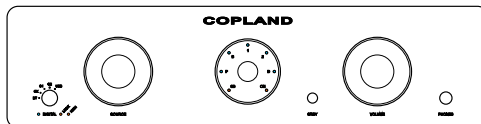


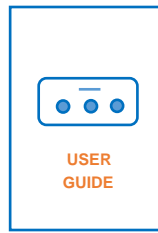
# COPLAND

# CSA70

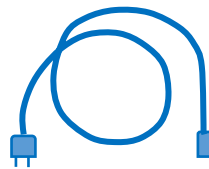
## USER GUIDE



## Inside the Box



USER GUIDE



POWER CORD



AMPLIFIER



REMOTE CONTROL

## GETTING STARTED

Open the carton and remove the amplifier from its plastic bag. Before placing the unit in your home, read this carefully.

### CAUTION!

Various regulation agencies require us to bring the following information to your attention. Please read carefully.

**WARNING** ! To prevent fire or shock hazard, do not expose this unit to rain or moisture.

! Check that your supply voltage is the same as indicated.

! Dangerous voltage inside. Do not open the cabinet without disconnecting the mains power cord.

! There are no user serviceable parts inside. Repairs should be carried out by qualified service personnel only.

! Ensure that no objects or fluids pass through the ventilation openings.  
If liquid is spilled into the amplifier, disconnect from the mains and consult a qualified service technician.

Allow adequate clearance so that cool air can enter at the chassis ventilation holes.

Never place the amplifier on a carpet or similar surface that obstructs air circulation through the unit.

The trouble-free life of an amplifier is greatly extended by providing sufficient ventilation to prevent build-up of high internal temperatures that cause deterioration.

The recommended minimum ventilation space is 50 cm wide and 30 cm high.

### Input / Outputs

Apart from the headphones, all connections are on the back panel of the amplifier.

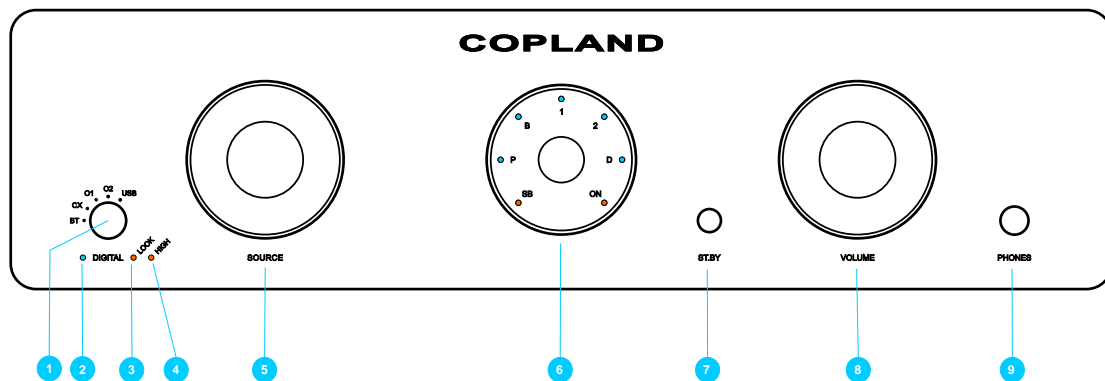
Use shielded cables to connect the signal source to the amplifier input. To minimise the possibility of hum, the shielded cables should run parallel to each other or loosely twisted together. Locate the cables away from speaker leads and AC power cords.

### AC Power

The amplifier AC power cord is plugged into an 115V/120V/230V/240Volt. 50/60 Hz wall outlet. The right voltage is indicated on the back panel beside to the AC power inlet.

! Check that your supply voltage is the same as indicated on the amplifier back panel.

## Front Panel



### 1. Digital Source Selector:

Selects the type of digital input signal source. The **BT**=Bluetooth function is optional extra. The amplifier is prepared for a future HD-Bluetooth module.

### 2. Digital / LED:

Blue light indicates that the Digital Source Selector is activated.

### 3. Lock / LED:

Orange light indicates that a Digital Source is locked and activated.

### 4. High / LED:

Orange light indicates that the sampling rate of the incoming signal is equal to or higher than 96kHz.

### 5. Source Selector:

Selects the appropriate input signal source.

### 6. Display:

The display shows the selected source input.

