

YAMAHA

DSP-A592 DSP-A492

Natural Sound AV Amplifier

Amplificateur audiovisuel "Son Naturel"

Natural Sound AV-Verstärker

Natural Sound AV-förstärkare

Amplificatore AV a suono naturale

Amplificador AV de Sonido Natural

Natural Sound AV Verstärker

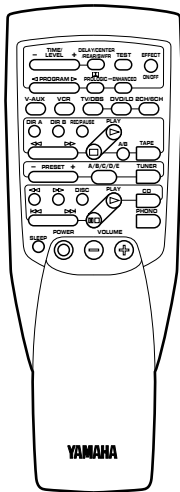
**OWNER'S MANUAL
MODE D'EMPLOI
BEDIENUNGSANLEITUNG
BRUKSANVISNING
MANUALE DI ISTRUZIONI
MANUAL DE INSTRUCCIONES
GEBRUIKSAANWIJZING**

SUPPLIED ACCESSORIES
ACCESSOIRES FOURNIS
MITGELIEFERTE ZUBEHORTEILE
MEDFOLJANDE TILLBEHÖR
ACCESSORI IN DOTAZIONE
ACCESORIOS INCLUIDOS
BIJGELEVERDE ACCESSOIRES

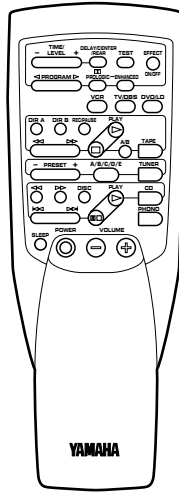
- After unpacking, check that the following parts are included.
- Après le déballage, vérifier que les pièces suivantes sont incluses.
- Nach dem Auspacken überprüfen, ob die folgenden Teile vorhanden sind.
- Kontrollera efter det apparaten packats upp att följande delar finns med.
- Verificare che tutte le parti seguenti siano contenute nell'imballaggio dell'apparecchio.
- Desembale el aparato y verificar que los siguientes accesorios están en la caja.
- Controleer na het uitpakken of de volgende onderdelen voorhanden zijn.

- Remote Control Transmitter
- Emetteur de télécommande
- Fernbedienungsgeber
- Fjärrkontrollsändare
- Telecomando
- Transmisor del control remoto
- Afstandbediening

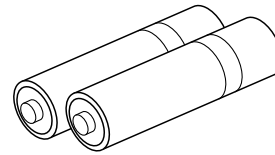
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- Batteries (size AA, R6, UM-3)
- Piles (taille AA, R6, UM-3)
- Batterien (Größe AA, R6, UM-3)
- Batterier (storlek AA, R6, UM-3)
- Batterie (dimensioni AA, R6, UM-3)
- Pilas (tamaño AA, R6, UM-3)
- Batterijen (maat AA, R6, UM-3)



FEATURES

- **5 Speaker Configuration**

DSP-A592

- Main:** 70W + 70W (8Ω) RMS Output Power, 0.04% THD, 20–20,000 Hz
- Center:** 70W (8Ω) RMS Output Power, 0.07% THD, 1 kHz
- Rear:** 35W + 35W (8Ω) RMS Output Power, 0.3% THD, 1 kHz

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- Main:** 65W + 65W (8Ω) RMS Output Power, 0.04% THD, 20–20,000 Hz
- Center:** 65W (8Ω) RMS Output Power, 0.09% THD, 1 kHz
- Rear:** 20W + 20W (8Ω) RMS Output Power, 0.7% THD, 1 kHz

- **Digital Sound Field Processor**
- **Dolby Pro Logic Surround Decoder**
- **Theater-like Sound Experience by the Combination of Dolby Pro Logic and YAMAHA DSP Technology (CINEMA DSP)**
- **Automatic Input Balance Control for Dolby Pro Logic Surround**

- **Test Tone Generator for Easier Speaker Balance Adjustment**
- **3 Center Channel Modes (NORMAL/WIDE/PHANTOM)**
- **Video Signal Input/Output Capability**
- **SLEEP Timer**
- **Remote Control Capability**

DSP-A592 only

- **BASS EXTENSION Switch for Reinforcing Bass Response**
- **6-Channel Discrete Input Terminals for Connecting with a Dolby Digital (AC-3) Decoder**
- **Two S VIDEO Output and One S VIDEO Input Terminals**
- **Auxiliary Audio and Video Input Terminals (Including a S VIDEO Terminal) on the Front Panel**

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CAUTION : READ THIS BEFORE OPERATING YOUR UNIT.

