Note:

Performance specifications for equipment shown in this folder were arrived at under optimum laboratory conditions, with equipment tuned and peaked for operation with the best quality recording tape available.





AKAI America, Ltd./2139 E. Del Amo Blvd., Compton, Calif. 90220 (213) 537-3880 **FULL LINE FOLDER**

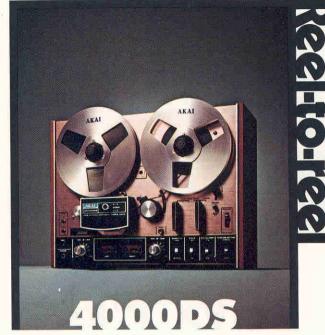


STEREO CONVERT-A-DECK

The amazing new 4400 is engineered with an exclusive Converter Switch. A simple setting on the front panel enables you to choose between complete record/play-back capability or a pure deck...brings you either system instantly. Important features include a Tape Selector Switch, 3 Heads, Sound-on-Sound, Sound Mixing, Automatic Shut-Off and Pause Control.

SPECIFICATIONS

Tape Speed
Frequency Response30 to 22,000Hz at 71/2 ips
Distortion Less than 2% (1000Hz "0" VU)
S/N Ratio Better than 46dB
Reel Capacity
Output Power
Speaker
Dimensions
Weight 30.1 lbs



STEREO TAPE DECK

The 4000DS sets "professional" standards—yet it's economically priced. Loaded with outstanding features including a unique One-Micron Gap Head for improved frequency response, 3 Heads, Tape Selector Switch, Sound-on-Sound, 4 simultaneous Mixing Inputs, Lock-In Pause/Start Lever, expanded scale VU Meters and Automatic Shut-Off.

7	ape Speed
V	/ow/Flutter Less than 0.15% RMS at 71/2 ips
- 5	requency Response 30 to 18 000Hz at 71/2 ins
Е	istortionLess than 2.0% (1000Hz "0" VU)
5	/N Ratio Better than 48dB
	seel Canacity Unito 7" reel
Ė	imensions
V	/eight

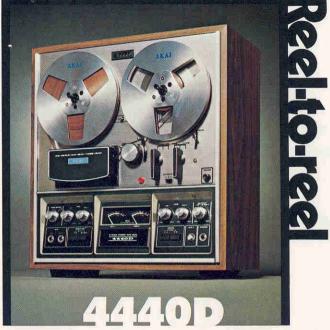


REEL-TO-REEL/CARTRIDGE COMBINATION STEREO TAPE DECK

The X-1810D doubles your recording pleasure by combining reel-to-reel and 8-track cartridge recording/playback in a single unit... with transfer capability from open reel to cartridge tape. Additional features include Automatic Reverse Play, Automatic Stop, S.R.T. Button, Pause Control. 5 Heads and 3 Motors.

SPECIFICATIONS

0 0	
Tape Speed	REEL: 1%, 3% and 7½ ips
	CARTRIDGE: 3¾ ips
Reel Capacity	
Wow/Flutter	REEL: Less than 0.12% RMS at 71/2 ip
	CARTRIDGE: Less than 0.25% RMS
Frequency Response	REEL: 30 to 22,000Hz at 71/2 ips
quente, mespende	CARTRIDGE: 50 to 16,000Hz
Distortion	Less than 3% (1000Hz "0" VU)
S/M Potio	REEL: Better than 50dB
3/14 Hatto	
201 1	CARTRIDGE: Better than 41dB
Dimensions	17.4"(W) x 18"(H) x 9.6"(D)
Weight	47 lbs.



STEREO TAPE DECK

Listen to AKAI's new 4440D tape deck. Exciting frequency response is engineered *into* this "Innovator." And it's fully equipped with other remarkable features like 3 heads—including AKAI's unique One-Micron Gap Head—Tape Selector Switch, Dual Monitoring, Sound-On-Sound, Automatic Shut-Off, Pause Control, Sound-With-Sound, and a self-lubricating motor. If you're looking for a "complete" tape deck the AKAI 4440D is for you.

