



ORPHEUS ONE

USER MANUAL



INTRODUCTION

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UNPACKING

First check and identify the contents of your Orpheus One package, as listed below :

- Orpheus One digital audio interface
- Power cord
- Orpheus One user manual
- Warranty registration card

If any item should be damaged or missing, please inform your supplier without delay.

Keep the packing materials, you may need them to transport the unit in the future.

READ THIS BEFORE OPERATING YOUR UNIT

- Please read this manual carefully, to assure proper operation and the best possible performance.
- Switch off the unit before connecting or disconnecting any input or output cables.
- Do not touch the inner pins of rear-panel connectors, electrostatic discharge may cause permanent damage to the unit.
- Choose the installation location for the unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Avoid also locations subject to vibration and excessive dust, heat, cold or moisture.
- To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.
- Do not use force when operating switches, knobs and other controls.
- Do not open the chassis or attempt to make repairs by yourself, as this may result in damage to the unit or electrical shock. If a foreign object should get into the unit, contact your local dealer.
- When planning not to use the unit for a long period of time, it is advisable to disconnect the power plug from the wall outlet.
- The power switch does not disconnect the complete unit from the main line.
- To prevent lightning damage, disconnect the power plug when there is an electrical storm.
- When moving the unit, be sure to first disconnect

nect the power plug and all wires connected from the unit to other equipment.

- When disconnecting the power plug from the wall outlet, always pull directly on the plug, never pull the cord itself.
- Do not attempt to clean this unit with water or chemical solvents, as this may damage the unit or the finish. Use a clean, dry cloth.
- Keep this manual in a safe place for future reference.

FRONT PANEL



1. MAIN POWER INDICATOR

Lights red when the unit is operating. Indicator light is off when the unit is switched off.

2. DISPLAY WINDOW

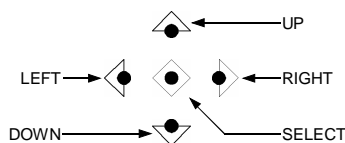
Displays the chosen digital input format and guides through the setup menus.

3. INFRARED REMOTE CONTROL SENSOR

Receives signals from the remote control transmitter. Placed in the right hand corner of the display. Not visible.

4. CONTROL BUTTONS

Used for choosing digital input format and menu navigation as well as unit setup.



UP & DOWN

Used for increasing, decreasing or choosing values, for instance, while adjusting volume levels, dimming the display or renaming inputs.

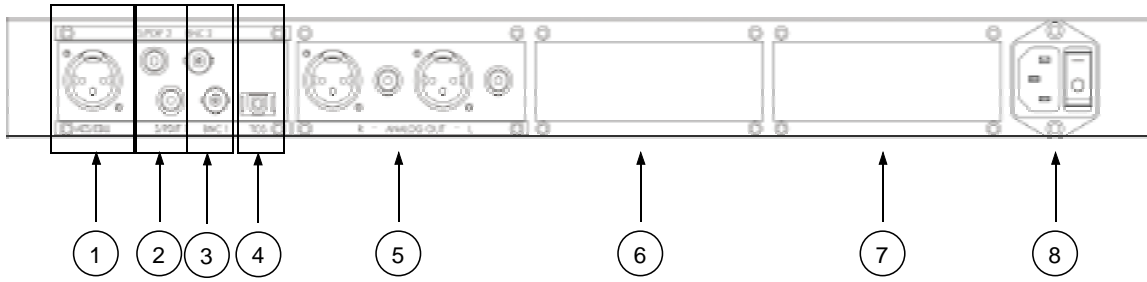
LEFT & RIGHT

Used for selecting options, menus and inputs.

SELECT

Used for entering set up menu structure and accessing menu options as well as confirming choices and settings.

REAR PANEL



1. INPUT AES/EBU FORMAT

Digital data stream input using an XLR connector for AES/EBU format.

2. INPUTS S/PDIF FORMAT

Digital data stream inputs using two independent RCA connectors (S/PDIF 1 and 2) for S/PDIF format.

3. INPUTS BNC FORMAT

Digital data stream inputs using two independent connectors (BNC 1 and 2) for BNC format.

4. INPUT TOSLINK FORMAT

Digital data stream input using an optical connector for TOSLINK format.

5. OUTPUTS

Analogue balanced right and left channel outputs on XLR connectors. Unbalanced right and left channel outputs on RCA connectors.

6. ADDITIONAL SLOT

Spare slot for additional sample rate conversion and domain conversion board.

7. ADDITIONAL SLOT

Same as 4.