1. To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
2. Install this unit in a cool, dry, clean place – away from windows, heat sources, sources of excessive vibration, dust, moisture and cold. Avoid sources of humming (transformers, motors). To prevent fire or electrical shock, do not expose the unit to rain or water.
3. Never open the cabinet. If something drops into the set, contact your dealer.
4. Do not use force on switches, controls or connection wires. When moving the unit, first disconnect the power plug and the wires connected to other equipment. Never pull the wires themselves.
5. The openings on the cabinet assure proper ventilation of the unit. If these openings are obstructed, the temperature inside the cabinet will rise rapidly. Therefore, avoid placing objects against these openings, and install the unit in well-ventilated condition. Make sure to allow a space of at least 20 cm behind, 20 cm on the both sides and 30 cm above the top panel of the unit. Otherwise it may not only damage the unit, but also cause fire.
6. Always set the VOLUME control to “– ∞” before starting the audio source play. Increase the volume gradually to an appropriate level after playback has been started.
7. Do not attempt to clean the unit with chemical solvents; this might damage the finish. Use a clean, dry cloth.
8. Be sure to read the “TROUBLESHOOTING” section regarding common operating errors before concluding that the unit is faulty.
9. When not planning to use this unit for long periods of time (ie., vacation, etc.), disconnect the AC power plug from the wall outlet.
10. To prevent lightning damage, disconnect the AC power plug and disconnect the antenna cable when there is an electrical storm.
11. Grounding or polarization – Precautions should be taken so that the grounding or polarization of an appliance is not defeated.
12. AC outlet
Do not connect audio equipment to the AC outlet on the rear panel if that equipment requires more power than the outlet is rated to provide.
13. **Voltage Selector (General Model only)**
The voltage selector on the rear panel of this unit must be set for your local main voltage BEFORE plugging into the AC main supply.
Voltages are 110/120/220/240 V AC, 50/60 Hz.

IMPORTANT

Please record the serial number of this unit in the space below.

Serial No.:

The serial number is located on the rear of the unit. Retain this Owner's Manual in a safe place for future reference.

WARNING

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

For U.K. customers

If the socket outlets in the home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to the instructions described below.

Note: The plug severed from the mains lead must be destroyed, as a plug with bared flexible cord is hazardous if engaged in a live socket outlet.

Special Instructions for U.K. Model

IMPORTANT

THE WIRES IN THE MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

Blue: NEUTRAL
Brown: LIVE

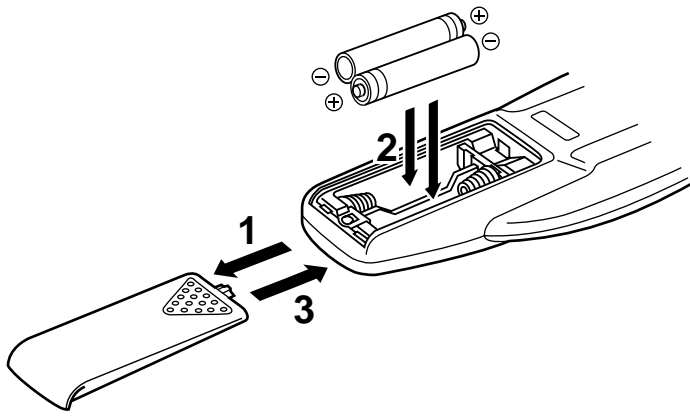
As the colours of the wires in the main lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED. Make sure that neither core is connected to the earth terminal of the three pin plug.

