

# **Electro-Voice**<sup>®</sup>

OWNER'S MANUAL  
BEDIENUNGSANLEITUNG  
MODE D'EMPLOI



**CP3000S**  
**CP4000S**  
PRECISION SERIES

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## IMPORTANT SAFETY INSTRUCTIONS



**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**AVIS:** RISQUÉ DE CHOC ELECTRIQUE. NE PAS OUVRIR.

**WARNING:** CONNECT ONLY TO MAINS SOCKET WITH PROTECTIVE EARTHING CONNECTION.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated „dangerous voltage“ within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufactures instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the absolute outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
15. To completely disconnect this equipment from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
16. The mains plug of the power supply cord shall remain readily operable.



Management of WEEE (waste electrical and electronic equipment) (applicable in Member States of the European Union and other European countries with individual national policies on the management of WEEE) The symbol on the product or on its packaging indicates that this product may not be treated as regular household waste, but has to be disposed through returning it at a Telex dealer.

## IMPORTANT SERVICE INSTRUCTIONS

**CAUTION:** These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the Operating Instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

1. Security regulations as stated in the EN 60065 (VDE 0860 / IEC 65) and the CSA E65 - 94 have to be obeyed when servicing the appliance.
2. Use of a mains separator transformer is mandatory during maintenance while the appliance is opened, needs to be operated and is connected to the mains.
3. Switch off the power before retrofitting any extensions, changing the mains voltage or the output voltage.
4. The minimum distance between parts carrying mains voltage and any accessible metal piece (metal enclosure), respectively between the mains poles has to be 3 mm and needs to be minded at all times. The minimum distance between parts carrying mains voltage and any switches or breakers that are not connected to the mains (secondary parts) has to be 6 mm and needs to be minded at all times.
5. Replacing special components that are marked in the circuit diagram using the security symbol (Note) is only permissible when using original parts.
6. Altering the circuitry without prior consent or advice is not legitimate.
7. Any work security regulations that are applicable at the location where the appliance is being serviced have to be strictly obeyed. This applies also to any regulations about the work place itself.
8. All instructions concerning the handling of MOS - circuits have to be observed.

**NOTE:**



**SAFETY COMPONENT ( MUST BE REPLACED BY ORIGINAL PART )**

## DESCRIPTION

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Congratulations! With buying an Electro-Voice CP-Series power amplifier you have chosen a state-of-the-art appliance that employs most advanced technology.

CP-Series power amps combine outstanding audio performance, highest reliability and operational safety.



The audio performance of CP-Series power amps are simply extraordinary. The new switchmode power supply technology, completely designed from scratch and the consistent use of Class-H technology provide extensive headroom far above the stated nominal output and conspicuous reduction in leakage power at the same time.

The employed switching power supply combines the headroom-advantage of a transformer power amplifier with low weight of a pulsed power supply unit resulting in an improved performance-to-weight ratio. Special attention had been given to high efficiency and interference immunity already in the designing stage with the result that trouble-free operation of CP-Series power amps is possible even in EMV-critical environments.

The power amplification stages of the CP3000S follow Class-H technology design, i.e. the power amp provides extremely fast, signal-dependent operating voltage switching, which, results in doubling the regular supply voltage when needed. Compared to Class-AB power amps, Class-H power amps generate by far less power dissipation at identical output. Consequently, reduced leakage power or dissipation is synonymous to less waste heat. In other words: energy is used more efficiently! As a result, installing Class-H power amps within rack shelf systems is possible with less space between appliances. In addition to that and despite offering identical output, power consumption is a lot less than in Class-AB operation.

Being protected against thermal and electrical overload, short circuit and the occurrence of HF/DC at the outputs, Electro-Voice CP-SERIES power amps fulfill even the most demanding requirements of Pro-Audio touring applications. Back-EMF-Protection eliminates the risk of the output transistors being damaged by electrical energy back-feed. The power outputs are switched via relay with a time delay during soft-start and an inrush current limiter additionally prevents mains fuses from blowing.

