



The Harmony BN Series of ZAPCO - DSP/Amplifiers



HARMONY BLUE NOTE

A full line of DSP/Amps with Bluetooth Streaming, PC tools, mobile Apps and integrated Music Player.

ZAPCO presents the Harmony Blue Note Series with a full line of DSP/Amps. With the improvements in Class D technology over the last years we have been able to get sound quality in a smaller and more powerfull package. The Series includes three models from 6 to 10 DSP channels and on-board Class-D Amplifier from 4 to 8 channels.

The full functions GUI offers a complete set of DSP tools and has been designed to be simple and intuitive for everyone, providing simultaneous viewing of all the channels with all adjustments like I/O management, crossover, phase/delay. And you can do your setup with the mobile APPs. We also add a quality 5.1 Bluetooth for music streaming and the Music Player function to be activated via USB memory on the front panel.



The Harmony BN Series of ZAPCO - DSP/Amplifiers



Charlie

(HB 46 ADSP)

4 to 6 Integrated DSP/Amplifiers

The HB 46 ADSP, also called "Charlie", is a 6-Channels DSP with an on-board 4-Channel Class D Amplifier. The HB 46 ADSP has 4-Channels High-Level inputs and 6 RCA outputs, plus 2 RCA inputs. 5.1 Bluetooth for music streaming and the Music Player are included. With the optional Remote you can also control the main and subwoofer volume, select Presets and input Source, and switch to previous or next song with the Music Player, directly from your dashboard.

- 6-CH DSP 15 BANDS
- HIGH-RES AUDIO
- BT 5.1 STREAMING
- MUSIC PLAYER
- PC & MOBILE TOOLS
- RCA INPUTS & OUTPUTS
- HI-LEVEL INPUTS
- PLUG & PLAY READY
- 4 x 70W MAX POWER



The Harmony BN Series of ZAPCO - DSP/Amplifiers



Duke

(HB 48 ADSP)

4 to 8 Integrated DSP/Amplifiers

The HB 48 ADSP, also called "Duke", is a 8-Channels DSP with an on-board 4-Channel Class D Amplifier. The HB 48 ADSP has 4-Channels High-Level inputs and 8 RCA outputs, plus 2 RCA inputs. 5.1 Bluetooth for music streaming and the Music Player are included. With the optional Remote you can also control the main and subwoofer volume, select Presets and input Source, and switch to previous or next song with the Music Player, directly from your dashboard.

- 8-CH DSP 31 BANDS
- HIGH-RES AUDIO
- BT 5.1 STREAMING
- MUSIC PLAYER
- PC & MOBILE TOOLS
- RCA INPUTS & OUTPUTS
- HILEVEL INPUTS
- PLUG & PLAY READY
- 4 x 70W MAX POWER



The Harmony BN Series of ZAPCO - DSP/Amplifiers



Louis

(HB 410 ADSP)

