

DENON

AM-FM STEREO/DAB RECEIVER

DRA-F102 DAB

OPERATING INSTRUCTIONS

■ SAFETY PRECAUTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

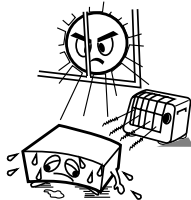
• **DECLARATION OF CONFORMITY**

We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards: EN60065, EN55013, EN55020, EN61000-3-2 and EN61000-3-3. Following the provisions of 73/23/EEC, 2004/108/EC and 93/68/EEC Directive.

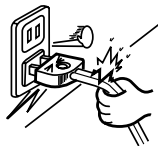
CAUTION:

To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet. The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

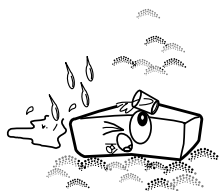
■ NOTE ON USE



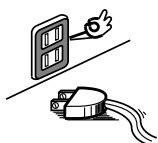
- Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.



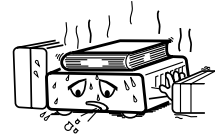
- Handle the power cord carefully. Hold the plug when unplugging the cord.



- Keep the apparatus free from moisture, water, and dust.



- Unplug the power cord when not using the apparatus for long periods of time.



* (For apparatuses with ventilation holes)

- Do not obstruct the ventilation holes.



- Do not let foreign objects into the apparatus.



- Do not let insecticides, benzene, and thinner come in contact with the apparatus.



- Never disassemble or modify the apparatus in any way.

CAUTION:

- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Attention should be drawn to the environmental aspects of battery disposal.
- Do not expose the set to dripping or splashing fluids.
- No objects filled with liquids, such as vases, shall be placed on the apparatus.

A NOTE ABOUT RECYCLING:

This product’s packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations. When discarding the unit, comply with local rules or regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning chemical waste. This product and the accessories packed together constitute the applicable product according to the WEEE directive except batteries.



Getting Started

Thank you for purchasing this DENON Receiver.

Please read the operation instructions thoroughly in order to acquaint yourself with the Receiver and achieve maximum satisfaction from it.

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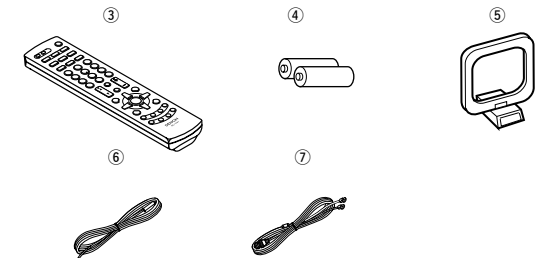
Others

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Accessories

Check that the following parts are attached in addition to the main unit:

① Operating instructions	1
② Service station list	1
③ Remote control unit (RC-1034)	1
④ R03/AAA batteries	2
⑤ AM loop antenna	1
⑥ FM indoor antenna	1
⑦ DAB indoor antenna	1



Before using

Pay attention to the following before using this unit:

• Moving the unit

To prevent short-circuits or damaged wires in the connection cables, always unplug the power supply cord and disconnect the connection cables between all other audio components when moving the unit.

• Cautions on using mobile phones

Using a mobile phone near this unit may result in noise. If so, move the mobile phone away from this unit when using it.

• Before turning the power operation switch on

Check once again that all connections are correct and that there are not problems with the connection cables. Always set the power switch to the standby position before connecting and disconnecting connection cables.

• Store these instructions in a safe place.

After reading, store this instructions along with the warranty card in a safe place.

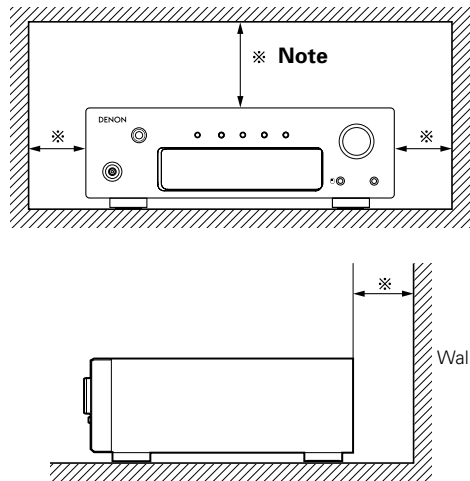
• Power is supplied to some of the circuitry even when the power is set to the standby mode using the power operation switch. When traveling or leaving home for long periods of time, be sure to unplug the power supply cord from the power outlet.

• Note that the illustrations in these instructions may differ from the actual unit for explanation purposes.

Cautions on installation

Note:

For heat dispersal, do not install this unit in a confined space such as a bookcase or similar enclosure.

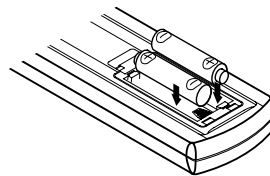
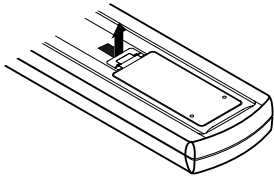


About the remote control unit

The included remote control unit (RC-1034) can be used to operate not only the DRA-F102 DAB but also other components in the F102 series (see page 4).

Inserting the batteries

- ① Remove the remote control unit's rear cover.
- ② Set two R03/AAA batteries in the battery compartment in the indicated direction.



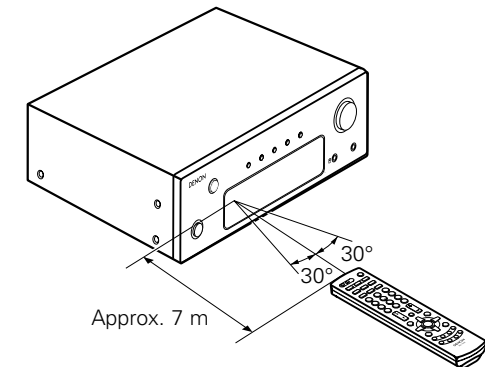
- ③ Put the rear cover back on.

Notes on batteries:

- Replace the batteries with new ones if the set does not operate even when the remote control unit is operated nearby the unit. (The attached batteries are only for verifying operation.)
- When inserting the batteries, be sure to do so in the proper direction, following the “+” and “-” marks in the battery compartment.
- To prevent damage or leakage of battery fluid:
 - Do not use a new battery together with an old one.
 - Do not use two different types of batteries.
 - Do not short-circuit, disassemble, heat or dispose of batteries in flames.
- Remove the batteries from the remote control unit when you do not plan to use it for an extended period of time.
- If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.
- Remove the batteries from the remote if it will not be in use for long periods.

Operating range of the remote control unit

- Point the remote control unit at the remote sensor when operating it.
- When using the remote control unit to operate other connected F102 series components, point it at the remote control signal sensor on the DRA-F102 DAB.
- The remote control unit can be used from a distance of up to about 7 meters, at a horizontal angle of up to 30° with respect to the sensor.



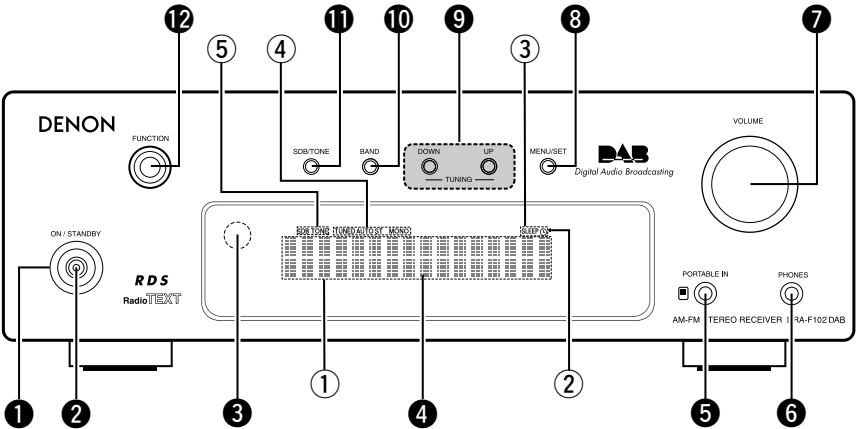
NOTE:

- It may be difficult to operate the remote control unit if the remote sensor is exposed to direct sunlight or strong artificial light.

Part names and functions

For details on the functions of these parts, refer to the pages given in parentheses ().

Front panel

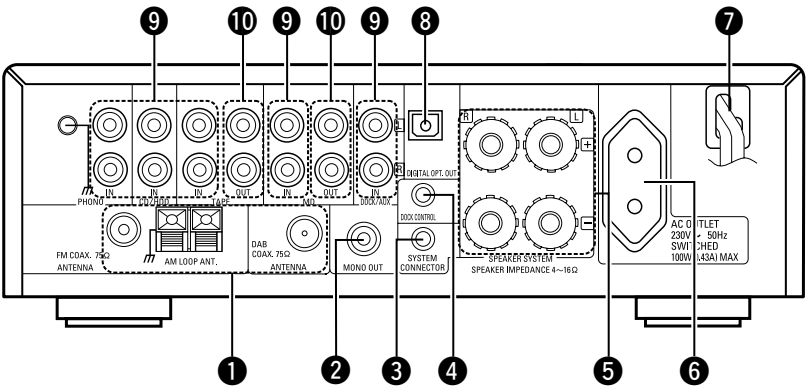


- 1 Power operation switch (ON/STANDBY)(11, 18, 21)
- 2 Power indicator(11)
- 3 Remote control sensor(2)
- 4 Display(3)
- 5 PORTABLE IN jack(10)
- 6 PHONES jack
 - Use this jack to connect headphones (commercially available).
 - When headphones are plugged in, the sound can only be heard from the headphones.
- 7 VOLUME control knob(11)
- 8 MENU/SET button(13, 15 ~ 23)
- 9 TUNING buttons(12 ~ 15)
- 10 BAND button(12 ~ 15, 18)
- 11 SDB/TONE button(11)
- 12 FUNCTION knob(11 ~ 13, 15)

Display

- 1 Information display
 - Various information is displayed here, depending on the operation mode.
 - Function
 - Time
 - Name of radio station
 - Preset station name
 - Volume level
 - Tone adjustment level, etc.
- 2 Remote control signal reception indicator
- 3 Timer operation indicator
- 4 Tuner reception mode indicators
- 5 Tone indicators
 - SDB:
 - Lights when the super dynamic bass function is set to "ON".
 - TONE:
 - Lights when the tone (bass/treble) is being adjusted.

