ELECTROCOMPANIET

If music *really* matters™

ECD 2

High Performance Balanced DAC
24 Bit /192kHz

Owner's Manual

EN

Unpacking the ECD 2

Immediately upon receipt of the ECD 2, inspect the carton for possible damage during shipment. If the carton is visibly damaged, a claim must be filed with the carrier as soon as possible.

Unpack the unit carefully, and please do remember to save all packaging materials for future shipment. The carton and packaging have been designed to offer the safest possible protection when transporting your DAC.

The contents of the carton

• 1 pc. Electrocompaniet ECD 2

• 1 pc. AC power cord

• 1 pc. CD with the Owner's Manual and drivers

• 1 pc. Inspection Card

• 1 pc. Remote control

• 2 pc. batteries

Set up procedure
Before connecting the ECD 2 to the mains, check that the main voltage indicated on the rear panel corresponds to the line voltage in the territory where you intend to use the unit.

How to avoid damages
Do not under any circumstances connect or disconnect equipment when power is turned on. The design of the RCA plug generates a huge transient when inserted. Connecting or disconnecting equipment with the power on can result in severe damage to both speakers and amplifier.

How to avoid noise problems
The ECD 2 contains delicate circuits that are sensitive to magnetic stray fields. The unit should not be placed near main transformers, TV sets, etc. Care should also betaken regarding placement of the interconnect cables. Do not run interconnect cables in parallel with main cords or speaker cables. Keep interconnect cables as short as possible.

How to avoid possible antenna problems
In some set-ups hum may occur when you connect the radio, VCR or TV to your system. The problem is caused by DC voltage coming from your antenna. Please contact your cable network operator.

How to connect your system *(illustration "back panel", page 9.)*

Outputs *(See illustration "back panel", page 8.)*
Balanced XLR
The balanced mode can only be used if the signal source has a balanced output. Use an XLR interconnect with GND on pin 1, + on pin2, and - on pin 3. To use the balanced input with a source single ended, connect the ECP5XLR in the XLR.

Inputs

SPDIF inputs *(See illustration "back panel", page 8.)*
ECD 2 will accept optical SPDIF sources up to 96 kHz/24bit on inputs TOSLink1 and TOSLink2. Please use a optical TOSLink cable for this connection. Connect coaxial sources up to 192kHz/24bit to inputs COAX1 and COAX2. Please use a coaxial SPDIF cable for this connection.

USB input *(See illustration "back panel", page 8.)*
The USB input accept sources up to 24bit/192kHz. Connect a PC/Mac/Linux computer using a standard type A-B USB cable. ECD 2 will show up as a sound device on your computer. Please select ECD 2 as the active device to enable playback through ECD 2. On Windows drivers are needed. Please install the drivers before connecting the USB cable and follow the instructions. During installation you will be asked to connect the USB cable. The latest drivers can be downloaded from: www.electrocompaniet.no/downloads.

12V trigger Input/Output *(See illustration "back panel", page 8.)*
The 12V trigger output may be used to automatically power up a CD-player (or other equipment with 12V trigger input) when ECD 2 is powered up. When ECD 2 powers up the 12V trigger output will be set to 12V and will support up to 75 mA current output. Please keep the current draw below 75 mA by limiting the number of devices connected to the 12V trigger output. The ECD 2 will power up (leave standby) when a voltage in range 8-20V (AC or DC) is present on the 12V trigger input, and stays powered on for as long as the voltage is present. The current draw at the 12V trigger input is 3.3mA.

RS-232 Control Port *(See illustration "back panel", page 8.)*
The RS-232 control port may be used in home installation setups or general usage for controlling basic functionality on the ECD 2. Please refer to document "ECD 2 RS232 Command Reference V1.pdf" for further information. This document may be downloaded from www.electrocompaniet.no

Navigator window

The display is showing the active input, the sample rate/bit depth and the volume setting. The display have two display modes: Input and Status.

