



***SYSTEM CONFIGURATION MANUAL
USING CROWN I-TECH SERIES***

FOR MODELS VT4889, VT4888, VT4887, VT4881, VT4880



PROFESSIONAL

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GENERAL AMPLIFICATION NOTES & REQUIREMENTS

- For the purpose of this discussion: Crown I_TECH series amplifiers are used below. HF indicates High Frequency drivers, MF indicates Mid Frequency drivers, LF indicates Low Frequency drivers and VLF stands for Very Low Frequency drivers (subwoofers).
- Equivalent amplifiers can be used as substitutions.
- Users should observe differences in input sensitivity and maximum available power at a given impedance load.
- Users may choose to use the same size amplifier to power all components / passbands.
- DSP crossover presets provided by JBL assume that the same amplifier models with equal voltage gain, are used for each bandpass.
- If different gain settings or amplifiers models are used, users may need to adjust the output gains of the digital controller(s).

VT4489

- 4 VT4489 can be powered with (4) I-T4000.
 - Two boxes are wired in parallel per NL8 circuit.
 - (HF: CH1 & CH2, MF: CH1 & CH2, LO1: CH1 & CH2, LO2: CH1 & CH2)
- Using (4) I-T6000 would provide enough power to drive up to 6 VT4489.
 - Three boxes are wired in parallel per NL8 circuit.
- I-T4000 can be used for the HF section to power 2 or 3 boxes.

VT4888

- 4 VT4888 can be powered with 4 I-T4000.
 - Two boxes are wired in parallel per NL8 circuit.
 - (HF: CH1 & CH2, MF: CH1 & CH2, LO1: CH1 & CH2, LO2: CH1 & CH2)
- Using 4 I-T6000 would provide enough power to drive up to 6 VT4888.
 - Three boxes are wired in parallel.
- I-T4000 can be used for the HF or MF section to power 2 or 3 boxes.

VT 4887

- 4 VT4887 can be powered with (1) I-T4000.
 - If four boxes are wired in parallel per NL8 circuit then
CH1: LF @ 2 ohms & CH2: MH/HF @ 2 ohms.

VT4880

- 2 VT4880 can be powered with (1) I-T4000.
 - If two boxes are wired in parallel using NL4 cables then each amp channel powers (4) 2258 for a 4 ohms load.
- 3 VT4880 can be powered with (1) I-T6000.
 - If three boxes are wired in parallel using NL4 cables then each amp channel powers (3) 2258 for a 2.7 ohms load.
- 4 VT4880 can be powered with (1) I-T8000.
 - If four boxes are wired in parallel using NL4 cables then each amp channel powers (4) 2258 for a 2.0 ohms load.
 - Separate NL4 cable runs are recommended with parallel wiring at the amp.

VT4881

- 4 VT4881 can be powered with (1) I-T4000.
 - If four boxes are wired in parallel using NL4 cables then each amp channel powers (4) distinct coils of dual-coil 2256Gs for a 2.0 ohms load. Each 2256G has (2) coils.
 - Separate NL4 cable runs are recommended with parallel wiring at the amp.

NOTES ON SUBWOOFER WIRING

- VT4880: users may choose to wire both 2258 (18") components in parallel to one (1) channel of an I-T amp for (4) ohms load. In this case each amplifier channel drives one VT4880. If two VT4880 are wired in parallel, the load is two ohms. Three 4880s can not be wired in parallel in this situation.
- VT4881: users may choose to wire both coils in a single 2256G component in parallel to one (1) channel of an I-T amp for (4) ohms load. In this case each amplifier channel drives one VT4881. If two VT4881 are wired in parallel, the load is two ohms. Three 4881s can not be wired in parallel in this situation.

USERS MUST NOT WIRE THE VOICE COILS ON A 2256G (VT4881) OUT OF POLARITY TO EACH OTHER.

NL8: PIN 1+ = RED CONNECTOR A & BLACK CONNECTOR A

NL8: PIN 2+ = RED CONNECTOR B & BLACK CONNECTOR B

STANDARD AMPLIFICATION RACK

For those users looking to minimize amplifier rack configurations, one amplifier rack with (1) I-T4000 and (3) I-T6000 and 2 NL8 output circuits can power up to:

- 4 to 6 VT4889 (2 or 3 boxes per circuit AMPS: HF, MF, LF1, LF2)
 - OR
- 4 to 6 VT4888 (2 or 3 boxes per circuit AMPS: HF, MF, LF1, LF2)
 - OR
- 8 VT4887 & 4 VT4881
 - (4 VT4887 & 2 VT4881 per circuit AMPS: MF/HF, LF, VLF1, VLF2)

This rack would use the same input signal path from the digital controller of choice. Users would only need to recall the appropriate DSP file on the unit.

- VT4889 or VT4888
 - DSP outputs: LO, MID, HIGH (stereo)
- VT4887 & VT4881
 - DSP outputs: SUB, LO, MID/HIGH (stereo)

NOTES REGARDING LIMITER SETTINGS

- The recommended limiter threshold settings provide 3 dB of headroom before the component or bandpass peak voltage is reached.
- The component or bandpass peak voltage is 6 dB above the voltage used at continuous maximum power.
- These settings assume the use of a I-T amplifier in stereo mode with input sensitivity of 1.3V for a voltage gain of 36 dB.
- If a different amplifier is used or if the input sensitivity is changed, the limiter threshold must be re-calculated.
- Not all DSP controllers behave the same way. Please study your unit accordingly.
- Users must take into consideration that the digital controller gain outputs are not all "0" dB, i.e. for VT4889/4880, the VLF is at +6 dB, the LF is at 0 dB, the MF is at -2.5 dB and the HF is at -4 dB. Hence, the actual headroom before limiter threshold is effectively greater than it may seem from the above charts.
- Users should carefully test these settings, and lower or raise the thresholds for a given type of program material as required.

