

SE-1100

2CH 1,1KW POWER AMPLIFIER



ENGLISH Operation Manual

Other languages can be downloaded from:
WWW.SYNQ-AUDIO.COM



Version: 1.0





EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su país.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this SYNQ® product. To take full advantage of all possibilities, please read these operating instructions very carefully.

FEATURES

- This SE-1100 power amplifier is unprecedented in terms of price / performance.
- The sophisticated design of this lightweight CLASS-D amplifier ensures excellent and powerful low-frequency reproduction combined with crystal clear and delicately balanced high frequencies.
- Thanks to the big power reserve, excellent limiters and protections it can be used in all kinds of different applications such as discotheques, clubs, mobile audio, PA, rental, theater, ...
- The extremely high efficiency, reduced power waste and very low heat dissipation are the main advantages of this compact amplifier!
- Incredible space savings for mobile applications: depth of the 1.5U enclosure is only 21cm!
- Incredibly low weight, only 3,85kg!
- Power output, stereo:
 - 2x 300Wrms @ 8 ohms
 - 2x 550Wrms @ 4 ohms
- Power output, bridge:
 - 1x 1100Wrms @ 8 ohms
- All the protections you can think of for professional use:
 - Inaudible signal + current limiter
 - Overload protection
 - Short circuit current protection
 - DC protection
 - Thermal protection
 - AC, VHF protection
 - Soft start
 - ...
- 3 different working modes: stereo, bridge mode, mono mode (inputs linked)
- Input sensitivity: 0,7V / 1V / 1,4 V
- Balanced in/outputs on XLR
- 2 Speakon® compatible connectors (left and right outputs)
- 1 separate output for bridge mode

BEFORE USE

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.
- To protect the environment, please try to recycle the packing material as much as possible.

Check the contents:

Check that the carton contains the following items:

- User manual
- SE-1100 Amplifier
- Power cable

SAFETY INSTRUCTIONS:



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



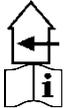
CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user or the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



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



This symbol means: indoor use only



This symbol means: Read instructions



This symbol means: this amplifier is capable of producing very high sound pressure levels that may permanently damage your ears. Hearing experts strongly advise against permanent exposure to high sound levels!

- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. No objects filled with liquids, such as vases, shall be placed on this appliance. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- No naked flame sources, such as lighted candles, should be placed on the appliance.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Minimum distances around the apparatus for sufficient ventilation is 10cm.
- Always unplug the unit when it is not used for a longer time or before you start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the rear panel of the unit.
- The socket inlet shall remain operable for disconnection from the mains.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged.
- The socket inlet is used as the disconnect device, the disconnect device shall remain readily operable
- This appliance must be earthed to in order comply with safety regulations.
- In order to prevent electric shock, do not open the cover. There are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the appliance and contact your dealer immediately.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

INSTALLATION GUIDELINES:

- Install the unit in a well-ventilated location where it will not be exposed to high temperatures or humidity.
- Placing and using the unit for long periods near heat-generating sources such as amplifiers, spotlights, etc. will affect its performance and may even damage the unit.
- The unit can be mounted in 19-inch racks. Attach the unit using the 4 screw holes on the front panel. Be sure to use screws of the appropriate size. (screws not provided)
- Take care to minimize shocks and vibrations during transport.

- When installed in a booth or flight case, please make sure to have good ventilation to improve heat evacuation of the unit.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condensation sometimes prevents the unit from working at full performance.

CLEANING THE APPLIANCE:

Clean by wiping with a polished cloth slightly dipped with water. Avoid getting water inside the unit. Do not use volatile liquids such as benzene or thinner which will damage the unit.

Clean the ventilation holes regularly with a vacuum cleaner. This increases the cooling capacity of the amplifier fans and helps preventing temperature overheat.

CONNECTIONS

Be sure to turn off the unit before you make changes to the wiring. For the signal inputs we recommend using the XLR-connections. Use good quality signal cables to ensure excellent audio quality. For the speakers you must use the Speakon® compatible outputs. In the description of the unit you will find more information on how to connect the amplifier.

