

# AKAI

# AS-1080DB

## 4-CHANNEL STEREO RECEIVER

4-channel Dolby recording and playback with an ordinary tape deck for the first time in audio history! This is only one of the many outstanding features of the new AS-1080 DB. This new 4/2 channel compatible receiver incorporates all the latest engineering techniques and offers performance quality to match anything on the market today. Yet the cost of this deluxe model is far below what you would expect to pay for such quality. Robust 3 mm thick aluminium front panel. Easy-to-operate precise controls. Designed for efficient operation of present and future audio capability.

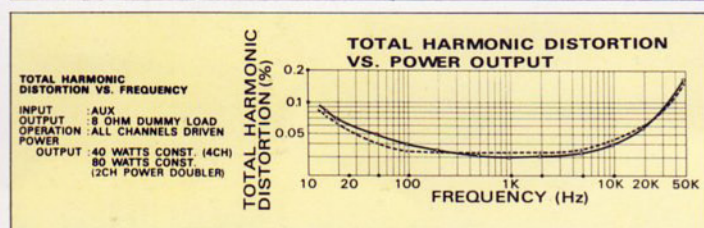
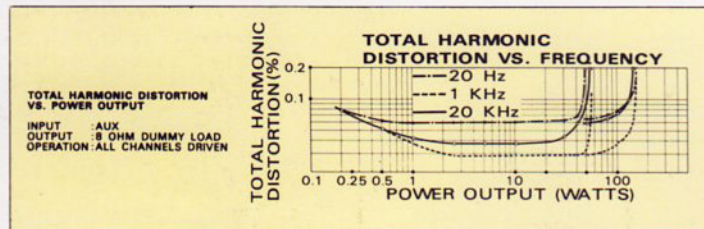
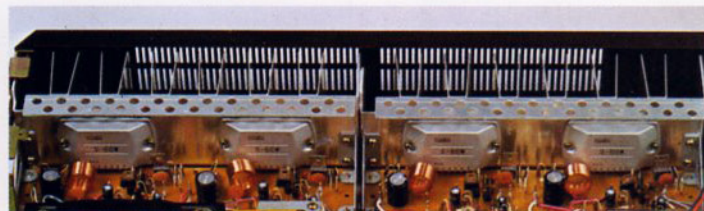




# HIGH POWER AMP WITH LESS THAN 0.2% T

## ALL-STAGE DIRECT COUPLED OCL PURE COMPLEMENTARY POWER AMPLIFIER

40 watts per channel continuous power output (80 watts per channel at 2-CH Power Doubler), minimum RMS, at 8 ohms load impedance with no more than 0.2% distortion! These outstanding specifications are the result of employing an all-stage direct-coupled OCL pure complementary 4 Power IC circuit in the all important power section.



## POWER TRANSISTOR PROTECTION CIRCUIT

A protection circuit is activated in case of a short caused by a wrong speaker connection or when input is excessive to protect the power transistors. Further, this circuit cancels the irritating speaker shock noise when the power switch is turned on or off.

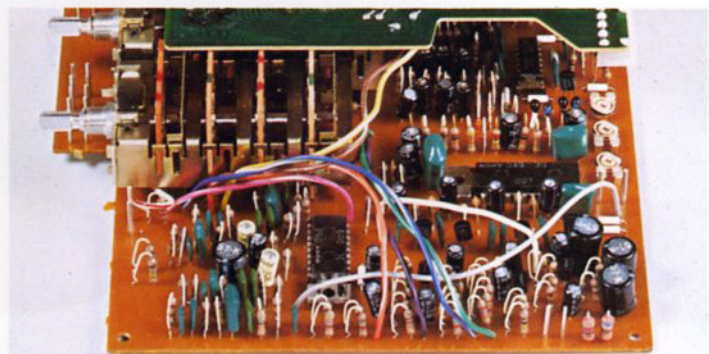
## VARIED 4-CHANNEL OPERATION INCLUDES DOLBY 4-CHANNEL PERFORMANCE... A FIRST IN THE FIELD OF AUDIO!

This 4-channel 2-channel compatible unit, in addition to regular and discrete stereo, SQ Full Logic and Matrix 4-channel stereo, and CD-4 capability, also features 4-channel Dolby recording and playback with an ordinary 4-CH tape deck.