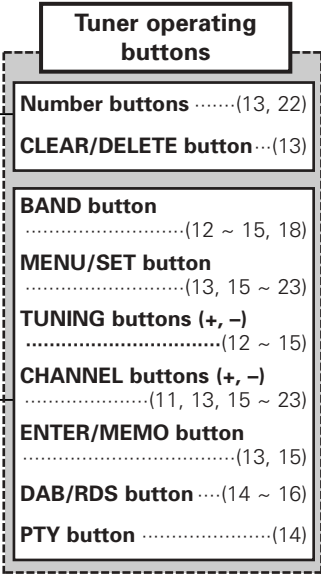
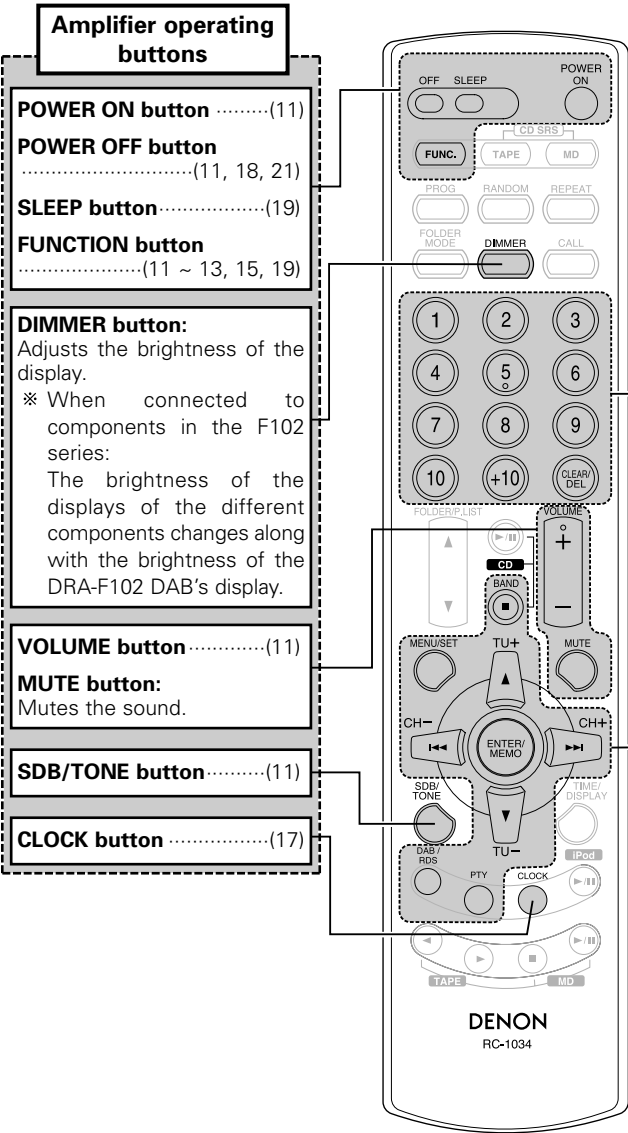
Rear panel



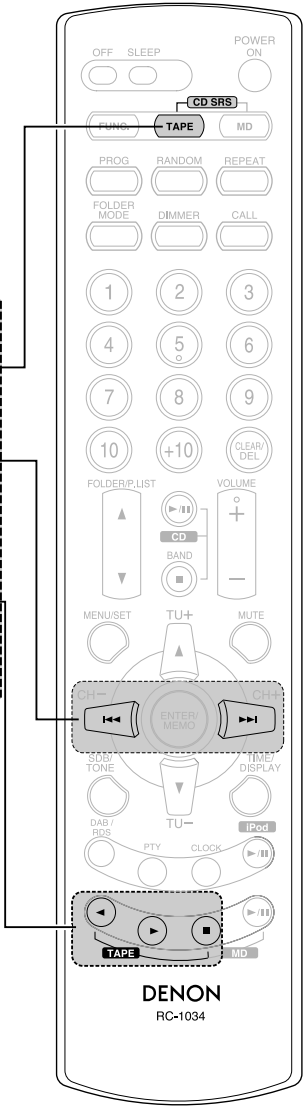
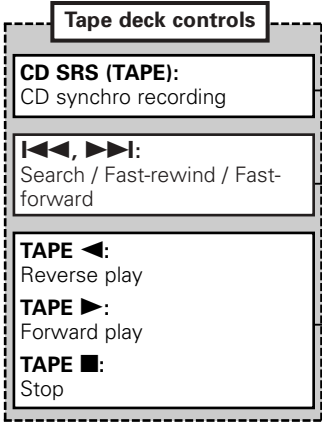
- 1 ANTENNA terminals(9)
- 2 MONO OUT terminal(8)
- 3 SYSTEM CONNECTOR jack(7)
- 4 DOCK CONTROL jack(10)
- 5 SPEAKER SYSTEM terminals(8)
- 6 AC outlet(7)
- 7 Power supply cord(7)
- 8 DIGITAL OPT. OUT terminal(10)
- 9 Analog input terminals(7)
- 10 Analog output terminals(7)

Remote control unit [System remote control unit]

- The operation of the remote control unit differs according to the function to which the DRA-F102 DAB is set.
- Below are the buttons for operating the DRA-F102 DAB.



- ❑ **Buttons for operating components other than the DRA-F102 DAB**
For detailed descriptions of the functions, etc., refer to the operating instructions included with the component.



※ Buttons not described here are used for operating components in the F102 series other than the DRA-F102 DAB.

CD player controls

PROG:
Programmed playback

RANDOM:
Random playback

REPEAT:
Repeat playback

FOLDER MODE:
Folder mode selection

CALL:
Checking the program settings

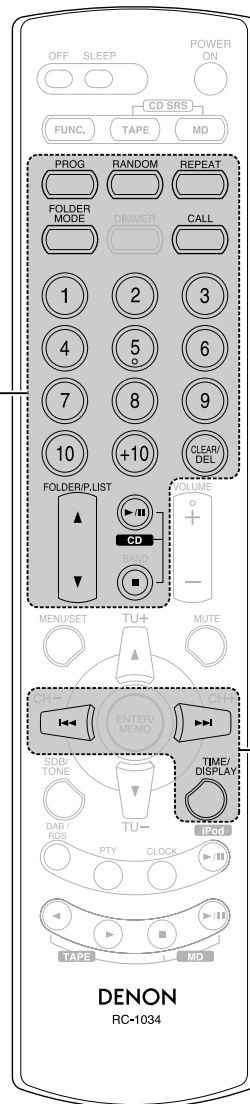
1~10, +10:
Number buttons

CLEAR/DEL:
Clear/delete

FOLDER:
Folder selection

CD ►/II:
Play / Pause

CD ■:
Stop



◀◀, ▶▶:
Search / Fast-rewind / Fast-forward

TIME/DISPLAY:
Time display switching

iPod controls

FOLDER/P.LIST:
Playlist selection
(Remote mode only)

MENU/SET:
Menu call
※ Provides the same operation as the MENU button on the iPod.

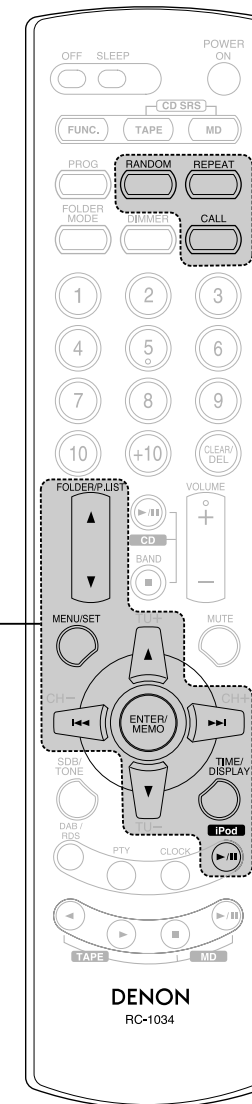
▲, ▼:
Cursor movement (up/down)
※ Provide the same operation as the Click Wheel of the iPod.

◀◀, ▶▶:
Search / Fast-rewind / Fast-forward
※ Provide the same operation as the ◀◀ or ▶▶ buttons on the iPod.

ENTER/MEMO:
Enter
※ Provides the same operation as the Center button of the iPod.

TIME/DISPLAY:
Time display switching
(Browse mode only)

iPod ►/II:
Play / Pause
※ Provides the same operation as the ► II button on the iPod.



RANDOM:
Switching the shuffle mode

REPEAT:
Switching the repeat mode

CALL:
Switching between Browse and Remote modes

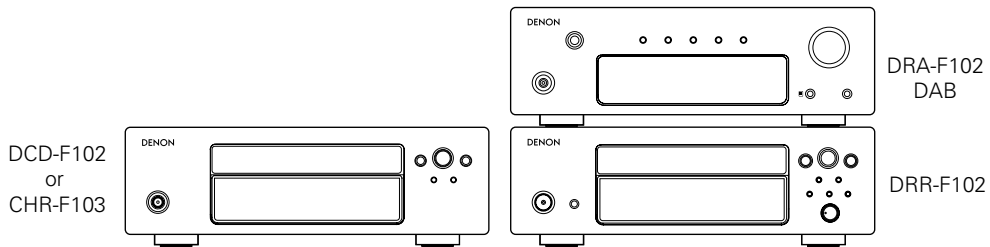


- Use the separately sold Control dock for iPod (ASD-1R) to connect an iPod to the DRA-F102 DAB (page 10).
- iPod playback modes include the browse mode and the remote mode. See "Playing an iPod®" (page 19) for details.

Getting Started

Recommended system layout

To ensure performance and safety, it is recommended to arrange the components as shown below when connecting to models in the F102 series.



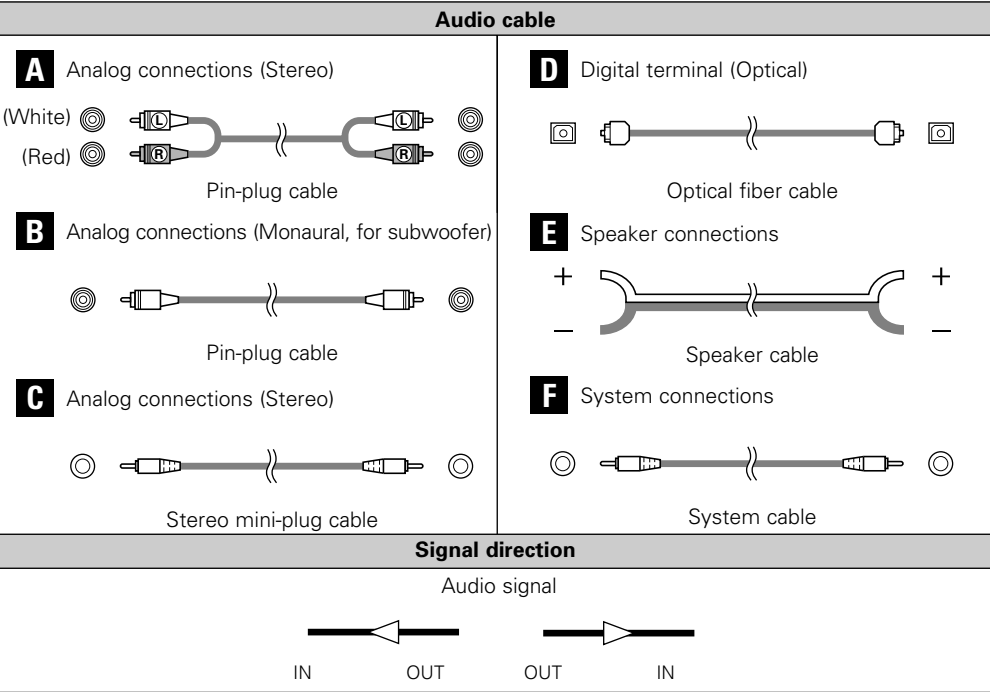
- NOTE:**
- Arrange in such a way that the receiver's ventilation holes are not obstructed so that the heat can dissipate.
 - Do not place other components directly on top of the receiver.
 - To ensure safety, do not make stacks of more than three components.

