

Accuphase

SUPER AUDIO CD PLAYER



DP-77

INSTRUCTION MANUAL



Please read this manual and the separate Important Safety Instructions thoroughly before use, and retain these documents for future reference.

Thank you for purchasing this Accuphase product, which is another manifestation of our efforts to create the highest quality audio components. The strictest control was exercised throughout our entire manufacturing process in producing this component—from basic research, the selection of each part, assembly, testing, data recording, up to packing and shipping—so that we supply the product with every confidence that it will provide full satisfaction and pride in ownership.

We are pleased to heartily welcome you to the fast-growing Accuphase circle of distinguished audio enthusiasts and devotees of true sound.

About the mark

This mark indicates an important instruction that must be observed to prevent the possibility of death or injury to persons or severe damage to the unit. To ensure safe use of the product, make sure that such instructions are fully understood and observed.



WARNING:



Disregarding instructions bearing this mark incurs the risk of death or severe injury.



CAUTION:

Disregarding instructions bearing this mark incurs the risk of light injury to persons or damage to the product.

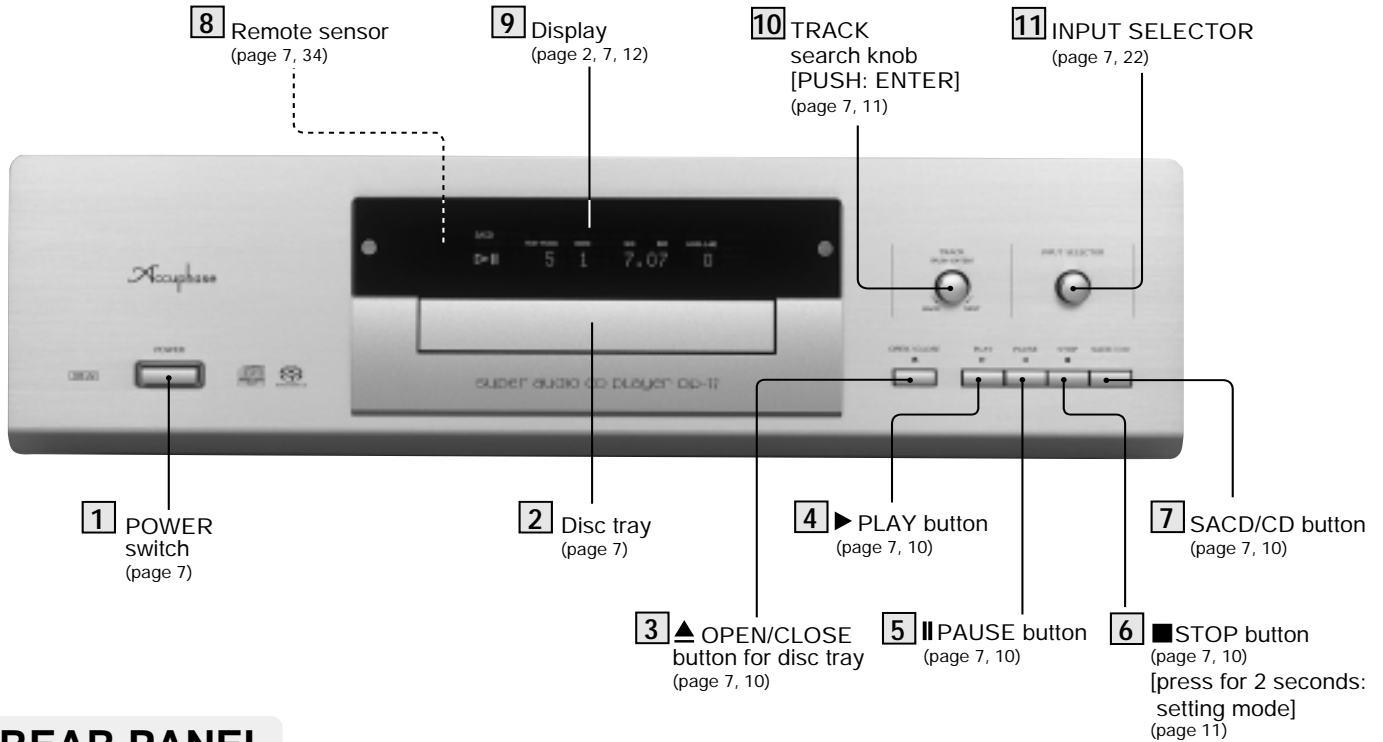
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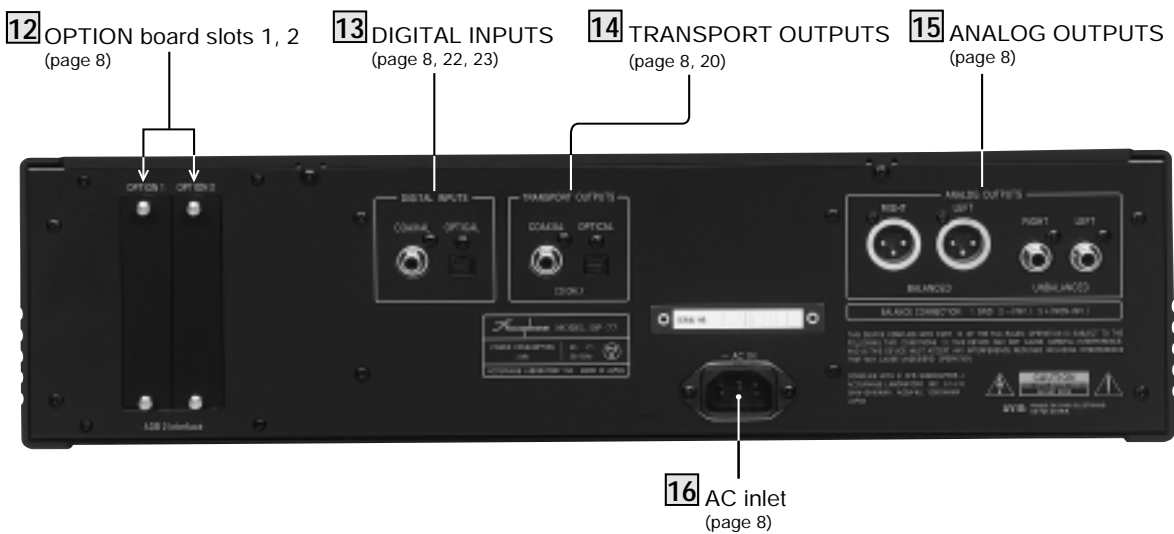
1. Naming of Parts

For detailed explanations, please refer to the pages given in brackets.

FRONT PANEL



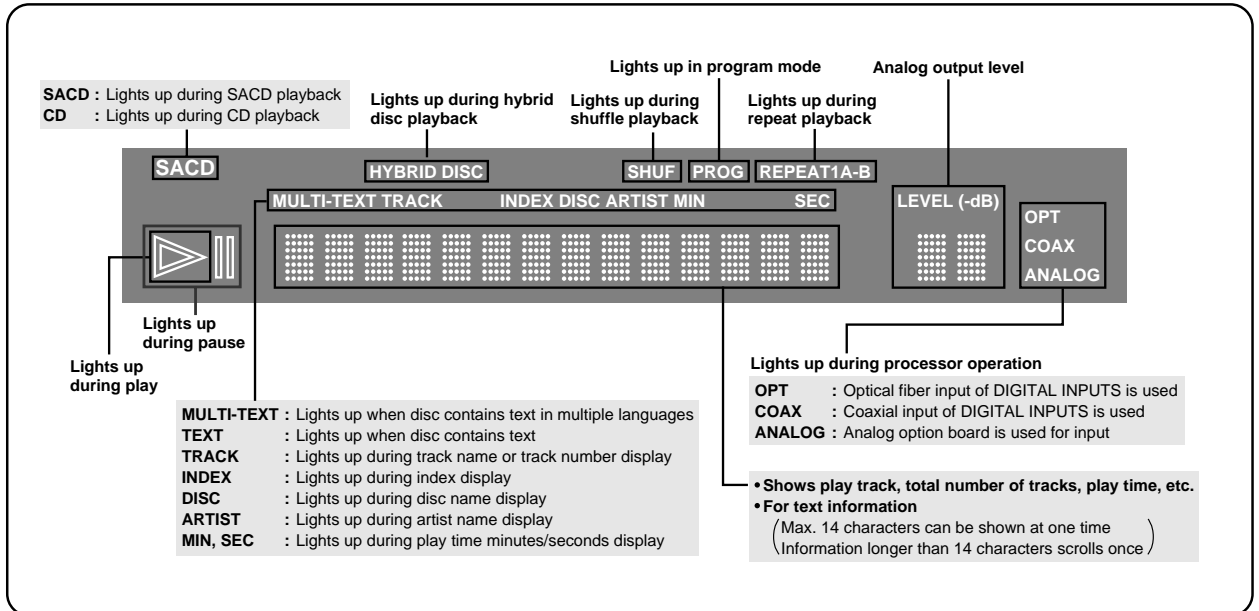
REAR PANEL



※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.

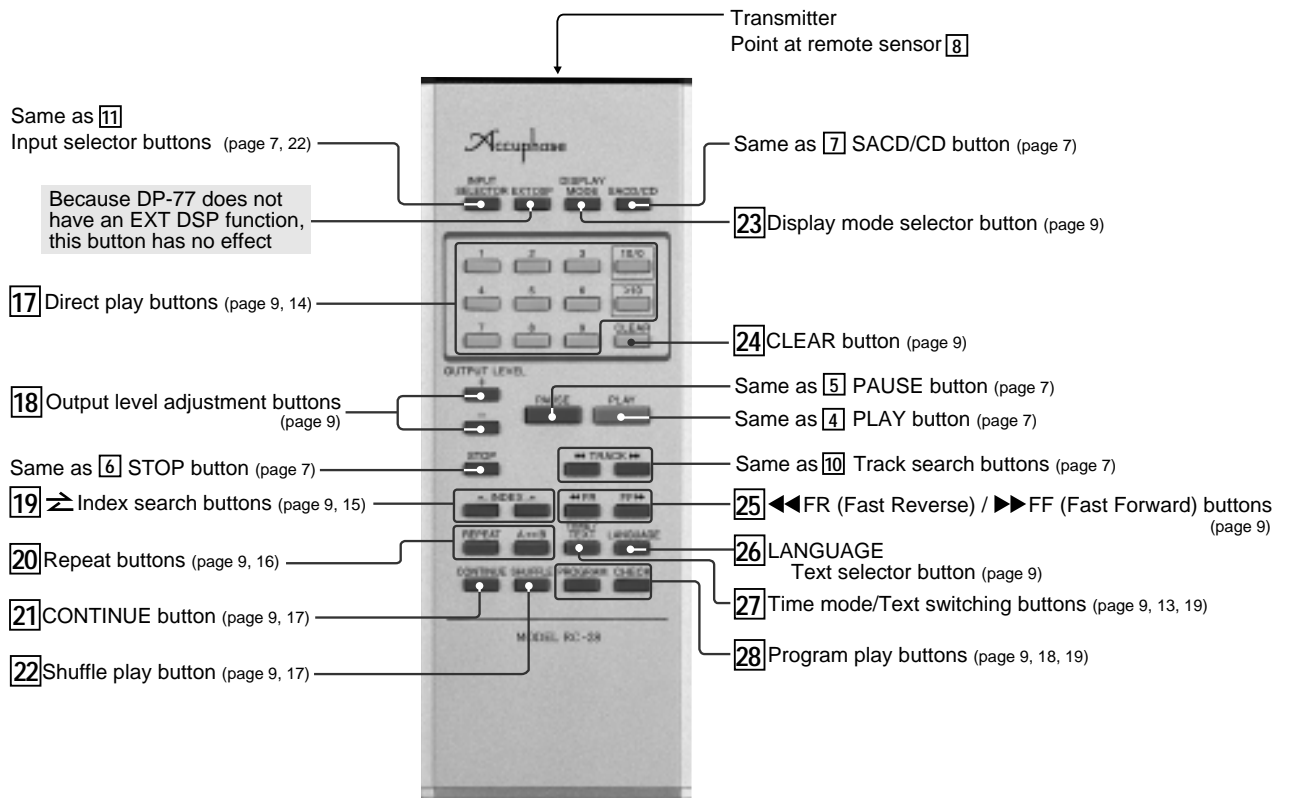
6 Display (Display contents are for illustration only, actual indications may differ.)

See page 12, 13



Remote Commander RC-28 (supplied)

(For information on use, see page 34.)



2. WARNING:

Please read this manual and the separate Important Safety Instructions thoroughly before use, and retain these documents for future reference.

■ **Be sure to connect the power cord of the DP-77 only to an AC outlet of the same voltage as indicated on the rear panel of the unit.**

- This unit can be used in areas with an AC line frequency of 50 or 60 Hz.

■ **To avoid the danger of electric shock, handle the power cord with care.**

- Do not use the unit with any other than the supplied power cord.
- Never touch the plug with wet hands.
- Do not nick or excessively bend the cord, and do not place heavy objects on it.
- If the power cord is damaged, contact your Accuphase dealer or an authorized service station.

■ **Attempting to replace the feet of the unit is dangerous. The fastening screws may touch internal parts, leading to a risk of electric shock or damage to the unit.**

■ **Never attempt to remove the top or bottom plate of the unit. Otherwise there is a severe risk of electric shock and damage to the unit.**

- If the fuse has blown, contact your Accuphase dealer or an authorized service station. Do not attempt to replace the fuse or perform any alterations inside the unit.

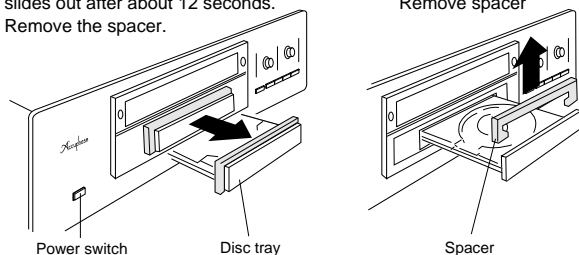
■ **In the following cases, immediately turn off the power and disconnect the power cord from the AC outlet. Otherwise there is a severe risk of electric shock and damage to the unit. If you observe smoke coming from the unit or other signs of a problem, contact your Accuphase dealer or an authorized service station.**

- The unit has been exposed to water or chemicals.
- A foreign object (metal or flammable material) has entered the unit.
- Smoke or an unusual smell is coming from the unit.
- The unit was subject to strong shock, dropped, or damaged externally.

Before Use

To prevent damage during transport, the optical assembly with the laser pickup is locked and protected by a spacer. Before use, remove the spacer as shown in the illustration.

Turn the unit on. The disc tray slides out after about 12 seconds. Remove the spacer.



Verify that the supplied accessories are complete

- Instruction manual 1
- Important Safety Instructions 1
- AC power cord (2 m) 1
- Audio cable with plugs (1 m) 1
- IEC R03 (size AAA) battery 2
- Remote commander RC-28 1

PRECAUTIONS

■ Installation location

Choose a firm, level surface on which to place the unit. To prevent damage or accidents avoid the following locations :

- Locations without proper air circulation or with high levels of dust or humidity
- Locations exposed to direct sunlight
- Locations close to heating appliances
- Locations which can get very cold
- Locations which are not level or are subject to vibrations.

Never stack audio components directly on top of each other.

