

K312 FOH model by Blue Acoustic

data 1

The Blue Acoustic K312 is a compact, powered FOH loudspeaker configured in three-way format designed for demanding applications where additional bass cabinets cannot or must not be incorporated.

The K312 has a +/- 3dB operating range from 37Hz - 20KHz with three independent amplifiers driving a 12" woofer, 2 x 5" midrange and a 1" HF.

The K312 concept is to provide a loudspeaker for professional use where the lower frequency reproduction exceeds that of most 18" bass cabinets whilst the mid/high channels provide superb vocal and instrumental response and coverage.

That said, the K312 is still a compact design and is relatively efficient considering its ultra wide response.

This feature alone sets it apart from virtually all competitive products.

The on-board 3 way Powersoft module is perfectly matched to the three respective frequency bands.

Component specifications.

bass unit	316mm (12") rubber roll surround
bass aes power	700 watts
voice coil	76mm (3") 8Ω
magnet	neodymium
mid units (2)	140mm (5.4")
mid unit aes power	80 watts
voice coil	32mm (1.26") 8Ω
magnet	neodymium
hf unit exit	25.4 mm (1") 8Ω
hf unit aes power	40 watts
voice coil	44mm (1.73")
magnet	neodymium
Mid/HF Dispersion	90° x 50°

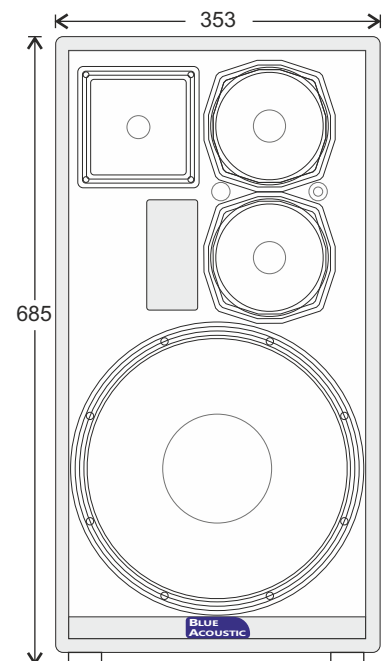
Cabinet specifications.

handles	3
pole mount	35mm vertical and 5° tilt forward
build material	15mm and 24mm birch ply
LF efficiency 1w/1m	94dB
MF efficiency 1w/1m	101dB
HF efficiency 1w/1m	108dB
spl at rated power	122 dB
tml (theoretical max level)	128 dB
frequency response	38Hz - 20KHz (± 3dB)
high pass filter settings	see over page
dimensions	685 h x 353 w x 420 d
weight	25 Kgs (55 lbs)
foam behind grille	fitted
covers (option)	heavy duty padded slip over

* tml is published for comparative purposes only

Module specifications.

number of channels	3
signal input (input and link)	balanced XLR
channel 1 - LF	700 watts selected HP filter to 270Hz
channel 2 - MF	200 watts 270Hz to 2.65KHz
channel 3 - HF	100 watts 2.65KHz to 20KHz
damping factor	1,000 @ 100Hz
ac power	110 - 240 volts (50-60Hz)
connectors (mains in and link)	Neutrik Powercon
THD+N	< 0.01% 0.1w to full power
damping factor	> 1,000 @ 100Hz



The **K312** is three-way powered and has a comprehensive DSP unit within the module to assist with the ultimate control of the acoustic performance.

This Blue Acoustic K312 has four user selectable settings on board which will assist by providing a range of performance options.

These settings are easily selected using the round push button placed between the XLR in and link sockets situated on the upper end of the amplifier module.

K312 Presets.

With each of the LF, MF and HF bands amplified individually the operational performance of the Blue Acoustic K312 is more easily predicted.

The four presets operating within the module driving the K312 have therefore been engineered as follows.

Preset One

Full range performance from 35Hz to 20KHz +/- 3dB.

Examples would be Audio-Visual installations, Church installations, small band PA and music playback systems.

Preset Two

Full range performance from 35Hz to 20KHz +/- 3dB.

Examples would be similar to Preset One with the benefit of a 2dB wideband dip in the response centred at 875 Hz.

Preset Three

Full range performance from 48Hz to 20KHz +/- 3dB.

Examples would be Theatre installations, Worship systems, small band PA and music playback where a high pass filter at operating at 48Hz proves beneficial.

Preset Four

Designed for use with bass cabinets in larger venues.

Preset offering performance from 100Hz to 20KHz +/- 3dB.

For use with Blue Acoustic 15" or 18" bass systems.

K312 installation hardware

We have a number of options for the installation of the Blue Acoustic K312 full range loudspeaker.

The most commonly used brackets are yoke style.

Here, tilt and swivel are available to the installer where the only essential is a secure wall mount position for the bracket.

As an alternative where the installer wishes to provide the support hardware we can insert 10mm nut plates wherever required beneath the cabinet surface.

It is a requirement that at least 250mm of clear air space is maintained at the rear of the K312 cabinet so that cooling of the heatsink is not impaired.

Module rear panel controls



Blue Acoustic

Units 3 & 6, Grooms Building,
Pool Road, Newtown, Powys
SY16 1DL United Kingdom
Tel: 01686 622368
Mob: 07971 882663
Email: ken@blue-acoustic.com

Blue Acoustic is a Trade Mark registered in the UK
with the number UK 02517676.

It is used with the permission of the owners with
worldwide use restricted to Blue Acoustic products.
All designs/settings copyright Ken Hughes - 2016.

Blue Acoustic® ; where less is more

Blue Acoustic USA

Tulsa, OK, 74146

Tel: (918) 732 9343

Email: info@blueacousticusa.com