Connections



- NOTE:**
- Do not plug in the power supply cord until all connections have been completed.
 - When making connections, also refer to the operating instructions of the other components.
 - Be sure to connect the left and right channels properly (left with left, right with right).
 - Do not bundle power supply cords together with speaker cables. Doing so could result in humming or noise.
 - Making connections with the power turned on could result in noise or damage the speakers.
 - Bunching the power supply cords and connection cables together could result in humming or noise.
 - Connect all the connection cables between the different components firmly. The system may not operate properly if the connections are incomplete.
 - Be sure to disconnect the power supply cords when changing the connections. Changing the connections while the system is operating could result in malfunction.
 - Plug the power cords of devices that are used connected to the DRA-F102 DAB into the DRA-F102 DAB's AC outlets. Do not use the outlets for hairdryers or other non-audio devices.
 - Do not turn up the volume when no turntable is connected to the PHONO input terminals. Doing so will cause humming or noise.

Cable indications

Connect using the connection cables shown below.



Connections [System connections]

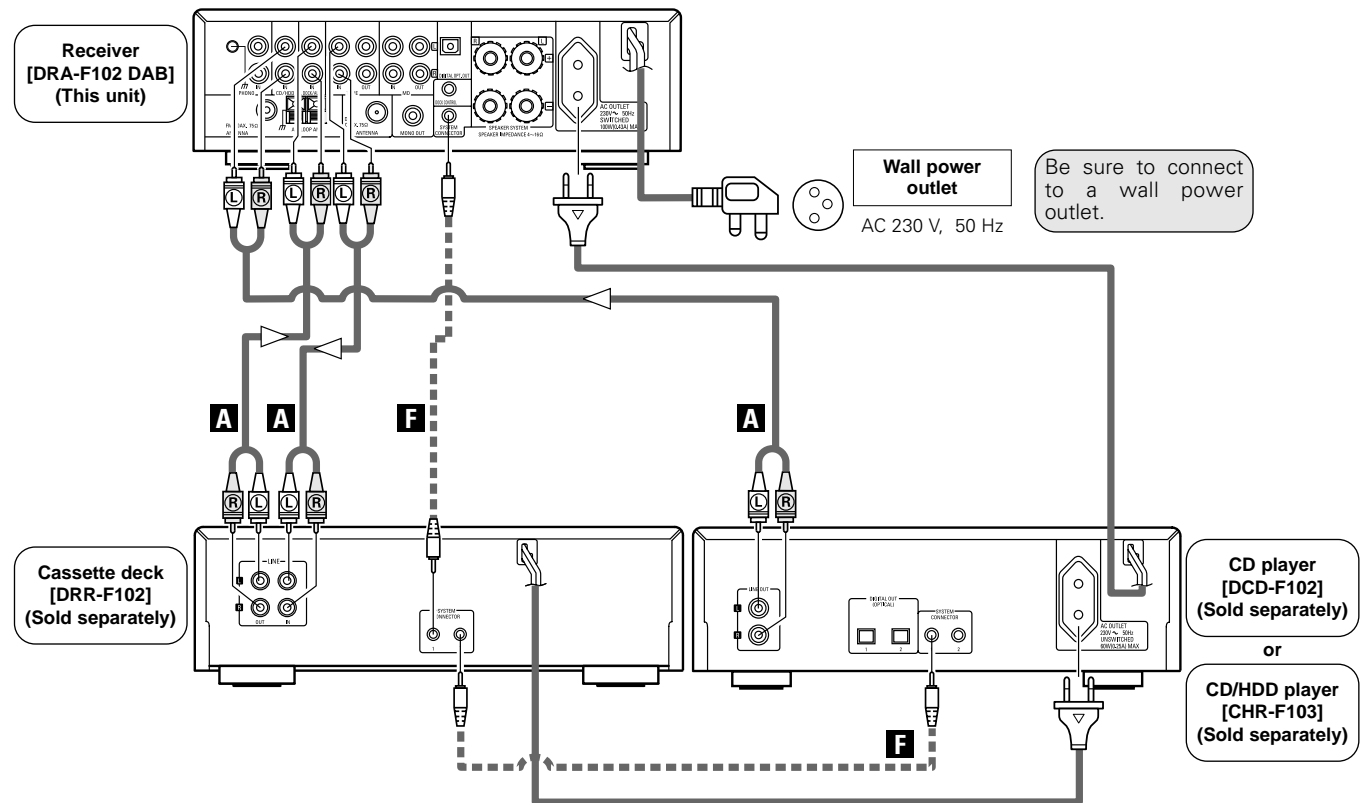
System operations can be performed when components in the F102 series are connected using a system cable (**F**  on the diagram at the right) ( page 20).



- All of the system operations are controlled from the DRA-F102 DAB.
- It is also possible to connect devices other than F102 series components. In this case, however, system operations cannot be performed.

NOTE:

- The maximum total power consumption of devices connected to the DRA-F102 DAB's AC outlets is 100 W (0.43 A). Do not connect devices with power consumptions greater than 100 W (0.43 A).
- The power supply to the devices connected to the DRA-F102 DAB's AC outlets turns on and off together with the DRA-F102 DAB's power switch.
- When in the standby mode other than when the time is displayed, no power is supplied from the AC outlets.
- Connection cords are not included with the DRA-F102. To connect, use the connection cords included with the devices being connected.



Speaker connections

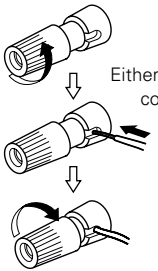
Connect the speaker terminals with the speakers making sure that like polarities are matched (⊕ with ⊕, ⊖ with ⊖).

NOTE:
When making connections, take care that none of the individual conductors of the speaker cable come in contact with adjacent terminals, with other speaker cable conductors, or with the rear panel and screws.
NEVER touch the speaker terminals when the power is on. Doing so could result in electric shocks.

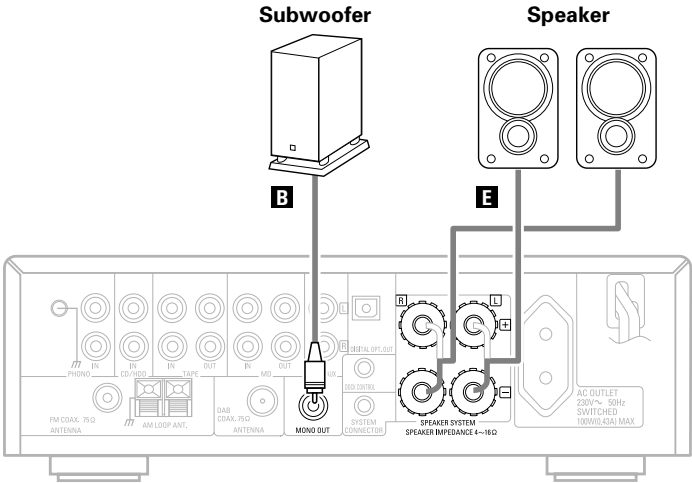
Speaker impedance
Use speakers with an impedance of 4 to 16 Ω/ohms.

Note on speaker impedance
When using speakers with an impedance below the designated value (for example 3 Ω/ohms), playing for long periods of time with the volume high could cause the temperature to rise, activating the protection circuit. When the protection circuit is activated, the output to the speakers is cut off and the power indicator blinks. If this happens, unplug the power cord, wait for the set to cool off and improve ventilation around the unit. Also check the wiring of the input cables and the speaker cables. After doing this, plug the power cord back in and turn the unit's power back on. If the protection circuit is activated again even though there are no problems with the wiring or the ventilation around the unit, switch off the power and contact a DENON service center.

Connecting the speaker cables



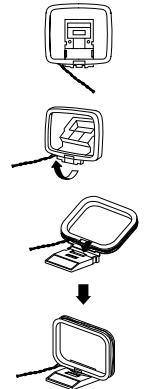
1. Loosen by turning counterclockwise.
2. Insert the cable.
Either tightly twist or terminate the core wires.
3. Tighten by turning clockwise.



- When using an SC-F102/F103 (sold separately), we recommend using the DRA-F102 DAB's optimised filter (see page 23).

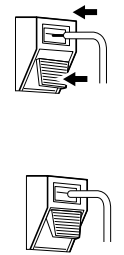
Connecting the included antennas

Assembling the AM loop antenna



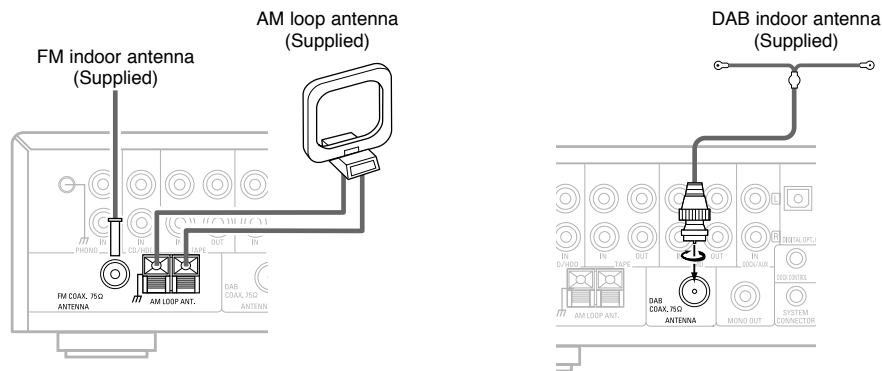
1. Remove.
2. Bend.
3. Insert in holes.

Connecting the AM loop antenna



1. Insert the antenna wire while pressing the lever.
2. Release the lever to fasten the antenna wire in place.


Connections



□ Installing the antenna

- ① Tuning in a broadcast (see page 12).
- ② Listening to the sound, move the antenna to find the position in which there is less noise.
- ③ Install the antenna.
 - Fasten the tip of the antenna using tape, etc.

