



JBL VERTEC DRIVEPACK

DP-DA V5 R1

PRESET README FILE



INTRODUCTION

VERTEC® DRIVEPACK® DP-DA V5 is a software “plug-in” upgrade for VT4887ADP-DA, VT4888DP-DA, VT4889ADP-DA and VT4881ADP-DA, VT4882DP-DA, VT4880ADP-DA subwoofers that dramatically enhances VERTEC DRIVEPACK DP-DA system performance.

NOTE: In order to run DRIVEPACK DP-DA V5 presets please ensure that the following requirements are met :

- All units are updated to DPDA-1103.bnd firmware or higher
- All units have been upgraded to current hardware specifications (see additional information at the end of this document)

The main features and benefits of VERTEC DP-DA V5 are summarized as follows:

- Leverages BSS Audio Omnidrive HD™ linear phase FIR processing capability available in Crown® I-Tech HD Series power amplifiers and JBL DRIVEPACK DPDA input modules
- Significantly improved:
 - horizontal coverage (due to the use of higher order, asymmetric filters)
 - sound quality via phase linearization
 - system response to equalization
 - far-field summation and throw
 - inter-array interaction, summation and stereo imaging

The following features are introduced:

- Short Throw (ST) and Long Throw (LT) preset support for VT4887ADP-DA, VT4888DP-DA and VT4889ADP-DA. Please see below for further details
- Dedicated downfill presets for use of VT4887ADP-DA with VT4888DP-DA or VT4889ADP-DA enclosures
- LT (fullrange) preset support for VT4888DP-DA and VT4889ADP-DA with extended low frequency and nominal flat response. LT (fullrange) presets have the same high pass filter setting as X presets but without additional low frequency shelving equalization and are intended for use when maximum A-weighted SPL output is desired.
- Sub/low preset support for the following combinations:
 - VT4881ADP-DA and VT4887ADP-DA, VT4888DP-DA, VT4889A-DPDA
 - VT4882DP-DA and VT4887ADP-DA, VT4888DP-DA
 - VT4880ADP-DA and VT4887ADP-DA, VT4888DP-DA, VT4889A-DPDA
- Cardioid preset support for VT4881ADP-DA, VT4882DP-DA, VT4880ADP-DA

Please refer to Preset Setup sheets for more details on preset organization and enclosure combinations.



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SHORT / LONG THROW MODES

Two preset options are available for VT4887ADP-DA, VT4888DP-DA, VT4889ADP-DA: Short Throw (ST) and Long Throw (LT):

ST (Short Throw) presets have nominally-flat low and high frequency response and are suitable for short throw applications such as stacked side fill for stage monitoring or stacked theatre / club systems intended for short throw front-of-house sound reinforcement.

LT (Long Throw) X, 60, 80 presets have a 6 dB low-frequency shelving characteristic and high-frequency shelving response (HF pre-emphasis) to offset air absorption over typical throw distances for nominally focussed arrays and are suitable for medium- to long-throw applications.

LT (Fullrange) presets for VT4888DP-DA and VT4889ADP-DA have the same high pass filter setting as corresponding X presets but do not have additional LF shelving equalization as in X presets. LT (fullrange presets) are intended for applications where maximum A-weighted SPL output is desired.

NOTE: It is not recommended to mix ST and LT presets within the same array (for example, ST presets on lower circuits and LT on middle / upper circuits of the array).

For more precise control of SPL distribution and frequency response throughout the intended array coverage region, it is recommended that either ST or LT presets are used for the entire array and circuit-level gain shading and tapering adjustments implemented using the JBL Line Array Control Panel that is available in JBL HiQNet Performance Manager and JBL Line Array Calculator.

For more details on working with the JBL Line Array Control Panel, please refer to the Performance Manager or JBL Line Array Calculator help files. Additional online support is available at: http://hignet.harmanpro.com/tutorials/performance_manager/



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JBL LINE ARRAY CONTROL PANEL

(available in JBL Line Array Calculator and JBL HiQnet Performance Manager)



For short-to-medium throw applications, use ST presets for all array circuits and apply HF shelving to upper circuits

For medium-to-long throw applications, use LT presets for all array circuits and apply HF shelving to lower circuits if necessary



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SUB/LOW PRESET SELECTION

VERTEC DRIVEPACK DP-DA Subwoofer preset naming convention is as follows:

“VERTEC SUBWOOFER MODEL” “VERTEC MODEL” “SUB/LOW OPTION”

where:

“VERTEC SUBWOOFER MODEL” = VT4881ADP-DA, VT4882DP-DA, or VT4880ADP-DA

“VERTEC MODEL” = VT4887ADP-DA, VT4888DP-DA or VT4889ADP-DA

“SUB/LOW OPTION” = X, 60, 80 or Cardioid X, Cardioid 60, Cardioid 80 (see below)