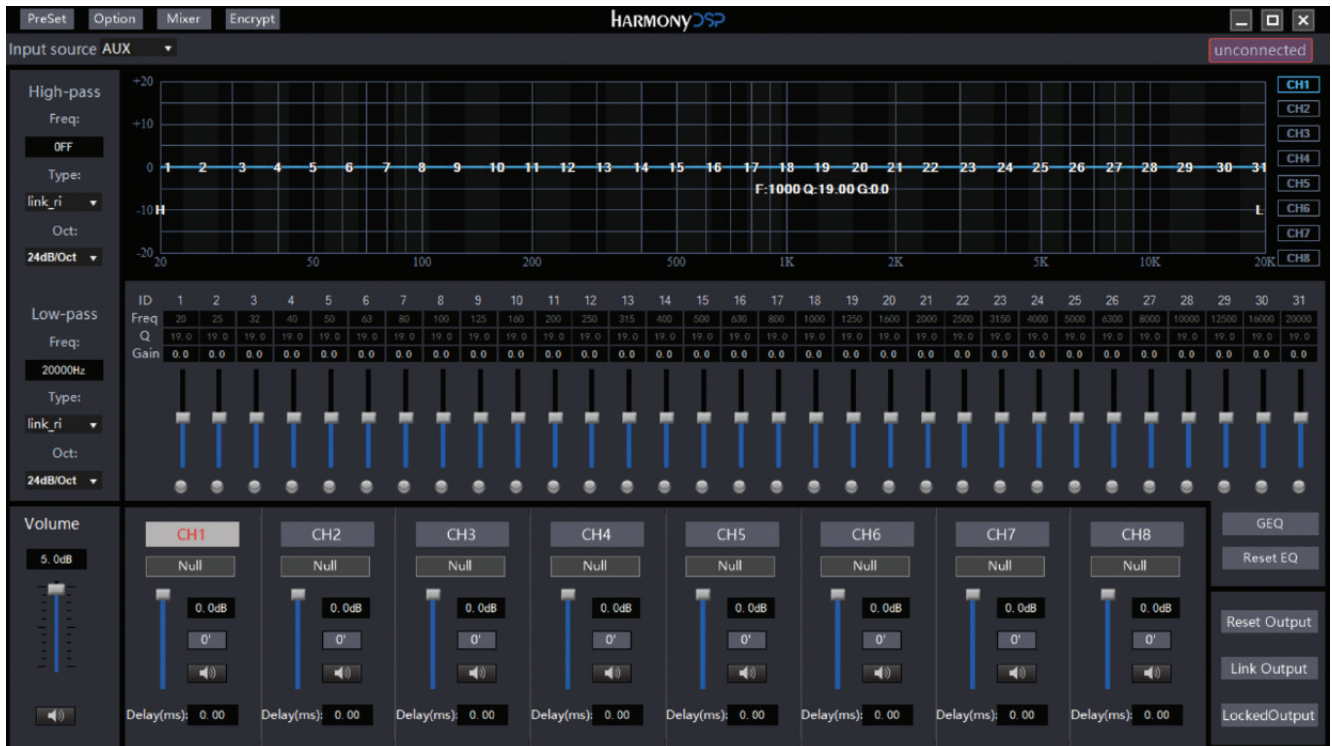
4 to 10 Integrated DSP/Amplifiers

The HB 410 ADSP, also called "Louis", is a 10-Channels DSP with an on-board 8-Channel Class D Amplifier. The HB 410 ADSP has 4-Channels High-Level inputs and 10 RCA outputs, plus 2 RCA inputs. 5.1 Bluetooth for music streaming and the Music Player are included. With the optional Remote you can also control the main and subwoofer volume, select Presets and input Source, and switch to previous or next song with the Music Player, directly from your dashboard.





The Harmony BN Series of ZAPCO - DSP/Amplifiers



Full Function DSP Control with PC

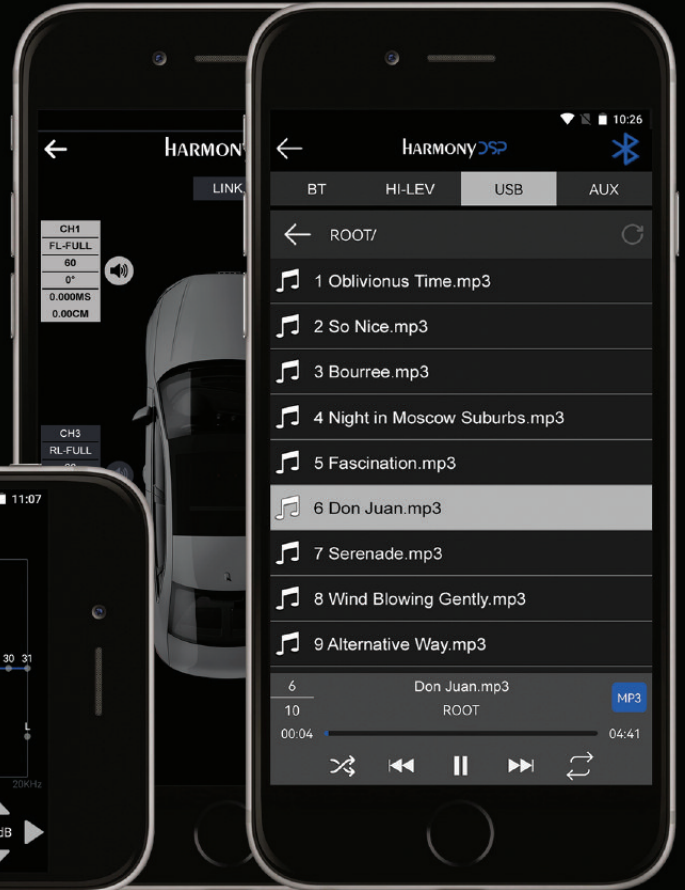
The DSP PC GUI gives you all the great sound and functionality you need. The Preset button is where you will save setups to memory presets and load setups from those saved. With the I/O Matrix you can manually determine which inputs will be used for each output and how much of each input the output will receive. With High-Pass and Low-Pass Filter you can type in the frequencies and choose the crossover style and slope. The EQ offers 15-bands (HB 46 ADSP) or 31-bands (HB 48 ADSP, HB 410 ADSP) of Graphic or Parametric equalization for each output channel and you can vary Frequency, Gain, and Q for each band. The Output Channels section is for Speaker Assignment, Delay, Levels and Polarity to be sure all speakers are in phase with each other. At the end, you can also Reset, Link or Lock Output Channels.

From simple to advanced, the GUI has you covered.