NOTE:

- The DRA-F102 DAB's ground terminal () is the ground for the AM loop antenna. It is not a safety ground.
- It is not possible to achieve good reception for AM broadcasts if the AM loop antenna is placed near a metallic object.

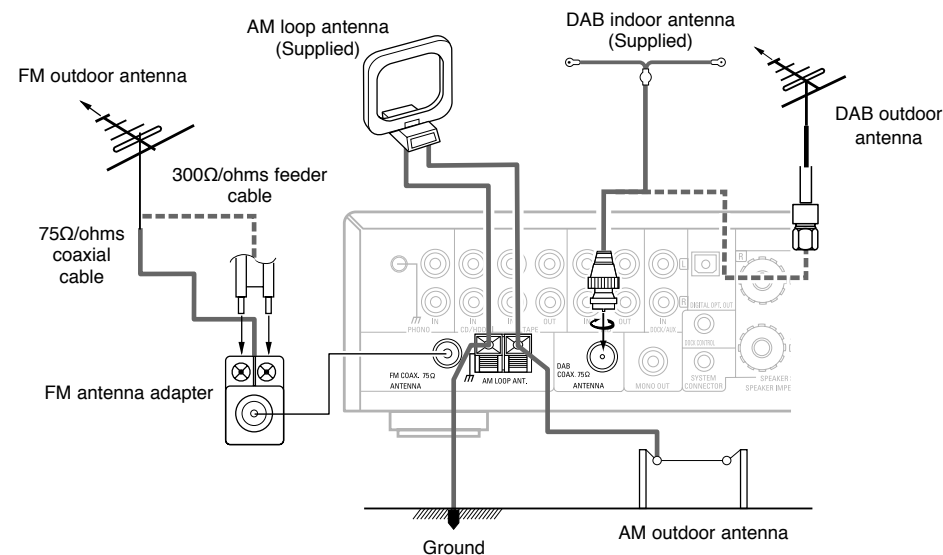
□ Installing the DAB indoor antenna

Find the position at which the reception sensitivity is best using the "Tuning Aid" function, then secure the tip of the DAB antenna in this position using a pin.

Connections

Connecting an outdoor antenna

In some cases better reception can be achieved by using an outdoor antenna.



□ Where to install the outdoor antenna

- Place the antenna in the position in which reception is the best.
- Place away from streets or railroad tracks to avoid the influence of cars or trains.

NOTE:

- Do not place under power transmission lines. Doing so is extremely dangerous.
- To avoid attracting lightning, do not place in too high a position.
- Connecting the ground wire to a gas pipe is extremely dangerous. Never do so under any circumstances.


□ Connecting the FM outdoor antenna

- We recommend using a 75 Ω/ohms coaxial cable to avoid interference from other equipment.
- Be sure to disconnect the included FM antenna.



- Use an FM antenna adapter (commercially available) suited for the DRA-F102 DAB's antenna terminal.
- Refer to the FM antenna adapter's operating instructions for instructions on connecting the antenna cable to the FM antenna adapter.

□ Connecting an AM outdoor antenna

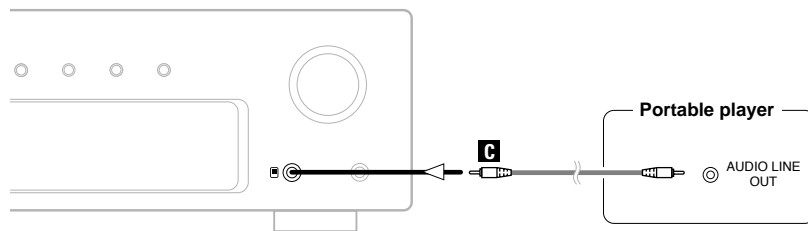
- Be sure to connect the ground wire to the ground terminal ().
- Be sure to also connect the included AM loop antenna.

□ Connecting an DAB outdoor antenna

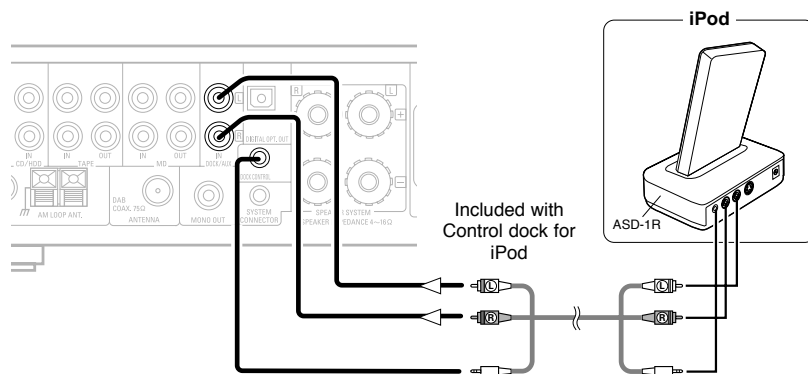
If good reception cannot be achieved with the included DAB indoor antenna, use an DAB outdoor antenna. Connect an F male type connector to the coaxial cable and connect the antenna to the DAB COAX. 75 Ω/ohms terminal.

Connections to devices other than those in the F102 series

Connecting a portable player



Connecting an iPod®

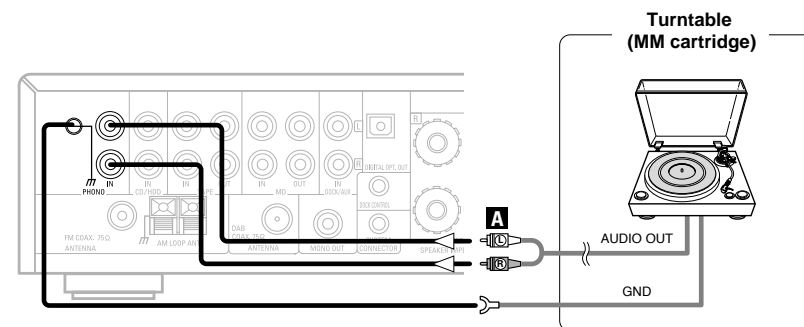


- Use the separately sold Control dock for iPod (ASD-1R) to connect an iPod to the DRA-F102 DAB.
- When connecting an exclusive Control dock for iPod (sold separately), use the system cable included with the exclusive Control dock for iPod.
- When an Control Dock for iPod is connected, the function indicator switches from "AUX" to "iPod".



iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

Connecting a turntable

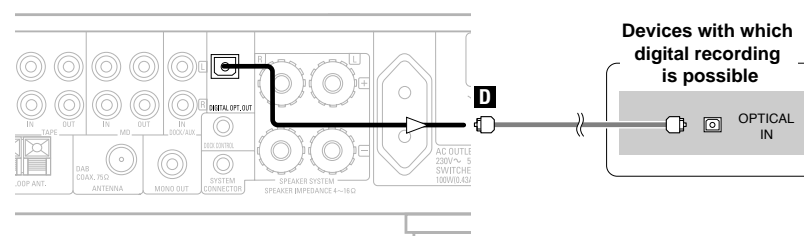


- If connecting the ground wire causes noise, disconnect it. For instructions on connecting the ground wire, refer to the operating instructions included with the turntable.

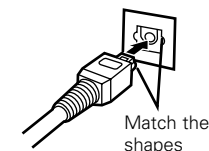
NOTE:

- The DRA-F102 DAB's ground terminal () is not a safety ground.

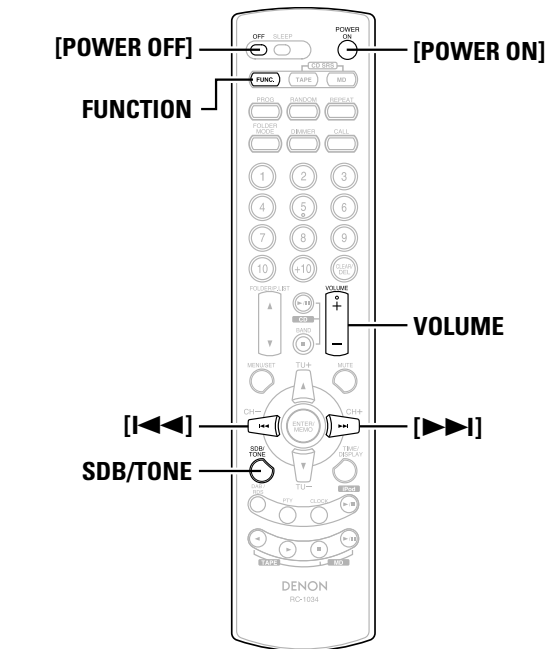
Connection to devices allowing digital recording



- ☐ When connecting the OPTICAL digital output connector with an optical transmission cable (commercially available)



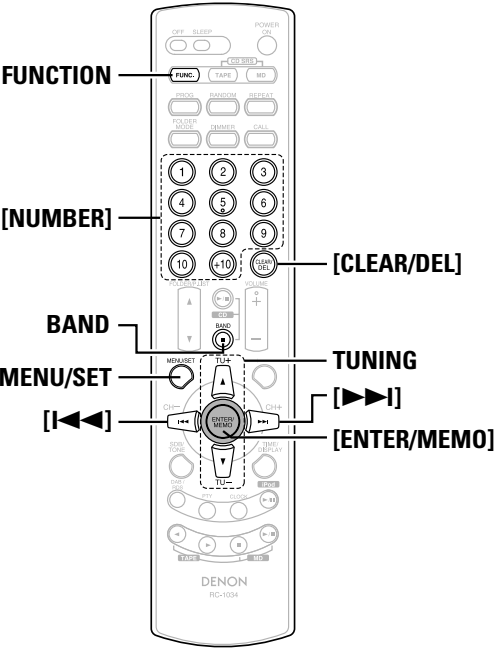
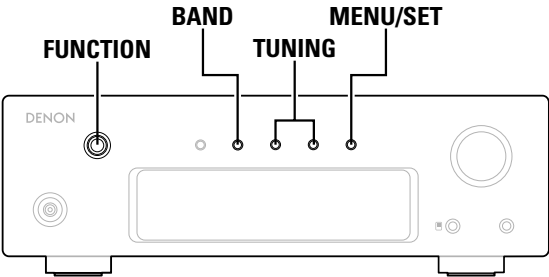
Match the shapes then insert firmly all the way in.



< > : Buttons on the main unit
[] : Buttons on the remote control unit

Button name only :
Buttons on the main unit and remote control unit

11



About the button names in this explanation

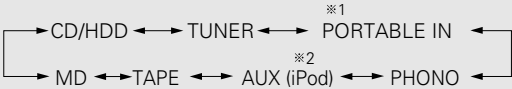
- < > : Buttons on the main unit
- [] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Recording

1 Use FUNCTION to select the function for the source to be recorded.



- The function can be selected by turning <FUNCTION> clockwise or counterclockwise.

- *1 "PORTABLE IN" can only be selected when a portable player is connected.
- *2 "iPod" is displayed instead of "AUX" when an Control Dock for iPod is connected.