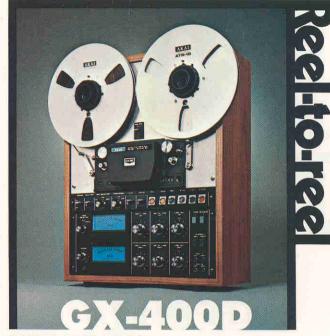
Tape Speed	. 3¾ and 7½ ips
Wow/Flutter	Less than 0.12% RMS at 71/2 ips
Frequency Response	. 30 to 24,000Hz at 71/2 ips
Distortion	Less than 1.5% (1000Hz "0" VU)
S/N Ratio	Better than 50dB
Reel Capacity	. Up to 7" reel
Dimensions	. 16.4"(W) x 17.7"(H) x 9"(D)
Weight	34.3 lbs



STEREO TAPE RECORDER

The 1721 is priced for the budget-minded... yet it's equipped with a 4-track stereo/monaural recording and playback system, 2 Heads, Automatic Shut-Off, self-lubricating 2-speed induction motor, Tape Selector Switch, Pause Control and Public Address convertibility. Available in a walnut finish (1721W) or leatherette finish (1721L) cabinet.

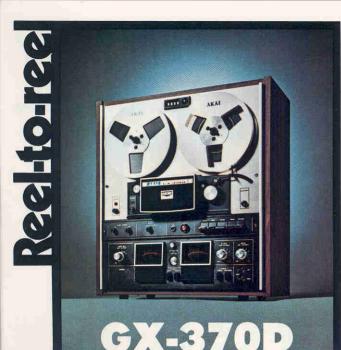
SPECIFICATIONS



STEREO TAPE DECK

Nothing has been left out of the new GX-400D. It's loaded with 4 AKAI exclusive GX (glass and crystal ferrite) Heads, AKAI's unique ADRS (Automatic Distortion Reduction System), Tape Selector Switch, Pause Control, and Sound-On-Sound. Plus Auto-Stop and Shut-Off, Sound Mixing, Auto-Reverse, and a 10½" reel capacity.

Tape Speed
Wow/Flutter Less than 0.06% RMS at 71/2 ips
Frequency Response 20 to 26,000Hz at 71/2 ips
Distortion Less than 1% (1000Hz "0" VU) at 7½ ips
S/N Ratio Better than 54dB
Reel Capacity Up to 101/2" reel
Dimensions
Weight



STEREO TAPE DECK

Discover concert hall sound with AKAI's exciting GX-370D. It's fully equipped with 3 AKAI exclusive GX (glass and crystal ferrite) Heads, Compute-O-Matic automatic volume control, 3 motors, S.R.T. Button, Auto-Stop and Shut-Off, Automatic and Manual Reverse, Sound-on-Sound, Mixing—complete with everything you've always wanted.

SPECIFICATIONS

Tape Speed	.71/2 and 33/4 ips
Wow/Flutter	Less than 0.07% RMS at 71/2 ips
Frequency Response	
Distortion	Less than 1.7% (1000Hz "0" VU)
S/N Ratio	
Reel Capacity	.Up to 7" reel
Dimensions	.17.7"(W) x 19.9"(H) x 9.8"(D)
Weight	.57 lbs.



STEREO TAPE DECK

The amazing new AKAI GX-285D has no equal. Herefor the first time in any reel-to-reel deck—are AKAI's exclusive GX (glass and crystal) Heads AND an integral "Dolby" Noise Reduction System. The ultimate investment in sound reproduction. And with so many other AKAI quality features: 3 superbly engineered motors, Auto-Reverse, Auto-Stop/Shut-Off, Sound Mixing, Sound-On-Sound, Tape Selector Switch, Dual Monitoring, Lockable Pause Control, Solenoid Operation, and more. An innovator you'll be proud to own.

SPECIFICATIONS

Tape Speed	
tapo opoca	
Now/Flutter Less than 0.08% RMS at 7½ ips	
requency Response20 to 25,000 Hz at 71/2 ips	
Distortion Less than 0.8% (1000 Hz "0" VU)	
at 7½ ips	
S/N Ratio 63 dB with "Dolby," 55 dB without	
Reel Capacitly	
Dimensions	
Jimensions (V) x 10.1 (1) x 10.2 (D)	
Weight48 lbs.	

