77 PRE-AMPLIFIER
&
77 SYSTEM CONSOLE

INSTRUCTION BOOK

QUAD

QUAD 77 PREAMPLIFIER   MODEL NO. 7741
QUAD 77 SYSTEM CONSOLE   MODEL NO. 7700

77 INSTRUCTION MANUAL

CONTENTS

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European Union Directives

Quad equipment is designed to comply with the legal provisions of EU Directives 89/336/EC and 72/23/EEC. The standards which have been applied were those in force at the time of the introduction of the product. The product bears the CE mark.

C E

Compliance cannot guarantee perfect performance. In the very rare circumstance that you experience problems you should first try to locate and remedy the origin of any disturbance. A further option is to relocate the Quad equipment in order to reduce the interference. Your dealer should be able to provide assistance if the problem persists.

FCC Rule 15 Class B

This equipment has been tested and found to comply with the limits for a Class B 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 not guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna

Increase the separation between the equipment and the receiver

Connect the equipment into an outlet on a circuit different to that to which the receiver is attached

Consult the dealer or an experienced radio/TV technician for help

This Class B apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations.

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Information to the user

Alteration or modifications carried out without appropriate authorisation may invalidate the user's right to operate the equipment.

It is always good practice to switch off equipment before connecting or disconnecting signal leads. This will prevent unpleasant and loud noises coming from the loudspeakers and avoid the risk of damage to equipment.

This equipment is double insulated and does not need a safety earth. It is important though that any equipment connected to it is earthed according to the manufacturers' instructions. This becomes more important as the number of units which are connected together increases.

Quad high fidelity equipment is designed to reproduce music at realistic levels, but there is a world of difference between the sound levels produced by a string quartet and a heavy metal group.

Please be aware that very high sound pressure levels can cause permanent damage, and that can also cause severe annoyance to neighbours.

INTRODUCTION

The QUAD 77 preamplifier offers the highest possible performance combined with all the facilities which the serious audiophile needs. The QUAD 77 preamplifier can be used with any of the QUAD 77 series amplifiers or any other suitable amplifier. It can be operated either from the push buttons on the front panel or the QUAD 77 System Console that is supplied with it. Some of the preamplifier functions can only be accessed from the System Console. The 77 Pre amplifier has inputs for three line level sources, one RIAA equalised phono input and a tape loop in addition to the those sources available on the Quadlink communications bus. This bus allows connection of up to 31 QUAD 77 "bus" sources. The QUAD 77 preamplifier has tone controls and a straight through bypass circuit. These can only be accessed from the System Console. The EQ section of the preamplifier has a low pass filter, a bass boost and cut and the QUAD "tilt" control pioneered on the QUAD 44 and incorporated on every QUAD preamplifier since.

This equipment is intended to be used for music reproduction in the home and we hope that it will give you much pleasure. The Quad 77 series comprises a range of equipment which can be connected together using Quad's interlink system which we call QuadLink. The 77 series offers a two way infra red 77 System Console which provides you with a unique means of controlling and receiving information from your 77 series equipment. Some products of the 77 series receive their power from the QuadLink bus. This power is provided by one of the special base units such as the 77 Integrated Amplifier, the 77 series preamplifier or the 77 series Audio Visual preamplifier. You can also provide your Quad 77 series equipment with signals from your existing equipment though you will not be able to control their functions with Quad's 77 System Console.

You should read the following useful notes before you begin to install and use the equipment. The notes are directed towards the responsible adult who is responsible for the safe installation of the equipment. You should not allow minors to attempt electrical installation or to carry out changes.

The Quad 77 preamplifier weighs approximately 11kg. It is built to be robust but you should be mindful of its weight when you carry it and place it down. Remember to check that any surface on which you place it is stable and is able to support this weight.

There are no user adjustable parts inside the equipment. You should refer any servicing to a qualified engineer or return the equipment to either the dealer or the Quad distributor.

The following abbreviations are used:
RIAA   Recording Industry Association of America
MM   Moving magnet cartridge
MC   Moving coil cartridge

PACKING LIST AND UNPACKING THE EQUIPMENT

The packaging contains the following items:

- The 77 preamplifier model 7741

- The accessory pack containing:
    one 1m long IEC mains lead fitted with the mains connector
    for your country
        for UK this is QUKES2B
        for Europe this is QE2P2S2
        for USA, Japan and Korea this is QU3ES2C
        or, for other territories, an appropriate cable will be supplied

    one 160mm long QuadLink terminated link cable, Q37414A

- one user manual
- one user registration card
- one set of packing materials comprising:
    one set of expanded polystyrene end cheeks
    one cardboard carton
    one polythene protective bag

You should retain the packing materials for future use or you may return them to your dealer. If you decide not to keep the packing, please dispose of it sensibly. The paper and plastics components are recoverable and should be taken to an appropriate recovery service.

You should consult the dealer from which you purchased the equipment if any of these items is not present.

You should retain the user manual and the information concerning the date and place of purchase of this equipment for future reference.

SAFETY AND OPERATION OF ELECTRICAL PRODUCTS

All electrical products carry with them the risk of electrical shock if they are misused or damaged. Quad 77 series equipment is intended to be used within the relatively protected environment of your house.

It is important that all electrical connections are competently and securely made to the unit before mains power is applied. You can further reduce risks by ensuring that access to the rear of the equipment is protected by careful placement of the equipment. Bear in mind that the voltage from the output of a power amplifier can exceed 34V peak and that bare metal parts of loudspeaker connectors, for example, must not be touchable while the equipment is powered.

You should not use loudspeaker cables or connectors that resemble or might be confused with mains cables and mains connectors. For this reason you should not use 4mm "banana" plugs or similar unshrouded pin types of connectors. Be careful not to damage loudspeaker cables with heavy furniture or spikes.

The Quad 77 series 77 System Console uses Nickel Cadmium - NiCad - type batteries and these are not intended to be removed from the 77 System Console unit. They are charged automatically when the 77 System Console is placed in the charging cradle. Other forms of charger should not be used.

GUARANTEE AND PRODUCT REGISTRATION

Your Quad 77 equipment is guaranteed against any defect in material and workmanship for a period of two years from the date of purchase. Within this period Quad will undertake replacement of defective parts free of charge provided that the failure was not caused by misuse, accident or negligence.

Your statutory rights within the territory in which you purchased the equipment are not affected by this guarantee.

A guarantee card is not provided because your guarantee begins on the day you purchased the equipment. You are encouraged to fill in and return to Quad the equipment registration card as this will help us with future product announcements.

Quad does carry out a regular review of its products and reserves the right to adjust the specifications and performance from time to time.

SERVICE ARRANGEMENTS

If your Quad equipment requires servicing you should return it to the supplier, the distributor for the country in which it was purchased or to Quad Electroacoustics Ltd. You should use the original packing. You should enclose a brief note with your name and address and the reason for returning the equipment.

Quad offers a same day service from Monday to Friday except for UK public holidays. Please telephone the number provided on your product registration card in order to make an appointment.

ACCESSORIES

We have provided this equipment with a simple selection of accessories which will allow this equipment to work with other equipments such as your cassette tape recorder, video player or other HiFi equipment. The following is a selection of accessories which are available at the present time:

accessory description	quad part number
IEC mains cable 2m long fitted with UK plug	QUKES2B
IEC mains cable 2m long fitted with European plug	QE2P2S2
QuadLink bus cable 160mm	Q37414A
QuadLink bus cable 1m	Q37404A
Double ended phono cable 500mm	QP2P2SA
Double ended phono cable 1m	QP2P21A
Double ended phono cable 2m	QP2P22A
Quad loudspeaker cable 2.5 sqmm flat form, beige	QLSCF2S
Quad loudspeaker cable 4 sqmm round form, beige	QLSCR4S
Quad loudspeaker cable 4 sqmm round form, blue	QLSCR4B
Quad loudspeaker cable 4 sqmm round form, purple	QLSCR4P

Note that we can not supply loudspeaker cables terminated with 4mm plugs nor the 4mm plugs themselves.

INSTALLATION

Properly installed Quad equipment will allow you to enjoy its performance. There are a few simple requirements. Wherever you place the equipment you should ensure that it is not at risk from spilled water, for example from plants and flowers, and that you are able to prevent small children and pets from gaining access to the cables and connections. The environment should be dry and free from rubbish. You should not place magnetically or thermally sensitive objects such as computer discs, credit cards, magnetic tapes and writable optical discs on the surface of the equipment as the combination of heat and magnetic field may be sufficient to corrupt the information stored on them.

To keep the bus connections simple place the preamplifier underneath other QUAD 77 source products like CD and tuner, but above 77 stereo power amplifiers. Power amplifiers can be placed along side or out of sight using a long ampbus cable which is available as an accessory.

