JRX100

Installation Guide

For JRX112Mi and JRX115i Models Only

JBL PROFESSIONAL

Part Number: 352934-001

JBL PROFESSIONAL

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Who Is Protected By The JBL Warranty?
Your JBL Warranty protects the original owner and all subsequent owners so long as: A.) Your JBL product has been purchased in the Continental United States, Hawaii or Alaska. (This Warranty does not apply to JBL products purchased elsewhere except for purchases by military outlets. Other purchasers should contact the local JBL distributor for warranty information.); and B.) The original dated bill of sale is presented whenever warranty service is required.
The JBL Limited Warranty on professional loudspeaker products (except for enclosures) remains in effect for five years from the date of the first consumer purchase. JBL amplifiers are warranted for three years from the date of original purchase. Enclosures and all other JBL products are warranted for two years from the date of original purchase.

What Does The JBL Warranty Cover?
Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

Who Pays For What?
JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

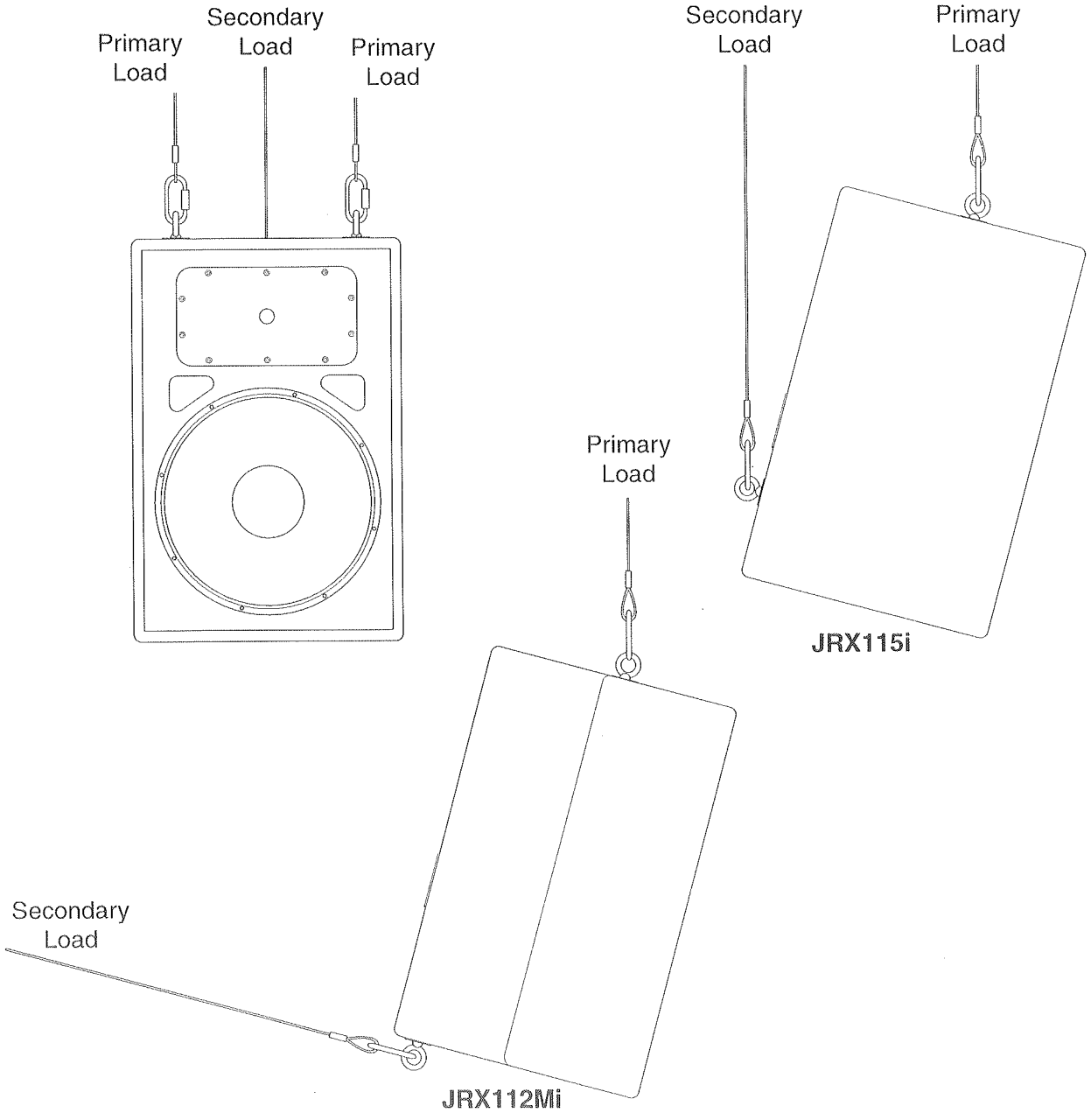
How To Obtain Warranty Performance?
If your JBL product ever needs service, write or telephone us at JBL Incorporated (Attn: Customer Service Department), 8500 Balboa Boulevard, PO. Box 2200, Northridge, California 91329 (818/893-8411). We may direct you to an authorized JBL Service Agency or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase. Please do not ship your JBL product to the factory without prior authorization. If transportation of your JBL product presents any unusual difficulties, please advise us and we may make special arrangements with you. Otherwise, you are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.

Working Load Limit

The JBL JRX100 Install loudspeakers are supplied with built-in internal braces to be used with the supplied forged shoulder eyebolts or other approved fastener. The system is designed to facilitate the suspension of the loudspeaker by a qualified person familiar with rigging hardware and industry practices.

