ELECTROCOMPANIET
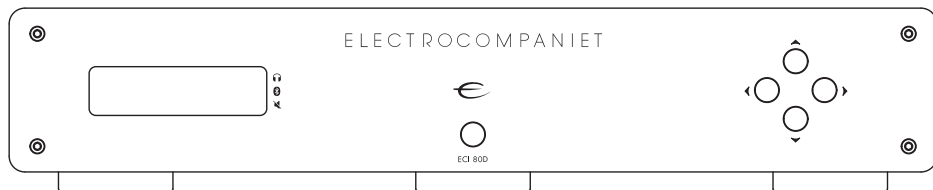
If music *really* matters™

ECI 80D

*Integrated Amplifier
with built-in DAC and Bluetooth streamer*

Owner's Manual

EN

ENGLISH

Welcome to the world of Electrocompaniet!

We thank you for choosing an Electrocompaniet high-end product.

At Electrocompaniet we are relentlessly focused on developing audio equipment that is capable of bringing the fabulous experience of the concert hall into the very heart of your home.

Our aim when developing and testing new products is to ensure that the wonderful richness of tone and every nuance of feeling and emotion of a piece of music is delivered to you just as the artist intended.

We continually strive to give you the very best musical listening experience available whatever your preferred musical genre.

Sincerely yours,
The Electrocompaniet team

UNPACKING THE ECI 80D

Immediately upon receipt of the ECI 80D, inspect the carton for possible damage during shipment. The carton and packaging have been designed to provide the safest possible protection for transport of your integrated amplifier. Unpack the unit carefully. Save all packaging materials for future shipment.

The contents of the carton

- 1 pc. Electrocompaniet ECI 80D integrated amplifier.
- 1 pc. AC mains cord.
- 1 pc. Inspection card.
- 1 pc. Owner's manual.
- 1 pc. IR Remote control (CR2032 battery included)

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 ECI 80D contains delicate circuits that are sensitive to magnetic stray fields. The unit should not be placed near power voltage transformers, TV sets etc. Care should also be taken 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 CONNECT YOUR SYSTEM

The rear panel connector layout is illustrated on page 10. Please refer to this when making connections to ECI 80D.

Single-ended inputs

Connect analog sources to analog inputs AN1or AN2. Make sure that the left and right channel is not mixed. The right channel has a red indication on the connector. Both inputs are similar regarding sonic performance. Unused inputs may be shorted to ground, using a shorting plug.

Phono MM input and ground terminal

The input labeled PHONO MM connects the phono cartridge through the record player arm cable to your ECI 80D built-in phono stage. Be sure to use high quality shielded interconnect cables for this purpose. In addition, most turntables are equipped with a separate grounding wire. This connects the earth plane of the turntable chassis, the tonearm and the phono cartridge to the earth plane of the ECI 80D. Connect the grounding wire (if there is one) to the ECI 80D grounding terminal, but be aware that in some (very rare) instances you may experience less noise (hum) with the grounding wire detached.

SPDIF inputs

ECI 80D will accept optical SPDIF sources up to 192kHz/24bit on inputs TL1, TL2 and TL3. Please use an optical TOSLink cable for this connection.
Connect coaxial sources up to 192kHz/24bit to inputs CX1 and CX2. Please use a coaxial SPDIF cable for this connection.

Preamplifier output

The preamplifier output labeled PREOUT is dependent on the volume setting, the MUTE function and also the ECI 80D operating mode. This output can be used to control an additional power amplifier. Connect the preamplifier output from your ECI 80D to the audio input on your power amplifier. Observe correct connection of the right and left audio channel. The preamplifier output is disabled in some operating modes. Please refer to table "ECI 80D operation modes and activiation"on page 8.

Headphones output

Connect a 3.5mm or 6.35mm headphones jack to the outputs labeled HEADPHONES on the rear panel of ECI 80D. Please note that both headphone outputs can be used simultaneously as long as the combined (paralleled) load of the headphones is larger than 16 ohms. Both outputs have the same signal, signal amplitude and volume setting. Please refer to table "ECI 80D operation modes and activiation"on page 8 for information on how to activate the headphones outputs.