**PH** = LED indicates activated Phono input.

**B.** = LED indicates Balanced Inputs

**1.** = LED indicates Analog Input no.1

**2.** = LED indicates Analog Input no.2

**D.** = LED indicates that the Digital Source Selector is activated.

A flashing 'ON' lamp indicates that the amplifier is under its 15 seconds start up procedure or in protection mode.

### 7. St. By Switch:

Pressing the key, the amplifier will switch cyclically between operation and standby mode. Power 'On' and 'Stand By' are indicated in the display.

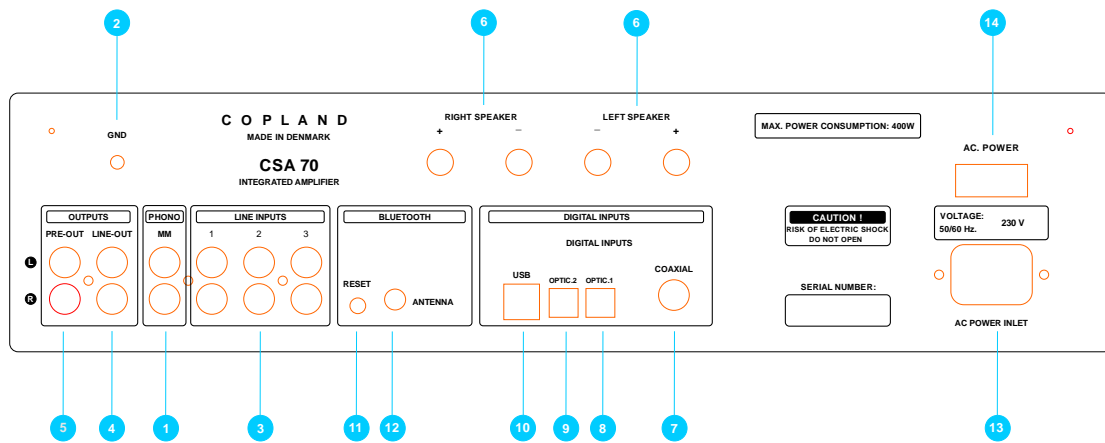
### 8. Audio level.

Turn the control clockwise to increase the volume.

### 9. Headphone.

Output for Headphones

## Back Panel



1. **Phono/RIAA Section:** Accepts input from a Turntable. / MM magnetic pickup (cartridge)
2. **Ground:** Earth connection for any device that needs to be grounded.
3. 1, 2, 3: Standard analog inputs.
4. **Line Output:** Fixed Line level output. **WARNING!** High level - no volume attenuation.
5. **Pre-Out:** Variable output from the pre-amp section of the amplifier.
6. **Speaker Output Terminals:** Left & Right Channel.
7. **Coaxial input:** S/PDIF (Sony/Philips Data Interface) input from a CD player. It is a single ended square wave of amplitude around 0.5 V pp.
8. **Optical input 1:** TOSLINK - fibre optic transmission of S/PDIF.
9. **Optical input 2:** TOSLINK - fibre optic transmission of S/PDIF.
10. **USB Input:** Use a certified USB2.0 cable. Connect the cable to the CSA70 amplifier and then to the external USB source.
11. **Reset Button:** (Optional Extra. Copland aptX HD Bluetooth)
12. **Antenna:** Connector for SMA Antenna. (Optional Extra. Copland aptX HD Bluetooth)
13. **AC Power connector:** 115V/120V/230V/240V AC, depending on country.  
! Check that your supply voltage is the same as indicated on the back panel.
14. **Mains Switch:** Switching all power to the amplifier, incl. the standby supply, on and off.

## USB playback

The CSA70 asynchrony USB converter module has a power supply and power transformer secondary winding of its own. It accepts data input from 16 to 24-bit files and sampling rates up to 192 kHz.

We use a modified version of the “Amanero” USB module. The USB module requires a driver for Windows to recognize it.

You will find a link to the Windows driver and a guide for installation on page 7 in this manual.

MAC OS and LINUX computers works without drivers.

Only use USB 2.0 rated cable, i.e., a maximum length of 3 metres.

The capability of CSA70 to play high resolution digital recordings does not mean that you need recordings or up sampling of that resolution.

We recommend that you listen to the recordings at the resolution settings they were originally made.