IMPORTANT! You must ensure that ALL installation procedures specified in this manual are carefully followed. Improper installation may result in damage, injury or death.

The working load limit (WLL) of any JBL JRX100 Install loudspeaker is maintained as long as no more than one loudspeaker is suspended by a minimum of two primary suspension points with no additional load placed on the loudspeaker enclosure. The JBL JRX100 Install loudspeakers are intended for SINGLE-BOX SUSPENSION ONLY. DO NOT HANG A SECOND SPEAKER FROM A JRX100 INSTALL SPEAKER.



General Hardware Information

Any hardware used in an overhead suspension application must be load rated for the intended use. Generally, this type of hardware is available from rigging supply houses; industrial supply catalogs and specialized rigging distributors. Local hardware stores do not usually stock these products. Hardware that is intended for overhead suspension will comply with ASME B30.20 and will be manufactured under product traceability controls. Compliant hardware will be referenced with a working load limit (WLL) and a traceability code.

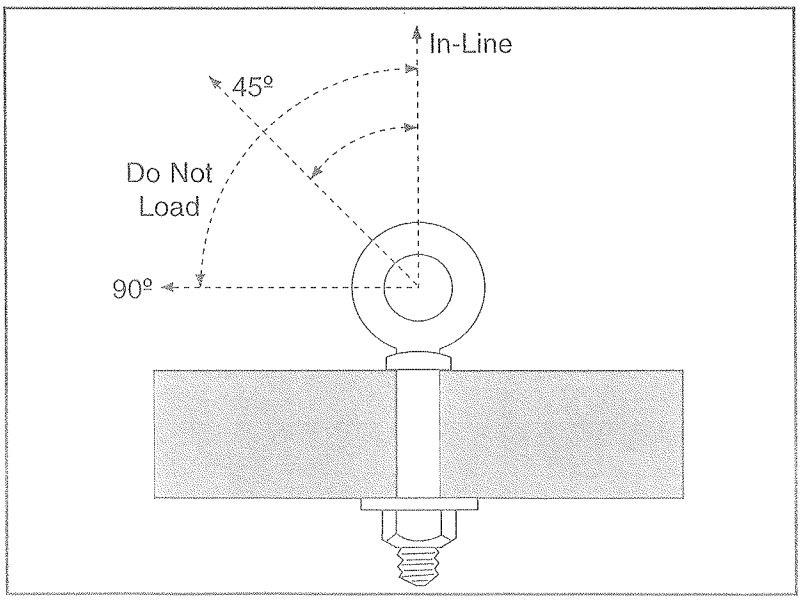
All JRX100 Install loudspeakers include a rigging hardware kit (part# 229-00009-01) which includes 3 forged shoulder eyebolts and 3 washers. When installing these speakers, use hardware found in the kit provided. For additional rigging components, consult with a professional rigging hardware supplier. Sources for specialized rigging hardware may be found on the outside rear cover of this user guide.

Proper Use of Forged Shoulder Eyebolt

The JBL JRX100 Install loudspeakers are supplied with three forged M10-1.5 x 35 mm shoulder eyebolts with appropriate ratings and certified standards compliance, for use in overhead suspension applications. To install the eyebolts into the provided threaded holes on the loudspeaker, first remove the factory installed, flat head machine screw using a 6 mm hex key wrench. The M10-1.5 threaded internal brace is accessible once the flat head machine screw is removed. Deposit thread lock adhesive, following the adhesive manufacturer's instructions, onto the threaded tip of the eyebolt. Install the forged shoulder eyebolt as a replacement for the machine screw, being careful not to cross-thread the fasteners. There should be little resistance when installing any fastener. As a general rule for "soft surface" installations such as a wooden surface, the suggested torque is achieved by installing the fastener until snug and then rotating the fastener an additional 180 degrees (1/2 turn).

The load imposed on the eye of the eyebolt fastener must remain in the plane of the eye only. When anything other than a straight-line pull is used, the provided forged, shoulder eyebolt load rating must be adjusted as follows:

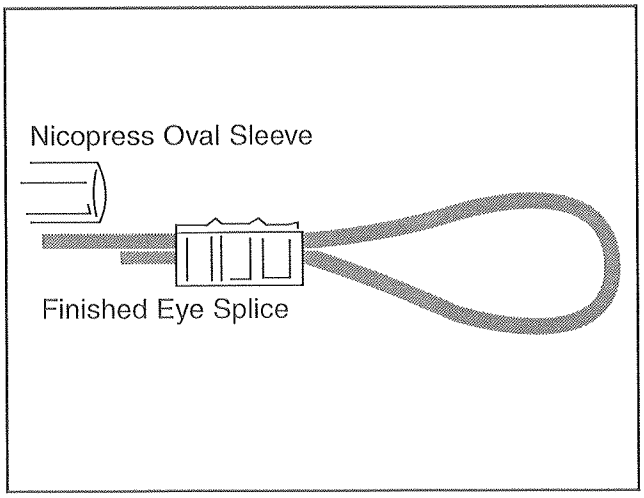
Direction of Pull	Adjusted Working Load
45 degrees	25% of rated working load

