



JBL VERTEC V4 Crown I-TECH HD SERIES README FILE



Before downloading VerTec V4 device files, check for the latest version of HiQnet System Architect Software on: <http://hiqnet.harmanpro.com/downloads.php>

Note: JBL VerTec Crown I-TECH HD V4 device files must be used with System Architect V1.90.0.5 and I-Tech HD Firmware V1.0.1.7 or higher.

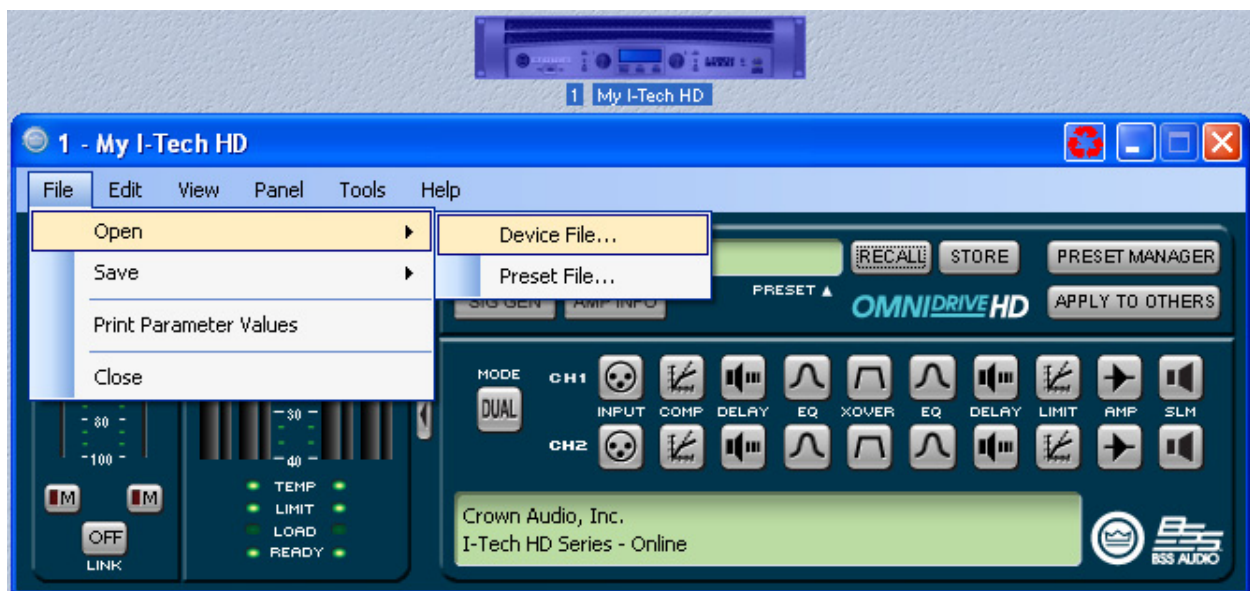
GETTING STARTED

After downloading and installing System Architect, JBL VerTec Crown I-Tech HD V4 device files are located in the following directory:

C:\ Documents and Settings
 \ "your name"
 \ My Documents
 \ Harman Pro
 \ Device Files
 \ VerTec Crown I-TECH HD V4

After starting System Architect and establishing network connectivity, perform the following steps:

- 1) Double-click on the I-Tech HD power amplifier to be programmed
- 2) On the top menu bar, select: File / Open / Device File