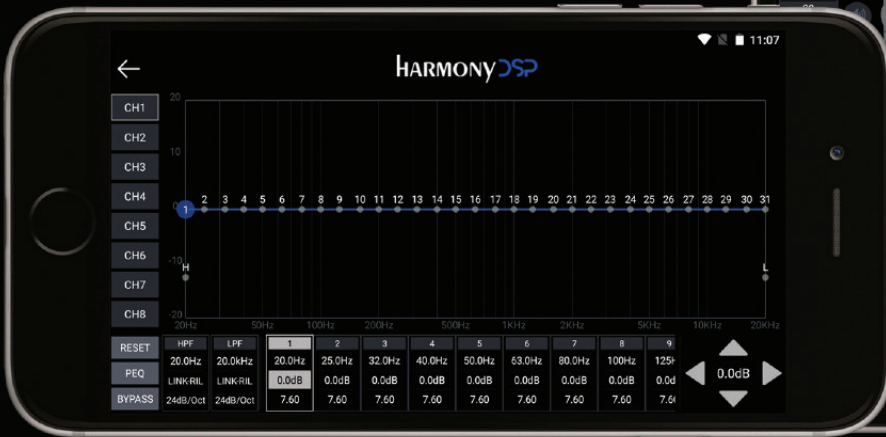
The Control Program is the same for all our DSP and requires installation. Once opened, simply select your device and start tuning. You should check back on the website regularly to assure you have the most up-to-date version of the software.



The Harmony BN Series of ZAPCO - DSP/Amplifiers



Bluetooth™ **MUSIC PLAYER**



DSP Control and Music Player with Mobile Phone

Simply connect to the integrated Bluetooth and with the totally new customized APP you can now control and setup your system with your smartphone. The goal is to have a control system that made sense in a smaller platform but would allow the user to do everything necessary for a complete setup and tune with a smartphone or tablet. Input selection, I/O Matrix, High and Low-Pass Filter, Graphic or Parametric EQ, Speaker Assignment, Delay, Levels, Polarity and all the DSP tools you need. With the added Music Player you can now also navigate and listen to your favorite song.

To use the Music Player you need to connect an USB device with proper audio files inside. Supported formats: MP2.3.4, WMA, APE, FLAC, AAC, M4A, WAV, AIF, AIFC. The App is the same for all our DSP devices, except for the number of channels and EQ.



Remote Control (optional)

With the optional remote you can have even more control from your dashboard. Main and Subwoofer volume, DSP Preset, Source choice. With the USB you can also control your music player.



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Technical Specifications

Main Features	HB 46 ADSP	HB 48 ADSP	HB 410 ADSP
DSP Channels	6	8	10
High Level Inputs	4-Channels	4-Channels	4-Channels
RCA Inputs	2-Channels	2-Channels	2-Channels
RCA Outputs	6-Channels	8-Channels	10-Channels
Amplifier Power (Max)	4 x 70W	4 x 70W	8 x 70W
Plug & Play Ready	Yes	Yes	Yes
BT 5.1 Streaming	Yes	Yes	Yes
Music Player	Yes (APP)	Yes (APP)	Yes (APP)
Audio Format	MP2/4, WMA, APE, FLAC, AAC, M4A,WAV, AIF, AIFC		
DSP Tools	PC and APP	PC and APP	PC and APP
DSP Features	HB 46 ADSP	HB 48 ADSP	HB 410 ADSP
DSP Equalizer	15-Bands	31-Bands	31-Bands
Input Choice:	AUX, BT, HI-LEV, USB	AUX, BT, HI-LEV, USB	AUX, BT, HI-LEV, USB
I/O Mixing Matrix	Yes	Yes	Yes
Crossover	High-Pass - Low-Pass Filter	High-Pass - Low-Pass Filter	High-Pass - Low-Pass Filter
Crossover Type	Butter., Bessel, Link.-Riley	Butter., Bessel, Link.-Riley	Butter., Bessel, Link.-Riley
Crossover Slope	6-12-18-24-30-36-42-48 dB/Oct.		
Delay	0.00-20.00 ms, 0.00-692.00 cm, 0.00-273.00 in.		
Technicals	HB 46 ADSP	HB 48 ADSP	HB 410 ADSP
Active Range	> 110dB	> 110dB	> 110dB
S/N Ratio	> 100dB	> 100dB	> 100dB
THD	< 0.05%	< 0.05%	< 0.05%
Sampling Rate	48KHz/24Bit	48KHz/24Bit	48KHz/24Bit
Frequency Response	20Hz - 20KHz	20Hz - 20KHz	20Hz - 20KHz
Amplifier Power	4 x 35W 4 x 70W (Max)	4 x 35W 4 x 70W (Max)	8 x 35W 8 x 70W (Max)
Low Input Impedance	20 KOhm	20 KOhm	20 KOhm
High Input Impedance	240 Ohm	240 Ohm	240 Ohm
RCA Input	6Vpp	6Vpp	6Vpp
RCA Output	9Vpp	9Vpp	9Vpp
High-Lev.	26Vpp	26Vpp	26Vpp
Power Supply	DC 9V-16V	DC 9V-16V	DC 9V-16V
Consumption	< 0.1W	< 0.1W	< 0.1W
Unit Dimensions (mm)	135 (159) x 115 x 45.5	160 (184) x 115 x 45.5	160 (184) x 115 x 45.5
Remote Dimensions (mm)	90 x 45	90 x 45	90 x 45

Everything written in this sheet is for information purposes only. The products and their functionality could be modified during the production processes which usually intend to improve the original product. Therefore, the technical specifications and functionality stated here may not correspond exactly with the product purchased. A further update is possible through the www.harmonycar.it website.