



## EC 4.8 MKII

Balanced Reference Preamplifier

**Owner's Manual** 





## 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 EC 4.8 MKII

Immediately upon receipt of the EC 4.8 MKII, 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 preamplifier. Unpack the unit carefully. Save all packaging materials for future shipment.

#### The contents of the carton

- 1 pc. Electrocompaniet EC 4.8 MKII Reference Preamplifier
- 1 pc. AC main cord
- 1 pc. Inspection card
- 1 pc. Owner's manual
- 1 pc. IR Remote control
- 2 pcs. AAA Batteries

#### Set up procedure

Before connecting the EC 4.8 MKII to the AC Power outlet, check that the main voltage indicated on the rear panel corresponds to the line voltage in the country were 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 EC 4.8 MKII 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 avoid possible antenna problems

In some setups hum may occur when you connect the radio, VCR or TV to your system. The problem is caused by DC voltage offset coming from your antenna system. Please contact your cable network operator.



#### How to connect your system

Please read this page carefully and use rear panel illustriation at page 5 as a reference.

#### **INPUTS**

## Single-ended RCA input and operation

There are three sets of single ended inputs labeled AN3, AN4 and HT/AN5.

All inputs are similar regarding sonic performance. HT/home theater mode (Volume control does not affect the signal). Inputs "AN5" and "HT" (Home Theater) share the same physical RCA connectors, but they offer different volume control functionality. The "AN5" input functions similarly to the other single ended inputs. If the "HT" input is selected the volume will first be set to the standard volume level step as a safety, and then a single press of the volume + key will make the volume increase automatically up to unity gain. Then the input acts like a pass-through input. Be careful not to do this if you use a normal signal level source connected the AN5/HT as it as the sound level will be extremely loud and may damage your equipment!Unused inputs may be shorted to ground, using a RCA shorting plug.

#### Balanced operation

There are two sets of balanced inputs labeled AN1 and AN2. Connect the right channel input to the inputs on the right side of the EC 4.8 MKII and the left channel inputs on the left side of the EC 4.8 MKII.

#### **OUTPUTS**

#### Rec out

Rec outputs are used for recording. The source you listen to will be monitored through this output. The volume control setting does not influence the record output.

## Balanced output

The balanced output is a variable output, dependent on the volume control setting and MUTE function. These outputs control the power amplifier(s).

#### SPAC

These contacts are used to communicate with power amplifiers AW 2x120 and AW 3x120. Connect a SPAC Com cable (sold separately) from SPAC A to one of the amplifier and SPAC B to the other. When these cables are connected to the amplifiers the EC 4.8 MKII will monitor the vital functions on the amplifiers. SPAC Multi is reserved for future use.

#### Never use shorting plugs in outputs.

## How to power up your system

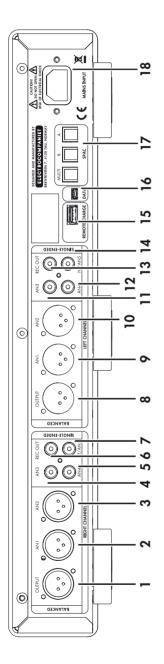
You should always power up your system in the following way: Signal sources (CD player, streamer, etc.) first, then the EC 4.8 MKII. Allow a 30 seconds warm-up before you turn on the amplifier.

## When switching off your system

In daily operation, put the EC 4.8 MKII in standby mode by holding the Mute button on the remote control for 1-2 sec. To turn it completely off, press the power button on the front panel. When turning off your whole system, start with the amplifier, then the EC 4.8 MKII and then the signal sources.



## EC 4.8 MKII Rear panel illustration



- 10. Balanced analog AN2 left input
- 11. Single-ended analog AN3 left input 12. Single-ended analog AN4 left input
- 13. Single-ended analog REC left output
- 14. Single-ended analog HT/AN5 left input
  - 15. USB for Remote charge
- 16. Mini USB for software upgrade

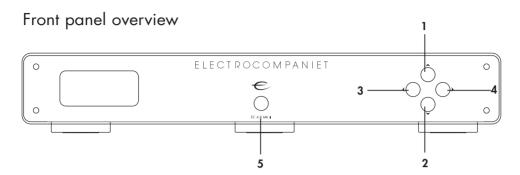
7. Single-ended analog HT/AN5 right input 6. Single-ended analog REC right output 5. Singleended analog AN4 right input 4. Singleended analog AN3 right input 3. Balanced analog AN2 right input 2. Balanced analog AN1 right input

8. Balanced analog left output

- 17. SPAC connection
- 9. Balanced analog AN1 left input
- 18. Mains power input