## SQ Full Logic Decoder Circuit

The SQ Full Logic decoder of this model is a superior Front/Back Logic wave matching circuit employing a 6-pole phase shifter for excellent front and rear channel separation. 3 advanced large scale Sony ICs. SQ Indicator Lamp.



## Matrix Decoder Circuit

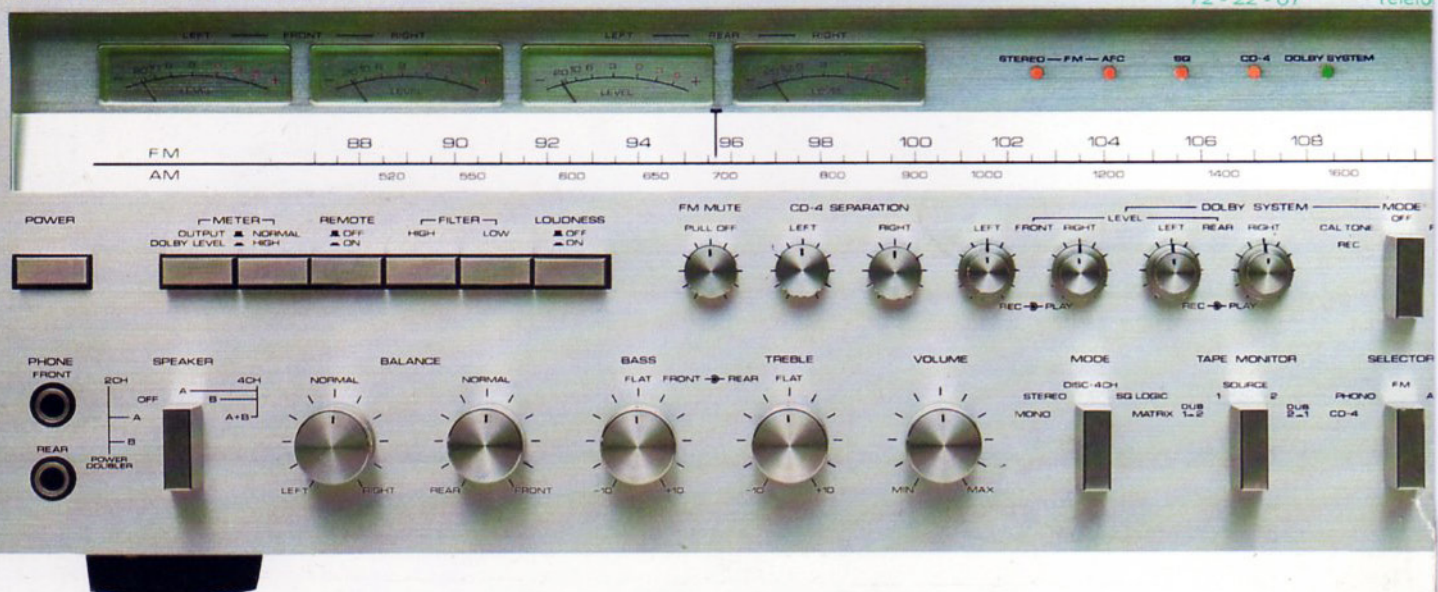
Facilitates playback of matrix encoded phonograph records.

## CD-4 Demodulator Circuit and Separation Adjusters

A built-in CD-4 demodulator circuit and CD-4 Separation Adjusters facilitate easy playback of CD-4 records. Front panel CD-4 Indicator Lamp. CD-4 test record included in standard accessories.

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**AKAI** 4 CHANNEL RECEIVER **AS-1080DB** DOLBY SYSTEM



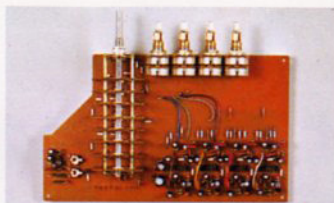


# TOTAL HARMONIC DISTORTION !

**AKAI**

## Four separate Dolby Circuits

A separate Dolby Circuit for each channel enables 4-channel Dolby Recording and Playback with an ordinary 4-channel tape recorder or tape deck for the first time in audio history.