For example:

The VT4880ADP-DA VT4888DP-DA X preset provides VT4880ADP-DA subwoofer X mode processing that is appropriate for use with VT4888DP-DA when operated with preset VT4888DP-DA ST X or VT4888DP-DA LT X

SUB/LOW OPTIONS

- 60 presets have a 60 Hz high pass filter for VERTEC models and a 60 Hz low pass filter for VERTEC subwoofers (subwoofers have positive polarity)
- 80 presets have an 80 Hz high pass filter for VERTEC models and a 80 Hz low pass filter for VERTEC subwoofers (subwoofers have positive polarity)
- X presets allow the low section for VERTEC models to operate in fullrange mode with maximum LF extension and apply an 80 Hz low pass filter for VERTEC subwoofers (subwoofers have negative polarity)

Note: Always use the corresponding sub/low processing option for VERTEC and VERTEC subwoofer models, i.e., make sure the low section and subwoofers are both operating in the same mode (X, 60 or 80).



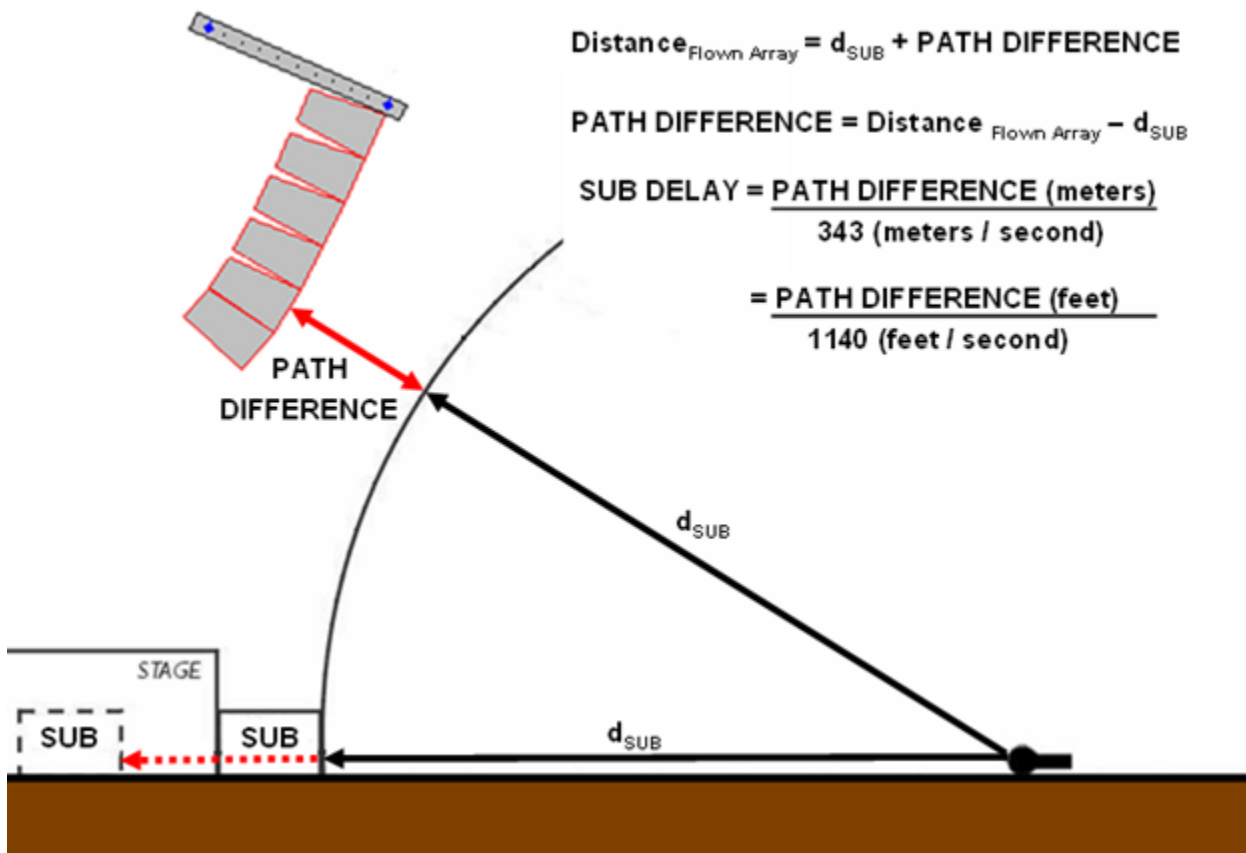
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SUBWOOFER TIME ALIGNMENT

Subwoofer sections for all presets are pre-time aligned for closely-coupled configurations where VERTEC DRIVEPACK enclosures (VT4887ADP-DA, VT4888DP-DA, VT4889ADP-DA) are either stacked on top of, or suspended below VERTEC DRIVEPACK subwoofer enclosures (VT4881ADP-DA, VT4882DP-DA, VT4880ADP-DA). For closely coupled conditions, proper summation is obtained when the corresponding sub/low processing option is used for both VERTEC and VERTEC DRIVEPACK subwoofer models, i.e., low section and subwoofers are both operating in the same mode (X, 60 or 80).