Speaker output

Connect your 4-8 ohms speakers to the outputs labeled SPEAKERS. The speaker terminals will accept banana, spades and stripped speaker cables. Make sure to not mix the left and right channel and also make sure that the positive terminal on the speaker is connected to the positive terminal on ECI 80D. Be careful when connecting your speakers so that the speaker outputs are not shorted in any way, neither to the chassis or each other. Switch the amplifier off before connecting or disconnecting the speaker cables. The speaker outputs are disabled in some operating modes. Please refer to table "ECI 80D operation modes and activiation"on page 8.

Trigger input/output

Your ECI 80D is equipped with standard 12V trigger input and output ports. These ports can be used for automatically switching your ECI 80D and connected equipment in and out of standby mode. Connect the trigger input port to controlling equipment with a trigger output port. The ECI 80D will power up (leave standby mode) when a voltage in the range of 8V-20V (AC or DC) is detected on the trigger input port, and will remain powered on for as long as the voltage is present on the trigger input port. Use the trigger output port to send the trigger output signal to your amplifier, TV, projector or other equipment that support trigger input signals. Use a 3,5mm mono jack for connecting to the trigger input and trigger output ports.

USB service port

A USB-mini port is available for future firmware upgrades. Please refer to online instructions for how to use this port.

AC Mains

Connect the included AC mains cord to MAINS INPUT on the rear of ECI 80D. The ECI 80D will enter standby mode when power is present and the mains switch is set to the on position ('1' is pushed in). Please set the mains switch in the on position only after all connections to ECI 80D are ready.

BLUETOOTH PAIRING ON ECI 80D

To pair ECI 80D with your phone or tablet, please hold the Bluetooth pairing button on the remote for 5 seconds. The display will change to "BT PAIR" when in pairing mode. Go to your phone or tablet's Bluetooth settings and look for "Electrocompaniet ECI 80D" and connect to it. The next time you want to connect, there is no need for pairing.

To pair ECI 80D with your wireless headphones, please set the ECI 80D in HEADPHONES mode by pressing the headphones button on the remote control. Also, make sure that ECI80D is set to not receive Bluetooth audio by selecting any input source except BT. Set your headphones to pairing mode (refer to your headphones instruction manual for the correct procedure.)

When ECI 80D is in HEADPHONES mode and your wireless headphones are in pairing mode, press the Bluetooth pairing button on the ECI 80D remote.

The display will change to "BT HP" and the ECI 80D will connect to your wireless headphones. The indicator dot next to the Bluetooth connected symbol will blink when connecting and stay solid when connected. Please note that in some instances, this may take up to 30 seconds.
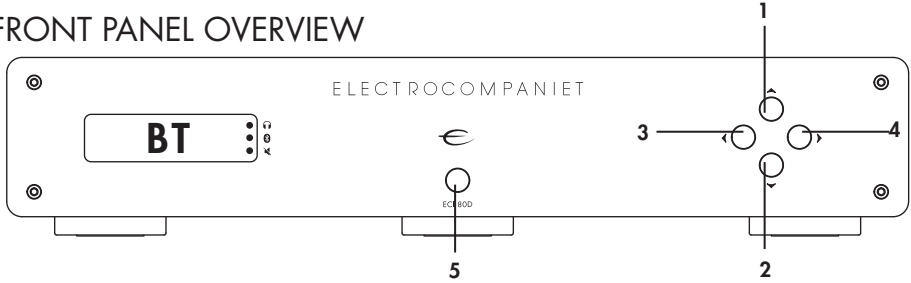
A valid and active connection will be indicated with a link between the indicator dots for HEADPHONES mode and the Bluetooth connected symbol.
The next time you want to connect, there is no need for pairing. Just turn on your headphones and the ECI 80D will connect automatically.

The ECI 80D will remember the last 5 paired units and connect to these automatically.

FRONT PANEL OVERVIEW

The Standby button (5) is located at the center of the front panel. In daily operation, switch off the ECI 80D by pressing the standby button on the front panel or the remote control (see page 9). In standby mode a diffuse red light is projected onto the table under the standby button. This light will turn blue when ECI 80D is active.

