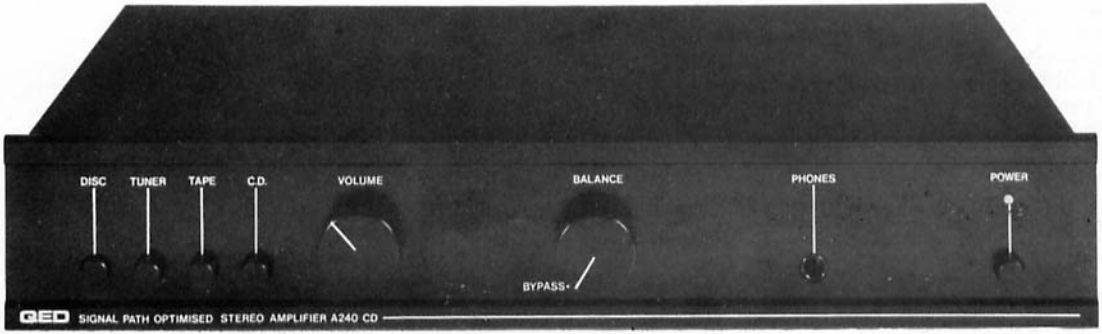
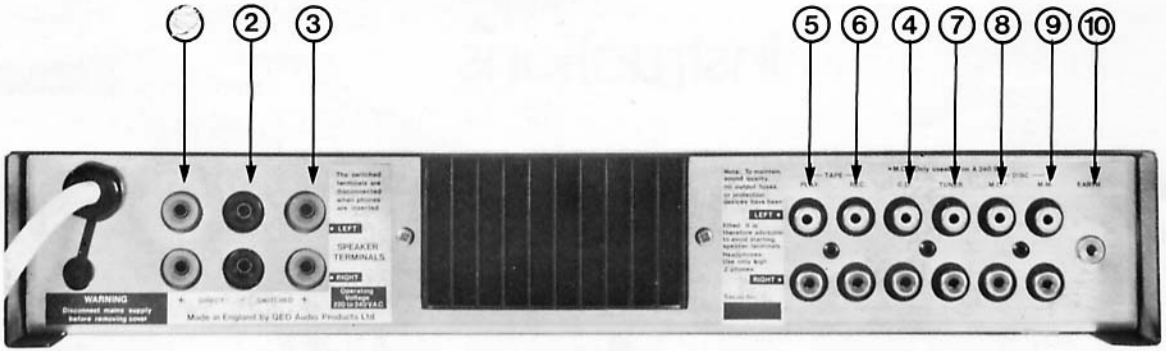
Instructions

A230S/240CD/240SA Stereo Amplifier



We recommend that you read this instruction booklet BEFORE using the QED Stereo Amplifier.



MAINS CONNECTION (1)
Either a standard 13 Amp mains plug (fitted with a 3 Amp fuse) or a QED miniature 6 Amp mains plug (see recommended accessories) needs to be fitted to the mains cable in accordance with the instructions.
BROWN to live (L), BLUE to neutral (N), and GREEN to earth (⏚).

LOUDSPEAKER CONNECTION (2) = DIRECT
(3) = SWITCHED
For the best sonic performance, we recommend that the negative "GROUND" (black terminals) and the positive "DIRECT" (red terminals) are used. The type of terminals fitted are 4m.m. sockets so it will be necessary to use cables with 4m.m. plugs fitted (see recommended accessories). Should you require the loudspeakers to be switched off when the headphones are inserted, it will be necessary to change from the red terminals to the white "SWITCHED" terminals.

COMPACT DISC INPUT (4)
This is for the connection and correct attenuation of a Compact Disc player.

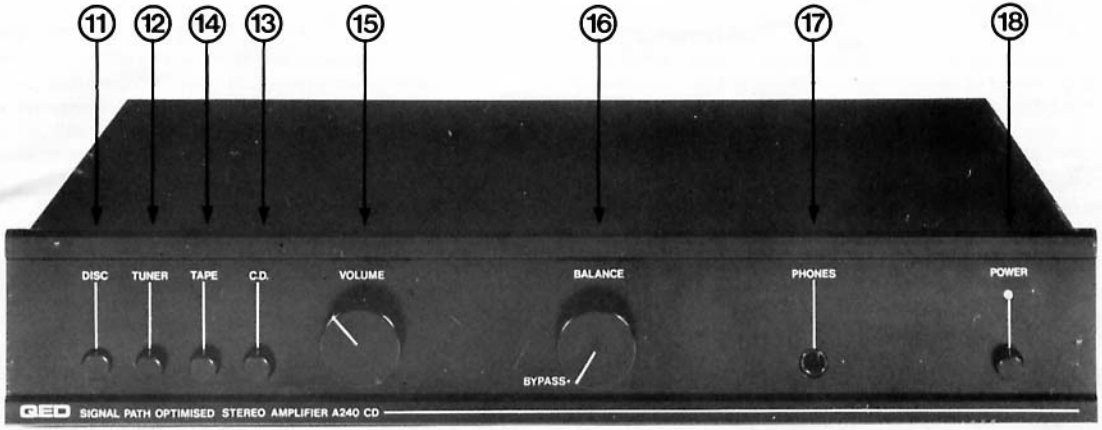
TAPE SOCKETS (5) = PLAYBACK
(6) = RECORD
This is for both the record and playback connection of a tape recorder.