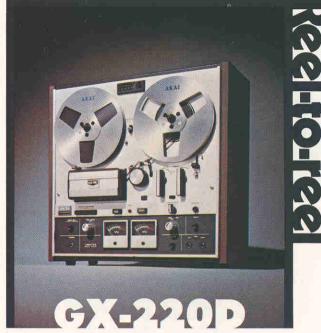


STEREO TAPE DECK

Fascinating features and exciting performance...it's all yours with AKAI's new GX-260D stereo tape deck. Innovatively engineered with 4 AKAI exclusive GX (glass and crystal ferrite) Heads and 3 motors. Plus Sound-Onsound, Tape Selector Switch, Sound-With-Sound, Dual Monitoring, Auto-Stop and Auto-Reverse. It's in a league by itself.

SPECIFICATIONS

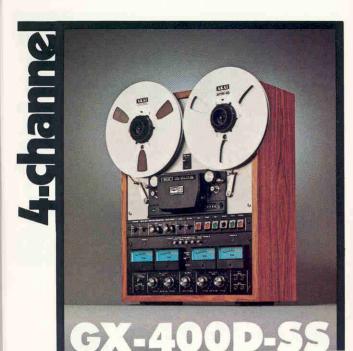
Tape Speed	3¾ and 7½ ips
Wow/Flutter	Less than 0.06% RMS at 71/2 ips
Frequency Response	
Distortion	Less than 1.2% (1000Hz "0" VU) at 7½ ips
S/N Ratio	Better than 54dB
Reel Capacity	Up to 7" reel
Dimensions	
Weight	45.8 lbs



STEREO TAPE DECK

Innovative features set the GX-220D apart from the crowd. This 3-head, 3-motor Stereo Tape Deck is built with AKAI's exclusive GX (glass and crystal ferrite) recording and playback heads for magnificently clear sound, Automatic Continuous Reverse, Automatic Stop/Shut-Off, S.R.T. Button, Pause Control and Sound-on-Sound Button.

Tape Speed	. 1%, 3% and 7½ ips
Wow/Flutter	Less than 0.10% RMS at 71/2 ips
Frequency Response	.30 to 24,000Hz at 71/2 ips
Distortion	Less than 2.0% (1000Hz "0" VU)
S/N Ratio	Better than 48dB (fwd mode)
Reel Capacity	.7" reel
Dimensions	. 17.2"(W) x 17"(H) x 9.2"(D)
Weight	.41.8 lbs.



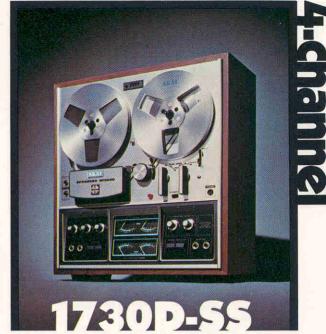
DISCRETE 4-CHANNEL TAPE DECK

The *ultimate* step up in reel-to-reel performance. AKAI's new GX-400D-SS delivers outstanding 4-channel/2-channel recording and playback capabilities. With AKAI's innovative Quadra-SynchTM System—permitting precise sound-on-sound dubbing with absolutely no time delay! Plus a Closed-Loop Dual Capstan Drive System. And a myriad of other incomparable features that include 4 of AKAI's exclusive GX (glass and crystal) Heads, ADRS (Automatic Distortion Reduction System), Direct Function Change Control, Lockable Pause Control, Auto-Stop and Shut-Off, Tape Selector Switch, and Auto-Reverse. A true "state-of-the-art" machine.

SPECIFICATIONS

Track System4-trac	
comp	atible
Tape Speed	1/2, and 15 ips
Wow/Flutter Less	than 0.035% RMS at 15 ips
Frequency Response20-27	
DistortionLess	than 1% (1000 Hz "0" VU) at 15 ips
S/N Ratio Bette	
Reel CapacityUp to	101/2" reel
Dimensions	
Weight70 lbs	3

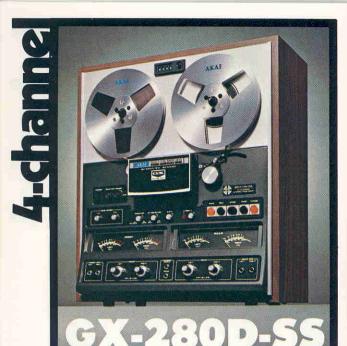
*Using AKAI SRT Tape



DISCRETE 4-CHANNEL TAPE DECK

Nothing is lacking in the performance of the 1730D-SS. It's versatile . . . completely compatible with conventional 2-channel. Engineered with 4 heads, Hysteresis Synchronous 2-speed Motor, Automatic Shut-Off, Pause Control and Slanted Control Panel for operating ease.