2 Set the cassette deck to the recording mode.

- * For instructions, see the recorder's operating instructions.

3 Start playing the source.

- * For instructions on operating, see the player's operating instructions.

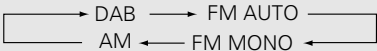


- Adjusting the volume or tone does not affect the sound being recorded.

Selecting a radio station

1 Use FUNCTION to select "TUNER".
• The reception frequency is displayed.

2 Use BAND to select the reception band.



3 Use TUNING to tune in the station.

- The "TUNED" indicator lights when a station is tuned in.

☐ **FM station reception conditions**

- The "ST" indicator lights when a stereo broadcast is tuned in. (When the reception band mode is set to "FM AUTO".)
- If the signal is weak and the stereo broadcast reception is not stable, set the reception band mode is set to "FM MONO". The "MONO" indicator lights.

☐ **Auto tuning**

If one of **TUNING** is pressed and held in, the next station is searched for automatically. Stations cannot be tuned in if their signal is weak.

☐ **To stop auto tuning**

Press one of **TUNING**.

☐ **Manual tuning**

The reception frequency changes one step each time one of **TUNING** is pressed.



- Noise may be produced in the sound when receiving AM broadcasts if there is a TV or other such device nearby. If so, move the DRA-F102 DAB and TV as far apart as possible.

Giving a name to the currently tuned in broadcast station and presetting it

- A total of 40 FM and AM broadcast stations combined can be preset.
- Preset stations can be given names of up to 8 characters.

1 Tune in the broadcast station (☞ page 12).

- The reception frequency is displayed.

2 Press MENU/SET three times.

- The name input mode is set.

3 Use [◀◀] or [▶▶] to select the desired character.

- ※ Up to 8 characters can be input.
The characters that can be input are as shown below.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0	1	2	3	4	5	6	7	8	9																
^	'	(*	+	,	-	.	/	=	(space)															

- ※ Use **TUNING** to move the cursor.
- ※ Press **[CLEAR/DEL]** to delete characters.

4 Press [ENTER/MEMO].

6 Use [◀◀] or [▶▶] to select the preset number, then press [ENTER/MEMO].

- The reception frequency and reception mode are preset.

☐ To change the name of a preset station:

- ① Call out the station whose name you want to change, then press **MENU/SET** three times.
- ② Perform step **3, 4** under “Giving a name to the currently tuned in broadcast station and presetting it”.

☐ To only preset the station:

- ① Press **[ENTER/MEMO]** while the station is tuned in.
The “MEMO” indicator flashes.
- ② Perform step **5** under “Giving a name to the currently tuned in broadcast station and presetting it”.

NOTE:

- If a station is preset at a number where a station has already been preset, the old setting is deleted and replaced with the new setting.

Presetting broadcast stations automatically (Auto preset)

1 Use FUNCTION to select “TUNER”.

- The reception frequency is displayed.

2 Press and hold MENU/SET.

- “AUTO PRESET” is displayed

3 Press MENU/SET.

- Broadcast stations are preset automatically.



- Broadcast stations whose signals are weak cannot be preset automatically. To preset them, tune them in manually, then follow the operation described at “Giving a name to the currently tuned in broadcast station and presetting it”.

Listening to preset broadcast stations

Example: To listen to the FM station preset at preset number 3.

Press [3] (Number).

- Preset number “3” is displayed.

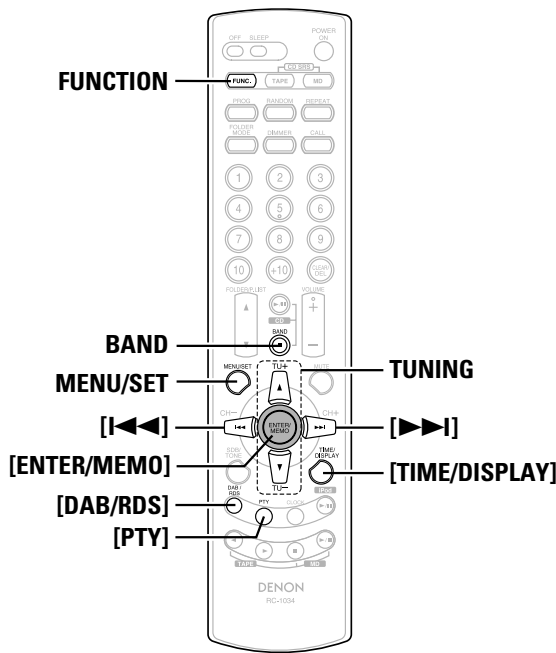
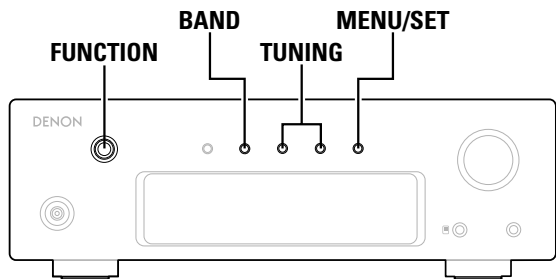
- ※ For track numbers 1 to 10, press the corresponding button ([1] to [10]).

For track numbers 10 and on, first press **[+10]** then press buttons **[1]** to **[10]**.

Example: Track 12 : **[+10] [2]**.

Example: Track 20 : **[+10] [10]**.

- ※ The preset number can also be chosen using **[◀◀]** or **[▶▶]**.



About the button names in this explanation

- < > : Buttons on the main unit
- [] : Buttons on the remote control unit

Button name only :
Buttons on the main unit and remote control unit

RDS (Radio Data System)

RDS (works only on the FM band) is a broadcasting service which allows station to send additional information along with the regular radio program signal.

☐ **Program Type (PTY)**

PTY identifies the type of RDS program.

NEWS	News	WEATHER	Weather
AFFAIRS	Current Affairs	FINANCE	Finance
INFO	Information	CHILDREN	Children's Programs
SPORT	Sports	SOCIAL	Social Affairs
EDUCATE	Education	RELIGION	Religion
DRAMA	Drama	PHONE IN	Phone In
CULTURE	Culture	TRAVEL	Travel
SCIENCE	Science	LEISURE	Leisure
VARIED	Varied	JAZZ	Jazz Music
POP M	Pop Music	COUNTRY	Country Music
ROCK M	Rock Music	NATION M	National Music
EASY M	Easy Listening	OLDIES	Oldies Music
LIGHT M	Light Classical	FOLK M	Folk Music
CLASSICS	Serious Classical	DOCUMENT	Documentary
OTHER M	Other Music		

☐ **Traffic Program (TP)**

TP identifies programs that carry traffic announcements.

☐ **Radio Text (RT)**

RT allows the RDS station to send text messages that appear on the display.

NOTE:

- The operations described below pressing [DAB/RDS] will not function in areas in which there are no RDS broadcasts.

RDS search

1 Use **BAND** to select "FM AUTO".

2 Press [DAB/RDS].

3 Press **TUNING**.

- Automatically begin the RDS search operation.

※ If no RDS station is found, "NO PROGRAM" is displayed.

PTY search

1 Use **BAND** to select "FM AUTO".

2 Press [DAB/RDS] twice.

3 Use [PTY] to select the type of program.

4 Press **TUNING**.

- Automatically begin the PTY search operation.

※ If no program of the specified type is found, "NO PROGRAM" is displayed.

TP search

1 Use **BAND** to select "FM AUTO".

2 Press [DAB/RDS] three times.

3 Press **TUNING**.

- Automatically begin the TP search operation.

※ "NO PROGRAM" is displayed when there is no traffic information broadcast station.

RT (Radio Text)

Press **[TIME/DISPLAY]** until “Radio Text” scrolls on the display.

※ When the station currently tuned in is offering a radio text message service, the message scrolls on the display.

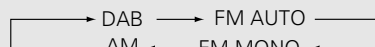


- When the RT mode is turned on while an RDS radio station not offering an RT service is tuned in, “NO TEXT” is displayed on the display, then the mode automatically switches to the PS mode.
- In the same way, the mode automatically switches to the PS mode when the RT service is finished. In this case, the mode automatically switches from the PS mode back to the RT mode when an RT broadcast is resumed.
- The RT mode cannot be set in the AM band or for FM stations not offering RDS broadcasts.
- To turn the RT mode off, use **[TIME/DISPLAY]** and switch to the desired display mode.

Listening to DAB stations**Tuning in DAB stations**

- 1 Use FUNCTION to select “TUNER”.**
 - The reception frequency is displayed.

- 2 Use BAND to select “DAB”.**



- 3 Press and hold MENU/SET.**
 - The DAB menu is displayed.

- 4 Use [◀◀] or [▶▶] to select “AUTO SCAN”, then press MENU/SET.**
 - The first time this operation is performed, the set automatically starts scanning the radio stations.

※ Once auto scanning is completed, the number of stations is displayed and the first station is tuned in.

- 5 Use TUNING to select the desired broadcast station.**

- ※ The broadcast stations are displayed in the order in which they were scanned.
- ※ The **[DAB/RDS]** can be used to resort the stations in alphabetical order.

☐ **To select the auto scan range:**

- ① Press **MENU/SET** and hold it in for at least 2 seconds while in the standby mode.
“DAB SCAN AREA” is displayed.
- ② Use **[◀◀]** and **[▶▶]** to select the auto scan range. (ALL BAND III: 5A to 13F, UK ONLY: 11B to 12D)

☐ **To delete the auto scanned stations:**

“DAB SCAN AREA” is displayed.
At step 4 select “DAB INITIALIZE”.



- If “NO STATION” is displayed when auto scanning finishes, check the antenna’s connection (🔧 page 9).

Presetting the currently tuned in station

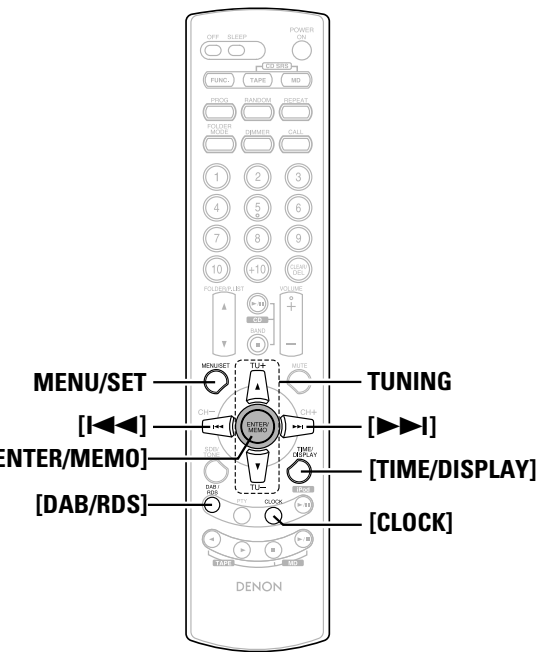
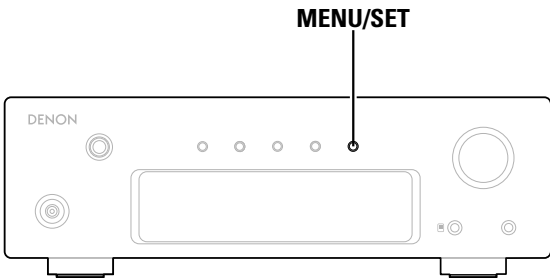
Up to 60 DAB stations can be preset.

