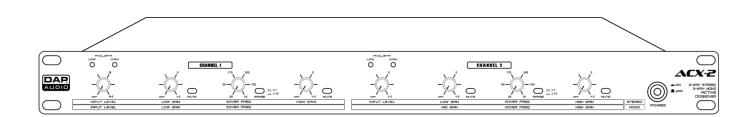


## **MANUAL**



**ENGLISH** 

ACX-2

**V**1

Ordercode: D1905

## Table of contents

Warning	
Safety Instructions	
Operating Determinations	
Connection with the mains	
Return Procedure	
Claims	
Description of the device	5
Overview	
Frontside	
Backside	7
Installation	3
Set Up and Operation	3
Connection modes	9
Stereo connection example	
Mono connection example	
Connection Cables	11
Maintenance	12
Replacing the Fuse	
Troubleshooting	12
Product Specifications	13
Dimonsions	17



### Warning



# For your own safety, please read this user manual carefully before your initial start-up!

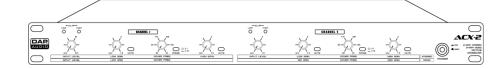


### **Unpacking Instructions**

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a device must be returned to the factory, it is important that the device is returned in the original factory box and packing.

### Your shipment includes:

- DAP Audio ACX-2
- 1,5m IEC Powercable
- User manual





#### **CAUTION!**

Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!



### **Safety Instructions**

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual



CAUTION! Be careful with your operations.

With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!



Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

### **IMPORTANT:**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.



- Do not insert objects into air vents.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Do not plug mics into the console (or stagebox) while phantom power is on. Also mute the monitor /
  Pa system when turning phantom power on or off. Allow the system to adjust for a couple of
  seconds, before setting the input gains.
- Only use system indoors, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Make sure you do not use the wrong kind of cables or defective cables.
- Make sure that the signals into the mixer are balanced, otherwise hum could be created.
- Make sure you use DI boxes to balance unbalanced signals; All incoming signals should be clear.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the system and the power cord from time to time.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- Extreme frequency boosts in connection with a high input signal level may lead to overdriving your equipment. Should this occur, it is necessary to reduce the input signal level by using the INPUT control
- To emphasize a frequency range, you do not necessarily have to move its respective control upward; try lowering surrounding frequency ranges instead. This way, you avoid causing the next piece of equipment in your sound path to overdrive. You also preserve valuable dynamic reserve ("headroom").
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

### **Operating Determinations**

This system is not designed for permanent operation. Consistent operation breaks will ensure that the system will serve you for a long time without defects.

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property!



### Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
<b>(</b>	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage to people and property!





### **Return Procedure**



Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail <a href="mailto:aftersales@highlite.nl">aftersales@highlite.nl</a> and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

## Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

#### Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.



### Description of the device

### **Features**

The DAP ACX-2 is a stereo 2-way or mono 3-way active crossover. The standard 19" rugged rack mountable housing and high quality finish, good selection of high end components and great sound characteristics results in a road proof active crossover.

#### **Outputs**

- 4 x XLR outputs
- 4 x 6,3 mm jack
- Output impedance: 300 Ohm balanced

#### Inputs

- 2 x XLR inputs
- 2 x 6,3 mm jack
- Input impedance: 20 KOhm balanced

#### **Features**

- S/N Rate (A weight): >95 dB
- Freq. response: 3 Hz 40 kHz (+/-0.3 dB)
- THD: < 0.004% typ. @ +4 dBu, 1KHz
- Crossover freq. range: 80 Hz 10 kHz
- Phase correct range: 0°-180°
- Dynamic range: 115 dB
- Filter type: Linkwitz-Riley, 24dB Octave
- Controls: input levels, output levels, crossover frequency, mute switch
- Indicators: input clip LEDs

#### General

- Power supply: 230V AC, 50 Hz
- Rated power consumption: 8,5W
- Power connection: IEC power connector
- Fuse: T100maAL/250V
- Dimensions: 483 x 192 x 44 mm (LxWxH)

19" x 1HE (LxH)

Weight: 2,66 kg

### Overview

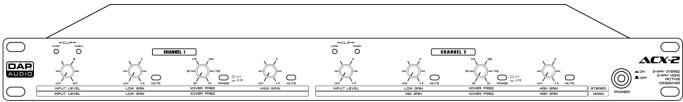


Fig. 01



### **Frontside**

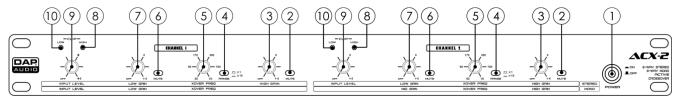


Fig. 02

1 Power switch ON/OFF

Press the button to switch the device ON/OFF.

