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Audio component

products



ST-R50U

Quartz Synthesizer Tuner

Main features:

- Completely electronic PLL frequency synthesizer tuning
- 6 station preset for AM and FM (total 12)
- AUTO/MANUAL tuning selector
- Digital quartz controlled frequency readout
- High sensitivity, low distortion circuitry
- FM muting, Hi-blend switch
- 5-point signal strength LED indicator



SA-C50U

Stereo Preamplifier

Main features:

- Very low harmonic distortion only 0.008% (TUNER, TAPE IN)
- Low noise, low distortion PHONO IC gives outstanding 88 dB S/N ratio (MM), close RIAA adherence ±0.2 dB (20~20 kHz)
- Built in head amplifier for MC cartridges
- 1 → 2 tape system dubbing
- Low filter (6 dB/oct, 30 Hz)
- Click-stop tone controls defeatable at center position
- Mode indicator LEDs
- Loudness compensation
- –20 dB muting switch



SA-P50U

DC Stereo Power Amplifier

Main features:

- 50 Watts/channel DC amplifier
- Pure complementary SEPP-OCL circuitry for low distortion
- High-stability toroidal power transformer
- 0.01~100 Watts LED power indicator
- Sophisticated self-resetting protection circuit
- A/B speaker system selector
- Stereo headphone jack



SD-L50U METAL

Stereo Cassette Deck

Main features:

- Full metal tape compatibility
- Very low 0.04% wow & flutter
- Feather-touch IC logic controls
 Auto rewind/repeat mechanism
- Optical Peak LED display
- Dolby* noise reduction system
 Soft oil-damped cassette eject
- High-performance SH record/
 playback head
- Front panel microphone inputs
- * Dolby is a trademark of Dolby Laboratories.



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- Soft oil-damped cassette eject
 High-performance SH record/ playback head
- Front panel microphone inputs
- * Dolby is a trademark of Dolby Laboratories.



AX-S50U

Mini receiver

Main features:

- 20 Watts/ channel AM/FM receiver with low 0.3% THD
- Fully electronic PLL quartz synthesizer tuning
- Random preset of up to 10 AM or FM stations
- 7-point LED peak power/tuning signal strength meter
- FM muting, Loudness controls
- Precision phono equalizer with 80 dB signal/noise ratio
- Front panel headphone jack
- Connections for AUX, TAPE, PHONO





MT-50U

Digital Quartz Audio Timer

Main features:

- Digital quartz audio timer for M-501, M-502 systems
- Timer display with wake-up alarm signal
- Up to 6 automatic changes of preset tuner channel at desired time (ST-R50)
- Sleep countdown display from 99
- Remaining tape countdown display (SD-L50)
- 2 AC outlets
- Power interruption compensation
- Display dimmer facility

DIMENSIONS: 9-7/8(W) \times 1-7/16(H) \times 10-5/16(D) inches (250 \times 36 \times 261.5 mm) WEIGHT: 3.5 lbs (1.6 kg)



SD-L50U MMETAL

Feather-touch logic controls and metal compatibility from a front loading deck just 9-7/8 inches across, 4-1/4 inches high.

Dual Motor Drive

An incredibly compact design barely half the width of conventional decks, the SD-L50 nonetheless incorporates the same 2-motor Dual Motor Drive System perfected in AIWA's top of the line models. Wow and flutter at 0.04%, is so low as to be audibly insignificant.

Feather-touch logic controls

Activated by a stroke of just 0.3 mm, the SD-L50 requires only the lightest touch to make mode changes. Record and play controls are equipped with their own LED indicators.

Auto Rewind/Repeat Play Operation

With the selector switch, set to the PLAY/REPEAT position, continuous repeat play of the side of a cassette will be performed automatically until halted manually.