Mechanical construction and workmanship also comply with the highest precision manufacturing standards. The robust chassis is extremely rigid which makes it especially suitable for wearing touring applications. Two three-speed high performance fans (off/slow/fast) guarantee outstanding thermal stability at absolute low running noise. Front-to-rear ventilation allows trouble-free operation even in smaller amp-racks. The electronically balanced inputs are carried out via XLR-type connectors. Direct-Outs for through connecting the audio signal are also provided via XLRM-type connectors. Input Routing allows selecting DUAL (stereo) or PARALLEL (monaural) operation mode. By means of the separate BRIDGED OUT-connector and a Bridged Mode-switch, switching to "Mono Bridged" operation is truly uncomplicated as well. The recessed mounted dB-scaled level controls ensure reliable protection against mechanical damage. These particularly precise, secure to operate detent-potentiometers are located on the front panel. CP-Series power amps provide the opportunity for retrofitting an internal analogue signal processor board with x-over and filter functions. The easily readable LED display provides a quick overview of the power amp's current operational status. The power outputs CHANNEL A, CHANNEL B and BRIDGED OUT are carried out as extremely durable SPEAKON-type connectors. Also located on the rear panel is a Ground-lift switch, which, when needed, helps eliminating ground-noise loops by separating the power amp's enclosure from the circuit ground. In normal operation, all CP-Series power amps are capable of driving loads as low as 2ohms. In Mono-Bridged mode the allowable minimum load is 4ohms.

This owner's manual outlines and explains several other features of your CP-SERIES power amplifier. Please, make sure to carefully read all of it and mind the instructions.

### UNPACKING & WARRANTY

Carefully open the packaging and take out the power amplifier. Next to the power amplifier itself, the package also includes this owner's manual, a mains cord and the warranty certificate. Keep the original invoice, which states the purchase/delivery date together with the warranty certificate at a safe place.

### INSTALLATION NOTES

Generally, installing or mounting CP-Series power amps should be carried out in a way that guarantees continuously unopposed front-to-rear air circulation. Installation of appliances with opposite air circulation within one cabinet or closed rack shelf system is not recommendable. When including appliances in a closed cabinet or rack shelf system make sure to provide sufficient ventilation. Leave a gap of at least **60mm x 330mm** (up to the cabinet's top ventilation louvers) for air circulation between the rear of the power amplifier and the cabinet's/rack's rear inner wall. Make sure to leave at least 100mm of space above the cabinet or rack shelf system. Since temperatures inside of the cabinet or rack shelf system can easily rise up to 40°C during operation, bearing in mind the maximally allowable environmental temperatures for all other appliances installed in the same rack shelf system is mandatory (also refer to "MAINS OPERATION AND RESULTING TEMPERATURE").

**Caution: For trouble-free operation exceeding the maximally allowable environmental temperature of +40°C is not permissible.**

To prevent the front panel from bending, the use of installation rails or optionally available "rear-rack-mount" rails is obligatory when installing the appliance in a rack shelf system or cabinet.

The power amplifier has to be protected against: dripping or splashing water, direct sunlight, high temperatures or direct influence of heat sources, high humidity, extensive dust and vibrations.

If guaranteeing the listed requirements is not possible on a long-term basis, regular servicing is absolutely mandatory to prevent the power amplifier from possible failure, mainly being caused by negative environmental effects.

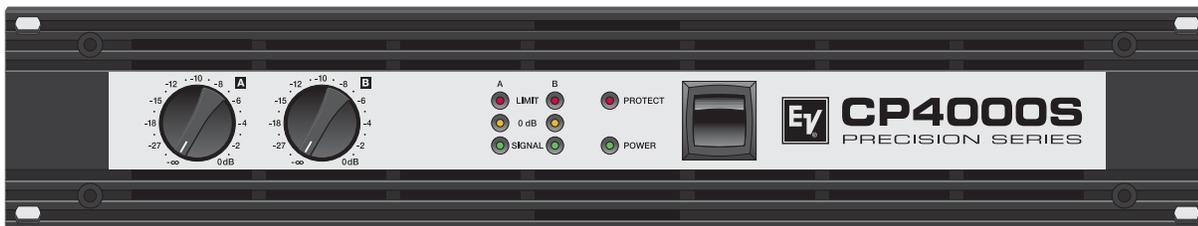
The power amplifier has to be protected against: dripping or splashing water, direct sunlight, high temperatures or direct influence of heat sources, high humidity, extensive dust and vibrations.

Condensation on internal parts may occur when transporting the power amplifier from a cold into a warmer environment. In that case operation is only permissible after the appliance has gained the new temperature (after approximately one hour). If foreign objects or liquids have entered the power amp's enclosure, make sure to immediately separate the appliance from the mains network and contact an authorized service center for inspection before continuing operation.