Keep the unit away from tuners, TV sets, and VCRs

- If placed close to such equipment, noise and picture distortion may occur (especially when placed close to a room antenna).
- Route the power cord of this unit and input/output cables at a distance from any antenna cables.

■ Never view the laser beam directly.

This unit contains a laser that can cause eye injury.

■ Turn all components off before making any connections.

When the RCA-type phono plugs of ordinary audio cables are connected or disconnected, the negative and positive leads do not make or break contact simultaneously. This momentarily non-grounded condition causes a current surge (heard as a loud pop noise), which may damage the speakers. To prevent this, be sure to switch off the power before making input or output connections.

■ Verify that all connections are established correctly before turning on the POWER switch.

■ Always turn the power off before inserting or removing any option boards.

■ Do not turn the POWER switch off and immediately on again. (Wait at least 10 seconds.)

■ Disconnect the power cord from the AC outlet if the unit is not be used for an extended period of time.

■ Do not use contact refreshers or other chemicals on the input and output jacks and the speaker terminals, since these can cause aging in resin parts and lead to damage.

■ Listening level

The frequency response of SACDs extends into the ultra high frequency range beyond the threshold of human hearing. If the volume is turned up while no signal is heard, noise or sudden loud passages can cause damage to the amplifier or loudspeakers. Always turn down the volume to safe levels.

■ HS-Link cable connection

Use HS-Link cable to input the signal from the DP-77 to an audio component equipped with an HS-Link connector.

- Use only HS-Link cable from Accuphase.
- Take care not to accidentally connect the unit to a computer LAN or similar, using the same RJ-45 connector. This may result in fatal damage to either equipment.

Usage Precautions

■ Condensation on pickup lens

In the following cases, moisture condensation may form on the optical lens of the unit:

- Immediately after the room is heated.
- When the unit is placed in an extremely damp or humid room.
- When the unit is moved from a cold to a warm location.

If condensation occurs

The laser pickup cannot read the signals on the disc and the player does not operate correctly or not at all.

In such a case, remove the disc and leave the unit turned on for about one hour. This allows the moisture to evaporate and will restore normal operation.

~ Disc handling ~

- Protect discs from direct sunlight, high temperatures, and high levels of humidity.
- After playback, always return the discs to their boxes.
- Take care not to leave fingerprints or smudges on the recorded (shiny) side of the disc, since these can lead to a degradation in sound quality.
- If a disc has become dirty, wipe it lightly with a soft cloth, moving from the center outward in a radial pattern.
- Do not use any cleaners, solvents or antistatic sprays, since these can damage the disc.

Unit maintenance

- If required, clean the unit carefully with a soft, slightly moistened cloth, and then wipe it dry. Never use solvents or abrasive cleaning agents, since these will damage the finish.
- Do not use contact refreshers or other chemicals on the input and output jacks and the speaker terminals, since these can cause aging in resin parts and lead to damage.

Connection Precautions

The DP-77 is an integrated SACD/CD player, but the transport and processor sections, although housed in one enclosure, are entirely separate and can be used separately, thanks to dedicated input and output connectors. The unit also has option board slots which allow increasing the number of digital inputs or outputs, as required.

- Using the DP-77 as an SACD/CD transport.....page 20, 21
 - Connect the DIGITAL OUTPUTS to the DC-330, DC-101 or similar.

Note: The HS-Link output connector carries the SACD or CD digital signal. The COAXIAL connector carries only the CD digital signal.

- Using the DP-77 as a digital processor.....page 22, 23
 - Connect the digital equipment to the DIGITAL INPUTS.
 - You can also connect digital equipment to the inputs of installed option boards.

- Combination of DP-77 and DG-28/DG-38
 - Digital connection..... page 25, 26
 - Analog connection..... page 27

- For information on option boards, see pages 28 - 32.

Recording With the DP-77

SACD Digital Recording

For copyright reasons, digital recording from an SACD source is not possible.

SACD Analog Recording

- Connect the DP-77 to an analog preamplifier. Analog recording is possible by using the REC outputs of this preamplifier.
- * Recording from the analog outputs of an option board in the DP-77 is not possible.

CD Digital Recording

Using the TRANSPORT OUTPUTS or the digital output on an option board, digital recording of the CD signal is possible. See page 24.

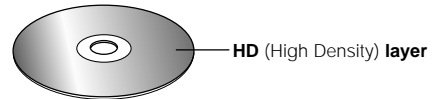
- * Digital recording of the CD signal via the HS-Link connector is not possible.
- * The SCMS (Serial Copy Management System) prevents subsequent recording of a signal that has already been recorded once from a digital source. Therefore recording is possible only for one generation.

CD Analog Recording

- Connect the DP-77 to an analog preamplifier. Analog recording is possible by using the REC outputs of this preamplifier.
- Recording from the analog outputs of an option board in the DP-77 is also possible.
- * If the HS-Link is used for connection to a DC-330, DC-101 or similar, recording from the analog outputs of an option board in such a unit is not possible.

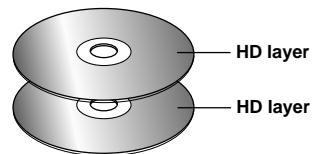
Compatible Disc Types

SACD Single Layer Disc



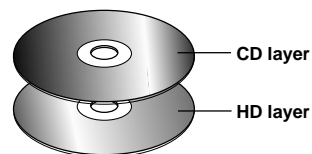
- This type of SACD has a single HD layer.
- The HD layer contains the SACD signal only.

SACD Dual Layer Disc



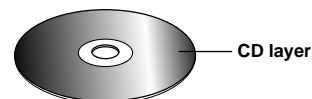
- This type of SACD has two HD layers for extended playing time.
- Since the two HD layers are stacked on the same side of the disc, turning the disc over is not necessary.

SACD + CD Hybrid Disc



- This disc contains both an HD layer and a conventional CD layer.
- On the DP-77, the user can select the desired layer with the SACD/CD button.
- Since the two layers are stacked on the same side of the disc, turning the disc over is not necessary.
- The CD layer of the disc can also be played on a conventional CD player.

CD



- This is the conventional CD format.

Disc types that cannot be played on the DP-77:

- CD-ROM
- DVD
- SACD Multi-ch
- DVD-Audio
- CD-RW

*If one of the above disc types is inserted by mistake, an error message is shown and noise may be present in the output.

*Depending on the recording condition some CD EXTRA or CD-R discs may not function correctly.

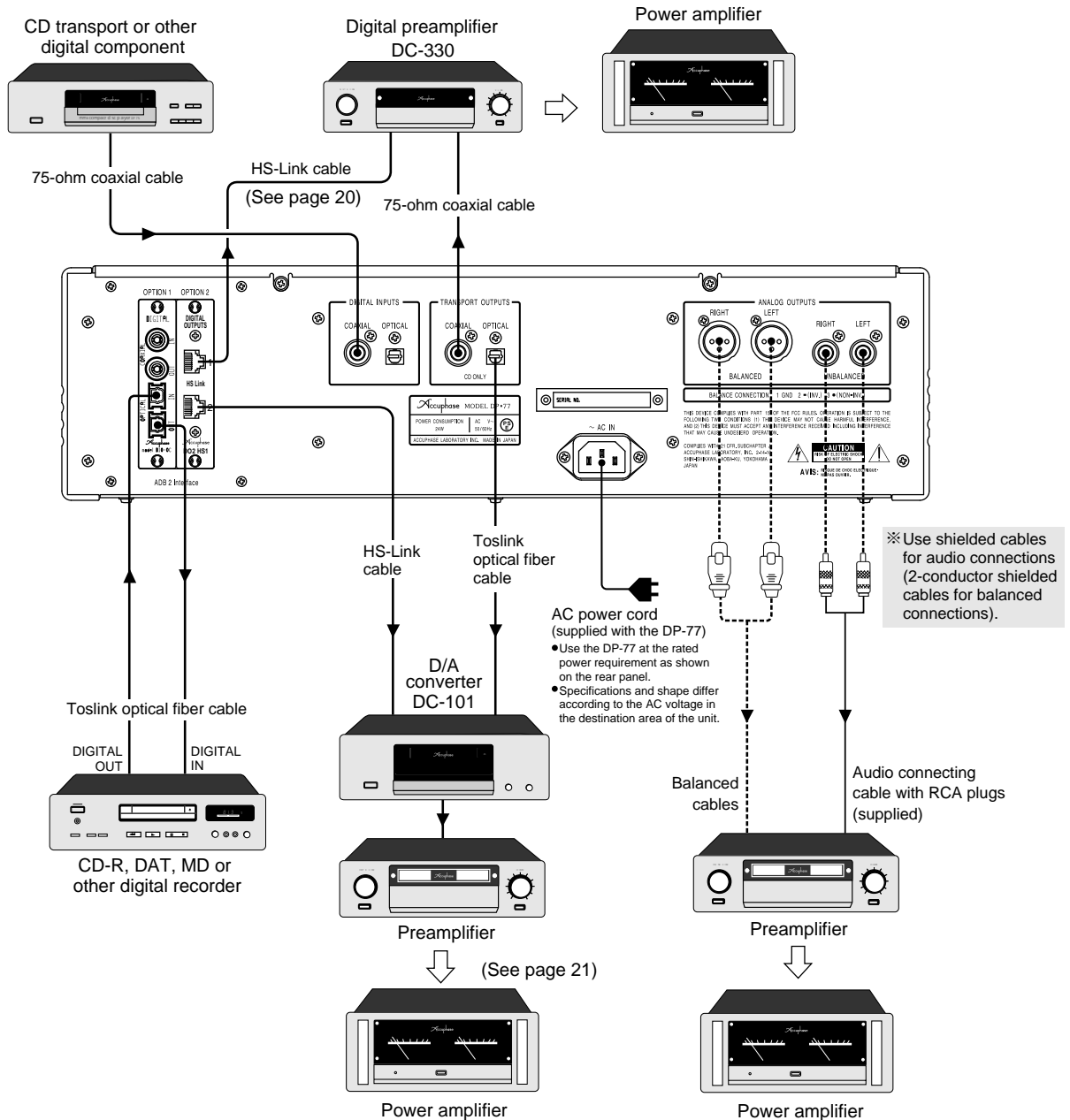
3. Connection Diagram

CAUTION : Turn off the power to all components before making connections.

The illustration shows a connection example with option boards installed.

- Note:**
- For analog input/output connections, use audio cable equipped with RCA type phono plugs, and take care not to mix up the left and right channels.
 - Do not make connections to one component with balanced and unbalanced cables at the same time. Otherwise ground loops may occur which can cause noise.
 - For connection to digital equipment, you can use HS-Link cable, 75-ohm coaxial cable, optical fiber cable, or similar.

Option board installation example (see page 28 - 32)
OPTION 1 : Digital Input/Output Board (DIO-OC1)
OPTION 2 : HS-Link Output Board (DO2-HS1)



4. Parts and Functions

For detailed explanations, please refer to the pages given in brackets

1 POWER switch

Press this button once to turn the unit on and once more to turn it off.

For an interval of about 3 seconds after power is turned on, the output is cut off by a muting circuit, to allow the internal circuits to stabilize.

- When the power is switched off, most selected functions are canceled (except for some settings such as input selector and output level).

2 Disc tray (page 10)

Slides out when the ▲ **OPEN/CLOSE** button is pressed. The disc tray can be closed by gently pushing its front side, by pressing the ▲ **OPEN/CLOSE** button again, or by pressing the ► **PLAY** button.

3 OPEN/CLOSE button (page 10, 14)

Pressing this button causes the disc tray to slide out. Pressing the button once more closes the tray.

4 ► PLAY button (page 10, 14)

Press this button to start playback.

5 || PAUSE button (page 10, 14)

Serves to temporarily pause playback.

6 ■ STOP button

Pressing this button during playback or in the pause mode puts the unit into the stop mode (page 10, 14).

Holding the button depressed for more than 2 seconds during the stop mode activates the setting mode (page 11).

7 SACD/CD button (page 10)

When playing a hybrid disc, this button serves to select the desired mode. With each push of the button, the playback mode is toggled between **SACD** and **CD**, and the respective LED indicator lights up.

- Use this button in the stop mode.

8 Remote sensor (page 34)

The signals from the supplied remote commander RC-28 are received by this sensor. When using the remote control, point it at this sensor.

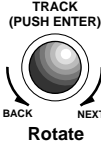
9 Display (page 12)

Shows various information about the operation of the unit and about the inserted disc.

10 TRACK (PUSH ENTER) Track search knob (page 10)

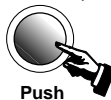
※For information on how to use the knob for setting functions, see page 11.

NEXT
Turn the knob clockwise to jump to the next track.
(Same effect as the ►► track search button.)



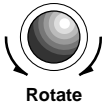
BACK
During play or pause, turn the knob counter-clockwise to jump to the beginning of the current track or to earlier tracks.
(Same effect as the ◀◀ track search button.)

PUSH ENTER
In the stop condition, you can use this knob to select a track. Pushing the knob then starts playback from that track.



11 INPUT SELECTOR (page 22)

Turn the knob to select one of the sources connected to the DIGITAL INPUTS on the rear panel or to an option board in an option board slot.



*The supplied remote commander RC-28 also allows source selection.

12 OPTION 1, 2 Option board slots (page 24, 28 - 33)

These slots serve for installation of option boards with analog or digital inputs and outputs.

13 DIGITAL INPUTS (page 22, 23)

These inputs allow use of the DP-77 as a digital processor. The signal can be input using coaxial cable (COAXIAL) or optical fiber cable (OPTICAL).

14 TRANSPORT OUTPUTS (page 20)

These outputs allow use of the DP-77 as a disc transport. The digital CD signal is output here.

15 ANALOG OUTPUTS

Connect these outputs to an analog preamplifier.

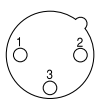
UNBALANCED connectors

These connectors accept standard unbalanced cables with RCA-type phono plugs.

BALANCED connectors

These are balanced connectors which ensure superior signal transmission free from external noise interference. If the amplifier has a balanced input, this connection should be used for the best sound quality.

The pin assignment is as follows:



- : Ground
- : Inverted (—)
- : Non-inverted (+)

- Balanced audio cables are available from Accuphase.

16 AC INLET

Insert the supplied power cord into this connector, and plug the other end into a wall AC outlet.

WARNING

- Do not use the unit with any other than the supplied power cord.
- The shape of the AC inlet and the plug of the supplied power cord depend on the voltage rating and destination country. Using any other type of cable except the supplied power cord poses the risk of fire and damage.
- 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.

WARNING

- Do not open the unit, as this involves a severe risk of electric shock.
- If the unit does not operate, the internal fuse may have blown. Never attempt to replace the fuse yourself. Be sure to contact your Accuphase dealer or an authorized service station.

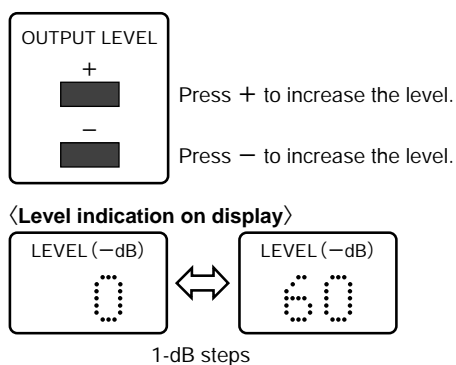
17 Direct play buttons (page 14)

Serve for specifying a track number directly for playback.

18 OUTPUT LEVEL control buttons

These buttons adjust the analog output level. The digital principle permits adjustment of the output level in the range from 0 dB to -60 dB (in 1-dB steps).