Mini — a great new approach to hi-fi enjoyment

The SD-L50 is just one of the high quality components which make up AIWA's M-501 and M-502 Mini Systems - two of the world's most modern contributions to state-of-the-art electronics. See them at your AIWA dealer

Main features:

- Optical peak LED display (-20~+10 dB)
 ◆ High performance SH head
- Front panel mic and headphone inputs Dolby* noise reduction system
- Timer standby mechanism (record/play) Smooth oil-damped cassette eject
- Rec-sync operation with AIWA turntables



HR-50H High Com ** Unit

A compact outboard noise reduction unit based on AEG-Telefunken's world-famous professional compander system. AIWA believes that with the introduction of High-Com, recordists will no longer regard 8 to 10 dB of noise reduction as the acceptable standard and will begin to think in terms of the much greater capability this system offers.

What is High-Com?

Based on the TELECOM system developed by AEG Telefunken for professional recording applications, High-Com is a modified noise reduction system which can be easily adapted to home audio applications. Along with an overall reduction in tape hiss and other noise, a High-Com encoded tape is remarkably free from audible coloration, degradation of transient response and presence of "breathing" noise. Another point in which High-Com differs from other systems is that it suppresses noise not only in the higher frequencies - where

tape hiss is most noticable - but across the entire frequency band. Thus "breathing" noise, the audible evidence of noise reduction system at work, is eliminated with no sacrifice in quality of transient signals.



Basic operation

To reduce the presence of noise in the recorded signal, High-Com compresses the input's dynamic range to 1/2 of its original level during recording, then expands the signal to twice its original level during playback. By this any noise remaining in the signal is lowered to an almost insignificant level. Overall improvement in signal/noise ratio is in the neighborhood of 20 to 25 dB, and dynamic range increased to as high as 100 dB.

- Compact, functional design
 High-Com pass position
 Calibration with built-in test signal • Separate L, R record volume controls • Switchable MPX filters • Compatible with nearly all cassette and open reel units
 - ** High-Com noise reduction system manufactured under license from AEG-Telefunken
 ** High-Com is a trademark of AEG-Telefunken

MINI SYSTEM M501

The 50 Watt system: For a Touch of Musical Enchantment

Basic system includes SA-P50 DC power amplifier, SA-C50 preamplifier, ST-R50 synthesizer tuner and SD-L50 cassette deck. Optionals shown include AP-D50 front-

loading turntable, RC-R300 infrared wireless remote control system, MT-50 digital audio timer, SC-E50 3-way loudspeakers and RK-H7 system rack.

MINI SYSTEM M502



The 20 Watt Receiver: Dynamite in a small package

System is composed of AX-S50 AM/FM stereo receiver and SD-L50 metal-capable cassette deck. Recommended speakers are the 2-way SC-61



AP-D50U

A completely new concept in hi-fi component design: the world's first automatic front-loading turntable. Whether you're aiming for convenience or performance, the ingenuity of the AP-D50 is hard to best.

Front loading operation

After setting the disc on the loading tray and selecting the speed and record size, the operator presses the PLAY button and the disc is loaded into playing position by a separate motor. Another touch of the PLAY button and play commences automatically. Pressing the EJECT button either during or after play operation will eject the disc gently forward for removal. The dust cover may be left completely undisturbed during these operations.

Manual operation

Manual arm operation can even be performed with the dust cover shut; an arm carrier lever located on the front panel permits positioning of the arm while it is raised from the record surface.

High performance direct-drive motor

For accurate rotation speed completely free from cogging or other undesirable effects the AP-D50 employs a 4-phase 8-pole linear torque motor with a frequency generator type speed detector. This compares the motor rotation speed to a standard rotation frequency and makes needed correction virtually instantaneously. Wow and flutter is held to a very low 0.028% (WRMS) and rumble, another result of improved motor design, is a superb 75 dB (DIN-B).