### FCC INFORMATION (U.S.A)

1. **IMPORTANT:** Do not modify this unit! Changes or modifications not expressly approved by the manufacturer could void the user's authority, granted by the FCC, to operate the equipment.
2. **NOTE :** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

## FRONT PANEL



Use the **POWER switch** located on the front panel to power-on the appliance. The soft-start function protects against current inrush peaks on the mains, which in addition prevents the mains line protection switch from activating during power-on. The loudspeaker outputs are activated via relay switching with a delay of approximately 3 seconds to efficiently attenuate eventual power-on noise. The PROTECT LED lights during the delay time. This is normal, confirming the immaculate operation of the protection circuitry.

- POWER

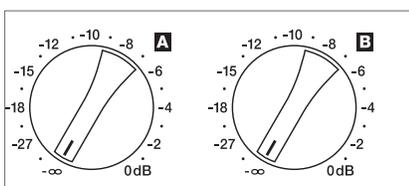
This indicator lights when the power amplifier has been switched on. Causes for the POWER-indicator not lighting are: the appliance is not connected to the mains network or a defective primary fuse.
- PROTECT

The PROTECT LED lights indicating that one of the internal protection circuits against thermal overload, short-circuit, Back-EMF, HF-occurrence at the output, etc., has been activated. The output relays interrupt the connected loads from the power amps while input signals are interrupted as well, preventing the connected loudspeaker systems and the power amplifier itself from being damaged. Whatever caused the fault – e.g. a short-circuited speaker cable – needs to be remedied. In case of thermal overload you have to wait until the power amplifier automatically regains normal operation.
- SIGNAL

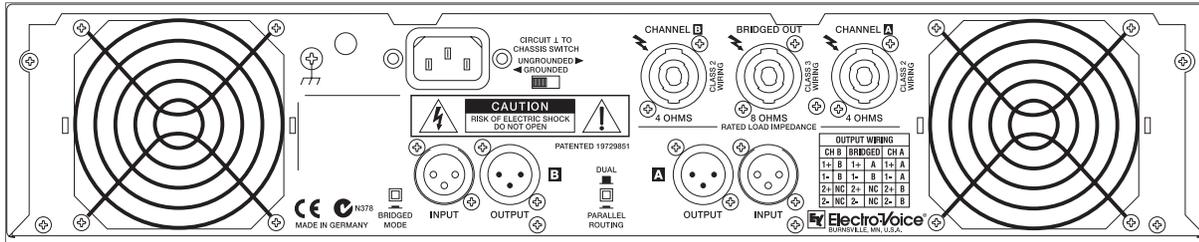
The SIGNAL LED lights as soon as an audio signal of approximately 30dB below full modulation is present at the output. The LED is dimmed when speaker cables are short-circuited or a protection circuit has been activated.
- 0 dB

The 0dB LED lights whenever the power amplifier is driven at its limits. Higher input voltage does not result in higher peak output voltage. In addition, the 0dB indicator comes in handy when adjusting external limiters.
- LIMIT

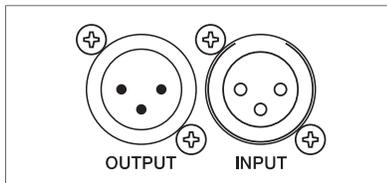
This indicator lights as soon as the integrated dynamic audio signal limiter is activated and the power amplifier is driven at the clipping limit or generally at its maximum capacity. Short-term blinking is not a problem, because the internal limiter trims input levels of up to +21dBu down to an S/N-ratio of approximately 1%. If, on the other hand, this LED lights constantly, reducing the volume is recommended to prevent the loudspeaker systems connected from being damaged by probable overload.



Detent potentiometers scaled in dB (steps of 1dB) for adjusting the power amp's overall amplification. To prevent distortion in mixing consoles connected to the amp, setting these controls to a value between 0dB and -6dB is generally recommended. The dB-scale provides direct indication of the control attenuation applied to the fixed internal amplification.



## INPUT A / INPUT B



The inputs INPUT A & INPUT B are electronically balanced offering input sensitivity of

+5.8dBu / 1.51V (CP3000S)

+7.0dBu / 1.74V (CP4000S)

for direct connection of mixing consoles, signal processors, etc.

The XLR-type connectors OUTPUT A & OUTPUT B are prepared for „through-connecting“ input signals to additional external power

amps. The input signal is directly routed to these output connectors. There are no repeaters or other electronic components within that signal path. Accordingly, input and output connectors of the corresponding channel are interconnected in parallel, offering permanent electrical connection, without regard to the setting of the Power-ON switch.