Navigator buttons

#	Button	Function	Description
1	UP	Volume Up	Increases the volume level in steps of one and then steps of five when kept pressed
2	DOWN	Volume Down	Decreases the volume level in steps of one and then steps of five when kept pressed
3	LEFT	Source left	Change source left
4	RIGHT	Source right	Change source right

DISPLAY INFORMATION

ECI 80D displays operating information in the display as follows:

- In normal operating mode only the active input is shown.

- When the volume is changed the display will show the volume setting on the right side. This will be displayed for five seconds.

- If a digital input is in use, the display will show the active sample rate on the left side. The sample rate will be displayed when a new sample rate is detected or when the volume is adjusted.

The right edge of the display will display operating mode indicator dots that will light up next to the operating mode icons depending on the chosen operating mode of ECI 80D. The operating mode icons are HEADPHONES, BLUETOOTH PAIRED and SPEAKERS OFF.

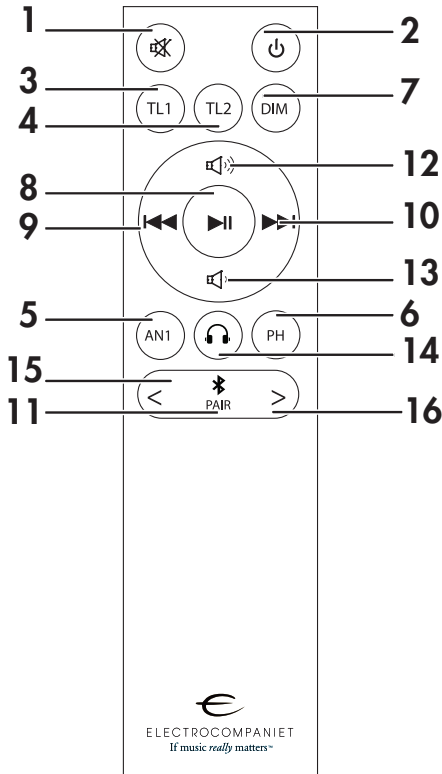Please refer to the table below for the different operating modes:

ECI 80D operation modes and activiation

OPER-ATING MODE	OUTPUT ACTIVE	OUTPUT NOT ACTIVE	MODE INDICATOR	MODE ACTIVATION
MUTED	None	All outputs muted	"MUTE" is shown in display.	The mute button on the remote toggles MUTE mode active and not active.
NORMAL	1.Speaker output 2. Preamplifier output	1. Headphone output	The selected input is shown in the display. No indicator dots are active.	Press the headphones button on the remote to toggle between NORMAL and HEADPHONES mode.
PREOUT	1.Preamplifier output	1. Headphone output 2.Speaker outputs	The selected input is shown in the display. The indicator dot next to the speakers off icon is active.	Press and hold the mute button on the remote. Press and hold again to leave PREOUT mode. Pressing the headphones button on the remote will also leave PREOUT mode.
HEADPHONES	1.Headphone outputs	1. Preamplifier output 2. Speaker outputs	The selected input is shown in the display. The indicator dot next to the headphones icon is active.	Press the headphones button on the remote to toggle between NORMAL and HEADPHONES mode, or PREOUT and HEADPHONES mode.

REMOTE CONTROL

The buttons are listed below as KEY NAME: Button functionality.

