

KEF

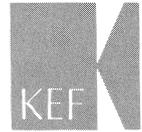
REFERENCE SERIES
MODEL 101

LOUDSPEAKER SERVICE MANUAL

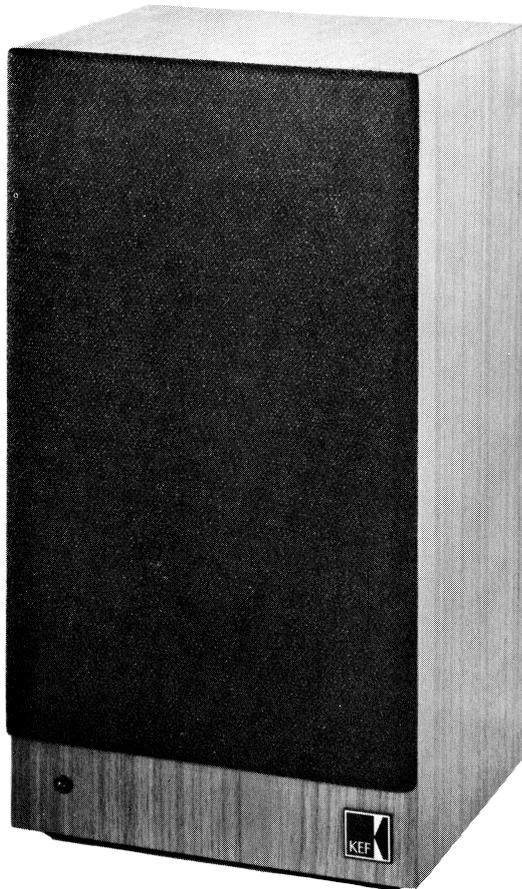


Contents

Introduction and list of sub-assemblies	1
Circuit diagram	2
Assembly diagram	3
Replacing the T27 HF Unit	4
Replacing the B110 LF/MF Unit	5
Replacing the S-STOP and dividing network	6
Replacing the terminal block	7
Replacing the LED indicator	8
Test procedure	9



Model 101 SP1122



Model 101 is a two-way miniature loudspeaker equipped with an electronic protection device and warning light.

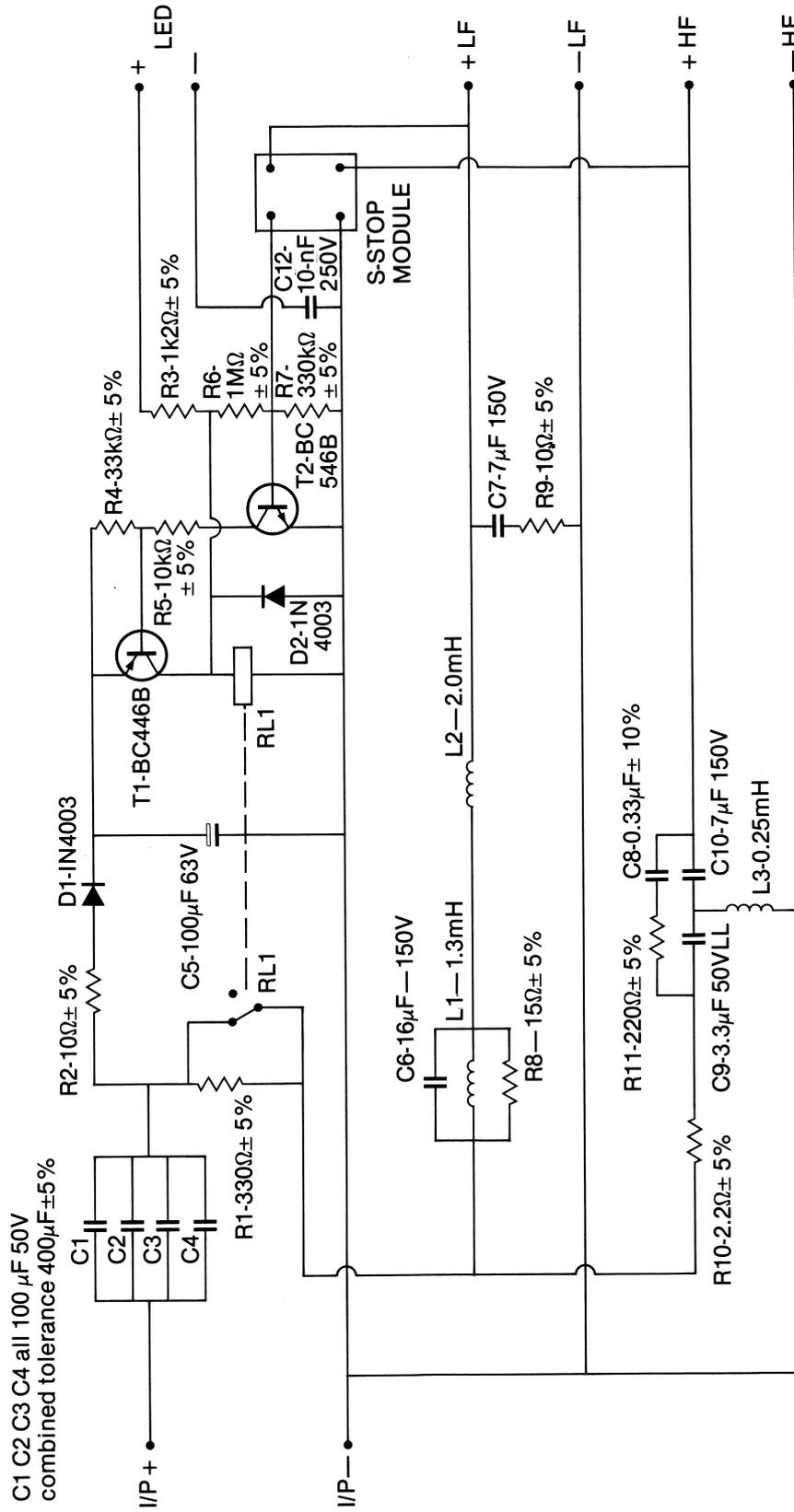
The loudspeaker is manufactured in acoustically matched pairs using computer-graded drive units. In the event of breakdown drive units should be replaced with pairs of computer-matched substitutes in order to restore the original performance specification.

