

Crimson

INSTRUCTION MANUAL ***CS620E***

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INTRODUCTION

CS620E

Congratulations on the purchase of your Crimson CS620E stereo power amplifier.

This unit has been hand built for your enjoyment and is constructed to the highest standards and specifications. This manual contains installation and operating instructions to enable you, the user, to obtain the best possible performance from your Crimson.

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PRECAUTIONS

Always follow the instruction handbook and retain it in a safe place for future reference.

PRECAUTIONS

CS620E

Before proceeding with installation of the CS620E, ensure that the following items are included in the accessory boxes:

- Instruction manual.
- IEC power cable.
- Guarantee card.

After removing these items please retain the packaging for future use.

SUPPLY VOLTAGE

The Crimson CS620E is factory set to operate from a fixed mains supply voltage of 230V. Before connection check that this voltage is the same as your mains supply.

230V Products
115V Products

Range 220V-240V
Range 110V-120V

LOCATION

You should install your CS620E in a well ventilated location. Avoid positioning the CS620E near hot appliances or radiators. Placing the CS620E on heat generating sources will severely affect the amplifier's ability to dissipate heat. This will result in reduced performance and possible damage.

Installation in damp or humid environments may result in malfunction or damage. Should the unit become immersed in liquid, **do not reconnect to the mains supply.**

Under these circumstances the unit should be returned immediately to your nearest Crimson dealer for inspection.

RELOCATION

The Crimson CS620E is supplied preset to run on 230V mains. Should you relocate to an environment where mains supply voltage is

INSTALLATION

CS620E

different, consult your Crimson distributor to arrange for conversion of the CS620E to the correct voltage for your area.

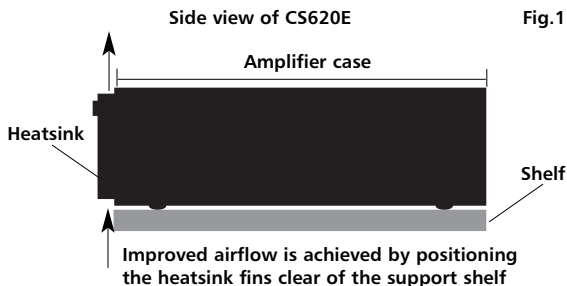
INSTALLATION PRECAUTIONS

Care should be taken with the routing of the mains power cord. Avoid running it over or near sharp objects. It is also advisable to route the power cord away from any interconnect and speaker cables. This will ensure you achieve the maximum performance from your Crimson CS620E.

UNIT POSITION

The Crimson CS620E may be positioned as a free standing unit or alongside a partnering Crimson pre or power amplifier. Never stand the unit directly on top of a power amplifier, as this will cause overheating. You should also take care to ensure that the heatsink fins on

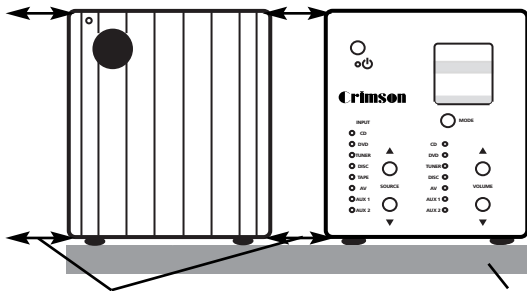
the front of the amplifier have adequate air-flow over them. This is achieved by the positioning of the amplifier so that the fins are in free air (see fig.1).



When used with a Crimson CS710 Pre-Amplifier, the CS620E should be positioned to the left hand side. Ensure that there is a gap of 1cm on either side of the CS620E. This will increase airflow over the case, which acts as an additional heatsink at high power levels (see fig.2).

Front view of CS620E and CS710

Fig.2



A gap of 1cm is recommended between the CS620E and partnering equipment for improved ventilation at high volume levels. Shelf

The CS620E contains no user serviceable parts. **Never** remove the case or rear panel. In the unlikely event of failure, contact your Crimson dealer. A basic troubleshooting guide is provided on pages 14 and 15. Please refer to this section prior to contacting your Crimson dealer.

CONNECTING POWER TO THE UNIT

The IEC connector of the supplied mains lead should be plugged into the power inlet on the rear of the unit ⑤. **Please note that the CS620E must be earthed.** The mains fuse is an integral part of the IEC socket ⑥. The fuse drawer contains a spare mains fuse. When replacing the fuse drawer ensure that it is re-inserted the correct way up (the 230V legend should be at the top left corner). Failure to do this will mean that the CS620E will have no live mains feed and will not function. Replacement fuses are rated at 230V T2A/20mm (see fig.3).

CONNECTING THE PRE-AMPLIFIER

Connect the interconnect cables from the output sockets of your pre-amplifier to the input sockets ③ and ④. on the CS620E. Ensure that

Back view of CS620E

Fig.3

Speaker
OUTPUT LEFT

Speaker
OUTPUT RIGHT

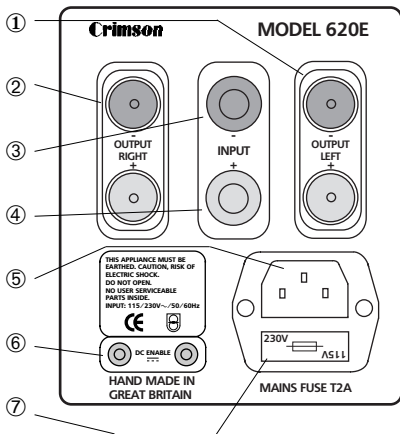
RCA INPUT
left

RCA INPUT
right

Power inlet
IEC plug must be
earthed.