- Normally the 0 dB setting should be used.



19 INDEX search buttons (page 15)

On discs containing index codes, these buttons can be used to jump to the start of an index section.

20 Repeat buttons (page 16, 17)

REPEAT

Repeat playback of entire disc or one track.

A ↔ B

Repeat playback of a section between two points within a track.

21 CONTINUE button (page 17, 18)

Pressing this button during shuffle or program playback returns the unit to normal playback.

22 SHUFFLE play button (page 17)

This button activates shuffle playback (all tracks on the disc are played once in random order).

23 DISPLAY MODE: ON/OFF button (page 12)

With this button, the display can be turned off during playback.

※During processor operation (see page 22), the display cannot be turned off.

24 CLEAR button (page 19)

Serves to clear programmed tracks.

25 ◀◀ FR (Fast Reverse)/ ▶▶ FF (Fast Forward) button (page 15)

These buttons can be used during play or pause to locate a specific point on the disc.

26 LANGUAGE button (page 13)

When a disc with multi-language text is inserted, this button serves for selecting the display language.

27 TIME/TEXT selector button (page 12, 13, 19)

Cycles through the following display settings: elapsed time, remaining track time, remaining disc time, text.

28 Program play buttons (page 18, 19)

PROGRAM

Allows you to create a program to play only your favorite tracks on a disc or to rearrange the tracks on a disc in any desired sequence.

CHECK

Serves to check an entered program.

5. Operation

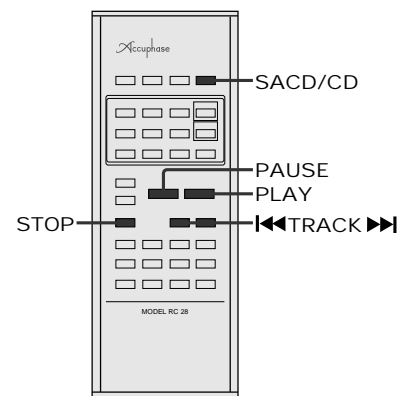
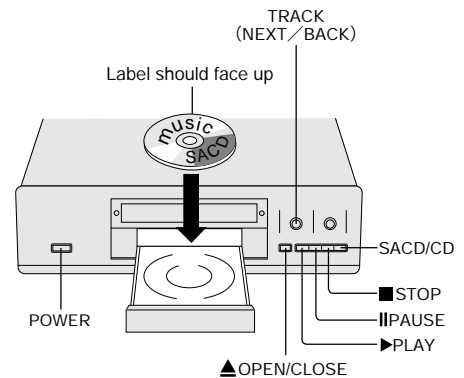
Use as a Regular SACD/CD Player

Basic Playback Steps

- 1 Press the **POWER** switch to turn the unit on.
- 2 If the unit is currently set to processor operation (display shows selected input), switch it to **SACD/CD** operation.
 - Turn the INPUT SELECTOR knob.
 - Alternatively, press the **▶ PLAY**, **|| PAUSE**, **■ STOP**, or **SACD/CD** button.
- 3 Press the **▲ OPEN/CLOSE** button. The disc tray slides out.
- 4 Place the disc on the tray with the label facing up. Press the **▲ OPEN/CLOSE** button to close the tray.
- 5 If the inserted disc is a hybrid disc, use the **SACD/CD** button to select the desired layer.

Switching cannot be performed during playback.

 - With each push of the button, the setting is toggled between SACD and CD.
 - Choose a suitable setting for the disc. (For information on disc types, see page 5.)
 - For discs other than hybrid discs, the unit will automatically determine the disc type when the **▶ PLAY** button is pressed.
- 6 Press the **▶ PLAY** button to start playback from the first track.
- 7 When the last track has played to the end, the unit enters the stop mode.
- 8 Press the **▲ OPEN/CLOSE** button to open the disc tray. After removing the disc, be sure to close the disc tray again.



Basic functions during playback

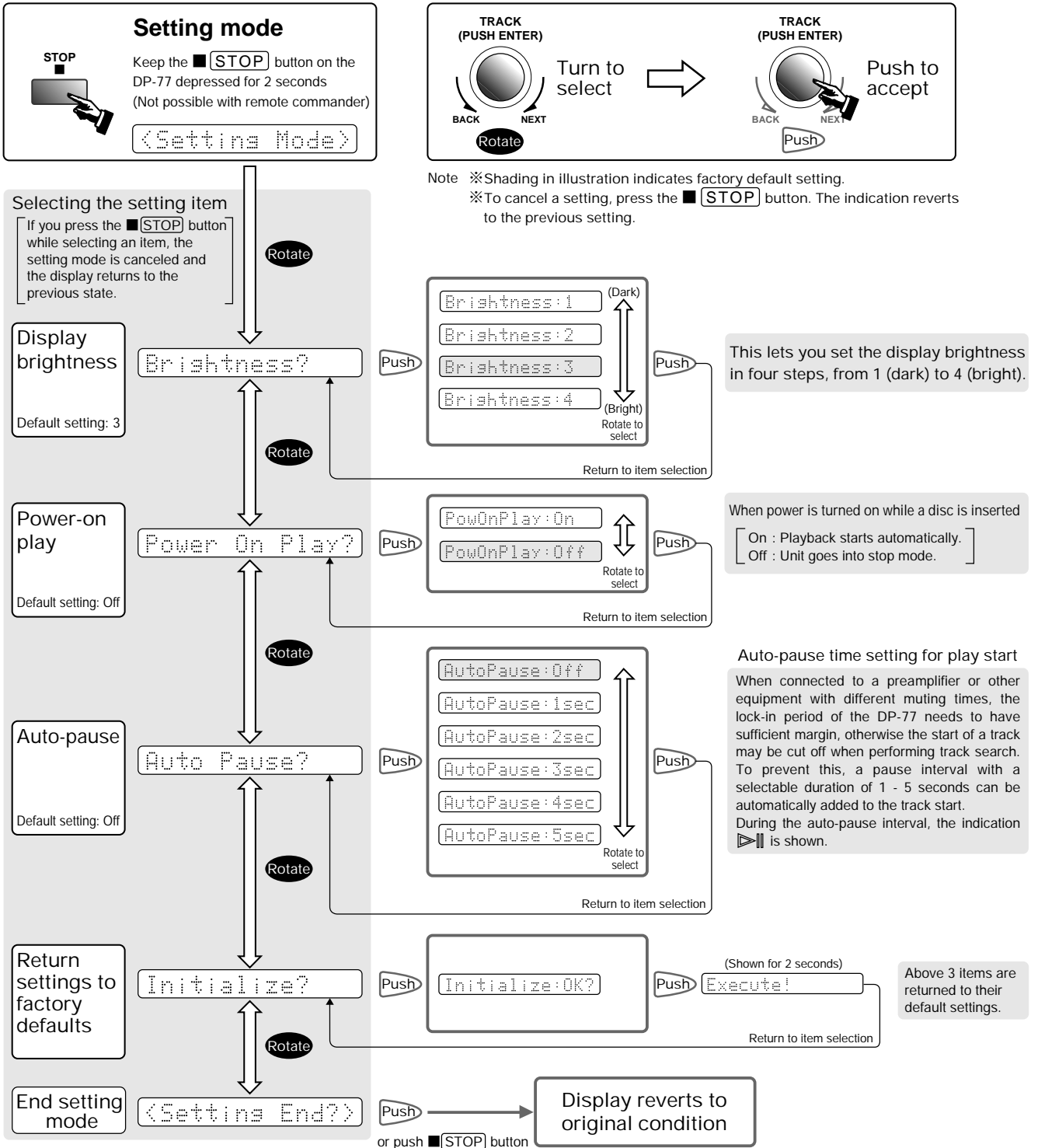
- Stop play..... **■ STOP** button
- Pause play **|| PAUSE** button (**▶||** indicator lights up)
- Resume play..... **▶ PLAY** button (**▶** indicator lights up)
- Jump to next track Turn **TRACK** knob towards **NEXT** (right) or use **▶▶ TRACK** button
- Jump to start of current or previous track ... Turn **TRACK** knob towards **BACK** (left) or use **◀◀ TRACK BACK** button
- Remove disc..... **▲ OPEN/CLOSE** button

※To switch between layers on a hybrid (SACD + CD) disc during playback
Press the **STOP** button to set the unit to the stop mode first. Then use the **SACD/CD** button to select the desired layer.

Function Mode Selection

The factory default settings for various functions such as display brightness, power-on play, auto-pause, etc. can be changed if desired. It is also possible to revert to the factory default settings at any time.

- To activate the setting mode, hold the **STOP** button on the DP-77 depressed for at least two seconds. The unit will switch into the setting mode, and the TRACK knob can now be used to select and change settings.



Display

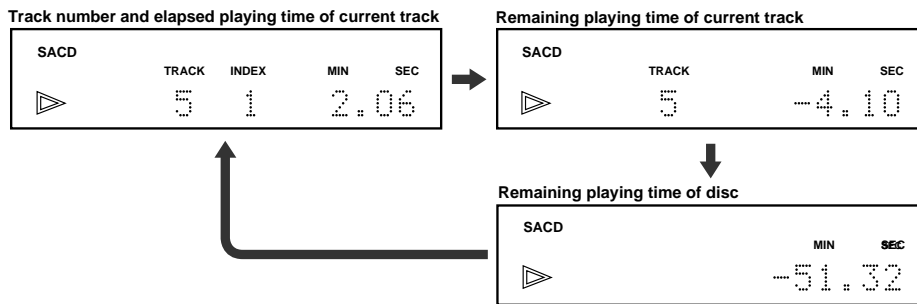
During disc playback, the display shows various information about the disc and the currently playing track. The display contents will differ, depending on the operation status, as shown below.

Display During Play (The illustration shows the text information OFF condition)

Press the TIME/
TEXT button

With each push of the button, the display function cycles as follows:

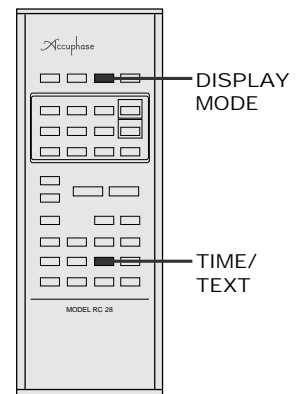
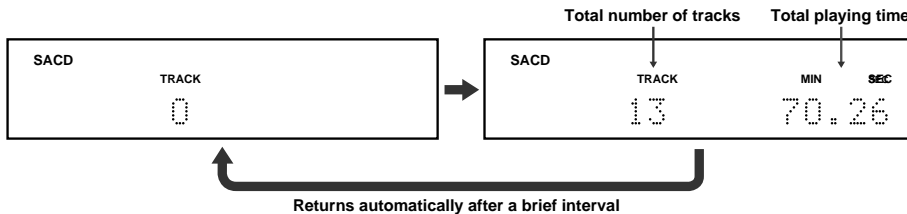
Track number and elapsed playing time of current track

 → Remaining playing time of current track → Remaining playing time of disc


Display in Stop Mode (The illustration shows the text information OFF condition)

Press the TIME/
TEXT button

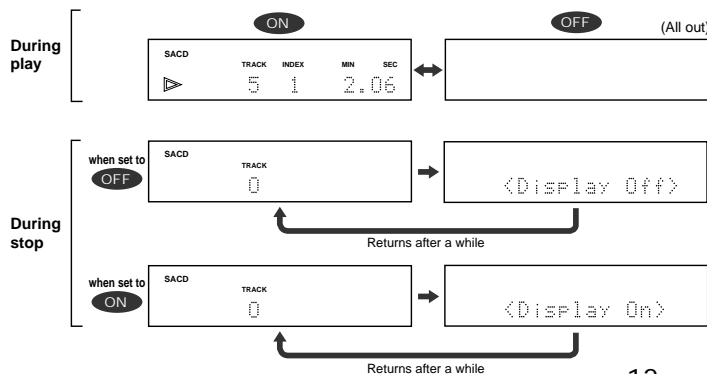
The total number of tracks on the disc and the total playing time are shown.



Display Mode Selection

DISPLAY
MODE Pressing the DISPLAY MODE button switches the display on and off.

- The OFF setting applies only to the playback mode. When playback is finished or when the unit is set to pause, the display comes back on. When playback resumes, the display goes out again.



Note
During processor operation (see page 22), the display remains on also if the OFF position is selected.

※When playback starts, the display goes out.

Text Information Display

In addition to the music signal, certain discs contain text data with a disc name, artist name, and other information.

- When a disc containing text information is inserted, the indication "TEXT" lights up and the disc name is displayed.
- Information longer than 14 characters scrolls once, and then the first 14 characters are displayed.
- If the disc contains information in several languages, the indication "MULTI-TEXT" lights up.

Note

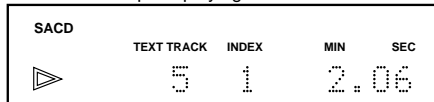
- The DP-77 can display only English text.
- Some discs may contain characters that cannot be displayed on the DP-77.
- The DP-77 can only display disc name, artist name, and title information. Any other information that may be contained on the disc will not be displayed.

Text information during playback

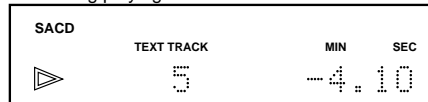
Press the **TIME/TEXT** button

With each push of the button, the display cycles through the information shown below.

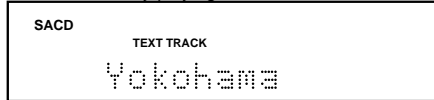
Number and elapsed playing time of current track



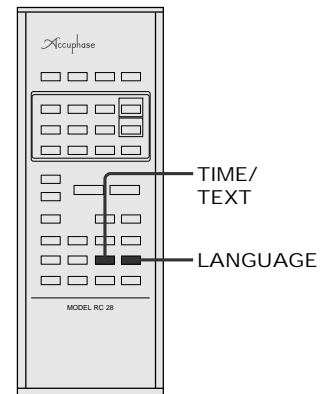
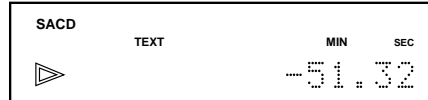
Remaining playing time of current track



Name of currently playing track



Remaining playing time of disc



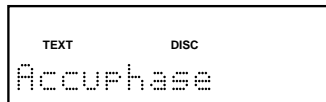
Text information during stop

Press the **TIME/TEXT** button

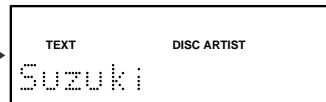
With each push of the button, the display cycles through the indication of disc name → artist name → total playing time.

When the artist name is shown, the indication "ARTIST" lights up.

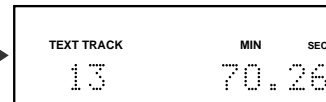
Disc title



Disc artist



Total number of tracks and total playing time of disc



When the **TIME/TEXT** button is pressed or after some time has elapsed

Multi-language text information

With a disc containing text information in several languages, display language can be switched.

When the disc is inserted, the indication "MULTI-TEXT" lights up

① Press the **LANGUAGE** button in the stop mode.

The name of the currently selected language (English, French, German, etc.) flashes on the display. For discs containing a language that cannot be displayed by the DP-77, the indication **< Other Lang. >** is shown.

② Press the **LANGUAGE** button again to select the desired language.

③ Press the **TIME/TEXT** button.

The text information is shown in the selected language.