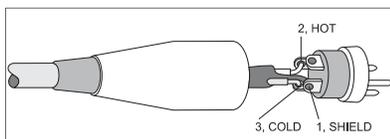
**Although having XLR-type output connectors, some mixing console models provide unbalanced output connection only. When using mixers with unbalanced outputs, bridging PIN1 and PIN3 of the power amp’s input connectors or leaving PIN3 of the cable’s plugs unconnected is necessary. Otherwise, when feeding in unbalanced audio signals via PIN3 (b, -, „cold“) and PIN2 (a, +, „hot“), strange humming and HF-interference may occur, which very likely will damage the power amplifier and/or the connected speaker cabinets.**

## NF-CONNECTION CORDS

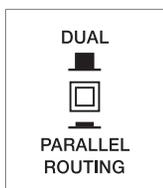
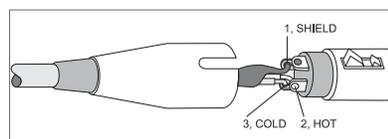
Choosing high-quality balanced cables (two conductors for the audio signal plus separate shielding mesh) with XLR-type connectors is recommended for LF-signal connection. Although connecting unbalanced cables to the power amplifier inputs is possible as well, using balanced cables is always preferable. A great number of today’s audio appliances employ balanced outputs. With balanced cabling, the shield connects all metal enclosure parts and therefore efficiently eliminates the introduction of external interference – mostly noise and hum.

## XLR-type connector pin-assignment

XLR (male)



XLR (female)



## PARALLEL

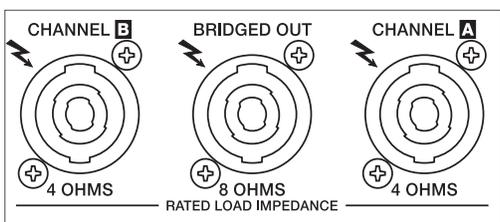
The input connectors of channel A and channel B are electrically connected in parallel when the selector switch is set to PARALLEL. However, individually controlling the volume of both channels is still possible via the corresponding level controls A and B.

## DUAL

If the selector switch is set to DUAL, the audio signals of channels A and B are independently amplified.

# REAR PANEL

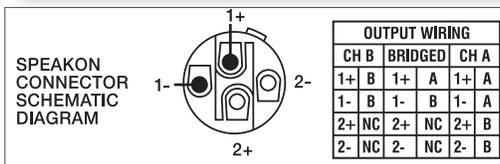
## POWER AMPLIFIER OUTPUT CONNECTORS



Power amp output connection for the two channels A (left) and B (right) is provided via SPEAKON-type output connectors. A plastic cover to prevent inadvertent erroneous connection protects the BRIDGED OUT connector. Remove the cover only when actually operating the power amplifier in Bridged-Mode.

### CAUTION!

Pins 2+/2- of the CHANNEL A SPEAKON output, which normally are not in use, are also connected to output B to ensure comfortable connection of 2-way speaker cabinets (e.g in Bi-Amping Mode) when using 4-wire Speakon cables.

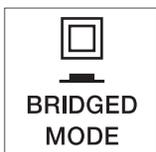


To prevent short-circuit and/or to protect your speaker systems from being damaged when connecting the cabinets, please make sure to mind the Low- and High channels' specific pin-assignments! If, for example, the subwoofer audio signal is used to feed a tweeter, it is more than likely that this will instantly destroy the HF-driver's coil.

### WARNING:

The speaker output terminals are marked with a symbol “⚡”, which signifies that these terminals present a shock hazard to the user.

## BRIDGED MODE

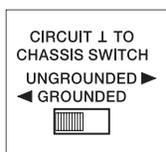


With the BRIDGED-MODE switch being engaged, using the channel A input for audio signal feed is **mandatory**, since input B provides no function. While the amplifier of channel A operates as usual. Additionally, the audio signal is internally inverted and routed to the amplifier of channel B. Both amps – A and B – now work in push-pull operation to provide doubled output voltage at the BRIDGED-OUT connector.

The regular output voltage of each amplifier channel A + B is still present at the corresponding output connectors CHANNEL A and CHANNEL B. However, using these signals is not recommendable because of the aforementioned phase inversion. Operating the power amp in Bridged Mode with loads of 2ohms connected is not allowable.

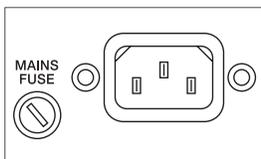
**CAUTION:** Operating the power amplifier in Bridged-Mode may result in extremely high voltages being present at the BRIDGED OUT connector. The connected loudspeaker systems have to be designed for handling such high voltages. Please carefully read the power handling specifications as stated in the documentation of the according loudspeaker system and make sure to check whether they are in compliance with the output capacity specifications of the power amplifier.