Track System	4-track 4-channel/2-channel
	compatible
Tape Speed	3¾ and 7½ ips
Reel Capacity	7" reel
Wow/Flutter	0.15% RMS at 71/2 ips
Frequency Response	
Distortion	Less than 2% (1000Hz "0" VU) at 7½ ips
S/N Ratio	Better than 48dB
Dimensions	16½"(W) x 18"(H) x 9½"(D)
Weight	37.5 lbs.



DISCRETE 4-CHANNEL TAPE DECK

The professional 4-channel tape deck is finally here. In the GX-280D-SS, AKAI has combined 4 separate heads (including 2 of AKAI's exclusive GX Heads) and 3 outstanding motors. The results: magnificent musical clarity and unique sound quality. The GX-280D-SS has the best of everything; Tape Selector Circuit, Sound-On-Sound, Sound Mixing, Pause Control, and more. Another great new "Innovator" from AKAI.

SPECIFICATIONS

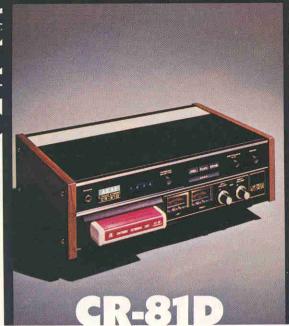
Track System 4-track	
compat	
Tape Speed	d 71/2 ips
Reel Capacity	\$100 M
Wow/Flutter Less th	an 0.10% RMS at 71/2 ips
Frequency Response 30 to 23	3,000Hz at 71/2 ips
Distortion 0.8% (1	
S/N Ratio55 db	ALTERNATION OF THE PROPERTY OF THE PARTY OF
Dimensions 17.4"(W	/) x 20.2"(H) x 10"(D)
Weight	1



DISCRETE 4-CHANNEL CARTRIDGE TAPE DECK

4-Channel cartridge recording is easy with the CR-80D-SS...delivers everything you ever wanted in multi-dimensional sound. Exciting features include AKAI's One-Micron Gap Recording/Playback Head for amazing frequency response, Fast Forward, Automatic Stop/Continuous Play, 4-Channel/2-Channel Stereo Selector and Public Address System convertibility.

.8-track 4-channel/2-channel compatible
.3¾ ips
Less than 0.35% RMS
.50 to 16,000Hz
Less than 3% (1000Hz "0" VU
Better than 41dB
2-speed induction motor
.19.4"(W) x 5.5"(H) x 11.2"(D)
24 lbe

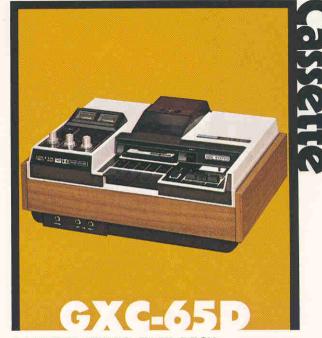


8-TRACK CARTRIDGE STEREO TAPE DECK

The CR-81D provides a wide frequency range for superb sound quality in cartridge recording/playback. Exclusive AKAI One-Micron Gap Head delivers high density recording with low distortion. Complete with Fast Forward, Automatic Stop, Continuous Playback, All-Silicon Transistor Pre-Amplifier and large VU Meters.

SPECIFICATIONS

OF LOW TOAT TORIO	
Tape Speed	4 ips
Wow/FlutterLe	ss than 0.35% RMS
Frequency Response50	to 16,000Hz
Distortion	tter than 41dB
Heads(2): Recording/Playback Head ase Head
Motor	speed induction motor
Dimensions	.6"(W) x 5.4"(H) x 10.3"(D)
Weight17	.6 lbs.



CASSETTE STEREO TAPE DECK

Discover sound quality approaching that of the finest open reel recorders with the GXC-65D. AKAI's exclusive Automatic Distortion Reduction System (ADRS) is combined with Dolby to eliminate almost all high frequency distortion above 8,000 Hz. Two-head assembly includes AKAI GX recording/playback head. Fully equipped with exclusive Invert-O-Matic for continuous repeat/reverse, Tape Selector Switch and Automatic Stop.