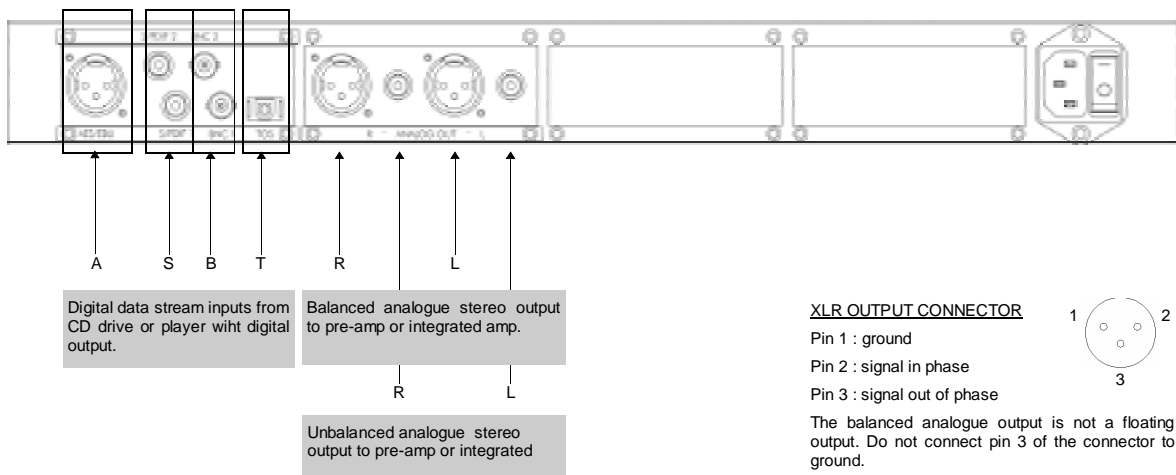
8. POWER SUPPLY & POWER SWITCH

Power cord connection and main power switch.

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CONNECTIONS



Digital data stream inputs from CD drive or player with digital output.

Balanced analogue stereo output to pre-amp or integrated amp.

Unbalanced analogue stereo output to pre-amp or integrated

XLR OUTPUT CONNECTOR

Pin 1 : ground

Pin 2 : signal in phase

Pin 3 : signal out of phase

The balanced analogue output is not a floating output. Do not connect pin 3 of the connector to ground.

If you wish to wire the balanced output to an unbalanced input (with RCA connector), connect pin 1 to ground and pin 2 to signal, and make sure pin 3 is not used.

R : right channel
L : left channel
A : AES/EBU
S : S/PDIF
B : BNC
T : TOSLINK

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OPERATIONS

QUICK GUIDE

CONNECTION

Connect the digital (input-) cable first, followed by the analogue (output-) ones and finally the power cord.

POWER ON

Flip the main power switch on the right hand side of rear panel.

DIGITAL DATA STREAM

Select between AES/EBU, S/PDIF, BNC or TOSLINK digital input data formats, according to your digital source and the connection choosen.

The display will (for approx. two seconds) show 44,1 → 192 when the system has locked onto the incoming digital data stream. If the system is unable to lock onto the incoming digital data stream, the display shows **NO LOCK**. Please check your source is sending data and make sure it is connected correctly to the input choosen. **NO PCM** indicates that a non linear PCM data stream is recieved from for example a DTS CD.

BURN-IN TIME

The unit needs approximately fifty hours of burn-in time to develop its full potential.

ORPHEUS DA-ONE is a 2 channel 24bit/192kHz upsampler and digital to analogue conversion board for the ORPHEUS ONE digital audio interface.

Up to three ORPHEUS DA-ONE can be installed in the ORPHEUS ONE, providing up to six channel digital to analogue conversion of supreme quality.

ORPHEUS DA-ONE features Anagram Technologies software based sample rate conversion technology. Each incoming data stream is converted into a high definition 24bit/192kHz signal prior to being converted to the analogue domain. The complexity of the analogue reconstruction filter is significantly reduced by using a 192 kHz sampling rate. This results in near perfect phase linearity and soundstage quality.

ORPHEUS DA-ONE features a modular layout. The board's upsampling module, or the whole conversion board itself, can be changed in the future and thus adapted to new technologies and data formats.