CONNECTIONS

Rear Panel
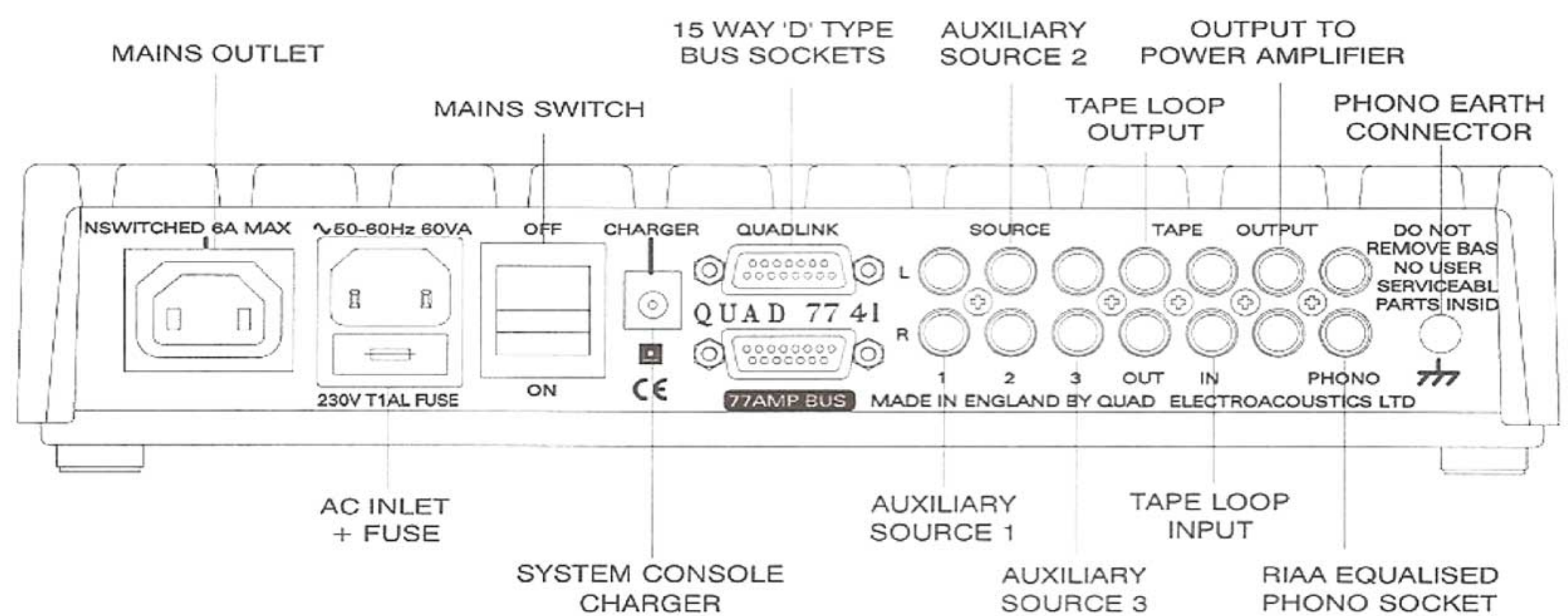
Before you connect the QUAD 77 preamplifier to the AC mains supply check that the voltage marked on the back matches the voltage of your supply.

Mains working voltage and fuse ratings

The rated voltage for this unit is marked on the rear panel. Within the EC the nominal mains voltage which is provided to homes is 230Vac.

You should check with the dealer if you intend to use the equipment in regions which use different values of mains voltage. The dealer will be able to determine if a simple wiring change or a replacement transformer is needed. Quad manufactures equipment to the following principal mains voltage requirements:

- Europe, including the UK, uses 230Vac
- Japan uses 100Vac
- USA, for example, uses 117Vac
- Korea, for example, uses 220Vac

If you are in any doubt what the correct operational voltage is you should ask a qualified electrician before applying power to the equipment. The Quad 77 preamplifier will work correctly within the tolerances of this voltage.

The mains supply fuse of the Quad 77 preamplifier is accessible on the rear panel when the IEC mains plug has been removed. In the rare event that it has broken you should first check for any obvious cause before replacing the fuse with one of the correct rating and type. The correct fuse values are:

Country or region	nominal mains voltage	fuse rating
Europe including UK	230Vac	1A TL slow blow 5x20mm
Japan	100Vac	2A TL slow blow 5x20mm
Korea, for example	220Vac	1A TL slow blow 5x20mm
USA, for example	117Vac	2A TL slow blow 5x20mm

You should switch off the equipment and remove the connection to the mains power outlet before changing the fuse.

CONNECTING TO THE MAINS SUPPLY

Quad equipment supplied in Europe is provided with a mains cable fitted with an appropriate mains plug. You should not cut this plug from the cable or use it with its fuse cover removed. If, for any reason, the plug has to be removed then it must be disposed of. It must *not* be plugged into a mains socket under any circumstance.

A replacement plug requires a two core mains cable which should be wired as follows:

* the **BROWN** wire must be taken to the **LIVE** terminal
* the **BLUE** wire must be taken to the **NEUTRAL** terminal

In the UK a fused 13 Amp mains plug should be fitted with a fuse link rated to 13 Amp which conforms to BS1362. In other countries the nearest value between 10 Amps and 15 Amps should be used at either the wall socket or at the mains distribution board.

When you are trimming or cutting cables and wires you should be careful to avoid the waste parts from falling onto or into any electrical equipment.

If you are in any doubt you should consult a qualified electrical engineer.

The power supply input is via an IEC mains connector and an appropriate mains lead is supplied. A.C. Mains is fed back out via an unswitched IEC mains outlet to provide power to the poweramp(s) to which the preamp is connected. **Note: Only amplifiers that do not need to be earthed can be connected to this AC output. QUAD 606, 306, 405 and 303 amplifiers must be connected directly to an earthed AC outlet and not to the AC outlet on the QUAD 77 preamplifier. The total load on this outlet should not exceed 500w.**

ON / OFF SWITCH

The On/Off switch is on the rear panel. The preamplifier should normally be left switched on and just put into standby when not in use. This has the added advantage that the System Console charging cradle is always on and the System Console will always be fully charged.

Use of correct connectors and cables

You should ensure that any cables which are used with Quad equipment are properly terminated and that the cable is appropriate to the task. This is particularly important with loudspeaker cables and connections. If you are in any doubt you should consult your dealer.

In order to connect the low level signals into the equipment Quad 77 series uses RCA phono plugs at each end of a screened cable. Properly made cables will reduce the effects of interference and will ensure a connection which is free from added noise and distortion.

QUAD 77 SOURCES

QUAD 77 CD player and Tuner are connected by the QUADLINK bus cable. The QUAD 77 preamplifier supplies power for up to three QUAD 77 bus powered products.