Tape Speed	1% ips
Wow/Flutter	Less than 0.2% RMS
Frequency Response	30 to 18,000Hz using chromium
	dioxide tape
Distortion	Less than 1.5% (1000Hz "0" VU)
S/N Ratio	Better than 58dB with Dolby
Motor	Hysteresis Synchronous Outer-Rotor
	Motor
Dimensione	16 6"(W) x 7 2"(H) x 11 6"(D)



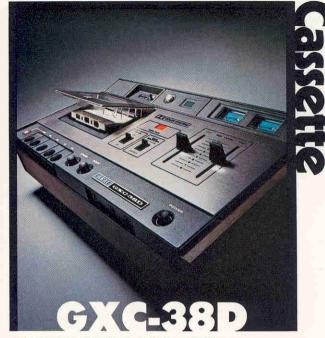
CASSETTE STEREO TAPE DECK

The most perfect cassette recording in the world today is attained with the GXC-46D. Combines AKAI's exclusive ADRS (Automatic Distortion Reduction System) with Dolby ... eliminates almost all high frequency distortion above 8,000Hz. Fully equipped with Tape Selector Switch, Over-Level Switch for high volume recording, Automatic Stop, Pause Control and 2 Heads—including AKAI's exclusive GX Recording/Playback Head.

GXC-46D

SPECIFICATIONS

.1% ips
Less than 0.2% RMS
.30 to 18,000Hz with chromium dioxide tape
Less than 1.5% (1000Hz "0" VU)
Better than 58 dB with Dolby
Hysteresis Synchronous Motor
. 16.4"(W) x 5.3"(H) x 12"(D)
15.8 lbs.

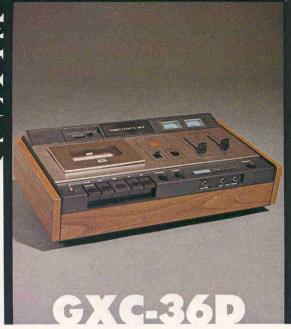


CASSETTE STEREO TAPE DECK

Exciting AKAI innovations put the GXC-38D stereo cassette deck in a class by itself. Starting with an exclusive AKAI GX (glass and crystal ferrite) Head and "Dolby"® Noise Reduction System, AKAI added an Over-Level Suppressor Circuit to limit high recording-level distortion. Other distinctive features include Pause Control, Auto-Stop, Tape Selector Switch, Direct Function Change Control, and a 3-digit Index Counter.

SPECIFICATIONS

Tape Speed	17/8 ips
Wow/Flutter	Less than 0.12% RMS
Frequency Response	30 to 18,000Hz using chromium
Distortion	Less than 2% (1000Hz "0" VU)
S/N Ratio	Better than 58dB with "Dolby"
Motor	
Dimensions	16.1"(W) x 4.4"(H) x 8.7"(D)
Weight	

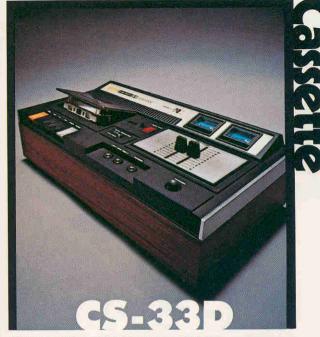


CASSETTE STEREO TAPE DECK

Cassette recordings that rival reel-to-reel performance—that's what AKAI's new GXC-36D delivers! Made possible with AKAI's exclusive GX (glass and crystal) Head. There's even an Over-Level Suppressor Switch to limit high recording level distortion. And other impressive features that include a Tape Selector Switch, Tape Run Lamp, Pause Control, Direct Function Change Control, and a 3-digit Counter.

SPECIFICATIONS

Tape Speed	ips
Wow/FlutterLess	than 0.12% RMS
Frequency Response 40 to	17,000 Hz using chromium
diox	ide tape
Distortion Less	than 2% (1000 Hz "0" VU)
S/N Ratio Bett	er than 48 dB
Motor Indu	
Dimensions	"(W) x 4 6"(H) x 8 8"(D)
Weight	he
morgin	00.

