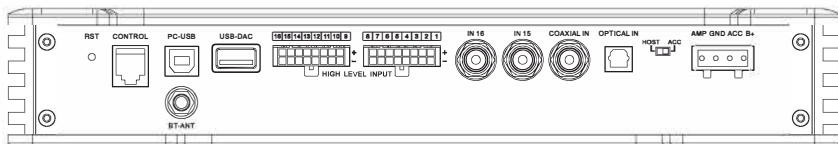


FUNCTIONAL DESCRIPTION

DSP16 Ultra



RST

Reset the device by pressing this button with a pen or a needle in case of a malfunction or software crash.

CONTROL

Connect this terminal with cables for the remote controller.

PC - USB

This USB input is suited for connecting a PC/laptop to set up the DSP functions by managing the Goldhorn software.

USB - DAC

Users can play audio signal from phones with OTG function via USB connection, with sampling rates up to 192KHz/32bit.

IN 1 ~ IN 16

Connect the sixteen high level inputs with suitable loudspeaker cables.

IN 15 & IN 16

The RCA inputs capture audio signals from other aftermarket source units (e.g. CD players).

Note: The RCA inputs IN 15 & IN 16 and the high level inputs IN 15 & IN 16 cannot be used at the same time.

OPTICAL & COAXIAL INPUT

The inputs accept PCM stereo signals up to a sampling rate of 192KHz/24 bit.

ACC / HOST (Mode for Power Selection)

ACC

Select this method if you have connected a turn - on signal at the ACC terminal.

HOST

This method only works if you use the device's high level inputs. The device is activated by connecting an amplified headunit output to the (IN 1+/IN 1-) input channel.

POWER**AMP**

Connect the terminal with suitable cables to control external amplifiers.

GND

Connect the GND terminal with a negative battery cable or a cable connected to the vehicle's chassis.

ACC

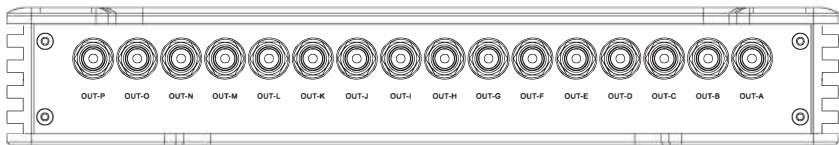
Connect a turn - on signal or the turn - on remote signal of your headunit with this terminal. Hereby the device is turned on or off with your headunit.

B+

Connect the B+ terminal with the positive pole of the vehicle's battery.

BT ANT

This port is for the Bluetooth® antenna.

**OUT A ~ OUT P**

The sixteen RCA outputs provide other devices with the modified output signals.

Technical Specifications

	P5 DSP Ultra	DSP16 Ultra
Voltage	11-16V	
Turn-On	ACC/high level inputs	
Inputs	16 x High Level Inputs 16Vrms Max	
	2 x AUX Inputs 3 Vrms Max	
	1 x Optical Input / 1 x Coaxial Input	
	Input Impedance : 6Ω	
Outputs	16 x RCA Outputs 11Vp-p(4Vrms)/47KΩ	
USB	USB2.0 HOST x 3 USB Type B x 1 MiNi USB x 1 USB-DAC x 1	USB-DAC x 1 USB Type B x 1
Control	Steering wheel controller terminal x 1	Remote Control x 1
Wi-Fi	802.11b/g/n	—
Music Formats	Hi-res : DFF/DSF/DSD (up to 256, SACD-ISO) uncompressed : WAV/FLAC/APE/AIFF compressed : MP3/AAC/OGG/WMA	—
Sampling Rate	PCM : 44.1KHz~768KHz/16~32bit DSD : DSD64/DSD128/DSD256	—
Bluetooth® Receiver	APT/PTX HD/AAC/SBC	
Color	Black	
Dimensions (L×W×H)	303 x 231 x 50 mm	

Technical Specifications

Integrated DSP for P5 DSP Ultra/DSP16 Ultra	
DSP chip	3-core Analog Devices™ 32 bit, 295 Mhz, 192KHz Sampling Rate 3.6 Billion MAC Operations per Second
Audio Input Features	Equalizer Filter Type : PE/LS/HS/Slope 1 & 2 AP 5-Band Parametrical Equalizer : ± 15 dB, 0.1 dB Steps Q : 0.5~15 0.1 Time Alignment Delay : 0~10 ms/0.005 ms Steps
Audio Output Features	Crossover Frequency : 1 Hz step @ 20 Hz-20 KHz Master Gain : 0~60 dB Channel Gain : -20~+5 dB Phase Shift : Positive phase/Inverted phase Input Mixer, Subwoofer Control Equalizer Filter Type : PE/LS/HS/Slope 1 & 2 AP 30-Band Parametrical Equalizer : ± 15 dB, 0.1 dB Steps Q : 0.5~15 0.1 Crossover Filter Type and Slope : Bessel / Butterworth @ -6 /-12/-18/-24/-30/-36/-42/-48 dB Linkwitz @ -12/-24/-36/-48 dB Time Alignment Delay : 0~20 ms/0.005 ms Steps Variable Phase Rotation from 0° to 360° (step : 1°)
Frequency Response	10Hz~80KHz (±1 dB)
Signal-to Noise	>125 dB
THD+N	<0.00018% (-115 dB)
Other Features	Error Protection System 8 Presets for Sound Setups 7 Sound Style for Output Filter Mode

- ※ The information in this manual is subject to be changed without notice.
- ※ Technical changes and errors reserved.
- ※ All trademarks and trade names are the property of their respective owners.