Beresford Capella Headphone Amplifier
Owner's Reference manual REV-2.5

Introduction
The Capella is a high-end headphone amplifier designed for audiophile listening. It can accept audio signals from an analogue source. A unique feature of the Capella are the various rotary controls. Together they help you to adjust your headphones for the most pleasant listening experience. The Capella is suitable for use with headphones from 12 Ohms to 600 Ohms.

Box Content
The following items are included:
User Manual
Power Cord
12 Volt AC to DC power supply
Beresford Capella Headphone amplifier

Important Safety Instructions

Read these instructions Heed all warnings Follow all instructions

- Only use a 12Volt regulated power supply, or a 12 Volt battery pack to power the Capella.
- To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.
- Protect the power cord from being walked on or pinched.
- Unplug the Capella from the mains during lightning storms or when unused for long periods of time.
- Switch OFF your equipment before connecting the Capella to anything.
- There are no user-serviceable parts inside this product. Refer all servicing to qualified service personnel. There is a user replaceable internal fuse inside the Capella. However, this fuse should not be replaced without first consulting the factory service centre for advice.
- Switch off the Capella when it is not being used.

Caution listening too loudly

Note that listening to headphones at extremely loud listening levels may damage your hearing. Enjoy your music, enjoy the Capella, but protect your ears.

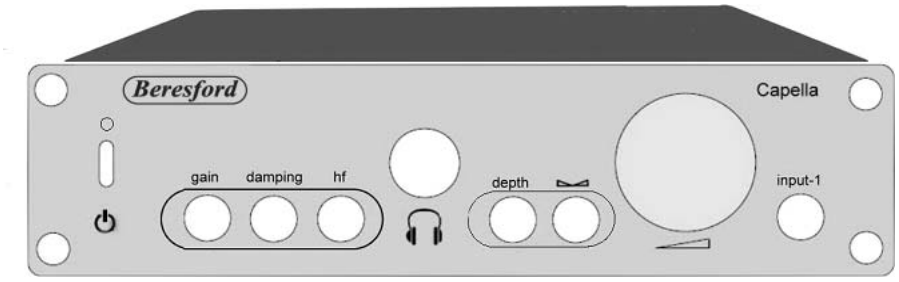
Usage Notes

Switch ON the Capella before switching ON any other equipment connected to the LINE OUT of the Capella. This is to avoid any relay switch on noises.
Wait at least 20 seconds before you power on the Capella after powering it off. Wait another 8 seconds for the protection relay to disengage, before any audio will be audible. In the case of a malfunction, please power the unit off, wait for 20 seconds, and then power it back on. If the issue persists, please consult the troubleshooting table or contact us

What voltages can I run the Capella on?

The included power supply is the one recommended for use with the Capella. If you do decide or need to use the Capella with a different mains power supply, make sure it is not higher than 12Volts regulated. Alternatively a 12Volt Lithium, Li-ion, or LI-Po battery pack can also be used. **Lead acid battery packs can produce a low level noise in some cases. So their use is not recommended.**
Failure to observe this cautionary note will void your warranty. Contact us for further advice if required.

Front Panel Controls



1 2 3 4 5 6 7 8 9 10 11

1. Power ON/OFF Switch
2. Power Status Indicator
3. Gain Adjustment Knob
4. Low Frequency Damping Adjustment Selector (4 positions)
5. High Frequency Adjustment Knob
6. 6.35 mm Headphone Socket
7. Depth Adjustment Knob
8. Balance Control Knob
9. Volume Control Knob
10. Peak Detector LEDs
11. 3.5mm INPUT Socket

1. Power On / Off

Lifting the Power Switch to the upwards position switches ON the Capella.

2. Power LED

The Power Status Indicator turns green when the power switch is in the upwards position, and the power supply is correctly connected.

3. Gain

The Gain control sets the level of amplification of the input signal that is sent to the headphones. Turn the Gain Control towards the left for less gain, or towards the right for more gain.
The Gain Control centre position is set for 64 Ohms, whilst the maximum setting is set for 600 Ohms. You can also adjust the headphone amplifier gain to properly drive headphones that are very sensitive or require additional power.

4. Damping

Different headphone sizes and material construction require a different level of damping of the cones in order to get the best bass possible. The 4-position rotary Damping switch offers four possible options to get a better controlled bass sound. The left most position offers less damping and the deepest bass. The right most position offers the most damping and the firmest bass.

5. HF

Some headphones are either too bright, or can severely affect listeners who suffer from tinnitus. The HF control can reduce the dynamic range of high frequency signals, thereby making it far more comfortable to listen to otherwise far too bright audio tracks.
Turn the HF Control to the left if the for a less pronounced high frequency output.
Turn the HF Control to the right if you require a more pronounced HF output.

6. Headphone Output Connection

Connect your headphones to the Capella using a stereo 6.35 mm plug. Use a 3.5 mm to 6.35 mm stereo adapter if your headphones terminate into a 3.5 mm plug.

7. Depth

Some audio recordings can make a headphone sound either too laid back or too forward sounding, especially in the midrange. The Depth Control can in many cases adjust the depth of the stereo signal that is placed in the centre of a recording. This can produce a more up close and personal, or a more further away sound of especially centre placed vocals and instruments. The changes in response to the operation of the Depth Control take a few seconds to come into effect.