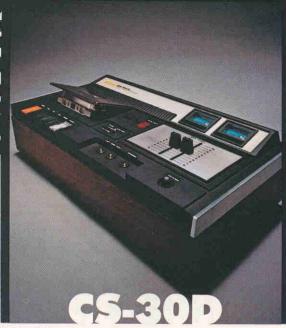


CASSETTE STEREO TAPE DECK

"Dolby" means a better sounding cassette deck. And now for surprisingly little, AKAI's new CS-33D gives you a built-in "Dolby" circuit. Plus other exciting features like a Digital Tape Counter, Tape Selector Switch (for utilization of new low noise tapes), Tape Run Lamp, and two conveniently raised VU Meters. AKAI makes innovations cost less!

SPECIFICATIONS

. 1% ips
Less than 0.15% RMS
.40 to 15,000 Hz using chromium dioxide tape
Less than 2% (1000 Hz "0" VU)
Better than 56dB with "Dolby"
Induction Type Motor
. 16.1"(W) x 5"(H) x 8.7"(D)
. 10.1 lbs

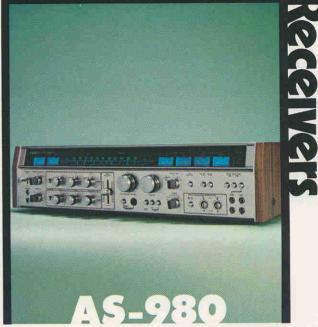


CASSETTE STEREO TAPE DECK

The CS-30D combines traditional AKAI quality and exceptional performance with a surprisingly low price. Outstanding features include Digital Tape Counter, Tape Selector Switch, Tape Run Lamp, and large Dual VU Meters that are raised for your convenience. If you've been searching for your first cassette stereo tape deck ... look no further than the new CS-30D from AKAI.

SPECIFICATIONS

Tape Speed	17/e ins
Wow/Flutter	000 than 0 150/ DMC
Frequency Response	to 15,000Hz using chromium
The second secon	dioxide tape
Distortion	less than 2% (1000Hz "0" VU)
S/N Ratio E	Retter than 46dB
Motor	Sottor than 400B
Motor	nauction Type Motor
Dimensions 1	6.1"(W) x 5"(H) x 8 7"(D)
Woight	0.1 (11) X 0 (11) X 0.1 (D)
Weight	IU. I IDS



4-CHANNEL STEREO AMPLIFIER/TUNER

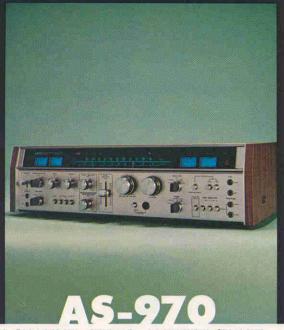
AKAI's ultimate in 4-channel stereo receivers is the new AS-980. Nothing has been left out! Sophisticated features include: 3 separate 4-channel modes (Discrete, SQ, RM) plus individual CD-4 separation controls, Slide-Rule Main Balance Control, Separate Bass, Treble, and Balance Controls for Front and Rear Speakers, 3 Tape Monitors, Tape Dubbing, Meter Level Switching, FM Muting, Audio Muting, High & Low Filters, Automatic Preset Volume Control, Front Panel Remote Control, and Separate Signal and Tuning Meters. Also 4 individual VU Level Input Meters.

SPECIFICATIONS-FM TUNER

Sensitivity	(IHF)	2.0 μV
S/N Ratio		Better than 70 dB
Selectivity		Better than 70 dB

SPECIFICATIONS—AMPLIFIER

Frequency Response .	20 to 50,000 Hz
Output Power (Continue	ous) 120 W (30 x 4)
Dimensions	26"(W) x 6.7"(H) x 17"(D
Weight	44.8 lbs



4-CHANNEL STEREO AMPLIFIER/TUNER

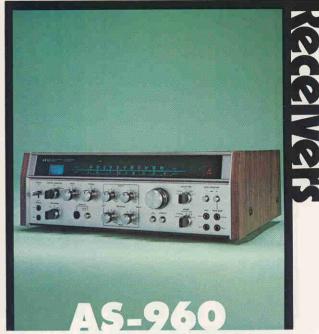
Beautifully engineered! There's no other way to describe AKAI's new 4-channel/2-channel compatible stereo receiver—the AS-970. You're in complete control with 3 separate 4-channel modes (Discrete, SQ, RM), individual CD-4 separation controls, Slide-Rule Main Balance Control, 3 Tape Monitors, FM Muting, High & Low Filters, and Tape Dubbing. Plus extras like Separate Left and Right Level Meters, Separate Signal and Tuning Meters, and an Automatic Preset Volume Control. Even Front Panel Remote Control!