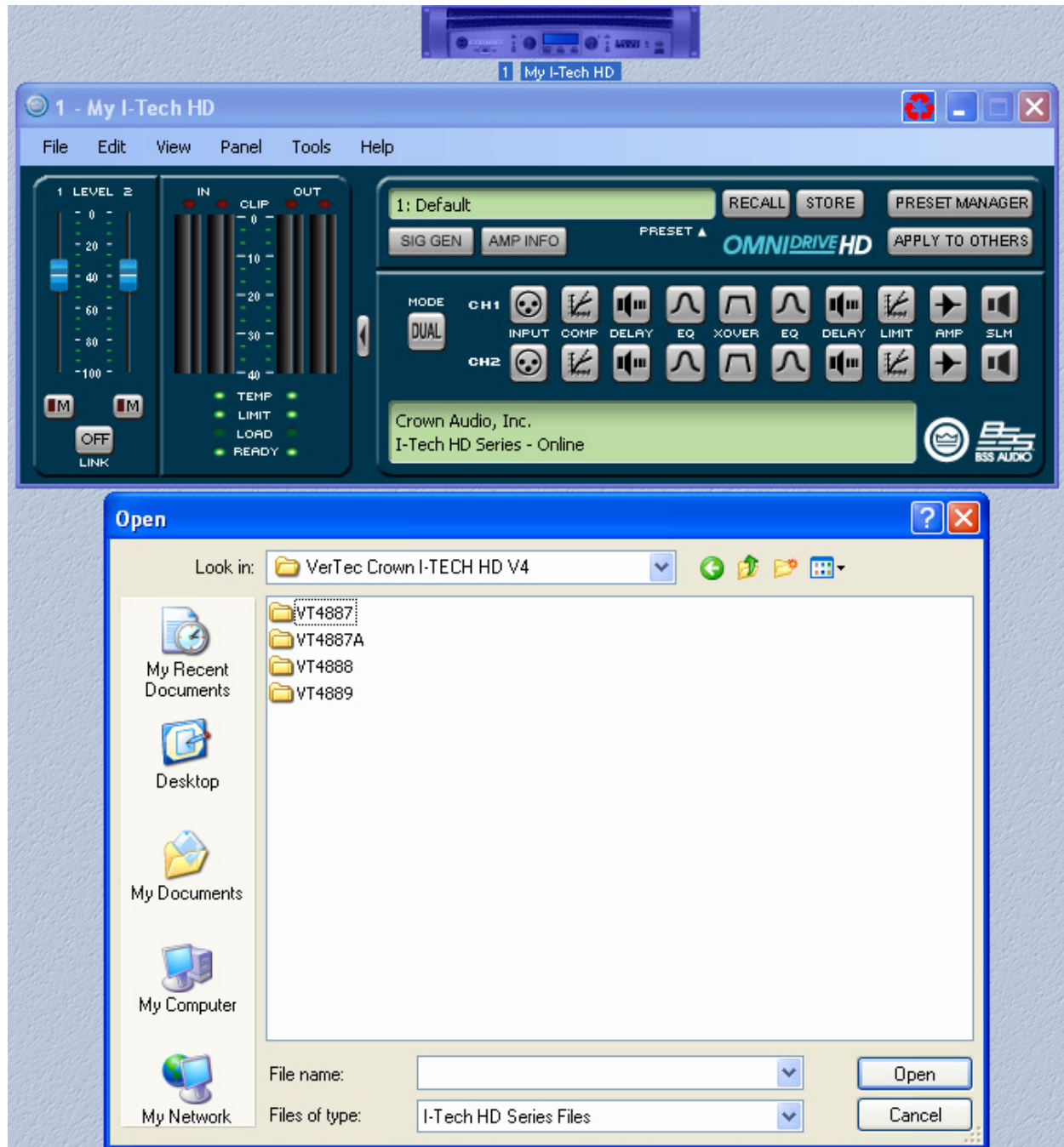


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3) Navigate to:

C:\ Documents and Settings\ " your name " \ My Documents\ Harman Pro\ Device Files\J BL VerTec Crown I-Tech HD V4\ " VerTec Model "





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4) Select the device file suitable for your VerTec model and subwoofer combination:

VerTec VT4887 2W V4.I-Tech HD Series

VerTec VT4887A 2W V4.I-Tech HD Series

VerTec VT4887A-VT4881A V4.I-Tech HD Series

VerTec VT4887A-VT4882 V4.I-Tech HD Series

VerTec VT4887A-VT4880 V4.I-Tech HD Series

VerTec VT4887A-VT4880A V4.I-Tech HD Series

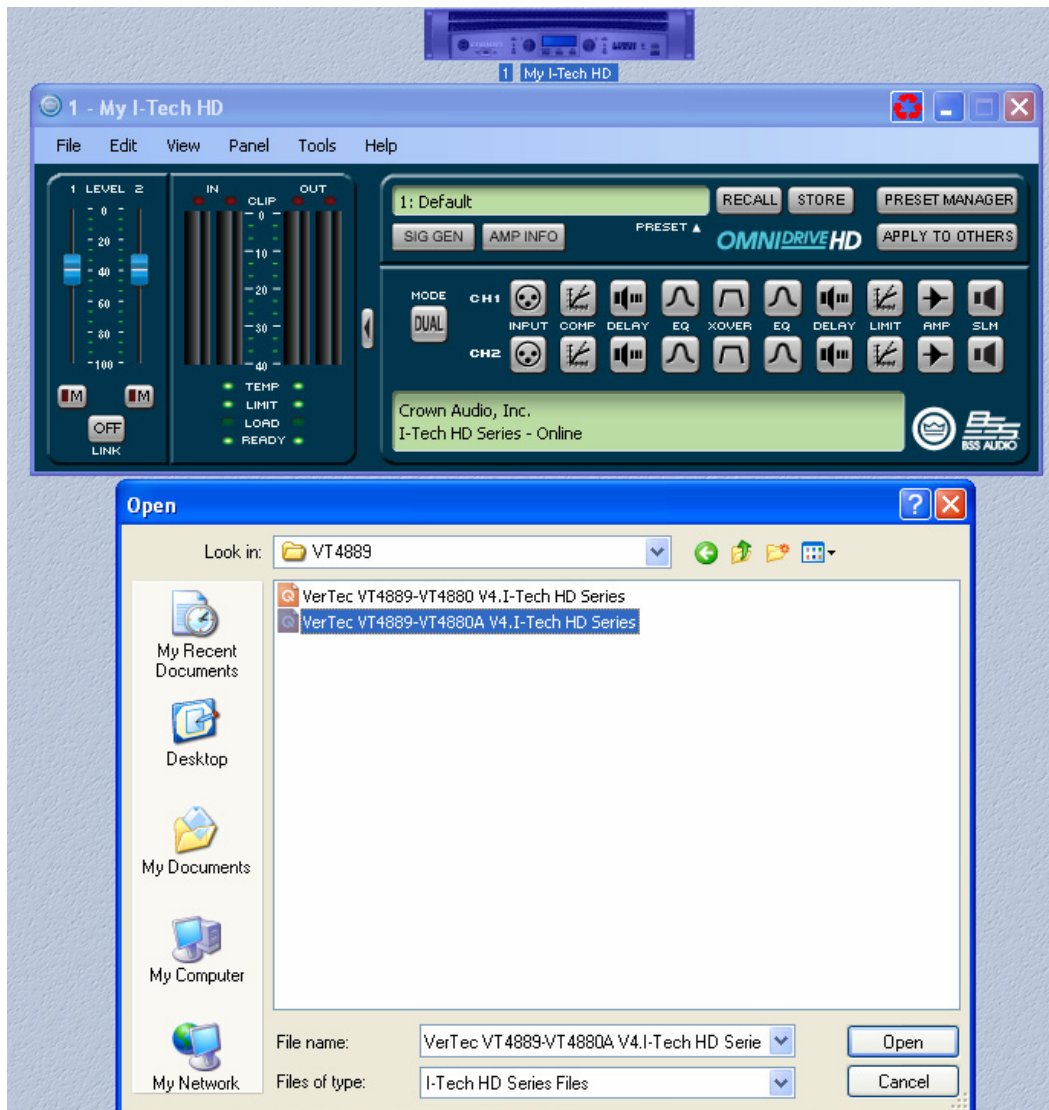
VerTec VT4888-VT4882 V4.I-Tech HD Series

VerTec VT4888-VT4880 V4.I-Tech HD Series

VerTec VT4888-VT4880A V4.I-Tech HD Series

VerTec VT4889-VT4880 V4.I-Tech HD Series

VerTec VT4889-VT4880A V4.I-Tech HD Series (example – shown below)