Note

- With discs containing text information in one language only, pressing the **LANGUAGE** button will cause the name of the language to be shown on the display for several seconds.
- During playback of a disc with text information, pressing the **LANGUAGE** button will cause the name of the currently selected language to be shown on the display for several seconds.

Various Play Functions

Pausing Play

◎ To temporarily stop play

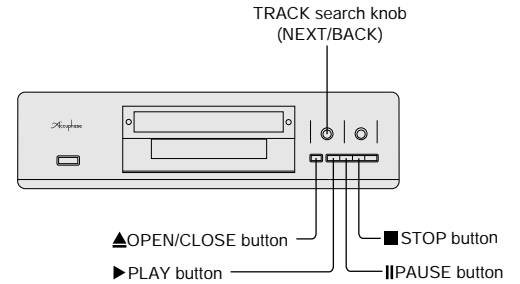
Press the **|| PAUSE** button. The  symbol appears and play is paused. To resume play, press the **|| PAUSE** button again or press the **▶ PLAY** button. Playback resumes from the same point.

◎ To stop play

Press the **■ STOP** button. Playback is stopped entirely, and the current point on the disc is lost.

◎ To remove the disc

You can press the **▲ OPEN/CLOSE** button at any time also during playback.



Standby

- ◎ After placing a disc on the turntable, pressing the **▲ OPEN/CLOSE** button causes the disc tray to close. The unit is now in the standby condition.

Starting Play From a Specific Track

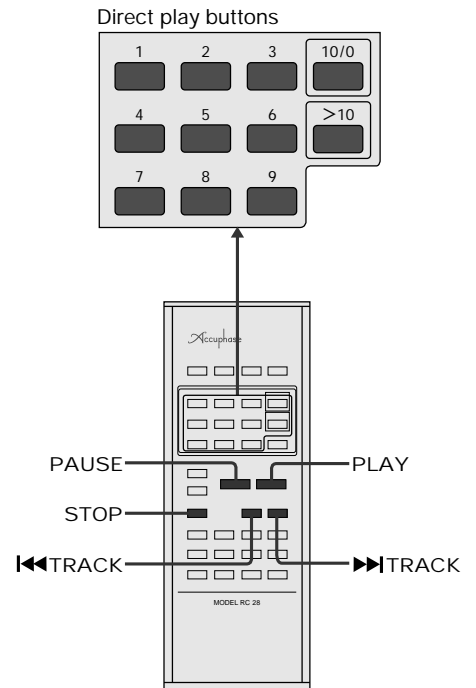
- ◎ You can use the **direct play** buttons to specify the number of a desired track while the unit is in the play, pause, or stop mode.

You can also select a track by directly specifying the track number.

- **1** ~ **9** Selects the corresponding track number
 - **10/0** Selects track 10
 - To specify track 11 or higher, use the **>10** button.
- Examples:
- To select track 15 **>10** → **1** → **5**
 - To select track 30 **>10** → **3** → **10/0**
 - To select track 100 **>10** → **>10** → **1** → **10/0** → **10/0**

* A number higher than the number of tracks on the disc cannot be specified.

- ◎ During play, you can use the **◀◀/▶▶** track search buttons to play other tracks.
- ◎ Using the direct play buttons during pause causes the unit to go into the pause mode at the start of the selected track.
- ◎ During pause, you can use the **◀◀/▶▶** track search buttons to jump to other tracks. Pressing **▶ PLAY** then initiates playback from the start of that track.



Searching for a Location Within a Track

During play

- Hold down the **◀◀ FR / ▶▶ FF** button.

The unit searches through the material on the disc, while the sound can be heard. Releasing the button causes regular playback to continue from that point.

During pause

- Hold down the **◀◀ FR / ▶▶ FF** button.

The unit searches through the material on the disc, but the sound cannot be heard. Use the time display as an aid for knowing the current point on the disc. Releasing the button causes the unit to enter the pause mode at that point.

Index search

The **INDEX** search buttons can be used during play or pause to jump to the start of an index section.

◀ **INDEX** button

Each push of this button jumps to the start of an earlier index section. Pressing the button once jumps to the start of the current index section.

▶ **INDEX** button

Each push of this button jumps to the start of a subsequent index section.

If one of these buttons is pressed while a disc that does not contain index codes is inserted, the index indication remains "1" and playback continues.

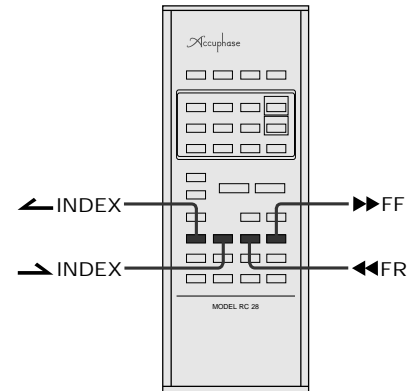
Index codes

Some discs contain index codes, which serve to mark certain passages within a track, such as the movements of a symphony or separate parts of a song. The index search function can only be used on such discs.

Note

When the indication **<Over!!>** appears on the display

The end of the last track was reached. Use the **◀◀** or **◀◀ FR** button to return.



Repeat Play

You can repeat the entire disc, a single track, or a particular section within a track.

- Repeat play is also possible during shuffle play and program play.
- **The setting for all-track repeat and single-track repeat is memorized also while the unit is turned off.** The setting for A↔B repeat is lost when the power is turned off.

To repeat the entire disc: all-track repeat

Press the **REPEAT** button once and then press the **▶ PLAY** button.

This is possible also during playback. The indication **< Repeat >** appears on the display, the "REPEAT" indicator lights up, and all-track repeat starts.

During normal playback:	All tracks are played in the order on the disc, and then the operation is repeated.
During shuffle play:	All tracks are played in random order, and then the operation is repeated with a different random order.
During program play:	All tracks are played in the programmed order, and then the operation is repeated.

To stop all-track repeat

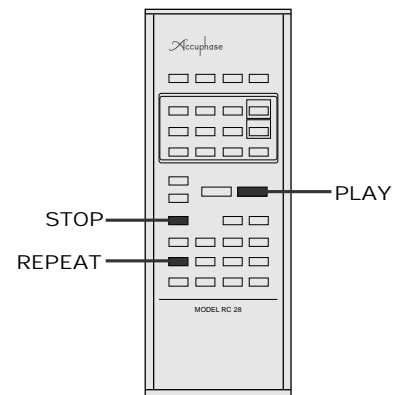
Press the **■ STOP** button.

All-track repeat can be started again by pressing the **▶ PLAY** button.

To return to regular playback

Press the **REPEAT** button twice.

The indication **< Repeat off >** appears on the display, the "REPEAT" indicator goes out, and all-track repeat is canceled.



To repeat only one track: one-track repeat

Repeatedly press the REPEAT button during playback of the desired track until the indication **< Repeat 1 >** appears on the display.

The "REPEAT1" indicator lights up and one-track repeat starts.

To stop one-track repeat

Press the **■ STOP** button.

One-track repeat can be started again by pressing the **▶ PLAY** button.

To return to regular playback

Press the **REPEAT** button once.

The indication **< Repeat off >** appears on the display, the "REPEAT1" indicator goes out, and one-track repeat is canceled.

To repeat a section within a track : A↔B repeat

You can specify two points within a track on the disc and repeat only the section between these points.

- 1 During playback, press the **A↔B** button once at the start of the desired section (point A). The indication "REPEAT" lights up and "A" flashes.
- 2 Continue playback, and press the **A↔B** button once more at the end of the desired section (point B). The indication "REPEAT A—B" lights up is lit, and repeat play of the specified section starts.
 - You can also use the **▶▶FF** button to quickly advance to the spot where you want to place point B.

To stop A↔B repeat

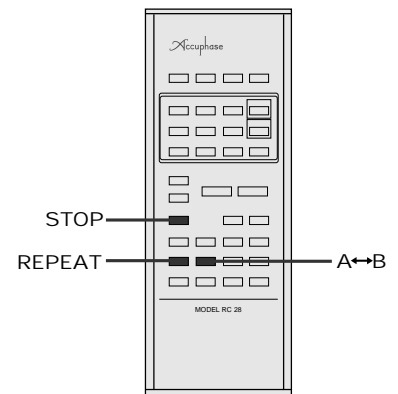
To cancel A↔B repeat, press the **REPEAT** button or the **■ STOP** button.

To change the repeat interval and move forward

- 1 During A↔B repeat playback, press the **A↔B** button. The indication "REPEAT" lights up and "A" flashes. The current end point becomes the start point A.
- 2 Continue playback, and press the **A↔B** button once more at the new end of the desired section (point B). The indication "REPEAT A—B" lights up, and repeat play of the newly specified section starts.

Note

The repeated section cannot span more than one track.



Shuffle Play

This function plays all tracks on a disc once in random order.

- 1 Press the **SHUFFLE** button. The indication "SHUF" appears on the display.
- 2 Press the **▶ PLAY** button. Shuffle playback starts. At the end of one track, while the next is being decided, the indication **◀SHUFFLING!▶** is shown on the display. When all tracks on the disc have been played once, playback stops.

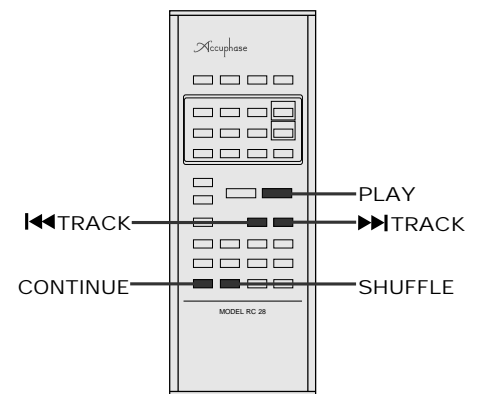
To return to normal playback

Press the **CONTINUE** button.

To jump to the next track in random order

- Pressing the **▶▶** button jumps to the next track in the shuffle sequence.
- Pressing the **◀◀** button jumps to the start of the current track. Returning to earlier tracks in the shuffle sequence is not possible.

*Repeat and shuffle play can also be combined.

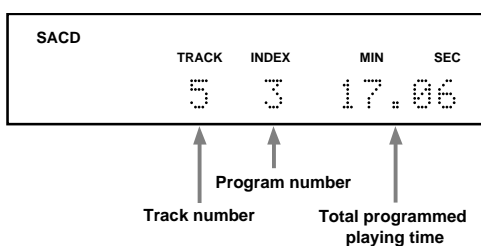


Program Play

By using the program function, the tracks on a disc can be played in any desired sequence. The maximum memory capacity is 32 tracks (or a total playing time of 999 minutes 59 seconds).

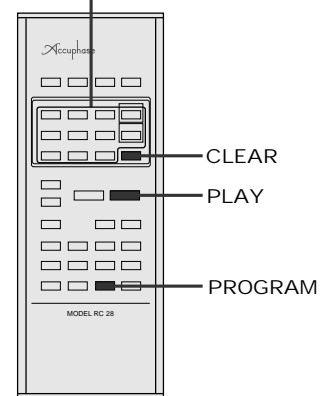
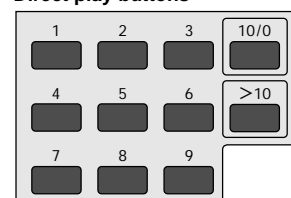
Programming steps

- In the stop mode, press the **PROGRAM** button.
 - The **"PROGRAM"** indicator lights up and the unit is ready for program input.
 - Program input is also possible during playback or in the pause mode, but the programming progress is not shown.
- Use the direct play buttons to enter track numbers in the desired sequence into memory. The selected track number along with the current program number and the accumulated playing time are shown on the display.
 - If you have made a mistake, press the **CLEAR** button and enter the correct track number.
 - For track numbers 11 and higher, use the **>10** button (see page 14).



- When the program has been input, press the **▶ PLAY** button. Playback starts in the programmed sequence.

Direct play buttons



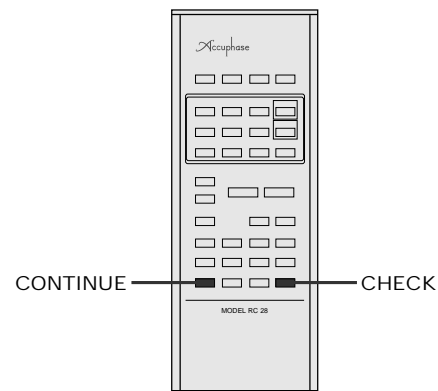
To return to normal playback

Press the **CONTINUE** button.

To check the program sequence and number of tracks

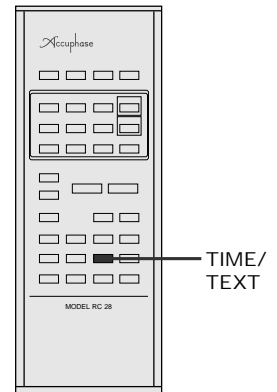
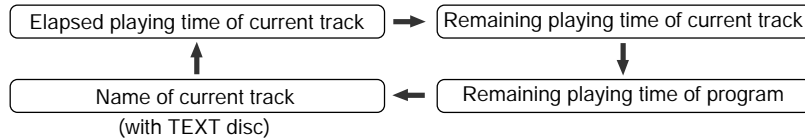
Before or during playback, you can use the **CHECK** button to verify the program contents. With each push of the button, the programmed track numbers and the total playing time to that point are shown in sequence. During playback, only programmed tracks that have not yet been played are shown.

If the button is not pushed for two seconds, the display reverts to its original condition. ※When the end of the program is reached, the indication **< Prog END >** appears.



Pressing the **TIME/TEXT** button during program play

With each push of this button, the time display cycles as shown below.



Changing the contents of a program

The contents of a program can be changed before play has started, or after setting the unit to the stop condition by pressing the **STOP** button.

※This cannot be carried out in the play mode or pause mode.

● To clear a track within a program

Press the **STOP** button

Use the **CHECK** button to display the program number, which you want to delete. Then press the **CLEAR** button to remove the track from the program.

● To clear the last track of a program

Press the **CLEAR** button.

With each push of the button, the last track of the program is deleted.

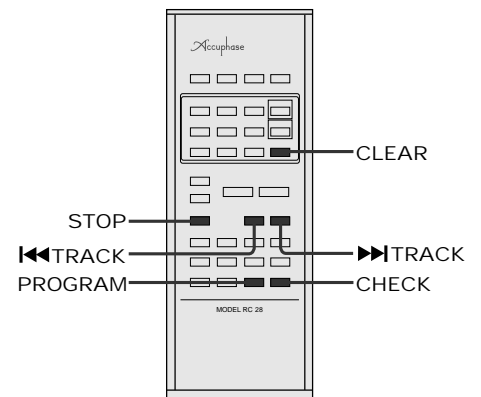
● To add a track to the end of a program

Use the **TRACK SEARCH** buttons to display the number of the desired track, and press the **PROGRAM** button to add the track.

With the remote commander, use the direct play buttons to specify the track number.

● To clear the entire program

Hold down the **CLEAR** button until the indication **< Prog CLEAR >** appears on the display.



Additional information regarding program play

- ▼ The program contents are retained by the unit also after playback is finished. Pressing the **PLAY** button will start the program again.
- ▼ The program contents are lost when you turn the power off or open the disc tray.
- ▼ Pressing the **STOP** button during program play terminates playback, but the program contents are retained.
- ▼ During program play, you can use the **BACK track** / **NEXT track** buttons to jump to earlier or later tracks in the program.
- ▼ The direct play buttons do not operate during program play.
- ▼ Repeat playback can be activated during program play, but **A↔B** repeat is not possible.
- ▼ The **INDEX** buttons can also be used during program play.

