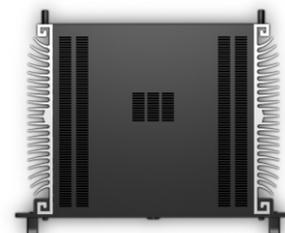




CHAMP- 3D

3-Channel Digital Power Amplifier

APart



CHAMP-3D is a 3-channel, fully programmable digital amplifier. With the same advantages as the other models in APart's series of convection cooled amplifiers and much more: a built-in DSP, a fully parametric 4-band equalizer and RS-232 control of all essential functions. Genuine Hypex ®amplifier modules at the core of the unit for a superior sound quality. And a loudspeaker wizard for quick and easy set up with APart loudspeakers. Are you ready for the future?

DESIGN

CHAMP-3D has the same advantages as the other models in APart's CHAMP series. The 3-channel amplifier is convection cooled, thus eliminating the need for a fan. The result is a totally quiet amplifier, but also there is no risk of an amplifier failure because the fan is clogged up by dust or grease.

- Versatile power center: for all medium to mid-sized applications up to 2100 Watts
- High End Hypex® class D amplifier modules with a high damping factor
- Toroidal transformer with oversized capacitors for guaranteed dynamic sound. Independent for Sub & L+R channel
- Balanced analogue internal signal flow
- Analogue Devices™ DSP



BUILD IN DSP:

Plug and play or fully personalized? The 4-band full parametric equalizer allows you to tweak your settings to the finest detail. Thanks to the limiter-leveler which is part of the DSP you can limit the music volume in a bar – a feature that protects both the loudspeakers and the bar's license.

- 4 band full parametric EQ
- X-Over
- Defeatable automatic loudness
- Delay : time alignment of the top speakers
- Compressor : increases musical density
- Limiter - leveler (cfr Audiolock) protects your speakers and the bar's license
- Subsonic filter : filters harmful frequencies to protect the amplifier and speakers

EASY TO OPERATE VIA 3 USER LEVELS:

1. Fully locked
2. Volume only
3. Installer: All DSP parameters and speaker levels can be set

With three operating levels, CHAMP-3D gives you the possibility to limit access to the amplifier's function as you wish. A fashion store where the staff only should put the unit on or off : it is possible in the 'fully locked' mode. A bar where the DJ can set the volume up to a predetermined maximum : use the volume only setting. Installers and sound engineers can use a mode where all parameters are accessible.

BUILD IN SPEAKER WIZARD:

Don't waste time setting your speaker parameters: thanks to the build-in speaker wizard you can do it in a minimum of time. CHAMP-3D has all APart speakers stored in its memory. It comes plug and play for the APart PUBSET, with settings for MASK8 topspeakers and SUB2400 subwoofers. If you want to use other speakers you can just choose them out of a list. All parameters and settings are set automatically. The speaker list can be updated with new APart speakers via RS-232. This guarantees an optimized sound quality and protection of your speakers.

FULL PROTECTION

A correct installation with the speaker wizard guarantees a fully protected system:

- No clipping
- The pre-set maximum level cannot be exceeded: the limiter-leveler protects the bar's license
- Damaging clipped input signals result in overload protection



OVERALL:

- All firmware & the speaker wizard can be updated via RS232
- Low power consumption (1,5 Watts) in standby mode
- Wired external volume control optionally available
- Only 2 rack units high

TECHNICAL SPECIFICATIONS

Dynamic program power per channel - Left/right amp: 367 Watts @ 4 Ohm, 522 Watts @ 2.7Ohm

Sine wave power per channel left/right Amp: 345 Watts @ 4 Ohm

Dynamic program power subwoofer channel: 1340 Watts @ 2 Ohm

Sine wave power subwoofer channel: 1100Watts @ 2 Ohm

Load impedance left/right amp: 2.7 Ohm

Load impedance sub amp: 2 Ohm

Input channels: 2 x balanced XLR male, 2 x balanced XLR Female, 2 x balanced Euroblock