Other features:

- Photoelectric auto return mechanism Sensitive J-shaped static balance arm
- Heavy 1.3 kg aluminum diecast platter
 Rec-sync operation with most AIWA cassette decks
 Dense anti-resonance resin compound chassis material
- Adjustable pitch control (±3%)
 Built-in stylus cleaning brush







MINI STSTEM COMPONENTS AMIFM	STEREO TUNERS	3				
		ST-R50U	ST-R30U		ST-R22BH	
FM SECTION FREQUENCY RANGE	F	M: 87.5 MHz~108MHz	FM: 87.5 MHz~108MHz		FM: 87.5 MHz~108MHz	
50 dB QUIETING SENSITIVITY	Mono: 4.5 μV	(18.2 dBf), Stereo: 45 µV (58.2 dBf)	Mono: 4.5 μV (18.2 dBf), Stereo: 43 μ	V (37.9 dBf) Mono: 4.5	μV (18.2 dBf), Stereo: 43 μV (37.9 dBf)	
USABLE SENSITIVITY	N	lono: 1.9 μV (10.8 dBf)	Mono: 1.9 μV (10.8 dBf)	10110 0017	1.9 µV (10.8 dBf)	
S/N RATIO	Mo	no: 75 dB, Stereo: 72 dB	Mono: 73 dB, Stereo: 70 dB	3	Mono: 73 dB, Stereo: 70 dB	
CAPTURE RATIO		1.5 dB	1,5 dB		1.5 dB	
TOTAL HARMONIC DISTORTION	Mono: 0.19	% (1 kHz), Stereo: 0.25% (1 kHz)	Mono: 0.1%, Stereo: 0.25%	5	Mono: 0.1% ,Stereo: 0.25%	
SELECTIVITY	35 dB (±300 kHz), 65 dB (±400 kHz)	70 dB (±400 kHz)		70 dB (400 kHz)	
FREQUENCY RESPONSE	30 Hz~	15,000 Hz (+0.5 dB, -1.5 dB)	30~15,000 Hz (+0.5 dB, −1.5	dB) 30	Hz~15,000 Hz (+0.5 dB, -1.5 dB)	
SPURIOUS REJECTION RATIO		90 dB	80 dB		80 dB	
AM SUPPRESSION RATIO		55 dB	55 dB		55 dB	
STEREO SEPARATION		45 dB (1 kHz)	45 dB (1 kHz)		45 dB (1 kHz)	
AM SECTION FREQUENCY RANGE	А	M: 525 kHz~1,605 kHz	AM: 520 kHz~1,605 kHz		AM: 520 kHz~1,605 kHz	
AM SENSITIVITY	250 μV/m (E	Bar antenna), 30 μV (Ext. antenna)	250 μV/m (Bar antenna), 20 μV (Ext	antenna) 250 µV/n	250 μV/m (Bar antenna), 20 μV (Ext. antenna)	
POWER SOURCE	AC: 120V (50/60 Hz)		AC: 120V, 50/60 Hz		AC: 120V/240V, 50/60 Hz DC: 12V	
DIMENSIONS		× 2-13/16 (H) × 11-1/16 (D) inches (250 × 71 × 280 mm)	8-5/16(W) × 2-13/16(H) × 9(D) i (210 × 71 × 254.5 mm)	nches 8-5	8-5/16(W) × 2-13/16(H) × 8(D) inches (210 × 71 × 203 mm)	
WEIGHT	5.3 lbs (2.4 kg)		4.6 lbs (2.1 kg)		4.4 lbs (2.0 kg)	
STEREO PREAMPLIFIERS			DC POWER AMPLIFIERS		- in the tribung	
SA-C5	OU	SA.C3011		CA DEOLI	OA DOOLL	

