

PRECISION MDSD SA-CD PLAYER

DP-700

● High-rigidity, high-precision SA-CD/CD drive ● Innovative digital signal processor with MDSD technology ● MDS++ D/A converter with eight DACs driven in parallel ● "Ultra Jitter-Free Plus" PLL circuit ● "Direct Balanced Filter" with totally separate balanced and unbalanced signal paths ● Transport outputs and digital inputs ● Accuphase HS-Link digital interface





The ultimate integrated SA-CD/CD player — High-rigidity, high-precision SA-CD/CD drive combined with exquisite disc tray and ultra-smooth loadingmechanism.Ground-breakingMDSD(MultipleDoubleSpeedDSD) digital signal processing circuitry constitutes a moving average filter for straight D/A conversion. Superior quality digital audio interface HS-Link.

When Accuphase introduced the ultimate separate-type SA-CD/CD player, the models DP-800 and DC-801, a new epoch in audio history had begun. Garnering worldwide acclaim both for their technological excellence and sound quality, the transport and processor pair has become the new reference for SA-CD reproduction.

The new DP-700 is an integrated type SA-CD player incorporating that very same state-of-the-art technology. Major highlights are the ultra-rigid SA-CD/CD drive assembly and the MDSD principle that takes the DSD signal straight from the digital to the analog domain. Latest digital signal processing technology is in evidence throughout. Extensive series of listening tests were conducted to shape the DP-700 into the world's foremost integrated SA-CD/CD player. As with all other Accuphase players so far, a conscious decision was made not to support multi-channel formats but rather focus on extracting the ultimate in musical fidelity from two-channel SA-CD music sources.

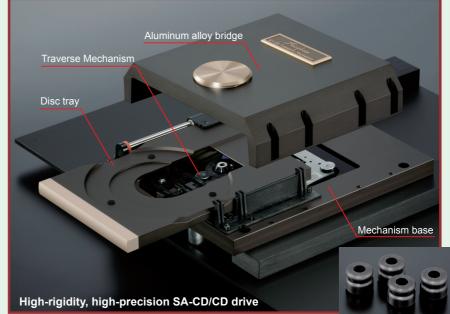
In the transport section, a dedicated DSP chip controls the digital servo to assure accurate readout of the signal recorded on the SA-CD. Another vital aspect is the single-lens/twin laser diode pickup mounted to a highspeed positioning mechanism, providing a significant improvement in read access times and accuracy. The processor section features the innovative MDSD principle forming a sophisticated moving average filter circuit, together with the MDS++ D/A system that keeps conversion errors to an absolute minimum and at the same time acts as high-cut filter efficiently removing noise components in the high frequency domain. The Direct Balanced Filter provides separate low-pass filtering for the balanced and unbalanced signal paths, and the analog balanced output circuitry eliminates interference during signal transmission. The overall result is simply outstanding sonic performance that removes the last veil from the music and beautifully demonstrates what the SA-CD format is all about.

Internally, the transport and processor sections of the DP-700 are kept entirely separate. Digital inputs allow independent use of the processor section for external sources to enjoy music reproduction with the same superb quality.

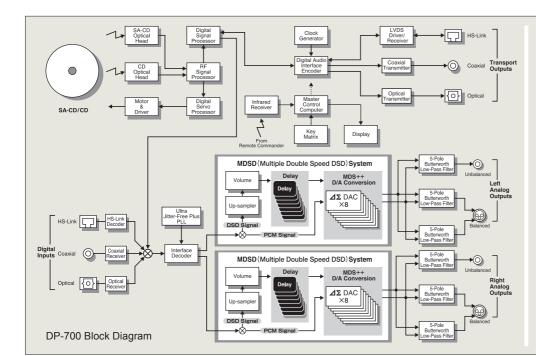
Features and Functions of Transport Section

■High-rigidity, high-precision SA-CD/CD drive

- Tighly rigid and precise construction with sturdy, heavyweight chassis to absorb external vibrations
- @ "Traverse Mechanism" with floating design
- ③ Massive aluminum alloy bridge
- Low center of gravity to further reduce vibrations
- Igh-quality disc tray extruded from an aluminum block, plus super-quiet smooth disc loading mechanism
- SA-CD/CD transport outputs ultra pure digital signal
- Single-lens/twin pickup high-speed access mechanism
- Support for text data display
- Accuphase's proprietary digital audio interface HS-Link (carries both SA-CD and CD signal)

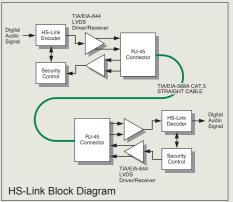


Viscous dampers



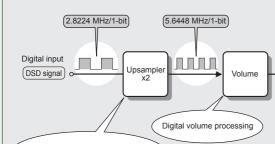
Accuphase Exclusive Digital Interface HS-Link : High Speed Link

HS-Link is an ultra high-quality digital audio interface developed by Accuphase using the latest digital signal transmission technology. It supports send/receive verification for copyright protection. The LVDS (Low Voltage Differential Signaling) principle allows a single dedicated HS-Link cable to transmit all audio data with utmost fidelity, including 2.8224 MHz/1-bit and 192 kHz/24-bit signals.



