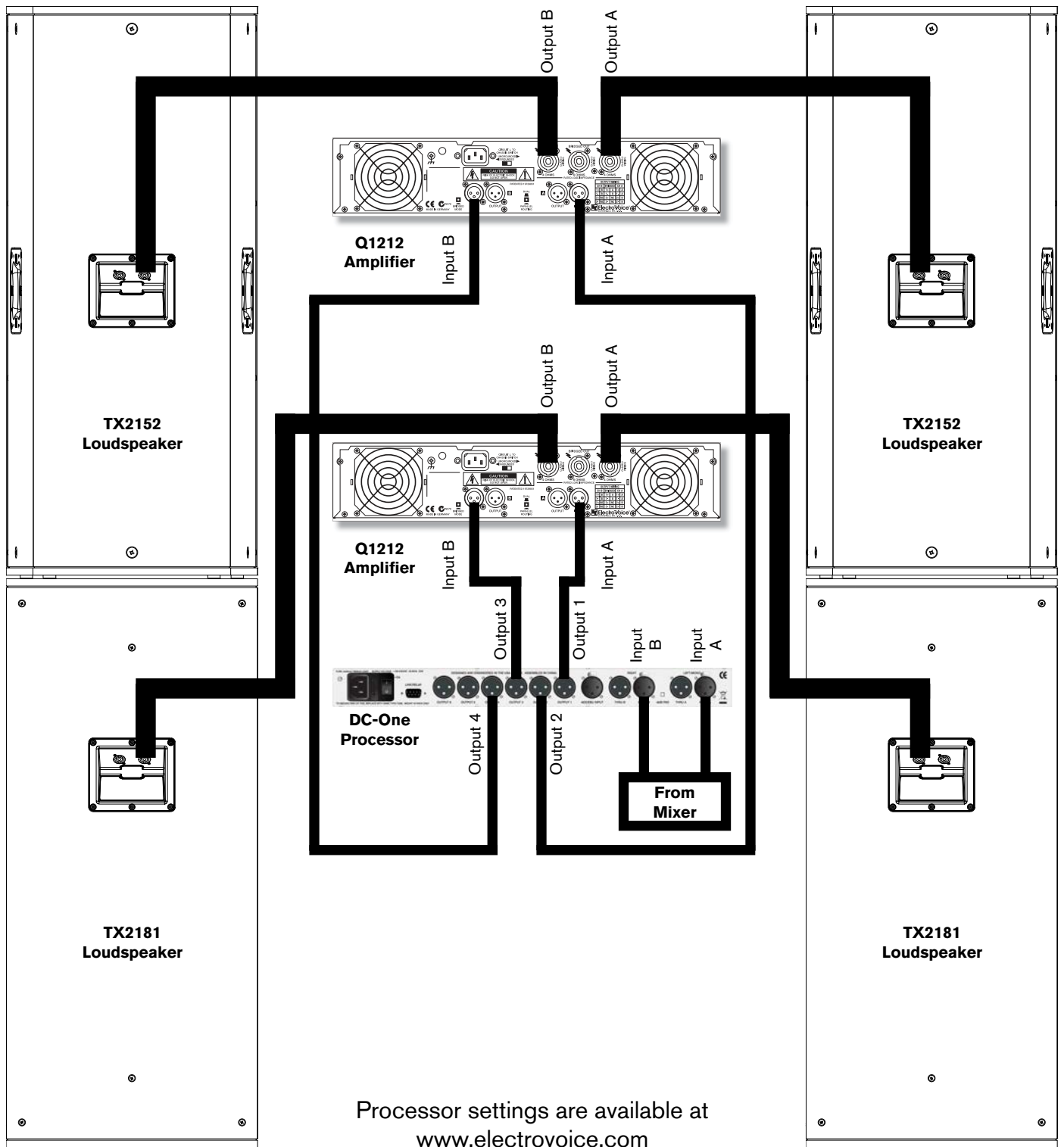


Figure 14b:

One (1) TX2152 and one (1) TX2181 per side, on two (2) Q1212 Amplifiers and (1) DC-One Processor