VT4887 & VT4881 TRANSDUCER COMPLEMENT:

	Model	Speakon NL8 Terminals	Per box	Nominal Impedance per transducer	Nominal Impedance per Passband	AES Power 100 HR Rating per Transducer	Peak Power Rating per Transducer	Recommended Power per Passband
HF	2407H	Pins 4± ¹	x 2	8Ω	8Ω	25W	100W	450W
MF	2104H	Pins 4± ¹	x 4	8Ω	8Ω	50W	200W	450W
LF	2168J	Pins 3± ²	x 2	16Ω	8Ω	350W	1400W	1000W
VL F	2256G	Pins 1± & 2± ³	x 1	2 x 8Ω	8Ω + 8Ω	600W	2400W	1200W

¹ PASSIVELY CROSSED OVER MID/HIGH FREQUENCY SECTION

² LF SECTION HAS TWO 8" COMPONENTS WIRED IN PARALLEL.

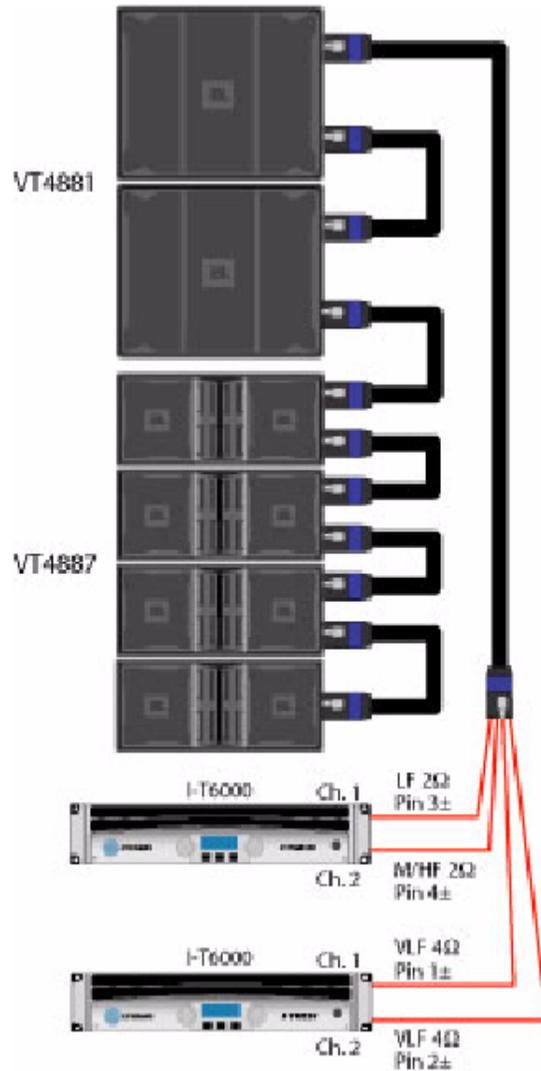
³ SINGLE COMPONENT WITH TWO VOICE COILS INDEPENDENTLY WIRED

AMPLIFIER CONFIGURATIONS:

Four VT4887 & Two VT4881 / Two I-T6000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T6000	Ch 1	Pins 4+/-	8 x 2407H & 16 x 2104H	2ohms	2500W	625W	54V	-3
	Ch 2	Pins 3+/-	8 x 2168J	2 ohms	2500W	625W	134V	2
I-T6000	Ch 1	Pins 2+/-	2 x 2256G	4ohms	3000W	1500W	86V	0*
	Ch 2	Pins 1+/-	2 x 2256G	4ohms	3000W	1500W	86V	0*

JBL VERTEC VT4887 WITH VT4881

POWER AMPLIFIER CONFIGURATIONS - 4 + 2 BOX ARRAY



2 I-T6000 Power Amplifiers

IMPORTANT NOTES;

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #13 AW (3-4mm).

JBL VT4887:

The MF & HF section of a VT4887 has an internal passive crossover network.

This network connects **two** 2407H HF drivers (8Ω) wired in series and **four** 2104H MF (8Ω) wired in Series / Parallel.

=8Ω

Pins 4±

The LF section of a VT4887 has **two** 2168J drivers (16Ω) wired in Parallel.

=8Ω

Pins 3±

JBL VT4881:

The single 15" 2256G VLF device has **two** 8Ω coils wired independently.