DC ENABLE
3.5mm jack plug
input and output

MAINS FUSE
(Includes spare T2A
fuse in drawer)



left channel marked (-) and right channel marked (+) correspond to the black (-) and red (+) coloured caps on the interconnect cables (see fig.3).

CONNECTING THE LOUDSPEAKERS

The CS620E is fitted with 4mm loudspeaker connections (with 4-2mm internal adaptors for safety reasons)*. These connections require 4mm plugs (or 2mm plugs)*. Connect the left channel speaker cable to ① marked OUTPUT LEFT and the right channel cable to ② marked OUTPUT RIGHT (see fig.3). Connect the speaker cables to the loudspeakers. **The CS620E should not be switched on until all cable connections have been made.**

* The internal adaptors are only fitted in markets where safety regulations do not permit the use of 4mm sockets.

OPERATION

The CS620E is now ready for use.

To switch the unit on, turn the knob on the front of the amplifier clockwise until you feel a small click. The ON/OFF LED will illuminate and a low level bump should be heard at the loudspeakers. You should now switch on the

pre-amplifier and the required source equipment. Like any new product, your CS620E requires a 'running in' period. Allow at least 36 hours playing time for the components to bed in and achieve their optimum performance.

When operating the CS620E from cold, you should allow at least 30 minutes for the amplifier to reach normal operating temperature. It should be noted that at full power the heatsink will become hot and the sleeve may become warm to touch. This condition is quite normal at high listening levels and should not cause concern. In the event that the CS620E is overdriven, a thermal sensor on the heatsink will cut the mains power. This safety feature is activated when heatsink temperature rises above 70°C and is designed to prevent damage to the CS620E. Once the temperature has dropped below 40°C normal operation will resume. Cooling may take up to 15 minutes.

Should a short circuit occur at the speaker terminals the CS620E will shut off. The power indicator LED, however, will remain on. To reset the amplifier remove the short circuit and disconnect the unit from the mains. Leave for 5 minutes and then reconnect to the mains. The short circuit protection will have reset and the amplifier will continue to operate normally.

NB - If it is necessary to disconnect the RCA leads from the CS620E input, the amplifier should be powered down. This will avoid unwanted 'open input' noise being reproduced by the loudspeaker.

In addition to the protection circuit, the CS620E possesses a clipping indicator. In normal operation the LED will glow green. When the amplifier begins to clip, the LED will briefly flicker red - the greater the overdrive, the longer the LED will glow red. Due to the high energy in the harmonics, clipping can damage loudspeakers easily. The indicator is a warning

DC ENABLE OPTION **CS620E**

device which advise the user to reduce the volume control setting in order to reduce the possibility of loudspeaker damage.

Should your partnering control device (e.g. pre-amplifier, AV controller etc..) be equipped with a separate 12 volt DC output, you have the option of using the DC Enable function. This enables the CS620E to enter "sleep" mode when the partnering control device is switched to standby. To use this function, a small (reversible) modification must be carried out by your Crimson dealer. Then simply connect the lead supplied by your dealer between the socket on your control device and one of the two 3.5mm jack sockets ⑥ (see Fig. 3) on the rear of the CS620E. Switch the unit on by turn the knob on the front of the amplifier clockwise until you feel a small click. The ON/OFF LED will glow red indicating that the unit is in standby mode. When a signal is received from your control device, the CS620E will "wake up" and the ON/OFF LED will glow green.

If you think your CS620E is not operating to specification, please read through this section before returning it to your dealer.

Always switch off all system components before changing any connections.

No sound from either speaker

- Check CS620E is on. The green power indicator LED will illuminate. If using DC enable check that the unit is receiving DC signal from the partnering control device.
- Check loudspeakers are connected.
- Check that signal input is connected.
- If the mains fuse has been changed recently, check it has been inserted the correct way up. Refer to (fig.3) on page 9 and the section headed '**connecting power to the unit.**'

No sound from one speaker

- Some loudspeakers have protection fuses. Check the fuses are intact and cable connection integrity on the missing channel.
- Check the interconnect cable between signal source and pre-amplifier. Also check the interconnect between pre-amplifier and the CS620E.
- Try another signal source. If the fault is removed, the original signal source is at fault.
- Swap left and right channels at the back of the CS620E. If the fault remains then the speaker cable or loudspeaker is faulty. Now switch the cable at the loudspeaker end. If the fault changes channel then the loudspeaker could be damaged.

SPECIFICATIONS

CS620E

AUDIO PERFORMANCE

Power output.....	2x50W into 8 Ω - 2x75W into 4 Ω
Peak output current	17A/Channel
Input sensitivity	775mV
Distortion	Typically 0.01%
Frequency response	10Hz to 40kHz @ -1dB
Output resistance	Inductor + wiring @ 0.1R
Slew rate	>15V/ μ s
Signal to noise ratio	Better than 100dB
Crosstalk	>65dB
DC Enable inputs.....	12V @ 12k
Voltage	230V
Power consumption (No signal).....	10W
Power consumption (2 x 50W/Ch)	200W
Dimensions (W x H x D).....	95mm x 116mm x 364mm
Weight.....	3.97kg

**Crimson Products Ltd. reserves the right to change specifications without prior notice. E&OE.
All Crimson Products are CE compliant.**