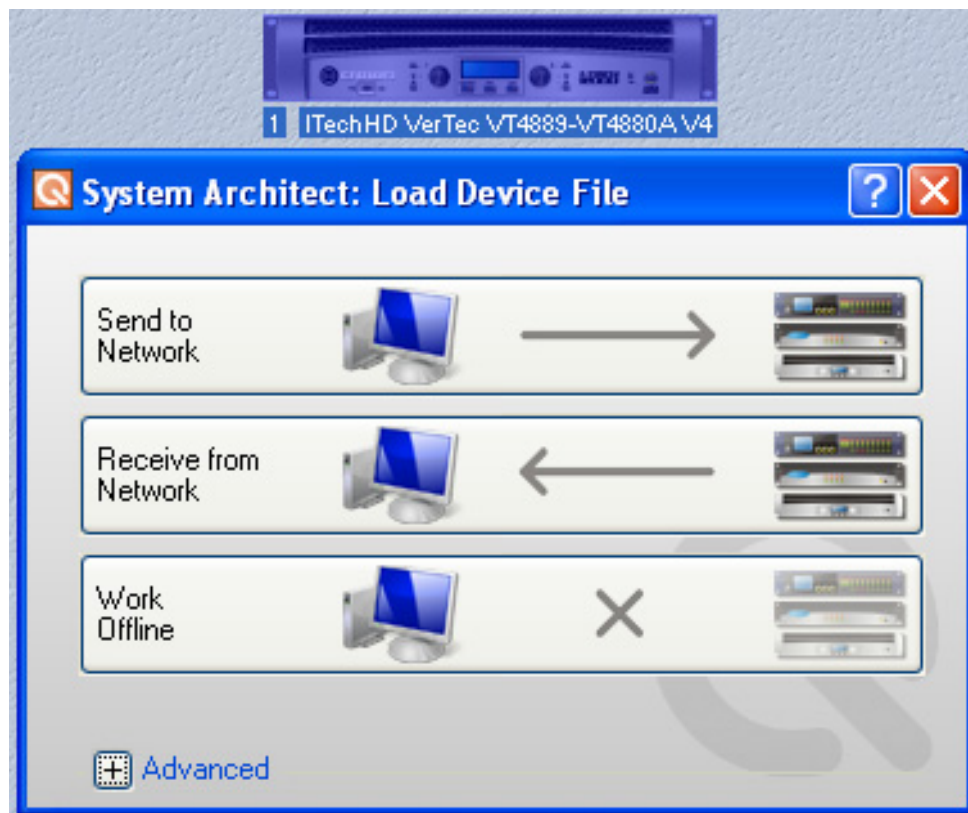
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6) Keep or rename, as desired



7) When the Load Device File window opens, select: "Send to Network"





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8) After device settings have been downloaded, use the RECALL function to load the desired preset (refer to the appropriate “JBL VerTec Crown I-TECH HD V4 PRESET SUMMARY” setup sheet for details on presets and channel assignments)



Refer to the appropriate “JBL VerTec Crown I-TECH HD V4 PRESET SUMMARY” sheet to determine the correct preset for your configuration.



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Crown I-Tech HD Amplifiers driving all sections (sub, low, mid, high) should have identical amplifier gain regardless of amplifier model.

Default amplifier gain for JBL VerTec Crown I-TECH HD V4 Presets is 26 dB.

Disclaimer: VerTec V4 limiter settings are intended to provide a starting point for optimum system performance while ensuring reliable system protection. However, the end user is ultimately responsible for system operation in the field and standard warranty conditions apply in the event of component damage.

1) With amplifier gain set to 26 dB, gain structure should provide the following behavior:

Console level 9 dBu (no sub/low limiting)
 12 dBu (approx 3 dB sub/low limiting, program dependent)
 15 dBu (approx 6-9 dB sub/low limiting, program dependent)

If you prefer to run your console hotter, scale all Speaker Processing Band Pass Gains (sub,low,mid and high sections) down by 3 to 6 dB and leave limiter thresholds as is.

If you prefer to run your console at a lower level, scale all Speaker Processing Band Pass Gains (sub,low,mid and high sections) up by 3 to 6 dB and leave limiter thresholds as is.

To verify gain structure and limiter functionality, it is recommended that signal flow from console → amplifiers is checked with loudspeakers disconnected prior to use.

2) For use with amplifier gain not equal to 26 dB, Speaker Processing Band Pass Gains should be adjusted by the difference in amplifier gain.

Example: For amplifiers set to 32 dB gain, all Speaker Processing Band Pass Gains should be lowered by 6 dB, i.e., Sub, Low, Mid and High Section Band Pass Gains should be changed from: +10, +10, +2, +2 to: +4, +4, -4, -4

Note: Since limiter thresholds are calibrated in terms of voltage, no change is necessary when changing amplifier gain.