Input display mode

Audio Source	Display Text	Description
COAX 1	COAX1	Coaxial S/PDIF input up to 192 kHz/24 bit
COAX 2	COAX2	Coaxial S/PDIF input up to 192 kHz/24 bit
TosLink 1	TOSLNK1	Optical S/PDIF input up to 96 kHz/24 bit
TosLink 2	TOSLNK2	Optical S/PDIF input up to 96 kHz/24 bit
USB	USB	Asynchronous High Speed USB 2.0 input up to 192kHz/24bit

Status display mode

The display mode shows the volume setting and sample rate for the selected input. The display enters into mode "status" when the volume is operated and when there is a change in input selected or the sample rate. After 5 seconds the display will revert back to the INPUT mode. In mode "status" the following information is displayed:

192 kHz 100

The first part shows the current sample rate at the input and the last number shows the volume setting. The volume has range from 0 to 100.

Front panel (see illustration, page 7)

The main switch is located in the center of the front panel. In daily operation, switch off the ECD 2 by using the STANDBY button on the remote control. If the ECD 2 has been switched off, allow two hours of warm-up for optimal sonic performance. When the ECD 2 is not to be used for a long period of time, use the main switch to turn the unit off. Then disconnect the AC main cord for maximum safety.

Navigator

Button	Function	Description
UP	Volume Up	Increases the volume level.
DOWN	Volume Down	Decreases the volume level.
LEFT	Select source left	Selects the next source to the left.
RIGHT	Select source right	Selects the next source to the right.

Remote control illustration
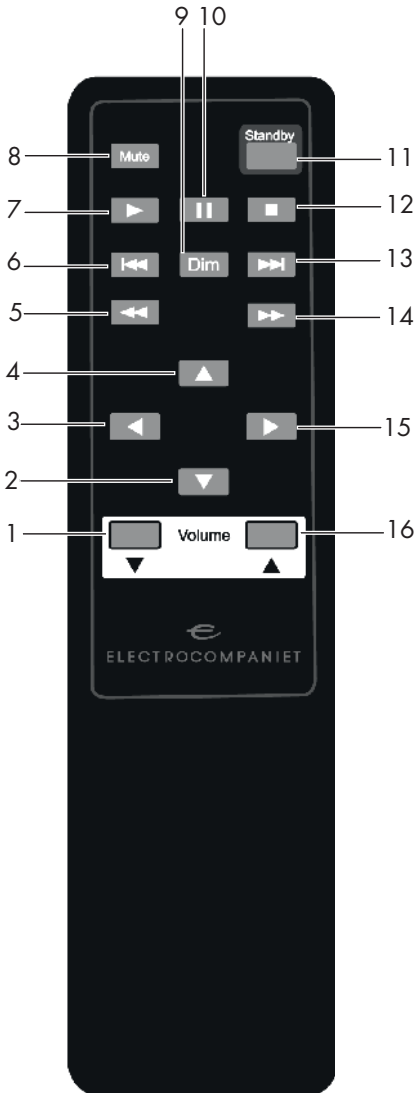
1. Vol. Down - Press to decrease the volume.
2. Arrow down – Press to decrease the volume.
3. Arrow left – Previous input.
4. Arrow up – Increase the volume level.
5. Double arrow left – no function.
6. Previous track – previous track from PC.
7. Play – Start playback from PC.
8. Mute – on/off the mute.
9. Dim – to dim the display in 5 steps:
off, 25%, 50%, 75%, 100% of brightness.
10. Pause – pause playback from PC.
11. Standby – on/off standby mode.
12. Stop – stop playback from PC.
13. Next track – next track from PC.
14. Double arrow right – no function.
15. Arrow right – Next input
16. Vol. Up – Increase the volume level.

Technical specifications ECD 2

The following technical data were measured on randomized test objects and are typical data.
All measurements are made at 120V / 240V // 50Hz / 60Hz

No. of channels...2
Output Impedance...300 Ohms
Output level (Balanced)...4.6 Vrms
Output level (Single-ended...2.3 Vrms
Noise floor (20 - 20 kHz)..< -145 dB
Frequency response...0.5 - 48 kHz
THD+N...< 0,0005 %
Upsampling rate...192 kHz, 24 bit
Digital/Analog conversion..192 kHz, 24 bit

Input sampling rate:
      SPDIF Coax...192 kHz, 24 bit
      SPDIF TOSLink..96 kHz, 24 bit
      USB.. 192 kHz, 24 bit asynchronous

Power consumption (no load or signal)...................................... 40 W
Standby..10.2W

Dimensions

Width ....465 mm / 18.3 inches
Depth ....316 mm / 12.4 inches
Height ....78 mm / 3 inches
Weight............... 8 kg. / 18 lbs