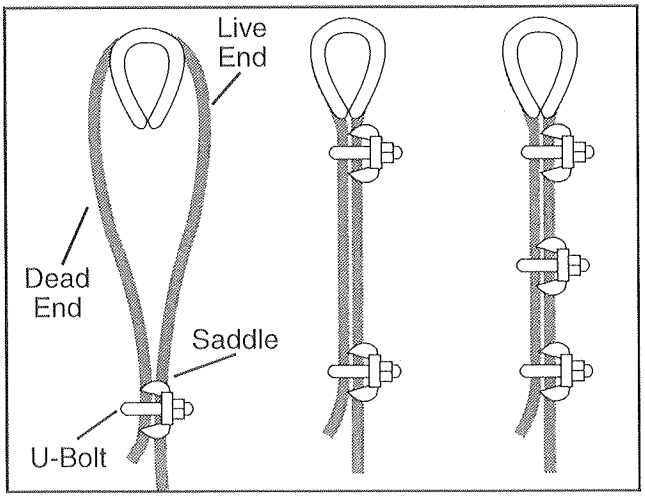


Proper Sling Termination

The slings described herein are "suspension slings" and are different from "lifting slings" as defined by government regulatory bodies. Do NOT use hardware chain. The JBL JRX100 Install loudspeakers must be used in static suspension applications only. Wire rope suspension slings are suggested for all installations requiring suspension of the JBL JRX100 Install loudspeakers. The suggested wire rope is identified as 1/8" 7 x 19 Galvanized Aircraft Cable (1/8- 7 x 19 GAC). The minimum working load limit (WLL) of this type of wire rope is 400 lb / 181 kg when terminated properly. If sling lengths are pre-determined and the wire rope slings are fabricated at a rigging supplier, the suggested termination is identified as "swaged Flemish eye terminations with heavy thimbles and certification tags." If sling lengths cannot be predetermined and slings must be fabricated on site, the suggested termination is identified as either a load rated "compression sleeve" or a forged "wire rope clip". Compression sleeves, such as the Nicopress devices, require a specialized compression tool and associated check gauge. Wire rope clips require an end-wrench, socket wrench, and/or adjustable wrench (spanner). The following table defines the load rating adjustments associated with each termination type if the terminations are made according to manufacturer's instructions:

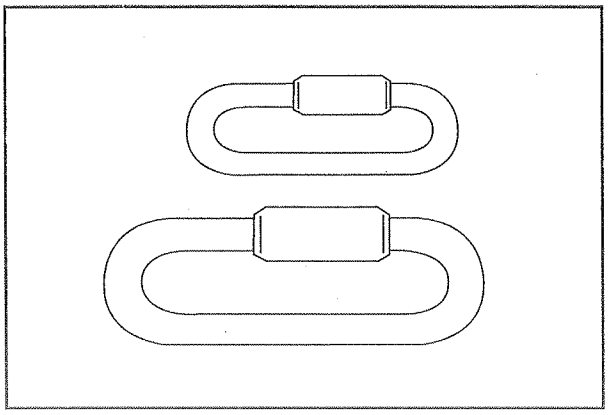
Termination Type	Adjusted Working Load
Swagged Flemish Eye	100% of wire rope rating
Load Rated Compression Sleeve	100% of wire rope rating
Forged Wire Rope Clip	80% of wire rope rating



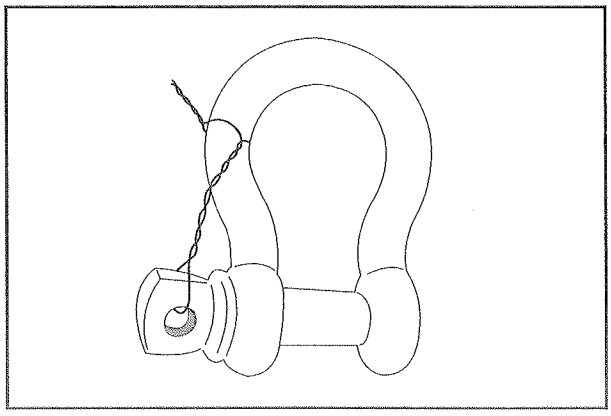


Rigging Connections

Some installations require the use of a removable connection between the structure and the loudspeaker. Hardware commonly used for these applications includes:

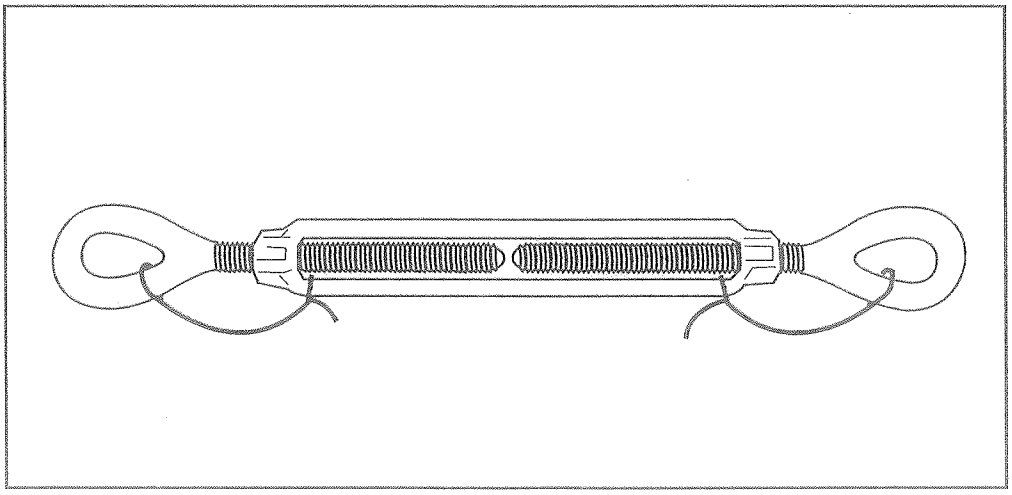


Quick Link
Used in-line with only one wire rope per end. Only use load rated quick links, which will have the WLL imprinted on the component.