TECHNICAL DATA

Digital input : one S/PDIF, 75 Ohm, 0.5 V, on RCA connector and one AES/EBU, 110 Ohm, 5 V, on XLR connector

Analogue output : either balanced, 4 V rms, on XLR connectors or unbalanced, 2 V rms, on RCA connectors

Impedance : 75 Ohm

24 bit / 44.1 kHz input signal :

Harmonic distortion (THD+N) :
 0.00036% @ 0 dB FS
 0.00390% @ -30 dB FS
 0.11000% @ -60 dB FS

Dynamic (THD+N @ -60 dB FS) : 119 dBr

Signal to noise ratio : 121 dBr

Residual noise 20 Hz to 22 kHz :

3.6 µV @ 4 Vrms balanced
 1.8 µV @ 2 Vrms unbalanced

16 bit / 44.1 kHz input signal :

Harmonic distortion (THD+N) :
 0.00090% @ 0 dB FS
 0.02500% @ -30 dB FS
 0.80000% @ -60 dB FS

Dynamic (THD+N @ -60 dB FS) : 101 dBr

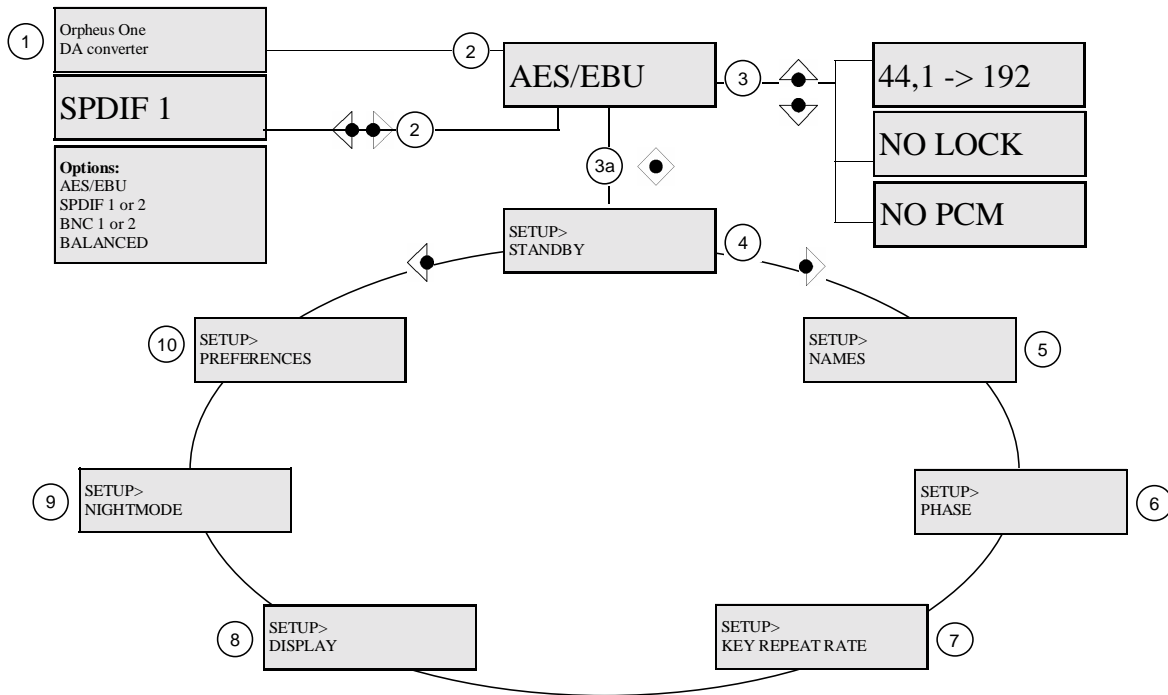
Signal to noise ratio : 121 dBr

Residual noise 20 Hz to 22 kHz :

3.6 µV @ 4 Vrms balanced
 1.8 µV @ 2 Vrms unbalanced

Frequency response : set for optimal transient response

DISPLAY AND MENU STRUCTURE



SETUP AND OPERATIONS

QUICK GUIDE

POWER ON

Flip the main power switch on the right hand side of rear panel.

MAIN SCREEN

After switching on the unit, the display window shows the start up display shortly. It then switches to the default main screen which shows input selections for listening and recording.

CHOOSING AN INPUT

To choose between inputs, press < or > until the desired input channel is displayed.

GOING INTO STANDBY

Press **◆** twice.

LOST? RELAX!

Let the system return to the main screen automatically. After approximately 10 seconds of control button inactivity the display returns to the previous menus, and finally to the main screen.

1 ORPHEUS ONE
DA CONVERTER

START UP DISPLAY

The start up display is shown approx. 2 seconds when main power is switched on.

It is then replaced by the main screen.

2 AES/EBU

MAIN SCREEN

The main screen is the default display during normal operation.

It shows the name of the digital input format selected.

To choose between input formats press < or > until the desired input format is displayed.

Options:

- AES/EBU
- SPDIF 1 or 2
- BNC 1 or 2
- TOSLINK

Select between the various options according to your digital source and the connection established.

3 44,1 -> 192

UPSAMPLING

When pressing **▲** or **▼** the display shows the up-sampling details of the chosen input. The sampling rate conversion to the high definition signal which is then converted to the analogue domain is shown in kHz and is displayed for approx. 2 seconds upon successful lock on to the data stream of the chosen digital input format.

