X-Line™ System

X-Line™ System Summary

The X-Line loudspeaker product line consists of the Xvls and Xvlt full-range line-array loudspeaker systems, the Xfil1 and Xfil2 full-range downfill loudspeaker systems and the companion Xsub subwoofer.

- The Xvls has a 90H x 5.0V coverage pattern and utilizes a rectangular enclosure
- The Xvlt has a 120H x 8.5V coverage pattern and utilizes a 5-degree-wedge, top-to-bottom trapezoidal enclosure.
- The Xfil1 and Xfil2 are mirror image systems having a 120H x 40V coverage pattern and utilizing a 20-degree, slant-front enclosure - one of each is required for a stereo system.
- The Xsub utilizes the same rectangular shell as the Xvls.

Mirror-image versions of the Xvls, Xvlt and Xsub systems are not required because they can simply be turned upside down to create a mirror image. All the enclosures have the same outside dimensions. The Xvls, Xvlt, Xfil1 and Xfil2 are only available with internal rigging hardware, while the Xsub is available either with or without rigging hardware.

X-Line™ Loudspeaker Flying Summary

The X-Line line-array loudspeaker systems are typically hung in a straight line. The full-range systems, (Xvls, Xvlt and Xfil1/Xfil2) are hung in one column with Xvls systems at the top of the column, Xvlt systems towards the bottom and finally one Xfil1 or Xfil2 at the very bottom. The exact number of the three different types (Xvls, Xvlt and Xfil) will depend on the acoustic requirements of the venue. Furthermore, not all arrays will require all threes types. The companion Xsub subwoofer systems would either be stacked on the ground underneath the Xvls/Xvlt full-range column or would be hung in a separate column suspended next to the full-range column. Each column of loudspeakers is then suspended from a grid which is in turn secured to the building structure (usually via a motorized hoist). The external X-Line rigging hardware consists of hinge assembles at the rear and chain strap assemblies at the front. To suspend the loudspeakers overhead, three different sets of rigging are required.

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Attaching the Top Loudspeaker to the Grid:
The first set of rigging is used to secure the top enclosure of the column to the grid. There are two pieces of rear rigging hardware and two pieces of front rigging hardware required for this purpose. The front hardware consists of two Xvsg chain assemblies. Two types of rigging hardware may be used at the rear - either two Xvhg flexible-chain grid hinges or two Xvhl solid-arm linking hinges. Xvhg chain grid hinges allow a flexible attachment to the grid. This makes attachment to the grid faster; however, the grid cannot ride on top of the loudspeakers during transportation. Xvhl solid-arm linking hinges allow a rigid attachment to the grid. This makes attachment to the grid a bit slower; however, the height is less and the grid may now ride on top of the loudspeakers during transportation. The Xvhg offers a higher rigging strength when the top box is angled down more than 20 degrees, while the Xvhl offers greater rigging strength when the top box is angled down less than 20 degrees. (Note that the Xvhl linking hinge is the same hardware used to link two enclosures together.) This hardware will work for attaching any of the loudspeaker systems to the grid. The selection of whether to use the Xvhg or Xvhl for the rear rigging hardware is left to the customer.

Linking One Loudspeaker to Another:
The second set of rigging is used to link two enclosures together. Again there are two pieces of rear rigging hardware and two pieces of front rigigng hardware required for this purpose. The front hardware consists of two Xvsl chain strap assemblies. The rear hardware consisits of two Xvhl linking hinge assemblies. This hardware will work for linking Xvls or Xvlt enclosures.

Attaching the Downfill at the Bottom:
The third set of rigging is used to attach the Xfil1 or Xfil 2 to the bottom of the column of loudpeakers. As before, there are two pieces of rear rigging hardware and two pieces of front rigging hardware required for this purpose. The front hardware consists of two Xvsd chain strap assemblies. The rear hardware consisits of two Xvhl linking hinge assemblies. This hardware will work for attaching the Xfil1 or Xfil2 to either the Xvls or Xvlt enclosures. (Note that the Xvhl linking hinge is the same hardware used to link Xvls or Xvlt systems together; however, the Xvsd chain strap at the front is different.)