Screw Pin Anchor Shackle
Used in-line or at an angle up to 45 degrees and can combine two wire ropes into one. A mouse wire (aka safety wire) must be used after installation.

Some installations require the adjustment of the length of one or more slings. Common hardware used for these applications include:



Turnbuckle
Used in-line with only one wire rope per end and can be adjusted to length. A mouse wire must be used after adjustment is complete. Note: Use only turnbuckles with closed, forged eyes.

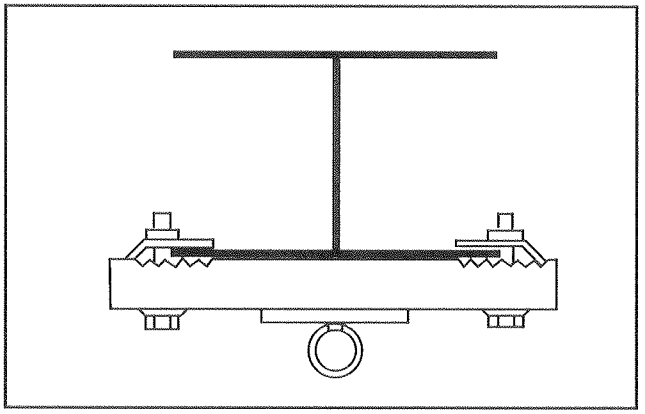
Attachment to Structures

A licensed Professional Engineer must approve the placement and method of attachment to the structure prior to the installation of any overhead object. The following performance standards should be provided to the Professional Engineer for design purposes; Uniform Building Code as applicable, Municipal Building Code as applicable, Seismic Code as applicable, and a minimum of a 5:1 design factor throughout the suspension system.

The installation of the hardware and method of attachment must be carried out in the manner specified by the Professional Engineer. Improper installation may result in damage, injury or death.

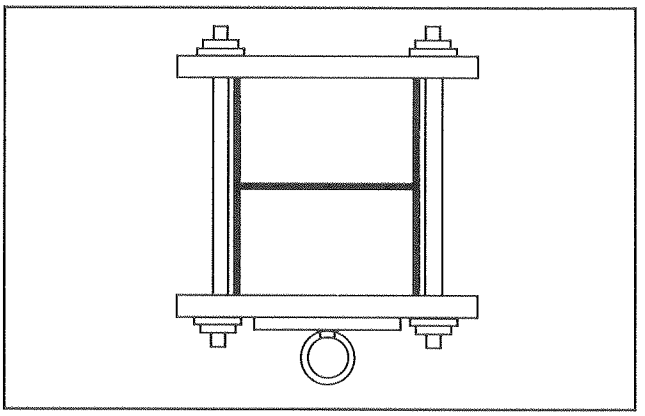
The following renderings represent some of the common methods of attaching to a structure. These renderings are intended as a reference only, and are not appropriate for many installation circumstances. In the following illustrations, the structure component is shown in solid black while the attachment hardware is drawn as an outline.

I-Beam



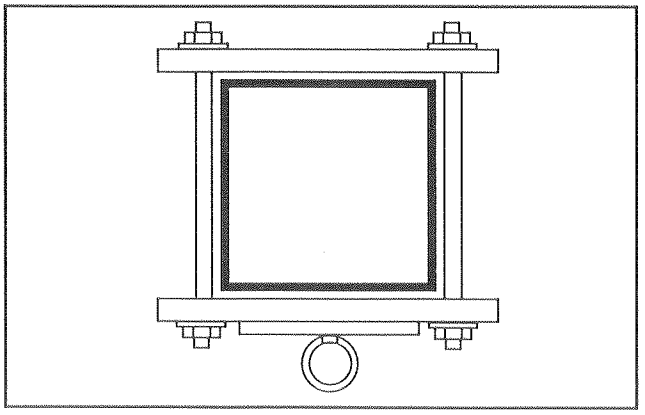
Beam Clamp
hardware as provided

H-Beam



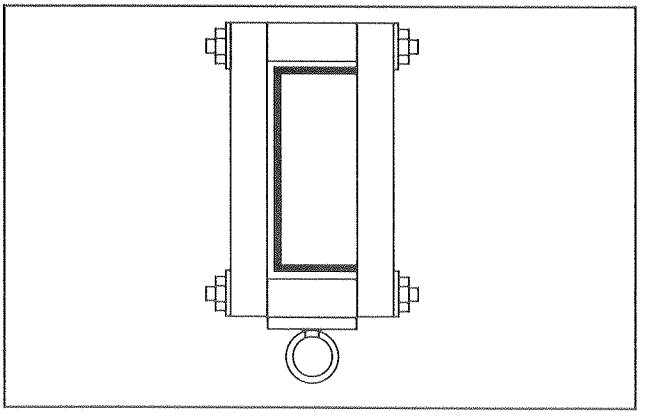
H-Beam Clamp (custom)
hardware as provided