## GROUND-LIFT SWITCH



The ground-lift switch allows eliminating noise loops. When operating the power amplifier in a 19" rack-shelf system or cabinet together with other equipment, setting the switch to its GROUNDED position is recommended. When operating the power amplifier together with appliances with differing ground potentials, set the switch to its UNGROUNDED position

## MAINS INPUT



Under normal circumstances, the mains fuse only blows in case of fault. Replacing the fuse is only permissible for authorized service personnel using a new fuse of the same type with identical amperage, voltage and blow characteristics. The high-performance mains cord supplied with your power amplifier complies with applicable safety regulations, plus that its diameter corresponds to the power amp's power output capacity. Whenever possible make sure to use the supplied mains cord for connecting the power amp to the mains network. Using a different mains cord with a smaller diameter results in higher leakage, consequently reducing the amplifier's maximum power output capacity.

## MAINS OPERATION & RESULTING

### MAINS OPERATION & RESULTING POWER AMP TEMPERATURES

The following tables are useful in determining power supply and cabling requirements.

The power drawn from the mains network is converted into acoustic output to feed the connected loudspeaker systems plus heat. The difference between drawn power and dispensed power is referred to as leakage power or dissipation ( $P_d$ ). The amount of heat resulting from power dissipation might remain inside of a rack-shelf and needs to be diverted using appropriate measures. The following table is meant as auxiliary means for calculating temperatures inside of rack-shelf systems/cabinets and the ventilation efforts necessary.

The column " $P_d$ " lists the leakage power in relation to different operational states. The column "BTU/hr" shows the **dispensed heat amount per hour**.

<b>CP3000S</b>	$U_{\text{mains}}$ [V]	$I_{\text{mains}}$ [A]	$P_{\text{mains}}$ [W]	$P_{\text{out}}$ [W]	$P_d^{(5)}$ [W]	BTU/hr <sup>(3)</sup>
idle	230	0.8	80	-	80	273
Max. Output Power @ $8\Omega^{(1)}$	230	11.0	1780	2 x 600	580	1980
Max. Output Power @ $4\Omega^{(1)}$	230	19.5	3240	2 x 1100	1040	3549
1/3 Max. Output Power @ $4\Omega^{(1)}$	230	11.3	1740	2 x 366	1008	3439
1/8 Max. Output Power @ $4\Omega^{(1)}$	230	4.6	640	2 x 137	366	1249
1/8 Max. Output Power @ $4\Omega^{(2)}$	230	6.0	850	2 x 137	576	1965
1/8 Max. Output Power @ $4\Omega^{(2),(4)}$	253	6.1	950	2 x 166	618	2109
Normal Mode (-10dB) @ $4\Omega^{(1)}$	230	4.2	580	2 x 110	360	1230
Rated Output Power (0dB) @ $4\Omega^{(1)}$	230	17.6	2860	2 x 900	1060	3617
Alert (Alarm) Mode (-3dB) @ $4\Omega^{(1)}$	230	12.6	1980	2 x 450	1080	3685
Max. Output Power @ $2\Omega^{(1)}$	230	30.3	5280	2 x 1600	2080	7100
1/8 Max. Output Power @ $2\Omega^{(1)}$	230	7.0	1030	2 x 200	630	2150
1/8 Max. Output Power @ $2\Omega^{(2)}$	230	8.4	1250	2 x 200	850	2900

<b>CP4000S</b>	$U_{\text{mains}}$ [V]	$I_{\text{mains}}$ [A]	$P_{\text{mains}}$ [W]	$P_{\text{out}}$ [W]	$P_d^{(5)}$ [W]	BTU/hr <sup>(3)</sup>
idle	230	1.3	145	-	145	495
Max. Output Power @ $8\Omega^{(1)}$	230	15.7	2500	2 x 900	700	2388
Max. Output Power @ $4\Omega^{(1)}$	230	26.0	4400	2 x 1500	1400	4777
1/3 Max. Output Power @ $4\Omega^{(1)}$	230	14.7	2320	2 x 500	1320	4504
1/8 Max. Output Power @ $4\Omega^{(1)}$	230	6.9	990	2 x 188	615	2098
1/8 Max. Output Power @ $4\Omega^{(2)}$	230	7.3	1070	2 x 188	695	2371
1/8 Max. Output Power @ $4\Omega^{(2),(4)}$	253	7.7	1200	2 x 227	746	2546
Normal Mode (-10dB) @ $4\Omega^{(1)}$	230	6.3	895	2 x 150	595	2030
Rated Output Power (0dB) @ $4\Omega^{(1)}$	230	23.5	3900	2 x 1200	1500	5118
Alert (Alarm) Mode (-3dB) @ $4\Omega^{(1)}$	230	16.4	2630	2 x 600	1430	4879
Max. Output Power @ $2\Omega^{(1)}$	230	40.7	7200	2 x 2100	3000	10236
1/8 Max. Output Power @ $2\Omega^{(1)}$	230	10.3	1525	2 x 263	1000	3412
1/8 Max. Output Power @ $2\Omega^{(2)}$	230	10.4	1535	2 x 263	1010	3446