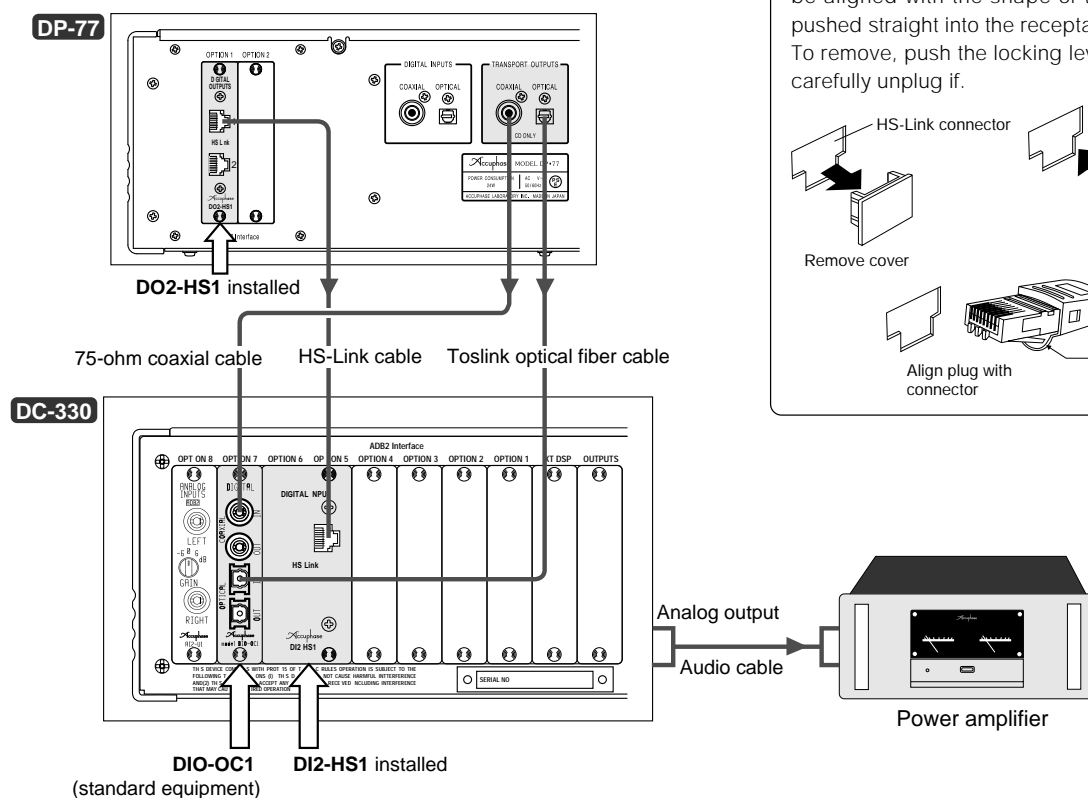
Using the DP-77 as a Transport

Connection to the DC-330

Use the **TRANSPORT OUTPUTS** of the DP-77 or the HS-Link Output Board DO2-HS1 installed in an option board slot for connection to the DC-330.

- * When the HS-Link connection is used, SACDs or CDs can be played, but the signal supplied via the HS-Link cannot be recorded in digital or analog form via the output of an option board in the DC-330.
- * The **COAXIAL** output allows playback of CDs only. Recording via the output of an option board in the DC-330 is possible.
- * By connecting the **COAXIAL** or Toslink output directly to a digital recorder, recording of the signal from a CD only is possible.

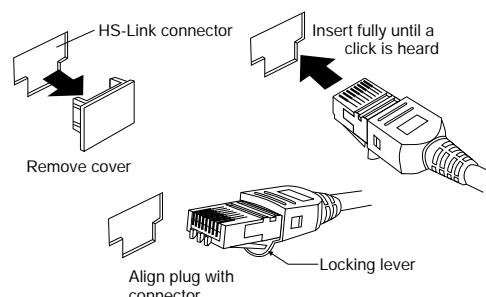
Connection example



Connecting HS-Link cable

*HS-Link cable is available separately (see page 28)

Remove the cover from the HS-Link connector on the DP-77 and insert the plug of the HS-Link cable until it audibly snaps into place. The plug should be aligned with the shape of the connector and pushed straight into the receptacle. To remove, push the locking lever of the plug and carefully unplug it.

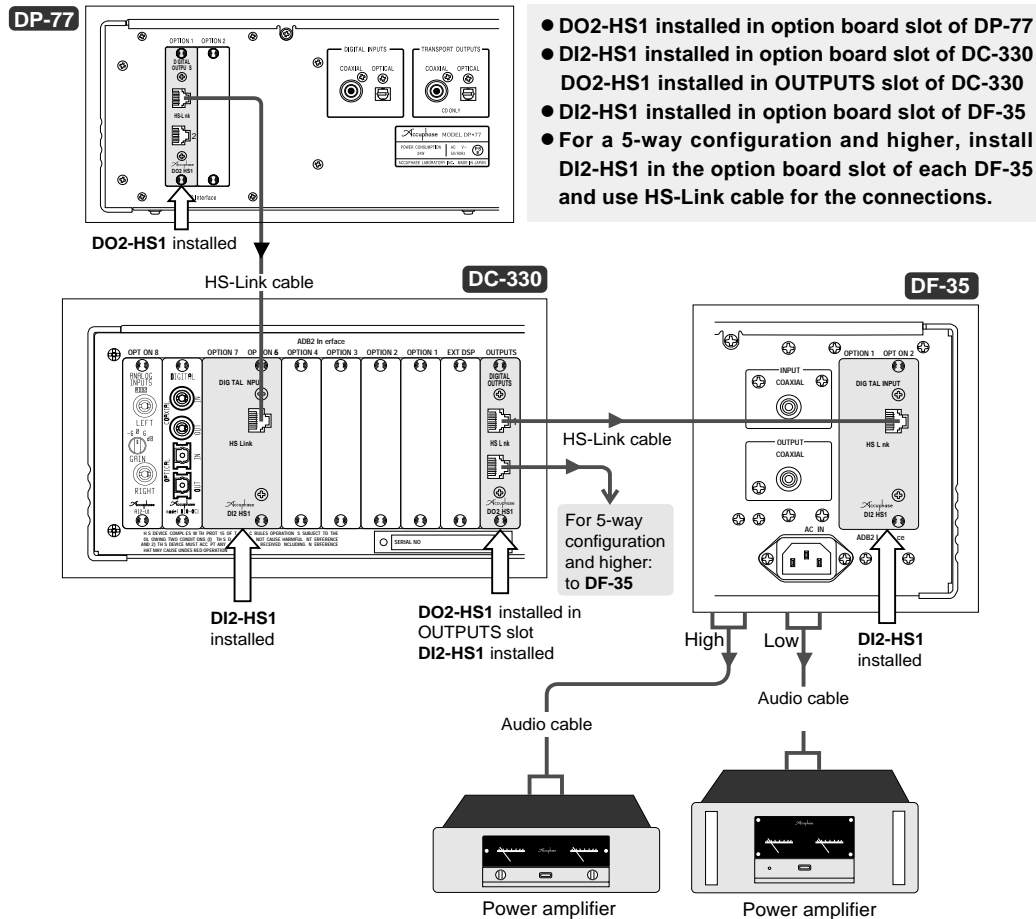


Operation

- 1 Turn on the DP-77, DC-330, and power amplifier.
- 2 Use the input selector of the DC-330 to select the position where the DP-77 is connected.
- 3 Set the DP-77 to the play mode and raise the volume setting on the DC-330 so that sound is heard.

Digital Connection of the DP-77 to the DC-330 or DF-35

Using the HS-Link, it is possible to keep the connection of the **DP-77** → **DC-330** → **DF-35** entirely in the digital domain until immediately before the power amplifier. The various components are connected with HS-Link cable.



Note

- The SACD/CD signal supplied to the DC-330 via the HS-Link can only be transmitted further using HS-Link. Therefore there will be no output from any digital input/output board other than HS-Link (such as the DIO-OC1) installed in the OUTPUTS slot of the DC-330.

Connection to the DC-101

- For a connection example with HS-Link, see page 6

Connect the TRANSPORT OUTPUTS of the DP-77 to the DC-101.

- *When the HS-Link Output Board DO2-HS1 is installed in the DP-77, SACDs or CDs can be played via the HS-Link connection, but the signal supplied via the HS-Link cannot be recorded in digital or analog form via the output of an option board in the DC-101.
- *The COAXIAL and Toslink outputs allow playback of CDs only. Recording via the output of an option board in the DC-101 is possible.

Using the DP-77 as a Digital Processor

- 1 Connect the digital output signal of a CD transport, MD or DAT recorder or similar to the DIGITAL INPUT of the DP-77 or to the INPUT of a suitable option board installed in the DP-77.
- 2 Turn the power to the components on.
- 3 Turn the INPUT SELECTOR knob or use the **INPUT SELECTOR** button on the remote commander to select the external component. When locking with the input signal has been achieved, the indication **Lock** is shown for 2 seconds on the display of the DP-77.
- 4 Perform the steps for playback at the external component.

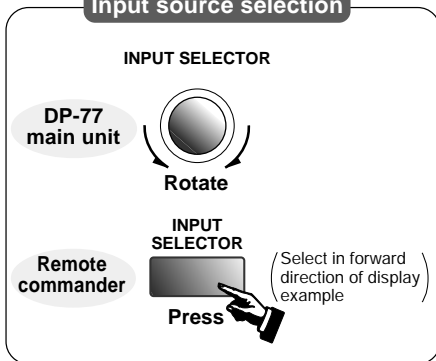
Note

With input signals where sampling frequency level accuracy fluctuates, the sound may be cut off.

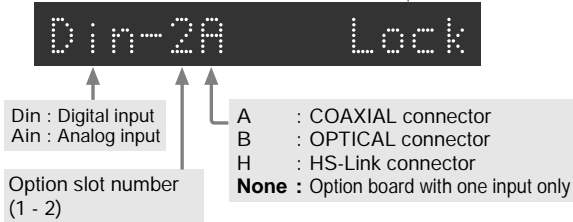
※ To return to SACD/CD operation

- Turn the INPUT SELECTOR knob.
- Alternatively, press the **▶** **PLAY**, **||** **PAUSE**, **■** **STOP**, **SACD/CD** button.

Input source selection



Option input display example



Lock indicator

- Shown for 2 seconds when locking is achieved

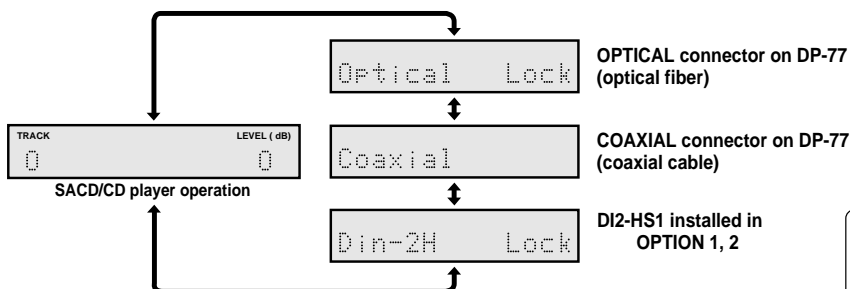
No lock indicator

- No component connected to input
- Locking with input signal failed
- Muting interval (during power-on or input switching)

Input source display example

(See illustration on page 23)

- **OPTICAL connector of DIGITAL INPUTS** : connected with optical fiber
- **COAXIAL connector of DIGITAL INPUTS**: Not connected
- **OPTION 1, 2 (uses 2 slots)** : DI2-HS1 (connected with HS-Link cable)



Option board slot number display:
When no option board is installed or when installed option board is an output-only board, the respective number is skipped.

※ Board using 2 slots (DI2-HS1)

Installed in OPTION 1, 2: slot number display shows "2H"

※ For option boards with one input (except DI2-HS1), the letter A, B, H is not shown, and only

1 2 is shown.

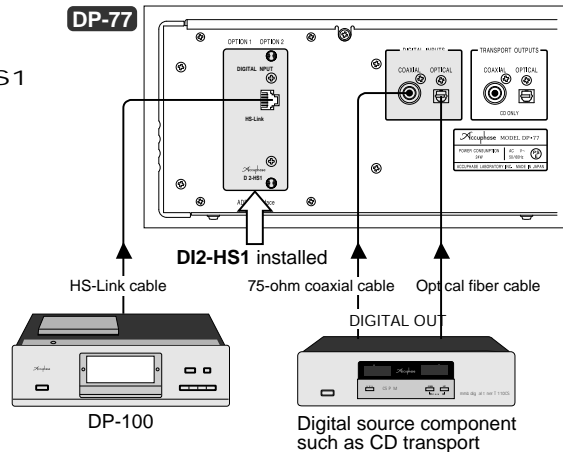
Input of SACD/CD, MD, DAT or Other Digital Signals

Digital connections for the DP-100, a CD payer, MD recorder, DAT deck, etc.

Connection example

OPTION 1, 2 : DI2-HS1

DIGITAL INPUTS or option board IN
↕
DIGITAL OUT of digital source component



Option boards with digital input

- Digital Input/Output Board (DIO-OC1)
- HPC Coaxial Input Board (DI-BNC1)
- HPC Optical Input/Output Board (DIO-ST1)
- AES/EBU Input/Output Board (DIO-PRO1) 2 slots
- HS-Link Input Board (DI2-HS1) 2 slots

Operation

- Turn on the DP-77, source component, and power amplifier.
- Use the INPUT SELECTOR of the DP-77 to select the position where the source component is connected. (See the display example on page 22.)
- Set the source component to the play mode and raise the volume setting so that sound is heard.

Connection cables

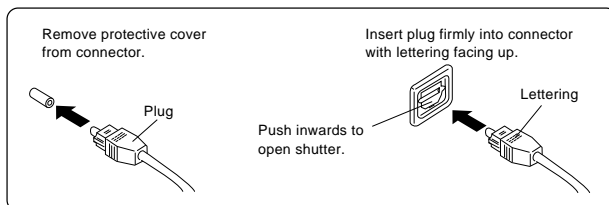
※For HS-Link cable, see page 20.

COAXIAL DIO-OC1

Connect 75-ohm coaxial cable with RCA plugs (separately available DL-15 or similar).

OPTICAL DIO-OC1

Dedicated connector for EIAJ standard Toslink optical fiber cable. Accuphase offers quartz-glass core cable (LG-10, etc.) for this connection.



HPC OPTICAL : ST DIO-ST1

Use off-the-shelf ST type HPC optical fiber cable.
※ST is a registered trademark of AT&T.

HPC : BNC DI-BNC1

Use off-the-shelf 75-ohm coaxial cable with BNC plug.

AES / EBU DIO-PRO1

Use off-the-shelf cables with XLR connectors corresponding to AES/EBU standard.

Note

- Optical fiber uses extremely thin quartz glass which breaks easily when nicked. If the length of the cable is greater than required, coil it at the rear of the unit, with a large coil diameter (at least 10 cm). Do not bend the cable sharply. Never attempt to modify or shorten the cable.
- The signal travels through the core of the optical fiber. Therefore, damage to the plug tip or dust in the connector housing can adversely affect the transmission of digital signals. When not in use, you should always place the protective cover on the connector.
- When inserting or removing an optical fiber cable, always grasp the plug firmly. Never pull on the cable itself.

