

### November 2014



The V25 Angle Stop Mechanism (ASM) suspension system and dolly board accessories were initially designed as incremental improvements to the VERTEC suspension system to facilitate more rapid caterpillar-style suspension (with V25 enclosures transported facedown on dolley boards) for fixed angle tension mode.

Due to a high level of demand from the field for vertical transporter system conditioning and deployment, JBL Professional is pleased to introduce a new optional compression-style suspension kit and accessories for VTX V25.

By leveraging design features of the highly-effective VTX V20 ASM suspension system, comparable ease-of-use and deployment speed are now available for V25-CS-K equipped enclosures:

- Ideal for vertical transporter use
- Rapid, secure, precise installation
- Improved long throw resolution
- · Optimum truck pack dimensions
- Convenient retrofit for existing V25 enclosures from fixed angle tension to compression mode





### November 2014

### **VTX Compression Suspension Kit and Accessories**

- Compression suspension can be implemented on existing VTX V25 cabinets equipped with the new VTX-V25-CS-K compression suspension kit using VTX-V25-PB Pull Back, VTX-V25-LH Lever Hoist accessories.
- Note: V25 enclosures that are equipped with the new, optional VTX-V25-CS-K compression suspension kit are referred to as V25-CS
- · Key features are as follows:

#### 1) Fast Vertical Transporter Deployment

The VTX-V25-CS-K compression suspension kit, combined with a new vertical transporter (VTX-V25-VTC), ensure that VTX V25 systems can be suspended safely, efficiently and faster than ever.

Vertical transporters take up less floor space and installation time can be cut in half compared with caterpillar-style, fixed-angle tension suspension.



#### 2) Improved Long-Throw Resolution

To optimize vertical coupling for long throw distance applications, the new VTX-V25-CS-K compression suspension kit enables VTX V25 cabinets to be suspended with improved interenclosure angle resolution between 0 and 1 degrees with the addition of 0.5 and 0.75 degree values.

VTX V25-CS	•	0
VTX V25-CS	•	0.5
VTX V25-CS	•	0.75
VTX V25-CS	•	1
VTX V25-CS	•	2
VTX V25-CS	•	3
VTX V25-CS	•	5
VTX V25-CS	•	7
VTX V25-CS	•	9
VTX V25-CS	•	10







November 2014

### **VTX Compression Suspension Kit and Accessories**

#### 3) New Cost-Effective Vertical Transporters

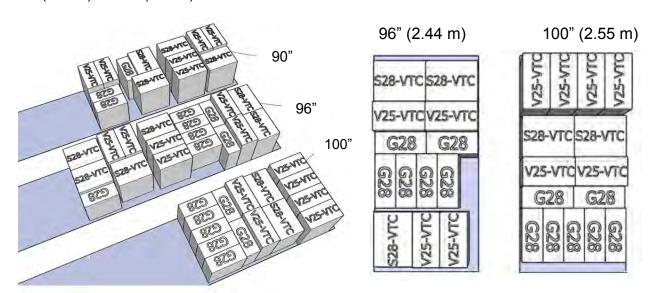
To streamline handling and deployment of VTX V25 and S28, new VTX-V25-VTC and VTX-S28-VTC vertical transporters have design features similar to V20 and S25 transporters.

VTX-V25-VTC can transport 3x or 4x V25 enclosures high. VTX-S28-VTC can transport 3x S28 enclosures high in either front-firing or cardioid mode. Both transporters feature heavy duty locking casters and are stackable plus fullly compatible with existing VTX-V25-CVR and VTX-S28-CVR protective covers.



#### 4) Flexible Truck Pack Options

VTX-V25-VTC and VTX-S28-VTC are lightweight, cost effective and dimensioned to fit cleanly in 100" (2.55 m) and 96" (2.44 m) trucks as illustrated.



Note: VTX G28 truck pack based on standard dolly board transport (vertical transporters are currently not available for VTX G28)





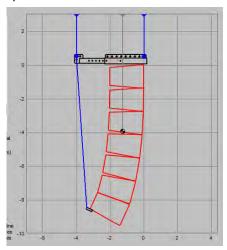
November 2014

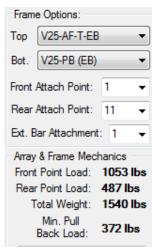
### **VTX Compression Suspension Kit and Accessories**

#### 5) Flexible Compression Suspension Configurations

**Compression Mode with Extension Bar Pullback** is the most flexible method for deploying V25-CS arrays. Use of front and rear motors attached to VTX-V25-AF and –EB gives maximum flexibility for array site angle adjustment while a separate electric or manual lever hoist ensures the array is properly compressed.