SPECIFICATIONS-FM TUNER

Sensitivity	(IHF)	2.0 μV
S/N Ratio		Better than 70 dB
Selectivity		Better than 70 dB

SPECIFICATIONS—AMPLIFIER

Frequency Response 20 to 50,000 Hz Output Power (Continuous) ... 100 W (25 x 4)



4-CHANNEL STEREO AMPLIFIER/TUNER

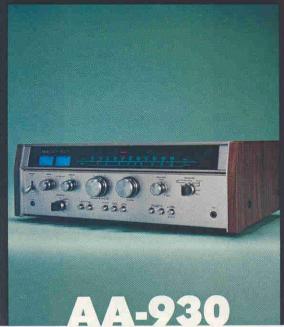
AKAI's new AS-960 is *more* than just a 4-channel stereo receiver with 2-channel compatibility. The AS-960 provides 3 separate 4-channel modes (Discrete, SQ, RM), allowing you to reproduce *all* types of 4-channel sound! Functionally designed with Individual Channel Balance Controls, 2 Tape Monitors, FM Muting, Tape Dubbing, Front Panel Remote Control, and an Illuminated Mode Indicator.

SPECIFICATIONS-FM TUNER

Sensitivity	(IHF)2.	3 μV
S/N Ratio		etter than 70 dB
Selectivity	B	etter than 70 dB

SPECIFICATIONS—AMPLIFIER

Frequency Response	20 to 50,000 Hz
Output Power (Continuous)	72 W (18 x 4)
Dimensions	19.2"(W) x 6.7"(H) x 16"(D)
Weight	28.7 lbs



SOLID STATE AM/FM MULTIPLEX STEREO TUNER/AMPLIFIER

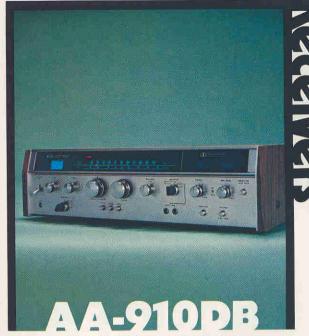
Sophisticate your old system with AKAI's new AA-930 stereo receiver. Delivers all the power and performance your system could ever need. Separate Signal and Tuning Indicators are provided. Plus Sound Monitoring, High/Low Filters, and FM Muting. The AA-930 comes in a distinctive rosewood cabinet...a unit that looks as good as it sounds.

SPECIFICATIONS-FM TUNER

FM Tuning	Range 88MHz to 108MHz
Sensitivity	(IHF) 2.0 μV
S/N Ratio	Better than 70dB
Selectivity	Better than 70dB

SPECIFICATIONS - AMPLIFIER

Frequency Response 7 to 80,000Hz
Output Power (Continuous) 84 (42/42)
Dimensions
Weight



SOLID STATE AM/FM MULTIPLEX STEREO TUNER/AMPLIFIER

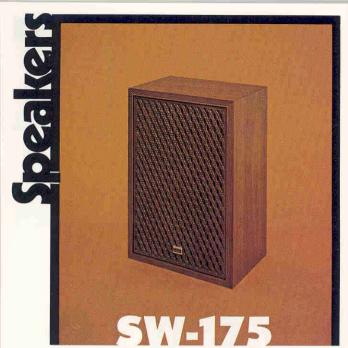
Both the AA-910DB and the AA-910 make it easy for almost everyone to enjoy AKAI quality. These two receivers offer sufficient power for most needs. Wide requency response and low distortion. Enclosed in distinctive rosewood cabinets. The AA-910DB is equipped with "Dolby". Its ability to "Dolbyize" components used with it makes the AA-910DB the perfect complement to any cassette or open reel deck.