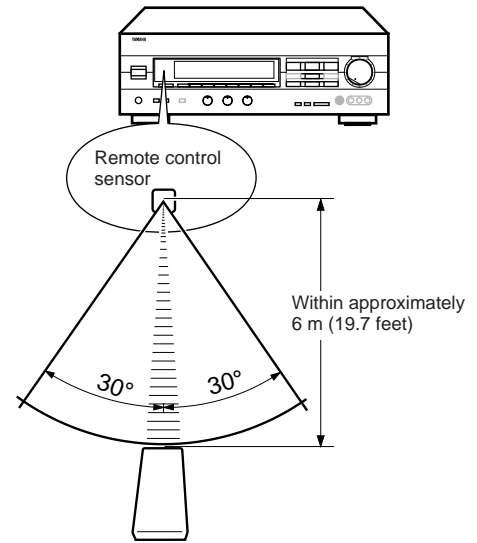
The apparatus is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the apparatus itself is turned off.

NOTES ABOUT THE REMOTE CONTROL TRANSMITTER

Battery installation



Remote control transmitter operation range



Battery replacement

If you find that the remote control transmitter must be used closer to the main unit, the batteries are weak. Replace both batteries with new ones.

Notes

- Use only AA, R6, UM-3 batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Remove the batteries if the remote control transmitter will not be used for an extended period of time.
- If batteries leak, dispose of them immediately. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.

Notes

- There should be no large obstacles between the remote control transmitter and the main unit.
- If the remote control sensor is directly illuminated by strong lighting (especially an inverter type of fluorescent lamp etc.), it might cause the remote control transmitter not to work correctly. In this case, reposition the main unit to avoid direct lighting.

PROFILE OF THIS UNIT

You are the proud owner of a Yamaha stereo receiver –an extremely sophisticated audio component. The Digital Sound Field Processor (DSP) built into this unit takes advantage of Yamaha's undisputed leadership in the field of digital audio processing to bring you a whole new world of listening experiences. Follow the instructions in this manual carefully when setting up your system, and this unit will sonically transform your room into a wide range of listening environments –movie theater, concert hall, and so on. In addition, you get incredible realism from sources encoded with Dolby Surround using the built-in Dolby Pro Logic Surround Decoder.

Please read this operation manual carefully and store it in a safe place for later reference.

Digital Sound Field Processing

What is it that makes live music so good? Today's advanced sound reproduction technology lets you get extremely close to the sound of a live performance, but chances are you'll still notice something missing: the acoustic environment of the live concert hall. Extensive research into the exact nature of the sonic reflections that create the ambience of a large hall has made it possible for Yamaha engineers to bring you this same sound in your own listening room, so you'll feel all the sound of a live concert.

Furthermore, our technicians, armed with sophisticated measuring equipment, have even made it possible to capture the acoustics of a variety of venues such as an actual concert hall, theater, etc. to allow you to accurately recreate one of several actual live performance environments, all in your own home.

Dolby Pro Logic Surround

This unit employs a Dolby Pro Logic Surround decoder similar to professional Dolby Stereo decoders used in many movie theaters. By using the Dolby Pro Logic Surround decoder, you can experience the dramatic realism and impact of Dolby Surround movie theater sound in your own home. Dolby Pro Logic employs a four channel five speaker system. The Pro Logic Surround system divides the input signal into four levels: the left and right main channels, the center channel (used for dialog), and the rear surround sound channels (used for sound effects, background noise, and other ambient noises). The center channel allows listeners seated in even less-than-ideal positions to hear the dialog originating from the action on the screen while experiencing good stereo imaging. Dolby Surround is encoded on the sound track of pre-recorded video tapes, laser discs, and some TV/cable broadcasts. When you play a source encoded with Dolby Surround on this unit, the Dolby Pro Logic Surround decoder decodes the signal and distributes the surround-sound effects.

This Dolby Pro Logic Surround Decoder employs a digital signal processing system. This system improves the stability of sound at each channel and minimizes crosstalk between channels, so that positioning of sounds around the room is more accurate compared with conventional analog signal processing systems. In addition, this unit features a built-in automatic input balance control. This always assures you the best performance without manual adjustment.

Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "AC-3", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Dolby Pro Logic Surround + DSP

Dolby Surround sound system shows its full ability in a large movie theater, because movie sounds are originally designed to be reproduced in a large movie theater using many speakers. It is difficult to create a sound environment similar to that of a movie theater in your listening room, because the room size, materials of inside walls, the number of speakers, etc. of your listening room is much different from those of a movie theater.

