LINA Master Clock

Getting Started Guide

View the full User Guide

To view the full User Guide for your LINA Master Clock, visit https://dcsaudio.com/documentation

Document information

Published on: 14/10/2021
Document ID: DCS322681 - Rev1.0

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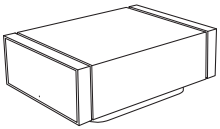
Introducing the LINA Master Clock

The LINA Master Clock is an optional addition to your LINA system. While the LINA Network DAC and LINA Headphone Amplifier together deliver great performance, adding the LINA Master Clock improves the sound quality when using the network or USB inputs.

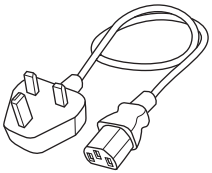
The LINA Master Clock generates word clock signals at 44.1 and 48 kHz, which have a very low jitter. After setting the LINA Network DAC to lock to a word clock, the LINA Network DAC automatically locks to the clock frequency that is an exact multiple of the incoming audio data. For example, if the incoming data rate is 192 kS/s, the LINA Network DAC selects the 48 kHz clock.

The LINA Master Clock cannot be used with source devices connected to the AES or SPDIF inputs on the LINA Network DAC, because there are no spare word clock outputs to connect an input to, such as a CD Transport. In these cases, select that input on the LINA Network DAC and use the Audio sync mode.

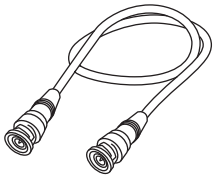
What's in the box



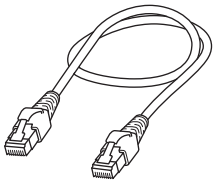
dCS LINA Master Clock



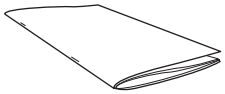
Power cable (2m)



2x BNC cable (0.5m)



Power Link cable (0.5m)



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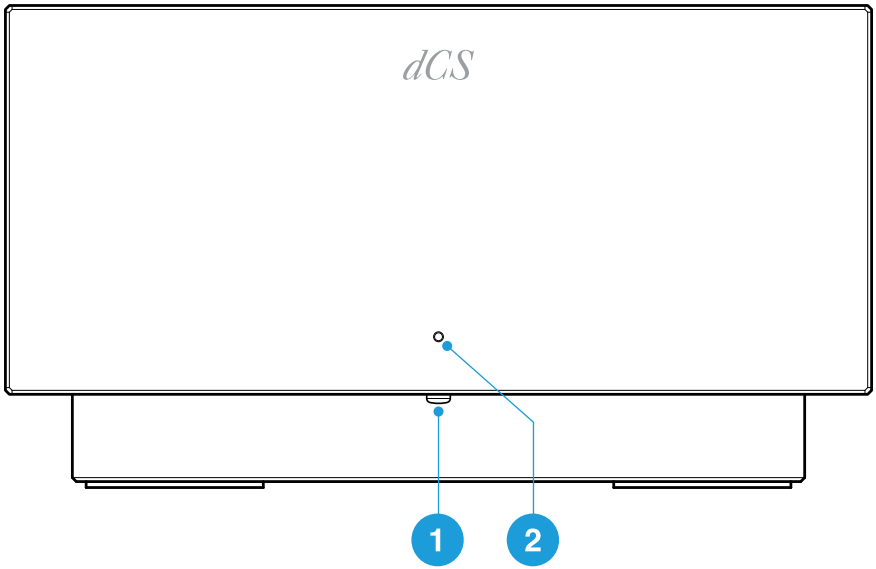
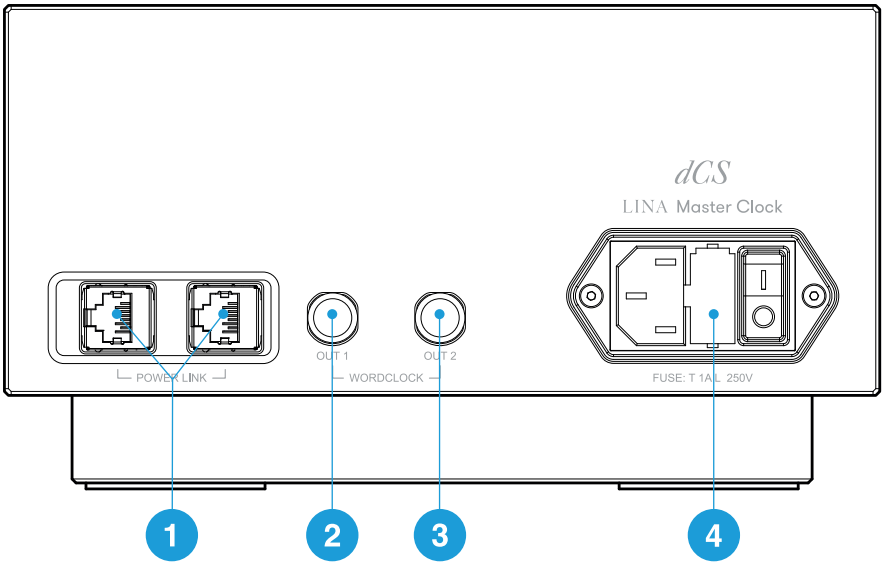
Welcome letter