=8Ω/8Ω

Pins 1±, 2±

VT4888 TRANSDUCER COMPLEMENT:

	Model	Speakon NL8 Terminals	Per box	Nominal Impedance per transducer	Nominal Impedance per Passband	AES Power 100 HR Rating per Transducer	Peak Power Rating per Transducer	Recommended Power per Passband
HF	2431H	Pins 4±	x 2	8Ω	16Ω	75W	300W	300W
MF	2106H	Pins 3±	x 4	8Ω	8Ω	100W	400W	800W
LF	2262H	Pins 1± & 2±	x 2	8Ω	8Ω + 8Ω	700W	2800W	2500W

AMPLIFIER CONFIGURATIONS:

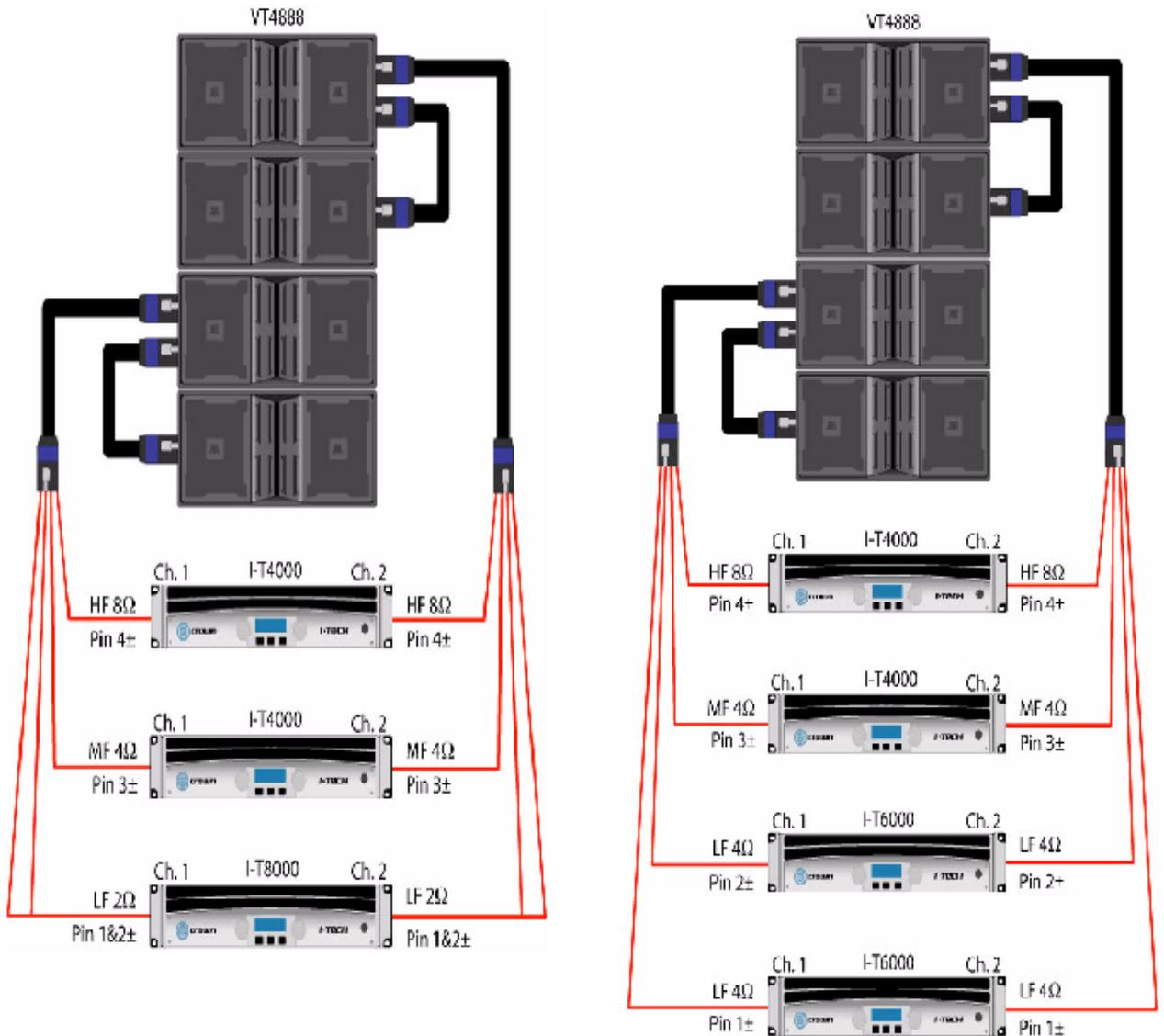
Four VT4888 / Two I-T4000s, One I-T8000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 4+/-	4 x 2431H	8 ohms	1250W	312W	56V	-3
	Ch 2	Pins 4+/-	4 x 2431H	8 ohms	1250W	312W	56V	-3
I-T4000	Ch 1	Pins 3+/-	8 x 2106H	4 ohms	2000W	250W	112V	3
	Ch 2	Pins 3+/-	8 x 2106H	4 ohms	2000W	250W	112V	3
IT-8000	Ch 1	Pins 1+/- & 2+/-	4 x 2262H	2 ohms	3300W	875W	130V	2.5
	Ch 2	Pins 1+/- & 2+/-	4 x 2262H	2 ohms	3300W	875W	130V	2.5

AMPLIFIER CONFIGURATIONS:

Six VT4888 / Two I-T4000, Two I-T8000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 4+/-	6 x 2431H	5.7 ohms	1700W	283W	56V	-3
	Ch 2	Pins 4+/-	6 x 2431H	5.7 ohms	1700W	283W	56V	-3
I-T4000	Ch 1	Pins 3+/-	12 x 2106H	2.7 ohms	1900W	158W	112V	3
	Ch 2	Pins 3+/-	12 x 2106H	2.7 ohms	1900W	158W	112V	3
I-T8000	Ch 1	Pins 2+/-	3 x 2262H	2.7 ohms	3750W	1250W	130V	2.5
	Ch 2	Pins 2+/-	3 x 2262H	2.7 ohms	3750W	1250W	130V	2.5
I-T8000	Ch 1	Pins 1+/-	3 x 2262H	2.7 ohms	3750W	1250W	130V	2.5
	Ch 2	Pins 1+/-	3 x 2262H	2.7 ohms	3750W	1250W	130V	2.5

JBL VERTEC VT4888 LINE ARRAY

POWER AMPLIFIER CONFIGURATIONS - 4 BOX ARRAY



3 x Power Amplifiers
(2Ω Load on LF Passband)

OR

4 x Power Amplifiers
(recommended)

IMPORTANT NOTES

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #13 AWG gauge (3-4mm).