## TWO COMPLETE 4-CHANNEL TAPE DECK CONNECTIONS FOR VARIED RECORDING AND DUBBING TECHNIQUES

Multiple Source Selector, Tape Monitor, and Mode Switch positions and two complete tape systems for a plethora of 2-channel or 4-channel recording and dubbing techniques. Use Tape 1 and Tape 2 systems separately or simultaneously. Easy dubbing to and from Tape 1 and Tape 2 Systems. Also equipped with two complete 4-channel speaker connections.

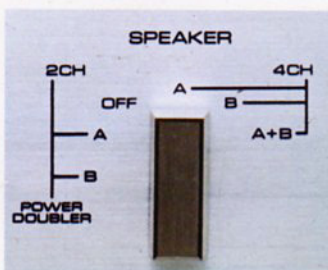
## Dolby operation

The Dolby System of this model facilitates recording and playback with an ordinary 4-channel tape recorder or tape deck. Precise Dolby Controls, a Dolby Level Meter Switch, and a Dolby Level Adjustment Tape (included in the standard accessories) enable easy and precise Dolby System level adjustment. 4-channel or 2-channel Dolby recording and playback, 4-channel or 2-channel Dolby Dubbing (Dolby recording from ordinary tape playback) from Tape 1 to Tape 2 System, and Dolby FM broadcast reception are among the outstanding Dolby capabilities of this model.

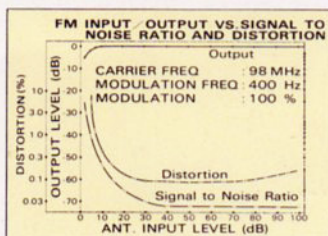
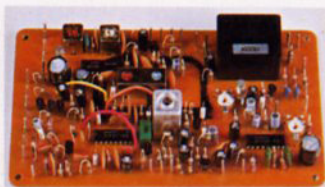


## TWO CHANNEL POWER DOUBLER

Setting the Speaker Switch to 2-CH POWER DOUBLER switches the amplifiers to BTL for all available power in 2-channel mode. Further, transition is smooth with no irritating speaker noise.



## UP-TO-DATE HIGH EFFICIENCY IC CIRCUITRY IN FM IF SECTION



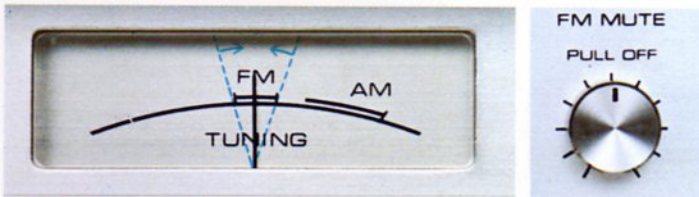
This totally new up-to-date element is comprised of a 6-stage limiter circuit, a detection circuit, and several auxiliary circuits and does the work of 213 separate parts using parts available to date. Namely, it would require 100 transistors, 84 resistors, 25 diodes and 4 condensers to accomplish the same thing. Further, because the detection circuit employs "quadrature" detection, excellent linearity and low distortion is attained over an exceptionally wide frequency range.

## PLL MPX SECTION FOR GOOD SEPARATION AND LOW DISTORTION

This model features the new PLL (Phase-Lock-Loop) circuit which locks the 19 KHz FM pilot signal phase to the phase of the 38 KHz switching signal for complete stability. Separation better than 40 dB. Less than 0.4% total harmonic distortion.

## AUTOMATIC FM CENTER TUNING AND FM MUTE SWITCH

Perfect center tuning is always attained! With AFC (automatic frequency control), it is not necessary to tune to exact FM center frequency. Simply bring the needle within the FM center scale of the meter and perfect center tuning is automatically established within about 3 seconds. Drift-free reception regardless of fluctuation in power supply voltage or temperature. An FM MUTE Switch enables the operator to effectively cut noise originating prior to antenna input.



## LARGE BALANCED FLYWHEEL TUNING

Large balanced flywheel tuning and superior FM and AM circuitry provides smooth and easy "power steering" tuning and top FM and AM reception.