When Quad 77 series units are connected together they determine which unit should become the master unit at the time when mains power is applied. It is this unit which carries out communication with the Quad 77 System Console. Only one such master can be operating in a room at any one time. Note that since it is not possible to have more than one 77 series master operating at any one time it is not possible to connect the Quad 77 preamplifier to a Quad 77 integrated amplifier and obtain correct operation. You should not attempt to join the QuadLink connection from a preamplifier to another 77 series preamplifier or integrated power amplifier as it may cause damage.
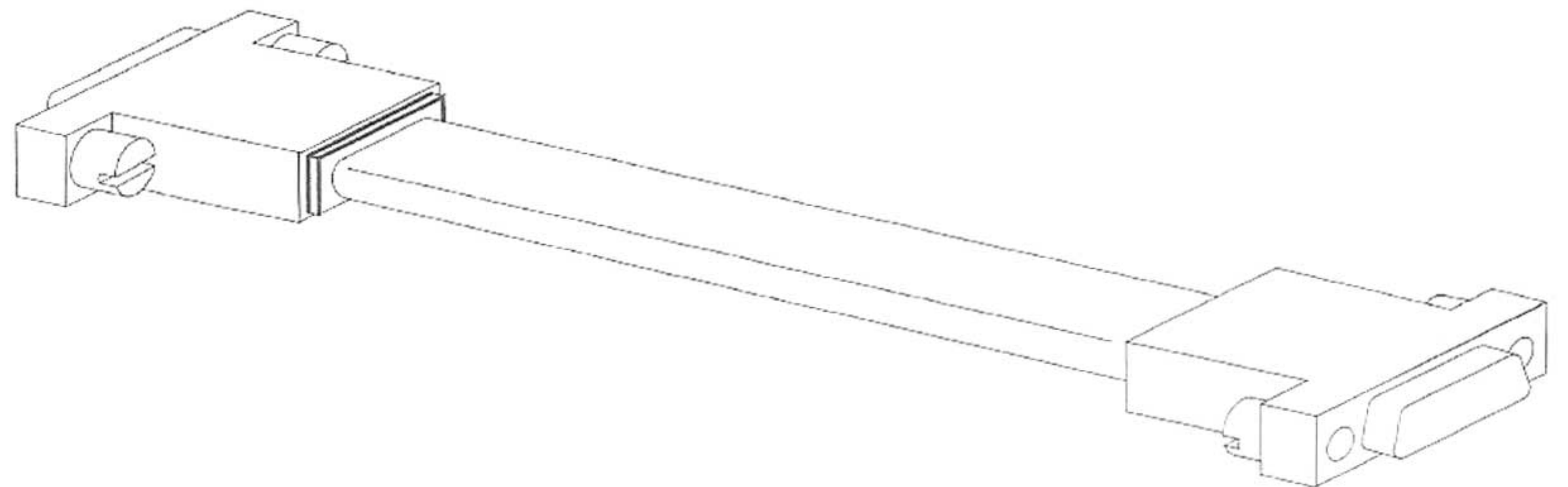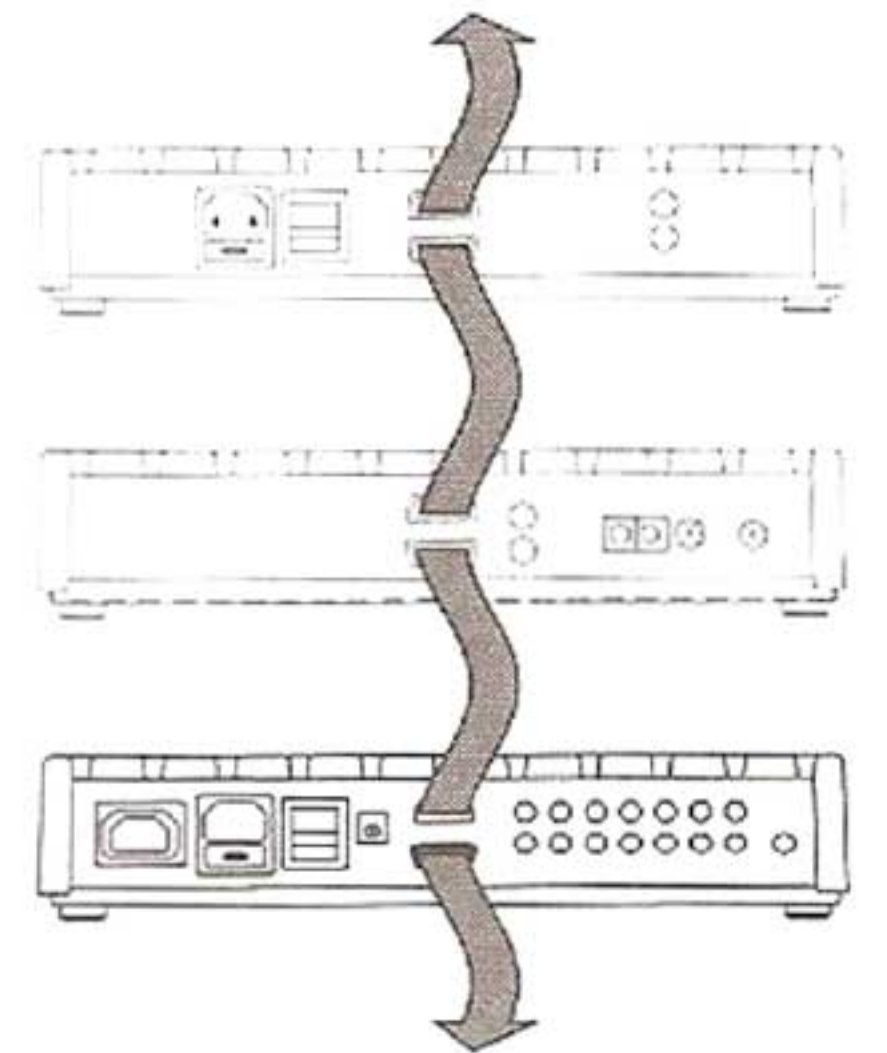
This shows the general view of a QuadLink cable. The ends are terminated with a male and female form of the D type 15 way connector. Quad manufactures two lengths of this cable, 160mm and 1m. The 77AmpBus cable is actually electrically and physically identical.

Other Sources

Other sources are connected to the appropriate inputs using suitable interconnect leads. A turn-table should be connected to the Phono input and earthed (grounded) to the terminal next to the input. Input sensitivity can be altered from the System Console, so at this stage it is not necessary to worry about the output level of the various sources you are connecting.

There are two 15 way D type bus sockets. The top female connector links to the other units on the Quadlink bus. The 77 Preamplifier is a Bus master product with facility to supply 30 Vac to the other QUAD 77 source products on the bus. The bottom female connector is a dedicated bus, 77 AMPBUS , to link to any 77 series power amplifier. A non 77 series power amplifier must be plugged to the phono socket outputs. The 77 AMPBUS carries an in / out of standby signal for the power amplifier. This signal is not available via the phono output connector.

The Quad 77 preamplifier can provide power to charge the batteries used in the 77 series 77 System Console. The charging cradle is supplied with the 77 series 77 System Console. The connector should be plugged into the correct socket on the rear panel of the 77 preamplifier. It can be left continuously connected. If it is intended to operate the 77 series 77 System Console when it is being charged it will help infra-red communication if the cradle is placed in front of the 77 preamplifier.
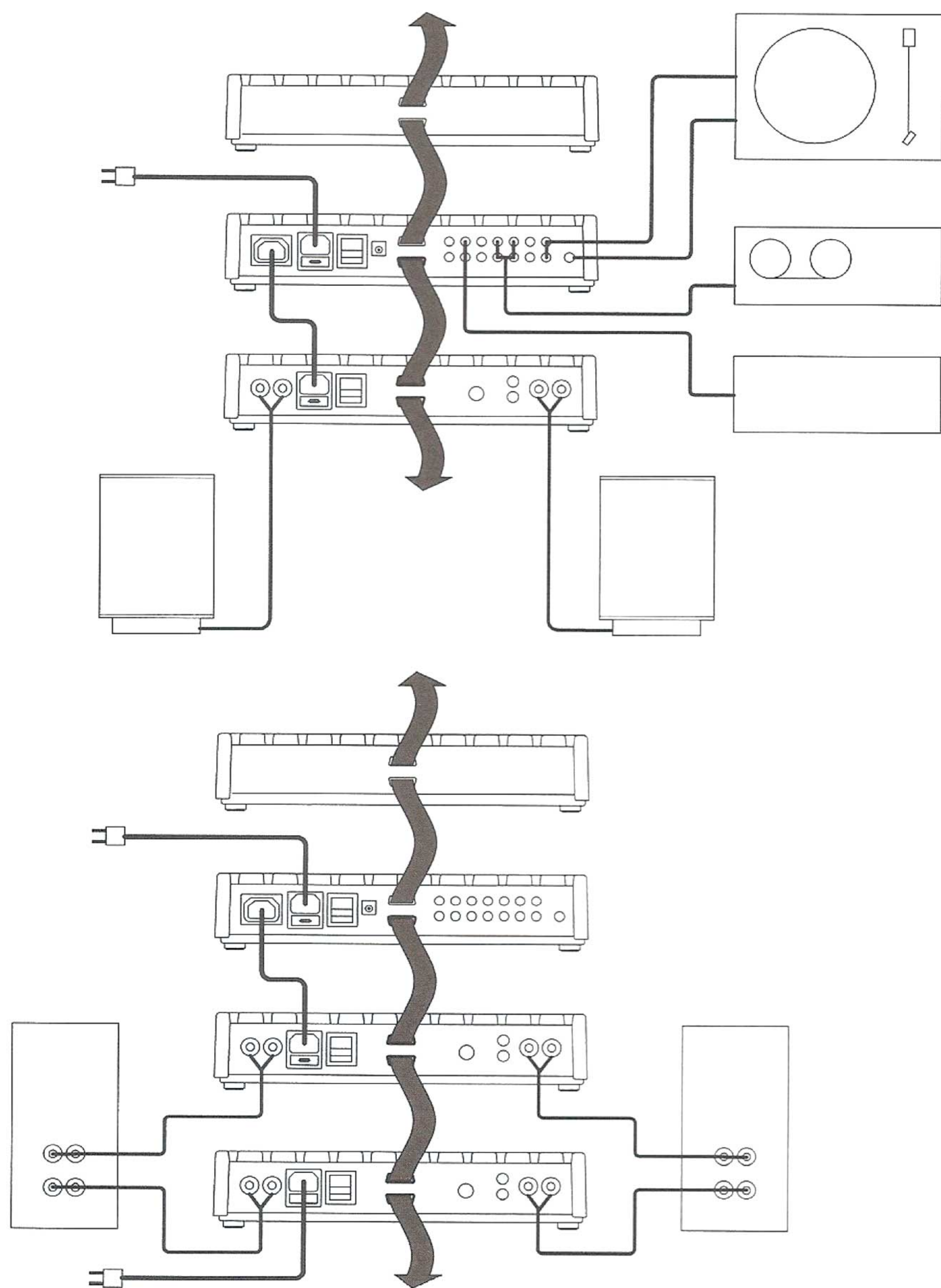
These diagrams show some Quad 77 system components in typical arrangements. The top sketch shows the arrangement with a turntable connected to a 77 preamplifier. The lower sketch shows how further Quad 77 series stereo power amplifiers can be used in a bi-amplified system.