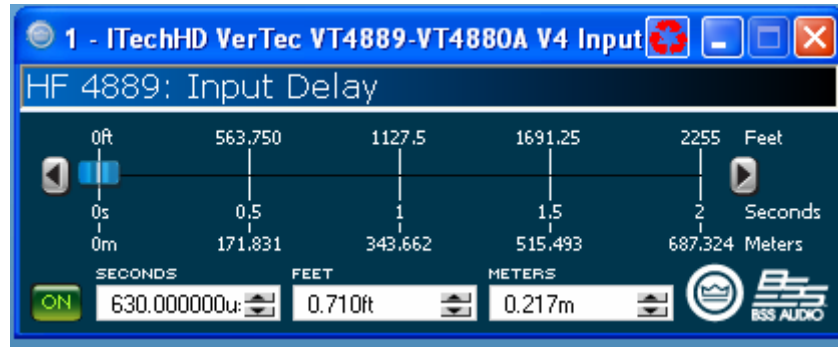


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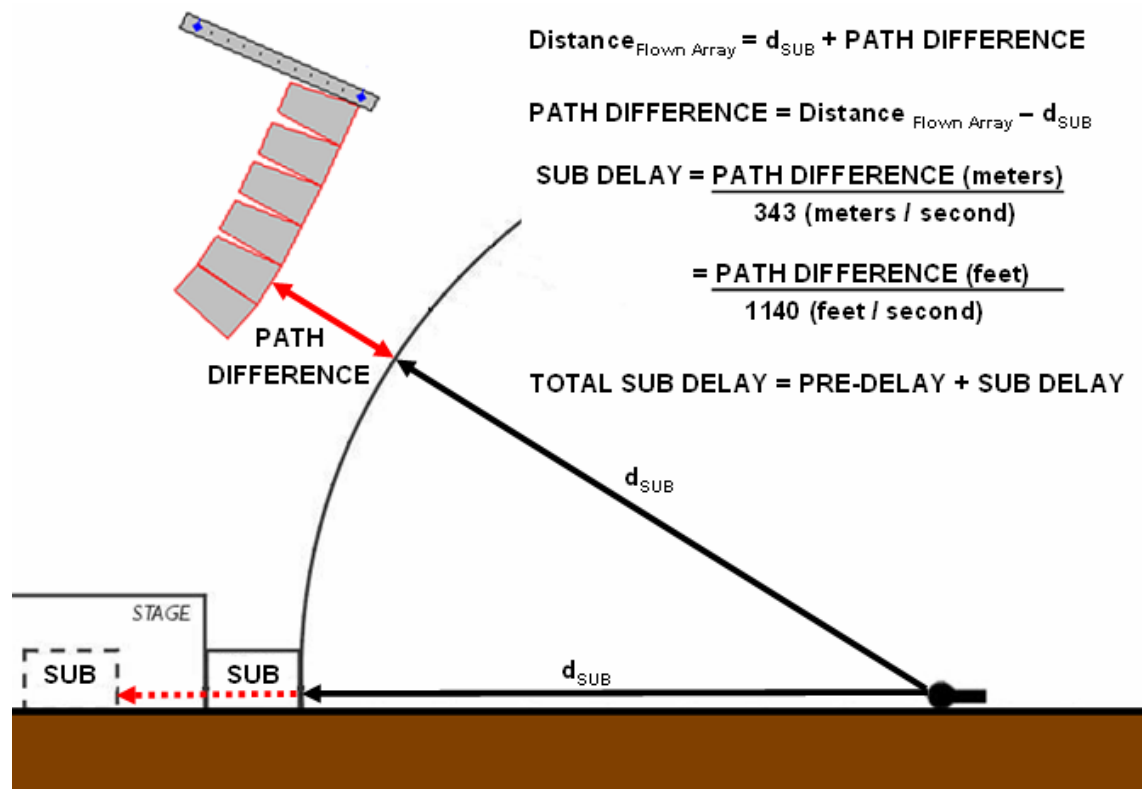
Important Note: Mixing I-TECH HD and I-TECH amplifiers within the same system

The I-Tech HD has slightly lower latency than the original I-Tech and will need to be compensated for if mixing amplifier types within the same system – particularly for 2-way and 3-way presets. For proper relative time alignment, simply add 630 usec to the input delay of all I-Tech HD amplifiers:



SUBWOOFER TIME ALIGNMENT

Subwoofer sections for all X, 60, 80 presets are pre-time aligned using the Input Delay. For flown VT4889, VT4888 or VT4887A and ground stacked VT4881A, VT4882, VT4880 or VT4880A subwoofer configurations, simply add the measured geometric path length difference between flown versus ground stacked (at your reference location of choice) to the pre-aligned delay as a starting point for time alignment measurements and further adjustment.





