

Accuphase

MDS SA-CD PLAYER

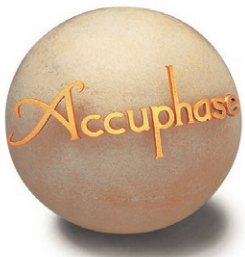
DP-570

- High-grade SA-CD/CD drive
- MDS+ type D/A converter with four parallel circuits
- Direct Balanced Filter with separate line and balanced signal paths
- Programmable playlist
- Sampling frequency and quantization bit display
- Data disc playback
- Numerous transport outputs and digital inputs
- Digital connection with voicing equalizers
- Phase selector for balanced outputs




SUPER AUDIO CD


COMPACT
disc
DIGITAL AUDIO



A high-quality integrated SA-CD/CD player born from a synthesis of the latest technologies

Equipped with quiet and smooth disc loading, the high rigidity and low center of gravity of the SA-CD/CD drive vastly improves readability, while the MDS+ type D/A converter with four parallel circuits accurately reads disc information and converts analog signals. It also supports a digital connection with a voicing equalizer and provides a programmable playlist feature that lets you enjoy listening in the order you prefer. Enjoy listening to the DP-570, the next step in the pursuit of the ideal disc playback experience.

The Technology of Precision

Features and Functions of Transport Section

■ Accurate Reading

A high-rigidity SA-CD/CD drive mounted on a triple layer bottom plate with exceptional vibration reduction properties and all supported by high-carbon cast iron insulators. This configuration creates a strong integrated structure that suppresses the effect of external vibrations on the traverse mechanism. Four newly developed high-quality butyl "elastic dampers" connect the traverse and disc mechanisms, drastically reducing external vibrations from being transmitted to the traverse mechanism and protecting the lens actuator that reads discs. Music information is read accurately thanks to these vibration protection technologies and then sent to the digital processor.

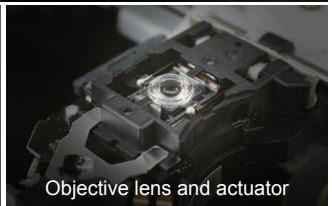
■ Quiet Operation

Vibrations from spinning discs are typically transmitted to the chassis, which then resonates and amplifies the operational sounds. The "elastic dampers" on the traverse mechanism greatly reduce chassis resonance. The five-layer large bridge cover surrounding the traverse mechanism also shields against air-vibration noise from high-speed rotation. This improvement allows the DP-570 to operate quietly without being affected by rotation.

■ Smooth loading

Carved from an aluminum block and then finished by a hard anodized aluminum and satin treatment, the elegant and elaborate disc tray uses steel bearing shafts to open and close smoothly and quietly.

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



Features and Functions of the Digital Processor Section

■ MDS+ type D/A converter with four parallel circuits

The MDS+ (Multiple Delta Sigma+) conversion principle is a revolutionary D/A conversion routing that employs multiple delta-sigma type D/A converters connected in parallel for drastically improved performance. By driving four outputs from a high-performance ES9028PRO DAC chip (ESS Technologies) in parallel, the DP-570 almost doubles ($\approx\sqrt{4}$) overall performance for distortion, noise, linearity, and more. Because the improvements provided by the MDS principle are independent of signal frequency and level, output signal noise at very low levels is also minimized, a feat that conventional delta-sigma converters find extremely difficult to achieve.



DAC assembly



High-performance ES9028PRO DAC chip

■ Direct Balanced Filter circuit

By making the line output circuits and balance output circuits independent of each other, the Direct Balanced Filter circuit does not affect the output signal even with two preamplifiers connected.



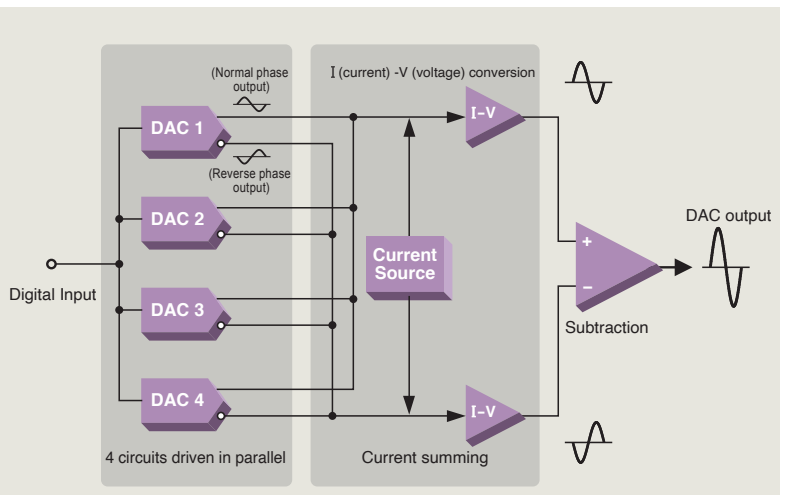
Filter amplifier assembly

■ High-precision clock playback

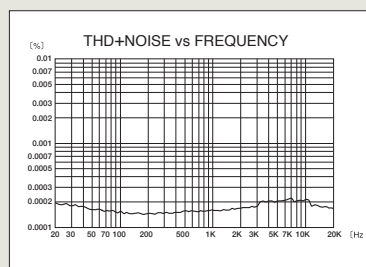
The high-performance (digital) audio interface chip AK4118A (Asahi Kasei Microdevices) drastically reduces jitter for high-precision clock playback.