FRONT PANEL DESCRIPTION AND FUNCTIONAL OPERATION

The front panel has 7 push buttons. The display shows the number of the selected auxiliary source, if any, and the volume or balance setting.
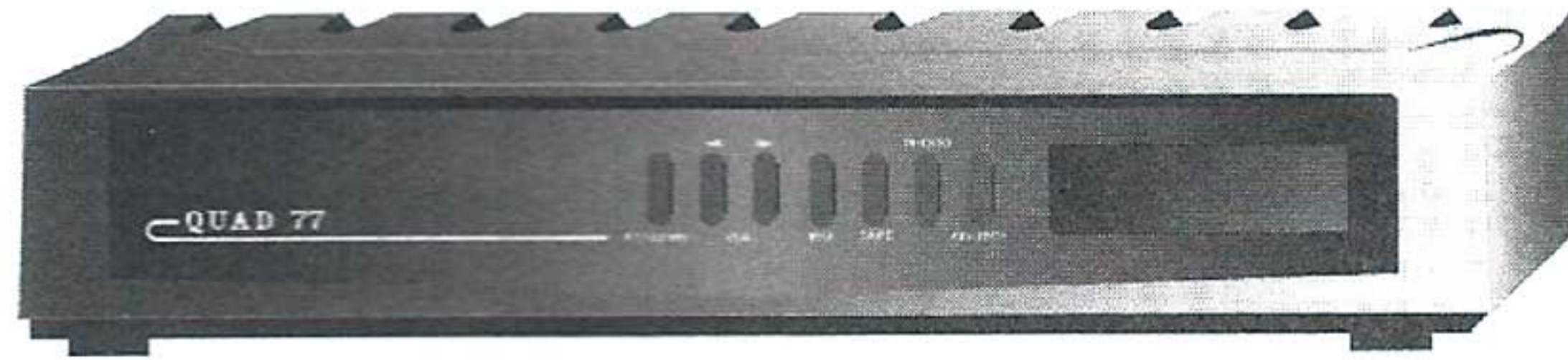
Behind each front panel button, except for the volume buttons, is an LED indicator. When under front panel control the indicators are red, and when under remote control they change to green.

Standby
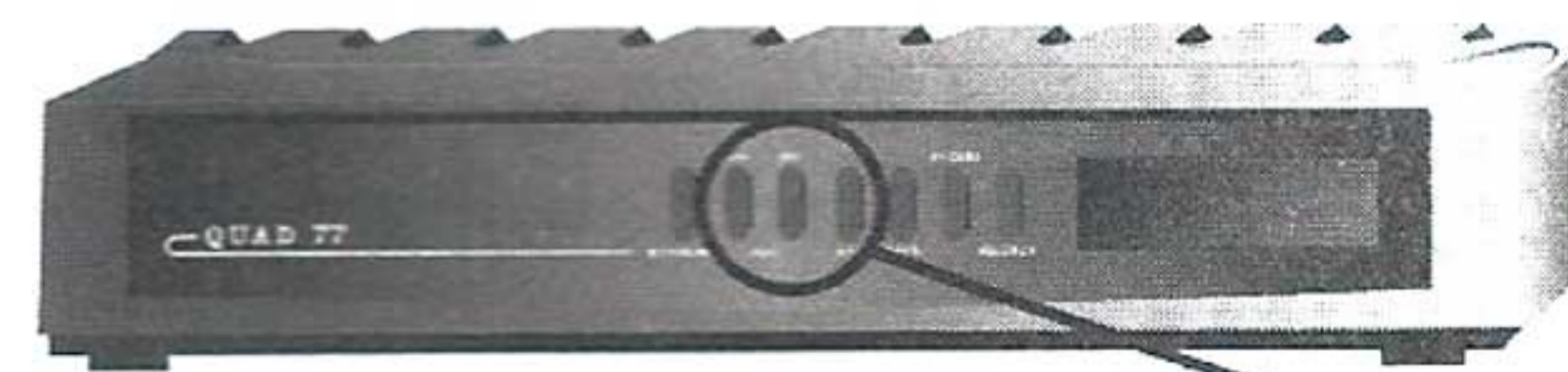The standby button toggles the unit (and all other 77 products) in and out of standby.

Volume
The volume down and up buttons decrease and increase volume.

Balance
Toggles on/off. When balance is selected from the front panel, use volume controls to move the sound picture to the left or right.

Tape   Toggles On/off. The tape button selects the tape input and provides off tape monitoring. The tape output is linked to the selected source (either 1, 2, 3, phono, or the bus source).
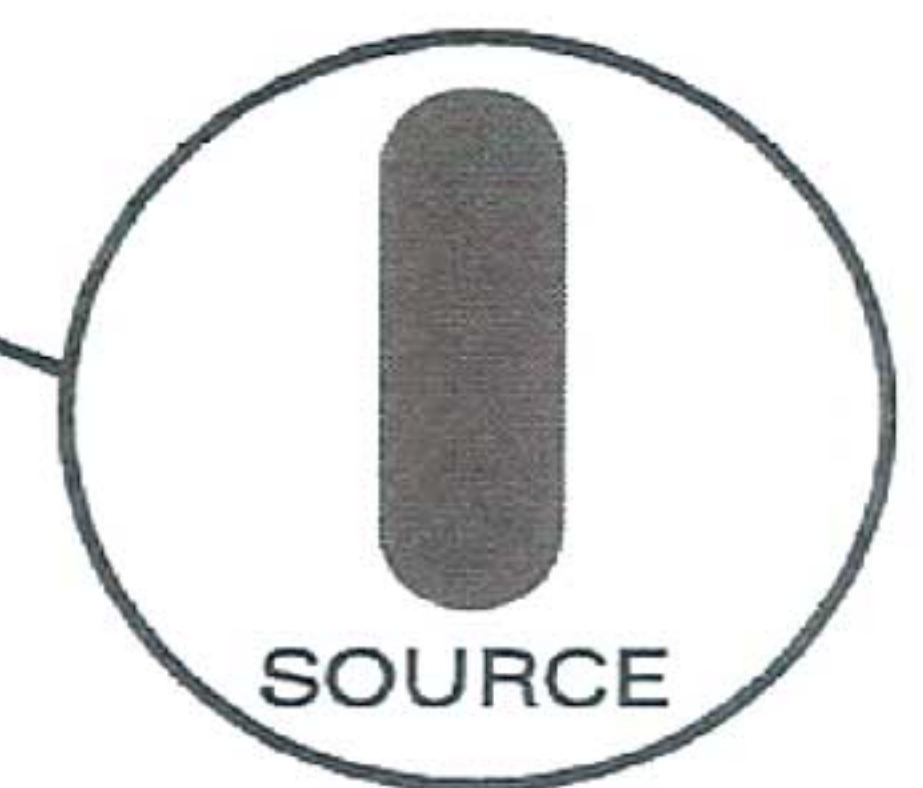

Phono   The phono button will select the RIAA equalised input. To change from Moving Magnet to Moving Coil hold the phono button down for five seconds. The display will change to show either 1 or 2. Hold the phono button down and press source to change from 1 (Moving magnet) to 2 (Moving coil) and vice versa.
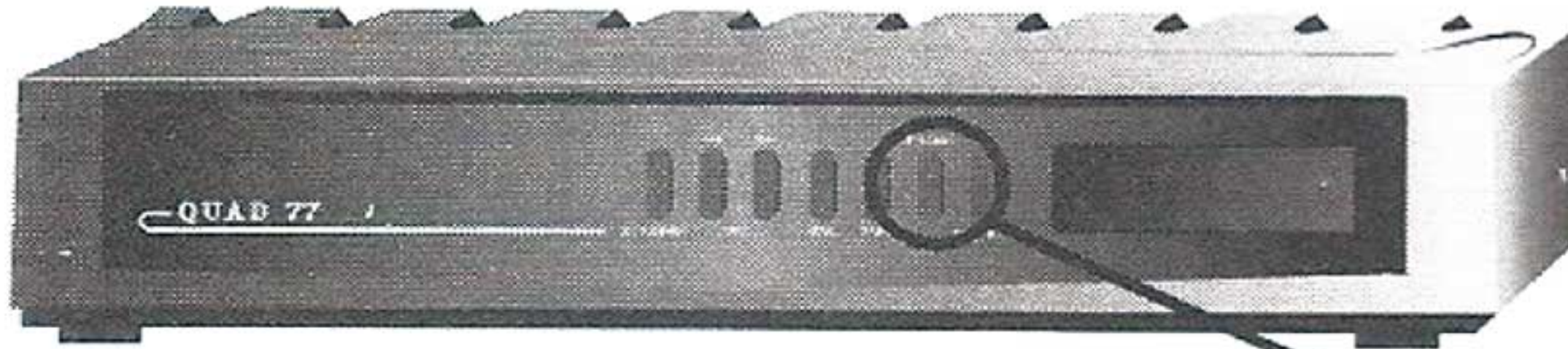
Source.   Scrolls between three aux inputs.