JBL VT4888:

The HF section of a VT4888 has **two** 2431H drivers (8Ω) wired in Series.

=16Ω

Pins 4±

The MF section of a VT4888 has **four** 2106H drivers (8Ω) wired in Series / Parallel

=8Ω

Pins 3±

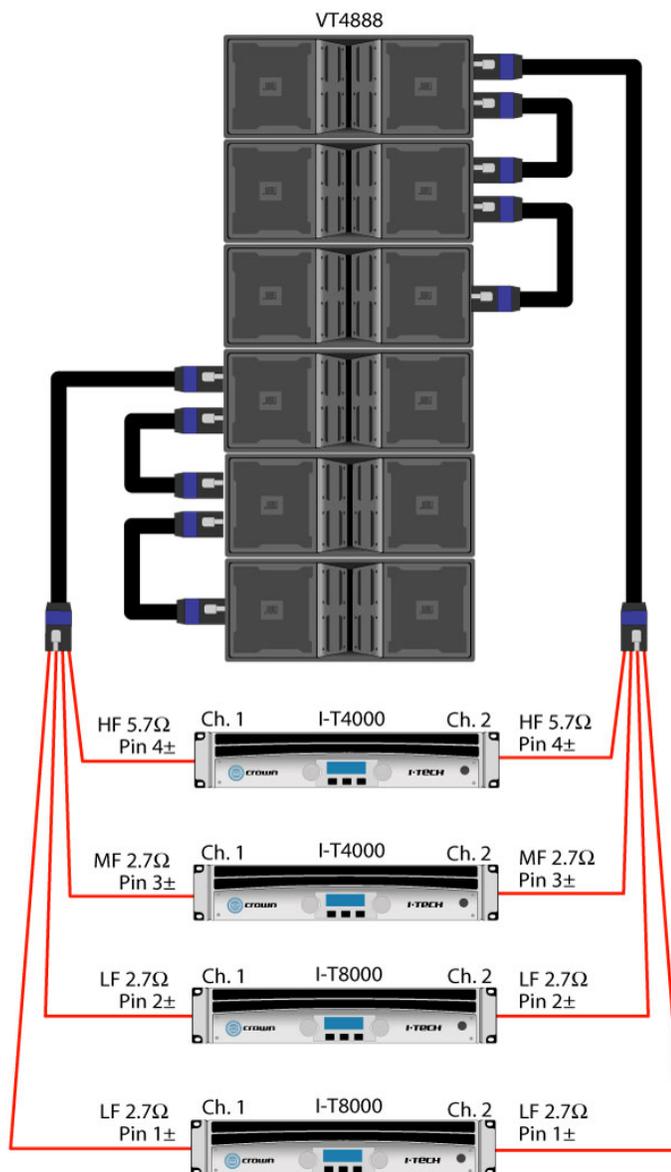
The LF section of a VT4888 has **two** 2262H drivers (8Ω) wired Independently

=8Ω / 8Ω

Pins 2± / 1±

JBL VERTEC VT4888 LINE ARRAY

Power Amplifier configurations - 6 Box Array



IMPORTANT NOTES

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #13 AWGauge (3-4mm).

JBL VT4888:

The HF section of a VT4888 has two 2431H drivers (8W) wired in Series.

The MF section of a VT4888 has four 2106H drivers (8W) wired in Series / Parallel

The LF section of a VT4888 has two 2262H drivers (8W) wired Independently

=16W

=8W

=8W / 8W

Pins 4±

Pins 3±

Pins 2± / 1±

VT4889 TRANSDUCER COMPLEMENT:

	Model	Speakon NL8 Terminals	Per box	Nominal Impedance per transducer	Nominal Impedance per Passband	AES Power 100 HR Rating per Transducer	Peak Power Rating per Transducer	Recommended Power per Passband
HF	2435H	Pins 4±	x 3	5.3Ω	16Ω	75W	300W	300W
MF	2250H	Pins 3±	x 4	8Ω	8Ω	300W	1200W	1200W
LF	2255H	Pins 1± & 2±	x 2	8Ω	8Ω + 8Ω	600W	2400W	800W + 800W

AMPLIFIER CONFIGURATIONS:

Four VT4889 / One I-T4000, One I-T6000, One I-T8000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 4+/-	6 x 2435H	8 ohms	1250W	208W	100V	2.5
	Ch 2	Pins 4+/-	6 x 2435H	8 ohms	1250W	208W	100V	2.5
I-T6000	Ch 1	Pins 3+/-	8 x 2250H	4 ohms	3000W	375W	150V	4.5
	Ch 2	Pins 3+/-	8 x 2250H	4 ohms	3000W	375W	150V	4.5
I-T8000	Ch 1	Pins 1+/- & 2+/-	4 x 2255H	2 ohms	3500W	875W	120V	2
	Ch 2	Pins 1+/- & 2+/-	4 x 2255H	2 ohms	3500W	875W	120V	2