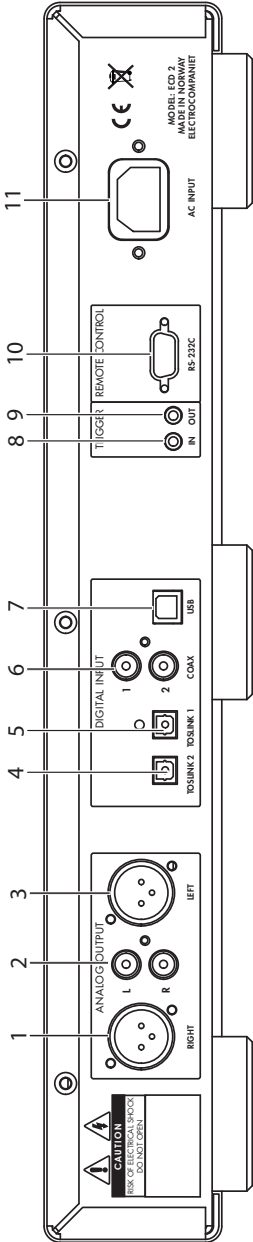The manufacturer reserves the right to alter these specifications without further notice.

ECD 2 Front panel illustration

ELECTROCOMPANIET

ECD 2 High Performance Balanced DAC

Navigator

Navigator Window
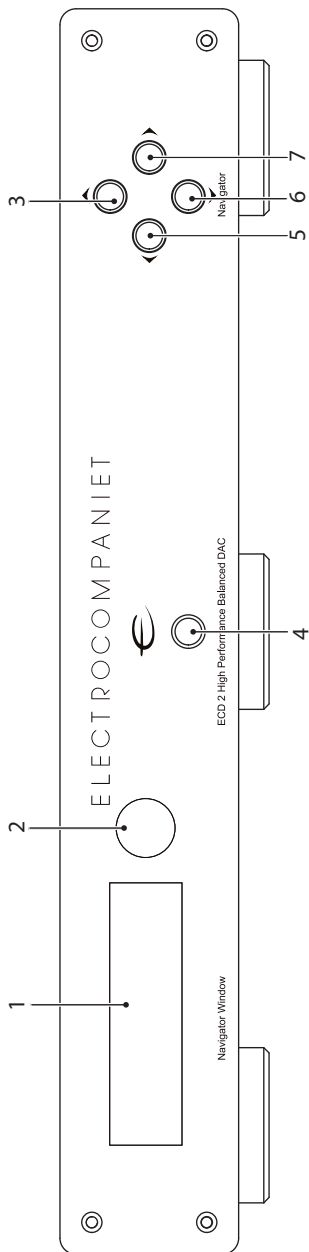
1. Graphical display
2. Infrared receiver
3. Volume up
4. Power button
5. Previous input
6. Volume down
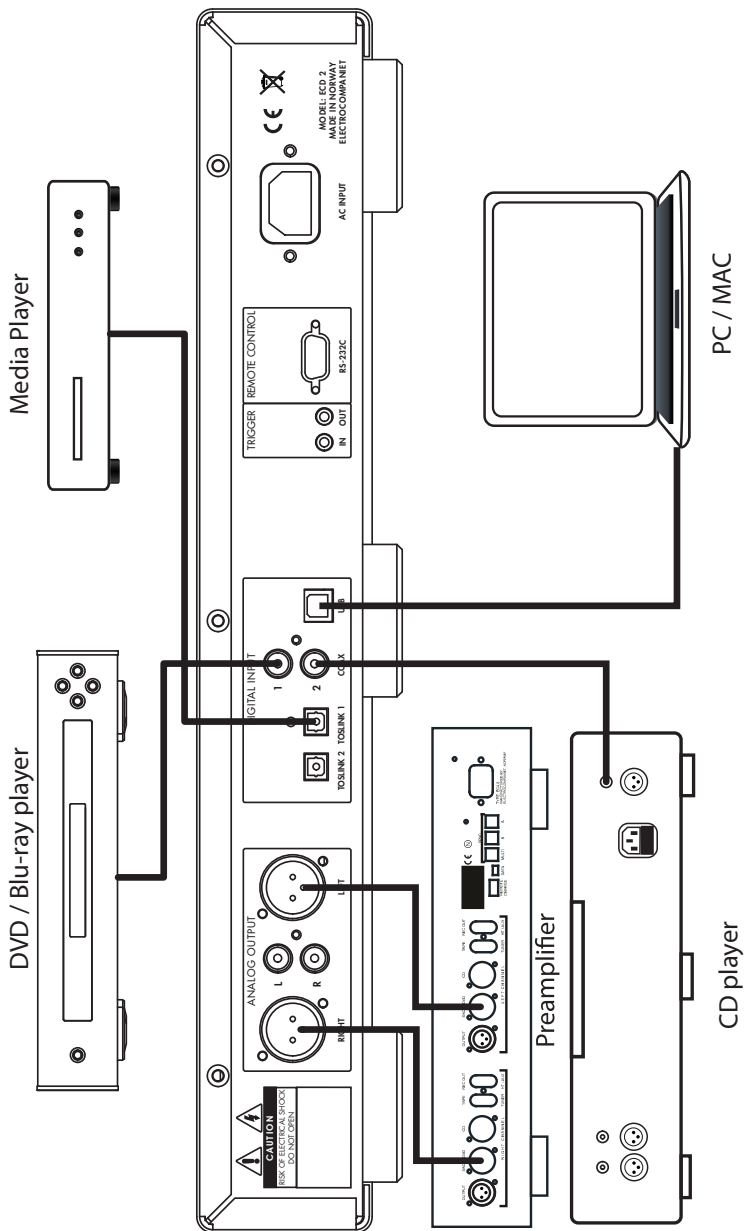7. Next input