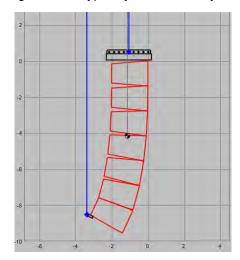


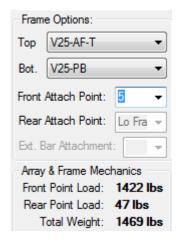




**Compression Mode with Rear Motor Pullback** uses a rear motor attached directly to the bottom enclosure of the suspended V25-CS array. In this configuration, two motors are utilized for array site angle adjustment without the need for a separate compression device. This compression mode configuration is typically used for arrays with zero or negative site angles.











### November 2014

### VTX-V25-CS-K Compression Suspension Kit

- To retrofit enclosures, one VTX-V25-CS-K Compression Suspension Kit is required per VTX V25 enclosure. The kit includes: 2x suspension frame labels, 2x slot hinge bars, 2x ASM bars, 2x Quick Release Pin (QRP) / lanyard assemblies and all required mount hardware.
- At least one VTX-V25-CS-K-LJ label jig installation fixture should be ordered with each VTX-V25-CS-K order. Detailed label application instructions are included with the label jig.
- The entire process to install VTX-V25-CS-K and convert one V25 cabinet to compression suspension can be completed in approximately 10 minutes.



VTX-V25-CS-K rear slot hinge bar and Angle Stop Mechanism (ASM) sled bar





November 2014

# VTX-V25-CS-K Compression Suspension Kit COMPONENTS

Slotted Rear Hinge Bar

#### **Mount Hardware**

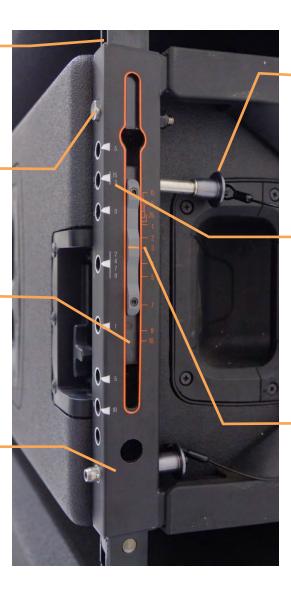
(for permanent attachment of slotted rear hinge bar)

#### **ASM Sled Bar**

with machined aluminum Slider Handle

### ASM Indicator Label

(installed on top of existing V25 suspension frame tubes using label jig installation fixture)



# QRP with longer lanyard

(used to secure ASM Sled Bar at desired angle)

#### QRP / Label

(refer to white label markings and target circles to secure ASM Sled Bar at desired angle)

# ASM Sled Bar Slider Handle

(refer to orange index line and orange label markings to select ASM sled bar angle)





November 2014

# VTX-V25-CS-K Compression Suspension Kit INSTALLATION PROCEDURE

Detailed step-by-step instructions included with VTX-V25-CS-K and VTX-V25-CS-K –LJ label jig installation fixture

- Remove existing V25 rear hinge bars
- Install new suspension label using label jig installation fixture to ensure proper placement, alignment and adhesion
- Remove upper rear hinge bar Quick Release Pin (QRP) and install new QRP with longer lanyard.
- Place rear ASM Sled Bar into rear suspension tube
- Install Sled Bar Slider Handle with two threaded bolts (supplied)
- Place slotted rear hinge bar into rear suspension tube and permanently attach using supplied hardware

#### **Tools Required**

- · Socket wrench
- Allen key
- Label Installation Fixture
   (ordered separately:1x label jig
   installation fixture required per VTX-V25 CS-K order)
- Phillips head screwdriver

#### **Estimated Installation Time**

10 minutes per V25 enclosure







November 2014

### VTX-V25 Compression Suspension System ACCESSORY SUMMARY

#### VTX-V25-CS-K

 Compression Suspension Kit to convert existing VTX-V25 cabinet to compression-style suspension. Includes: 2x labels, 2x slot hinge bars, 2x ASM sled bars, 2x QRP lanyard assemblies, mount hardware and installation instructions. Note: at least one label jig installation fixture should be ordered per VTX-V25-CS-K order.

#### VTX-V25-CS-K-LJ

 Compression Suspension Kit Label Jig to ensure proper placement, alignment and adhesion when installing labels. Includes 2 spare labels and detailed instructions. Note: at least one label jig installation fixture should be ordered per VTX-V25-CS-K order.