Model 101 enclosures are also produced using visually matching veneers. This feature should be respected when repairing or replacing cabinets.

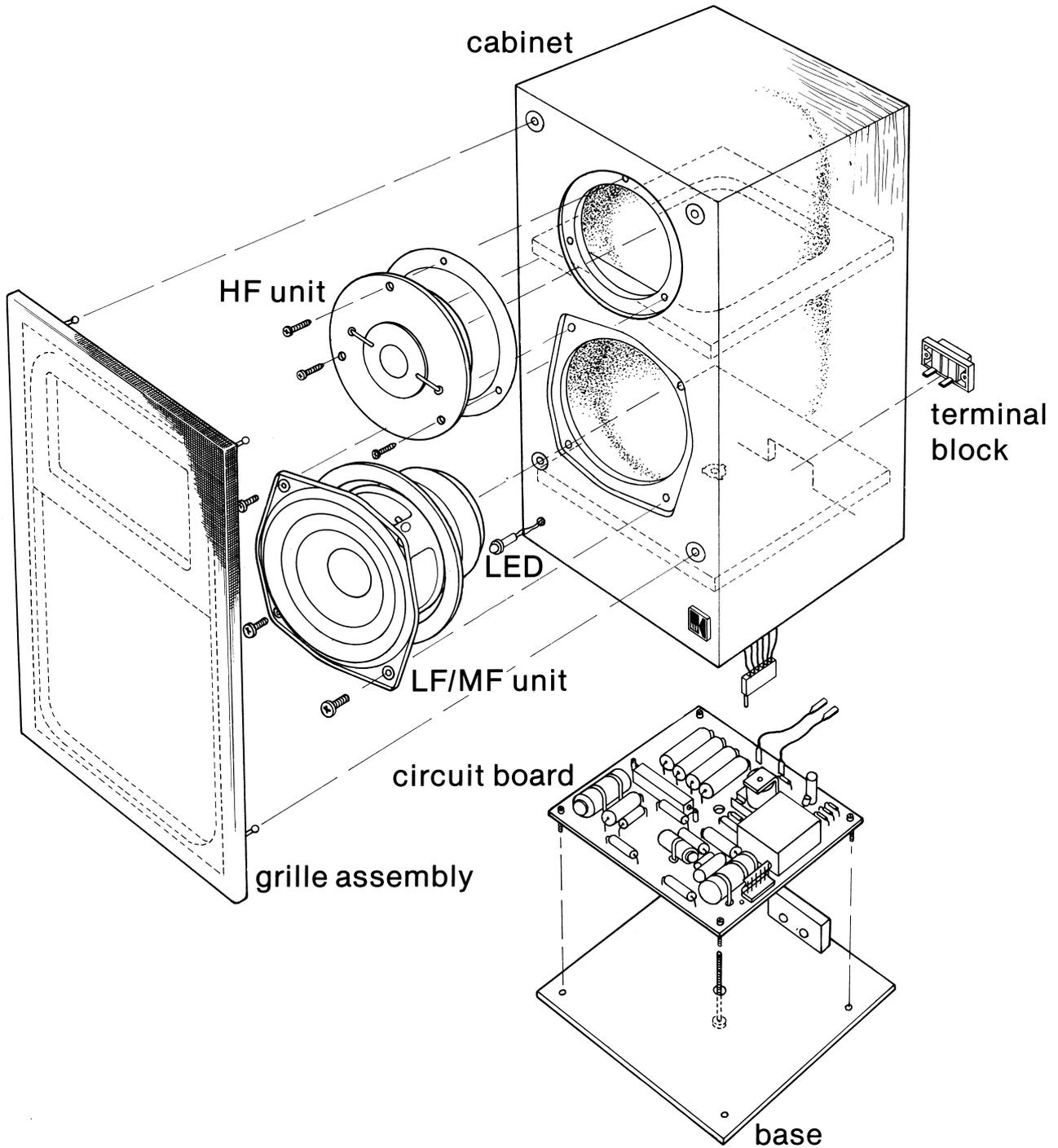
Replacement Sub-assemblies:

<i>Description</i>	<i>KEF part number</i>
HF Unit type T27	SP1032
LF/MF Unit type B110	SP1057
S-Stop and dividing networks	SP1123
LED indicator	P100771
Terminal block	P100814
Grille	P100715/100726
Cabinet	P100723

CIRCUIT DIAGRAM



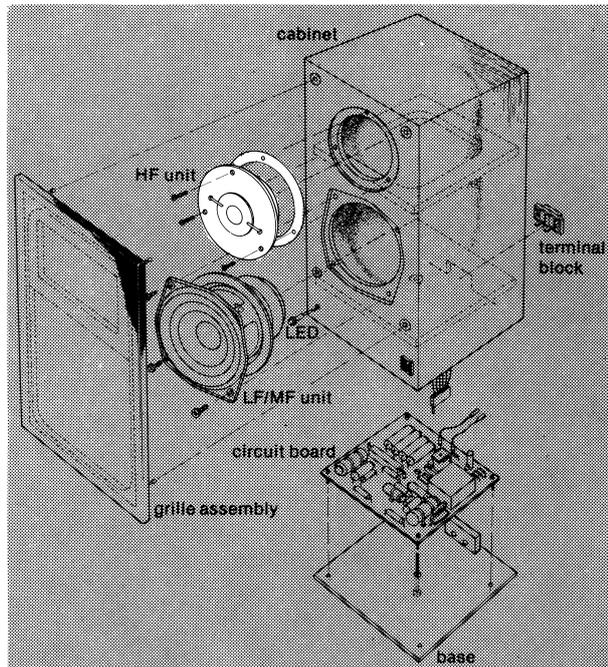
ASSEMBLY DIAGRAM



Parts list (main items only)

HF Unit T27 SP1032 supplied in matched pairs	LF/MF Unit B110 SP1057 supplied in matched pairs	Protection/dividing network SP1123
--	--	---------------------------------------