ECD 2 back panel illustration

1. Balanced analog right output.
2. Single-ended analog outputs.
3. Balanced analog left output.
4. Optical digital input, TOSLink 2.
5. Optical digital input, TOSLink 1.
6. Coaxial digital input 1 and 2.
7. USB audio input.
8. 12 V trigger input.
9. 12 V trigger output.
10. RS 232 connection.
11. AC Power inlet.

How to connect your system

Media Player

PC / MAC

DVD / Blu-ray player

Preamplifier

CD player

MODEL: ECD 2
MADE IN NORWAY
ELECTROCOMPANIET

AC INPUT

REMOTE CONTROL

RS-232C

TRIGGER

IN   OUT

DIGITAL INPUT

1

2

COAX

TOSLINK 2   TOSLINK 1

ANALOG OUTPUT

LEFT

L

R

RIGHT

CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT OPEN

Important Notice

For optimal sonic performance, the ECD 2 should be burned in for a minimum time of 72 hours. If the ECD 2 has been switched off, allow two hours of warm-up for optimal sonic performance. It is normal for the ECD 2 to feel warm.
A good rule of thumb is to allow at least 3 - 5 cm (1 - 2 inches) of air sidewise, and 5 - 8 cm (2 - 3 inches) above the ECD 2

If service is needed

Your dealer will have all relevant information regarding the service centre in your area and will ensure that your unit is serviced with minimum delay. If, for some reason, there are no service facilities available in your country, please contact Electrocompaniet for assistance:

ELECTROCOMPANIET AS
BREIVIKVEIEN 7
4120 TAU
NORWAY

Web: www.electrocompaniet.no

The end-user is responsible for all shipping charges, insurance and all reimportation and duty charges. When shipping a product to the factory for service, always include the following:

1. A sales slip or other proof of purchase if repair is claimed under warranty.
2. A proforma invoice with value of goods, stating that the amplifier is being returned to Norway for repair.
3. An accompanying letter describing faults, symptoms, or problems with the unit.
4. Always ship the unit in its original carton and packaging material to prevent damage in transit. Electrocompaniet will not cover damages incurred in transit.

If you require further information concerning the operation of the unit or if you have any questions related to service, please do not hesitate to contact your dealer or national distributor.

DEALER
STICKER
HERE

LOCAL DEALER

Warning!
To avoid risk of fire or electric shock, do not expose this appliance to rain or moisture.
Verify line voltage before use.
Do not remove cover. No user serviceable parts inside.
Refer servicing to qualified service personal.
The warranty is void if the product is tampered with by non-authorised personnel.
Use only authorized Electrocompaniet service center.

Made in Norway
www.electrocompaniet.no