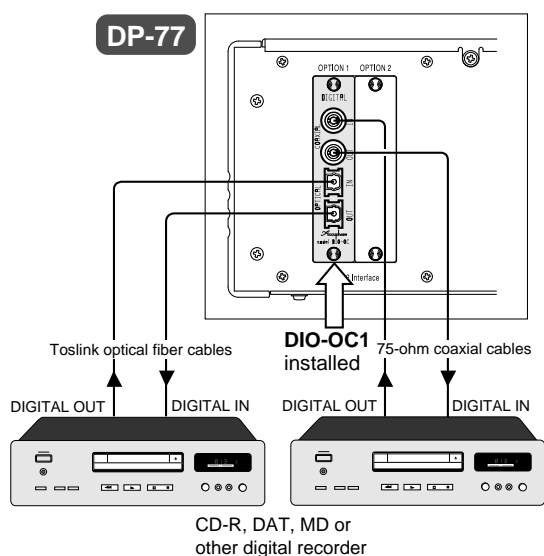
Recording / Playback With a Digital Recorder

A digital recorder can be connected for recording and playback.

- ※ Because there is only one playback signal path, monitoring during recording is not possible.
- ※ The OUTPUT connectors of installed option boards carry the signal that is currently selected with the INPUT SELECTOR (the source that is currently playing). This signal can be recorded. However, the SACD playback signal or an SACD/CD signal input via HS-Link will not appear at the OUTPUT connectors of installed option boards and can therefore not be recorded.

Connection example

DIGITAL "IN" of option board ⇔ DIGITAL OUT on recorder
 DIGITAL "OUT" of option board ⇔ DIGITAL IN on recorder



OPTICAL : connected with optical fiber cable
COAXIAL : connected with 75-ohm coaxial cable

Playback : Option boards with digital input

- HPC Coaxial Input Board (DI-BNC1)

Recording / Playback : Option boards with digital input/output

- Digital Input/Output Board (DIO-OC1)
- HPC Optical Input/Output Board (DIO-ST1)
- AES/EBU Input/Output Board (DIO-PRO1)

※ The signal supplied to the IN connector of a board normally does not appear at the OUT connector of the same board. However, with the Digital Input/Output Board [DIO-OC1], the signal supplied to the COAXIAL input appears at the OPTICAL output, and the signal supplied to the OPTICAL input appears at the COAXIAL output.

Playback

Use the INPUT SELECTOR to select the source (input to which the recorder is connected). Then set the recorder to the playback condition to listen to the sound.

Recording

Perform the following steps.

- Use the INPUT SELECTOR to select the program source you want to record and verify that the source is being reproduced correctly.
- This signal is being supplied to the OUTPUT connectors of installed option boards.
- Start the recorder. The source currently heard from the speakers is recorded.
- The OUTPUT LEVEL setting of the DP-77 has no effect on the recording.
- Since the same signal is being supplied at all OUTPUT connectors, you can record on several recorders simultaneously. (Verify that the sampling frequency is suitable.)

Note

- * In digital recording, the SCMS (Serial Copy Management System) prevents subsequent digital recording (for example on a DAT or MD recorder) of a signal that has already been recorded once from a digital source. When the analog connection is used, signals can be recorded as often as desired.
- * When recording a digital signal onto another digital recorder, sampling frequency matching is important. Some recorders check the sampling frequency of the source. If sampling frequencies are different, recording is normally not possible.
- Sources with a sampling frequency of 96 kHz cannot be recorded on recorders that are not compatible with this sampling frequency.
- Digital recording on MD or CD-R uses a sampling frequency of 44.1 kHz. Sources with a sampling frequency of 32 kHz or 48 kHz will automatically be converted at the recorder (except for some models).
- Some DAT recorders automatically check and adapt to the sampling frequency of the source.

DG-28/DG-38 Connection

Digital Connection Example

By connecting the Digital Voicing Equalizer DG-28/DG-38, sound field compensation entirely in the digital domain is possible.

Connection example 1

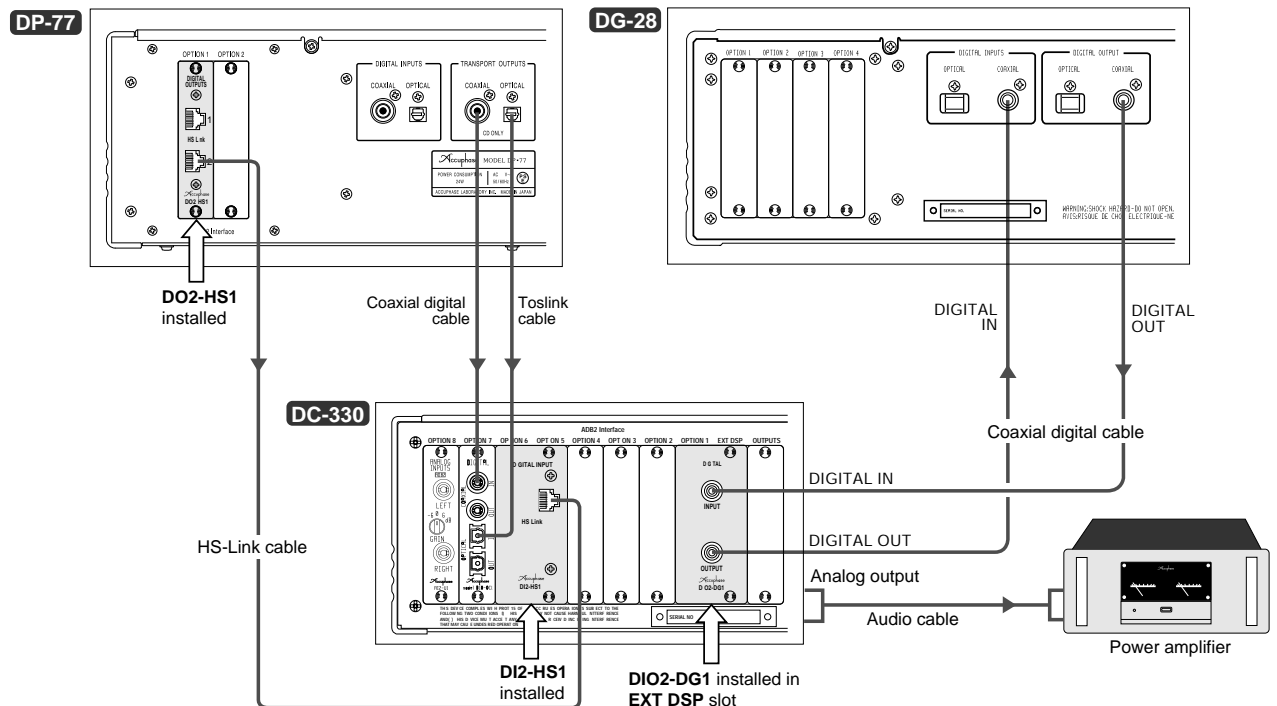
...SACD/CD playback with the DP-77

* For connecting the DG-28, install the Wide Range Digital Input/Output Board (DIO2-DG1) in the EXT DSP slot on the rear panel of the DC-330, as shown in the illustration.

* For connecting the DG-38, the same approach as above is possible, but because the DG-38 comes standard with HS-Link, a direct connection with HS-Link cable is recommended. For details, see the instruction manual of the DG-38.

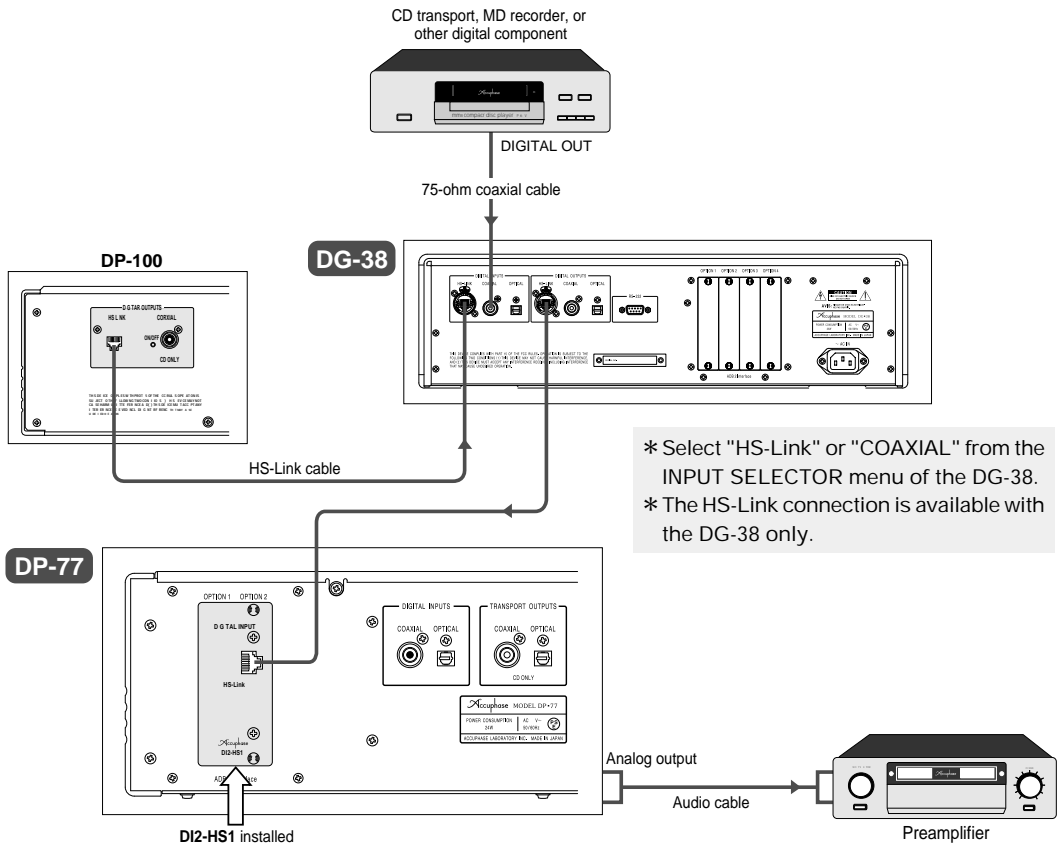
Note

- DC-330** • Because the DIO2-DG1 is a two-slot option board, it will use also OPTION 1 on the left.
- When the DIO-OC1 or DIO-ST1 is installed in the EXT DSP slot, only CD signals can be played back. SACD signals will not lock.



Connection example 2

...Using the digital processor section of the DP-77

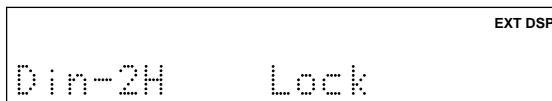


Display example

INPUT SELECTOR



Turn to select input source
(DP-100 connected to DG-38 via HS-Link in illustration example)



↓ Lock indication disappears after 2 seconds

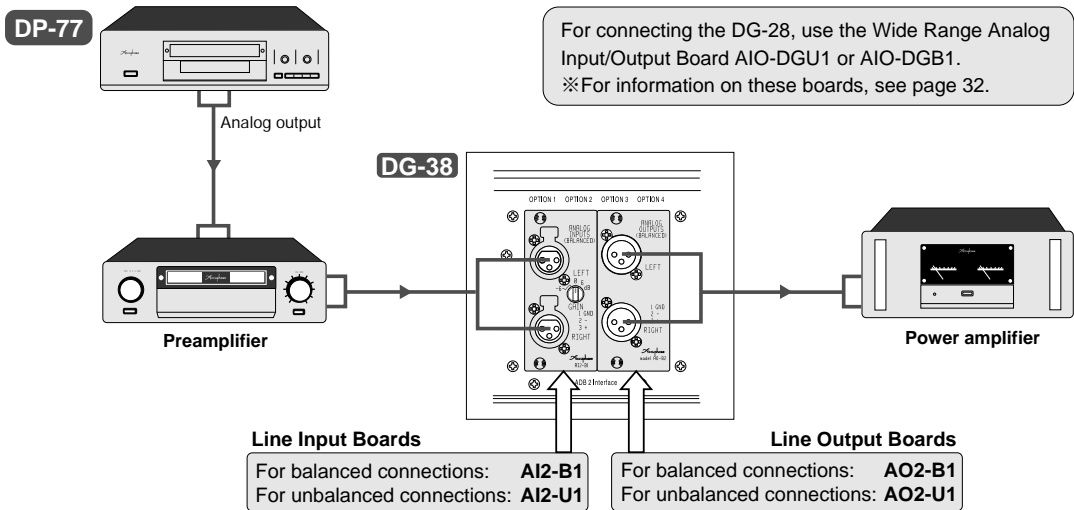


Analog Connection Example

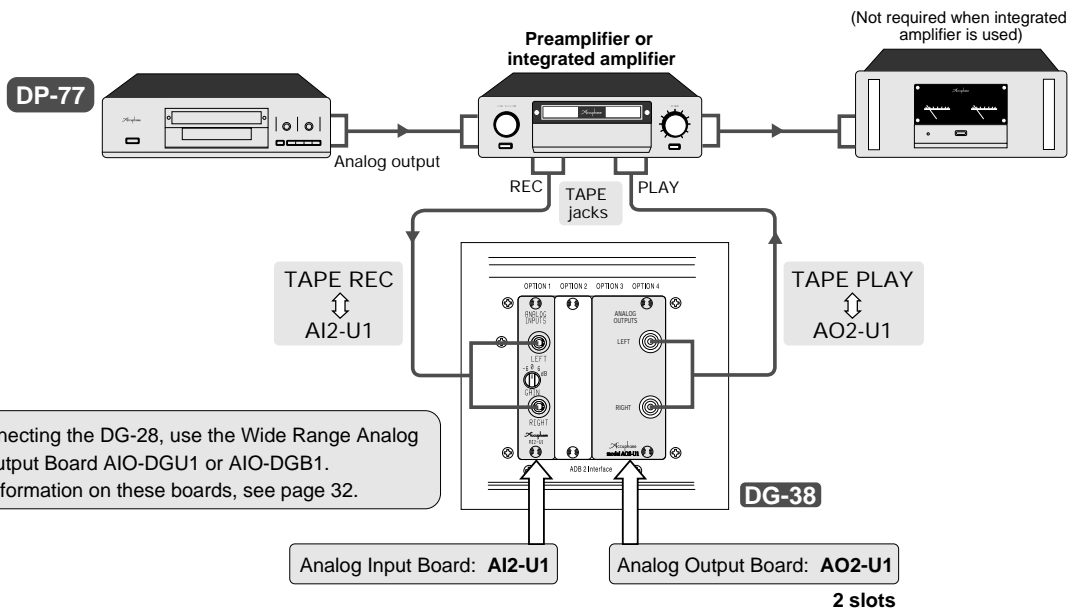
For analog connection to the DG-38, install the optional Line Input Board and Line Output Board.

※For information on option boards, see page 33.

Connection example 1 ... DG-38 connected between preamplifier and power amplifier



Connection example 2 ... DG-38 connected to the TAPE jacks of a preamplifier or an integrated amplifier



6. Useful Options for the DP-77

The DP-77 is an integrated SACD/CD player, but the transport and processor sections, although housed in one enclosure, are entirely separate and can be used on their own, thanks to dedicated transport output and digital input connectors. For further increased versatility, the DP-77 also provides option board slots conforming to the ADB 2 interface standard.