OPERATION FROM THE QUAD 77
SYSTEM CONSOLE

How it works

A QUAD 77 system consists of a bus master product and a number of bus slaves connected together by the QUAD LINK bus. The QUAD bus carries signal and system commands and power for a number of bus powered sources. The system and the System Console communicate via a two way infrared link. The master handles all the infrared communications and feeds instructions to the other units as appropriate and transmits system status reports to the System Console. The Bus master is normally, but not necessarily, the preamplifier. There is a protocol that automatically establishes which unit in the system is to be the bus master. The System Console sends instructions to the QUAD 77 system and receives back on command status reports from the system. Status reports are normally sent every five seconds, but the System Console will switch to Power Save if no commands are sent for a period of 5 minutes. The System Console has four buttons with fixed functions and six buttons with functions defined by the text in the display. When a command is chosen the display changes to show a new set of possible commands. Each set of commands is called a menu and the menu tree shows the route from menu to menu.

Important

Make sure that the System Console is fully charged before you start to use it. Your QUAD 77 System Console leaves the factory fully charged, but the batteries will gradually discharge. It is always a good idea to charge the System Console for a few hours before you try to use it. Operation will be erratic if it is not fully charged.

If the System Console has been in stock for some time the batteries may have discharged to such an extent that the display is blank. In this case it will be necessary to fully charge the batteries and it should be left on charge for 24 hours. The microprocessor will switch on once battery volts reach a certain level. To switch the microprocessor on lift the System Console out of the cradle and then replace it.

Charging

Plug the charger into the socket on the back of the QUAD 77 amplifier. Switch the amplifier on. Drop the System Console into the charger. The top message line will read **FAST CHARGE** and the cursor line will display a continuous expanding and contracting line. When the System Console is fully charged the display will show **SLOW CHARGE** and the cursor will change from an expanding line to a moving point. Whenever you put the System Console into the charger, the microprocessor is automatically reset and the display changes to the top level input menu. It is a good idea to put the System Console on charge when you are not using it.

DISPLAY - There are four lines of text and a graphics display which shows volume and balance settings.

STANDBY - Has three functions. Press once to switch the system on. Press momentarily to mute or unmute. Hold down to put the system into standby.

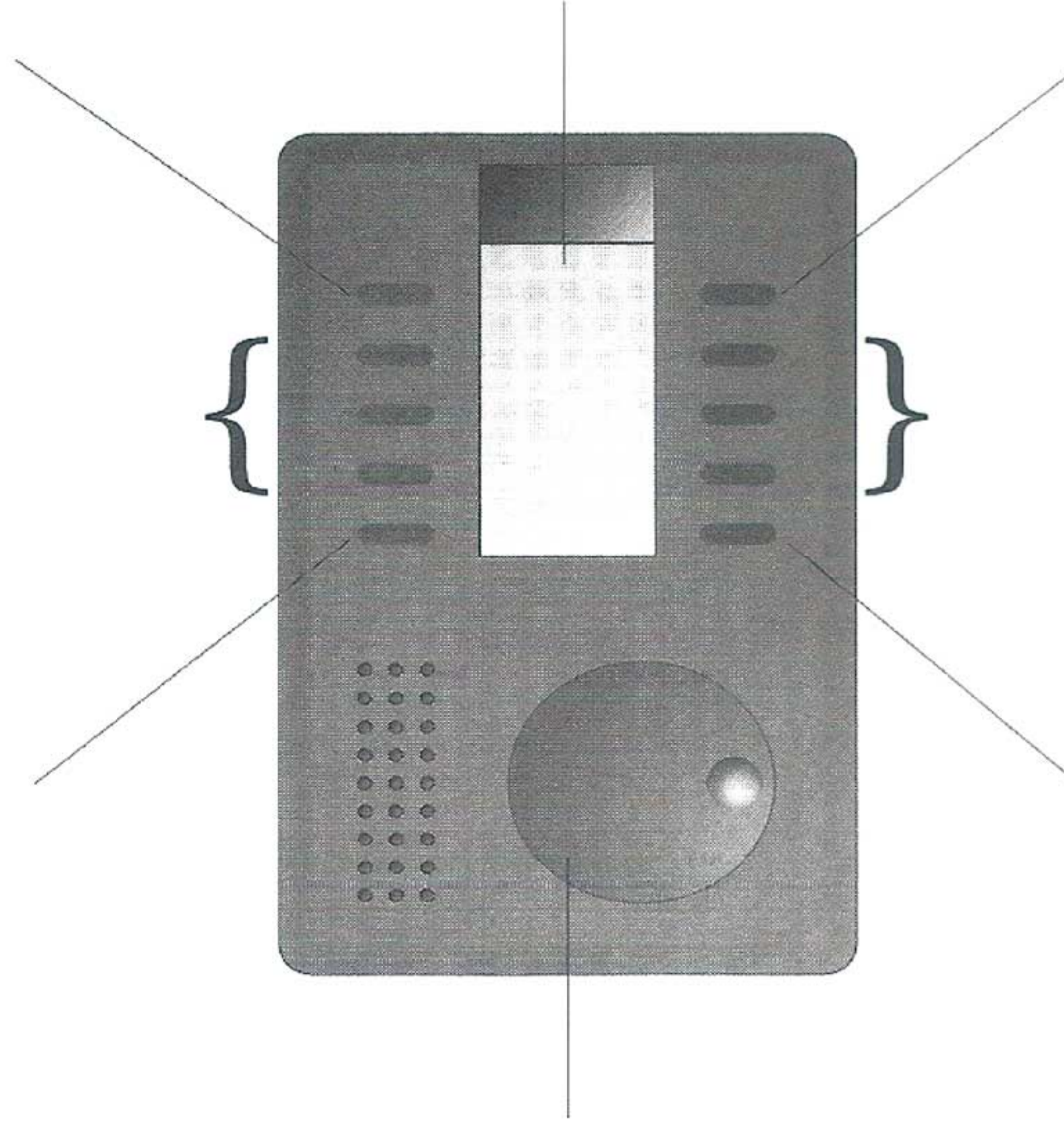SOURCE - Press to get to the top level input menu.
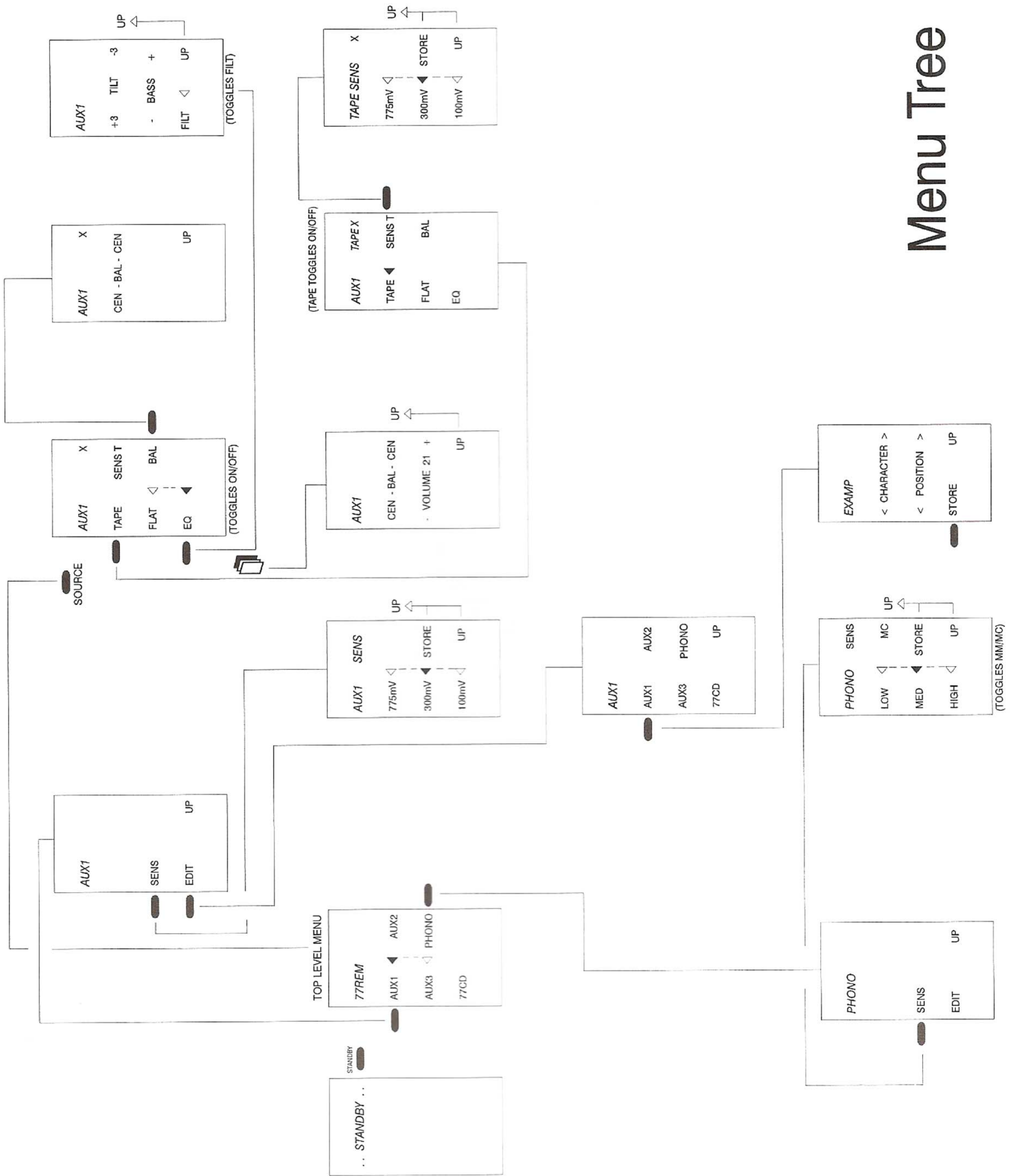
SOFT BUTTONS