Innovative digital signal processing : MDSD (Multiple Double Speed DSD)

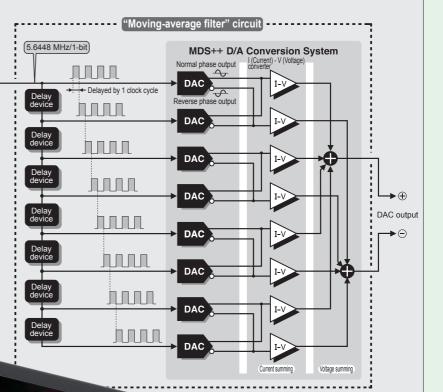
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•Reduces noise during volume processing •Shifts the effective filter frequency upwards

The DSD signal from the input is upsampled by a factor of 2, resulting in a sampling frequency of 5.6448 MHz/1-bit. After volume processing, the circuit performs D/A conversion using a highly ingenious moving-average filter principle.

In the DP-700, this involves seven delay devices and eight MDS++ type D/A converters. The signal is delayed (shifted) progressively by one clock cycle to produce eight signals which are sent to separate D/A converters for direct D/A conversion. The converted signals are then summed. Since conversion errors are kept to an absolute minimum by the use of MDS++ type DACs, the MDSD principle results in an 8-pole high-cut filter with perfectly linear phase characteristics.



PLAY PLAY PAUSE BACK NEXT STOP

Drecision incisa saleo Dlager DD-100

Supplied remote commander RC-100

Gives access to various functions including direct play, repeat, pro-gram play, input switching, and level control.

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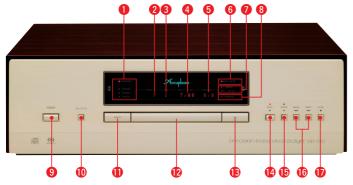
Features and Functions of Digital Procssor Section

- ■MDSD (Multiple Double Speed DSD) implements innovative digital signal processing
- ■MDS++ D/A converter with eight DACs driven in parallel
- ■Ultra Jitter-Free Plus PLL circuit
- "Direct Balanced Filter" provides totally separate analog lowpass filtering for balanced and unbalanced signal paths.
- ■Digital level control allows adjustment down to -80 dB
- D/A converter printed circuit boards made from Teflon (glass fluorocarbon resin) with low dielectric constant and low loss * Teflon is a registered trademark of DuPont USA.
- Power-on play feature allows automatic playback.
- ■HS-Link, coaxial, and optical transport output connectors and digital input connectors. Insertion of DG-38/DG-48 for sound field compensation in digital domain also possible.
- ■Balanced and unbalanced analog outputs (1 each)
- "Advanced High Carbon" cast iron insulators with excellent absorption characteristics control vibrations to ensure high sound quality.



■Massive wood cabinet with persimmons finish.

Front Panel



Rear Panel



- SA-CD/CD selector button
- Input selector button
- Disc tray

- Iransport outputs (HS-Link, coaxial,
- Balanced output connectors (analog) ①Ground ②Inverted (-) ③Non-inverted (+) Unbalanced output connectors
- AC power connector*





Digital signal processing assembly

Transport output/digital input assembly

from the CD transport in the digital domain. . DG-38 DIGITAL IN DIGITAL OUT HS cable When HS-Link cable is used, transmission of both SA-CD and CD signals is supported.

TRANSPORT OUTPUTS DIGITAL INPUTS



Guaranteed Specifications

Guaranteed specifications are measured according to the JEITA standard CP-2402A. * Measurement disc: PHILIPS 3122-783-00632

Transport section			
Compatible disc formats	2-channel Super Audio CD CD		
 Data read principle 	Non-contact optical pickup		
Laser diode wavelength	SA-CD: CD:	650 nm 780 nm	
Transport section outputs	HS-Link	Connector type:RJ-45 Suitable cable: Dedicated HS-Link cable	
	COAXIAL OPTICAL	Format: JEITA CP-1212 compliant	

Digital processor section

Digital inputs	-HS-Link	Connector type	:RJ-45 Dedicated HS-Link cable			
	COAXIAL	Format:	IEC 60958 compliant			
l	OPTICAL	Format:	JEITA CP-1212 compliant			
Sampling frequency						
	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz					
(16 to 24 bits, 2-channel PCM)						
[Only via HS-Link]						
	176.4 kHz, 192 kHz (24 bits, 2-channel PCM)					
	2.8224 MHz (1 bit, 2-channel DSD)					
D/A converter		ole (DSD signal) iple (PCM signal)			
Frequency response	0.5 - 50,000 H	Hz +0, -3.0 dB				
 Total harmonic distortion + noise 0.0008% (20 to 20,000 Hz) 						
Signal-to-noise ratio	114 dB					
Dynamic range	110 dB (24-bit input, low-pass filter off)					
Channel separation	108 dB (20 to 20,000 Hz)					
Output voltage and impedance			ns, balanced XLR type ns, RCA phono jack			
 Output level control 	0.0 dB to -80	.0 dB (digital)				

General

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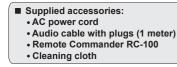
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Power requirements	AC120 V/230 V 50/60 Hz (Voltage as indicated on rear par		
Power consumption	35 W		
Max. dimensions	Width Height Depth	477 mm (18-3/4") 156 mm (6-1/8") 394 mm (15-1/2")	
Mass	27.0 kg (59.5 lbs) net		

33.0 kg (72.8 lbs) in shipping carton

Remarks

This product is available in versions for 120/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area. This product is available in versions for 120/250 v AC. Indee sure that the voltage rating and destination country.
 The shape of the AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.



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panel)

DG-38/DG-48 connection example

The DG-38/DG-48 can be connected between the transport outputs and digital inputs of the DP-700 (using either the HS-Link, coaxial, or optical connector). This allows sound field compensation of the signal