Turn the Depth Control to the left if you require a more laid back sound.
Turn the Depth Control to the right if you require a more forward sound.

8. Balance

The Balance Control varies the sound output level between the L and R channels.
Turn the Balance Control to the right to reduce the output in the right channel.
Turn the Balance Control to the left to reduce the output in the left channel.

9. Adjusting the volume

Rotating the Volume Knob clockwise or counter-clockwise will increase or decrease the volume level. The actual headphone volume level depends on the headphones' sensitivity, the input signal level, and the Headphone Gain setting.

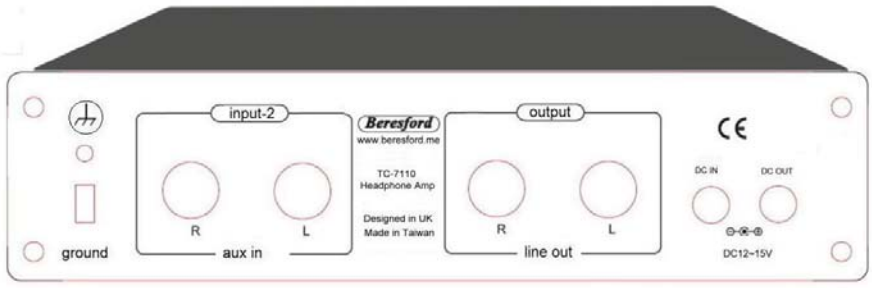
10. Peak Detector LED

There are two Peak Detector LEDs behind the Volume Control knob that will light up when the input-1 or input-2 signal is reaching clipping level. Turn down the level of the signal coming into the CAPELLA inputs where that is practically possible if the Peak Detector LEDs are constantly ON.

11. Input-1

You can connect a portable audio device via its headphone output socket to the 3.5mm Input-1 by using a 3.5mm to 3.5mm stereo cable. The analogue signal will be amplified and sent to the headphone and Variable LINE OUT output.

Back Panel Connectors



12 13 14 15 16

12. Ground Connection
13. Stereo RCA Input Socket
14. Variable RCA Output Socket
15. DC Input Socket
16. DC pass-through Output Socket

12. Ground

The separate Ground connection point on the back of the Capella can be connected to the Ground terminal of a source device or audio amplifier, if there is one provided. This might be required in some installations where a noticeable hum is present in the audio signal.

Input Signal Connections

The Capella supports two different kinds of analogue input connections. Depending on your intended usage, please connect the required output sources to the Capella.

13. AUX IN (Input-2)

You can connect an audio device with RCA analogue outputs into the Capella AUX IN using a pair of RCA/PHONO cables. The analogue signal will be amplified and sent to the headphone and Variable LINE OUT output.

Notes:

The 3.5mm Input-1 socket and the RCA Input-2 socket cannot be used simultaneously. When a stereo 3.5 mm connector is plugged into the Input-1 socket, the Input-2 socket is muted. When plugging and unplugging a 3.5mm connector into the Input-1 socket, do not leave the connector partially plugged in.

14. Variable LINE OUT

The Capella can be used as a pre-amplifier by connecting the LINE OUT to a power amplifier or a pair of active speakers. The output level is controlled by the Volume Knob. The output is muted when a headphone is plugged in.
Note: Only the Volume Control and Balance Control are active on the LINE output.

15. DC input socket

Insert the DC plug from the Capella power supply into this DC socket.

16. DC output socket

Insert a 2.1mm to 2.1mm DC plug-to-plug flylead in this socket and connect the other end to the DC input socket of one of our recent DACs if you wish to share one power supply between two units. But make sure that the voltage from the power supply is 12Volts.
All of our power supplies are able to power two of our own devices.

Installation

Insert the Capella into your audio system by first connecting the Capella to an analogue audio source. Analogue audio sources would include the RCA single ended output of a CD player, DVD player, tuner, phono preamplifier, or outputs of a preamplifier. You can integrate the CAPELLA into an existing connection between your audio source and an additional device. By way of example of an amplifier as an additional device, this chapter describes how to integrate the CAPELLA into an existing connection.

Pull out the plug of the stereo RCA cable from the input IN on the amplifier.
Connect this plug to the AUX IN on the CAPELLA.
Connect a second stereo RCA cable to the input IN on the amplifier and to the LINE OUT on the CAPELLA.
Use the Volume Control on the CAPELLA to adjust the audio level of the signal going to the amplifier.

Quick Start Guide

Plug in your headphones to the front panel, making sure the Volume Control is turned down.
Plug the CAPELLA power supply into an AC power point.
Once the CAPELLA has been switched ON, wait 8 seconds for the muting relay to switch off before turning up the Volume Control.

Headphone Gain Selection

For optimal sound quality, you can adjust the Gain setting in order to properly match the sensitivity and impedance of the headphones in use. The rule of thumb for selecting the proper gain level is to find a comfortable listening volume that utilizes the upper range of the Volume Knob. It is generally better to have the Volume Knob set to a high volume level when adjusting the Gain Control.

NOTE: when adjusting the Gain Control without a signal being present, the gain biasing voltage might be audible as a faint scratching noise. This is quite normal.

At this point you should be ready to enjoy the benefits of high end audio played through the CAPELLA Headphone Amplifier.

- Please contact Support@homehifi.co.uk if you have any questions not addressed in this reference manual.