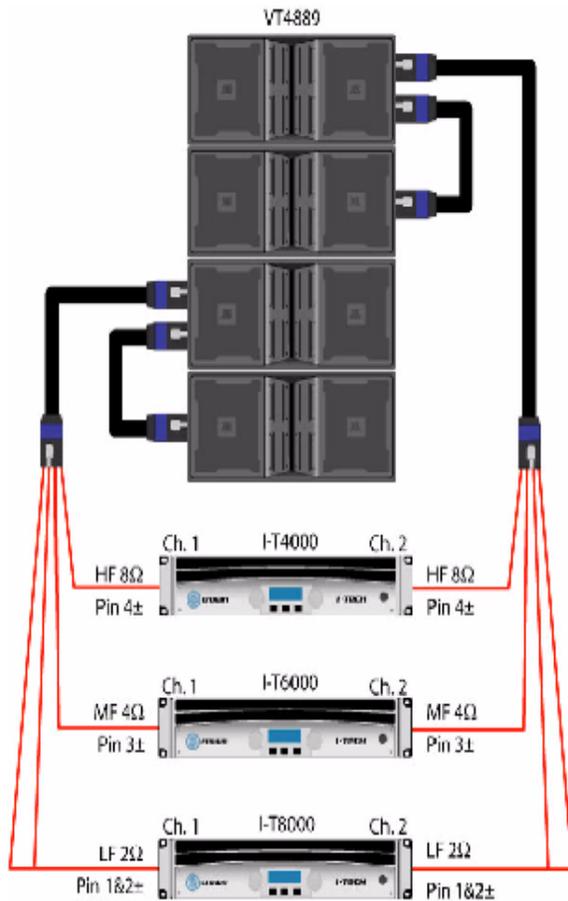
Four VT4889 / One I-T4000, Three I-T6000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 4+/-	6 x 2435H	8 ohms	1250W	208W	100V	2.5
	Ch 2	Pins 4+/-	6 x 2435H	8 ohms	1250W	208W	100V	2.5
I-T6000	Ch 1	Pins 3+/-	8 x 2250H	4 ohms	3000W	375W	150V	4.5
	Ch 2	Pins 3+/-	8 x 2250H	4 ohms	3000W	375W	150V	4.5
I-T6000	Ch 1	Pins 2+/-	2 x 2255H	4 ohms	3000W	1500W	120V	3.5
	Ch 2	Pins 2+/-	2 x 2255H	4 ohms	3000W	1500W	120V	3.5
I-T6000	Ch 1	Pins 1+/-	2 x 2255H	4 ohms	3000W	1500W	120V	3.5
	Ch 2	Pins 1+/-	2 x 2255H	4 ohms	3000W	1500W	120V	3.5

Six VT4889 / One I-T4000, Three I-T8000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 4+/-	9 x 2435H	5.7 ohms	1700W	200W	100V	2
	Ch 2	Pins 4+/-	9 x 2435H	5.7 ohms	1700W	200W	100V	2
I-T8000	Ch 1	Pins 3+/-	12 x 2250H	2.7 ohms	3750W	312W	150V	3.5
	Ch 2	Pins 3+/-	12 x 2250H	2.7 ohms	3750W	312W	150V	3.5
I-T8000	Ch 1	Pins 2+/-	3 x 2255H	2.7 ohms	3750W	1250W	120V	2
	Ch 2	Pins 2+/-	3 x 2255H	2.7 ohms	3750W	1250W	120V	2
I-T8000	Ch 1	Pins 1+/-	3 x 2255H	2.7 ohms	3750W	1250W	120V	2
	Ch 2	Pins 1+/-	3 x 2255H	2.7 ohms	3750W	1250W	120V	2

Eight VT4889 / One I-T6000, Three I-T8000								
Amplifier	Amplifier Channel	Speakon NL8 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T6000	Ch 1	Pins 4+/-	12 x 2435H	4 ohms	3000W	250W	100V	2
	Ch 2	Pins 4+/-	12 x 2435H	4 ohms	3000W	250W	100V	2
I-T8000	Ch 1	Pins 3+/-	16 x 2250H	2 ohms	3500W	218W	150V	2
	Ch 2	Pins 3+/-	16 x 2250H	2 ohms	3500W	218W	150V	2
I-T8000	Ch 1	Pins 2+/-	4 x 2255H	2 ohms	3500W	875W	120V	2
	Ch 2	Pins 2+/-	4 x 2255H	2 ohms	3500W	875W	120V	2
I-T8000	Ch 1	Pins 1+/-	4 x 2255H	2 ohms	3500W	875W	120V	2
	Ch 2	Pins 1+/-	4 x 2255H	2 ohms	3500W	875W	120V	2