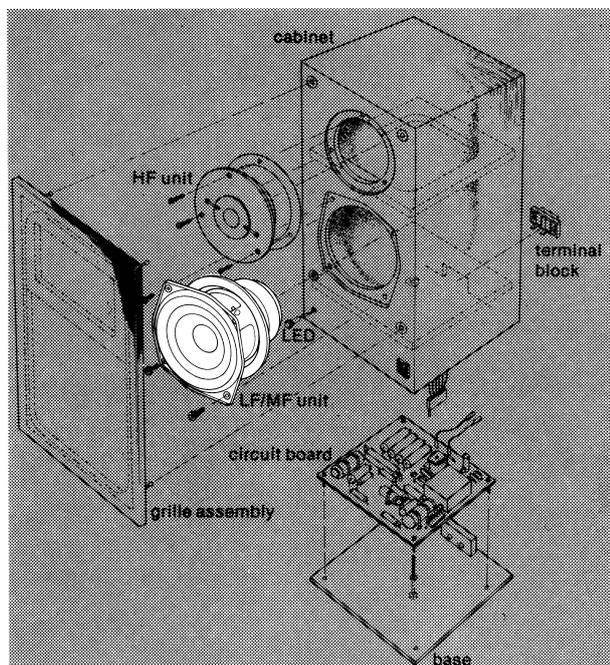
SERVICING INSTRUCTIONS



Replacing the T27 HF Unit

1. Place the system on its back taking care to protect the veneered surfaces and protruding terminal block.
2. Remove the grille assembly which is secured with snap fasteners at each corner, by pulling it gently upwards.
3. Remove fixing screws from the T27 and B110 drive units.
4. Lift the B110 clear of the cabinet. Beware of the strong magnetic attraction between the two speaker magnets.
5. Cut the blue and black wire connecting the T27 close to the existing joint.
6. Fit the new T27 and reconnect the leads observing polarity. Be sure to cover the soldered joints with insulating rubber sleeves or electrical tape.
7. Dress the HF leads within the cabinet, and secure them by trapping in the absorbent lining.
8. Replace the B110 drive unit, taking care not to trap the lead wires between the cabinet and the chassis.
9. Replace fixing screws and tighten until rubber grommets are just compressed by one full turn.
It is important not to over-tighten the screws otherwise the decoupling effect of the grommets will be impaired.
Replace the grille assembly with absorbent foam pads around the T27.
10. Repeat the above procedure to replace the matching T27 in the paired system.
11. Carry out test procedure on both systems.

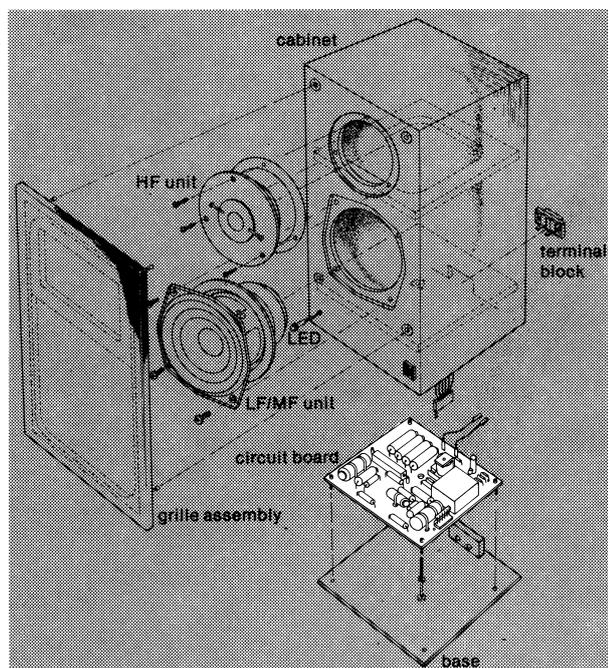
SERVICING INSTRUCTIONS



Replacing the B110 LF/MF Unit

1. Place the system on its back taking care to protect the veneered surfaces and protruding terminal block.
2. Remove the grille assembly which is secured with snap fasteners at each corner, by pulling it gently upwards.
3. Remove the fixing screws which secure the B110 unit. Lift clear of the cabinet and disconnect.
4. Transfer rubber grommets to the replacement drive unit.
5. Locate the replacement gasket on the new B110 chassis.
6. Reconnect speaker wires observing polarity.
7. Replace the B110 drive unit, taking care not to trap the lead wires between the cabinet and the chassis.
8. Replace fixing screws and tighten until the rubber grommets are just compressed by one full turn.
It is important not to over-tighten the screws otherwise the decoupling effect of the grommets will be impaired.
Replace the grille assembly with absorbent foam pads around the T27.
9. Repeat the above procedure to replace the matching B110 in the paired system.
10. Carry out test procedure on both systems.