Hereafter the display returns to default main screen.

If the system has not been able to lock on to the data stream of the chosen input the display shows NO LOCK.

NO PCM indicates that a non linear PCM data stream is received from for example a DTS CD.

3a SETUP>
STANDBY

SETUP MENU

From main screen press **◆** to enter setup menu.

To choose between the setup menu options press < or > until the desired option is displayed.

LEAVING SETUP MENU

At any point in the setup menu you can return to the former menu level by pressing **▲** followed by **◆**.

SETUP AND OPERATIONS

4 SETUP>
STANDBY

STANDBY MODE

Pressing **◆** puts the unit into standby mode.

Pressing any navigation button resumes normal operation.

5 SETUP>
NAMES

INPUT NAME SETTING

To enter name selection press **◆**.

Each input can be named according to individual need and taste. The defined input name appears in the main screen.

SETUP>NAMES>
INPUT 1

INPUT SELECTION

Select the input that should be renamed by pressing < or > until the chosen input is displayed. Press **◆** to confirm.

SETUP>NAMES>INPUT 1>
INPUT 1

RENAMING

Each input can have any individually defined name. The name can be a word with a combination of up to 10 letters or numbers.

▲
●
▼

INPUT 1

CHANGING VALUES

Press **▲** or **▼** to change the value.

Characters A to Z and 0 to 9, as well as space, are available.

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0	1	2	3	4	5	6	7	8	9			

ORPHEUS DA

MOVING CURSOR

Press < or > to switch from one position to the other.

SETUP>NAMES>INPUT 1>
ORPHEUS DA

NEW INPUT NAME

Press **◆** to confirm the choice and save the new input name.

SETUP AND OPERATIONS

6 SETUP>
PHASE

PHASE SELECTION

To enter phase selection press **◆**.

This function gives to possibility to select phase. Normal mode gives the natural perspective of music. Inversion mode changes the absolute phase by 180 dg.

Options:

- NORMAL
- INVERSION

To select phase pres < or > until the chosen phase is displayed. Press **◆** to confirm.

7 SETUP>
KEY REPEAT RATE

KEY REPEAT RATE

Press **◆** to enter key repeat rate mode.

Holding down < or > is the same as repeatedly pressing them. The repetition rate can be adjusted in three intervals.

Options:

- SLOW (0,6 seconds)
- MEDIUM (0,4 seconds)
- FAST (0,2 seconds)

To set repeat rate pres < or > until the chosen rate is displayed. Press **◆** to confirm.

8 SETUP>
DISPLAY

DISPLAY

To enter display mode press **◆**.

The display lighting can be adjusted from 100% to 25% in 25% steps. The main power indicator light on the left side of the front panel is adjusted accordingly.

To increase or decrease the value press **^** or **v**.

Press **◆** to confirm.

9 SETUP>
NIGHT MODE

NIGHT MODE

To enter night mode press **◆**.

When night mode is in position ON the display turns off automatically approx. 3 seconds after pressing any button on the remote control.

The unit is still operating and the display lighting is reactivated by pressing any control button.

To set night mode press < or > until the chosen mode is displayed. Press **◆** to confirm.

10 SETUP>
PREFERENCES

To enter preferences press **◆**.

The various settings allow a personalized unit configuration. The personal settings need to be saved before turning off main power.

It is possible to restore previously stored settings as well as calling back the initial factory settings.

Options:

- SAVE
- RESET
- FACTORY SETTINGS

Press < or > until the chosen mode is displayed. Press **◆** to confirm.

In case of RESET and FACTORY SETTINGS press **◆** to confirm.

FACTORY SETTINGS has the following values :

Names :	AES/EBU SPDIF 1 and 2 BNC 1 and 2 TOSLINK
Phase:	NORMAL
Repeat rate :	MEDIUM
Display :	100%
Nightmode:	OFF

SPECIFICATIONS

TECHNICAL DATA

Boards : up to 3
 Size : 482 × 370 × 44 mm
 Weight : 10 kg
 Main voltage : selectable
 220-240 V at 50-60 Hz
 190-250 V at 50-60 Hz
 95-125 V at 50-60 Hz
 Power : 8 W (with 1 board) to
 32 W (with 4 boards)

COMMENTS

Constructive feedback is always welcome.

Please feel free to forward us your comments at the address listed below or to your local dealer or distributor.

TECHNOLOGY & DESIGN

The unit has been entirely manufactured and assembled in Switzerland; conceived by ANAGRAM Technologies SA and designed by Chiarini Design.

IMPORTANT NOTICE

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