1. MUTE: Mute/enter PREOUT mode

2. STANDBY: Standby button

3. TL1: Select TL1 input

4. TL2: Select TL2 input

5. AN1: Select AN1 input

6. PH: Select PHONO MM input

7. DIM: Display dimming

8. PLAY/PAUSE: Bluetooth play/pause

9. PREVIOUS: Bluetooth previous track

10. NEXT: Bluetooth next track

11. PAIR: Bluetooth pairing

12. VOL UP: Increase volume

13. VOL DOWN: Decrease volume

14. HEADPHONES: Enter HEADPHONES mode

15. IN-: Change source left

16. IN+: Change source right

Battery
The remote control uses one included CR2032 battery. Before first time use of the remove control, please remove the internal plastic liner under the rear battery cover by pulling the protruding tab.
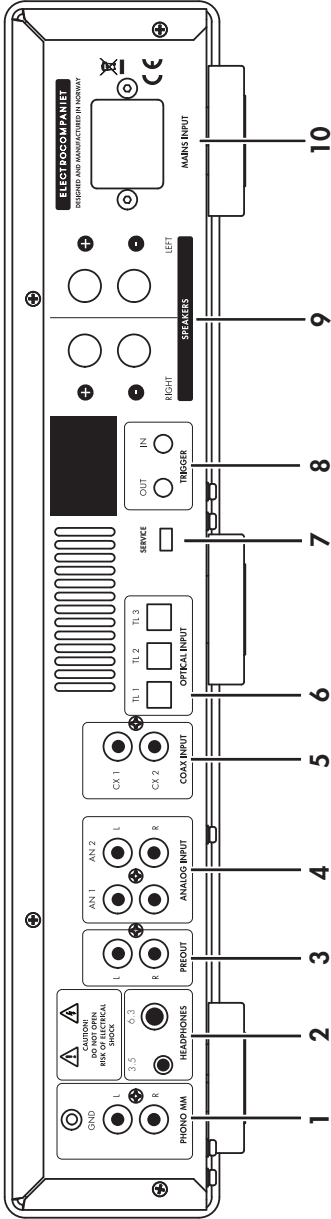
When replacing the battery please rotate the battery cover counterclockwise and carefully observe the correct polarization of the battery before inserting a new battery. Please remove the battery when the remote control is not used for a prolonged period of time.

Using the remote control
When using the remote control, the front end of the remote control should be pointed to the front panel of your ECI 80D. A free line of sight is required between the remote control and the infrared sensor on the front panel.

ECI 80D REAR PANEL ILLUSTRATION

1. Phono MM input
2. Headphones outputs
3. Preamplifier analog output
4. Analog inputs
5. Coaxial digital inputs
6. Optical digital inputs
7. USB service input
8. Trigger output/input
9. Speaker outputs
10. AC power mains inlet and on-off switch

TROUBLESHOOTING

Should any problem arise during operation the ECI 80D will indicate the detected fault in the display. Please refer to the table below for troubleshooting:

Display Error text	Description	What to do

PROT	When text "PROT" is shown in the display, ECI 80D has entered protection mode to protect internal circuitry or connected equipment.
	
	Possible causes are as follows:
	1. Heavy speaker load combined with high volume setting.
	2. Short circuit on either speaker or headphones outputs.
	3. To high voltage on headphones outputs.
	4. DC voltage on either speaker or headphones outputs.
	5. Internal faults.
		Pressing the standby button will clear the fault and ECI 80D will enter standby mode.
		  Try to locate the cause by checking speaker wire connections for shorts, connected headphones for too low combined impedance and reduce volume if playing loud.
		  If no obvious cause is located, press the standby button and see if ECI 80D powers up as normal.
		  If text "PROT" reappears immediately after power up or appears frequently with no obvious cause, please contact service.

TEMP	When text "TEMP" is shown in the display, ECI 80D has entered temperature protection mode to protect internal components from high operating temperatures.
	
	Possible causes are as follows:
	1. ECI 80D is placed inside a cabinet with too low free air movement.
	2. ECI 80D is placed on top of hot equipment.
	2. Heavy speaker load combined with high volume setting.
	3. Internal faults.
		Press the standby button and let the ECI 80D cool of for some minutes, then press the standby button again to power up ECI 80D again.
		  If the internal temperature has dropped enough, ECI 80D will start up as normal.
		  If the internal temperature is still too high, ECI 80D will display text "TEMP" again. Please allow more cool down time.
		If text "TEMP" is always displayed, please contact service.

FIRMWARE REVISION

To display the firmware revision in the display do as follows using the ECI 80D front buttons: Press and hold the volume up and down navigator buttons at the same time, then press and release the standby button. The firmware revision will then be shown for five seconds.

TECHNICAL SPECIFICATIONS ECI 80D

The following technical specifications were measured on randomized test objects and are typical data. All measurements are made at 120V / 240V // 50Hz / 60Hz. Clipping point of the amplifier is set to a level where total harmonic distortion (THD) is 0.2 %.