- 1 Perform steps 1 to 5 under “Tuning in DAB stations” to tune in the station you want to preset.**

- 2 Press [ENTER/MEMO].**
 - The preset number display flashes.

- 3 Use the [◀◀] or [▶▶] to select the number at which the station is to be preset, then press the [ENTER/MEMO].**

- ☐ **To call out a preset station:**
Press **[◀◀]** or **[▶▶]**.



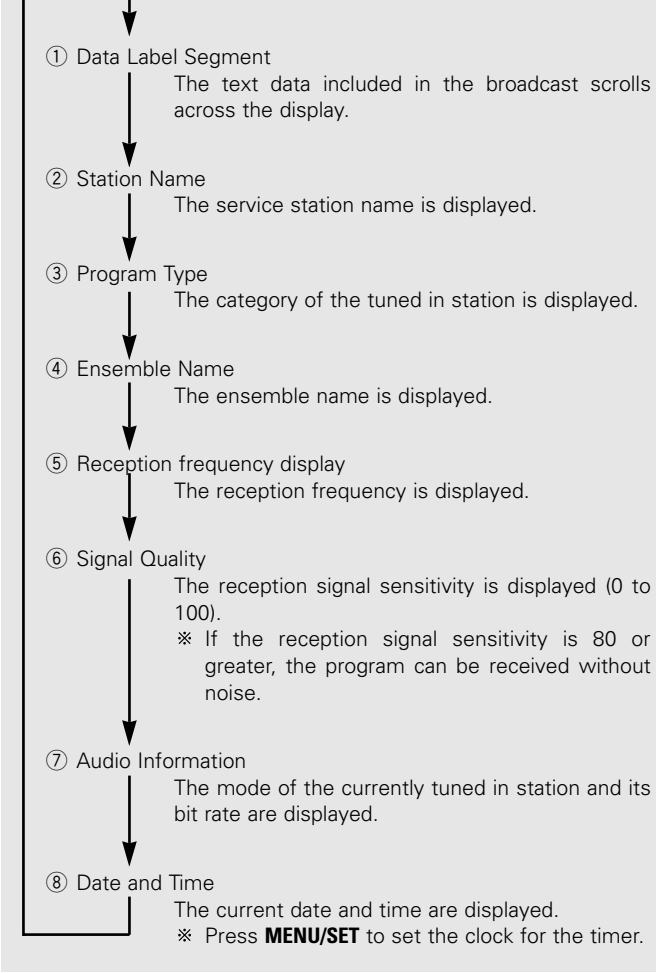
About the button names in this explanation
< > : Buttons on the main unit
[] : Buttons on the remote control unit
Button name only :
Buttons on the main unit and remote control unit

Switching the reception information for the currently tuned in DAB station

1 Perform steps **1** to **5** under “Tuning in DAB stations” to tune in a DAB station.

2 Press **[TIME/DISPLAY]**.

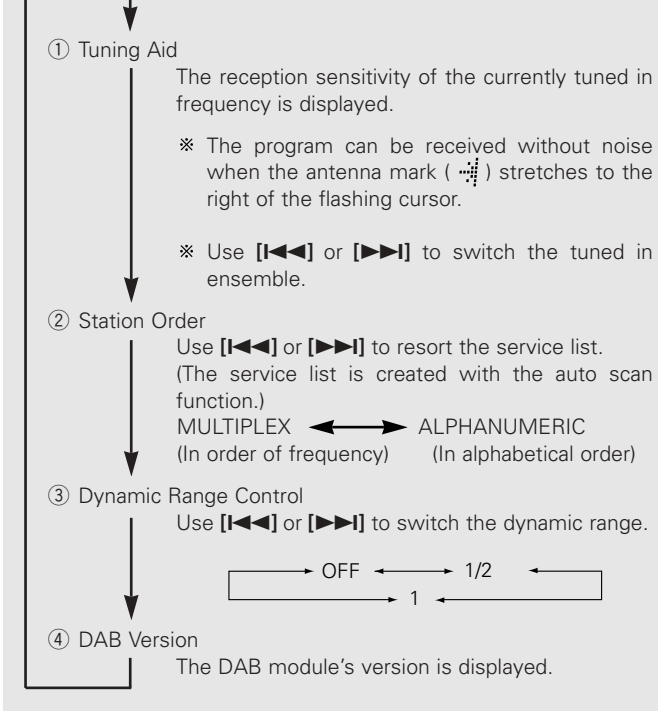
※ The display switches as shown below each time the button is pressed.



Making the DAB settings

Press **[DAB/RDS]**.

※ The display switches as shown below each time the button is pressed.



Setting the current time

The DRA-F102 DAB's clock displays the time in the 24-hour mode

Example: To set the current time to "19:30"

1 Press **[CLOCK]**.

2 Press and hold **MENU/SET**.

- "TIME Adj" is displayed.
- The hour's display flashes.

3 Use **[◀◀]** or **[▶▶]** to set the hours to "19".

- "19" flashes.

4 Press **MENU/SET**.

- The minute's display flashes.

5 Use **[◀◀]** or **[▶▶]** to set the minutes to "30".

- "30" flashes.

6 Press **MENU/SET** simultaneously with the tone of a time casting, etc.

- "TIME Adj" turns off.
- The current time is displayed.



- If **MENU/SET** is pressed before the time is set, the time setting mode is set.
- If the current time has been set, it can be displayed by pressing **[CLOCK]**.
- In the standby mode, the current time can also be displayed by pressing **[MENU/SET]**.

NOTE:

- The time cannot be set when in the standby mode. Turn on the power first.

Using the timer function

Before setting the timer

Types of timers

The DRA-F102 DAB has three timer functions.

- ① Everyday timer:
Use this to play or record at the set time every day.
- ② Once timer:
Use this to play or record once only at the set time.
- ③ Sleep timer:
Use this to turn off the power after up to 90 minutes, set in intervals of 10 minutes.

Order of priority for the timers

- If the times set for the three timers overlap, the sleep timer has priority.
- If the times set for the everyday and once timers overlap, the once timer has priority.

If there is a power cut

- The current time setting is canceled. Turn the power on and reset the current time.
- The timer settings are cleared. Set the timer again.
- The tuner's presettings may be cleared. If so, perform the presetting procedure again.

Setting the everyday or once timer

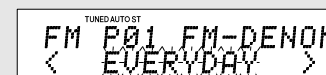
- Be sure to set the current time first.
- To use the timer function to listen to AM or FM broadcasts, be sure to preset the desired station first (▶ page 13).

Example: Listening to preset number "3" with the everyday timer

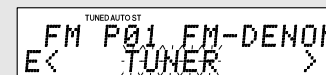
1 Press **MENU/SET** once.

- "TIMER" flashes.

2 Use **[◀◀]** or **[▶▶]** to select "EVERYDAY", then press **MENU/SET**.



3 Use **[◀◀]** or **[▶▶]** to select "TUNER", then press **MENU/SET**.

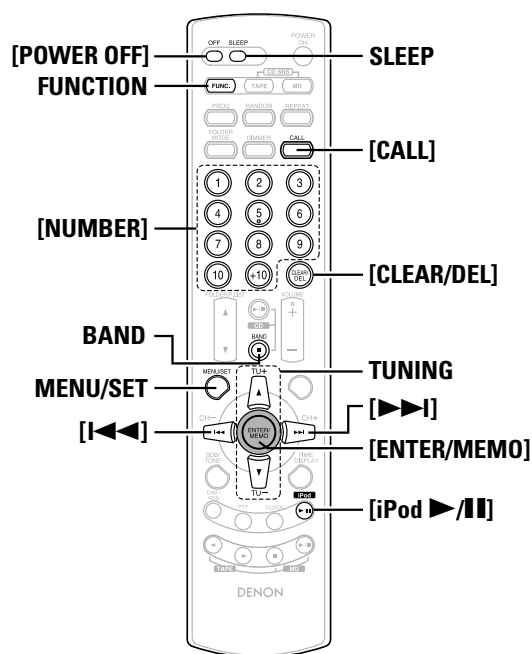
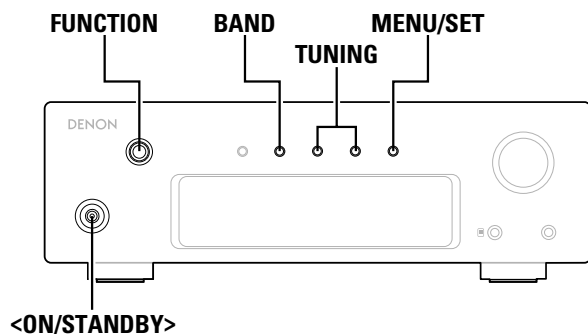


4 Use **[◀◀]** or **[▶▶]** to select preset number "3", then press **MENU/SET**.

- The presettings are stored in the memory.

5 Perform steps 3 to 5 under "Setting the current time" to set the timer start time.

6 Perform steps 3 to 5 under "Setting the current time" to set the timer stop time.

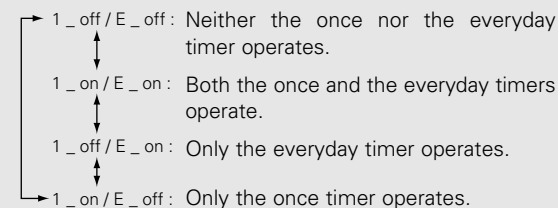


Operation of the everyday and once timers

After setting the timer at "Setting the everyday or once timer" (page 17, 18), select the timer(s) you want to operate.

- 1 Press MENU/SET twice.**
 - The current settings are displayed.

- 2 Use [I<<<] or [I>>>] to select the timer(s) you want to operate.**



※ If only the everyday timer is set, the display switches as follows when [I<<<] or [I>>>] is pressed.

1_off / E_on ↔ 1_off / E_off

※ If only the once timer is set, the display switches as follows when [I<<<] or [I>>>] is pressed.

1_off / E_off ↔ 1_on / E_off

- 3 Press MENU/SET repeatedly until the menu display turns off.**

- ☐ **If you do not want the timer to operate:**
Use [I<<<] or [I>>>] to turn off the timer standby indicator "⌚".

- 7 Use [I<<<] or [I>>>] to select "1_off / E_on", then press MENU/SET.**

• The timer standby indicator "⌚" lights. The time is now set.

※ For details, see "Operation of the everyday and once timers".