SPECIFICATIONS-FM TUNERS

FM Tuning Range	88MHz to 108MHz
Sensitivity (IHF)	2.0 μV
S/N Ratio	Better than 70dB
Selectivity	Better than 65dB

SPECIFICATIONS - AMPLIFIERS

Frequency Response 20 to 70,000n2
Output Power (Continuous) 26W (13/13)
Dimensions of 910DB24.6"(W) x 6.6"(H) x 14.5"(D)
Dimensions of 910
Weight of 910DB28.1 lbs
Weight of 910 23.1 lbs



5-WAY 6-SPEAKER SYSTEM

SPECIFICATIONS

15" L.T.P. Edge woofer, 51/4" midrange, 21/6" x 2 7/16" horn type tweeter, 3" cone type tweeter, two 31/2" dome type tweeters.

Maximum Power Input80W Frequency Response ... 20 to 23,000Hz
Dimensions ... 17"(W) x 24.4"(H) x 11.2"(D)
Weight ... 49 lbs.

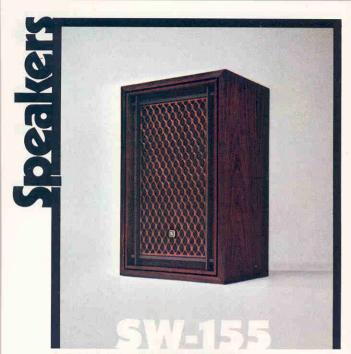


4-WAY 4-SPEAKER SYSTEM

SPECIFICATIONS

12" rolled-edge woofer, 61/2" midrange, 2" horn type tweeter, 1" dome type super tweeter.

Maximum Power Input60W



4-WAY 4-SPEAKER SYSTEM

SPECIFICATIONS

12" rolled edge woofer, 5" midrange, 21/2" tweeter, 2" horn type super tweeter.

 Maximum Power Input
 .50W

 Frequency Response
 .25 to 21,000Hz

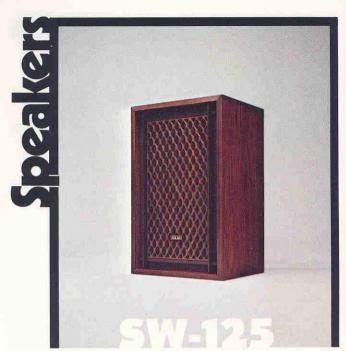
 Dimensions
 .25"(H) x 16"(W) x 1134"(D)

 Weight
 .38.9 lbs.



3-WAY 3-SPEAKER SYSTEM

SPECIFICATIONS



3-WAY 3-SPEAKER SYSTEM

SPECIFICATIONS

10" L.T.P. Edge woofer, 5" L.T.P. Edge midrange, $2\frac{1}{2}$ " tweeter. Maximum Power Input 30W



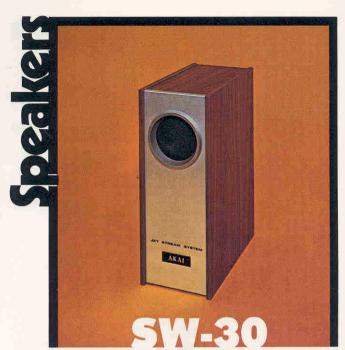
"JET STREAM" LOUDSPEAKER SYSTEM

SPECIFICATIONS

51/4" Flange speaker with L.T.P. Edge and long voice coil.

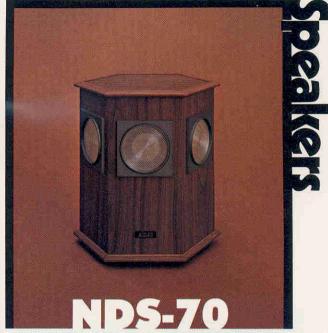
Maximum Power Input15W

Frequency Response ... 40 to 18,000Hz
Dimensions ... 6.8"(W) x 17.2"(H) x 10.8"(D)
Weight ... 9.7 lbs.



"JET STREAM" SPEAKER SYSTEM

SPECIFICATIONS



OMNIDIRECTIONAL 6-SPEAKER SYSTEM

SPECIFICATIONS

Six 3" high compliance speakers.

 Maximum Power Input
 .30W

 Frequency Response
 .70 to 18,000Hz

 Dimensions
 .12½"(H) x 9¾"(D)

 Weight
 .8.8 lbs.