The Xvhg, Xvhl, Xvsg, Xvsl and Xvsd rigging assemblies are all manufactured and sold by EV/Telex. EV/Telex does not manufacture or sell grids; however, the EV/Telex engineers have worked with ATM Flyware (a third-party company which specializes in rigging hardware for the professional loudspeaker industry) to develop a grid for the X-Line loudspeakers that ATM will sell direct to our customers.

X-Line™ Loudspeaker & Rigging Packages

Special loudspeaker/rigging sales packages have been created that include one flying Xvls, Xvlt, Xfil1, Xfil2 or Xsub loudspeaker and all external rigging required to link two boxes together. For the flying Xvls, Xvlt and Xsub, that includes one loudspeaker, two Xvsl front chain assemblies and two Xvhl rear hinge assemblies. For the Xfil1 and Xfil2, that includes one loudspeaker, two Xvsd front chain assemblies and two Xvhl rear hinge assemblies. All orders for customers should be placed for these packages and not for the individual loudspeakers without rigging. The customers should be reminded that these rigging packages only include the linking rigging hardware and not the hardware required to attach to the grid. Therefore, the customers should be reminded that they additionally need to place orders for that grid hardware (two Xvsg front chain assemblies per column of loudspeakers and either two Xvhg flexible chain rear hinge assemblies or two Xvhl solid-arm rear hinge assemblies per column of loudspeakers). Furthermore, because rigging can be misplaced or lost in the field, customers should be encouraged to place orders for a few pieces of spare rigging (Xvhl, Xvhg, Xvsl, Xvsd and Xvsg).

X-Line™ Accessories

Three different dollies are available for the X-Line loudspeaker systems:

The **Bottom Stacking Dolly** may be used to transport four Xvls or four Xsub rectangular enclosures. This dolly makes moving in and out of a venue quick and easy because four enclosures can be stacked and transported on a single dolly with all of the rigging hardware attached. The Bottom Stacking Dolly will not work with the trapezoidal Xvlt.

The **Downfill Stacking Dolly** may be used to transport two Xvlt and one Xfil1/Xfil2 enclosures. This dolly also makes moving in and out of a venue quick and easy because two Xvlt enclosures and one Xfil1/Xfil2 enclosure can be stacked and transported on a single dolly with all of the rigging hardware attached. The Bottom Stacking Dolly will not work with the rectangular Xvls or Xsub.

The **Front Dolly** secures to the front of a single enclosure and may be used on the Xvls, Xvlt or Xsub enclosures. One Front Dolly is required for each enclosure and the rigging hardware cannot remain attached to the enclosure when riding on the dolly. Although the Front Dolly requires more effort, it offers maximum protection for the front of the loudspeaker and allows the loudspeakers to be manually lifted and carried if necessary.

Most customers will typically use the Bottom Stacking Dollies for all of their Xvls and Xsub enclosures, and the Front Dolly for the Xvlt enclosures. Customers with large systems may prefer the Downfill Stacking Dolly.

There is not an individual dolly for the Xfil1/Xfil2 loudspeakers at this time. Telex/EV does not manufacture or sell dollies; however, the EV/Telex engineers have worked with R&R Cases (a third-party company which specializes in cases and hardware for the professional loudspeaker industry) to develop dollies for the X-Line loudspeakers that R&R will sell direct to our customers.

The recommended digital electronic controller for use with the X-Line loudspeakers is the Klark-Teknik DN9848, which is available through the normal KT/Telex distribution. The recommended power amplifiers are the Electro-Voice P3000, which are available through the normal EV/Telex distribution.