- 8 Press <ON/STANDBY> or [POWER OFF].**

• The power is set to the standby mode and the power indicator lights orange.

※ When the timer start time is reached, the timer operates.

☐ If you make a mistake while setting the timer:

- ① Press **BAND** at any step from **3 ~ 6**.
- ② Use **MENU/SET** to select the item you want to correct, then make the correct setting.
- ③ Use **MENU/SET** to proceed to step **7**.

☐ To check the timer settings:

- ① Perform steps **1** and **2** on page 17.
- ② Press **MENU/SET** repeatedly.

☐ To change the timer settings:

Perform steps **1 ~ 8** at the left to change the settings as desired. The timer settings change to the new settings.

※ To change a setting while still in the timer setting mode, press **BAND** then perform steps **3 ~ 8** at on page 17 and above.

☐ To delete the timer settings:

- ① Perform steps **1** and **2** on page 17.
- ② Press and hold **BAND** while "EVERYDAY" or "ONCE" is displayed.

☐ To stop the timer setting:

Select "1_off/E_off" at step **2** under "Operation of the everyday and once timers".

NOTE:

- If the current time is not set, the timer standby indicator "⌚" will not light.
- When the timer is set, the timer standby indicator "⌚" lights.
- Be sure to set the power to the standby mode when you want the timer to operate.

About the button names in this explanation

< > : Buttons on the main unit

[] : Buttons on the remote control unit

Button name only :

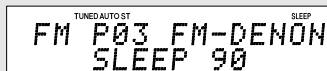
Buttons on the main unit and remote control unit

Setting the sleep timer

Example: Setting so that the power turns off in 80 minutes.

1 Press [SLEEP] during playback.

- The "SLEEP" indicator flashes.



2 Press [SLEEP] repeatedly while the "SLEEP" indicator is flashing to select "80".

- The "SLEEP" indicator stops flashing, remaining lit, after about 5 seconds.

※ The power is set to the standby mode after 80 minutes.

❑ Canceling the sleep timer :

Press [SLEEP] repeatedly to select "OFF".



- The remaining time is displayed when [SLEEP] is pressed while the sleep timer is operating.
- If [SLEEP] is pressed while the remaining time is displayed, "OFF" is selected. Reset the timer as desired.

Setting the low-power standby mode

Setting the time display time in the standby mode

1 Use MENU/SET to select "TIME DISPLAY".

2 Use [◀◀] or [▶▶] to set.

10 SEC (Factory default):

The display automatically turns off after approximately 10 seconds.

CONTINUE:

Displayed continuously.

3 Press MENU/SET repeatedly until the menu display turns off.

Low-power standby mode (Eco mode)

1 Use MENU/SET to select "ECO MODE".

2 Use [◀◀] or [▶▶] to set.

ON (Factory default):

Low-power standby mode.

OFF:

Normal mode.

※ See page 11 for information on the power indicator.

3 Press MENU/SET repeatedly until the menu display turns off.

Playing an iPod®

The music on an iPod can be played by using the Control Dock for iPod (ASD-1R, sold separately).

For details on the Control Dock for iPod, inquire at your store of purchase or a DENON customer service center.

NOTE:

- The iPod may be used to copy or play contents that are not copyrighted or contents for which copying or playback is legally permitted for your private use as an individual. It is illegal to violate copyrights.

1 Connect the Control Dock for iPod (ASD-1R, sold separately) and DRA-F102 DAB (see page 10).

2 Use FUNCTION to select "iPod".

3 Use [CALL] to select the play mode.

Browse mode ↔ Remote mode

Browse mode:

The menu and information on the tracks is indicated on the DRA-F102 DAB's display.
("DENON" is displayed on the iPod display.)

Remote mode:

The menu and information on the tracks is indicated on the iPod's display.
("Remote iPod" is displayed on the display of the main unit.)

※ Select the remote mode to enjoy iPod video information such as slide shows and videos.

4 Press [iPod ▶/II].

※ For remote control unit buttons that can be operated when the function is set to "iPod", see page 5.

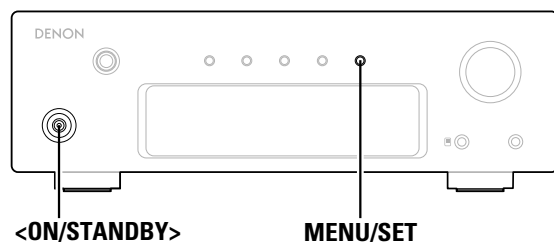
NOTE:

- DENON will accept no responsibility whatsoever for loss of iPod data when using an iPod connected to the DRA-F102 DAB.
- Depending on the type of iPod or the software version, some functions may not operate.

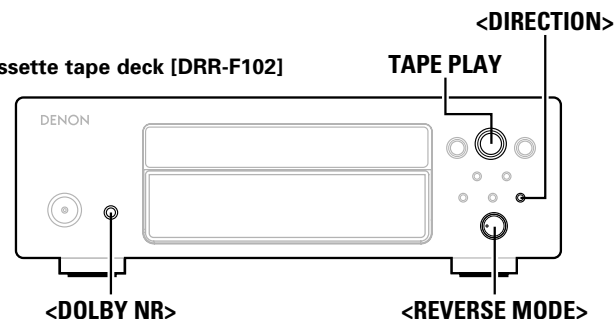
Make system connections using the system cables (👉 page 7).



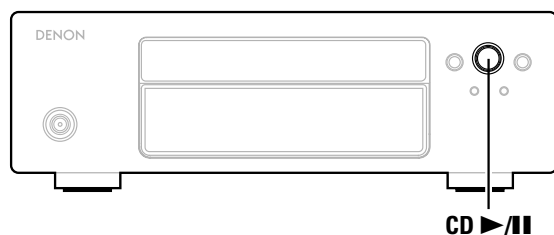
- This unit [DRA-F102 DAB]**



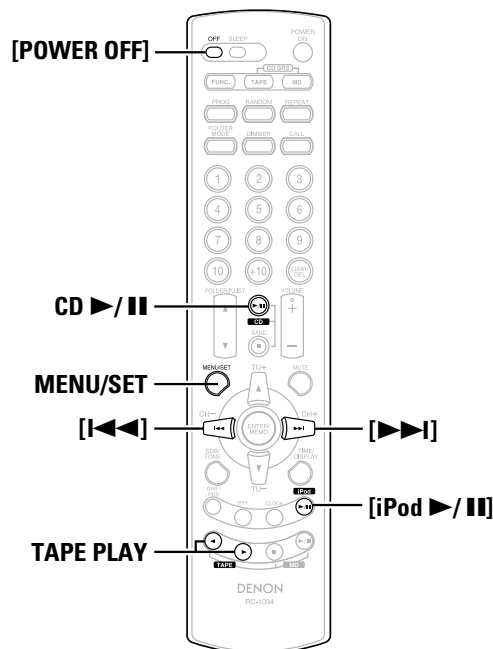
Cassette tape deck [DRR-F102]



CD player [DCD-F102] or CD/ HDD player [CHR-F103]



System remote control unit [RC-1034]



Buttons on the main unit and remote control unit

- The power to the corresponding device turns on and the DRA-F102 DAB's function switches automatically.
- If a disc or cassette deck is loaded in the corresponding device, playback starts.

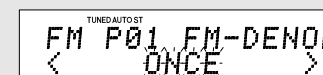
- Playback stops.
- The DRA-F102 DAB's function switches automatically and playback starts.

- Sources can be played or recorded at set times using the DRA-F102 DAB's timer function.
- Be sure to set the current time first (👉 page 17).
- To use the timer function to listen to AM or FM broadcasts, be sure to preset the desired station first (👉 page 13).
- For details, see pages 17 ~ 19.

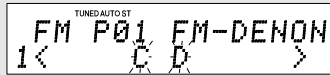
Example: Listening to a CD using the once timer
Load the CD you want to play beforehand.

- 1** Press **MENU/SET** once.
- "TIMER" flashes.

- 2** Use [◀◀] or [▶▶] to select “ONCE”, then press **MENU/SET**.



- 3** Use [◀◀] or [▶▶] to select “CD”, then press **MENU/SET**.



- 4** Perform steps **3 ~ 5** under “Setting the current time” (☞ page 17) to set the timer start time.

- 5** Perform steps **3 ~ 5** under “Setting the current time” (☞ page 17) to set the timer stop time.

- 6** Use [◀◀] or [▶▶] to select “1_on / E_off”, then press **MENU/SET**.

- The timer standby indicator “⏻” lights.
The time is now set.

※ For details, see “Operation of the everyday and once timers” (☞ page 18).

- 7** Press **<ON/STANDBY>** or **[POWER OFF]**.

- The power is set to the standby mode and the DRA-F102 DAB's power indicator lights orange.

※ When the timer start time is reached, playback starts from the first track on the CD.

NOTE:

- If the current time is not set, the timer standby indicator “⏻” will not light.
- When the timer is set, the timer standby indicator “⏻” lights.
- Be sure to set the power to the standby mode when you want the timer to operate.

Conducting timer recording

Example: Recording a radio program onto a cassette tape
Load the cassette tape onto which you want to record beforehand.

※ Be sure to load the cassette tape with the side onto which you want to record at the top.

- 1** Use **<REVERSE MODE>** to switch the desired reverse mode.

- 2** Use **<DOLBY NR>** as desired to select the Dolby Noise Reduction system.

- 3** Use **<DIRECTION>** to select the direction of playback/recording.

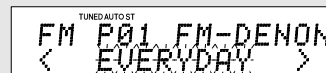
- 4** Adjust the recording level and set the recording mode.

※ For details, refer to the cassette deck's operating instructions.

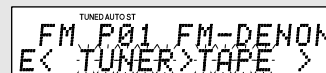
- 5** Press **MENU/SET** once.

- “TIMER” flashes.

- 6** Use [◀◀] or [▶▶] to select “EVERYDAY” or “ONCE”, then press **MENU/SET**.



- 7** Use [◀◀] or [▶▶] to select “TUNER → TAPE”, then press **MENU/SET**.



- 8** Perform steps **4 ~ 8** under “Setting the everyday or once timer” (☞ page 17, 18).

※ When the timer start time is reached, recording starts.

NOTE:

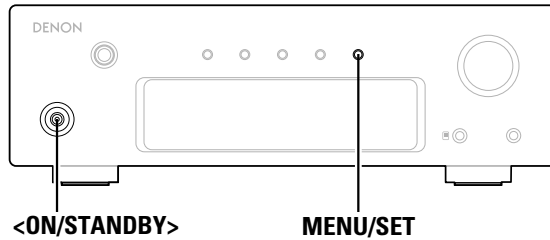
- No signals can be recorded on the leader tape at the beginning of the cassette tape. To avoid missing the beginning, we recommend setting the timer to start recording about 1 minute before the program is scheduled to start.
- To conduct normal recording, turn off the timer standby indicator “⏻”.