1. Balanced analog right output





The main switch is located in the centre of the lower part of the front panel (5). The four buttons on the right-hand side of the front panel is used to adjust the volume and select the input source. Use the up and down buttons to adjust the volume, and the left and right buttons to select input source

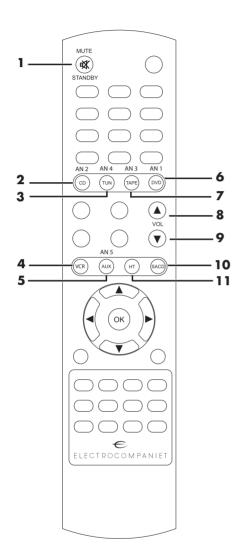
## Navigator

Button	Function	Description	
1	Volume Up	Increases the volume level	
2	Volume Down	Decreases the volume level	
3	Select source left	Selects the next source to the left	
4	Select source right	Selects the next source to the right	
5	Power switch	Turns the preamplifier on and off	

## Input sources

Audio Source	Display Text	Description	
Analog 1	AN1		
Analog 2	AN2	Balanced source connected to AN2 input	
Analog 3	AN3	Single-ended source connected to AN3 input	
Analog 4	AN4	Single-ended source connected to AN4 input	
HT/AUX	HT/AN5	Single-ended source connected to HT/AUX input	





#### Remote control overview

1. Mute - on/off.

Standby mode - hold mute 1-2 sec. to set the preamplifier into standby mode.

- 2. AN 2 switch to Analog 2 input.
- 3. AN 4 switch to Analog 4 input.
- 4. VCR Dimming the display.
- 5. AN 5 switch to Analog 5 input.
- 6. AN 1 switch to Analog 1 input.
- 7. AN 3 switch to Analog 3 input.
- 8. Volume UP.
- 9. Volume DOWN.
- 10.SACD switch to Analog 1 input.
- 11. HT switch to a Home theater input.

## Replacing batteries

Use 2pcs AAA or LR03 batteries. Observe correct polarization when inserting batteries. Please remove batteries when the remote is not used for a prolonged period of time.

# IR Remote control codes (page 8)

## 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 EC 4.8 MKII. A free line of sight is required between the remote control and the infrared sensor on the front panel.



## IR Remote control codes

RC5 codes are denoted as xx.yy where xx is 5 bit adress and yy is 6 bit command/data. All numbers are in decimal.

Key label	Code Type	Code Hex
MUTE/STANDBY	RC5	16.13
CD / AN2	RC5	16.20
TUN / AN4	RC5	16.21
VCR - DIM	RC5	16.61
AUX / AN5	RC5	16.60
DVD / AN1	RC5	16.57
TAPE / AN3	RC5	16.56
VOLUME UP	RC5	16.16
VOLUME DOWN	RC5	16.17
SACD / AN1	RC5	16.59
HT	RC5	16.58



## Technical specifications EC 4.8 MKII:

#### INPUT CONFIGURATIONS

XLR input: 1 = ground 2 = positive 3 = negative

RCA: Shield = ground Center = positive RCA to XLR adapter: Shield = ground Center = positive

#### **OUTPUT CONFIGURATIONS**

XLR output: 1 = ground 2 = positive 3 = negative

Never use shorting plugs in outputs.

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

MEASUREMENTS	SINGLE ENDED	BALANCED
Input impedance	47 kOhm	47 kOhm
Output impedance	100 Ohm	100 Ohm
Maximum gain	6 dB	6 dB
Minimum gain	- 111 dB	- 111 dB
Noise floor (0 dB gain)	< -130 dB	< -130 dB
THD (1V in, 1V out)	-120 dB	-130 dB
Max input	+- 15 Vp-р	+- 30 Vp-p
Max output	+- 30 Vp-p	+- 30 Vp-p
Frequency response	1 – 200 kHz	1 – 200 kHz
Channel separation	> 120 dB	> 120 dB

Power consumption (no load or signal): 30 W The EC 4.8 MKII is DC coupled from input to output.

#### **WEIGHT & DIMENSIONS:**

Weight: 11.3 kg – 24.9 lbs Width: 470 mm – 18.5 inches Depth: 372 mm – 14.64 inches Height: 80 mm – 3.14 inches

<sup>\*</sup>Specifications are subject to change without further notice



#### 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 personell, please ship the unit to the following address:

Electrocompaniet AS,
Teknologiveien 2,
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 dutycharges.

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 EC 4.8 MKII 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 player 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.







## 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.

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Designed and manufactured in Norway www.electrocompaniet.com