

**SAFETY INFORMATION**

Before you use this TW AUDIO product, read the manual carefully.

Loudspeakers can be checked and stamped according to BGV C1 by official departments. For more information contact TW AUDIO at info@twaudio.com or +49 (0) 71 41 - 48 89 89 0

**GENERAL**

The VERA10 is an asymmetrically designed Loudspeaker, equipped with one 10" driver and two 1" drivers adapted to a waveformer with either 80° or 120° dispersion horns available for the HF.

VERA10 by default is delivered in black colour and polyurea coating. Any other RAL colour is possible as an option also ( warnex structure paint ).

VERA10 is available in two versions: passive or biamped, this document describes the biamped version. To study the passive version, please download the VERA10 PASSIVE quick set up guide.

The VERA10 is designed to be driven with a DSP equipped amplifier. TW AUDIO recommends the Powersoft K3DSP AESOP, X4 or LAB Gruppen PLM + as system amplifiers. As an external controller for other amps we recommend to use the LAKE LM26 or LM44.

The VERA10 always requires a dedicated preset loaded on the amplifier/controller. Never use the VERA10 without this preset, and always be aware to have the correct preset loaded on your system amplifier before connecting the loudspeaker. The PRESET determines the output routing and the connection port on the APL4 panel.

Be sure that the internal connections in the amplifier rack are identical to those shown in Fig 3.

For VERA10 in biamped mode, use the output 2 ( first amplifier ) or 4 ( second amplifier ) on the APL4 panel.

For best performance, line array systems require proper optimization depending on it's size, curvature, weather condition and the room acoustics. For best system optimization TW AUDIO recommends professional acoustical measurement tools ( phase and magnitude response ).

Use EASE Focus 3 to find correct array settings.

**COMBINATION WITH OTHER PRODUCTS**

VERA10 can be combined with any TW AUDIO subwoofers products. Please be sure about proper time alignment. See also system example papers on www.twaudio.de for system combinations and setup examples.

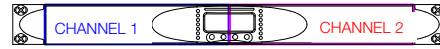
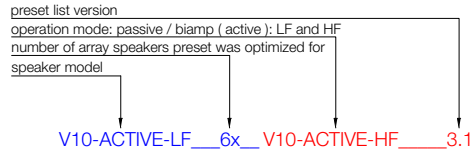
**ACCESSORIES**

VERA10 can be flown ( RF300, SF10 ), ground-stacked ( GF10 ) or mounted on speaker stand ( SF10 ).

If you do have questions about your product, don't hesitate to contact TW AUDIO at support@twaudio.de or by phone: +49 (0) 71 41 - 48 89 89 55.

VERA10	BIAMPED	
Frequency range [Hz]	60 - 16 000	
Power pgm/peak [W]	LF= 500 / 1000 HF= 200 / 400	
Impedance [Ohm]	LF= 16 HF= 16	
Dispersion [H°]	80 or 120	
Sensitivity [dB]	LF= 103 HF=111	
max. SPL [dB]	133	
Dimensions [mm]	275 x 500 x 355	
Weight [kg]	16	

FIG 1. PRESETS / REFERRED TO PRESETLIST A03.1



DEVICE PRESET NAME	
CHANNEL 1	CHANNEL 2
VERA10 ACTIVE	
V10-ACTIVE-LF __x6__	V10-ACTIVE-HF __x6__ .3.1

Change CUT / FLAT / FULL within CH 1 settings !