## Using CSA70 with a MAC OS .

MAC OS does not require any driver installation.

After turning the amplifier on and plugging it in by the USB, the device should show up on the MAC.

**Note:** The MAC will not describe the device as CSA70 but as Amanero Combo module.

To verify what is going on, go to the “apple sign” in top left corner of the screen and choose PREFERENCES and then the loudspeaker icon – SOUND then go to OUTPUT - on the list of devices for sound output the Amanero should appear as enabled.

Next thing to set the MIDI SETTINGS of the MAC computer. Go to the top right corner of the screen and press search icon “SPOTLIGHT”: Type MIDI SETUP and enter.

To select the sample rate: Click “Combo384 Amanero” and select the sample rate.

## Using CSA70 with a PC- (Windows)

The USB module requires a driver for Windows to recognize it.

The USB driver should be installed without the DAC USB connected to PC.

1. Download USB Driver.

The USB driver can be found at this link:

[http://www.amanero.com/drivers/combo384\\_drivers\\_xp\\_w7\\_w8\\_w10\\_1057.zip](http://www.amanero.com/drivers/combo384_drivers_xp_w7_w8_w10_1057.zip)

! You can also find a direct link to the driver at the product pages of DAC215 or CSA70 at the Copland Website. [www.copland.dk](http://www.copland.dk)

2. Unpack the downloaded package in a folder
3. Run driver setup.

**Note:** When the driver is installed the PC will not describe the device as CSA70 but as Amanero Combo module.

**To verify that the PC has recognised the driver:**

1. Go to **Settings / Control panel /**
2. **Click Hardware and Sound**
3. Click "Manage Audio Devices". "Amanero Technologies USB Driver" appears as the default device.

If "Amanero Combo module" does not appear as the default device, enable it. A check mark appears by the default selection.

4. To select the sample rate: Double click "Amanero USB Driver"
5. Under "Digital outputs properties" click "Advanced" and select the sample rate.

## Media Players

A music player program to convert and organize your music collection and play it back is useful to transfer music and media files to folders on your computer's hard drive, either by converting the files from your CD collection "ripping", or by purchasing files downloaded from the internet.

Specialized programs can be used as media players, they are available from for example Foobar (Windows), iTunes (Apple and Windows), J.River Media Center (Apple and Windows).

## **Maintenance**

The CSA70 is built for a long lifetime, and no special care needs to be taken, except from what is already described under installation.

Grease stains or finger marks on the front panel or top cover can be removed with a soft cloth moistened with warm water or a mild detergent suitable for cleaning mirrors and windows.

## **Fuse**

The CSA70 employs a 20 mm glass fuse circuit breaker located in a PCB-fuse socket inside the amplifier.

The fuse value is 3,15 A.F (6,3 A.F for USA)

## **Warranty and Service**

Copland provides a warranty to the first purchaser for a period of three (3) years.

Copland usually commissions the Copland agency in the country in which the amplifier was purchased to carry out any warranty work.

Following consent from Copland in a particular case, the warranty service may also be claimed at an agency in another country.



## Specifications CSA70 integrated amplifier

Output power:	2*70W into 8 ohms load.
Minimum load:	2 ohms
Analog Inputs:	1* Phono MM. (RCA) 3* unbalanced (RCA)
Digital Inputs:	1* coaxial S/PDIF. 2* optical S/PDIF. 1* USB. 1* aptX HD Bluetooth (Optional Extra)
Line output:	1* unbalanced (RCA) 1* Pre-out /unbalanced variable (RCA)
Line input impedance:	50 K ohms
Phono input impedance:	47 K ohms (MM)
Phono input Capacitance:	200 pF
Line Inputs sensitivity:	200 mV
Phono sensitivity:	2.6 mV
Frequency response:	10 Hz - 200 kHz -3dB
T.H.D:	Better than 0.01 %
Signal / noise IHF-A):	Better than 90dB
Phase:	Non-inverting
Headphone amp. Gain:	23 dB @ 100 ohms load impedance
Headphone amp. Out imp.	40 ohms
Headphone amp. T.H.D.	Better than 0.01 %
Headphone amp. Freq. resp.	10 Hz – 150 kHz / -3dB
Power consumption:	Max.400 W
Dimensions:	435mm (w) x 135mm (H) x 370mm (D)
Shipping weight:	13 Kg.