

TWAUDIO® T24N QUICK SETUP GUIDE

SAFETY INFORMATION

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 T24N is a complex horn-in-horn designed loudspeaker, equipped with two 12" neodymium drivers, one 1,4" compression driver with 2 variants of rotatable horns: 60x40 or 90x50.

T24N as default is available in black colour and warnex structure paint coating. Custom colours from RAL pallet are possible.

The T24N is equipped with a switch that allows to use it either passively or in bi-amp. When the switch is in PASSIVE position full range processed signal must be sent on PIN1. When switch is in BIAMP position x-over is bypassed, hence low-passed signal for 12" drivers must be sent on PIN2 while high-passed on PIN1.

The T24N always requires a dedicated preset loaded on the amplifier/controller. Never use the loudspeaker without the preset. Always be aware to have the correct preset loaded on your system amplifier before connecting the loudspeaker.

TW AUDIO recommends the Powersoft K3DSP AESOP or LAB PLM as system amplifiers. As an external controller for other amps it's recommended to use the LAKE LM26 or LM44.

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

After loading the presets make sure about proper time alignment between top and subwoofer loudspeakers. Use laser distance meter or measuring tape. For best optimization TW AUDIO suggests professional dual FFT measuring systems where phase and magnitude responses can be investigated. Depending on system size, setup, location and the room acoustics further measurements might be helpful.

COMBINATION WITH OTHER PRODUCTS

T24N can be combined with any TW AUDIO subwoofers products. All TW AUDIO loudspeakers are phase coherent.

Please see system examples papers on www.twaudio.com for system combinations and setup examples.

COMPATIBILITY WITH T24

Due to the fact that physical dimensions of T24N are very similar to T24 the same rigging and transport accessories are used. However, the acoustical performance of those 2 products is different. It is strongly NOT recommended to link those different loudspeakers into the same amplifier channel or use the same DSP settings (presets).

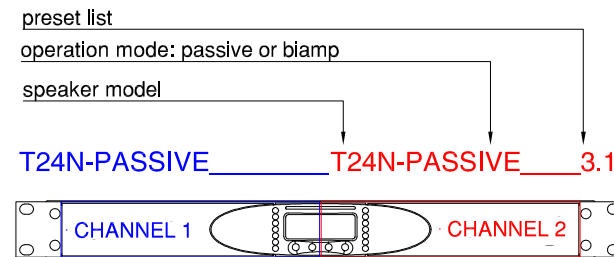
ACCESSORIES

T24N can be flown as a single unit (SBT24, DHST), or mounted on speaker stand (SBT24, HSF). Vertical and horizontal clusters can be also set up. Please study the T24 rigging guide for more details.

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

T24N		PASSIVE	BIAMP
Frequency range	[Hz]	65 - 18 000	
Power pgm/peak	[W]	1400 / 2400	LF: 1400 / 2400 / HF: 220 / 440
Impedance	[Ohm]	4	LF: 4 / HF: 8
Dispersion (h x v)		rotatable horn, 60 x 40 or 90 x 50	
Sensitivity	[dB]	110	LF: 107, HF: 112
max SPL	[dB]	143	
Dimensions	[mm]	706 x 440 / 224 x 440	
Weight	[kg]	33	

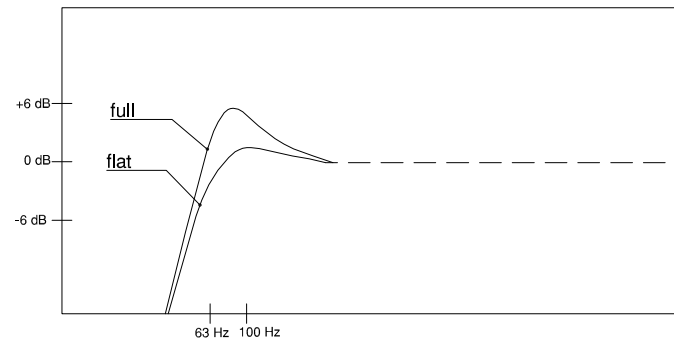
FIG 1. PRESETS



PRESET NAME	
CHANNEL 1	CHANNEL 2
T24 PASSIVE	
BS18 _____	T24N-PASSIVE _____ 3.1
BS30 _____	T24N-PASSIVE _____ 3.1
T24N-PASSIVE _____	T24N-PASSIVE _____ 3.1
T24N-BIAMP-LF _____	T24N-BIAMP-HF _____ 3.1

T24N always requires dedicated preset!
For 60x40 and 90x50 horn version the same preset is used.