(1) Sine Modulation (1kHz)

(2) VDE-Noise

(3) 1BTU = 1055.06J = 1055.06Ws

(4) 10% Mains Over Voltage

(5)  $P_d$  = Leakage Power

The following factors allow direct proportional calculation of the mains current  $I_{\text{main}}$  for different mains supply voltages:

100V = 2.3; 120V = 1.9; 220V = 1.05; 240V = 0.96

# SPECIFICATIONS

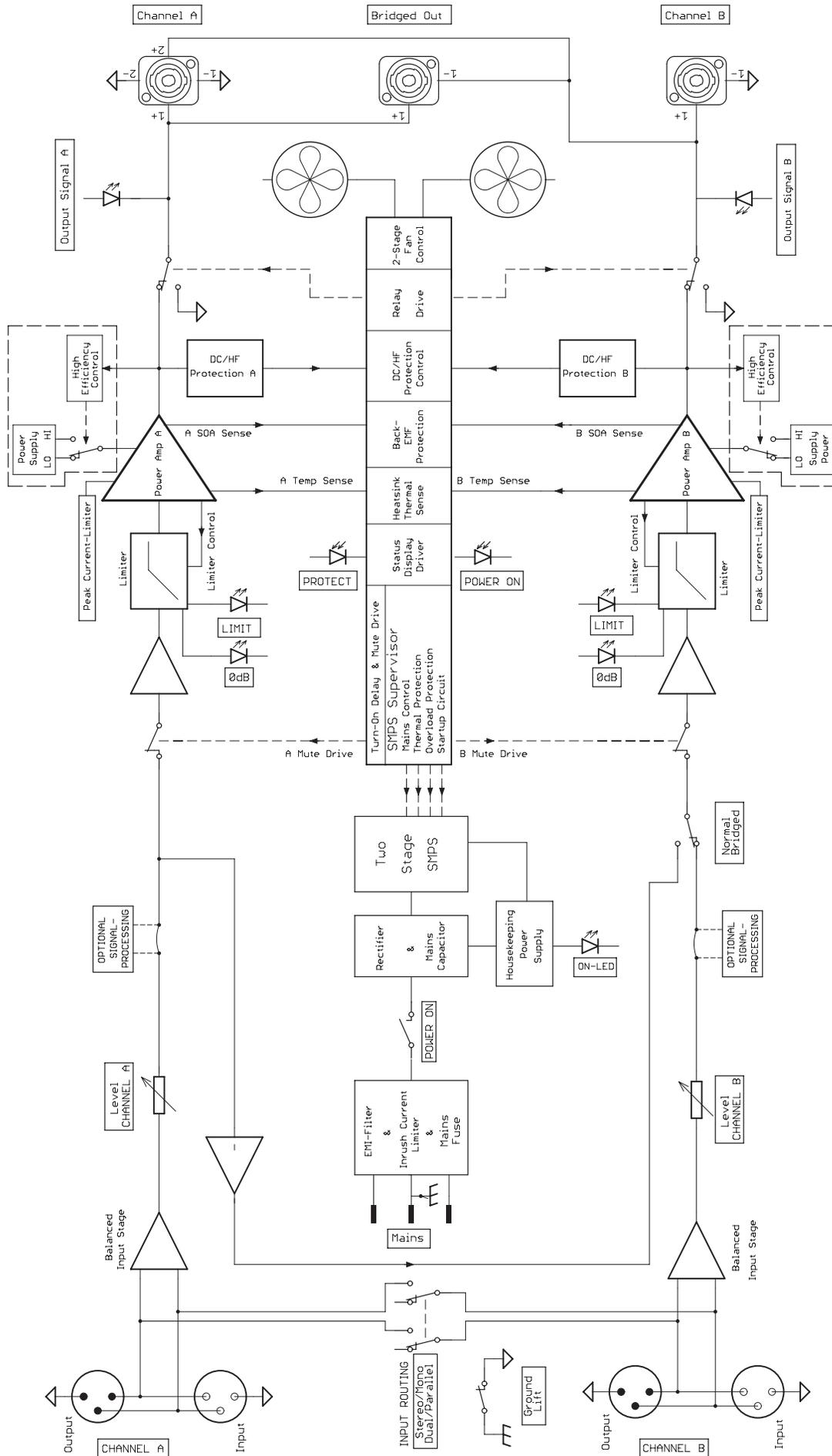
- Amplifier at rated conditions, both channels driven, 8Ω load, unless otherwise specified.