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VERTEC V4 SUBWOOFER PRE-ALIGNMENT DELAY SUMMARY

VT4889-VT4880

SUB/SUB 4880 4889 X	2.104 ms
SUB/SUB 4880 4889 60	5.0 ms
SUB/SUB 4880 4889 80	4.188 ms

VT4889-VT4880A

SUB/SUB 4880A 4889 X	2.104 ms
SUB/SUB 4880A 4889 60	4.5 ms
SUB/SUB 4880A 4889 80	4.0 ms

VT4888-VT4882

SUB/SUB 4882 4888 X	2.0 ms
SUB/SUB 4882 4888 60	4.875 ms
SUB/SUB 4882 4888 80	4.396 ms

VT4888-VT4880

SUB/SUB 4880 4888 X	2.042 ms
SUB/SUB 4880 4888 60	5.0 ms
SUB/SUB 4880 4888 80	4.229 ms
SUB/SUB 4882 5W X	2.25 ms
SUB/SUB 4880 5W X	1.896 ms
SUB/SUB 4882 5W 60	5.5 ms
SUB/SUB 4880 5W 60	4.646 ms

VT4888-VT4880A

SUB/SUB 4880A 4888 X	1.875 ms
SUB/SUB 4880A 4888 60	4.5 ms
SUB/SUB 4880A 4888 80	3.75 ms
SUB/SUB 4882 5W X	2.25 ms
SUB/SUB 4880A 5W X	2.042 ms
SUB/SUB 4882 5W 60	4.083 ms
SUB/SUB 4880A 5W 60	4.125 ms

VT4887A VT4881A

SUB/SUB 4881A 4887A 60	0.854 ms
SUB/SUB 4881A 4887A 80	1.104 ms
SUB/SUB 4881A 4887A 100	1.542 ms

VT4887A VT4882

SUB/SUB 4882 4887A 60	1.354 ms
SUB/SUB 4882 4887A 80	1.854 ms
SUB/SUB 4881A 4W 87A 82	1.104 ms
SUB/SUB 4882 4W 87A 81A	1.188 ms

VT4887A VT4880

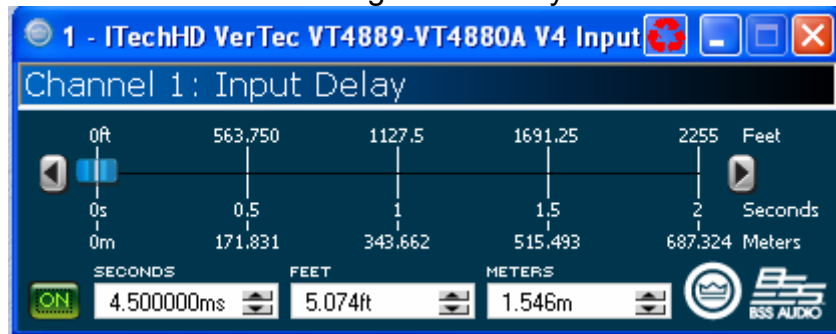
SUB/SUB 4880 4887A 60	1.813 ms
SUB/SUB 4880 4887A 80	1.938 ms
SUB/SUB 4881A 4W 87A 80	1.104 ms
SUB/SUB 4880 4W 87A 81A	1.938 ms

VT4887A VT4880A

SUB/SUB 4880A 4887A 60	1.188 ms
SUB/SUB 4880A 4887A 80	2.125 ms
SUB/SUB 4881A 4W 87A 80A	1.104 ms
SUB/SUB 4880A 4W 87A 81A	1.125 ms