		5.5 163 (2.4 kg)		
TEREO PREAMPLIFIERS				
	SA-C50U	SA-C30U		
S/N RATIO	Phono (MM): 88 dB, Phono (MC): 70 dB Tuner AUX 1, AUX 2, Tape input 103 dB	Phono (MM): 87 dB Tuner AUX: 98 dB		
RIAA DEVIATION	±0.2 dB (20 Hz~20 kHz)	±0.2 dB (20 Hz~20 kHz)		
INPUT SENSITIVITY/ IMPEDANCE	Phono (MM): 2.5 mV/47 kohms Phono (MC): 0.25 mV/100 ohms Tuner, AUX 1,2: 150 mV/47 kohms Tape input 1,2: 150 mV/47 kohms	Phono (MM): 2.5 mV/47 kohms Tuner, AUX AUX 2 150 mV/47 kohms		
PHONO MAXIMUM INPUT VOLTAGE	MM: 200 mV (at 1 kHz, T.H.D. 0.1%) MC: 20 mV (at 1 kHz, T.H.D. 0.1%)	MM: 200 mV (at 1 kHz, T.H.D. 0.1%)		
OUTPUT VOLTAGE/ IMPEDANCE	Tape: 150 mV/47 kohms Pre: 0.9 V/47 kohms	Tape: 150 mV/47 kohms Pre: 0.8 V/47 kohms		
TONE CONTROL	Bass: ±10 dB (at 50 Hz) Treble: ±10 dB (at 20 kHz)	Bass: ±9 dB (100 Hz) Treble: ±7 dB (10 kHz)		
LOW FILTER	30 Hz, 6 dB/oct	30 Hz, 6 dB/oct		
LOUDNESS	+6 dB (100 Hz) +3 dB (20 kHz)	+7 dB(100 Hz) +3.5 dB (10 kHz)		
MUTING	−20 dB	−20 dB		
POWER SOURCE	AC 120V, 50/60 Hz	AC: 120V, 50/60 Hz		
DIMENSIONS	9-7/8(W) x 2-13/16(H) x 10-3/16(D) inches (250 x 71 x 257.5 mm)	8-5/16(W) x 2-13/16(H) x 9-1/16(D) inche (210 x 71 x 228.5 mm)		
WEIGHT	4.9 lbs (2.2 kg)	3.8 lbs (1.75 kg)		
NTEGRATED AMPLIFIER	is .			
	SA-A30U	AA-A16BH		
OUTPUT POWER	15W + 15W at 8 ohms from 20∼20,000 Hz with no more than 1% distortion	9 Watts per channel Min. RMS at 4 ohms, from 50 Hz~20 kHz, with no more than 1% total harmonic distortion		
TOTAL HARMONIC DISTORTION	1%	1%		
POWER BANDWIDTH	20 Hz~20 kHz (at 8 ohms, T.H.D. 1%)	30 Hz~30 kHz at 8 ohms (both channels drive total harmonic distortion 1%)		
FREQUENCY RESPONSE	10 Hz∼70 kHz ^{+0.5} dB	20 Hz~50 kHz ¹ / ₃ dB		
S/N RATIO	Phono: 82 dB Tuner and AUX: 95 dB	Tuner, Tape, AUX 1 & AUX 2: 87 dB		
DAMPING FACTOR	More than 25	30 dB		
INPUT SENSITIVITY/ IMPEDANCE	Phono: 2.5 mV/47 kohms Tuner AUX and Tape Monitor: 150 mV/47 kohms	150 mV/47 kohms		
PHONO MAXIMUM INPUT VOLTAGE	150 mV/47 kohms			
RIAA DEVIATION	+0.2 dB (20~20,000 Hz)			
TONE CONTROL	Bass: ±10 dB at 100 kHz Treble: ±8 dB at 10 kHz	Bass: ±12 dB at 100 Hz Treble: ±10 dB at 10 kHz		
POWER CONSUMPTION		23 Watts		
POWER SOURCE	120V, 50/60 Hz	AC: 120, 50/60 Hz, DC: 12V		
DIMENSIONS	8-5/16(W) x 2-13/16(H) x 9(D) inches (250 x 71 x 227.5 mm)	8-5/16(W) x 2-13/16(H) x 8(D) inches (210 x 71 x 203 mm)		
DIMENSIONS	(250 x /1 x 22/.5 mm)	6.0 lbs (2.7 kg)		