Front



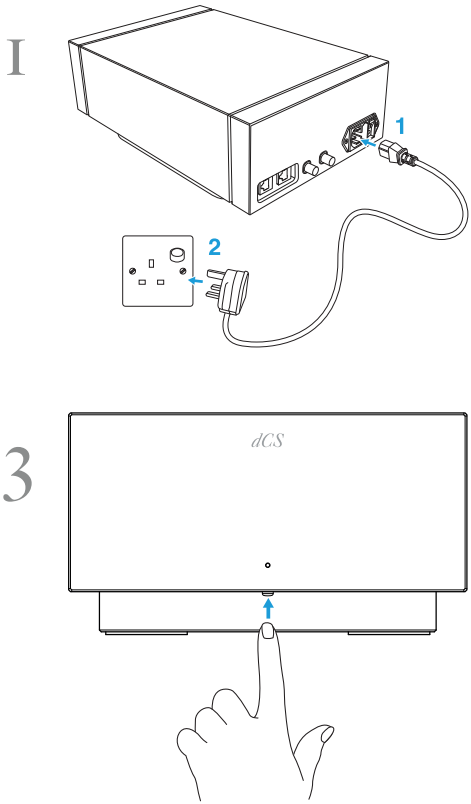
	Item	Description
1	*Power* button	To switch on or enter sleep mode, press briefly. To switch off, press and hold until the status indicator turns off.
2	Status indicator	When in sleep mode, the status indicator is dim white. When the unit is on, the status indicator is bright white.

Rear



	Item	Description
1	*POWER LINK*	RJ45 input. Connects the unit to other LINA units to enable Power Link.
2	*WORDCLOCK OUT 1*	Word clock output 1. A 75Ω BNC connector, fixed at 44.1kHz. Connects the unit to an audio device such as a DAC. Word clock is only used for synchronisation and does not carry digital audio data.
3	*WORDCLOCK OUT 2*	Word clock output 2. A 75Ω BNC connector, fixed at 48kHz. Connects the unit to an audio device such as a DAC. Word clock is only used for synchronisation and does not carry digital audio data.
4	Power socket, fuse, and power switch	Power is connected via a standard IEC320 connector, with a power switch and a fuse holder.

Setting up



Connecting the LINA range

To connect the LINA Network DAC, LINA Master Clock and LINA Headphone Amplifier together:

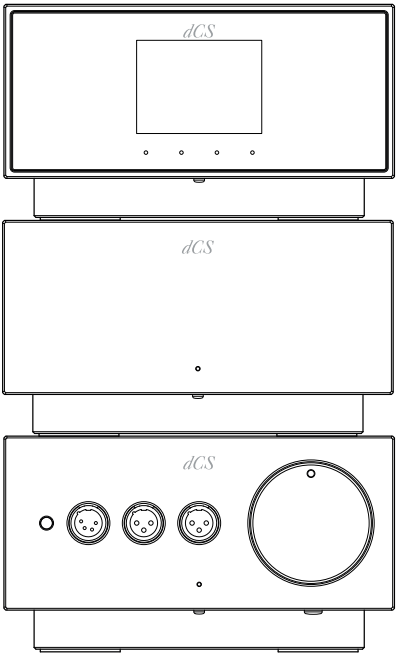
1. Position the LINA range.
2. Connect the LINA Network DAC to the LINA Headphone Amplifier.
3. Connect the LINA Master Clock to the LINA Network DAC.

1. Positioning the LINA range

You can position the units in one of the following ways:

- Place the units side by side.
- Stack the units vertically in the following order:
  - LINA Headphone Amplifier at the bottom
  - LINA Master Clock in the middle
  - LINA Network DAC on top

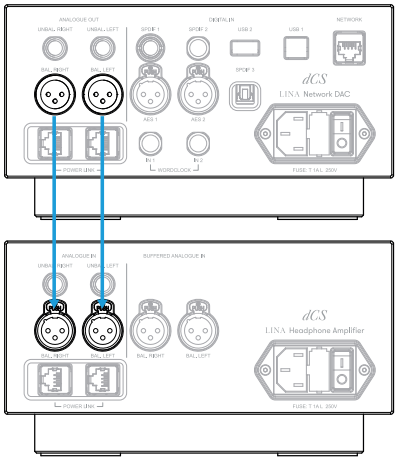
To prevent overheating, we recommend that you leave some space around the units to allow for ventilation.



2. Connecting the LINA Network DAC to the LINA Headphone Amplifier

You can connect the LINA Network DAC to the LINA Headphone Amplifier using the balanced XLR sockets.

1. Using two balanced XLR cables, connect the *BAL. LEFT* and *BAL. RIGHT* outputs on the LINA Network DAC to the *BAL. LEFT* and *BAL. RIGHT* inputs on the LINA Headphone Amplifier.