Yamaha DSP technology made it possible to present you with nearly the same sound experience as that of a large movie theater in your listening room by compensating for lack of presence and dynamics in your listening room with its original digital sound fields combined with Dolby Surround sound field.

The combination of Dolby Pro Logic Surround and DSP is used on the sound field program "  PRO LOGIC ENHANCED".

CINEMA DSP

The YAMAHA "CINEMA DSP" logo indicates these programs are created by the combination of Dolby Pro Logic and YAMAHA DSP technology.

SPEAKER SETUP

SPEAKERS TO BE USED

This unit is designed to provide the best sound-field quality with a 5 speaker configuration. The most effective speakers to use with this unit are main speakers, rear speakers and a center speaker. You may omit the center speaker. (Refer to the “**4-Speaker Configuration**” shown below.)

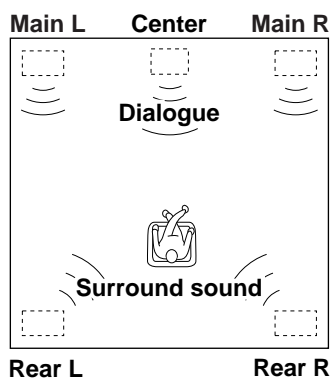
The main speakers are used for the main source sound plus the effect sounds. They will probably be the speakers from your present stereo system. The rear speakers are used for the effect and surround sounds, and the center speaker is for the center sounds (dialog etc.) within programs encoded with Dolby Surround. The center speaker needs to be equal in power to the main speakers, although the rear speakers should not be equal. However, all the speakers should have high enough power handling to accept the maximum output of this unit.

SPEAKER CONFIGURATION

5-Speaker Configuration

This configuration is the most effective and recommended one. In this configuration, the center speaker is necessary as well as the rear speakers. If the program **DOLBY PRO LOGIC** or **DOLBY PRO LOGIC ENHANCED** is selected, conversations will be output from the center speaker and the ambience will be excellent.

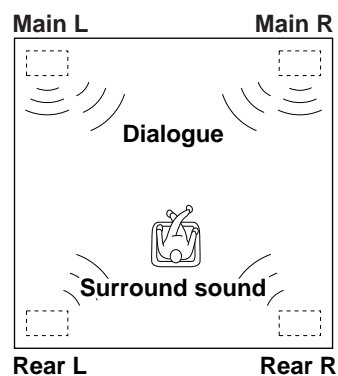
- Set the center channel mode to the “**NORMAL**” or “**WIDE**” position. (For details, refer to page 21.)



4-Speaker Configuration

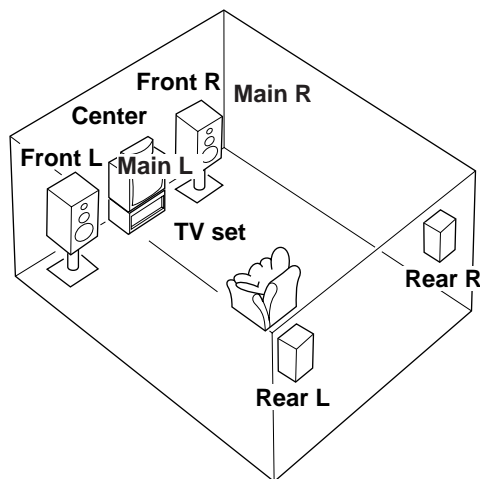
The center speaker is not used in this configuration. If the program **DOLBY PRO LOGIC** or **DOLBY PRO LOGIC ENHANCED** is selected, the center sound is output from the left and the right main speakers. However, the sound effect of other programs can be the same as that of the 5-speaker configuration.

- Be sure to set the center channel mode to the “**PHANTOM**” position. (For details, refer to page 21.)



SPEAKER PLACEMENT

The recommended speaker configuration, the 5-speaker configuration, will require two speaker pairs: **main speakers** (your normal stereo speakers), and **rear speakers**, plus a **center speaker**. When you place these speakers, refer to the following.



- Main:** In normal position. (The position of your present stereo speaker system.)
- Rear:** Behind your listening position, facing slightly inward. Nearly six feet (approx. 1.8 m) up from the floor.
- Center:** Precisely between the main speakers. (To avoid interference with TV sets, use a magnetically shielded speaker.)