For suspended VERTEC and ground-stacked VERTEC subwoofer configurations, simply add the measured geometric path length difference between the flown system versus ground stacked subwoofers (at your reference location of choice) to the input delay processing block on DP-DA DRIVEPACK units as a starting point for time alignment measurements and further adjustment.





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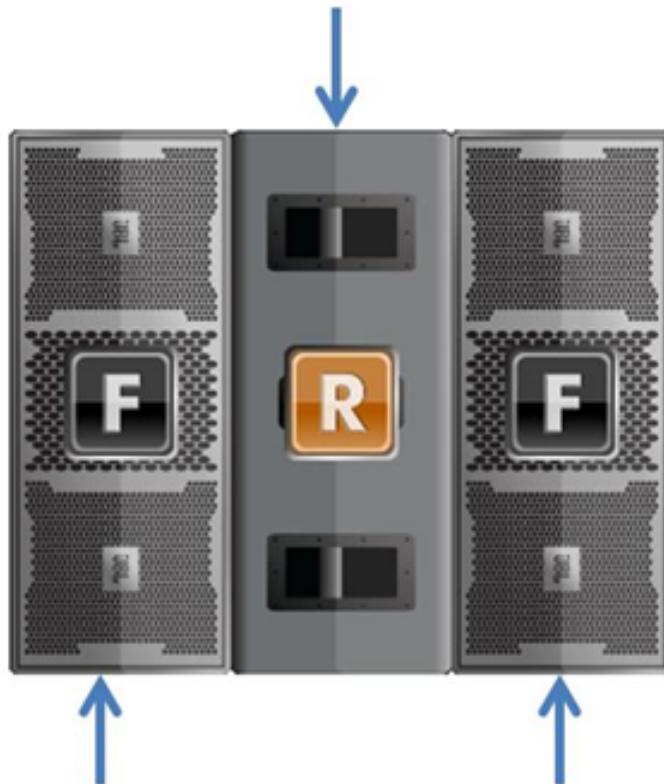


CARDIOID SUBWOOFER CONFIGURATIONS

To implement VT4881ADP-DA, VT4882DP-DA, VT4880ADP-DA cardioid configurations, simply select the appropriate X, 60 or 80 preset for front- and rear-firing enclosures, respectively, as illustrated below for the case of VT4880ADP-DA enclosures:

REAR-FIRING ENCLOSURE:

VT48880ADP-DA CARDIOID X, 60, 80



FRONT-FIRING ENCLOSURES:

VT48880ADP-DA X, 60, 80



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IMPORTANT NOTES:

DRIVEPACK DP-DA V5 FIRMWARE UPDATE PROCEDURE

The latest firmware revision (.bnd) is included with preset download files that are available on the V5 download page at jblpro.com

<http://www.jblpro.com/www/products/tour-sound/vertec-series/v5-system-integration#.VloRP010zcs>

For use with Performance Manager:

Copy the DPDA-1103.bnd (or higher) firmware update file to the directory:

- Program Files (x86) \ Harman Pro \ Performance Manager x.x.x \ FirmwareUpdates
- After connecting to DP-DA units, launch Performance Manager software and select "Tools" then "Firmware Update"

For use with Audio Architect:

Copy the DPDA-1103.bnd (or higher) firmware update file to the directory:

- Program Files \ Harman Pro \ Audio Architect x.xx \ FirmwareUpdates
- After connecting to DP-DA units, launch Audio Architect software and select "Firmware Update" on the File menu bar

DRIVEPACK DP-DA V5 HARDWARE UPDATE PROCEDURES

Please refer to Technical Bulletin TB-053 (included with preset download files that are available on the V5 download page at jblpro.com)

<http://www.jblpro.com/www/products/tour-sound/vertec-series/v5-system-integration#.VloRP010zcs>

The hardware update affects: DP-DA units with top board PWA-141245-5 or earlier and middle board PWA-141213-8 or earlier.

For additional assistance please contact support@jblpro.com