Box Beam



H-Beam Clamp (custom)
hardware as provided

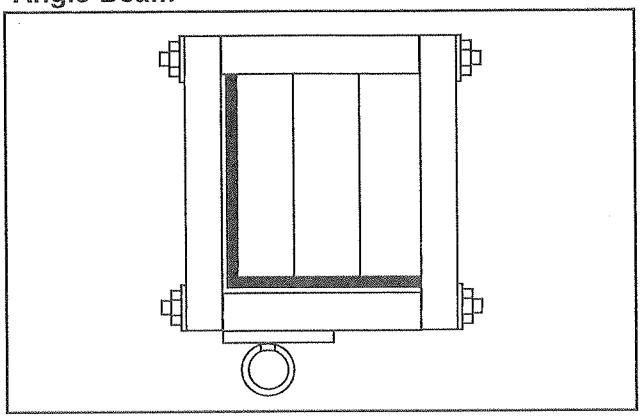
Channel Beam



Channel Beam Clamp (custom)
hardware as provided

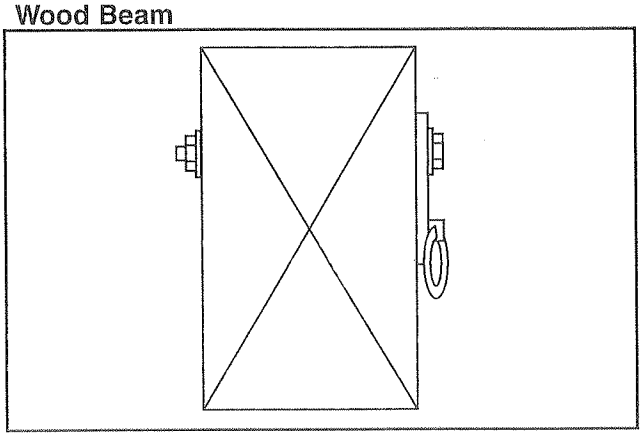
Attachment to Structures

Angle Beam



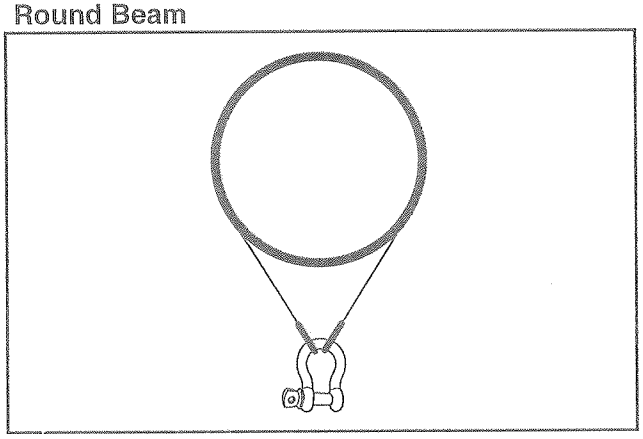
Angle Beam Clamp (custom)
hardware as provided

Wood Beam



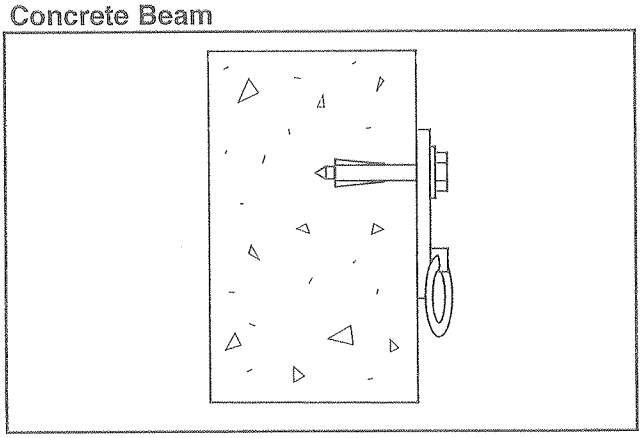
OSR Fitting
grade 8 or B7 fasteners

Round Beam



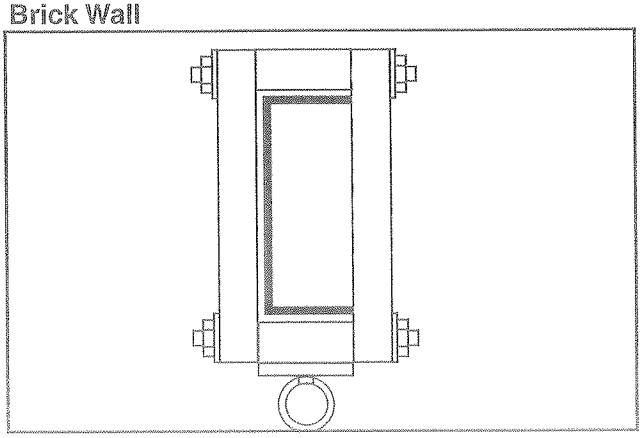
Wire Rope Sling (standard)
sling and SPA shackle