SERVICING INSTRUCTIONS

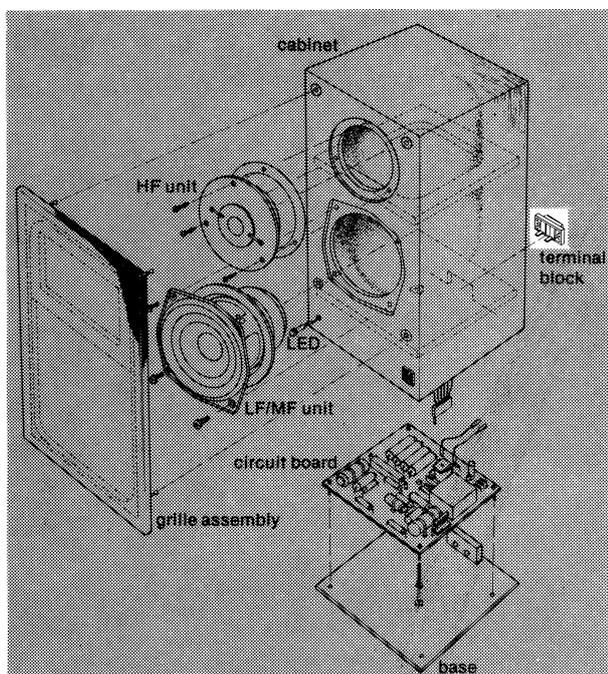


Replacing S-STOP and Dividing Network

1. Invert the system. Remove the felt pad from the centre of the base plate and remove the retaining screw.
2. Lift the base plate clear of the cabinet, together with the S-STOP and dividing network circuit board which is fixed to it.
3. Unplug the circuit board. Retaining latch is inboard of the six-way connector.
4. Disconnect the black and white input leads.
5. Remove the four fixing screws which secure the network to the base plate.
6. Attach replacement circuit board ensuring that the fibre spacing washers are located between the circuit board and the base plate.
7. Reconnect input leads observing original polarity, and reconnect six-way socket.
8. Attach base plate to cabinet. Tighten centre fixing screw and replace the felt pad.
9. Carry out test procedure.

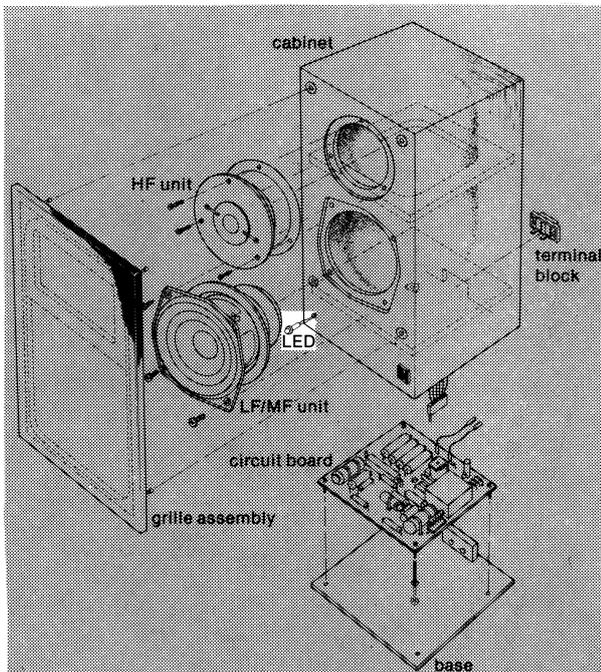
SERVICING INSTRUCTIONS

Replacing the Terminal Block



1. Invert the system. Remove the felt pad from the centre of the base plate and remove the retaining screw.
2. Lift the base plate clear of the cabinet, together with the S-STOP and dividing network circuit board which is fixed to it.
3. Lift the terminal block clear of the cabinet and disconnect black and white input leads.
4. Connect input leads to replacement terminal block and reassemble base plate to cabinet.
5. Carry out test procedure.

SERVICING INSTRUCTIONS



Replacing the LED Indicator

1. Invert the system. Remove the felt pad from the centre of the base plate and remove the retaining screw.
2. Lift the base plate clear of the cabinet, together with the S-STOP and dividing network circuit board which is fixed to it.
3. Remove the LED clear of the aperture by pulling gently on the orange and grey leads.
4. Disconnect the orange and grey wires from the six-way socket, by easing the 'one way connection' contacts through the openings in the housing using a small screw driver.
5. Replace LED indicator in cabinet aperture and replace connections in the six-way socket.
6. Reassemble base plate to cabinet.
7. Carry out test procedure.



SERVICING INSTRUCTIONS

Test Procedure

- 1. Rattle and Buzz Test**

Apply a sinusoidal signal of 6 volts rms and sweep the frequency from 20Hz to 30,000Hz slowly whilst listening for rattles, buzzes and other extraneous noises.
In particular, listen for air leaks at the fixing flanges of both drive units particularly at low frequency.
- 2. Checking S-STOP circuit.**

Apply a sinusoidal signal at 6 volts rms and a frequency of 10kHz. Increase the signal to 10 volts rms. The protection circuit should now operate reducing the acoustic output from the system, and illuminating the LED warning indicator.
Reduce the input signal to 6 volts rms. Full output should now be restored and the LED indicator light extinguished.



KEF Electronics Limited Tovil Maidstone ME15 6QP England ☎ 0622 672261

Registered in England No 702392

KEF reserve the right to incorporate developments and amend the specification without prior notice, in line with continuous research and product improvement

Part No SM177EN01 Designed by L C Reuben Printed in England