FIG 2. T24N presets response variants



For maximum headroom and/or with subwoofer combination use FLAT mode.
For standalone usege FULL mode is typically chosen.

FIG 3. RACK3M WITH APL4-K

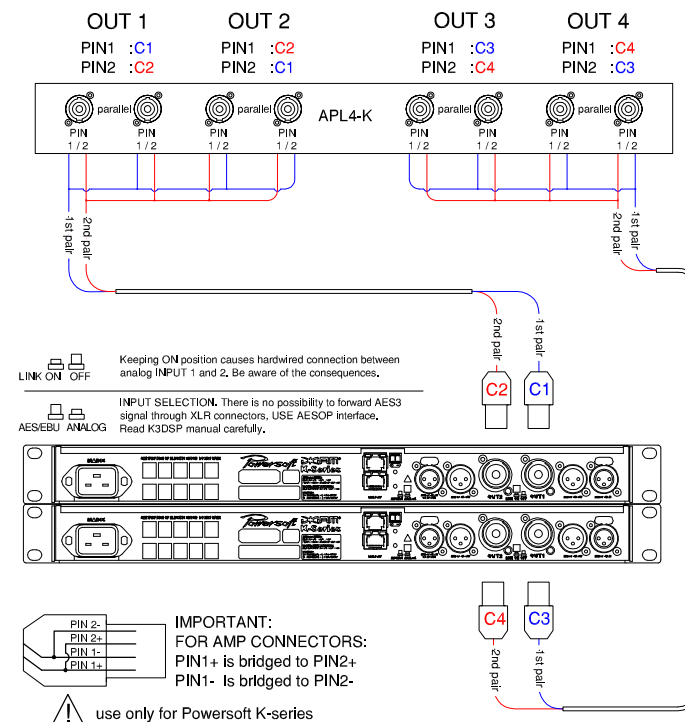


FIG 4. INTERNAL WIRING DIAGRAM

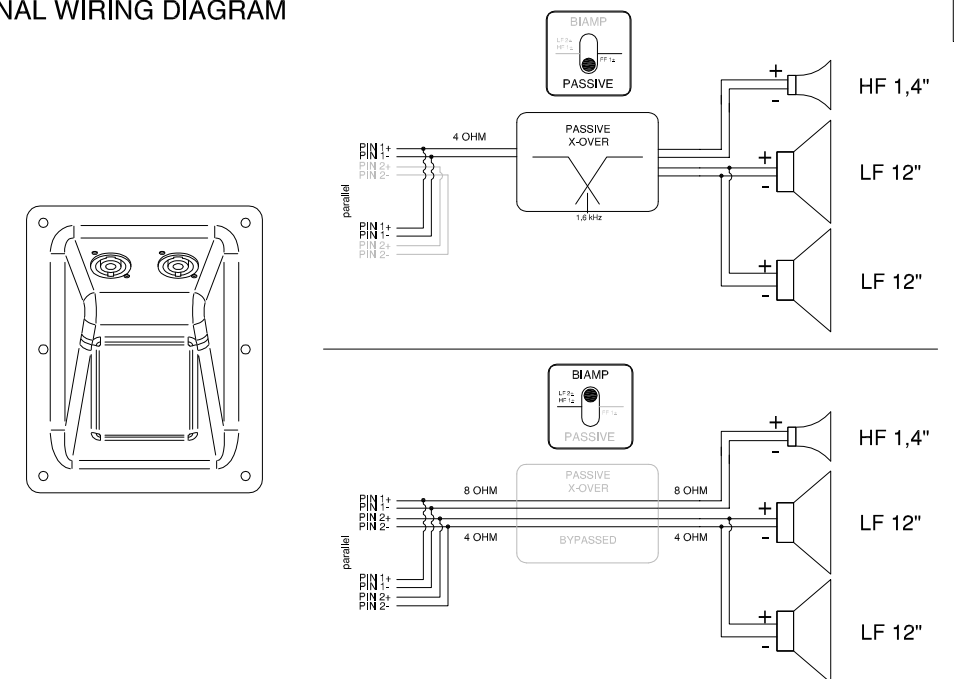
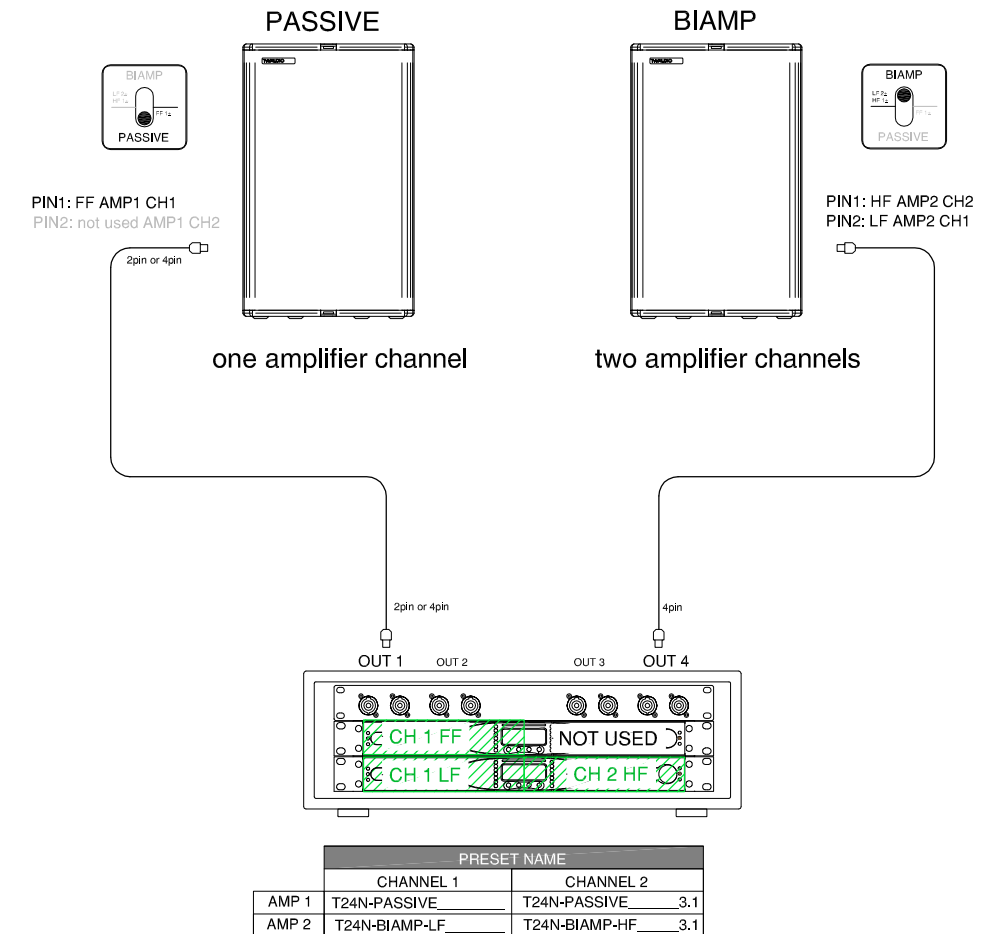


FIG 5. T24N - CONNECTION TO THE AMPLIFIER



NOTE:

PASSIVE MODE: for first amplifier use OUT 1 or/and OUT 2 depends on channel in use.
BIAMP MODE: for first amplifier use OUT 2, for second amplifier use OUT4

For combination with subwoofers (T24N in PASSIVE mode)

TW AUDIO presets are designed that first channel drives LF loudspeaker/ drivers while second channel M/HF section. For this combination always use OUT2 for first amplifier and OUT4 for second amplifier. For system example, please refer to PA-SYS-ONE system diagram.

PASSIVE MODE:

for long term high SPL requirements drive only 1 unit on single POWERSOFT K3DSP channel
for lower SPL requirements, it is possible to drive 2 boxes on single POWERSOFT K3DSP channel

BIAMP MODE:

for long term high SPL requirements drive only 1 unit on single POWERSOFT K3DSP amplifier (2 channels)
for lower SPL requirements, it is possible to drive 2 boxes on single POWERSOFT K3DSP channe (2 channels)