Concrete Beam



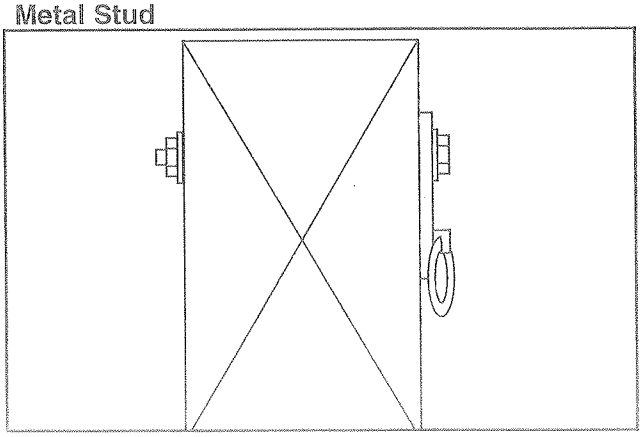
OSR Fitting
concrete anchors

Brick Wall



Mounting Plate (standard/custom)
concrete anchors with epoxy

Metal Stud



Mounting Plate (standard/custom)
grade 8 or B7 fasteners

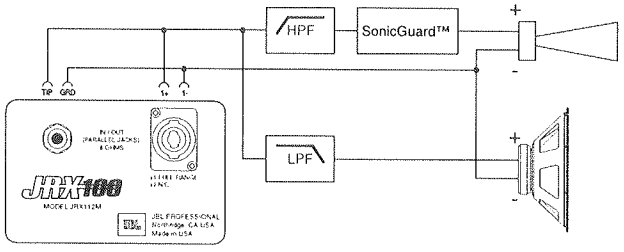
Specifications - JRX112Mi

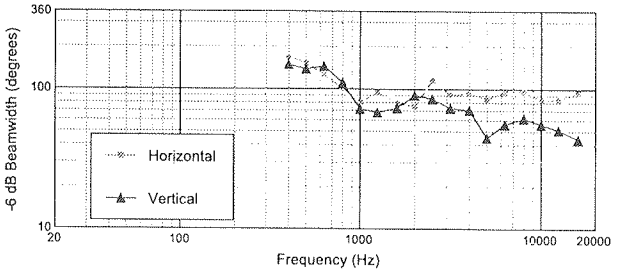
JRX112Mi

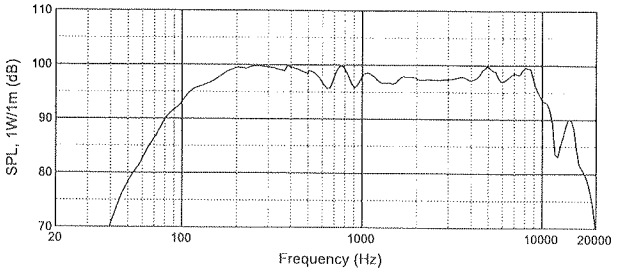
System Type:	12" 2-way, stage monitor
Frequency Range (-10 dB):[2]	60 Hz - 16 kHz
Frequency Response (±3 dB):[2]	70 Hz - 12 kHz
Sensitivity (1w/1m):	98 dB SPL
Nominal Impedance:	8 Ω
Power Capacity:[1]	250 watts
Peak Power Capacity:[1]	1000 watts
Maximum SPL:	129 dB
Nominal Dispersion:	90° x 50°
Crossover Frequency:	1.8 kHz
Dimensions (H x W x D):	584.2 mm x 393.7 mm x 317.5 mm (23 in x 15.5 in x 12.6 in)
Weight:	19.5 kg (43 lbs.)
Shipping Weight:	22.0 kg (48.5 lbs.)
High Frequency Driver:	JBL 2412 1" exit compression driver mounted on Progressive Transition™ Waveguide
Low Frequency Driver:	JBL M112-8
Input Connectors:	Neutrik® Speakon® NL-4 (x1); 1/4" TS phone jack (x1); parallel
Enclosure Construction:	19 mm (3/4 in) MDF (Medium Density Fiberboard); with glued and mechanically fastened joint detail; covered in black carpet.
Grille:	18 gauge, powder-coated steel
Suspension:	3x M10 threaded suspension points
Suspension Kit:	3x 10 mm forged shoulder eyebolts with washers

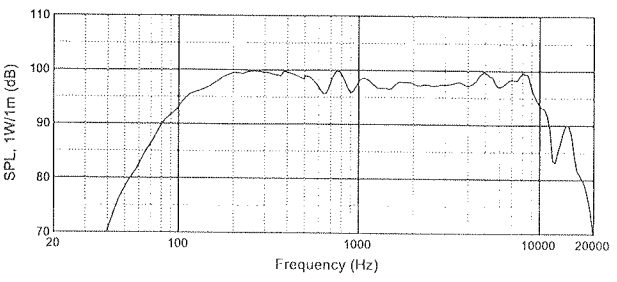
Notes:

1. "Power Capacity" and "Peak Power Capacity" ratings are based on the average and peak power handling capacity of product samples subjected to a 100 hour power test of the system design using IEC filtered random noise with a crest factor of 6 dB.
2. "Frequency Range" and "Frequency Response" are based on half-space response.