X-Line™ Loudspeaker Specifications

Xvls FULL RANGE LINE ARRAY LOUDSPEAKER SYSTEM

Configuration: 3-Way Active
Crossover Frequencies: 220Hz & 1250 Hz
Nominal Coverage Pattern: 90H x 5.0V
HF Section: Drivers - Three ND5-16 16-ohm Compression Drivers
Horn - 90H x 5.0V
Long-Term Power Rating - 225 watts total (75 watts each)
Nominal Impedance - One 5.3-ohm load
MB Section: Drivers - Two ND08 16-ohm Midbass Drivers
Horn - 90H x 5.0V
Long-Term Power Handling - 600 watts total (300 watts each)
Nominal Impedance - One 8-ohm Load
LF Section: Drivers - Two EVX155Plt 8-ohm Woofers Drivers
Long-Term Power Handling - 1200 watts total (600 watts each)
Nominal Impedance - Two 8-ohm Loads
Wiring Configuration: Two Paralleled 8-Pin Neutrik NL8 Connectors
Pins 4: HF (5.33 ohms, 225 watts)
Pins 3: MB (8.00 ohms, 600 watts)
Pins 2: LF2 (8.00 ohms, 600 watts)
Pins 1: LF1 (8.00 ohms, 600 watts)
System Weight: 257 lbs
Enclosure Dimensions: 49.000 in. wide x 19.462 in. high x 29.150 in. deep
Enclosure Shape: Rectangular
Rigging: Proprietary Hinge on Back, Proprietary Adjustable Chain on Front

Xvlt FULL-RANGE LINE ARRAY LOUDSPEAKER SYSTEM

Configuration: 3-Way Active
Crossover Frequencies: 220Hz & 1250 Hz
Nominal Coverage Pattern: 120H x 8.5V
HF Section: Drivers - Three ND5-16 16-ohm Compression Drivers
Horn - 120H x 8.5V
Long-Term Power Rating - 225 watts total (75 watts each)
Nominal Impedance - One 5.3-ohm load
MB Section: Drivers - Two ND08 16-ohm Midbass Drivers
Horn - 120H x 8.5V
Long-Term Power Handling - 600 watts total (300 watts each)
Nominal Impedance - One 8-ohm Load
LF Section: Drivers - Two EVX155Plt 8-ohm Woofers Drivers
Long-Term Power Handling - 1200 watts total (600 watts each)
Nominal Impedance - Two 8-ohm Loads
Wiring Configuration: Two Paralleled 8-Pin Neutrik NL8 Connectors
Pins 4: HF (5.33 ohms, 225 watts)
Pins 3: MB (8.00 ohms, 600 watts)
Pins 2: LF2 (8.00 ohms, 600 watts)
Pins 1: LF1 (8.00 ohms, 600 watts)
System Weight: 253 lbs
Enclosure Dimensions: 49.000 in. wide x 19.462 in. high x 29.150 in. deep
Enclosure Shape: 5-Degree Trapezoidal Vertical Wedge
Rigging: Proprietary Hinge on Back, Proprietary Adjustable Chain on Front

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Xfil1 & Xfil2 FULL-RANGE DOWNFILL LOUDSPEAKER SYSTEMS

Note: The Xfil1 and Xfil2 are Mirror Image - One of Each is Required for a Stereo System
Configuration: 3-Way Active
Crossover Frequencies: 220Hz & 1250 Hz
Nominal Coverage Pattern: 120H x 40V
HF Section: Drivers - Two ND5-16 16-ohm Compression Drivers
Horn - 120H x 40V
Long-Term Power Rating - 150 watts total (75 watts each)
Nominal Impedance - One 8.0-ohm load
MB Section: Drivers - Two ND08 16-ohm Midbass Drivers
Long-Term Power Handling - 600 watts total (300 watts each)
Nominal Impedance - One 8-ohm Load
LF Section: Drivers - Two EVX155 8-ohm Woofers Drivers
Long-Term Power Handling - 1200 watts total (600 watts each)
Nominal Impedance - Two 8-ohm Loads
Wiring Configuration: Two Paralleled 8-Pin Neutrik NL8 Connectors
Pins 4: HF (8.00 ohms, 150 watts)
Pins 3: MB (8.00 ohms, 600 watts)
Pins 2: LF2 (8.00 ohms, 600 watts)
Pins 1: LF1 (8.00 ohms, 600 watts)
System Weight: 215 lbs
Enclosure Dimensions: 49.000 in. wide x 19.462 in. high x 29.150 in. deep
Enclosure Shape: 20-Degree Downward Slant Front
Rigging: Proprietary Hinge on Back, Proprietary Adjustable Chain on Front