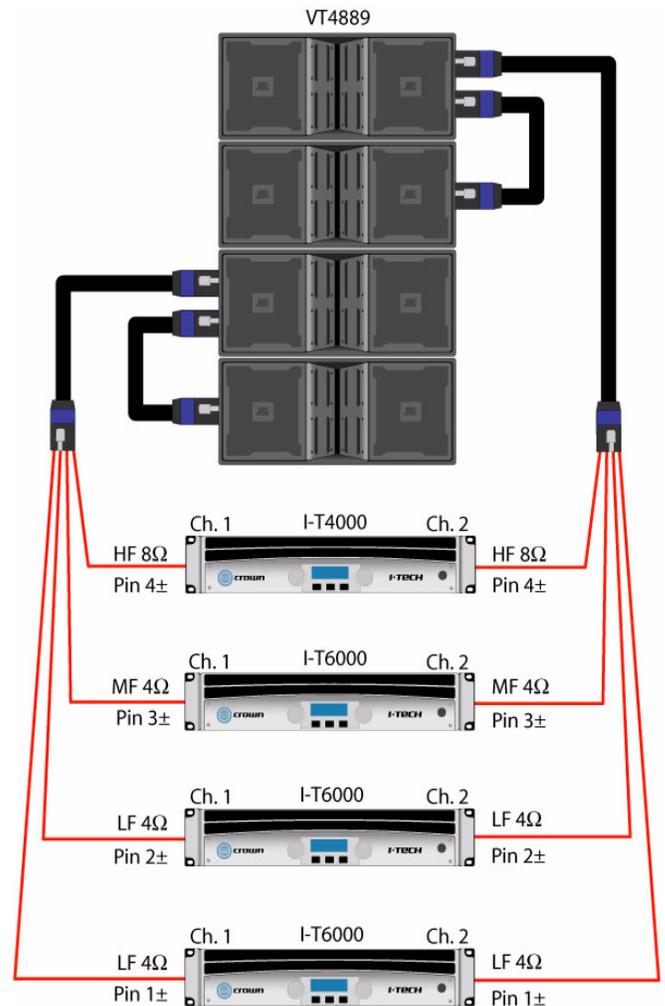
JBL VERTEC VT4889 LINE ARRAY

POWER AMPLIFIER CONFIGURATIONS - 4 BOX ARRAY



3 x Power Amplifiers
(2Ω Load on LF Passband)

OR



4 x Power Amplifiers
(recommended)

IMPORTANT NOTES;

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #13 AWG gauge (3-4 mm).

JBL VT4889:

The HF section of a VT4889 has **three** 2435H drivers (5.3Ω) wired in Series.

=16Ω

Pins 4±

The MF section of a VT4889 has **four** 2250H drivers (8Ω) wired in Series / Parallel

=8Ω

Pins 3±

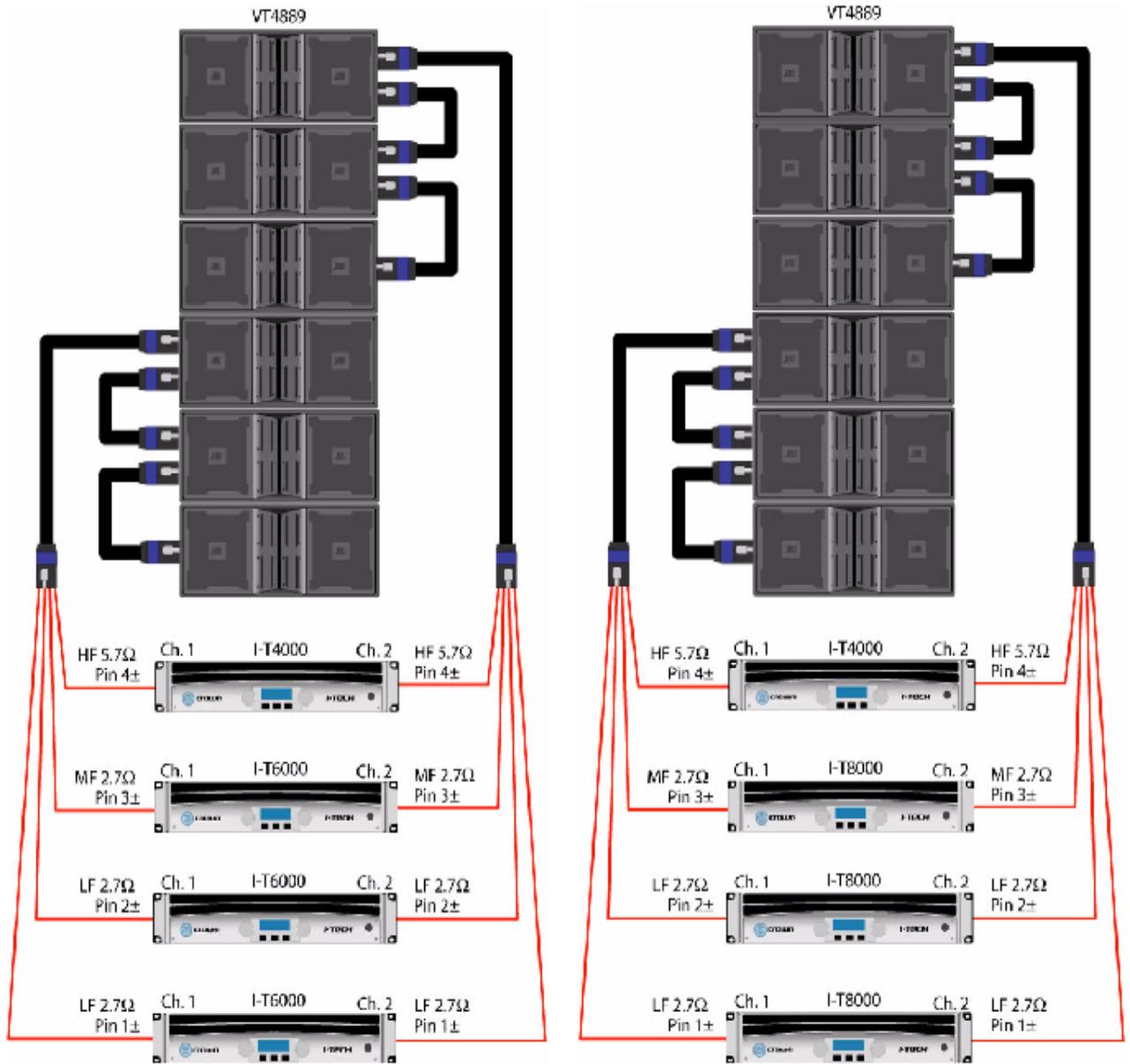
The LF section of a VT4889 has **two** 2255H drivers (8Ω) wired Independently

