

# KEF REFERENCE SERIES

## KUBE 100

### INSTALLATION MANUAL

#### INTRODUCTION TO KUBE 100 AND ITS CONTROLS

KUBE 100 is an active low-level equaliser designed for use with KEF Reference Series loudspeakers.

It provides fixed equalisation which extends the loudspeaker's bass response below its normal unequalised cut-off. For example, on Model 105/3, the bass cut-off is extended from 49 Hz to 20 Hz (-6 dB).

It also provides adjustable equalisation to suit listener environment, loudspeaker placement, and user preferences.

The front panel controls and indicators are shown in Fig. 1 and described below.

**LF Contour** adjusts the level of low frequencies (below 160 Hz), to control LF/MF balance.

**Bypass EQ** switches KUBE completely out of the circuit, with signal inputs routed directly to the outputs. This permits instantaneous comparison to be made between the unequalised and equalised signals, and can facilitate set-up.

**Tape Mon** replaces the function of the amplifier's tape monitor switch in cases where KUBE is to be connected in the tape monitor loop of an amplifier to which a tape deck is already connected.

Rear panel connections (see Fig. 2) include, Signal In/Out and Tape In/Out.

KUBE is powered by a separate, outboard power supply, which should be connected to the DIN socket located on the rear panel. An amber LED indicates when power is applied to KUBE.

## INSTALLING KUBE

KUBE may be connected to your system in one of two ways:

1. In line between preamplifier and power amplifier.
2. In the tape loop or processor loop of your preamplifier, integrated amplifier or receiver.

If you are in any doubt about connecting KUBE to your equipment, consult your dealer.

SWITCH OFF all the equipment in your system before altering or making any signal connections.

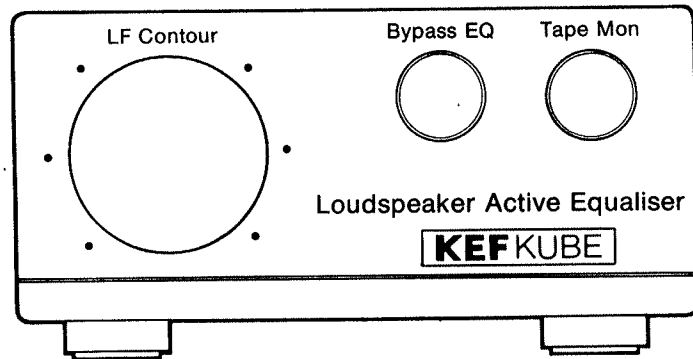


Fig 1. KUBE 100 front panel

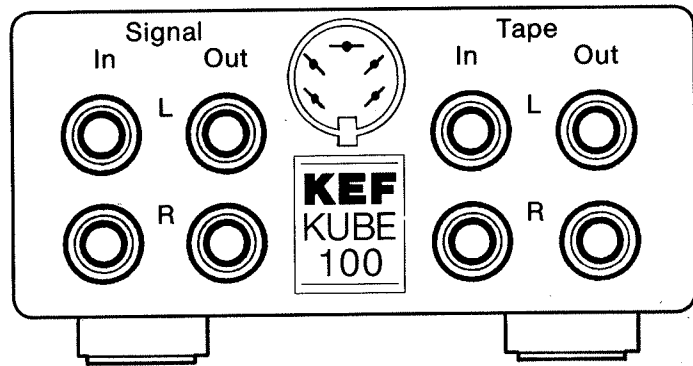


Fig. 2. KUBE 100 rear panel

## SIGNAL CONNECTIONS

Take care to observe correct left and right channel orientation when making connections. The leads supplied with KUBE are colour coded to help you achieve this. Connect the white plugs always to the LEFT sockets, and the red plugs to the RIGHT sockets.

### Method 1: see Fig. 3

Connect the KUBE "Signal In" sockets to the preamplifier output sockets, and "Signal Out" to the power amplifier input sockets.

### Method 2: see Fig. 4

Connect the KUBE "Signal In" sockets to the amplifier sockets marked TAPE OUT/RECORD OUT/LINE OUT, and then connect "Signal Out" to the amplifier sockets marked TAPE IN/TAPE REPLAY/LINE IN. If you have only one set of tape sockets into which a tape deck is already connected, disconnect the tape deck from your amplifier and re-connect it to the tape sockets provided on the rear of KUBE: "Tape Out" to tape deck RECORD IN, tape deck REPLAY to KUBE "Tape In".

KUBE's equalisation affects only the replayed signal. The signal recorded onto the tape is unaffected, allowing normal playback on other tape decks, or in the car.

If your amplifier/receiver is equipped with an external processor loop facility, then connect the KUBE "Signal In" to the processor loop output sockets, and "Signal Out" to the processor loop input sockets.

## POWER SUPPLY CONNECTIONS

KUBE is powered by means of an external AC adaptor fitted with two flying leads. One of these leads is the power cord, and the other, terminated in a DIN plug, is the low voltage AC supply for KUBE.

### CAUTION:

Check that the voltage marked on your KUBE AC adaptor corresponds to the AC supply in your home.