FUNCTIONS (FRONT)



- 1. VENTILLATION HOLES:** during its operation the amplifier produces heat that needs to be dissipated. The fans inside the amplifier must be able to evacuate the heat in the most effective way. Therefore, is it very important not to cover any of the ventilation openings as this may result in overheating. Clean the ventilation holes regularly with a vacuum cleaner. This increases the cooling capacity of the amplifier fans and helps preventing temperature overheat.
- 2. GAIN CONTROLS:** These potentiometers are used to control the input sensitivity of the amplifier. Each channel has its own control.
You can use these controls to set the maximum sound level of your setup:
 - Turn both controls on the amplifier to the left.
 - Put on some music on and make sure the VU meters on your mixer are at 0dB. (from time to time the red zone is lit)
 - Set the Master output from your mixer to maximum.
 - Open the Gain controls from the amplifier until the maximum desired sound level is reached.
 - Make sure nobody can reach the Gain controls of the amplifier.
 You have just set the maximum level the DJ is able to produce. Your neighbors will be glad...☺ (in some cases the DJ is not ☺)
Note: In Mono and Bridge mode, only the gain control of the left channel is used to adjust the input sensitivity.
- 3. OPERATION MODE LEDS:** These LEDs indicates the operation mode. Switch (13) on the rear panel is used to choose one of these 3 possible modes:
 - **STEREO MODE:** Both LEDs are off. This is the most common mode, both channels are working separately.
 - **MONO MODE:** 'MONO' LED is lit. Basically this is identical to stereo mode but the inputs of both channels are linked so the output will be mono. In this case you only need to use the input of the left channel to drive both output channels.
 - **BRIDGE MODE:** 'BRIDGE' LED is lit. Both channels are linked in "bridge mode" to obtain a mono output with much higher power.
- 4. SIGNAL LEDS:** these LEDs indicate that a music signal is present at the inputs.
- 5. CLIP LEDS:** The LEDs will light up in the following situations:

- When the output signal has reached a high level which can result in distortion (clipping). Meanwhile the current limiters come in action to reduce the dynamic range (current) of the output and bring the amplifier back to its safe working range. In this case you are urged lower the input!
- PROTECT LEDS:** The protection LED is on in the following situations:
 - During the first second after switching on the amplifier.
 - When the temperature of the power stage becomes too high.
 - In case of a technical defect: DC protection!
 - While switching the amplifier off, the “protect led” turns on for a short time.
 - MAINS SWITCH:** Used to turn the amplifier on and off. A few seconds after switching on the amplifier it is ready for operation.

FUNCTIONS (rear)

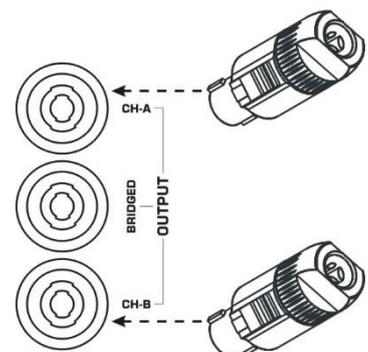


- MAINS INPUT** with PowerCON® compatible socket, connect the supplied mains cable here.
- MAINS FUSE:** protects the unit in case of electrical problems, always use the prescribed 20x 5mm fuse!
- FAN & VENTILLATION HOLES:** during its operation the amplifier produces heat that must be dissipated. The fans inside the amplifier must be able to evacuate the heat in the most effective way. Therefore, is it very important not to cover any of the ventilation openings as this may result in overheating.
- L+R SPEAKON OUTPUTS:** use these Speakon® compatible connectors to connect your speaker cabinets (impedance >4ohm) in stereo or MONO mode. Wiring of these connectors is as follows:
 - **CH1:** POS(+) = PIN1+ and PIN2+ NEG(-) = PIN1- and PIN2-
 - **CH2:** POS(+) = PIN1+ NEG(-) = PIN1-
- BRIDGE OUTPUT:** use this connector to connect your speaker cabinet (impedance >8ohm) in bridge mode. Wiring of this connector is as follows:
 - POS(+) = connector PIN1+
 - NEG(-) = connector PIN1-
- OPERATION MODE switch:** Used to set the operation mode of the amplifier. The most common operation mode is “STEREO”. If you need more power, you can operate the amplifier in BRIDGE mode. In MONO mode you only have to connect the left input to drive both outputs. Refer also to n° 3 for more information.
- INPUT SENSITIVITY SWITCH:** you can choose 3 different input levels: 0,7V / 1V / 1,4V
- BALANCED XLR OUTPUTS:** Can be used to send the signal to the next amplifier. Pin1: signal ground, Pin2: signal+, Pin3: signal -
- BALANCED XLR INPUTS:** Pin1: signal ground, Pin2: signal+, Pin3: signal -