C POWER AMPLIFIER						
	SA-P50U		SA-P30U			
POWER OUTPUT	50 Watts per channel, Min. 3 ohms, from 20 Hz~20 kHz, w than 0.02% T.H.D.		35 Watts per channel, Min. RMS at 8 ohms, from 20~20,000 Hz, with no more than 0.05% T.H.D.			
TOTAL HARMONIC DISTORTION	0.01% (50W, 8 ohms, 1	kHz)	0.01% (35W, 8 ohms, 1 kHz)			
INPUT SENSITIVITY/ IMPEDANCE	800 mV/(47 kohm	ns)	800 mV/47 kohms			
POWER BAND WIDTH	10 Hz~50 kHz (T.H.D. 0	.05%)	10 Hz~50 kHz (Distortion under 0.05%)			
S/N RATIO	115 dB		115 dB (IHF A curve short circuit)			
DAMPING FACTOR	40 (at 1 kHz)			50 (at 1 kHz)		
CIRCUITRY	DC amp	DC amp		DC amp		
POWER SOURCE	AC: 120V, 50/ Hz	AC: 120V, 50/ Hz		AC: 120V, 50/ Hz		
DIMENSIONS		9-7/8(W) x 2-13/16(H) x 9-3/4(D) inches (250 x 71 x 247.5 mm)		3-5/16(W) x 2-13/16(H) x 8-9/16(D) inches (210 x 71 x 217 mm)		
WEIGHT	11.9 lbs (5.4 kg)	11.9 lbs (5.4 kg)		8.8 lbs (4 kg)		
STEREO CASSETTE D	ECKS	100		(1)		
	SD-L30U		SD-L22BH			
WOW AND FLUTTER		0.09% (WRMS)		0.09% (WRMS)		
S/N RATIO	60 dB (Dolby on)			60 dB (Dolby on)		
FREQUENCY RESPONS	25~14,000 Hz (LH 25~16,000 Hz (CrO	25~14,000 Hz (LH) 25~16,000 Hz (CrO ₂) 25~16,000 Hz.(Metal)		25~14,000 Hz (LH) 25~16,000 Hz (CrO ₂)		
HEAD		REC/Pb: Hard Permalloy Head Erase: Hi-Bs double gap ferrite head		Hard Permalloy Head		
MOTOR	DC servo motor	DC servo motor		DC servo motor		
INPUT SENSITIVITY/ IMPEDANCE		MIC: 0.3 mV/200 ohms~10 kohms LINE IN: 50 mV/50 kohms		MIC: 0.3 mV/200 ohms~10 kohms LINE IN: 50 mV/50 kohms		
OUTPUT LEVEL/ IMPEDANCE	LINE OUT: 0.41V/50 k	LINE OUT: 0.41V/50 kohms		LINE OUT: 0.41V /50 kohms		
POWER SOURCE	AC: 120V, 50/60 H	AC: 120V, 50/60 Hz		AC: 120V/240V, 50/60 Hz DC: 12V		
DIMENSIONS	8-5/16(W) x 2-7/8(H) x 9-1/1 (210 x 72 x 229 mr		8-5/16(W) x 2-7/8(H) x 7-7/8(D) inches (210 x 73 x 200mm)			
WEIGHT	EIGHT 6.2 lbs (2.8 kg)		6.0 lbs (2.7 kg)			
MINI RECEIVERS						
		AX-S50L	J	Mono: 75 dB		
AMPLIFIER SECTION OUTPUT POWER	20 Watts per channel, Min. RMS at 8 ohms from	S/N RATIO		Stereo: 70 dB		
TOTAL HARMONIC DISTORTION POWER BANDWIDTH	20 Hz~20 kHz, with no more than 0.3% T.H.D. 0.3% (at effective power output 8 ohms) 10 Hz~40 kHz (T.H.D. 0.5%)	TOTAL HARM	ONIC DISTORTION	65 dB (±400 kHz) Mono: 0.15% Stereo: 0.3%		
DAMPING FACTOR	30	STEREO SEPARATION POWER SOURCE		40 dB (at 1000 Hz) 120V, 50/60 Hz		
S/N RATIO RIAA DEVIATION	80 dB (Phono), 90 dB (Aux 1, Tape input) ±0.5 dB (30 Hz~15 kHz)	DIMENSIONS		9-7/8(W) x 2-13/16(H) x 12-1/2(D) inches		
FM SECTION		WEIGHT		(250 x 71 x 316 mm) 3.6 kg (7.9 lbs)		
USABLE SENSITIVITY	2.0 µV (11.2 dBf) Mono: 4.5 µV (18.2 dBf)	HEIGHT		5.0 ng (7.8 l0s)		
50 dB QUIETING SENSITIVITY	Mono: 4.5 μV (18.2 dB1) Stereo: 45 μV (38.2 dB1)					