If the adaptor voltage is correct, plug the DIN plug into the low voltage power input socket on the rear of KUBE (see Fig. 2). Then connect the AC adaptor power cord to a suitable AC outlet, either in the wall or, if available, on your amplifier. Check that the front panel amber LED is lit when the outlet is active.

KUBE power consumption is negligible, so it is convenient to leave it permanently "ON" whenever your system is in regular use. If for any reason your equipment is not going to be used for an extended period, e.g. holidays, then it is good safety practice to remove the KUBE power cord from the AC outlet.

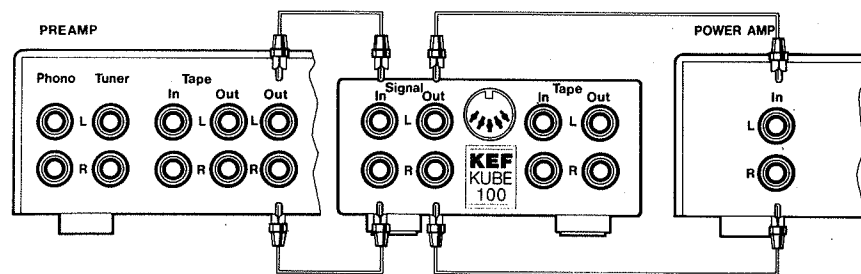


Fig. 3. Connection between preamplifier and power amplifier

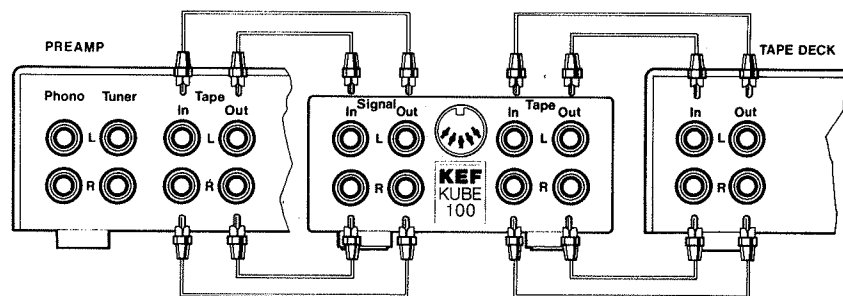


Fig. 4. Connection in the tape loop of the preamplifier

## USING KUBE

### INSTALLATION CHECK

Before switching on your hi-fi system, make a final check on the following points:

- Are the speakers correctly connected to the amplifier?
- Is KUBE connected correctly, according to the instructions above?

### PRELIMINARY SETUP

Check that the amber LED on the front panel of KUBE is illuminated. Identify the "Tape Mon" and "Bypass EQ" push buttons on KUBE, and make sure they are both OUT.

If KUBE is connected in the tape monitor/external processor loop of your amplifier, select TAPE MONITOR/EXTERNAL PROCESSOR on your amplifier controls. If you wish to replay signals from a tape deck, please see "TAPE

MON" below under "USING THE CONTROLS".

Select the desired source (CD, DISC, etc).

Set the LF Contour control on the front panel of KUBE to its central detent.

### OPERATIONAL CHECK

You can check very simply that KUBE is in circuit. Using radio or disc as the source, and with any tape deck connected to the rear panel of KUBE switched off, play some music. Press in the "Tape Mon" button on KUBE and the signal should mute. If it does, KUBE is correctly installed and operating. If it does not, or if no sound is heard, check the connections described above, and, if KUBE is connected in the tape loop, that TAPE MONITOR has been selected on the preamplifier or amplifier.

### USING THE CONTROLS

You can, at any time, compare the equalised response achieved using KUBE 100 with the unequalised signal by pressing "Bypass EQ" to take KUBE out of circuit.

### LF CONTOUR

All loudspeakers interact with the room in which they are used, and this interaction depends on their position within the room. It is unlikely that any loudspeaker will sound equally good in all rooms, and certainly not in all positions. KUBE's LF Contour is designed to allow you to optimise bass level for your listening room and preferred sound balance. It does this by raising or lowering the frequencies below 160 Hz by up to 6 dB.

Select DISC or CD and play a recording with well defined extended bass. Listen carefully to the balance between bass and midrange. If you think the bass is too "full", or over-prominent, turn the LF Contour control counter-clockwise. If the speakers sound "thin" turn the knob clockwise. Experiment with different recordings, giving yourself time to get used to the way the LF Contour control operates.

If you have difficulty achieving a suitable balance, try experimenting with the loudspeakers' positions, remembering that moving them closer to a wall or corner will produce more bass, away from walls will give less.

It may take some time, and a number of recordings, before the right setting is achieved.

Once the correct speaker position and LF Contour setting have been established, you should be able to leave the contour setting where it is and ignore it.

### TAPE MON

If your tape deck is connected to the rear of KUBE and you wish to play a tape, push in the "Tape Mon" button on KUBE. For listening to signals going onto the tape when recording, the button should be out. Note that the signal passing through KUBE to the tape deck is never modified. KUBE equalisation is only operative on replay. At all other times, leave the "Tape Mon" button out.