PREAMPLIFIER:

Input impedance:	75 kOhms
Noise floor:	< -130dB
THD+N:	< 0.002%
Frequency response (-3dB):	1 – 150 kHz
Volume adjustment range:	- 110dB to +15 dB

OUTPUT AMPLIFIER:

THD+N:	< 0.005%
Output power (into 8 Ohms):	2 x 80W
Output power (into 4 Ohms):	2 x 150W
Damping factor (8 Ohms load):	> 300
Frequency response (-3dB):	1 – 150kHz
SNR (ref 1W into 8 ohms, A-weighted):	102 dB
Gain:	25 dB
Protection:	DC, overload, temperature

RIAA PHONO:

Pickup support:	Moving Magnet
Gain:	40 dB @ 1kHz
Input impedance:	47 kOhms || 100pF
RIAA correction accuracy:	+/-0.1dB, 25-20kHz
Subsonic filter:	-3 dB @ 14 Hz
THD:	< 0.001%
SNR:	83 dB (A-weighted)
Overload margin:	30dB @ 1kHz

HEADPHONE AMPLIFIER:

THD+N:	< 0.001%
Load impedance single output in use:	> 16 Ohms
Load impedance both outputs in use:	> 32 Ohms
Max output power (into 16 Ohms load):	0.4W
Max output voltage swing:	+/-8V peak
Output impedance:	10 Ohms
Protection:	DC, overload

DIGITAL & STREAMING:

Optical input:	PCM: 44.1kHz/16bit up to 192kHz/24bit
Coaxial input:	PCM: 44.1kHz/16bit up to 192kHz/24bit
Bluetooth support:	BT5.0, A2DP, SBC, AAC, aptX-HD

CONNECTIVITY:

Digital inputs:	2 coaxial, 3 optical
Analog inputs:	2 RCA
Analog preamplifier output:	1 RCA
Service port:	1 USB
12V trigger:	1 input, 1 output
Phono MM:	1 RCA
Headphone outputs:	3.5mm jack + 6.35mm jack
Speaker outputs:	1 pair binding posts

WEIGHT & DIMENSIONS:

Weight:	8 kg – 17.6 lbs
Width:	470 mm – 18.5 inches
Depth:	262 mm – 10.3 inches
Height:	90 mm – 3.5 inches

VOLTAGE & POWER CONSUMPTION:

Mains input voltage:	100-240VAC, 50/60Hz, 3A
Idle (no load or signal):	30 W
Standby:	< 0.5 W
Switched off:	0 W

*Specifications are subject to change without further notice

IR REMOTE CONTROL CODES

RC5 codes are denoted as XX.YY where XX is the 5 bit address and YY is the 6 bit command.

RC6 codes are denoted as XX.YY where XX is the 8 bit address and YY is the 8 bit command. All RC6 codes are mode 0.

KEY NAME	Code Type	Code Hex
MUTE	RC5	10.0D
STANDBY	RC5	10.0C
TL1	RC5	10.0A
TL2	RC5	10.0B
DIM	RC5	10.0F
VOL UP	RC5	10.10
VOL DOWN	RC5	10.11
PREVIOUS	RC6	04.21
NEXT	RC6	04.20
PLAY/PAUSE	RC6	04.30
AN1	RC5	10.14
HEADPHONES	RC5	10.7E
PH	RC5	10.3D
IN-	RC5	10.55
PAIR	RC5	10.7D
IN+	RC5	10.56

IF SERVICE IS NEEDED

Your dealer will have all relevant information regarding the service centers in your area, and will ensure that your unit is serviced with minimum delay. It is our general policy to have your unit returned to you within five working days. This is an average time and can vary locally, depending on the workload at that particular service station. If, for some reason there are no service facilities available in your country, contact Electrocompaniet support first. If requested to do so by technical personnel, please ship the unit to the following address:

EC Living AS,
Breivikveien 7,
N-4120 Tau,
Norway
Web: www.electrocompaniet.com

Service department: support.electrocompaniet.com

The end user is responsible for all shipping charges, insurance, re-import 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 ECI 80D is 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 your national distributor.

User manual updates online

An updated version of the user manual may be available online at the Electrocompaniet web site. Occasional updates are needed to reflect new features added to the product since the user manual was printed. As future firmware updates bring in new features and functions, the online version of the user manual will be updated accordingly.

ELECTROCOMPANIET

If music *really* matters™

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
by non-authorised personnel.Use only authorized Electrocompaniet service center.