Xsub F FLYING SUBWOOFER LOUDSPEAKER SYSTEMS

Configuration: Active Crossover with Full-Range Systems
Crossover Frequencies: 80Hz
SUB Section: Drivers - Two EVX180B 8-ohm Woofers Drivers
Long-Term Power Handling - 1200 watts total (600 watts each)
Nominal Impedance - Two 8-ohm Loads
Wiring Configuration: Two Paralleled 8-Pin Neutrik NL8 Connectors
Pins 4: no connection
Pins 3: no connection
Pins 2: SUB2 (8.00 ohms, 600 watts)
Pins 1: SUB1 (8.00 ohms, 600 watts)
System Weight: 202 lbs
Enclosure Dimensions: 49.000 in. wide x 19.462 in. high x 29.150 in. deep
Enclosure Shape: Rectangular
Rigging: Proprietary Hinge on Back, Proprietary Adjustable Chain on Front

Xsub NF NON-FLYING SUBWOOFER LOUDSPEAKER SYSTEMS

Same as Xsub Flying, except no Rigging Hardware
System Weight: 198 lbs

X-Line™ Part Numbers

LOUDSPEAKER PACKAGES

301034-000 Xvls Package: 90-Degree Full-Range Line-Array System Package, Flying, Includes External Linking Rigging (consists of one 1153-3344, two 510-3348 & two 510-3350)

301035-000 Xvlt Package: 120-Degree Full-Range Line-Array System Package, Flying, Includes External Linking Rigging (consists of one 1153-3357, two 510-3348 & two 510-3350)

301071-000 Xfil1 Package: 120-Degree Full-Range Downfill System Package, Flying, Includes External Linking Rigging (consists of one 1153-3368, two 510-3348 & two 510-3383)

301072-000 Xfil2 Package: 120-Degree Full-Range Downfill System Package, Flying, Includes External Linking Rigging (consists of one 1153-3377, two 510-3348 & two 510-3383)

301036-000 Xsub Package: Flying Subwoofer Loudspeaker Package, Flying, Includes External Linking Rigging (consists of one 1153-3356, two 510-3348 & two 510-3350)

1153-3367 Xsub NF: Non-Flying Subwoofer

LOUDSPEAKERS WITHOUT EXTERNAL RIGGING (for reference only. Customers should only purchase the above listed packages)

1153-3344 Xvls: 90-Degree Full-Range Loudspeaker System, Flying, (External Rigging Not Included)
1153-3357 Xvlt: 120-Degree Full-Range Loudspeaker System, (External Rigging Not Included)
1153-3356 Xsub: Subwoofer Loudspeaker System, Flying, (External Rigging Not Included)

EXTERNAL RIGGING SALES PART NUMBERS (for reference only. Customers should only purchase the above listed packages)

510-3347 Xvhg: Rigging, Rear Grid Hinge
510-3351 Xvsg: Rigging, Front Grid Chain
510-3348 Xvhl: Rigging, Rear Linking Hinge
510-3350 Xvsl: Rigging, Front Linking Chain
510-3383 Xvsd: Rigging, Front Linking Chain

OTHER ACCESSORIES

591051-000 X-Line Grid

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21000 South Wilmington Avenue
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591049-000 X-Line Bottom Stacking Dolly
591050-000 X-Line Front Dolly
560143-000 X-Line Downfill Stacking Dolly

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