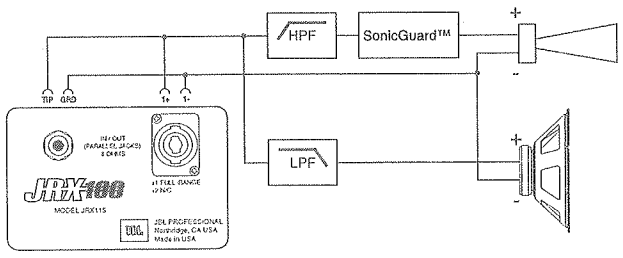
Specifications - JRX115i

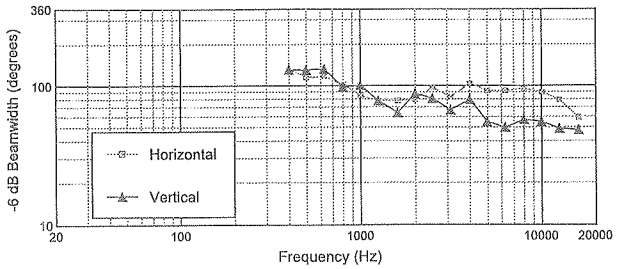
JRX115i

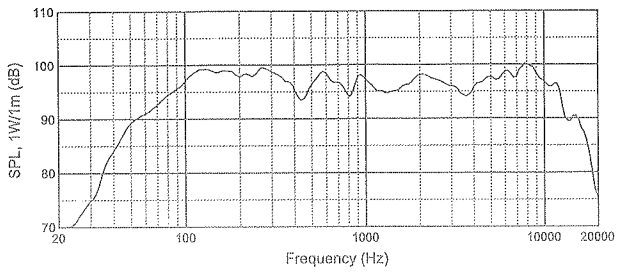
System Type:	15" 2-way, sound-reinforcement speaker
Frequency Range (-10 dB):[2]	38 Hz - 16 kHz
Frequency Response (±3 dB):[2]	50 Hz - 12.5 kHz
Sensitivity (1w/1m):	98 dB SPL
Nominal Impedance:	8 Ω
Power Capacity:[1]	250 watts
Peak Power Capacity:[1]	1000 watts
Maximum SPL:	128 dB
Nominal Dispersion:	90° x 50°
Crossover Frequency:	1.6 kHz
Dimensions (H x W x D):	698.5 mm x 459.9 mm x 431.8 mm (27.5 in x 18.11 in x 17 in)
Weight:	27.4 kg (60.5 lbs.)
Shipping Weight:	30.4 kg (67.0 lbs.)
High Frequency Driver:	JBL 2412, 1" exit compression driver mounted on Progressive Transition™ Waveguide
Low Frequency Driver:	JBL M115-8A
Input Connectors:	Parallel Neutrik® Speakon® NL-4 (x1); 1/4" TS phone jack (x1)
Enclosure Construction:	19 mm (3/4 in) MDF (Medium Density Fiberboard); with glued and mechanically fastened joint detail; covered in black carpet.
Grille:	18 gauge, powder-coated steel
Suspension:	3x M10 threaded suspension points
Suspension Kit:	3x 10 mm forged shoulder eyebolts with washer

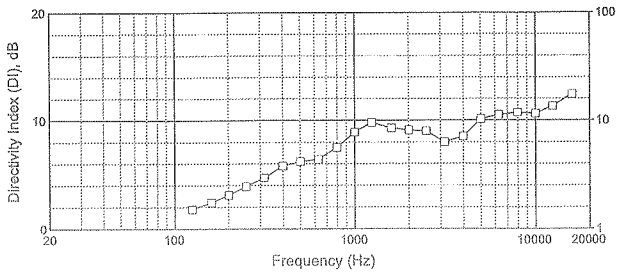
Notes:

1. "Power Capacity" and "Peak Power Capacity" ratings are based on the average and peak power handling capacity of product samples subjected to a 100 hour power test of the system design using IEC filtered random noise with a crest factor of 6 dB.
2. "Frequency Range" and "Frequency Response" are based on half-space response.