SOFT BUTTONS

EXPAND - Press to display a menu with more than six choices when you see an X in the top right corner of the display.

MENU SWAP - Press to toggle between input and control menus.

CONTROL KNOB - The knob controls volume and balance and is also used for quick editing of input names. Settings are shown on the graphics display and on the expanded control menu.

AUX1
+3 TILT -3
- BASS +
FILT ▽ UP

(TOGGLES FILT)

AUX1
X
CEN - BAL - CEN
UP

TAPE SENS X
775mV ▽
300mV ▼ STORE
100mV ▽ UP

(TAPE TOGGLES ON/OFF)

AUX1 TAPE X
TAPE ▼ SENS T
FLAT BAL
EQ

AUX1
X
TAPE SENS T BAL
FLAT ▽ ▼
EQ

(TOGGLES ON/OFF)

AUX1
CEN - BAL - CEN
- VOLUME 21 +
UP

EXAMP
< CHARACTER >
< POSITION >
STORE UP

AUX1 SENS
775mV ▽
300mV ▼ STORE
100mV ▽ UP

AUX1 AUX2 PHONO
AUX1 AUX3
77CD UP

PHONO SENS
LOW ▽ MC
MED ▼ STORE
HIGH ▽ UP

(TOGGLES MM/MC)

AUX1
SENS
EDIT UP

TOP LEVEL MENU

77REM AUX2
AUX1 ▼ PHONO
AUX3 ▽
77CD

PHONO
SENS
EDIT UP

STANDBY

. . STANDBY . .

SOURCE

ESTABLISH COMMUNICATIONS

The first step is to establish communications between the QUAD 77 preamplifier and the System Console.

Switch the preamplifier on and set it to standby.

```
REM VER  01.38

RESET    CL_TXT
```

Press and hold down the Source button on the System Console and place it in the charging cradle keeping the source button pressed until the Reset menu appears.

Press the Reset button. The display will change to-

```
Press
Any Key
```

Press any button. The display will ask you to wait and then show you the Standby menu.

The System Console now recognises the Preamplifier and other QUAD 77 sources connected to it.

```
77REM

AUX1  ◄   AUX2

AUX3  ◁   PHONO
```

Press Standby to switch the system on.

If you add another QUAD 77 source you must reset the System Console.
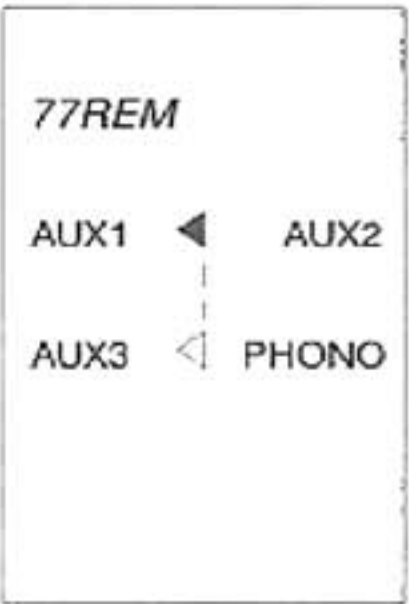
Select an Input

Press the button adjacent to the desired input. An arrow head will show you that the input has been selected.

```
77REM

AUX1  ◄   AUX2

AUX3  ◁   PHONO
```
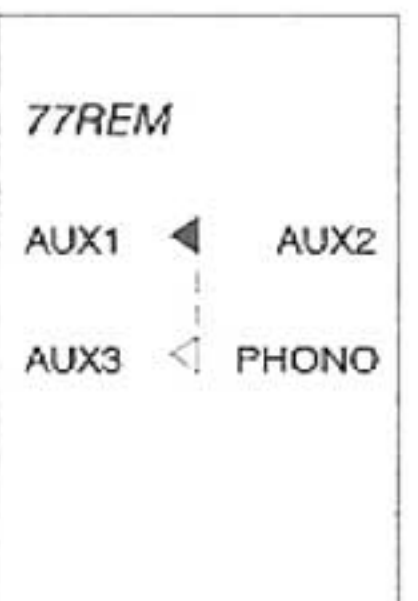
Input Sensitivity

All inputs, except the Bus input, have adjustable sensitivity. Press the selected input and the display will change to-

```
AUX1


SENS


EDIT      UP
```

Press SENS and the display will change to-

Select the appropriate input sensitivity and then press Store.

```
AUX1    SENS

775mV ◁

300mV ◄   STORE

100mV ◁   UP
```
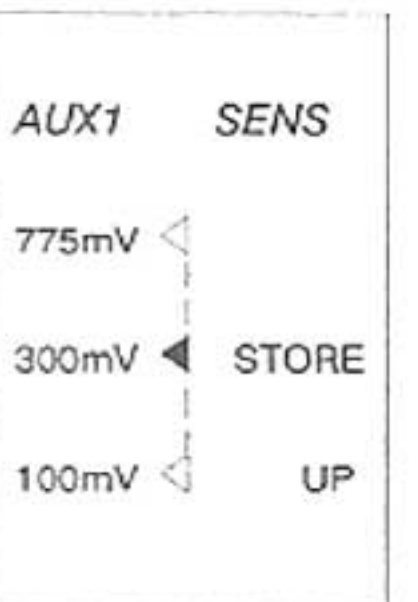
The new input sensitivity for that input is stored and the display will revert to-

If you are not sure which input sensitivity is appropriate then you can find it by trial and error. You cannot damage the preamplifier by choosing the wrong sensitivity setting. The aim is to have all inputs with roughly the same loudness for a given volume control setting, so that you can change from one input to another without abrupt changes in loudness.

```
AUX1


SENS


EDIT      UP
```

PHONO INPUT SENSITIVITY

Phono input sensitivity is adjusted in exactly the same way but there are six settings, three for MM and three for MC. Select MM or MC and then either High Med or Low. The table gives input sensitivity for each setting, but again you can find the correct setting by trial and error without fear of damaging the equipment.

```
PHONO     SENS
LOW        MC
MED    ◄  STORE
HIGH       UP
```
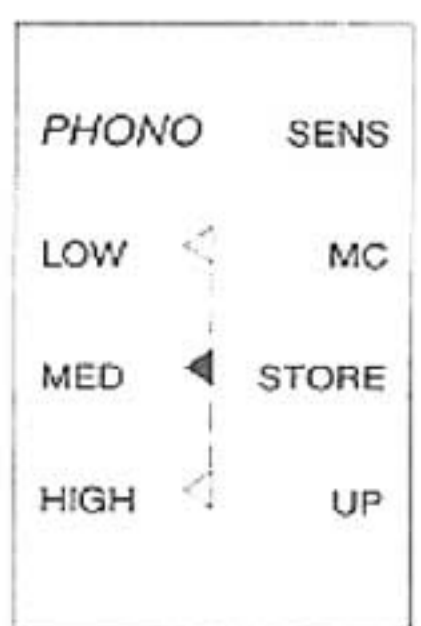
Sensitivity Setting	Sensitivity mm	Overload Margin mm	Sensitivity mc	Overload Margin mc
HIGH	1 mV	39 dB	100 uV	39 dB
MED	3 mV	29 dB	300 uV	29 dB
LOW	7.75 mV	21 dB	775 uV	21 dB

Edit an Input.

The names of all inputs can be edited to reflect the sources connected to them.