Recommended Configurations (continued)

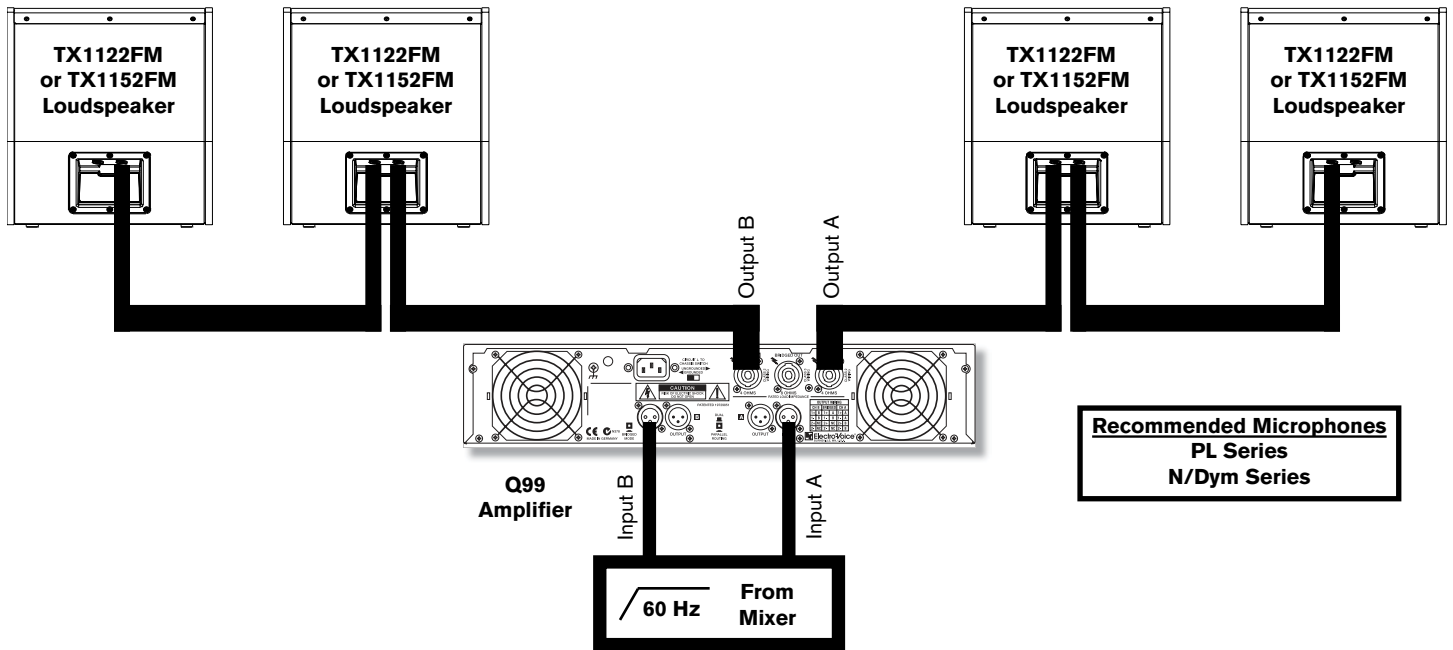


Figure 14c:

Four (4) TX1122FM's (or TX1152FM's) paralleled on one (1) Q99 Amplifier

Notes

Electro-Voice

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www.electrovoice.com

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Part Number F.01U.140.543 Rev 07

U.S.A. and Canada only. For customer orders, contact Customer Service at:
800/392-3497 Fax: 800/955-6831
Europe, Africa, and Middle East only. For customer orders, contact Customer Service at:
+ 49 9421-706 0 Fax: + 49 9421-706 265
Other International locations. For customer orders, Contact Customer Service at:
+ 1 952 884-4051 Fax: + 1 952 887-9212
For warranty repair or service information, contact the Service Repair department at:
800/685-2606
For technical assistance, contact Technical Support at: **866/78AUDIO**

Specifications subject to change without notice.