#### VTX-V25-PB

 Pull Back accessory for attachment to bottom V25 enclosure to facilitate compression suspension of VTX-V25-CS-K equipped arrays. Includes: spreader bar with integrated attachment brackets, master link, shackles and dual leg chain bridle with locking safety hooks.

#### VTX-V25-LH

 Lever Hoist (1 ½ ton rating) for use with VTX-V25-PB for compression of VTX-V25-CS-K equipped arrays.

#### VTX-V25-VTC

Vertical Transporter for 3x or 4x V25 enclosures, Optimally-dimensioned to fit in 100" (2.55 m) or 96" (2.44 m) trucks.

#### VTX-S28-VTC

• Vertical transporter for 3x VTX S28 configured in either front-firing or cardioid mode. Optimally-dimensioned to fit in 100" (2.55 m) or 96" (2.44 m) trucks.

#### VTX-V25-CVR

 Reinforced, padded protective cover for 3x or 4x VTX-V25 enclosures when transported vertically.

#### VTX-S28-CVR

 Reinforced, padded protective cover for 3 VTX-S28 enclosures when transported vertically in either front-firing or cardioid mode.

Note: existing V25 and S28 protective covers are fully compatible with new VTCs.





November 2014

### VTX-V25-PB PULL BACK



- The VTX-V25-PB Pull Back accessory includes all parts needed to properly compress a VTX V25 array equipped with the VTX-V25-CS-K compression suspension kit.
- Note: VTX-V25-PB is the only factory-approved device for compression of VTX V25 arrays.





November 2014

### VTX-V25-LH LEVER HOIST



VTX-V25-LH is a factory-approved manual lever hoist for compression of VTX-V25-CS-K equipped systems. The CM Series 653 for use with VTX V25 is a 1 ½ ton model with 20' of chain length for compressing arrays of up to 18 cabinets with no additional extension hardware needed.

Note: VTX-V20-LH (3/4 ton capacity) can be used for smaller V25-CS arrays (REFER TO JBL LAC SOFTWARE RE: MIN PULL BACK LOAD REQUIREMENTS)





November 2014

### VTX-V25-VTC VTX-S28-VTC VERTICAL TRANSPORTER - COMPRESSION



With design features similar to VTX-V20-VT, the VTX-V25-VTC is a simple and cost-effective solution for vertically transporting VTX V25-CS enclosures in blocks of 3 or 4 cabinets. Measuring 48" wide by 25" deep, the VTX-V25-VTC will travel 4 across (length-wise) in standard 100" trailers, and 2 across (width-wise) in standard 96" trucks.

V25-VTC and S28-VTC both feature heavy duty casters with stacking recesses, attachment studs, reinforced central supports aligned with internal enclosure cabinet bracing for fork lift use and are designed to support 24 enclosure suspension.





November 2014

# VTX-V25 Compression Suspension SUSPENSION PROCEDURE SUMMARY

Detach VTX-V25-VTC Vertical Transporter Quick Release Pins (QRPs) then raise the block of three or four V25-CS enclosures to a convenient working height. Remove captive QRPs that hold ASM Sled Bars in place.







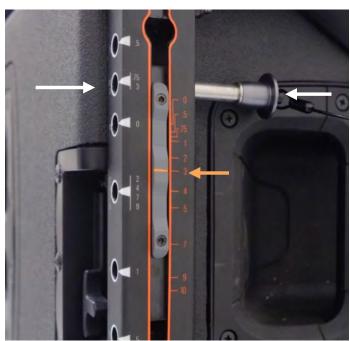
November 2014

# VTX-V25 Compression Suspension SUSPENSION PROCEDURE SUMMARY

With reference to JBL Line Array Calculator installation parameters, slide the ASM Sled Bar to the desired location by aligning the orange angle selection indicator with the desired inter-enclosure angle listed along the side of the ASM travel path (orange angle indications).

Use captive QRPs to lock ASM Sled Bars in place by referring to white markings and arrows on the CS-K label.





Repeat the angle selection process for ASM Sled Bars on all enclosures in the array and both sides of each enclosure.





November 2014

# VTX-V25 Compression Suspension SUSPENSION PROCEDURE SUMMARY

While the upper block of three or four V25-CS enclosures is still at working height, attach VTX-V25-LH Lever Hoist to the VTX-V25-AF-EB. Alternatively, to apply compression a separate rear pull back motor can be used or a 1-ton motor can be attached to the extension bar. Note: For smaller box counts, VTX-V20-LH can be employed (refer to JBL LAC software and the MIN PULL BACK LOAD indication to ensure that VTX-V20-LH has adequate capacity to apply sufficient compression).