By installing boards in these slots as required, external digital components can be connected. Many different kinds of option boards are available from Accuphase.

- Any board can be installed in any empty slot.
- For copyright reasons, the SACD digital signal does not appear at the output connectors of installed option boards with digital inputs and outputs (such as the DIO-OC1) and cannot be recorded. The SACD/CD signal output via HS-Link also cannot be digitally recorded.
- Option boards designed for models such as the DC-330, DC-300, DP-85, DP-75V, DG-28/DG-38, DF-35, etc. can be used.

Option board sampling frequency support table

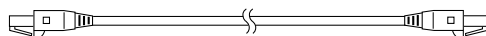
Digital board type		Max. 48 kHz	Max. 96 kHz	
HPC Coaxial Input Board	DI-BNC1	○	○	
HPC Optical Input/Output Board	DIO-ST1	○	○	
Digital Input/Output Board	DIO-OC1	○	○	
AES/EBU Input/Output Board	DIO-PRO1	○	○	○ : Supported × : Not supported
		○	×	
HS-Link Input Board	DI2-HS1	<ul style="list-style-type: none"> ● Max. 192 kHz ● 2.8224 MHz/1-bit DSD signal 		
HS-Link Output Board	DO2-HS1			
Wide Range Digital Input/Output Board	DIO2-DG1	<ul style="list-style-type: none"> ● Max. 192 kHz 		

① HS-Link cable (1.5 m)

HDL-15

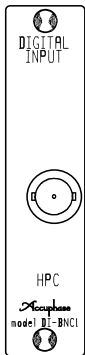
This cable serves for transmission of the digital signal corresponding to the HS-Link interface standard. It must be plugged into an HS-Link (RJ-45) connector.

- Shielded twisted pair 8-conductor cable (TIA/EIA568-A CAT.5)
- Also available in 3 m, 5 m, 7.5 m, and 10 m lengths.



② HPC Coaxial Input Board

DI-BNC1



Serves for connection of a 75-ohm coaxial cable with BNC connectors.

Integrated optoisolator provides total separation of input and waveform shaping circuits.

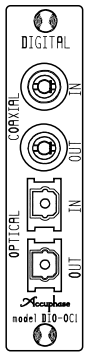
Guaranteed specifications, standards

Input format : EIAJ CP-1201 standard format

Digital input : 0.5 Vp-p, 75 ohms

③ Digital Input/Output Board

DIO-OC1



This board provides two sets of coaxial and optical connectors for input/output.

Connections "IN" connector ⇔ DIGITAL OUT on digital component
 "OUT" connector ⇔ DIGITAL IN on digital component

COAXIAL: for 75-ohm coaxial cable

OPTICAL: for Toslink optical fiber cable

Guaranteed specifications, standards

Input format : EIAJ CP-1201 standard format

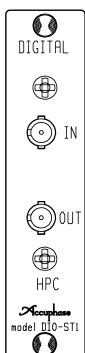
Digital input/outputs : COAXIAL 0.5 Vp-p, 75 ohms

OPTICAL -27 to -15 dBm (input)

-21 to -15 dBm (output)

④ HPC Optical Input/Output Board

DIO-ST1



Provides a set of HPC optical inputs and outputs for connection using an ST type optical link.

An integrated ultra high-speed link supports a transfer rate of 150 Mbps.

Connections "IN" connector ⇔ DIGITAL OUT on digital component
 "OUT" connector ⇔ DIGITAL IN on digital component

*ST is a registered trademark of AT&T.

Guaranteed specifications, standards

Format : EIAJ CP-1201 standard format

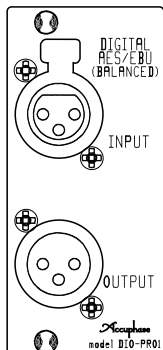
Connector type : ST

Input level : Optical input -30 to -10 dBm

Output level : Optical output -19 to -14 dBm

⑤ AES/EBU Input/Output Board

DIO-PRO1



This board provides a set of XLR input and output connectors conforming to the AES/EBU professional digital standards. The connectors can be used to accept the output signal from a digital component or to perform playback and recording with a digital recorder.

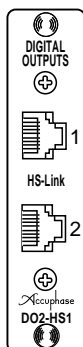
Connections "INPUT" connector ⇔ DIGITAL OUT on digital component
 "OUTPUT" connector ⇔ DIGITAL IN on digital component

Guaranteed specifications, standards

Input/output format : EIAJ CP-1201 standard format
 Digital input : 0.5 Vp-p, min. 250 ohms
 Digital output : 3.0 Vp-p, 110 ohms

⑥ HS-Link Output Board

DO2-HS1



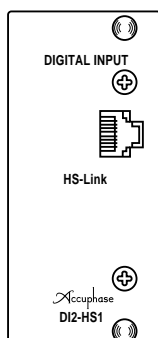
This board serves for output of the digital signal corresponding to the HS-Link interface standard. By installing this board in the DC-330, the signal from the DP-77 can be sent to the DF-35 via the DC-330 in digital form.

- Install DO2-HS1 in the option board slot of the DP-77 and in the OUTPUTS slot of the DC-330, for connection to the DF-35.
 Install the HS-Link Input Board DI2-HS1 in the DC-330 and the DF-35 for input.
 (For a connection example, see page 21.)

※ This board can only be used in the OUTPUTS slot of the DC-330.

⑦ HS-Link Input Board

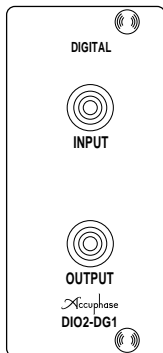
DI2-HS1



This board serves for input of the digital signal corresponding to the HS-Link interface.

- Install this board in the DC-330 and connect it to the DO2-HS1 installed in the option board slot of the DP-77. (For connection examples, see pages 20 and 21.)
- Install this board in the DP-85, DP-77, DP-75V, DC-330 etc. for connection to the DP-100 or DG-38. (For a connection example, see page 23.)

※ Requires a dedicated HS-Link cable.



Allows digital connection and sound field processing with the DG-28 of digital signals with sampling frequencies above 48 kHz, such as SACD. Designed for installation in the EXT DSP slot of the DC-330 etc. Allows digital connection of the DG-28.

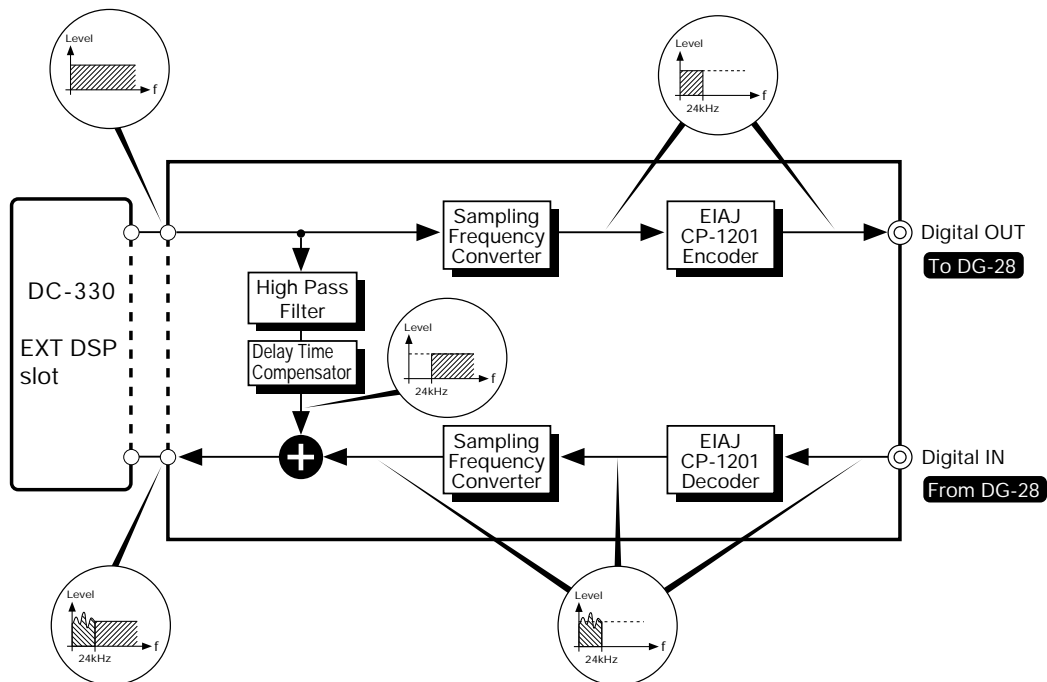
- * The board requires two slots. It can only be used in the DC-330 if the OPTION 1 slot and EXT DSP slot are empty.
- * Requires a 75-ohm coaxial digital cable.

※For connection examples, see page 25.

The DIO2-DG1 accepts a wide-band, high sampling frequency signal and converts the sampling frequency to 48 kHz or 44.1 kHz. It then sends only the signal components in the audible range up to 24 kHz (or 22.05 kHz) to the DG-28 for equalization. The signal components above 24 kHz (or 22.05 kHz) are routed directly to the output using a high-pass filter. The equalized signal from the DG-28 is mixed to the bypassed components and then returned to the DC-330 etc. in digital form.

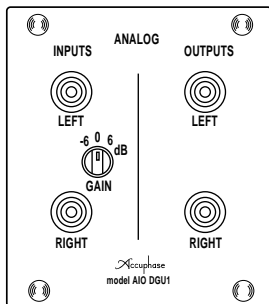
Note

The Digital OUT cannot be used for recording on CD-R, MD, DAT, or similar recorders.



Block diagram of DIO2-DG1

⑨ Wide Range Analog Input/Output Board for DG-28/DG-38 AIO-DGU1

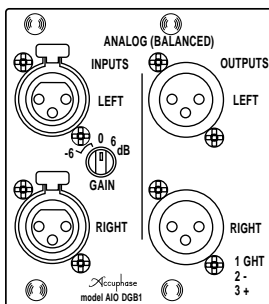


Allows analog connection of the DG-28 for sources using sampling frequencies above 48 kHz.

- Occupies four option board slots of the DG-28.
- **Designed for unbalanced connections.**

※ Requires audio cables with RCA type phono plugs, such as the SL-15G from Accuphase.

⑩ Wide Range Analog Input/Output Board for DG-28/DG-38 AIO-DGB1

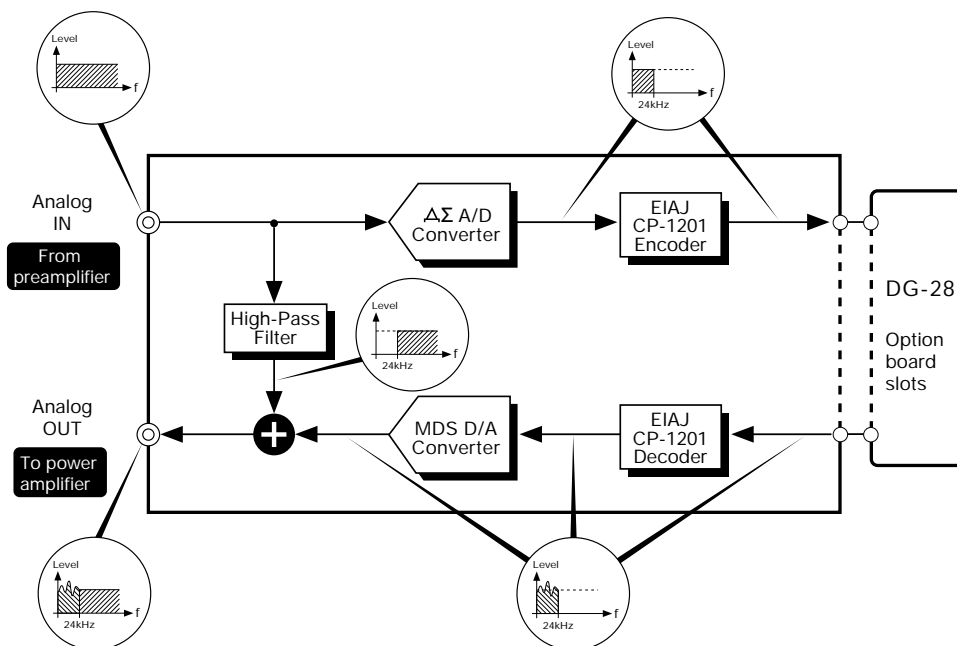


Allows analog connection of the DG-28 for sources using sampling frequencies above 48 kHz.

- Occupies four option board slots of the DG-28.
- **Designed for balanced connections.**

※ Requires balanced audio cables, such as the SLC-15 from Accuphase.

The AIO-DGU1/AIO-DGB1 accepts an analog signal from the preamplifier and converts it to digital form using a high-precision 24-bit delta-sigma A/D converter with a sampling frequency of 48 kHz. It then passes this signal on for equalization by the DG-28. Analog signal components above 24 kHz are routed directly to the output using a high-pass filter. The signal equalized by the DG-28 is converted to analog form using a high-precision 24-bit MDS type D/A converter. The resulting signal is mixed to the bypassed components and then sent to the power amplifier.



Block diagram of AIO-DGU1/AIO-DGB1

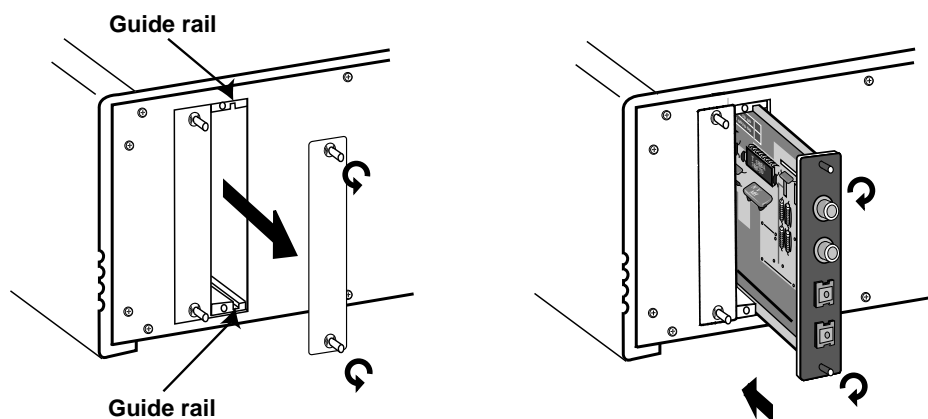
For analog connection, installed in DG-38

*Connection examples see page 27.

⑪ Line Input Board (for unbalanced connections)	AI2-U1
⑫ Line Input Board (for balanced connections)	AI2-B1
⑬ Line Output Board (for unbalanced connections)	AO2-U1
⑭ Line Output Board (for balanced connections)	AO2-B1

Option Board Installation

- Set the power switch of the DP-77 to OFF.
- Remove the panel covering the slot on the rear of the DP-77.
- **For dual-slot boards, remove two panels.**
- Insert the option board by sliding it into the top and bottom guide rails of the slot. When the board touches the internal connector, give it a slight push until the board is firmly seated. (The board must be flush with the panel.)
- Secure the board with the two screws at the top and bottom.



⚠ CAUTION

- Be sure to turn the DP-77 off before inserting or removing any option boards. Otherwise damage may occur.
- To prevent damage due to static discharge, do not touch the components on the board or the connector. Grasp the board only at the PCB edges or the rear panel.
- Tighten the two fastening screws firmly. If the screws are loose, ground connection will be impaired and damage may occur.