TUNER SOCKETS (7)
This is for the connection of a radio tuner such as the QED T231 Stereo F.M. Tuner.

MOVING COIL DISC INPUT (8)
This input is only applicable to the A240SA Amplifier and is for the connection of a low output moving coil Cartridge. **Note** this input is not connected on either the A240CD or A230S.

MOVING MAGNET DISC INPUT (9)
This input is for the connection of a suitable high quality turntable with a moving magnet cartridge.
Note this input can be adapted for use with low output moving coil cartridges by obtaining a QED MCA 1 (see recommended accessories).

EARTH TERMINAL (10)
This is for the connection of the earthing wire from the turntable.



"DISC SWITCH" (11)
Press to select "disc" input.

TUNER SWITCH (12)
Press to select tuner input.

C.D. SWITCH (13)
Press to select C.D. input.

TAPE SWITCH (14)
Press to select tape replay. For tape recording purposes, the switch can be left in the "out" position to allow "source" monitoring or depressed to allow "off tape" (A-B) monitoring.

VOLUME CONTROL (15)
Adjust as required. Fully anticlockwise is zero volume.

BALANCE CONTROL (16)
For the A230S this control should be left in the 12 o'clock position, unless a small channel balancing adjustment is necessary. For the A240CD/A240SA it is better to turn this control fully anticlockwise to the 'bypass' position (see SIGNAL PATH OPTIMISATION).

HEADPHONE SOCKET (17)
This is a standard ¼ inch stereo jack socket and is suitable for use with HIGH IMPEDANCE HEADPHONES ONLY. (See loudspeaker section (2) and (2) for information on switching).

MAINS POWER SWITCH AND INDICATOR (18)
This switches the amplifier on and off. When the LED is illuminated, the amplifier is ON.

INITIAL OPERATION

Having covered all of the connections and controls of the QED amplifier, you are now ready to switch on, but first turn the volume control to zero and select the "disc" input. Now switch on. The LED should illuminate, indicating that the mains power is on. Turn the volume control to maximum and you should hear a very faint hiss coming from both speakers. You can check channel balance at this point by firstly turning the balance control fully anticlockwise (no hiss from the right hand speaker) and then fully clockwise (no hiss from the left hand speaker). Return balance control to the centre position and volume control to about "10 o'clock". Now play the record and adjust the volume and control as required.

SIGNAL PATH OPTIMISATION

The A240CD/A240SA Amplifiers are fitted with balance controls that can be by-passed. This is achieved by turning the control fully anticlockwise until a switch-off click is heard. Used in this way, the amplifier is fully SIGNAL PATH OPTIMISED. The superior plastic film volume control used ensures minimum signal degradation.

SWITCH ON DELAY

To avoid a loud turn on thump through the speakers, a switch on delay of about 10 seconds is incorporated. A harmless low level "click" will however be audible.

OUTPUT PROTECTION

The normal type of signal degrading fuses and electronic power limiting circuits have been rejected in favour of a very rugged output stage design, that will accept momentary short circuits across the speaker terminals under zero volume conditions.

A240SA (SUPER ANALOGUE)

The SUPER ANALOGUE version offers superior analogue disc reproduction (it does **not** affect the line inputs eg. C.D.) via both moving magnet and (exclusive to the A240SA) moving coil cartridge. This makes the A240SA suitable for use with some of the very best Turntable/arm combinations available.

The A240CD may be upgraded to the 'SA' specification by replacing the standard disc input board with the SUPER ANALOGUE board (see SUPER ANALOGUE UPGRADE)

SUPER ANALOGUE UPGRADE (A240CD only)

The SUPER ANALOGUE disc input board is available separately and is a simple plug-in replacement for the standard disc input board (fitting instructions supplied with SUPER ANALOGUE board).

The SUPER ANALOGUE board consists of a fully discreet (No I.C.'s) multiple stage disc input board complete with its own dedicated power supply regulation circuitry. This frees the 'on-board' A240 pre-amplifier power supply regulator to act as a dedicated line stage supply.

GENERAL INFORMATION

For optimum results, we recommend that the amplifier is allowed a 3 + 4 minute "warm up" period. We also recommend that a space of at least 25mm is left between the back of the amplifier and the wall behind it.