Input sensitivity: 0 dBV/1V

Input impedance: 10k

Liftable ground: yes

S/N ratio: >90dB A weighted

THD L/R amp: <0.1% @ 100W/4Ohm/1kHz A weighted

THD sub amp: <0.1% @500W/2Ohm/80kHz A weighted

Frequency response: 10 – 24 kHz +0/-3 dB

Analog/digital volume control: analog via external volume control, digital internal control

Built-in DSP: yes, featuring compressor/limiter, Crossover, subwoofer phase control, 4 band fully parametric EQ, automatic loudness, speaker delay, APART speaker configuration wizard.

Crossover : Linkwitz-Riley and Butterworth characteristics, 12 to 48 dB/oct or 6 dB/ Oct first order filter

Subsonic filter: 48 dB/oct, between 10 and 80 Hz, defeatable

User interface: display guided menu structure, 3 user security levels.

Protection circuits: overcurrent, overtemperature, DC offset, AC and DC over- and undervoltage

Channel separation: >80dB @ 1kHz

Damping factor: > 400 all channels

APC system: internal compressor and clip limiter, auto gain circuit

Power amp topology: class D

Cooling: convectional

External interface: RS232 and external volume control 0-10V (1 mA closed loop circuit)

RS232 settings: 19200 baudrate, 8 databits, no parity, no handshake

Max power consumption: 1500Watts

Standby power consumption: <1.5Watts

Mains operating voltage: 230VAC/50-60Hz

Dimensions: 483 x 89 x 380 mm (WxHxD) (without rubber feet, including rack ears)

Net weight: 16 kg

Gross weight: 18 kg



Tender Text

APart CHAMP-3D is a 3 channel, fully programmable digital amplifier. It has the same advantages as the other models in the CHAMP series : it is convection cooled, thus eliminating the need for a fan. As a result of this, the amplifier is totally quiet, but also there is no risk of amplifier failure (in case a fan gets clogged up by grease or dust).

CHAMP-3D is ideal for medium to mid-sized applications with a total power up to 2100 Watts. The amplifier has high end Hypex® amplifier components inside. They are the absolute top in components and otherwise used by high-end hifi brands. Hypex® components have a very high damping factor, which eliminates unwanted cone movement. This ensures a very pure sound.

A toroidal transformer with oversized capacitors guarantees a dynamic sound. There is an independent transformer for the subwoofer channel and another for the left/right channel. A balanced analogue internal signal flow is a further guarantee for a perfect quality sound.

CHAMP-3D has a build in DSP with a 4-band fully parametric equalizer. It allows the user to adapt the crossover and the the delay/time alignment of the loudspeakers. The DSP also has automatic loudness (defeatable) and a built-in compressor function that increases musical density. An incorporated limiter – leveler allows the installer to set a maximum music level that cannot be overruled by the user. This function is very handy for use in bars or cafés: it forces the user to stay within maximum sound regulations and it protects the speakers. A subsonic filter eliminates harmful frequencies and protects both the amplifier and the loudspeakers.

Different user levels make it possible to deny or give users access as required. The first level is 'fully locked' mode: the user has no access to functionality of the unit and can only switch the unit on and off. In the second level the user can change the volume (up to a pre-set maximum) and the 3rd level gives full access to all the DSP parameters.

The built-in speaker wizard makes it possible an APart loudspeaker out of a list, and the amplifier will automatically apply the correct settings for the speaker chosen. The list has all APart loudspeakers that work with CHAMP-3D, and can be updated via RS-232. Updates of the list are posted on the APart website www.apart-audio.com A correct installation of loudspeakers through the speaker wizard guarantees a fully protected system: No clipping thanks to overload protection, the preset maximum level can not be exceeded.

Just like the speaker wizard, all firmware can be updated via RS232. CHAMP-3D has also a very low power consumption, only 1.5 Watts in standby mode. The amplifier is only two rack units high and takes very little build-in space. A wired external volume control button is optionally available.