FIG 2. TYPICAL ARRAY CORRECTION

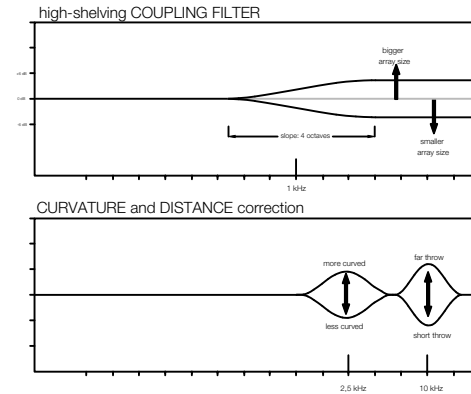


FIG 3. TW AUDIO APL4-K / K3 AMPLIFIER RACK

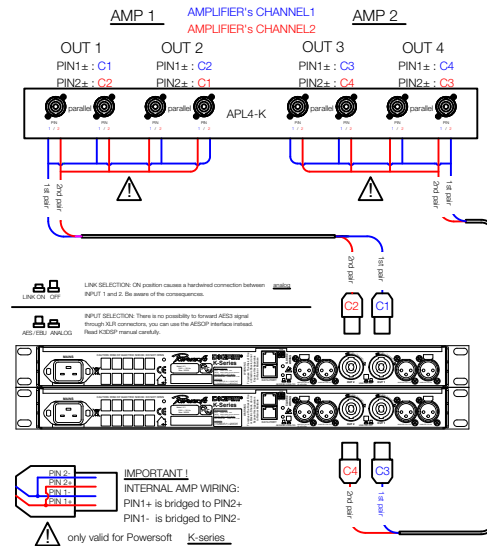


FIG 4. INTERNAL WIRING DIAGRAM

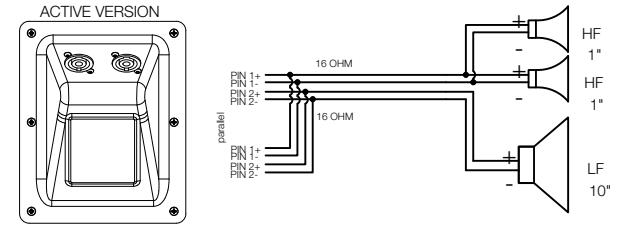
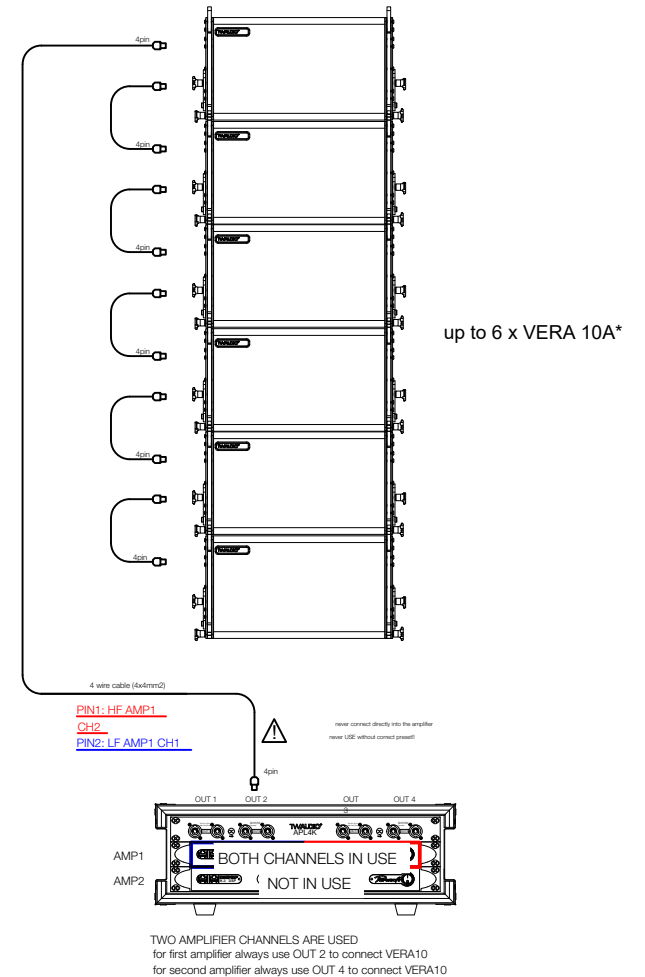


FIG 5. VERA10 ACTIVE - CONNECTION TO AMPLIFIER SYSTEM



TWO AMPLIFIER CHANNELS ARE USED  
for first amplifier always use OUT 2 to connect VERA10  
for second amplifier always use OUT 4 to connect VERA10

\*NOTES:

- for long term high SPL requirements, only drive 4 x VERA10 on both POWERSOFT K3DSP channels ( 4 OHM operation )
- for lower SPL requirements, it is possible to drive up to 6 x VERA10 on both POWERSOFT K3DSP channels ( 2 OHM operation )