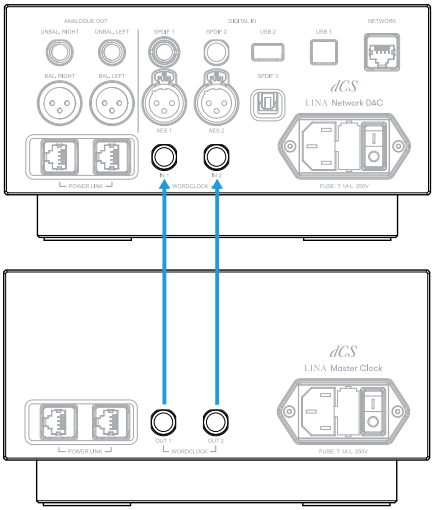
2. On the LINA Headphone Amplifier, choose the unbuffered XLR input. If the status indicator is not white, press the *Power / Input* button until it changes to white.

3. Connecting the LINA Master Clock to the LINA Network DAC

You can lock the network and USB inputs on the LINA Network DAC to the LINA Master Clock.

1. Switch on the LINA Network DAC and the LINA Master Clock.
2. On the LINA Network DAC, choose the network or USB input.

3. Using two BNC cables, connect the *WORDCLOCK* output sockets on the LINA Master Clock to the *WORDCLOCK* input sockets on the LINA Network DAC.



4. Set the clocking sync mode on the LINA Network DAC to Auto .

   The LINA Network DAC selects the appropriate clock input and locks to it.

If you lock an AES or SPDIF input on the LINA Network DAC to the LINA Master Clock, the source equipment will not be locked to the Clock, resulting in periodic clicks, dropouts or distortion.

To use the LINA Network DAC in this way, use source equipment that has a word clock input and a Master Clock with extra outputs.

Compliance and Safety

FCC compliance statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether this equipment is causing interference by turning it off. If the interference stops, it was probably caused by the equipment or a peripheral device.

If your equipment does cause interference to radio or television reception, try to correct the interference by one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment further way from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

(USA only) If necessary, consult dCS Americas Inc. or an experienced radio / television technician for additional suggestions.

Changes or modifications not expressly approved by dCS Americas Inc. could void the manufacturer's warranty.

This product has demonstrated electromagnetic interference compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. In order to maintain compliance with FCC regulations, shielded cables (including Ethernet network cables) must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception.

Responsible party (contact for FCC matters only)

dCS Americas LLC
PNC Bank Bldg
300 Delaware Ave, Suite 210
Wilmington, DE 19801
USA

EU Declaration of Conformity

This equipment has been tested and found to comply with the essential requirements of the following Directives: 2014/30/EU, 2014/35/EU and 2015/863/EU.

This device is certified for indoor use only.

Korea Class B compliance statement

This equipment is for home use, and has acquired electromagnetic conformity registration, so it can be used not only in residential areas, but also other areas.

이 기기는 가정용(B급) 전자파적합기기로서 주 로 가정에서 사용하는 것을 목적으로 하며, 모 든 지역에서 사용할 수 있습니다.

Safety

To prevent personal injury or damage to the unit, read the following safety messages before use.

CAUTION

Read and comply with all safety messages and instructions in this document.

- Follow the cleaning instructions in the User Guide.
- Only install the unit according to the instructions in this document.
- Do not spill liquid on the unit or allow it to get wet.
- Do not install the unit near heat sources.
- Use only the attachments and accessories specified by dCS.

CAUTION

To prevent the risk of electric shock and ensure the best audio performance, connect the unit to mains earth (ground) using the correct power cable.

- A grounding type plug has two blades and a grounding prong, which is provided for safety. If the provided plug does not fit into your outlet, contact a qualified electrician.
- Do not use the power cable if it is damaged.
- If this unit is not being used for a long period of time, disconnect the unit from the power supply.
- During lightning storms, disconnect the unit from the power supply to prevent power surges.

CAUTION
The safety covers on the unit protect you from electric shock.

- Do not remove the safety covers from the unit.
- If you do remove the safety covers from the unit, it invalidates the warranty.

NOTICE
If the unit is damaged, do not use it and contact a qualified service engineer. Possible causes of damage to the unit include the following:

- Liquid is spilled on the unit.
- A heavy object falls on the unit.
- The unit is exposed to rain or moisture.
- The unit is dropped.

NOTICE
Damage caused to the unit by misuse of a mains regenerator or by a malfunctioning mains regenerator is not covered by the warranty.

- We do not recommend the use of mains regenerators.
- If you want to use a mains regenerator with variable voltage and frequency, set the voltage to match your local voltage. Set the frequency to either 50Hz or 60Hz.
- Do not change the output voltage of the mains generator while it is connected to the unit.

NOTICE

If the unit is cold and is moved into a warm room, condensation may form inside the unit. Condensation may interfere with the normal operation of the unit. If the unit has been kept somewhere cold, remove all packaging and leave it for 1-2 hours before using it to allow it to reach room temperature.

LINA

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