CD synchronized recording/ Synchronized recording function

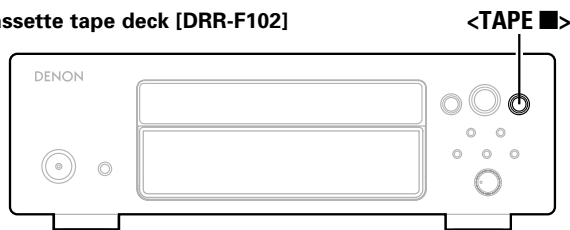
This function lets you easily record the tracks from a CD onto a cassette tape.

For instructions on operations, refer to the operating instructions included with the cassette deck.

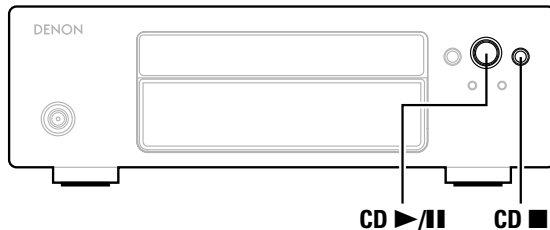
This unit [DRA-F102 DAB]



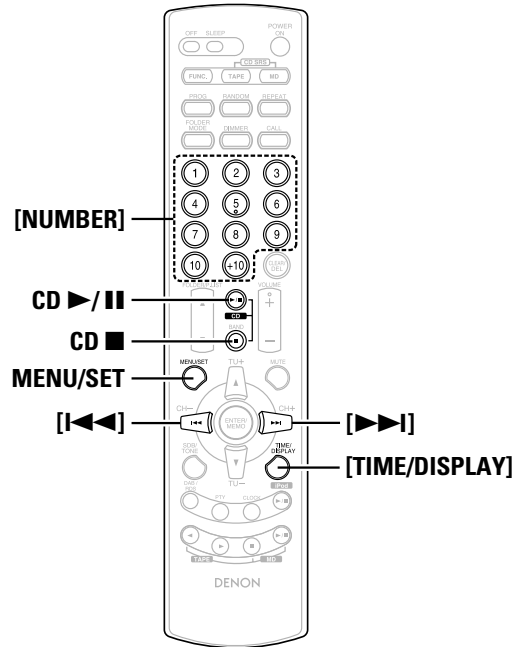
Cassette tape deck [DRR-F102]



CD player [DCD-F102] or CD/ HDD player [CHR-F103]



System remote control unit [RC-1034]



About the button names in this explanation

- < > : Buttons on the main unit
[] : Buttons on the remote control unit

Button name only :

Buttons on the main unit and remote control unit

Edit function

- This function lets you record onto cassette tapes with automatic editing according to the length of the tape.
- Load the CD and cassette tape before starting.

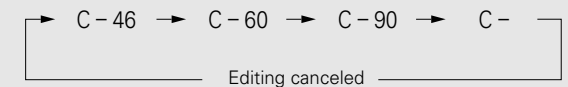
1 Turn on the power of the various components.

2 Press MENU/SET three times in a row.

- "EDIT" is displayed .

3 Use [I>>I] to set the length of the cassette tape.

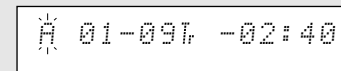
Example: To record onto a 60-minute cassette tape, use [I>>I] to select "C-60".



Editing canceled

(The length of the cassette tape is the total length for sides A and B.)

- When the length of the cassette tape is set, the display alternates between the track numbers to be recorded and the remaining time for side A and the track numbers to be recorded and the remaining time for side B.



Track number Remaining time

4 Press CD >II.

- Recording of the CD starts.

Setting a specific cassette tape length:

When "C -" is displayed, use [NUMBER] (1 ~ 10, +10) to input the time.

Example: To set to 54 minutes

[+10] [+10] [+10] [+10] [+10] [4]

※ The length can be set to up to 99 minutes.

Canceling the editing function:

Press CD ■ or <TAPE >.

System Operations

NOTE:

- The editing function does not work with discs containing 26 tracks or more.
- When using the edited recording function, be sure to load the cassette tape with side A facing upwards. The beginning of the cassette tape is found automatically before recording starts.
- When using a tape that is already recorded on, erase the tape before conducting edited recording.
- When using the edited recording function, set the cassette deck's reverse mode to "↺".
- In some cases it may not be possible to record all the tracks on the cassette tape even if its length is longer than the total length of the tracks on the disc, due to the fact that the tracks must be divided between sides A and B. "OVER" is displayed on the DCD-F102's display if there are tracks that cannot be recorded. If "OVER" is displayed, change the length of the cassette tape as described in step 3.
- When the editing function is in use, no buttons other than <ON/STANDBY>, MENU/SET, [▶▶I], CD ▶/II, CD ■, <TAPE ■>, and [TIME/DISPLAY] will operate.
- With edited recording, blank sections approximately 4 seconds long are automatically created between tracks. If you do not want these blank sections, do not use edited recording.
- Edited recording is not possible with discs containing files in MP3 or WMA format.

Using the optimised filter

The filter optimised for the properties of the SC-F102/F103 (sold separately) can be used.

1 Use MENU/SET to select "SPK OPTIMISE".

2 Use [◀◀] or [▶▶] to set.

ON:

This sets the optimum properties for the SC-F102/F103 (sold separately).

OFF:

When this is set, the response is flat.

3 Press MENU/SET.

Others

Troubleshooting

If a problem should arise, first check the following.

1. Are the connections correct?

2. Have you operated the player according to the Operating Instructions?

If this unit is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

Symptom	Cause	Measures	Page
Display does not light and no sound is produced when power is turned on.	• The power supply cord is not plugged into a power outlet.	• Plug the power supply cord into a power outlet.	7
Display lights but no sound is produced.	• The speaker cables are not properly connected. • The input is not properly selected. • The volume is set too low.	• Connect securely. • Connect in the proper position. • Adjust the volume to an appropriate level.	8 7 11
No sound is produced from once side.	• The speaker cables are not properly connected. • The input cables are not properly connected. • The left/right balance is off.	• Connect securely. • Connect securely. • Adjust the left/right balance.	8 7 11
For stereo sources, the positions of the instruments are inverted.	• The connections of the speaker cables or input cables are inverted.	• Check the connections.	7
Buzzing noise in FM broadcasts.	• The antenna cable is not properly connected. • Noise is entering from an electronic device equipped with a microprocessor, or the signal from the broadcast system is weak.	• Connect the antenna properly. • Change the layout of the equipment or the positions or directions of the connection cables, antenna, etc. • Connect an outdoor antenna.	9 9 9
Hissing or buzzing noise is heard in AM broadcasts.	• Noise is entering from a monitor, etc., or there is interference.	• Turn off the monitor. • Change the position or direction of the AM loop antenna. • Connect an outdoor antenna.	— 9 9
Humming noise is heard in AM broadcasts.	• There is interference from signals conveyed through the power supply cord.	• Connect an outdoor antenna.	9
When playing records, a wailing noise is produced when the volume is raised.	• The player and speakers are too close together. • The floor is soft and vibrates easily.	• Move the player and speakers as far apart as possible. • Use cushions to absorb the vibrations of the speakers being conveyed from the floor.	10 —
Remote control unit does not operate.	• The batteries are flat. • The remote control unit is too far away. • There is an obstacle between the main unit and the remote control unit. • The remote control unit is being operated at an angle of over 30° with respect to the front panel. • The batteries are inserted in the wrong direction.	• Replace with new batteries. • Operate from closer to the main unit. • Remove the obstacle. • Operate the remote control unit from directly in front of the main unit. • Insert the batteries in the proper direction.	2 2 2 2 2
System operations do not work.	• The system cables are not properly connected.	• Connect securely.	7

Specifications

Receiver section

Rated output:	2-channel driving (CD → SP OUT) 35 W + 35 W (4 Ω/ohms, DIN, 1 kHz, T.H.D. 0.7%)	
Output terminals:	4 to 16 Ω/ohms	
T.H.D.:	0.05% (Rated output: -3 dB), 8 Ω/ohms, 1kHz	
Equalizer amplifier output (REC OUT):	Rated output 150 mV	
Input sensitivity / input impedance:	PHONO (MM) : 2.5 mV/47 kΩ/kohms CD/HDD, DOCK/AUX, TAPE, MD : 300 mV/30 kΩ/kohms PHONO : 20 Hz ~ 20 kHz±0.5 dB (MM)	
RIAA deviation:	PHONO : 20 Hz ~ 20 kHz±0.5 dB (MM)	
Audio input/output terminals:	PHONO input terminal, CD/HDD input terminal, DOCK/AUX input terminal, PORTABLE input terminal, TAPE input/output terminal MONO output terminal, HEADPHONE output terminal, MD input/output terminal DIGITAL OPT.OUT output terminal	
Reception frequency range:	FM : 87.5 MHz ~ 108.0 MHz AM : 522 kHz ~ 1611 kHz DAB : BAND3 170 MHz ~ 240 MHz	
Reception sensitivity:	FM : 1.5 μV/75 Ω/ohms AM : 20 μV DAB : -97dBm	
FM stereo isolation:	35 dB (1 kHz)	
FM S/N ratio:	Monaural: 74 dB Stereo: 70 dB	
FM harmonic distortion:	Monaural: 0.3 % Stereo: 0.4 %	

Clock/timer section

Clock type:	Power line frequency synchronized method (± 30 seconds per month)
Timer:	Everyday timer (1 set) Once timer (1 set) Sleep timer (Max. 90 minutes)

Properties

SN Ratio:	PHONO (MM) : 80 dB (With input terminals short-circuited, 5 mV input signal)
(A network)	CD/HDD, DOCK/AUX, TAPE, MD : 90 dB (input terminals short-circuited)
Tone control (bass):	BASS : 100 Hz ± 8 dB TREBLE : 10 kHz ± 8 dB SDB : 100 Hz ± 10 dB
Frequency response:	5 Hz ~ 80 kHz (+0.5 dB, -3 dB) (INPUT: CD, SOURCE DIRECT: ON)

General

Power outlets:	1 switched outlets, total capacity 100W (0.43 A)
Power Supply:	AC 230 V, 50 Hz
Power Consumption:	85 W 0.1 W Max (Standby) (In the low-power standby mode)
Dimensions:	250 (W) x 74 (H) x 250 (D) mm (Not including protruding parts) 250 (W) x 82 (H) x 285 (D) mm (Including protruding parts)
Mass:	4.0 kg

Remote control unit (RC-1034)

Remote control method:	IR pulse method
Power supply:	Two R03/AAA batteries
Maximum external dimensions:	49 (W) x 220 (H) x 25 (D) mm
Mass:	120 g (Including batteries)

* For purposes of improvement, specifications and design are subject to change without notice.



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