## LOUDNESS CIRCUIT FOR BALANCED SOUND AT LOW VOLUME

Boosts bass and treble response for balanced sound at low volume.

## HIGH AND LOW FILTER SWITCHES

Eliminates high and low frequency disturbances for clearer playback.

## 4-CHANNEL REMOTE CONTROL BALANCE

A rear panel Remote Control Jack accommodates AKAI optional accessory Remote Control Unit RC-4CH for remote control of front/rear and left/right speaker balance and volume.



## FM 4-CH OUTPUT TERMINAL

Equipped with rear panel FM 4-channel output terminal for connection of an adapter for future FM 4-CH broadcast reception.

## TWO FULL SPEAKER SYSTEMS FEATURE EASY PUSH BUTTON CONNECTION

## 300Ω AND 75Ω ANTENNA TERMINALS WITH DISTANCE/LOCAL SWITCH PLUS AM BAR ANTENNA

## SEPARATE FRONT AND REAR CHANNEL BASS AND TREBLE CONTROLS FOR PERFECT TONE CONTROL

## FRONT AND REAR CHANNEL HEADPHONE JACKS

ELEKTROAKUSTIK  
L - GMBH.  
KROFON - ANLAGEN  
1030 WIEN  
73-12-37





# CONNECTIONS

## 4-CH REMOTE CONTROL JACK

For connection of 4-CH Remote Control Unit RC-4CH. By utilizing this unit, 4-CH front/rear and left/right speaker balance and volume can be remote controlled.

## FM SENSITIVITY SWITCH

## PHONO JACKS

Connect to outputs of magnetic cartridge type turn-table.

## PHONO GROUND TERMINAL

For use in grounding the amplifier with a record player.

## L/R FRONT

## L/R REAR

## AUX TERMINALS

For connection of relatively high output components such as a crystal or ceramic type cartridge turntable or a tape deck or recorder.

## AM FERRITE BAR ANTENNA

## FM 4-CH OUTPUT TERMINAL

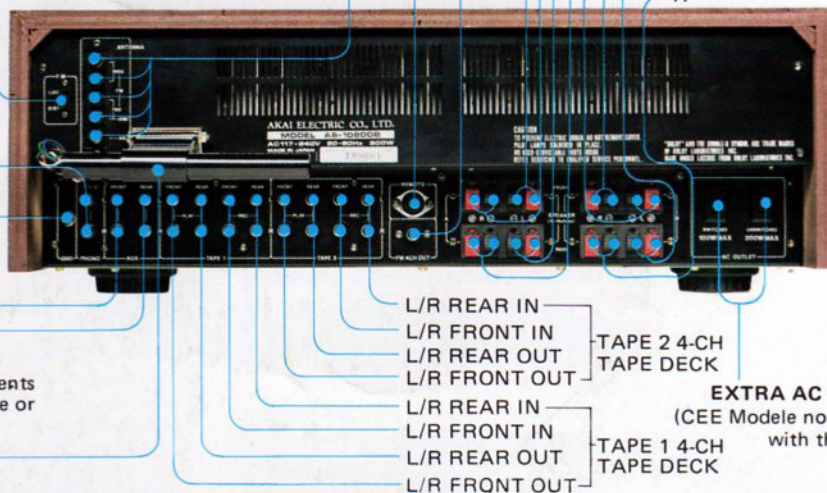
For connection of adapter for future FM 4-CH broadcast.

## FM AND AM ANTENNA TERMINALS

## A AND B SYSTEM SPEAKER TERMINALS

These push-button speaker terminals facilitate easy speaker connection.

L } FRONT  
R } REAR } A SPEAKER SYSTEM  
L } FRONT  
R } REAR } B SPEAKER SYSTEM



## TECHNICAL DATA

### AMPLIFIER SECTION

#### Continuous Power Output

4 channels driven . . . . . 40 watts per channel, min. RMS, at 8 ohms from 20 Hz to 20,000 Hz, with no more than 0.2% total harmonic distortion.  
(4 x 50 watts into 8 ohms at 1 KHz with no more than 0.2% total harmonic distortion)