=8Ω / 8Ω

Pins 2± / 1±

JBL VERTEC VT4889 LINE ARRAY

POWER AMPLIFIER CONFIGURATIONS - 6 BOX ARRAY



4 x Power Amplifiers
(recommended)

IMPORTANT NOTES;

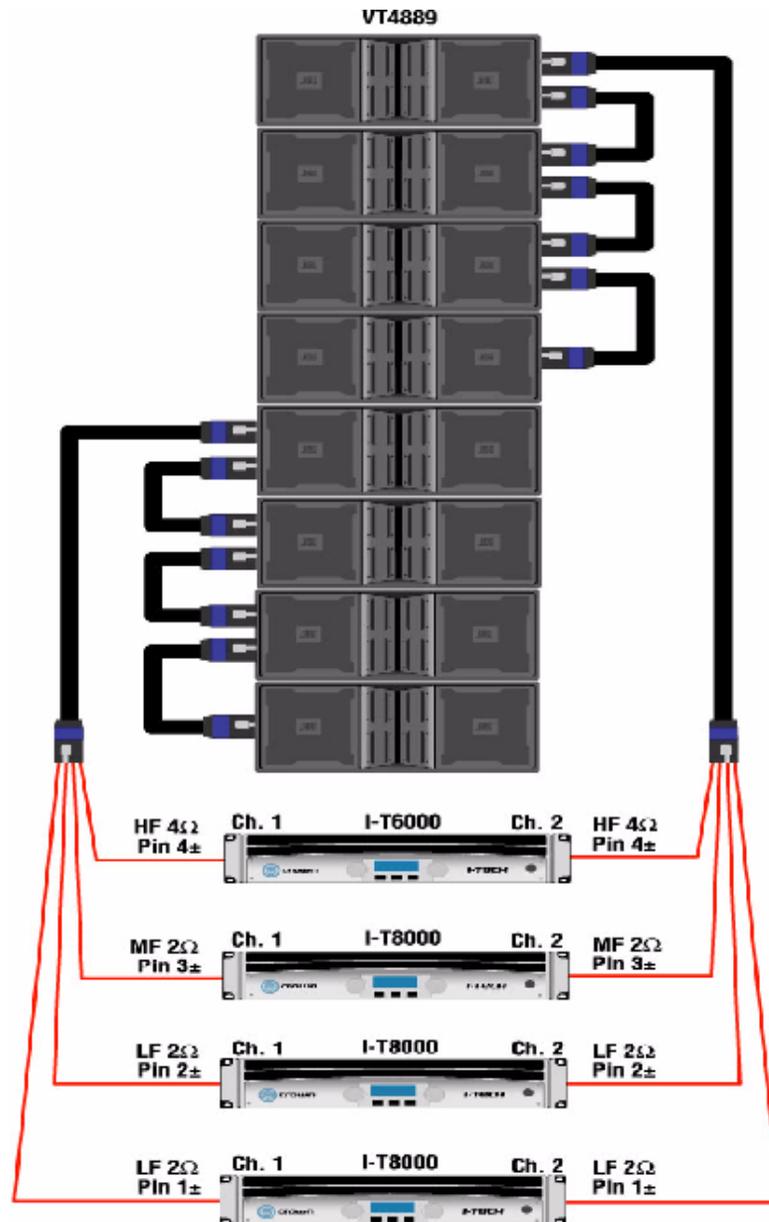
All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #13 AWG gauge (3-4 mm).

JBL VT4889:

The HF section of a VT4889 has three 2435H drivers (5.3Ω) wired in Series.	=16Ω	Pins 4±
The MF section of a VT4889 has four 2250H drivers (8Ω) wired in Series / Parallel	=8Ω	Pins 3±
The LF section of a VT4889 has two 2255H drivers (8Ω) wired Independently	=8Ω / 8Ω	Pins 2± / 1±

JBL VERTEC VT4889 LINE ARRAY

POWER AMPLIFIER CONFIGURATIONS - 8 BOX ARRAY



4 x Power Amplifiers

IMPORTANT NOTES;

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL8 "Speakons". Ensure that each conductor in the cable is a minimum of #11 AWG gauge (3-4 mm). Users might also consider using TWO NL8 cables for each 4 boxes which are wired in parallel at the rack for a total of 4 cables running to the cluster.