RELIABILITY

This product is manufactured in QED's own factories at Ashford and West Drayton in Middlesex (London) England. The computer controlled testing and quality control program covers and individual before and after "soak" testing procedure followed by a final "listen" to the product. We believe that these thorough tests will ensure a trouble free operation.

ASSOCIATED PRODUCTS

The product line-up will include a matching tuner, turntable, cassette deck, speakers and equipment housing.

TECHNICAL SPECIFICATION

A230S

R.M.S. Power Outputs (both channels driven)	: 30 Watts per channel into 8 Ohms : 40 Watts per channel into 4 Ohms
Single channel driven	: 36 Watts R.M.S. into 8 Ohms : 56 Watts R.M.S. into 4 Ohms
Total Harmonic distortion	: Less than 0.1% 20Hz to 20kHz
Power Bandwidth	: −3dB @ 10Hz and 30kHz
Signal to noise	: Disc = −72dB. Tape, C.D. and tuner = −80dB
Disc input overload	: Better than 36dB
R.I.A.A. Accuracy	: +0dB −½dB (30Hz to 20 kHz)
Disc input sensitivity	: 3mV into 47K and 150pf
Tape and Tuner sensitivity	: 300mV (inputs and outputs) @ 47K
C.D. sensitivity	: 1 volt @ 15K
Headphone socket	: Only suitable for use with high impedance headphones (600 Ohms etc.)
Mains fuse	: 0.5 Amp (anti-surge) (1 Amp U.S.A.)
Dimensions (mm)	: 355 x 237 x 64
Weight (inc carton)	: 4.75 Kg

A240CD

R.M.S. Power Outputs (both channels driven)	: 40 Watts per channel into 8 Ohms : 65 Watts per channel into 4 Ohms
Single channel driven	: 60 Watts R.M.S. into 8 Ohms : 80 Watts R.M.S. into 4 Ohms
Total Harmonic distortion	: SAME AS A230S
Power Bandwidth	: −3dB @ 5Hz and 30kHz
Signal to noise	: SAME AS A230S
Disc input overlaod	: SAME AS A230S
R.I.A.A. Accuracy	: SAME AS A230S
Disc input sensitivity	: SAME AS A230S
Tape and Tuner sensitivity	: SAME AS A230S
C.D. sensitivity	: SAME AS A230S
Headphone socket	: SAME AS A230S
Mains fuse	: 1 Amp (anti-surge) (2 Amp U.S.A.)
Dimensions (mm)	: SAME AS A230S
Weight (inc carton	: 5.25 Kg

S.A. OPTION (ADDITIONS & CHANGES) PROVISIONAL

MOVING COIL SENSITIVITY	: 150μV. 470 Ohms @ 10nF
CHANNEL SEPARATION	: BETTER THAN 80dB
M.C. SIGNAL TO NOISE	: 68dB

NOTE: The above specifications may vary from country to country, but are correct for the U.K. market.

GUARANTEE

All QED HiFi Systems components are covered by a 3 year guarantee, with the 1st year parts and labour and the 2nd and 3rd years parts only — see guarantee card.

We operate a policy of continuous improvement, and reserve the right to amend designs and specifications without prior notice.

RECOMMENDED ACCESSORIES

SECTION	PRODUCT
MAINS (1)	A neat and tidy way of connecting your HiFi system to the mains is to use a QED 4 or 6 socket miniature mains distribution unit with matching plugs. (Order codes DU4 and DU6)
SPEAKERS (2) and (3)	There are three versions of QED speaker cable available. The least expensive being QED 79 strand which is an excellent value for money cable with a flat and even frequency balance. QED INCON is a new type of "thin" speaker cable which is very easy to use and offers a more detailed and open sound quality — Highly recommended for short cable runs. Finally, for long cable runs, we suggest using QED C38 speaker cable. **WARNING** For the best results use only genuine QED speaker cables order codes, 79 strand, INCON and C38.
SPEAKER CONNECTIONS (2) and (3)	4mm plugs to fit above cables (order codes 40/1 and P38)
TAPE, TUNER, C.D.	QED INCON interconnect cables
DISC (9)	SUPER ANALOGUE DISC INPUT BOARD (A240CD only)
DISC (9)	The standard "moving magnet" disc input can be converted for use with a moving coil cartridge by adding an QED MCA1 "Head" amplifier.
GENERAL FACILITIES	The inputs and outputs of the QED amplifier can generally speaking, be expanded using various types of QED switching units. Ask your dealer for further details.
OUTPUT PROTECTION	The QED "PROTECH" speaker protection device fully safeguards speakers against all forms of overload, transient and D.C. offset problems.

QED HIFI SYSTEMS DIVISION, UNIT 12, ASHFORD INDUSTRIAL ESTATE, SHIELD ROAD, ASHFORD, MIDDLESEX, ENGLAND.

WARNING: This amplifier is not suitable for LITZ type high capacitance speaker cables or electrostatic loudspeakers. Use of either will result in amplifier damage for which we will not be liable.