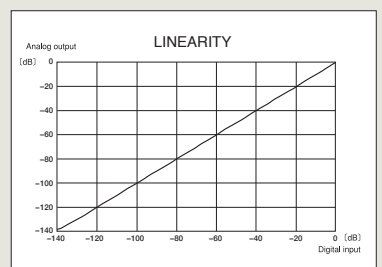
AK4118A



■ MDS+ principle block diagram



Total harmonic distortion (incl. noise) vs. frequency response



Linearity (digital input vs. analog output)

About HS-LINK Version 2

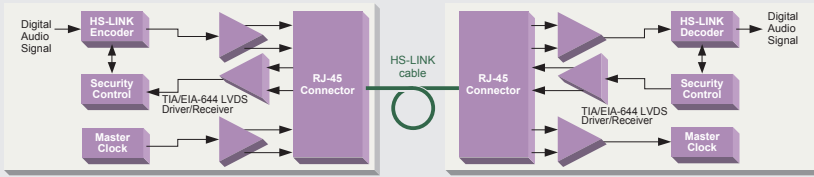
HS-LINK Version 2 is an enhanced version of the Accuphase HS-LINK interface, providing expanded sampling frequency and quantization support.

- The DP-570 supports both HS-LINK Ver. 1 and HS-LINK Ver. 2 signal transmissions.

| Input | Format (2-channel) | Sampling Frequencies | Number of bits |
|------------------|--------------------|--|----------------|
| HS-LINK (Ver. 1) | DSD | 2.8 MHz | 1 |
| | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 kHz | 16~24 |
| HS-LINK (Ver. 2) | DSD | 2.8 / 5.6 MHz | 1 |
| | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 / 352.8 / 384 kHz | 16~32 |

* HS-LINK cables can be used both for HS-LINK Ver. 1 and HS-LINK Ver. 2 signal transmissions.

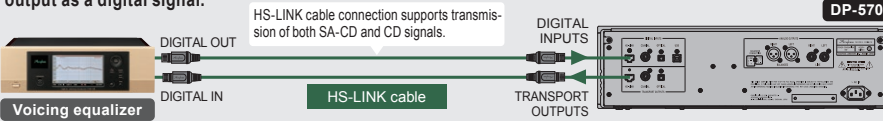
* With HS-LINK Ver. 2, the data and clock signals are transmitted separately, and high sampling frequencies up to 5.6 MHz 1-bit DSD and 384 kHz 32-bit PCM are supported.



■ HS-LINK Ver. 2 Signal Transmission Block Diagram

Voicing equalizer connection example

A voicing equalizer can be connected between the transport outputs and digital inputs of the DP-570 (using the HS-LINK, coaxial, or optical connectors). This allows for sound field compensation of the signal from the CD transport output as a digital signal.



HS-LINK cable connection supports transmission of both SA-CD and CD signals.

Using the USB port

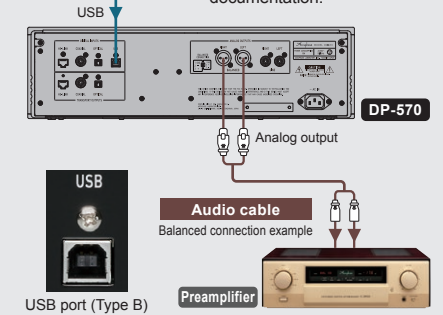
Because sampling frequencies up to 384 kHz / 32-bit and 11.2 MHz / 1-bit DSD (11.2 MHz is for ASIO only) are supported, even very high-resolution music files can be reproduced with impeccable sound quality.



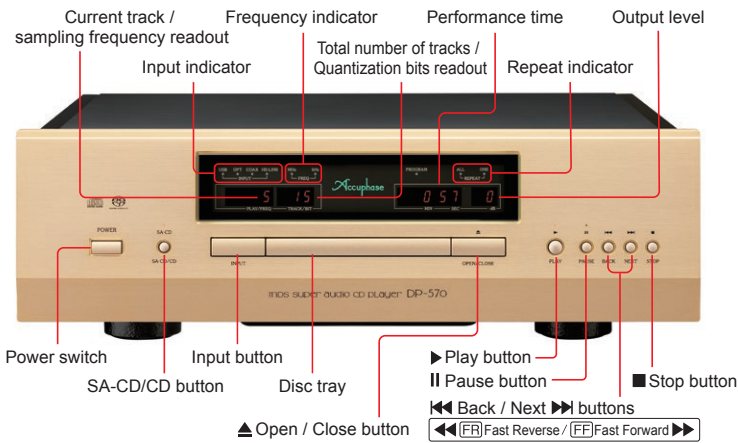
* Depending on the computer, it may be necessary to install the necessary software from the supplied "USB Utility 3" CD-ROM.