Press EDIT to get to the Edit menu which will show you which text can be edited. Suppose that you want to change AUX1 to TUNER. Press AUX1 to move to the next edit menu. Press either of the POSITION buttons. This will clear the top line and show a cursor. You can move the cursor either by pressing the appropriate POSITION button or holding down either POSITION button and using the knob. Start with the cursor to the left. Press either CHARACTER button. You can scroll through the alphabet in either direction to the letter T by holding down either CHARACTER button and using the knob. You will find a full set of upper and lower case letters plus numbers and some symbols. Press the right hand POSITION button to move the cursor one space right. Hold down a CHARACTER button and scroll to U. Move the cursor, scroll to N and so on until you have TUNER on the top line. Press STORE and the edit is finished. To clear an edit press ⬚ EXPAND and then clear. You can have a maximum of five characters in a button description.

```
EXAMP
< CHARACTER >
< POSITION >
STORE    UP
```

PREAMPLIFIER CONTROLS

Press the menu swap button ⬚ which is bottom right on the System Console and the display will change to-

The menu swap button toggles between input menus and control menus.

You can alter tape sensitivity by selecting SENS T.

You can select TAPE either as Tape monitor when recording or to listen to a tape. You can select tone controls by pressing EQ or by-pass the Tone controls by selecting FLAT. Tone control settings are saved and can be recalled by pressing EQ.

```
AUX1        X
TAPE   ◄ SENS T
FLAT       BAL
EQ     ◄
```

```
TAPE SENS   X
775mV ◄
300mV ◄ STORE
100mV ◄ UP
```
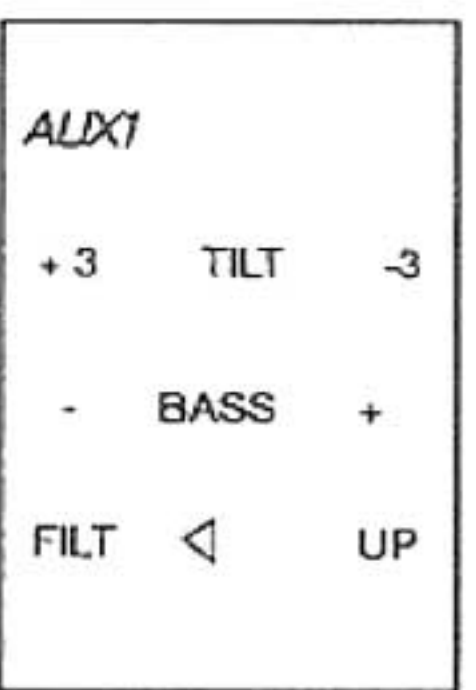
Volume and Balance

The knob always acts as the volume control unless balance has been selected. You can see the volume and balance control settings by pressing the Expand button.

```
AUX1
CEN - BAL - CEN
- VOLUME 21 +
UP
```

|		
Tone Controls	Select EQ and press again, and the display will show the tone control menu.	*AUX1* +3 TILT -3 - BASS + FILT ◁ UP

The QUAD 77 tone controls are an invaluable aid to improving imperfect recordings and have been carefully designed to help you to overcome some of the more common problems, without adding colouration or distortion. There are no hard and fast rules about when and when not to use tone controls. If the recording or broadcast sounds less than realistic then do not be afraid to experiment. You can always by-pass them by pressing FLAT.

Tilt   Tilt allows you to slope the entire frequency response about a central point. Press the left hand button to raise the bass and lower the treble and vice versa. There are six settings apart from flat. The effect is subtle but allows you to add warmth to an otherwise over bright recording or life to an otherwise dull recording without adding colouration. The graph shows the shape of the different settings.
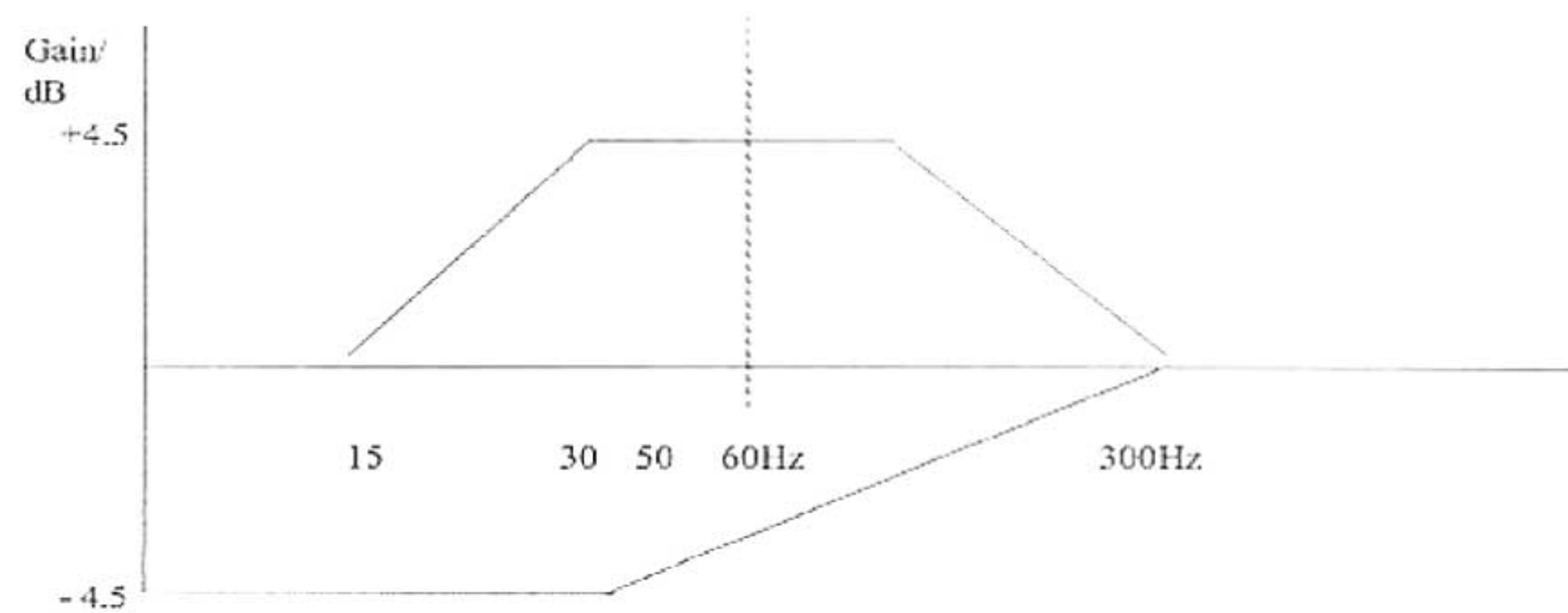
"Tilt" Filter Responses
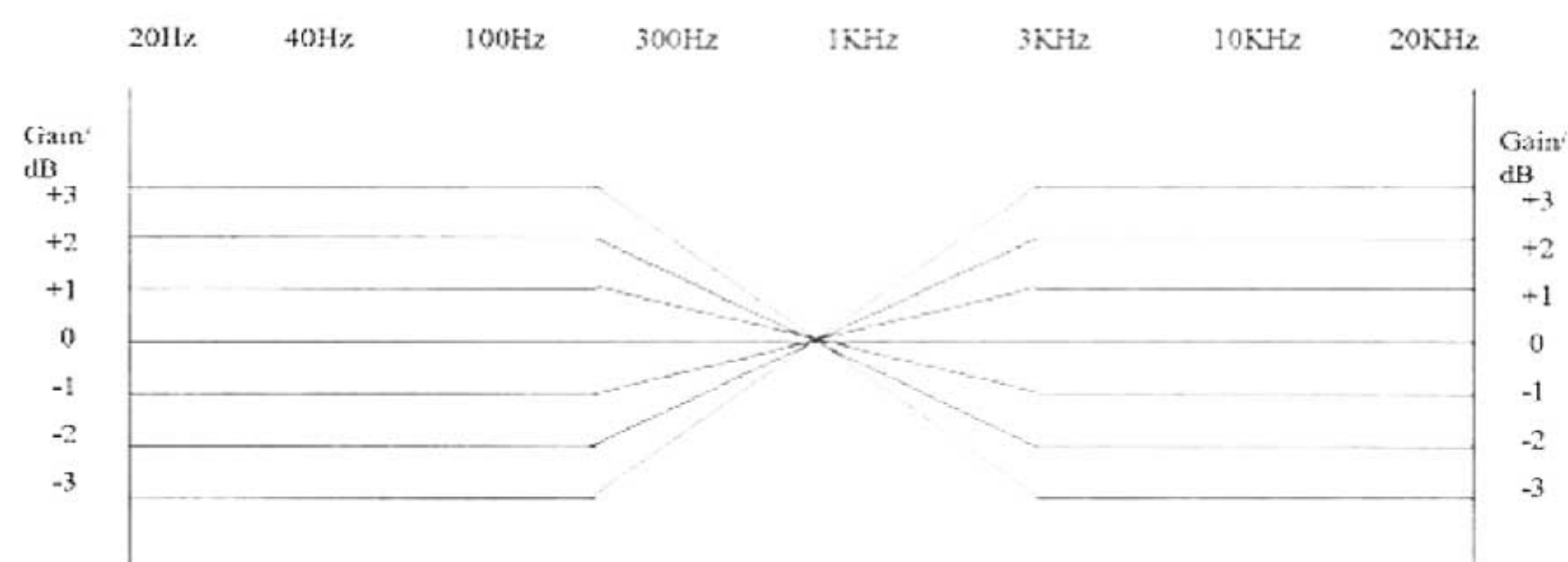
Bass.   Bass has one position of boost and one of cut. You would use boost with a small moving coil loudspeaker and cut if the loudspeakers were placed in a corner or too close to the back wall of the listening room.