2 Mute button High gain (Channel 1 / 2)

This button will mute the High frequency band. If you mute the High frequency band, you will only hear the Low frequency band.

 $\stackrel{\textstyle \bigcirc}{}$  High gain (Channel 1 / 2)

The High gain adjusts the high frequency range, Range 0 dB (OFF) to +6 dB at 10 kHz.

 $\stackrel{\text{(4)}}{}$  Range switch (Channel 1 / 2)

With this switch you can set the crossover frequency between range 80 – 1kHz (x1) or between range 800-10 kHz (x10).

(5) Crossover frequency (Channel 1 / 2)

With this control you can set the desired crossover frequency between 80 – 10 kHz. You can change the range with the Range switch.

6 Mute button Low gain (Channel 1 / 2)

This button will mute the Low frequency band. If you mute the Low frequency band, you will only hear the High frequency band.

(7) Low gain (Channel 1 / 2)

The Low gain adjusts the low frequency range. Range 0 dB (OFF) to +6 dB at 100 Hz.

8 High clip led (Channel 1 / 2)

This High clip LED will light up when the High frequency band is clipping. This led should light up only occasionally for optimal operation and avoid distortion. Turn the Input Level control down if the LED is always on.

(9) Input level (Channel 1 / 2)

With this control you can regulate the Input level signal. Range 0 dB (OFF) to +6 dB.

 $\bigcirc$  Low clip led (Channel 1 / 2)

This Low clip LED will light up when the Low frequency band is clipping. This LED should light up only occasionally for optimal operation and avoid distortion. Turn the Input Level control down if the LED is always on.



#### **Backside**

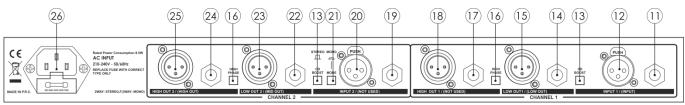


Fig. 03

### (11) Channel 1 input ( jack 6,3 mm)

Balanced input jack 6,3 mm for the mixer in stereo mode (Channel 1). In the mono mode this is an input jack 6,3 mm mono for the mixer.

### (12) Channel 1 input (XLR)

Balanced input XLR for the mixer in stereo mode (Channel 1). In the mono mode this is an input XLR mono for the mixer.

## (Channel 1 / 2)

High frequencies, even when reproduced by good quality compression drivers and horns, suffer of fast decay. Therefore the sound pressure level of high frequencies is affected by the distance of the horn from the Audience. With some large Live applications it may be necessary to boost the high frequencies to compensate such loss. CD boost stands for Constant Directivity Boost. Pressing this switch you will produce a boost of 3 dB at 3,5 kHz and then 6 dB x oct up to 22,5 kHz.

## (14) Channel 1 output low (jack 6,3 mm)

Balanced stereo 6,3 mm jack output for the Low frequency band in stereo mode. In the mono mode this is a mono 6,3 mm jack output for the Low frequency band.

## 15 Channel 1 output low (XLR)

Balanced stereo XLR output for the Low frequency band in stereo mode. In the mono mode this is a mono XLR output for the Low frequency band.

### 16 High phase (Channel 1 / 2)

With this switch you can reverse the phase from the High output 180°.

## 17 Channel 1 output high (jack 6,3 mm)

Balanced stereo 6,3 mm jack output for the High frequency band in stereo mode. Don't use this output in the mono mode.

## (18) Channel 1 output high (XLR)

Balanced stereo XLR output for the High frequency band in stereo mode. Don't use this output in the mono mode.

### (19) Channel 2 input (jack 6,3 mm)

Balanced input jack 6,3 mm for the mixer in stereo mode (Channel 2). Don't use this input in the mono mode.

### © Channel 2 input (XLR)

Balanced input XLR for the mixer in stereo mode (Channel 2). Don't use this input in the mono mode.



2) Mono-Stereo switch

With this switch you can activate the Mono mode or Stereo mode.

Channel 2 output low (jack 6,3 mm)

Balanced stereo 6,3 mm jack output for the Low frequency band in stereo mode. In the mono mode this is a mono 6,3 mm jack output for the Middle frequency band.

23 Channel 2 output low (XLR)

Balanced stereo XLR output for the Low frequency band in stereo mode. In the mono mode this is a mono XLR output for the Middle frequency band.

Channel 2 output high (jack 6,3 mm)

Balanced stereo 6,3 mm jack output for the High frequency band in stereo mode. In the mono mode this is a mono 6,3 mm jack output for the High frequency band.

25 Channel 1 output high (XLR)

Balanced stereo XLR output for the High frequency band in stereo mode. In the mono mode this is a mono XLR output for the High frequency band.

26 IEC power connector 230V AC + Fuse T100 mAL/250V Connect the device to the appropriate power supply.

### Installation

Remove all packing materials from the ACX-2. Check if all foam and plastic padding is removed. Secure the equipment into a 19" rack if preferred. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing. Damages caused by non-observance are not subject to warranty.

### **Set Up and Operation**

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 115V specification product on 230V power, or vice versa.



### **Connection modes**

### Stereo connection example

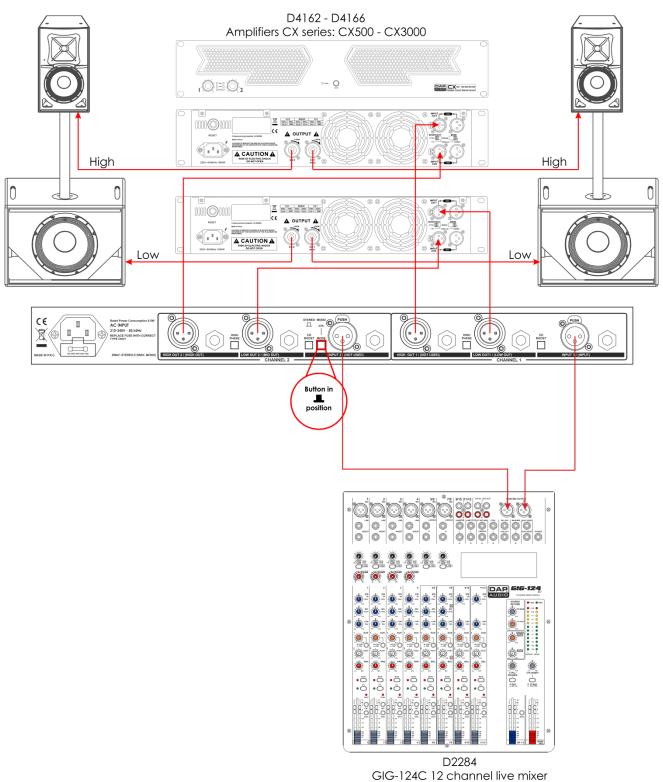


Fig. 04

**Note:** Switch the ACX-2 in the stereo mode as indicated in the figure above. Link all the cables before connecting electric power. First plug the ACX-2 into a proper electric power supply, then the amplifiers. If you want to switch off, first switch off the amplifiers, then the ACX-2.



### Mono connection example

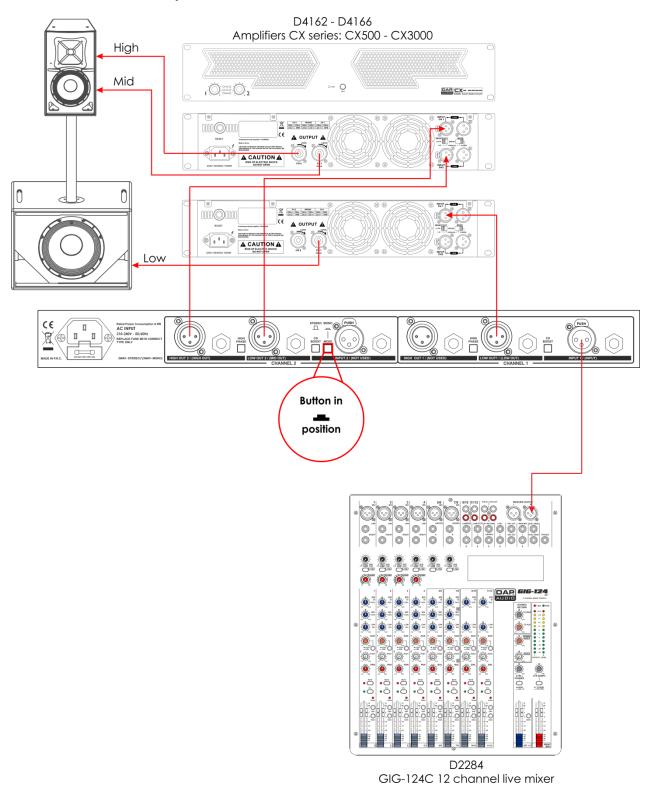


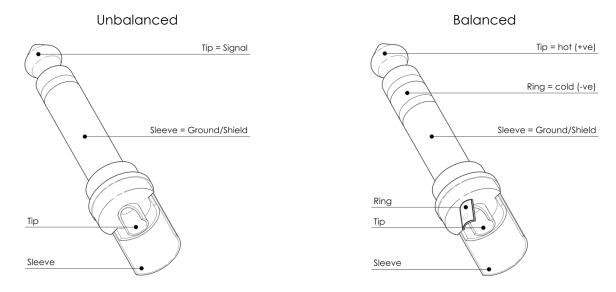
Fig. 05

**Note:** Switch the ACX-2 in the mono mode as indicated in the figure above. Link all the cables before connecting electric power. First plug the ACX-2 into a proper electric power supply, then the amplifiers. If you want to switch off, first switch off the amplifiers, then the ACX-2.

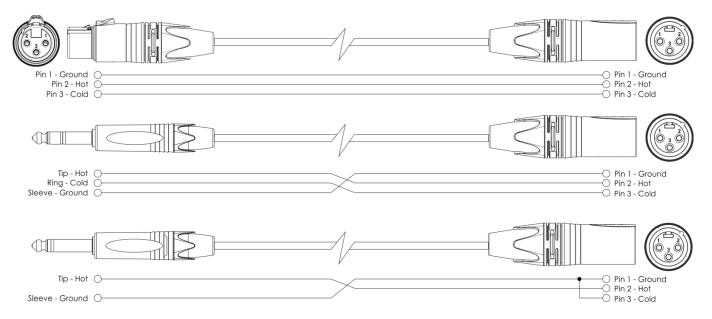


### **Connection Cables**

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability. Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.



For these applications the unit provides 1/4" TRS and XLR connectors to easily interface with most professional audio devices. Follow the configuration examples below for your particular connection.



### Maintenance

The DAP ACX-2 requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

### Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below.

- 01) Unplug the unit from electric power source.
- 02) Insert a screwdriver into the slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
- 03) Remove the used fuse. If brown or unclear, it is burned out.
- 04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

### **Troubleshooting**

Ordercode: D1905

#### DAP ACX-2

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

- 01) If the device does not operate properly, unplug the device.
- 02) Check power from the wall, all cables, connections, etc.
- 03) Replace the fuse. See page 12 for replacing the fuse.
- 04) If all of the above appears to be O.K., plug the unit in again.
- 05) If nothing happens after 30 seconds, unplug the device.
- 06) Return the device to your DAP Audio dealer.



## **Product Specifications**

Model:	DAP Audio ACX-2		
Power supply:	230V AC, 50 Hz		
Power connection:	IEC power connector		
Rated power consumption:	8,5W		
Fuse:	T100 mAL/250V		
Dimensions:	483 x 192 x 44 mm (LxWxH)		
	19" x 1HE (LxH)		
Weight:	2,66 kg		
Inputs & Outputs:			
Inputs:	2 x XLR, 2 x 6,3mm jack		
Input impedance::	20 KOhm balanced		
Outputs:	4 x XLR, 4 x 6,3mm jack		
Output impedance:	300 Ohm balanced		
Features:			
S/N Rate (A weight):	>95 dB		
Freq. response:	3 Hz - 40 kHz (+/-0.3 dB)		
THD:	< 0.004% typ. @ +4 dBu, 1KHz		
Crossover freq. range:	80 Hz - 10 kHz		
Phase correct range:	0°-180°		
Dynamic range:	115 dB		
Filter type:	Linkwitz-Riley, 24dB Octave		
Controls:	input levels, output levels, crossover frequency, mute switch		
Indicators:	input clip LEDs		
Max. ambient temperature $t_a$ :	40°C		
Max. housing temperature $t_B$ :	80°C		

Design and product specifications are subject to change without prior notice.



Website: <a href="www.Dap-audio.info">www.Dap-audio.info</a>
Email: <a href="mailto:service@highlite.nl">service@highlite.nl</a>



## **Dimensions**