## SERVICE INFORMATION

This precision engineered KEF product is guaranteed against faulty material and workmanship for a period of one year from the date of original purchase subject to the following restrictions:

1. This warranty is only valid in the country of purchase.
2. The equipment must not be disassembled, modified or tampered with by any person other than an expressly authorised representative of KEF Electronics Limited.
3. The equipment must not be abused or operated in conjunction with unsuitable or faulty apparatus.
4. The equipment has not suffered mechanical damage or derangement in transit.

Should service be required, notify the dealer from whom you purchased the equipment and have him arrange onward shipment to KEF ELECTRONICS LIMITED or to an authorised agent if he confirms the need for factory attention. Do not despatch goods without prior agreement of KEF or their authorised agents.

If asked to return products for inspection and/or repair, pack carefully, preferably in the original cartons, and return prepaid.

Insurance is recommended as goods are returned at owner's risk. KEF or their authorised agents cannot be held liable for loss or damage in transit. Packing, insurance and freight on the return journey will be paid by KEF if warranty work proves to be necessary.

Failure to register in no way limits or invalidates the warranty, but in the event of service being required, delay may result since our Service Department cannot begin warranty work until the original sale has been verified.

Service problems should be discussed in the first place with the dealer from whom the equipment was originally purchased. Generally warranty claims are best handled by your dealer. However, in case of difficulty, contact:

Customer Service Department, KEF Electronics Limited,  
Tovil, Maidstone, Kent ME15 6QP  
Telephone (0622) 672261 Fax (0622) 750653

### FOR THE U.S.A.

This KEF product is warranted to the original purchaser against original factory defects in material or workmanship for a PERIOD OF ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.

#### What we will do

Should your KEF product fail to function properly because of a manufacturing defect, KEF will repair or replace it free of charge. If the product is still defective after a reasonable number of attempts by the warrantor to remedy the defect, you may elect a refund of the purchase price or replacement without charge. Before a refund or replacement can be made, the product must be free of all liens and other encumbrances.

### How to obtain service

Should service be required, contact the dealer from whom you purchased the equipment and have him arrange onward shipment to KEF Electronics Limited or an authorised agent. Ship the product prepaid, only after receiving written authorisation and instructions from the dealer.

Include a written description of the claimed defect, and your original sales slip or other proof of ownership and date of purchase.

We strongly recommend that the product be packed in its original carton and packing material and that all shipments be insured (KEF cannot be responsible for loss or damage in shipment). Packing, insurance and return freight will be paid for by KEF if work covered under the warranty is necessary.

### What is not covered

This warranty does not cover a product which has been:

1. damaged while in your possession
2. overloaded, abused, misused or operated with faulty or unsuitable equipment.

IN NO EVENT SHALL THE WARRANTOR BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, whether damages result from breach of express or implied warranties, tort, negligence or otherwise.

Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you have any questions about this warranty and your dealer has not been able to assist you, please contact:

KEF Electronics of America Inc.  
14120-K Sullyfield Circle, Chantilly, VA 22021  
Telephone (703) 631 8810 Fax (703) 830 7625

### OWNER REGISTRATION INFORMATION

Please complete and return the product safety registration card within 14 days of purchase. Failure to register does not invalidate your warranty, but in the remote event any safety hazard develops with this product, your registration card will facilitate our notifying you promptly.

KEF reserves the right to incorporate developments and amend the specifications without prior notice in line with continuous research and product improvement.

KEF Electronics Limited, Tovil, Maidstone, Kent ME15 6QP  
Telephone (0622) 672261 Fax (0622) 750653

Registered in England No. 702392

Distributed in the U.S.A. by:

KEF Electronics of America Inc.  
14120-K Sullyfield Circle, Chantilly, VA 22021  
Telephone (703) 631 8810  
Fax (703) 830 7625

## KUBE 100 SPECIFICATION TYPE: SP2188

Description	Active equaliser providing fixed and variable equalisation.
Controls:	
LF Contour	Continuously variable shelf control allowing boost or attenuation over the range +3 to -3dB. Shelf centre frequency 160 Hz.
Tape Monitor	Push button controls tape input/output via rear sockets.
Bypass EQ	Push button bypasses fixed and variable equalisation.
Rear Panel Connections	All signal inputs and outputs via gold plated phono (RCA) sockets.  Power in (low voltage AC) via 5-pin DIN connector.
Input Impedance	51 k ohms.
Maximum Input Voltage	>2 V rms above 20 Hz. >8 V rms above 50 Hz.
Maximum Output Voltage	>5 V rms.
Output Impedance	470 ohms.
Output Noise Level	<3 $\mu$ V A-weighted.
Signal-to-Noise Ratio	>110 dBA ref 1 V rms.
Distortion	<0.005 % for 1 V rms input @ 1 kHz.
Power Supply	23 V AC @ 0.3 A from factory supplied power unit: SP2185 for 100 V, 50Hz. SP2184 for 120 V, 60 Hz. SP2186 for 220 V, 50 Hz. SP2187 for 240 V, 50 Hz.
Weight	1.0 kg 2.2 lb.
Dimensions	52(h) x 100(w) x 140(d) mm. 2(h) x 3.9(w) x 5.5(d) in.