**REO INTEGRATED AMPLIFIER**

**A-87/97**

**SERVICE MANUAL**

(M-97/97M/99LD/99M)

©1993-7 PRINTED IN JAPAN

B51-4735-00 (S) 2318

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Panel
(A60-0503-02)

Knob
(K29-4403-04)

Knob
(K29-4404-04)

Metallic cabinet
(A01-1810-01)

Knob
(K29-4405-04)

Knob
(K29-4403-04)

Foot (Front)
(J02-1040-05)

Phone jack
(E11-0210-05)

Knob
(K29-5706-03)

Knob
(K29-5672-04)

Phono jack
(E63-0094-05)

Phono jack
(E63-0093-05)

Phono jack
(E63-0072-15)

Phono jack
(E63-0066-15)x2

Phono jack
(E63-0067-15)

Rectangular receptacle
(E08-0415-05)

Rectangular receptacle
(E08-0414-05)

Rectangular receptacle
(E08-0411-05)

Rectangular receptacle
(E08-0312-05)

Phono jack
(E63-0090-05)

Phono jack
(E63-0092-05)

Phono jack
(E63-0091-05)

Pin
(J12-0091-05)

Foot (Rear)
(J02-0366-15)

Lock terminal board
(E70-0022-05)

Rectangular receptacle
(E08-0312-05)

Power cord bushing
(J42-0083-05)

AC outlet
(E03-1)

*Refer to parts list on page 22.*
TEST MODE
Test mode by means of main unit keys
(1) Setting method
Plug the power cord in the AC electrical outlet while pressing the CD DIRECT key.
(2) Cancellation method
The test mode set at the beginning is cancelled when the power cord is unplugged from the AC electrical outlet.
(3) Contents
- Automatic POWER ON
  The POWER turns necessarily ON, and all functions are initialized when the power cord is plugged into the AC electrical outlet while pressing the CD DIRECT KEY.
- ALL LIT mode
  All FL and all LED light up without fail when the power cord is plugged into the AC electrical outlet while pressing the CD KEY. After that, the equipment switches to the ordinary indication mode when any key of the main unit is operated.
- Master/LAC volume automatic motor VR UP/DOWN
  The motor VR carries out the following sequence of operations when the CD REC key is operated during the test mode by means of the main unit keys: 16-second UP → 16-second DOWN → STOP. The CD REC key is inhibited during these operations.

④ Check of the operations of all circuits by means of the main unit keys
The MUTING function, which is carried out only with the remote controller, can be operated also with the N.B key of the main unit during the test mode by means of the main unit keys.
⑤ MUTE signal output
Ordinary operation should be carried out during the test mode by means of the main unit keys.

Initialization
(1) Setting method
- The equipment is initialized by plugging the power cord in the AC electrical outlet while pressing the POWER key.
- The equipment is initialized when the power cord is unplugged and then plugged in the AC electrical outlet during the test mode by means of the main unit keys and the test mode by means of serial communication.
(2) Contents
All functions are initialized. (Including test mode).
Refer to the schematic diagram for the values of resistors and capacitors.
Refer to the schematic diagram for the values of resistors and capacitors.
DC voltages are measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d’entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.


CAUTION: For continued safety, replace safety critical components only with manufacturer’s recommended parts, refer to parts list. Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out before the appliance is returned to the customer.
# PARTS LIST

## UNIT LIST (A-87)

<table>
<thead>
<tr>
<th>DESTINATION</th>
<th>AUDIO UNIT</th>
<th>CONTROL UNIT</th>
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**CONTROL UNIT (X11-343X-XX)**

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**Indicates safety critical components.**
SPECIFICATIONS

Rated power output at the STEREO operation
(IEC/NF) from 63 Hz to 12,500Hz, 0.7% T.H.D.

at 8Ω ........................................ 85W + 85W

(DIN) 1,000Hz at 8Ω .......................... 85W + 85W

Power output at the Surround operation

Front (1kHz, 0.08% T.H.D. at 8Ω) .......... 85W + 85W
Omn (1kHz, 0.5% T.H.D. at 8Ω) .......... 25W + 25W
Center (1kHz, 0.5% T.H.D. at 8Ω) ....... 25W
Rear (1kHz, 0.5% T.H.D. at 8Ω) ......... 25W + 25W

Total harmonic distortion (1kHz, 8Ω) ....... 0.02% at 40W

Signal to noise ratio (IHF '66)

PHONO (MM) .................................. 72dB
CD/LD, TAPE ................................. 90dB

Signal to noise ratio (DIN weighted at 50mW output)

PHONO (MM) .................................. 56dB
CD/LD, TAPE ................................. 57dB

Input sensitivity/impedance

PHONO (MM) .................................. 2.5mV/47kΩ
CD/LD, TAPE ................................. 200mV/47kΩ

Tone controls

BASS ........................................... ±10dB (at 100Hz)
TREBLE ...................................... ±10dB (at 10kHz)

VIDEO inputs/outputs

(composite) .................................. 1Vp-p/75Ω

General

Power consumption ......................... 280W
Dimensions ................................ 360 mm X 129 mm X 378 mm
Weight (net) ................................ 11.3 kg
AC outlets (switched) ...................... 1 (Total 200W max)

Kenwood follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.
Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood steht ständige Verbesserungen in der Entwicklung an.
Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note:

Component and circuitry are subject to modification to insure best operation
under differing local conditions. This manual is based on the U.S.A.
(IK) standard, and provides information on regional circuit modification
through use of alternate schematic diagrams, and information on regional
component variations through use of parts list.

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