STEREO TURNTABLES

TURNTABLE SECTION	LP-3000U	AP-D50U	AP-D30H	AP-2100H
DRIVE SYSTEM	Quartz PLL direct drive system	Direct drive system	Direct drive system	Belt-drive system
MOTOR	Pulse synthesizer quartz PLL servo motor	4 phase, 8 pole linear torque DC Hall motor	2 phase, 10 pole DC servo motor	4 pole hysteresis synchro- nous motor
TURNTABLE PLATTER	Zinc diecast, diameter 12-1/4" (31 cm) weight 7.1 lbs (3.2 kg)	Aluminum alloy diecast (30 cm) weight 1.3 kg	Aluminum diecast (30.6 cm) weight 1.2 kg	Aluminum diecast 11-13/16" (30 cm)
SPEEDS	33-1/3 and 45 rpm	33-1/3 and 45 rpm	33-1/3 and 45 rpm	33-1/3 and 45 rpm
VARIABLE PITCH CONTROL	±6%	±3%	±3%	a Laurage and Toronto High
WOW AND FLUTTER	0.025% (WRMS)	0.028% (WRMS)	0.035% (WRMS)	0.07% (WRMS) 0.14% (DIN)
S/N RATIO	60 dB (IEC-B curve)	60 dB (IEC-B curve) 75 dB (DIN B curve)	60 dB (IEC B curve) 70 dB (DIN B curve)	62 dB (DIN-B)
TONEARM SECTION	1			
ТҮРЕ	Linear tracking, static balanced tonearm	Static balanced type	Static balanced type	Static balanced type
EFFECTIVE ARM LENGTH	7-3/16" (182 mm)	8-1/2" (215 mm)	8-1/2" (215 mm)	8-3/8" (212 mm)
OVERHANG	0" (0 mm)	5/8" (15 mm)	5/8" (15 mm) 5/8" (15 mm)	
TRACKING ERROR ANGLE	+0.25°, -0.25°	+1.4°, -3.6°	+3°, -1.5°	+5°, -0.8°
OFFSET ANGLE	O°	25.1°	23°	21°
TRACKING FORCE RANGE	0~3g	0~3g	0~4g	0~4g
USABLE CARTRIDGE WEIGHT	4~15g	3.5~8.5g	3.5~8g	3.5~8.5g
GENERAL				
POWER SOURCE	AC 120V, 50/60 Hz	AC 120V, 50/60 Hz	AC 110~120/220~240V, 50/60 Hz	AC 110/120V/220~240V, 50/60 Hz
POWER CONSUMPTION	20 watts	9 watts	6 watts	9 watts
DIMENSIONS	18-15/16(W) × 5-15/16(H) × 17-5/16(D) inches (480 × 150 × 439 mm)	17-3/4(W) x 4-3/16(H) x 14-13/16(D) inches (450 x 106.5 x 375 mm)	16-3/4(W) x 4-7/8(H) x 14-3/8(D) inches (424 x 123 x 364 mm)	17-3/8(W) x 5-5/16(H) x 14-5/16(D) inches (440 x 134 x 363 mm)
WEIGHT	33.5 lbs (15.2 kg)	15.9 lbs (7.2 kg)	15.2 lbs (6.9 kg)	13.2 lbs (6 kg)