	CP3000S			CP4000S		
<b>Load Impedance</b>	2 ohms	<b>4 ohms</b>	8 ohms	2 ohms	<b>4 ohms</b>	8 ohms
<b>Maximum Midband Output Power</b> THD = 1%, 1kHz, Dual Channel	1600 W	<b>1100 W</b>	600 W	2100 W	<b>1500 W</b>	900 W
<b>Rated Output Power</b> THD < 0.1%, 20Hz ... 20kHz	---	<b>900 W</b>	450 W	---	<b>1200 W</b>	600 W
<b>Max. Single Channel Output Power</b> Dynamic-Headroom, IHF-A	2600 W	<b>1400 W</b>	720 W	2900 W	<b>1800 W</b>	1000 W
<b>Max. Single Channel Output Power</b> Continuous, 1kHz	2100 W	<b>1300 W</b>	660 W	2600 W	<b>1700 W</b>	950 W
<b>Max. Bridged Output Power</b> THD = 1%, 1kHz	---	<b>3200 W</b>	2200 W	---	<b>4200 W</b>	3000 W
<b>Maximum RMS Voltage Swing</b> THD = 1%, 1kHz	78 V			95 V		
<b>Power Bandwidth</b> THD = 1%, ref. 1kHz, half power @ 4Ω	10 Hz ... 60 kHz					
<b>Voltage Gain</b> ref. 1kHz	32.0 dB					
<b>Input Sensitivity</b> at rated output power	+5.8 dBu (1.55 V rms)			+7.0 dBu (1.74 V rms)		
<b>THD at rated output power</b> , MBW = 80kHz, 1kHz	< 0.05%					
<b>IMD-SMPTE</b> 60Hz, 7kHz	< 0.02%					
<b>DIM30</b> 3.15kHz, 15kHz	< 0.05%					
<b>Maximum Input Level</b>	+22dBu (9.76 Vrms)					
<b>Crosstalk</b> ref. 1kHz, at rated output power	< - 80dB					
<b>Frequency Response</b> -1dB, ref. 1kHz	15Hz ... 40kHz					
<b>Input Impedance</b> active balanced	20 kohms					
<b>Damping Factor</b> 1kHz	> 300					
<b>Slew Rate</b>	35 V/μs			38 V/μs		
<b>Signal to Noise Ratio, Amplifier</b> A-weighted	107 dB			108 dB		
<b>Output Stage Topology</b>	Class H					
<b>Power Requirements</b>	240V, 230V, 220V, 120V or 100V; 50Hz ... 60 Hz (factory configured)					
<b>Power Consumption</b> 1/8 maximum output power @ 4Ω	850 W			1070 W		
<b>Protection</b>	Audio limiters, High temperature, DC, HF, Back-EMF, Peak current limiters, Inrush current limiters, Turn-on delay					
<b>Cooling</b>	Front-to rear, 3-stage-fans					
<b>Ambient Temperature Limits</b>	+5°C ... +40°C ( 40°F ... 105°F)					
<b>Safety Class</b>	I					
<b>Dimensions (W x H x D), mm</b>	483 x 88,1 x 384					
<b>Weight</b>	8.15 kg (18.0 lbs)			8.70 kg (19.2 lbs)		
<b>Optional:</b> <b>Rear-rackmount 15,5"</b> <b>Rear-rackmount 18"</b>	D112930 (RMS15-CL) D112933 (RMS18-CL)					