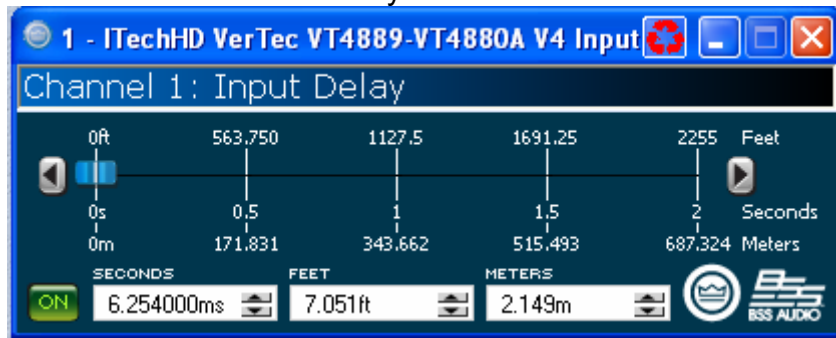
Example: VT4889-VT4880A 60

BEFORE: Pre-Alignment Delay = 4.5 msec



Measured Path Difference = 2 feet
Sub Delay = 2 ft / 1140 = 1.754 msec

AFTER: Total Sub Delay = 4.5 + 1.754 = 6.254 msec



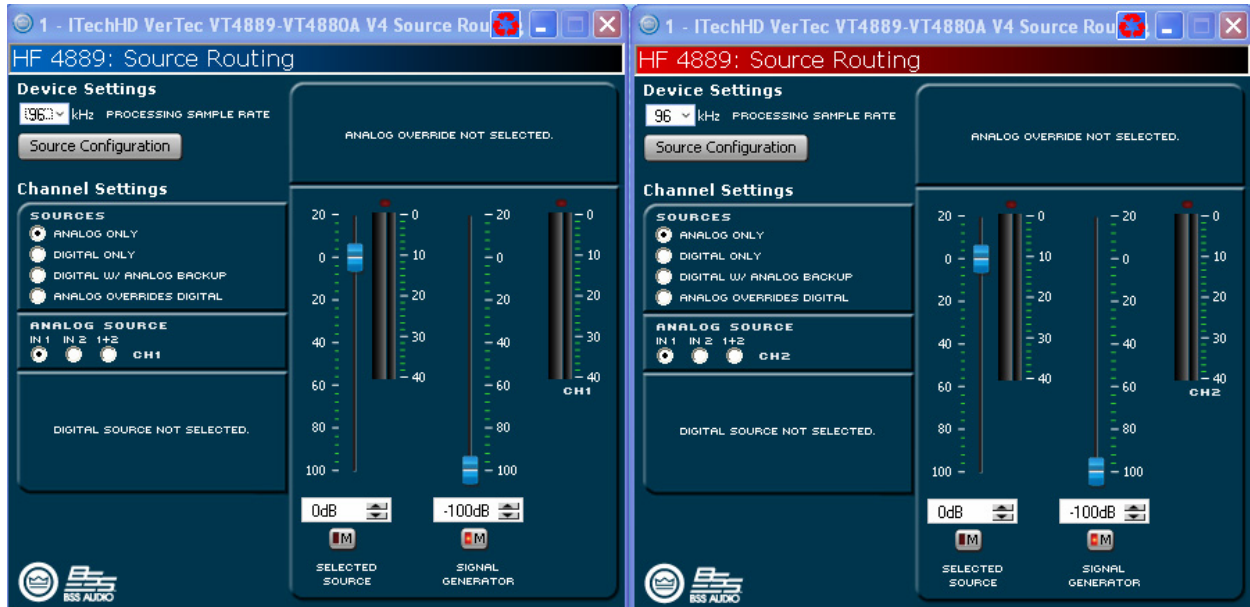


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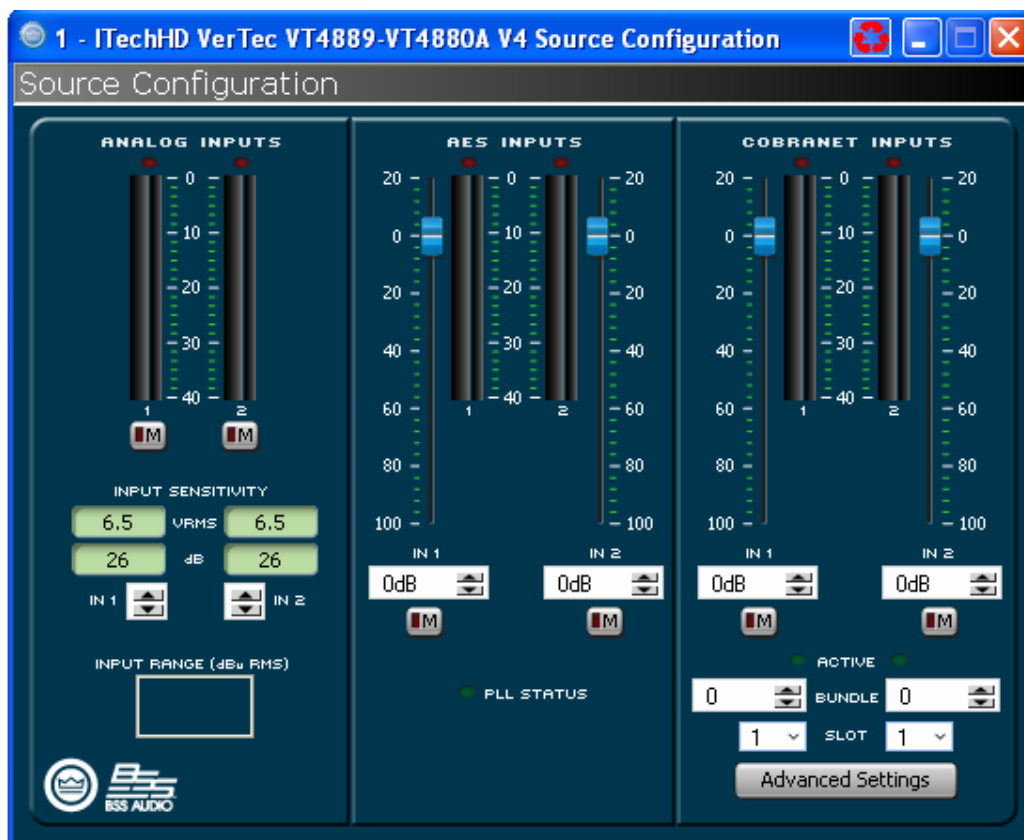
Source Routing