Bass Response

Filter   The filter is on or off indicated by an arrow head. The phono input includes a permanent "rumble" filter. This has a response with a 3dB point at 5Hz and slope of 6 dB/ octave. The "scratch" filter is a low pass filter with a response as shown below, with an initial slope at 6dB / octave. The response of the two filters is shown here combined. The scratch filter can be switched in to the signal path on any input.
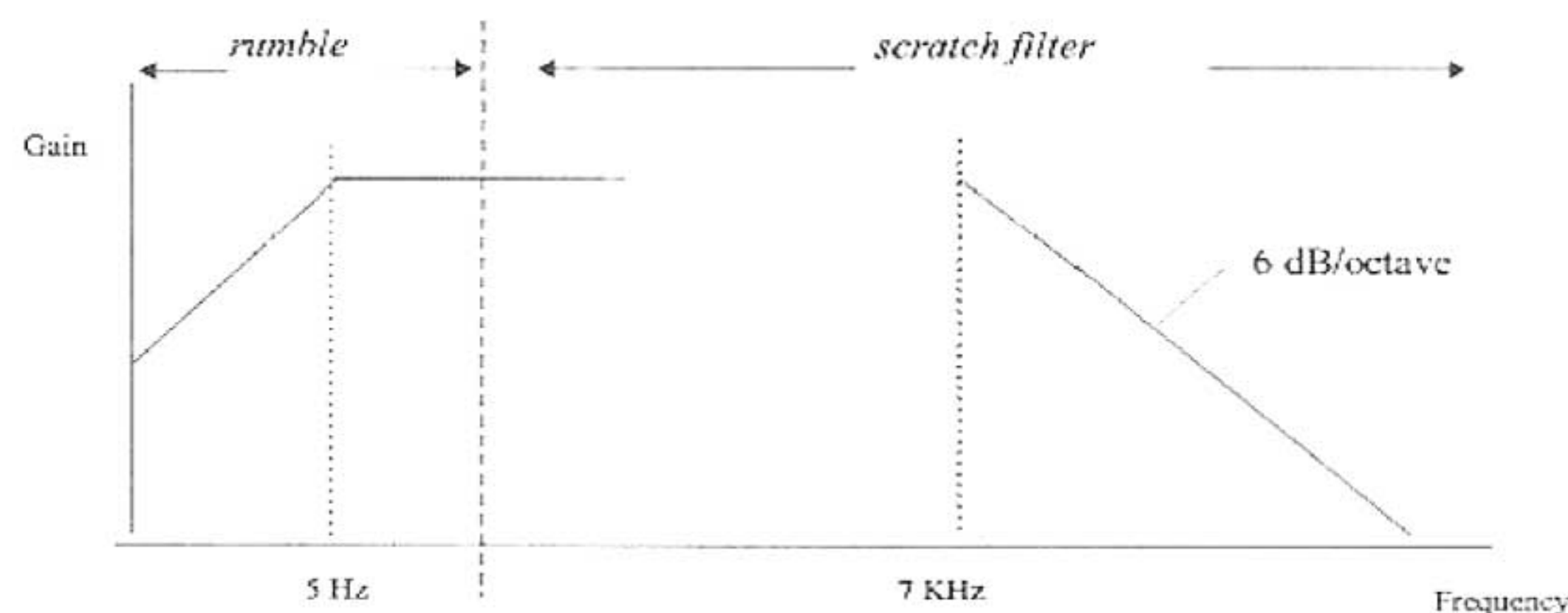
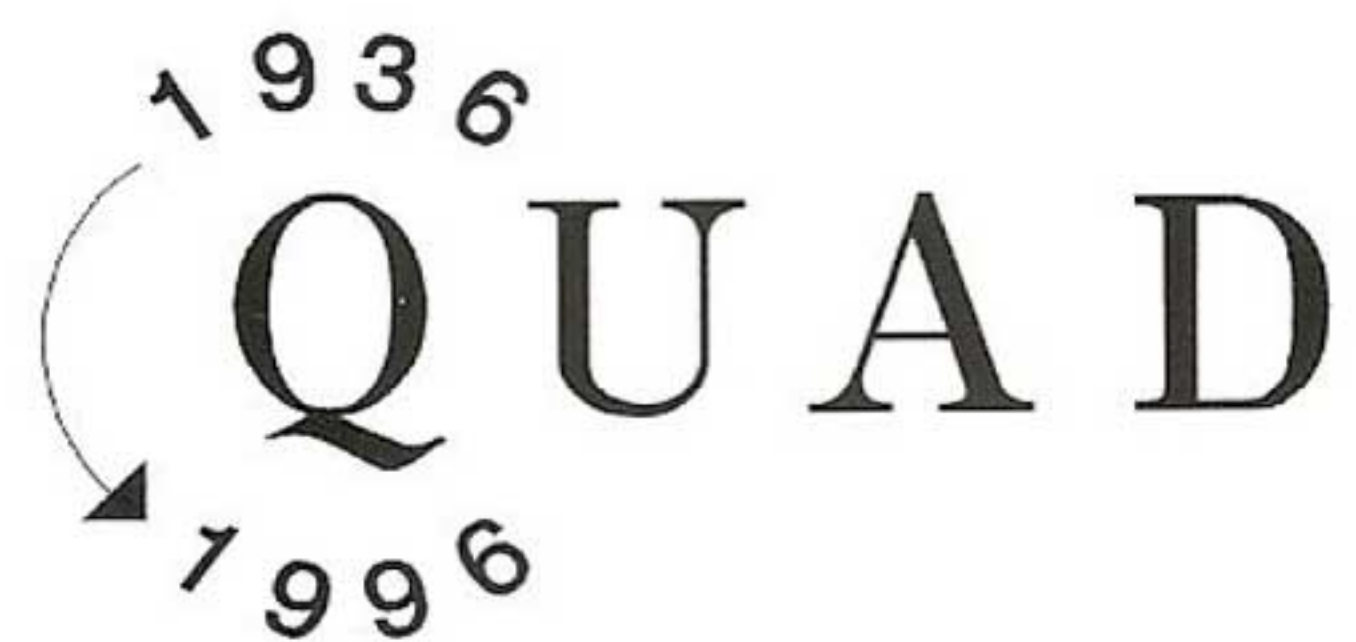**Up**   This takes you back to the main control menu.

CARE AND CLEANING

The surface of the equipment may be cleaned with a damp cloth provided that the power has been removed first. Solvent based cleaning materials should not be used as they may damage the paint finish and the optical quality of the front panel windows.

BASIC OPERATIONAL FAULT DIAGNOSIS FOR USERS

This section may help you to determine if your Quad 77 preamplifer is connected up incorrectly or, very rarely, has developed some kind of fault.

SYMPTOM	POSSIBLE PROBLEM
There is no STANDBY or other light when power is applied	The mains outlet switch is not turned on. There is no power available from the mains socket. The mains cable is faulty. The mains plug fuse is faulty. The IEC plug has not been pushed in firmly enough. The rear panel fuse has blown. The front panel printed circuit board has failed.
The equipment front panel operates OK but there is no signal from the loudspeakers	Note: before adjusting and checking cables you should ensure that the volume control is at a low setting. There is no mains supply to the amplifier. The signal cable from 77 preamplifier to power amplifier is faulty. The connection between the power amplifier and the loudspeaker is faulty. The signal cables have not been properly pushed into the sockets at each end. The CD you were playing has finished. There is no audio input signal for the source you have selected. The loudspeakers have been damaged. The QuadLink and 77AmpBus connections have been poorly made.
The front panel controls do not operate	There is more than one Quad 77 series system being used in the room. The front panel printed circuit board has failed.
The front panel controls work but the 77 System Console has no effect	The 77 System Console is too far from or behind the infra-red sensing window of the 77 preamplifier. The 77 System Console batteries are flat, note that the 77 System Console display may give the appearance of good operations. There is some object obscuring the 77 preamplifer window. The 77 System Console has failed.
The fuse blows each time the 77 preamplifier is turned on	The incorrect fuse value has been used. The unit is being supplied with the wrong mains voltage. The QuadLink bus, or equipment attached to it, is faulty. There is an internal fault.

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