## Notes:

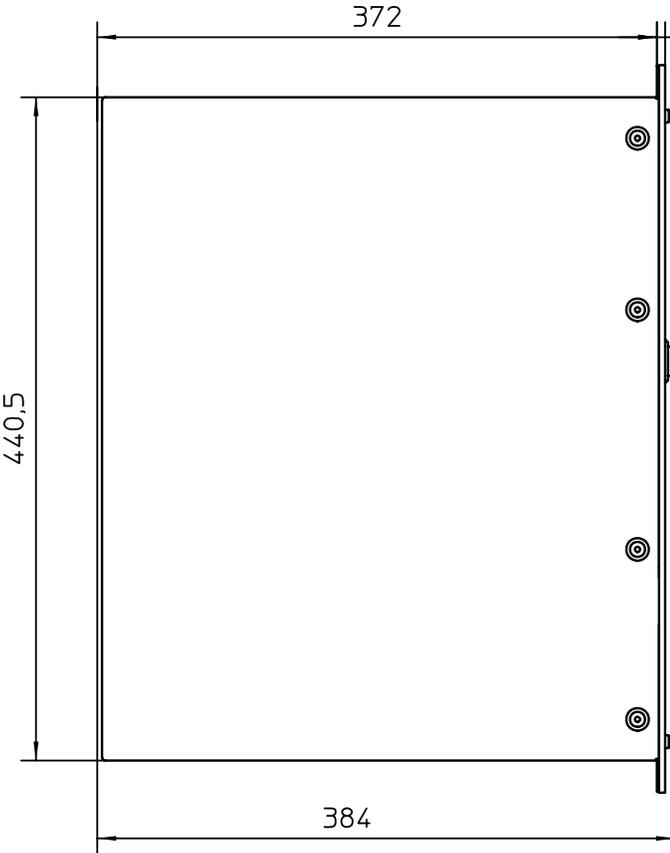
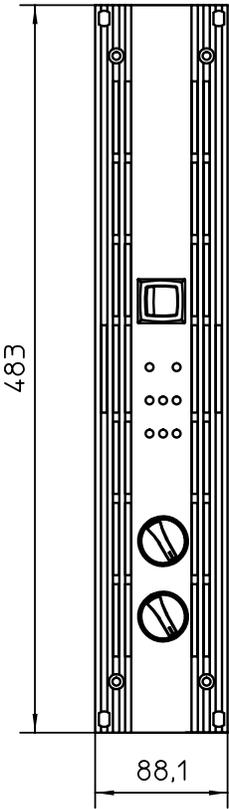
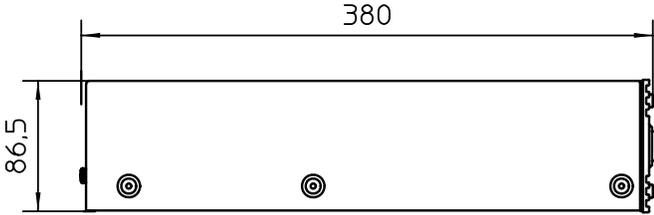
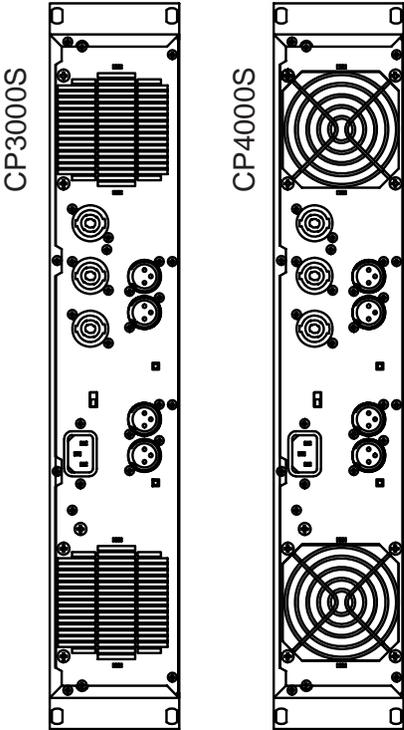
- Depending on the ambient temperature, the unit might not operate continuously at 2Ω load.
- Due to mains voltage in Japan (100V/50Hz) the values for the maximum output power can be decreased up to 15% (only 100V version)!

# BLOCK DIAGRAM



# DIMENSIONS

Dimensions / Abmessungen (in mm)





## **NOTES**

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USA Telex Communications Inc., 12000 Portland Ave. South, Burnsville, MN 55337, Phone: +1 952-884-4051, FAX: +1 952-884-0043  
Germany EVI AUDIO GmbH, Hirschberger Ring 45, D 94315, Straubing, Germany Phone: 49 9421-706 0, FAX: 49 9421-706 265

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