* Playback of music data via USB depends on the operating system and software on the computer.

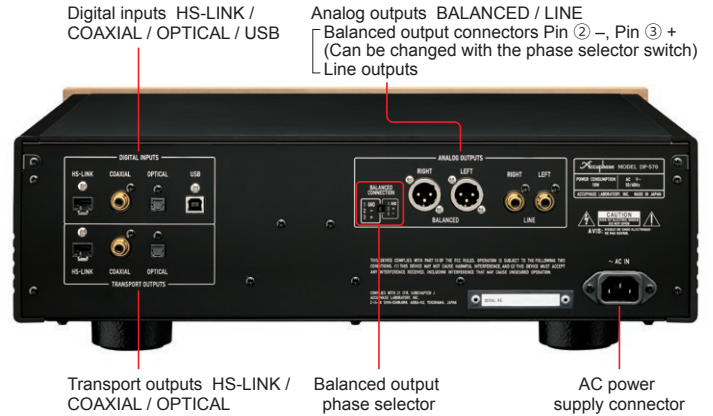
* For information on settings for USB, refer to the computer documentation.



Front Panel



Rear Panel



DP-570 Guaranteed Specifications

[Guaranteed specifications measured according to JEITA standard CP-2402A / Measurement disc: PHILIPS 3122-783-00632]

| Compatible Disc Formats | 2-channel Super Audio CD | | |
|-------------------------|--------------------------|---------------------------------------|--|
| | | CD | |
| Data Read Principle | DSD disc | DVD-R/-RW/+R/+RW | DSF file format |
| | Data disc | CD-R/-RW DVD-R/-RW/+R/+RW | Supported formats: WAV, FLAC, DSF, DSDIFF |
| Laser Diode Wavelength | SA-CD | 655 nm | |
| | CD | 790 nm | |
| Transport Outputs | HS-LINK | Proprietary standard | Dedicated HS-LINK cable |
| | OPTICAL | JEITA CP-1212 compliant | JEITA standard optical fiber cable |
| | COAXIAL | IEC 60958 compliant | 75-ohm coaxial digital cable |
| Digital Inputs | HS-LINK | Proprietary standard | Dedicated HS-LINK cable |
| | USB | USB 2.0 Hi-Speed (480 Mbps) compliant | USB 2.0 cable with Type B connector |
| | OPTICAL | JEITA CP-1212 compliant | JEITA standard optical fiber cable |
| | COAXIAL | IEC 60958 compliant | 75-ohm coaxial digital cable |

| | | | | |
|------------------------------|--------------------|---|--|--------------------|
| Sampling Frequencies | HS-LINK (Ver. 1) | DSD | 2.8 MHz | 1 bit |
| | | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 kHz | 16 to 24 bits |
| | HS-LINK (Ver. 2) | DSD | 2.8 / 5.6 MHz | 1 bit |
| | | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 / 352.8 / 384 kHz | 16 to 32 bits |
| | USB | DSD | 2.8 / 5.6 / 11.2 MHz (11.2 MHz: ASIO only) | 1 bit |
| | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 / 352.8 / 384 kHz | 16 to 32 bits | |
| | OPTICAL | PCM | 32 / 44.1 / 48 / 88.2 / 96 kHz | 16 to 24 bits |
| | COAXIAL | PCM | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192 kHz | 16 to 24 bits |
| D/A Converter | | 4MDS+ principle | | |
| Frequency Response | | 0.5 to 50,000 Hz +0, -3.0 dB | | |
| THD + Noise | | 0.0006% 20 to 20,000 Hz | | |
| Signal-to-Noise Ratio | | 120 dB | | |
| Dynamic Range | | 117 dB | | |
| Channel Separation | | 117 dB | | |
| Output Voltage and Impedance | BALANCED | 2.5 V 50 ohms 20 to 20,000 Hz | | |
| | LINE | 2.5 V 50 ohms Balanced XLR type RCA phono jack | | |
| Output Level Control | | 0 dB to -80 dB In 1-dB steps Digital | | |
| Power Requirements | | 120 V, 220 V, 230 V AC (voltage as indicated on rear panel), 50/60 Hz | | |
| Power Consumption | | 18 W | | |
| Maximum Dimensions | | Width 465 mm (18.3") × Height 151 mm (6.0") × Depth 393 mm (15.5") | | |
| Mass | Net | | | 19.0 kg (41.9 lbs) |
| | In shipping carton | | | 25 kg (55 lbs) |

Supplied accessories

- AC power cord
- USB Utility 3 CD
- Audio cable with plugs AL-10
- USB Utility 3 Setup Guide
- Remote Commander RC-140

Remarks

- ★ This product is available in versions for 120/220/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- ★ The 230 V version has an Eco Mode that switches power off after 120 minutes of inactivity.
- ★ The shape of the plug of the supplied AC power cord depends on the voltage rating and destination country.



ACCUPHASE LABORATORY, INC.