Raise the array then lower to attach the next block of V25-CS enclosures. Remove vertical transporter QRPs, raise the array so that the next block is at working height then select angles according to the steps outlined previously. Repeat for additional blocks of V25-CS enclosures until the entire array is built.









November 2014

# VTX-V25 Compression Suspension SUSPENSION PROCEDURE SUMMARY

Attach VTX-V25-PB Pull Back accessory to the bottom V25-CS enclosure using captive QRPs then attach the Lever Hoist (or other compression device) to the PB accessory.





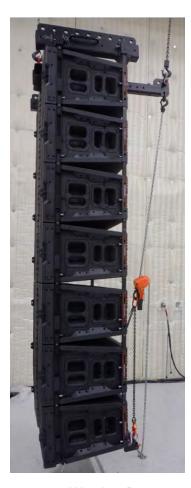




November 2014

# VTX-V25 Compression Suspension SUSPENSION PROCEDURE SUMMARY

Compress the array using the VTX-V25-LH Lever Hoist. With reference to JBL Line Array Calculator installation parameters, raise the array to the desired trim height and set the array site angle using installation accessories such as the VTX-LZ laser.







Warning: Do not over-compress the array as this can cause physical damage to the suspension system. Use of a force gauge is recommended.





### November 2014

# VTX-V25 Compression Suspension FAQ

Can VTX V25 and VTX V25-CS-K equipped loudspeakers be combined in the same array?

No, all VTX V25 speakers must be of the same suspension type

#### Can VTX V25-CS be used in mixed arrays?

- Yes, VTX-V25-CS-K equipped enclosures can be used with VTX S28 in the same array (S28 either on top or in the middle).
- VTX V20 will be able to be suspended below VTX V25 or V25-CS arrays with the introduction of the V20 Down Fill Adaptor (projected availability in early 2015)

#### Will there be a compression style suspension kit available for VTX-S28?

 No, currently there are no plans to introduce compression-style suspension for the VTX S28.

#### Will the VTX V25-CS enclosures work with VT4889-AF?

 Yes, however VTX-V25-AF is recommended – especially for higher cabinet counts – since the VTX-V25-AF-EB Extension Bar provides a higher-rated attachment point for array compression devices

#### Can I still purchase VTX-V25-VT or VTX-S28-VT?

- Original models are being discontinued and replaced by VTX-V25-VTC and VTX-S28-VTC. Some inventory of original models exists for sound companies who would like to complement existing inventory.
- Note: VTX-S28-VTC is highly recommended for suspended S28 arrays, particularly when used in cardioid mode

#### Will VTX laser accessories still work with VTX V25-CS enclosures?

 Yes, the VTX-V25-LZ-MB Mount Bracket utilizes the front suspension tube for mounting and therefore remains fully compatible with V25-CS cabinets that have the VTX-V25-CS-K kit installed.





### November 2014

# VTX-V25 Compression Suspension FAQ

Is the VTX-V25-VTC Vertical Transporter mandatory for suspension of VTX-V25-CS-K equipped enclosures?

- No, first generation VTX-V25-VT Vertical Transporters can also be used for suspension of VTX-V25-CS-K equipped enclosures
- In addition, sound companies who have built their own vertical transporters can continue to use them while benefitting from the VTX-V25-CS-K compression suspension kit.

Will VTX-V25-CS-K equipped enclosures work with standard dolly boards?

 Yes, standard dolly boards can also be used for caterpillar-style suspension of V25-CS systems. ASM Sled Bars can be set and pinned while cabinets are face down on the ground and the array compressed once it is fully suspended.

Is there an exchange policy for VTX-V25-VT, VTX-S28-VT, and VTX-FL?

 No, there is no exchange policy for first generation vertical transporters and fork lift adapters

What do I do with my V25 hinge bars?

VTX-V25-CS-K is considered as an optional retrofit. Since vertical transporters are
not necessarily the right packaging solution for all applications, it is recommended
that standard V25 hinge bars be kept in inventory as a contingency to allow V25-CS
enclosures to be converted back to fixed angle / tension mode suspension if
necessary.

Can I order VTX V25 direct from the factory with VTX-V25-CS-K installed?

 Not at this time although it will be possible early in 2015. VTX-V25-CS-K is initially being offered as an optional retrofit kit to address existing V25 enclosures in the field.





PROFESSIONAL

by HARMAN