JBL VT4889:

The HF section of a VT4889 has three 2435H drivers (5.3Ω) wired in Series.	=16Ω	Pins 4±
The MF section of a VT4889 has four 2250H drivers (8Ω) wired in Series / Parallel	=8Ω	Pins 3±
The LF section of a VT4889 has two 2255H drivers (8Ω) wired Independently	=8Ω / 8Ω	Pins 2± / 1±

VT4880 TRANSDUCER COMPLEMENT:

	Model	Speakon NL4 Terminals	Per box	Nominal Impedance per transducer	Nominal Impedance per Passband	AES Power 100 HR Rating per Transducer	Peak Power Rating per Transducer	Recommended Power per Passband
VLF	2 x 2258H	Pins 1± & 2±	x 2	8Ω	8Ω + 8Ω	800w	3200W	1600W

AMPLIFIER CONFIGURATIONS:

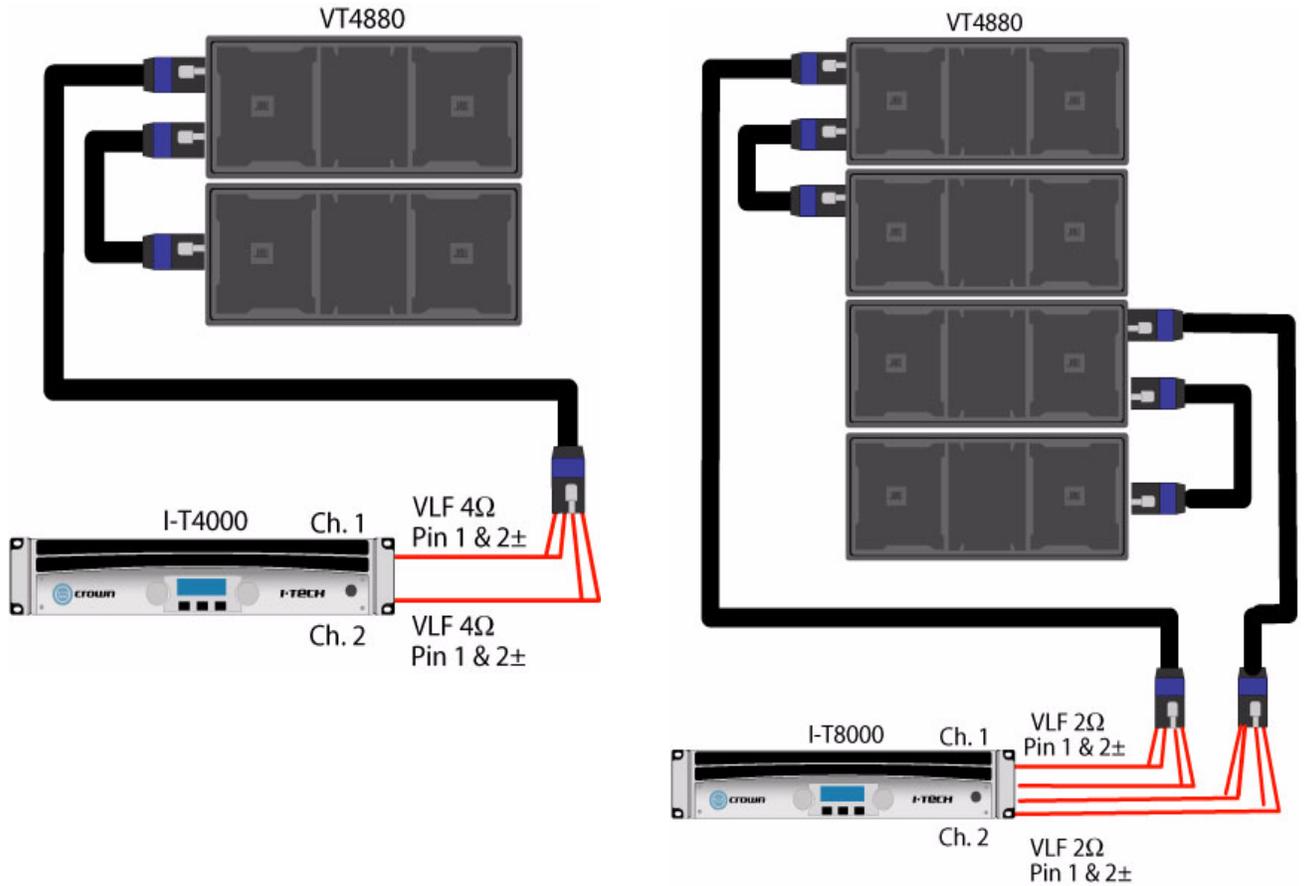
Two VT4880 / One I-T4000								
Amplifier	Amplifier Channel	Speakon NL4 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T4000	Ch 1	Pins 1+/- & 2+/-	2 x 2258H	4 ohms	2000W	1000W	120V	4
	Ch 2	Pins 1+/- & 2+/-	2 x 2258H	4 ohms	2000W	1000W	120V	4

Four VT4880 / One I-T8000								
Amplifier	Amplifier Channel	Speakon NL4 Terminals	Driving	Nominal Impedance at Pins	Amplifier Power Rating at Nominal Impedance	Power Available to Each Bandpass	Bandpass Peak Voltage VAC	Limiter Threshold dBu
I-T8000	Ch 1	Pins 1+/- & 2+/-	4 x 2258H	2 ohms	3500W	875W	120V	3
	Ch 2	Pins 1+/- & 2+/-	4 x 2258H	2 ohms	3500W	875W	120V	3

Please refer to: NOTES REGARDING LIMITER SETTINGS on page 5.

JBL VERTEC VT4880

POWER AMPLIFIER CONFIGURATIONS - 2 OR 4 BOX ARRAYS



IMPORTANT NOTES;

All wiring configurations shown above use 8-conductor speaker cables terminated with Neutrik NL4 "Speakons". Ensure that each conductor in the cable is a minimum of #11 AWG gauge (3-4 mm).

JBL VT4880:

The VT4880 has two 2258H drivers (8W) wired Independently

=8W / 8W

Pins 2± / 1±

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