#### 2 channels driven

(Power Doubler ON) . . . . . 80 watts per channel, min. RMS, at 8 ohms from 20 Hz to 20,000 Hz, with no more than 0.2% total harmonic distortion.  
(2 x 100 watts into 8 ohms at 1 KHz with no more than 0.2% total harmonic distortion)

Power Bandwidth (IHF) . . . . . 10 Hz to 60,000 Hz/8 ohms  
(Distortion within 0.2%)

#### Input Sensitivity

Phono . . . . . 3 mV/47 K ohms (CD-4 1.5 mV/47 K ohms)  
AUX . . . . . 160 mV/47 K ohms  
Tape 1 & 2 . . . . . 160 mV/47 K ohms

#### Signal-to-Noise Ratio (IHF)

Phono . . . . . Better than 80 dB  
AUX . . . . . Better than 90 dB

#### Channel Separation (IHF)

Phono . . . . . Better than 50 dB (at 1,000 Hz)

#### Equalizer . . . . . RIAA $\pm 1$ dB (Phono)

#### Tone Control . . . . . Bass . . . . . $\pm 10$ dB at 100 Hz

#### Treble . . . . . $\pm 10$ dB at 10 KHz

Loudness Control . . . . . +9 dB at 100 Hz, +4 dB at 10 KHz  
(Volume Control at -30 dB position)

#### Filter . . . . . High . . . . . -6 dB at 10 KHz

#### Low . . . . . -10 dB at 50 Hz

#### Dolby System . . . . . Dolby "B" Processor

#### Dolby Tone . . . . . 400 Hz/Rec. Out, PIN 150 mV

### FM TUNER SECTION

Frequency Range . . . . . 88 MHz to 108 MHz

Sensitivity (IHF) . . . . . 1.9  $\mu$ V

Capture Ratio (IHF) . . . . . 1.0 dB

Selectivity (IHF) . . . . . Better than 70 dB at 98 MHz

Signal-to-Noise Ratio . . . . . Better than 70 dB

Image Rejection . . . . . Better than 75 dB at 98 MHz

IF Rejection . . . . . Better than 90 dB at 98 MHz

Spurious Rejection . . . . . Better than 80 dB at 98 MHz

Harmonic Distortion . . . . . Monaural . . . . . Less than 0.2%

Stereo . . . . . Less than 0.4%

FM Stereo Separation . . . . . Better than 40 dB (1,000 Hz)

FM Muting . . . . . Variable (3  $\mu$ V to 300  $\mu$ V) ON-OFF

Antenna Input Impedance 300 ohms balanced, 75 ohms unbalanced

### AM TUNER-SECTION

Frequency Range . . . . . 535 KHz to 1,605 KHz

Sensitivity (IHF) . . . . . 200  $\mu$ V/m (Bar Antenna), 5  $\mu$ V (EXT. Antenna)

Image Rejection . . . . . Better than 55 dB at 1,000 KHz

IF Rejection . . . . . Better than 45 dB at 1,000 KHz

Selectivity (IHF) . . . . . Better than 30 dB at 1,000 KHz

AM Distortion . . . . . Less than 0.6%

Signal-to-Noise Ratio . . . . . Better than 50 dB

Semi-Conductors . . . . . 1 FET, 90 transistors, 68 diodes, 18 ICs

Power Requirement . . . . . CSA, UL and LA Models: 120V, 60 Hz.

CEE Models: 220V, 50 Hz.

Other Models: 110V/220V/240V (Switchable).

Dimensions . . . . . 520(W) x 182(H) x 409(D) mm

20.5(W) x 7.2(H) x 16.1(D) inches

Weight . . . . . 19.3 Kg (42.5 lbs)

\* For improvement purposes, specifications and design are subject to change without notice.

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## STANDARD ACCESSORIES

FM Di-pole Antenna . . . . .	1
Dolby Level Set Adjustment Tape . . . . .	1
4-CH Test Record . . . . .	1
Spare Fuses . . . . .	1 set
Operator's Manual . . . . .	1
* Spare fuses not included with CEE, CSA, UL, and LA models.	

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**AKAI ELECTRIC CO., LTD.**

12-14, 2-chome, Higashi-Kojiya,  
Ohta-ku, Tokyo, Japan

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Image. best  
Spurious inechts  
Rejection in chmsollagen

Swoboda