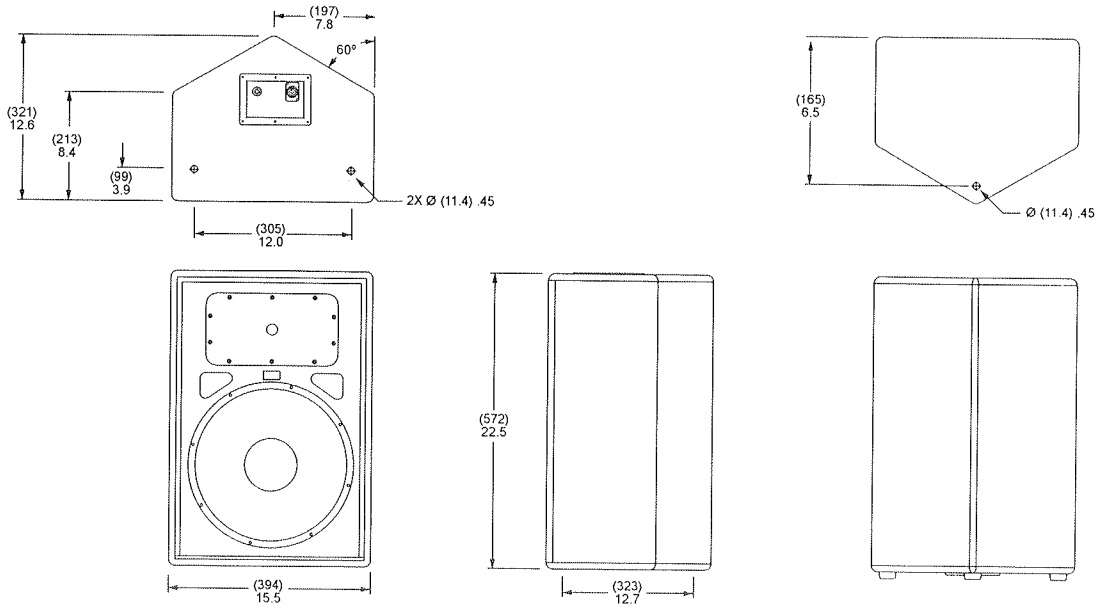




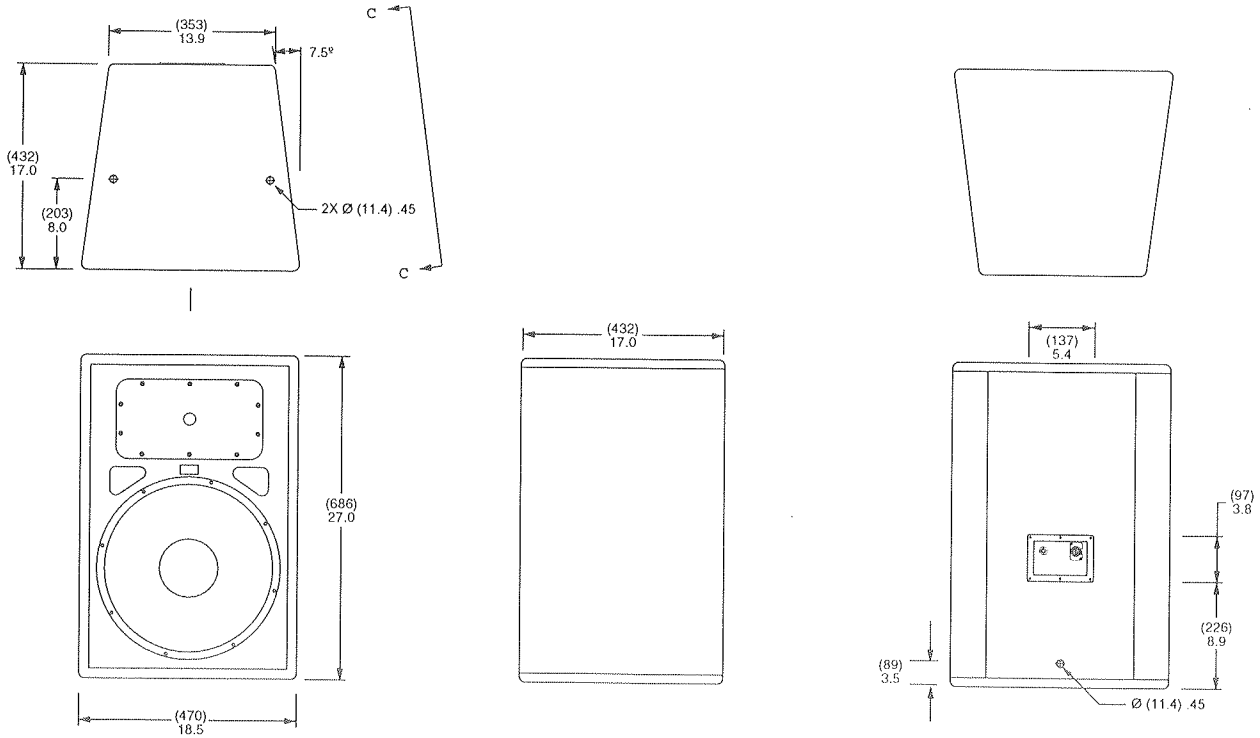


Product Dimensions

JRX112Mi



JRX115i



Inspection, Maintenance and Liability

Suspension systems are comprised of mechanical devices and, as such, they require regular inspection and routine maintenance to ensure that safety has not been compromised. The JBL JRX100 Install loudspeakers and associated suspension components must be inspected for fatigue at least annually and immediately following exposure to impact, mechanical shock, fire, water or other hazard. The inspection must include a visual survey of all corners and load bearing surfaces for signs of cracking, water damage, de-lamination, and any other condition that may decrease the strength of the loudspeaker enclosure or associated suspension components. The forged shoulder eyebolts provided with the JBL JRX100 Install loudspeakers must be inspected for fatigue at least annually. The inspection must include a visual survey of the material for signs of corrosion, bending or any other condition that may decrease the strength of the fastener. Additionally, the eyebolts must be checked for possible spin-out of the enclosure. For all other hardware and fittings, refer to the hardware manufacturer's inspection and maintenance guidelines for process. Should any signs of unsafe conditions be observed, repair or replacement of the deteriorated component(s) must be completed before anyone other than someone performing the repair is allowed access to the vicinity of the unsafe condition.

Note:

The working load limit (WLL) of the JBL JRX100 Install loudspeakers includes; a design factor equivalent to or exceeding ASME B30.20, VBG70, VBG9a and the manufacturer's proprietary performance standard.

All implied warranties, including warranties of merchantability and fitness for particular purpose, are limited in duration to the length of the warranty. JBL's liability shall in no event exceed the cost of any defective product and shall not include incidental or consequential damages of any kind, even if JBL has been advised of the possibility. Some states do not allow limitations on how long certain warranties last and/or do not allow exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

JBL is not responsible for the application of its products for any purpose or the misuse of this information for any purpose. Furthermore, JBL is not responsible for the abuse of its products caused by avoiding compliance with inspection and maintenance procedures or any other abuse.

Resources

Allen Products
(562) 424-1100
1635 E. Burnett Street
Signal Hill, CA 90806
www.allenproducts.com

M.A.N. Flying Systems
20 Sidar Road
Brook Road Industrial estate
Rayleigh, Essex SS6 7XF
www.manfly.co.uk

JBL Professional - Tech Note V1 No. 14
"Basic Principles For Suspending Loudspeakers"
www.jblpro.com/technote/tn_v1n14.pdf

ATM Fly-Ware
(888) RIG-MORE / (310) 834-5914
2100 South Wilmington Avenue
Carson, CA 90810
www.atmflyware.com

McMaster Carr
Various locations through the United States.
For a location near you, visit them online at
www.mcmaster.com

JBL Professional Contacts

Mailing Address:
JBL Professional
8500 Balboa Blvd.
Northridge, CA 91329

Customer Service:
Monday through Friday
8:00am - 5:00pm
pacific coast time in the U.S.A.
(800) 8JBLPRO (800.852.5776)
www.jblproservice.com

Shipping Address:
JBL Professional
8370 Balboa Blvd., Dock D
Northridge, CA 91329

On the World Wide Web:
www.jblpro.com

Product Registration:
Register your product online at
www.jblpro.com/registration

JBL PROFESSIONAL

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