By default, Channels 1 and 2 are configured for Analog Source In 1:



Source Configuration

By default, Channels 1 and 2 are configured for 26 dB Gain:

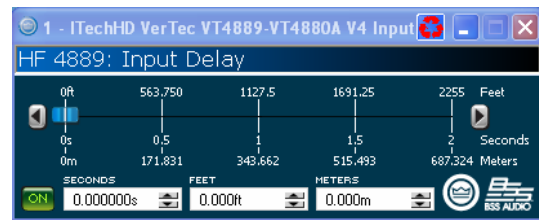
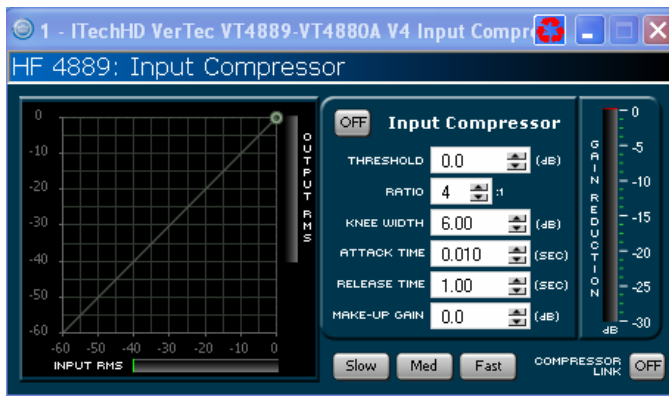
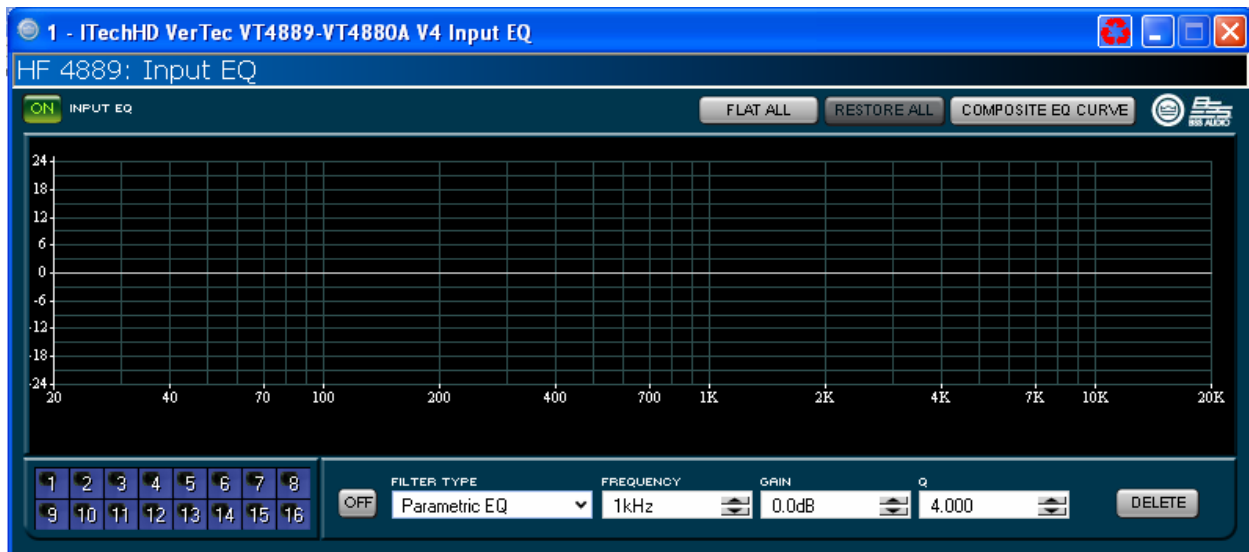




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Input Processing is unlocked and available for system tuning:
(16 Input EQ Filters; Input Compressor, Input Delay)





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Speaker Processing is locked:



except for Bandpass Gains (select XOVER) and LevelMAX™ Limiter parameters:

