

Cyrus DAC X
User Instructions

Cyrus DAC X

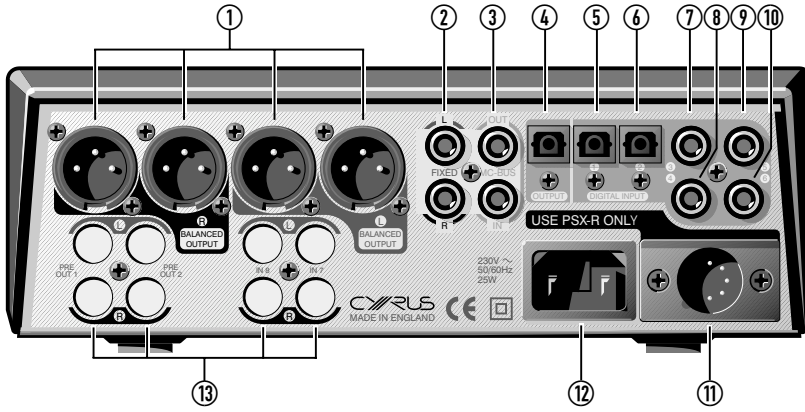
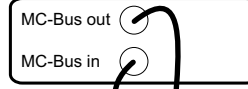


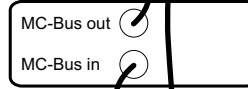
Fig 1

MC-Bus

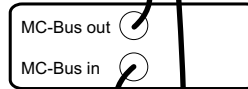
Cyrus CD player



Cyrus DAC X



Cyrus Tuner



Cyrus Amplifier

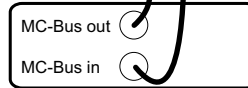


Fig 3

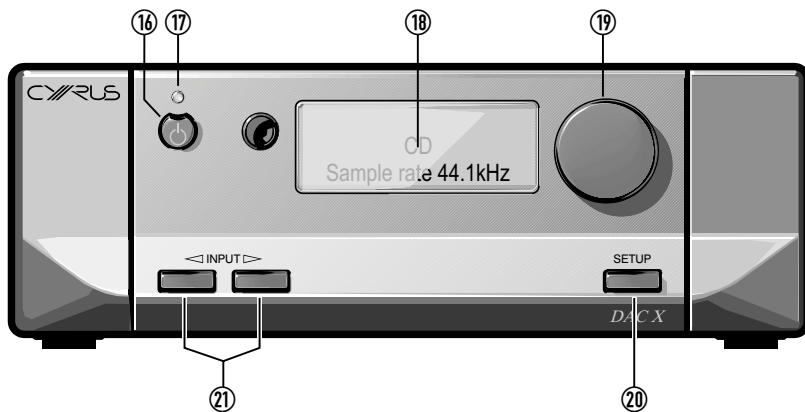


Fig 2

Fig 4a

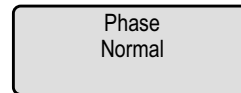


Fig 4b

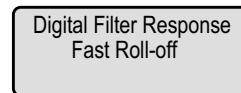


Fig 4c

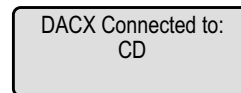


Fig 4d

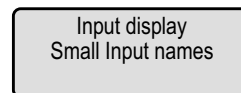


Fig 4e

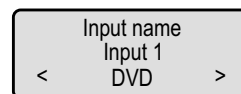


Fig 4

User instructions

Cyrus DAC X

IMPORTANT! Read before operating this equipment!

CAUTION: The exclamation mark is to draw your attention to important instructions and safety procedures in this manual.



ATTENTION: The lightning flash warns you of the risk of electrical shock presented by components inside this product. Unauthorised personnel must not open this unit.



WARNING: To reduce the risk of electrical shock do not remove any unit covers or panels. There are no user serviceable parts in this product.

WARNING: To reduce the risk of electric shock, do not expose this equipment to rain or moisture.

HEED WARNINGS: All warnings on the product and in the operating instructions should be adhered to.

READ ALL THE INSTRUCTIONS: All the safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS: The safety and operating instructions should be retained for future reference.

FOLLOW INSTRUCTIONS: All operating and use instructions should be followed.

CLEANING: Unplug this product from the mains before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

WATER AND MOISTURE: Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement; or near a swimming pool and the like. The product must not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the product.

HEAT: The product should be situated away from heat sources such as radiators, stoves, or any other products (including amplifiers) that produce heat.

VENTILATION: Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

OBJECT OR LIQUID ENTRY: Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

ACCESSORIES: Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

ATTACHMENTS: Do not use attachments not recommended by the product manufacturer as they may cause hazards.

MOVING THE PRODUCT: A product and cart combination should be moved with care. Sudden stops, excessive force, and uneven surfaces may cause the product and cart to overturn.



POWER SOURCES: This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

OVERLOADING: Never overload wall outlets, extension cords, or integral convenience receptacles. This can result in an increased risk of fire or electric shock.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

NAKED FLAMES: No naked flame sources, such as candles, must be placed on this product.

LIGHTNING: For added protection for this product during a lightning storm, or when it is left unattended or unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

CAUTION! POLARISED CONNECTOR (CANADA and USA):

To prevent electrical shock, match wide blade of plug to wide slot, fully insert. Do not alter or remove this plug if it does not fit your mains power socket. Have a suitable socket installed by a competent electrician.

POWER SUPPLY:

The moulded IEC connector of the AC cord supplied plugs into the power inlet @ on the rear of the unit.

The mains supply requirement for your *Cyrus DAC X* is marked on a label on the rear panel. Before connecting, check that this voltage is the same as your mains supply.

230V Products:	Voltage Range	220V-240V
115V Products:	Voltage Range	110V-120V

If you move to an area with a different mains voltage, contact your local *Cyrus* distributor to have your product converted.

There are no user replaceable fuses in this unit.

NOTE FOR UK CUSTOMERS:

The *Cyrus DAC X* is supplied with a power cable terminated by a fused 13A mains plug. This plug should not be removed but if it is removed, dispose of it safely and do not re-use it. To connect a new 13A plug, proceed as follows: Connect the brown wire to the terminal marked L or coloured red. Connect the blue wire to the terminal marked N or coloured black. The internal plug fuse should be 5A.

SERVICING:

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

CONDITIONS REQUIRING SERVICE: Unplug this product from the wall outlet and refer servicing to qualified service personnel when:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product has been dropped or damaged in any way.
- If the product does not operate normally by following the operating instructions. (Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage requiring extensive work by a qualified technician to restore the product to its normal operation).
- When the product exhibits a distinct change in performance.

REPLACEMENT PARTS: When replacement parts are required, be sure the service technician has used replacements specified by the manufacturer or have the same characteristics as the original part. Unauthorised substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK: Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Welcome to the world of *Cyrus*!

Congratulations on your choice of *Cyrus* Audio-Visual products. Our state-of-the-art design technology and outstanding quality of manufacture has won countless awards around the world. We are confident that you will derive great pleasure from owning a product from one of the most recognised and respected manufacturers of hi-fi equipment.

Please read these instructions carefully before commencing installation. They provide full guidance to help you install your *Cyrus DAC X* safely and correctly.

Preparations for Installation

Before installing the *DAC X* check that the following items are included in the accessory box.

- Warranty Card (back cover of this handbook)
- AC Mains Cable
- 2 MC-Bus phono cables

After removing these items, please retain the packaging.

Install the *DAC X* in a well ventilated location away from sources of high temperature, dust or humidity. Never stand the *DAC X* under another unit or on any surface likely to hamper its cooling or ventilation.

IMPORTANT NOTE:- To avoid damage to your system, always ensure that mains power is disconnected from all system components until installation is complete.

Installation

Key to the rear panel drawing (Fig. 1)

1. Dual balanced outputs	9. Input 5 Digital
2. Fixed level DAC outputs	10. Input 6 Digital
3. MC-Bus connections	11. PSX-R connection
4. Optical digital output	12. AC mains inlet
5. Input 1 Optical	13. Blanked preamplifier sockets for <i>DAC XP</i> upgrade
6. Input 2 Optical	
7. Input 3 Digital	
8. Input 4 Digital	

NOTE: When connecting inputs to the *DAC X*, ensure that only digital audio sources are connected to 'Digital' inputs.

Connecting Digital Audio Sources to the *DAC X*

The digital audio inputs of the *DAC X* are compatible with a number of different digital audio sources. These include-

- Digital Audio output from a CD player
- DVD players (for replay of 2 channel PCM programs only)
- Digital tape/disc recorders
- Digital Radio
- Digital Satellite receivers

Using a suitable Toslink optical or Digital phono interconnect, connect each digital audio source to one of the inputs 1-6. Make a note of the input number used for each source as the inputs of the *DAC X* can be re-named at the set-up stage.

Connecting the *DAC X* to an amplifier

The *DAC X* requires an external amplifier or preamplifier to provide input selection and volume control functions for the system, and to drive the speakers. Two output options are available from the *DAC X* via either standard RCA phono outputs, or via balanced audio connections.

CAUTION:- Do not connect power amplifiers to the Fixed output.

Connecting to amplifiers with phono inputs

With suitable phono interconnects, connect from the Fixed Out terminals ② to a suitable amplifier line input. All line level inputs, such as CD, TU, AU, AV are suitable. We recommend selection of an input that corresponds to the primary source connected to the *DAC X*. If the primary source is a CD player, the CD input is recommended, if the primary source is a DVD player, the AV input is recommended etc. For *Cyrus* amplifiers with optional MC-Bus connection, see also the section 'MC-Bus connections'.

Connecting to amplifiers with balanced inputs

If the amplifier is equipped with balanced inputs, the balanced outputs of the *DAC X* may be used. With suitable balanced interconnects fitted with XLR connectors, connect from the Balanced Output terminals ① of the *DAC X* to the input of the amplifier. Dual balanced outputs are provided for connection to a second amplifier or recording device with balanced input.

Connecting to the Digital Output

An optical Digital Output ④ is provided for the connection of another digital device to the *DAC X*. This may include such devices as a multi-channel surround decoder or a digital tape/disc recorder. The currently selected digital input signal will be routed to this output.

External Regulated Power Supply - *PSX-R*

The *PSX-R* is a unique DC power supply that will upgrade the sonic performance of your *DAC X* and other *Cyrus* products. When a *DAC X* / *PSX-R* combination is installed, the analogue section of the DAC stage is powered from this clean, stable power source while other requirements are supplied internally. This ensures complete isolation of the sensitive analogue sections reducing AC mains-borne noise and power supply ripple.

To connect the *PSX-R* to the *DAC X*, plug the connector on the umbilical cord of the *PSX-R* into the Multi-Pole socket on the rear of the *DAC X* ⑩. You will need a mains supply for both units.

MC-BUS Connections

MC-Bus operation

Connecting the MC-Bus sockets ③ of the *DAC X* to those of other *Cyrus* products is an option that provides unified system power control. With MC-Bus connections established the power function of all connected *Cyrus* components may be controlled from the system amplifier or its remote control.

All connected components will also set to Standby when the amplifier is set to Standby.

MC-Bus connection

An MC-Bus loop is established by connecting single phono cables from the MC-Bus output of one unit to the MC-Bus input of another. Complete the loop by returning the MC-Bus output of the final component to the MC-Bus input of the first. The drawing in Fig 3 shows an example of MC-Bus wiring for a *Cyrus DAC X* with a CD player, tuner and amplifier.

MC-Bus configuration

Within a *Cyrus* system, the *DAC X* may be connected to either the CD, TU, AU or AV input, as selected by the user to best match their system components. To ensure that the *DAC X* will power on when the correct input is selected, the MC-Bus response may be configured accordingly.

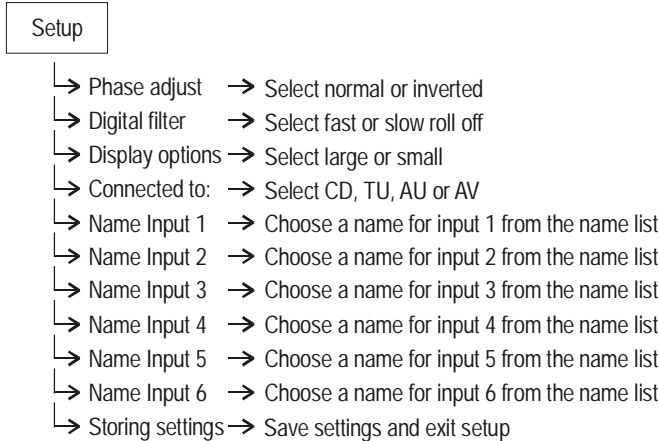
The factory response enables the *DAC X* to switch on when the CD input is selected from the amplifier. To change the response, refer to the paragraph 'DACX Connected to' in the following section.

SETTING UP THE DAC X

There are many configuration options available in the setup menu to customise the DAC X to best match each individual system.

The setup sequence is activated by pressing the front panel setup button Ⓞ. Each press of the setup button will step through each available setup option until 'Storing settings' is shown on the display. When each setup screen is displayed, changes may be made to the settings by moving the rotary knob.

Settings will be stored automatically after 5 seconds of inactivity. The setup menu options are shown here –



Some examples of the setup display screens are shown in Fig 4.

Phase adjust (Fig 4a)

This menu option sets the audio phase for the DAC. The factory setting is normal. Some listeners may prefer the inverted setting with their systems or for when playing particular recordings.

Digital Filter Response (Fig 4b)

This menu option gives two settings for the digital filtering of the DAC stage. Choose your preference of Fast or Slow roll-off by auditioning some of your favourite tracks with each setting.

DACX Connected to: (Fig 4c)

This option may be used to change the remote control and MC-Bus response of the DAC X. From the factory, the DAC X will power on in response to a CD select command from a Cyrus remote control or from a CD select signal sent via MC-Bus, so if the DAC X is connected to the CD input of the amplifier, no change will be required to this setting. If, however, the DAC X is connected to the TU, AU or AV inputs of the amplifier, the appropriate remote and MC-Bus responses may be selected through this menu option to ensure power-on compatibility with the amplifier.

Input display (Fig 4d)

There are two modes of display operation. The small setting will show a two-line display with the selected input in the display centre and the current sample rate/lock status at the bottom. The large setting will show a single line display with a larger input legend.

Input names (Fig 4e)

When the DAC X leaves the factory, the input names are set to correspond to the rear panel connections, for example Input 1 will display as- Input 1.

The name of any input may be changed to a choice from the following list-

- No source (off)
- LaserDisc, DVD, DVD 2, DVD-A, CD, CD 2, SACD
- Linkserver, Linkport
- Jukebox, Phono
- Tuner, DAB, TV, AV, Cyrus AV, Satellite, Satellite 2, Cable
- VCR, VCR 2, Tape, MiniDisc, DAT
- PC, Games, Keyboard, Aux

To change the names of the inputs, we recommend making a list of each input number with your preferred name from the choices above before setting the names.

'No source' is a special function name, used to name inputs which have no source connected to them. These input numbers will not then appear in the input selector sequence.

OPERATING THE DAC X

Key to the front panel drawing (Fig.2):

16. Standby key	21. Input select
17. Standby light	
18. Display window	
19. Setup adjust	
20. Setup select	

Switching On

The mains power to the DAC X should normally be left on unless left unattended for a long period when the mains power at the wall socket should be switched off or the product disconnected from the AC supply.

Front panel

When power is applied, the STANDBY key Ⓞ is used for power control. The Standby light Ⓞ shows red when the DAC X is in Standby and green when operational.

Selecting an input

Inputs may be selected from the front panel INPUT SELECT buttons Ⓞ. As a new input is selected the input name/number are displayed briefly. The main display indication for input can be selected from the two options available from the setup menu.

The factory default 'small input' display option will also identify the sample rate of the selected source and indicate 'Invalid Audio Format' for program material which the DAC X will not decode (such as multi-channel digital sound from DVD players).

Remote control operation

Cyrus system remote controls

For convenience of operation, the DAC X will respond to CD system select commands from a Cyrus amplifier or system remote control, switching on each time the CD system is selected and switching off with power off commands. If the DAC X is connected to a different input (TU, AUX or AV) the remote response may be changed through the set-up menu to match the connected input. Refer to the paragraph 'DAC X connected to:' in the 'Setting up the DAC X' section to change the response.

Custom installations

The DAC X also features an extended remote command set that may be accessed with a computer programmable remote control, as may be specified with custom install systems. Details of the remote command specification are shown in the table below-

Transmission protocol:.....Philips RC5
 RC5 Device address:.....27

RC5 command list

1	Input 1
2	Input 2
3	Input 3
4	Input 4
5	Input 5
6	Input 6
12	Standby
24	Input scroll up
25	Input scroll down
40	Toggle phase
46	Power on
62	Power off

TROUBLESHOOTING GUIDE

If your *DAC X* is not operating properly, disconnect the power and carefully check all connections and the set-up procedure using the notes in this handbook. If problems persist, the checklists below may help.

If you are in any doubt, consult your dealer.

No sound from any speaker with any source	
Amplifier not switched on.	Switch on the system amplifier(s).
Outputs to amplifier not correctly connected.	Switch off the power to the audio system and check that connections have been correctly made from the source to the <i>DAC X</i> and from the <i>DAC X</i> to the system amplifier(s) and speakers.
No sound from one source	
Incorrect source selected.	Check source selection.
Input named incorrectly.	Check that the input is correctly named.
Pause may have been set.	Check the source.
Invalid audio format.	Check the audio format of the disc/tape to ensure it is compatible with the <i>DAC X</i> .
Input not correctly connected.	Switch off the power to the audio system and check that connections have been correctly made from the source to the <i>DAC X</i> .
Loud noises from the speakers with certain sources or discs	
Invalid audio format.	Check the audio format of the disc/tape to ensure it is compatible with the <i>DAC X</i> .
No sound from one loudspeaker	
Balance control at extreme limit.	Centralise the amplifier Balance control.
Does your speaker have fuses?	Check speaker, replace fuses.
Amplifier faulty.	The amplifier can be tested by exchanging left and right output channels from the <i>DAC X</i> . Switch off the power to the audio system before making any changes to the connections.

If a fault condition still remains, return the *DAC X* (together with the *PSX-R* if you are using one) to your *Cyrus* appointed dealer or an authorised Service Centre.

WARRANTY

The warranty card enclosed should be completed by the Dealer and the purchaser and returned to *CYRUS* or its Distributor within 8 days of purchase. No Dealer or Distributor may vary the terms of this warranty which is personal to the original Purchaser and is not transferable.

Please retain the sales receipt as proof of purchase.

Warranty claims must wherever possible be made through the Dealer from whom the equipment was purchased.

This warranty excludes:

- Damage caused through neglect, accident, misuse, wear and tear, or through incorrect installation, adjustment or repair by unauthorised personnel. Any unauthorised servicing will result in loss of guarantee.
- Liability for damage or loss occurring in transit to or from the purchaser.
- Consequential damage, loss or injury, arising from or in conjunction with this equipment.

Equipment for attention under warranty should be consigned return carriage paid. If returned equipment is found to comply with the published specification, *CYRUS* reserves the right to raise a charge.

The above conditions do not affect your statutory rights as a consumer.

Specifications

Power Supply

Voltage: As plate on rear of unit
 Power consumption (Standby) 12W
 Power consumption (Operational) 14W
 EMC & Safety Compliance (230V) CE
 EMC & Safety Compliance (115V) FCC, cCSAus

Enclosure

Dimensions (WxHxD) 215 x 75 x 365mm
 Weight 3.8Kg
 Material Die cast chassis

Audio Performance

Inputs

Input voltage 500mV pk-pk
 Input Impedance 75Ω
 S/N ratio, (PCM in, 0dBFS) 115dB
 THD+N, (PCM in, 0dBFS) 0.002%

Outputs

Output voltage (dig. in, vol max) Fixed out 2.3V
 Balanced out 4.6V
 Output Impedance Fixed out 47Ω
 Balanced out 47Ω

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