HOW TO USE

STEREO OPERATION:

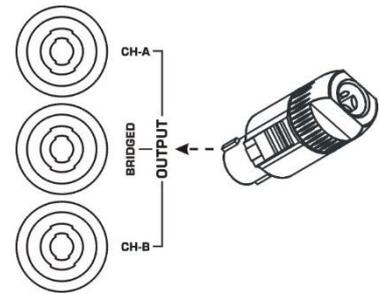
- Connect the audio signal to the inputs (15 or 16)
- Set the operation mode switch (13) to “stereo”
- Connect the matching speakers to the L+R Speakon® compatible outputs (11)
- Make sure the mains voltage matches 230Vac before connecting the mains cable to the earthed wall socket.
- Set both input gains (2) to zero
- Make sure there’s a music signal at the input
- Turn the amplifier on (7)
- Adjust the input gains (2) to the desired level



BRIDGE OPERATION:

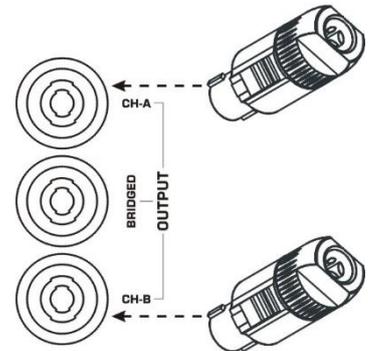
- Connect the audio signal to the left input (15 or 16)

- Set the operation mode switch (13) to “bridge”
- Connect the matching speaker(s) to the Bridge output (12)
- Make sure the mains voltage matches 230Vac before connecting the mains cable to the earthed wall socket
- Set both input gains (2) to zero
- Make sure there’s a music signal at the left input
- Turn the amplifier on (7)
- Adjust the left input gain (2) to the desired level, leave the right channel gain to zero.



MONO OPERATION:

- Connect the audio signal to the input of the left channel (15 or 16)
- Set the operation mode switch (13) to “MONO”
- Connect the matching speakers to the L+R Speakon® compatible outputs (11)
- Make sure the mains voltage matches 230Vac before connecting the mains cable to the earthed wall socket
- Set both input gains (2) to zero
- Make sure there’s a music signal at the input
- Turn the amplifier on (7)
- Adjust the left input gain (2) to the desired level, leave the right channel gain to zero.



SPECIFICATIONS

This unit is radio-interference suppressed. This appliance meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Power stereo 8Ω (1kHz, THD+N<0,1%)	2x 300Wrms
Power stereo 4Ω (1kHz, THD+N<0,1%)	2x 550Wrms
Power bridge 8Ω (1kHz, THD+N<0,1%)	1x 1100Wrms
Power mono 8Ω (1kHz, THD+N<0,1%)	2x 300Wrms
Power mono 4Ω (1kHz, THD+N<0,1%)	2x 550Wrms
Power efficiency	>90%
Freq. Resp. (+/-1dB)	20 – 20.000Hz
Input Sensitivity	0,7V / 1,0V / 1,4 V
Input impedance unbalanced	10 kΩ
Input impedance balanced	20 kΩ
S/R ratio (A-Weighted)	>103dB
Damping factor (5Hz-1kHz)	>400
Slew Rate	40V/uS
Cooling	variable speed fan
Signal inputs	Balanced XLR
Signal outputs	Balanced XLR
Power supply	200 → 240Vac / 50Hz
Power consumption (max peak)	1200 Watt
Dimensions (WxHxD mm)	482x66x215 (19"/1,5U)
Weight (kg)	3,85kg

Every information is subject to change without prior notice

You can download the latest version of this user manual on our website: www.synq-audio.com



MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!

FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!

NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!

DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!

ES: Suscríbete hoy a nuestra lista de correo para recibir las últimas noticias!

PT: Inscreva-se hoje na nossa mailing list para estar a par das últimas notícias!

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