7. Remote Control

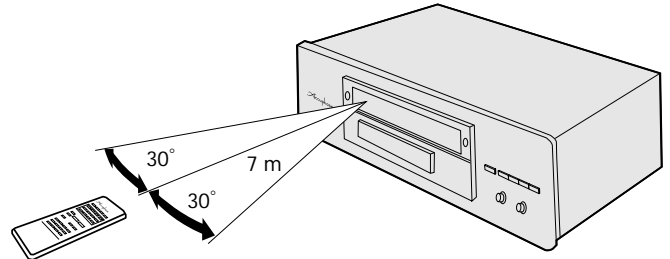
Remote Commander RC-28

The supplied remote commander RC-28 can be used to operate the DP-77 from a convenient location.
(For details on functions, see page 2.)

Operation

Point the transmitter of the remote commander toward the remote sensor **8** on the DP-77. The operating range is as shown in the illustration.

- Take care not to drop the remote commander or subject it to shocks. Do not allow any liquid to enter the remote commander.
- Keep the remote commander away from direct sunlight, heat sources and humid places.



About Batteries

■ Battery replacement

The batteries will last for about 8 months with normal use. When you notice that the effective range of the remote commander decreases, you should replace the batteries. When the batteries are totally exhausted, pressing any of the buttons will have no effect.

The battery type is IEC R03 (size AAA). Always replace both batteries at the same time..

⚠ CAUTION

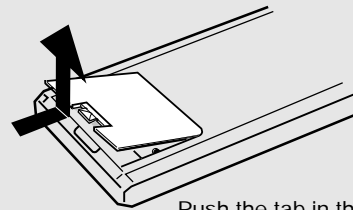
Observe the following precautions to prevent battery leakage or damage.

- Insert the batteries with correct \oplus and \ominus polarity, as marked inside the case.
- Do not use a mixture of old and new batteries together.
- Use only the specified battery type, and do not mix different battery types.
- Remove the batteries if the remote commander will not be used for a long time.
- If battery leakage has occurred, carefully wipe the battery case to remove all residue before inserting new batteries.

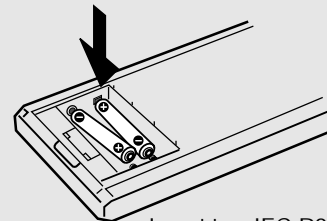
⚠ WARNING

Never try to charge regular dry cell batteries not designed for recharging. Otherwise there is a risk of explosion, leakage, fire, and injury.

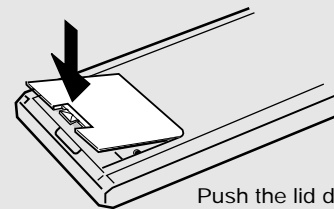
Replacing the Batteries



Push the tab in the arrow direction to open the battery case.



Insert two IEC R03 (size AAA) batteries with correct $\oplus\ominus$ polarity.



Push the lid down until it snaps into place.

8. Guaranteed Specifications

[Guaranteed specifications measured according to EIAJ standard CPR-2402]

[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

SACD : 650 nm
CD : 780 nm

Digital outputs format: EIAJ CP-1201 compliant

COAXIAL: 0.5 V_{p-p}, 75 ohms
OPTICAL: -21 to -15 dBm, wavelength 660 nm

Digital Processor Section

Digital inputs

COAXIAL Format : EIAJ CP-1201/AES-3 compliant
OPTICAL Format : EIAJ CP-1201 compliant

Sampling frequencies

32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
(16 to 24 bits, 2-channel PCM)

Implemented by option board:

176.4 kHz, 192 kHz (24-bit, 2-channel PCM)
2.8224 MHz (1-bit 2-channel DSD)

D/A converter

24-bit MDS plus converter

Frequency response

0.5 - 50,000 Hz +0, -3 dB

Total harmonic distortion

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

BALANCED : 2.5 V at 50 ohms, balanced XLR type
UNBALANCED : 2.5 V at 50 ohms, RCA phono jack

Output level control

0 to -60 dB in 1-dB steps (digital)

General

Power requirements

AC120 V/230 V
(Voltage as indicated on rear panel) 50/60 Hz

Power consumption

24 W

Maximum dimensions

Width 475 mm (18-11/16")
Height 151 mm (5-15/16")
Depth 397 mm (15-5/8")

Weight

17.7 kg (39.0 lbs) net
23.0 kg (51.0 lbs) in shipping carton

Supplied Remote Commander RC-28

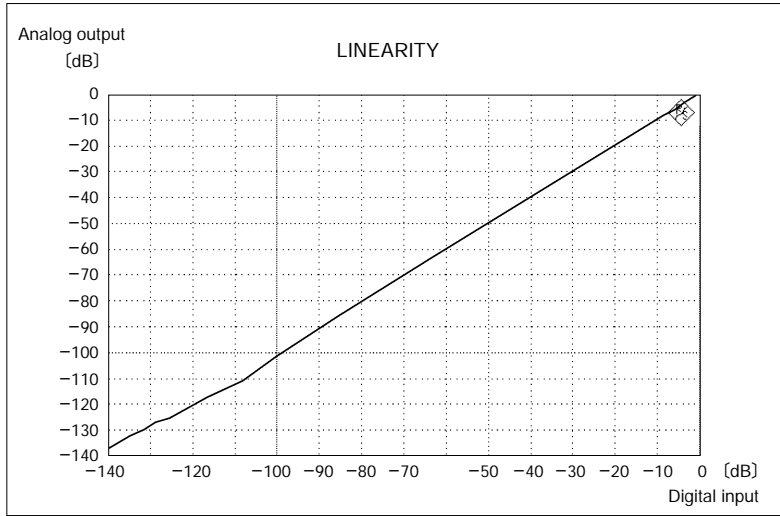
Remote control principle : Infrared pulse
Power supply : Two IEC R03 (size AAA) batteries
Max. dimensions : 66 x 175 x 20 mm
Weight : 220 g (including batteries)

※Specifications and design subject to change without notice for improvements.

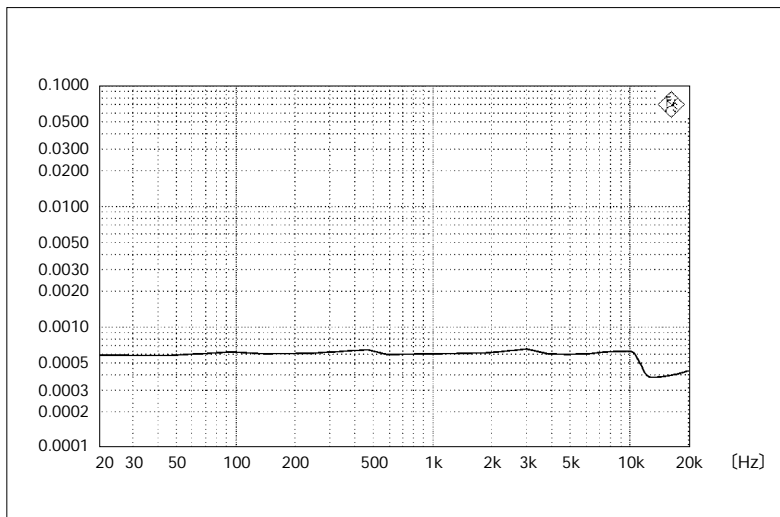
Copyright

Recordings made from radio programs and other material (CDs, music tapes, etc.) are subject to copyright regulations. Observe the applicable laws in your country.

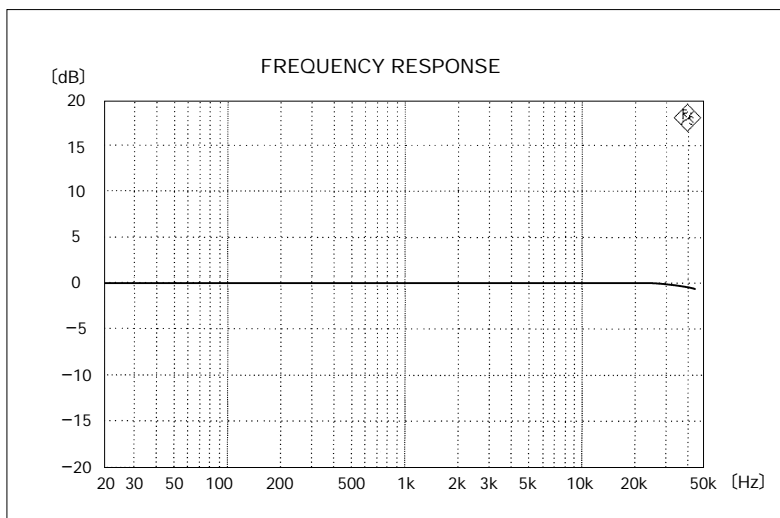
9. Performance Graphs



Linearity
(analog output/digital input)

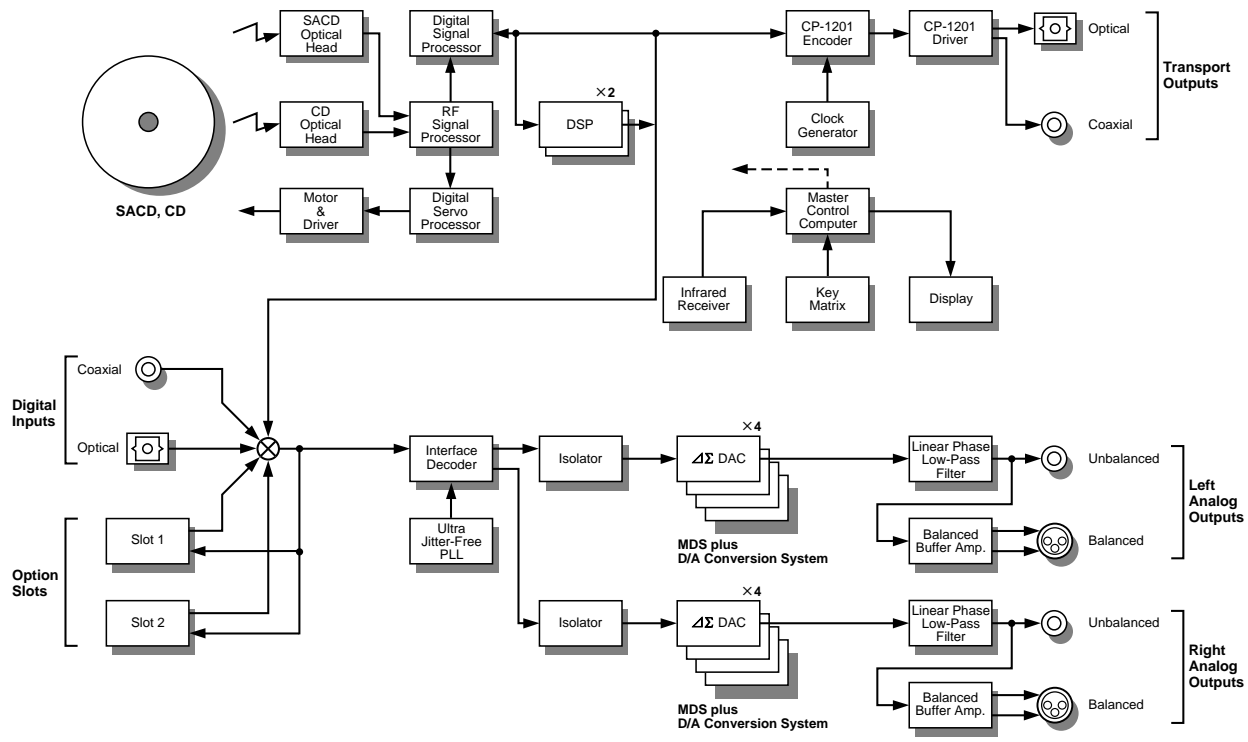


THD + noise vs. frequency response



Frequency response

10. Block Diagram



11. Troubleshooting

If there seems to be a problem with the unit, please check the following points first. If the problem persists, contact your Accuphase dealer or an authorized service station.



Caution : Turn power to all components OFF before changing any connections.

No power.

- Is the power cord plugged in correctly (on rear panel and in AC outlet)?

Playback does not start.

- Is the disc properly inserted?
- Has moisture condensed on the laser pickup? (See page 4.)
- Is the unit set to SACD/CD player operation? (See page 10.)
- Can the disc type be played by the DP-77? (See page 5.)

No sound or level is too low.

- Check the position of the INPUT SELECTOR.
- Check whether the output cables are properly plugged into the amplifier.
- Check whether the amplifier controls and volume are properly set.
- Check the level setting with the OUTPUT LEVEL buttons on the remote commander.

Sound is briefly interrupted (skips), noise is heard, playback stops abruptly.

- The disc is warped, contaminated or scratched.
- Check connecting cables and plugs for corrosion or contact problems.
- Does Toslink optical cable conform to EIAJ standard?
(Unit will not operate normally with other cables.)

No sound from one channel.

- Swap the left and right plugs of the output cable.
If the problem still occurs in the same channel: The amplifier may be at fault.
If the problem occurs in the other channel: The DP-77 may be at fault.

The remote commander does not operate.

- Check whether the batteries are properly inserted.
- Replace the batteries with fresh ones.
- Remove any obstacles between the remote commander and the unit.

No sound from connected equipment.

- Is the unit set to processor operation? Check the INPUT SELECTOR setting.
- Has proper frequency locking with the selected signal been achieved? (See page 22.)
Check the HS-Link, optical fiber, and coaxial cable connections.



ACCUPHASE LABORATORY INC.

2-14-10, SHIN-ISHIKAWA
AOBA-KU, YOKOHAMA 225-8508, Japan

SACD

Laserdiodens specifikationer

- * Material: AlGaInP
- * Våglängd: 650 nm
- * Laserutgångseffekt: 73,7 μ W

Laserdiodenspecifikationer

- * Materiale: AlGaInP
- * Bølglængde: 650 nm
- * Laserudgangseffekt: 73,7 μ W

Laserdiodenspecificasjoner

- * Materiale: AlGaInP
- * Bølglengde: 650 nm
- * Laserutgangseffekt: 73,7 μ W

Laserdiodin ominaisuudet

- * Materiaali: AlGaInP
- * Aallonpituus: 650 nm
- * Laserin teho: 73,7 μ W

CD

Laserdiodens specifikationer

- * Material: GaAlAs
- * Våglängd: 780 nm
- * Laserutgångseffekt: 28,5 μ W

Laserdiodenspecifikationer

- * Materiale: GaAlAs
- * Bølglængde: 780 nm
- * Laserudgangseffekt: 28,5 μ W

Laserdiodenspecificasjoner

- * Materiale: GaAlAs
- * Bølglengde: 780 nm
- * Laserutgangseffekt: 28,5 μ W

Laserdiodin ominaisuudet

- * Materiaali: GaAlAs
- * Aallonpituus: 780 nm
- * Laserin teho: 28,5 μ W

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION-INVISIBLE LASER RADIATION WHEN OPEN
AVOID EXPOSURE TO BEAM
ADVARSEL-LASERSTRÅLING VED ÅBNING
UNNGÅ UDSÆTTELSE FOR STRÅLING
ADVARSEL-LASERSTRÅLING NÅR DEKSEL ÅPNES
UNNGÅ EKSPONERING FOR STRÅLEN
VARNING-LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD
STRÅLEN ÄR FARLIG
VARO!-AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE
ÄLÄ KATSO SÄTEESÄN BETRAKTA EJ STRÅLEN