CONNECTIONS

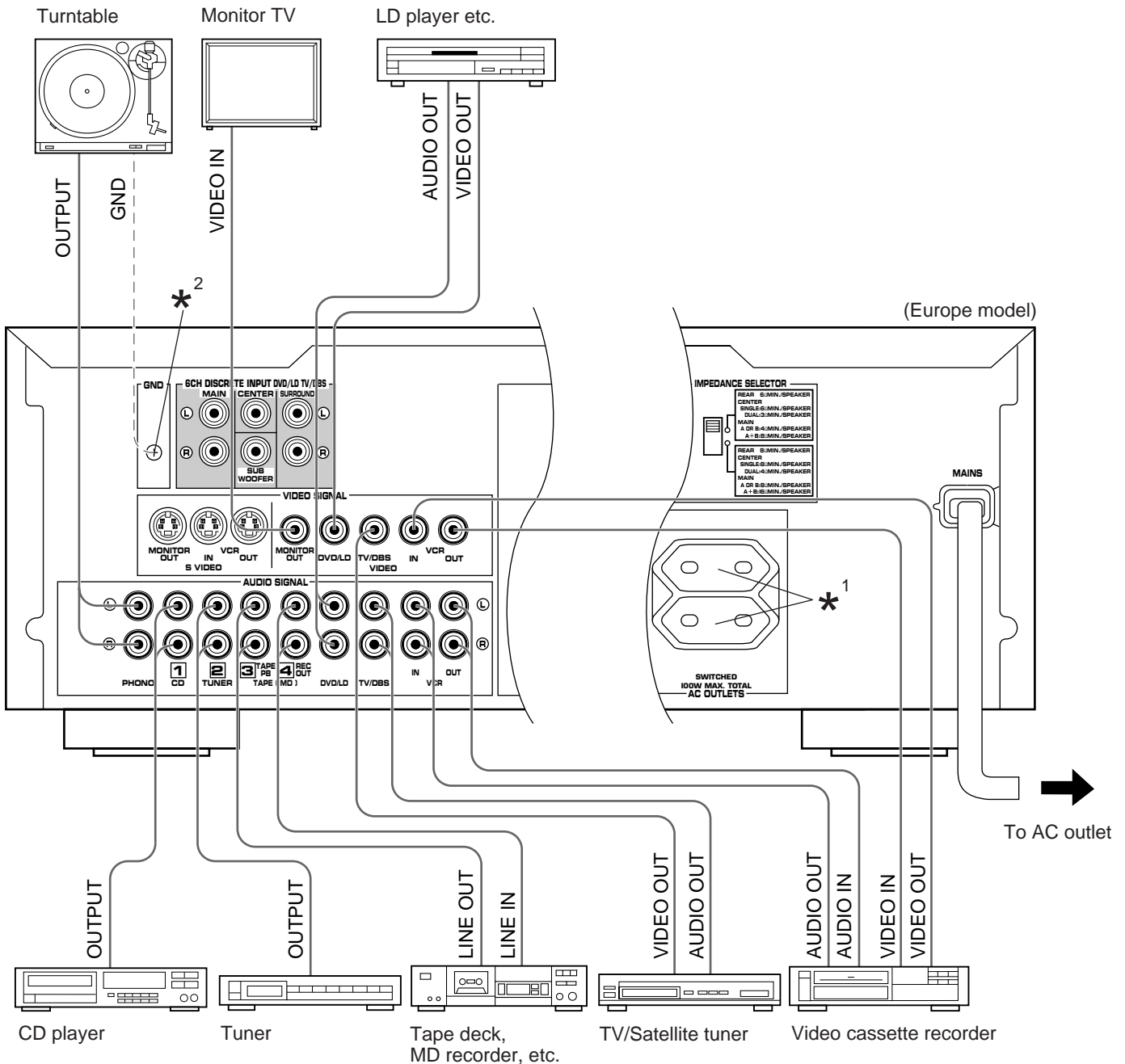
Never plug in this unit and other components until all connections are completed.

CONNECTIONS WITH OTHER COMPONENTS

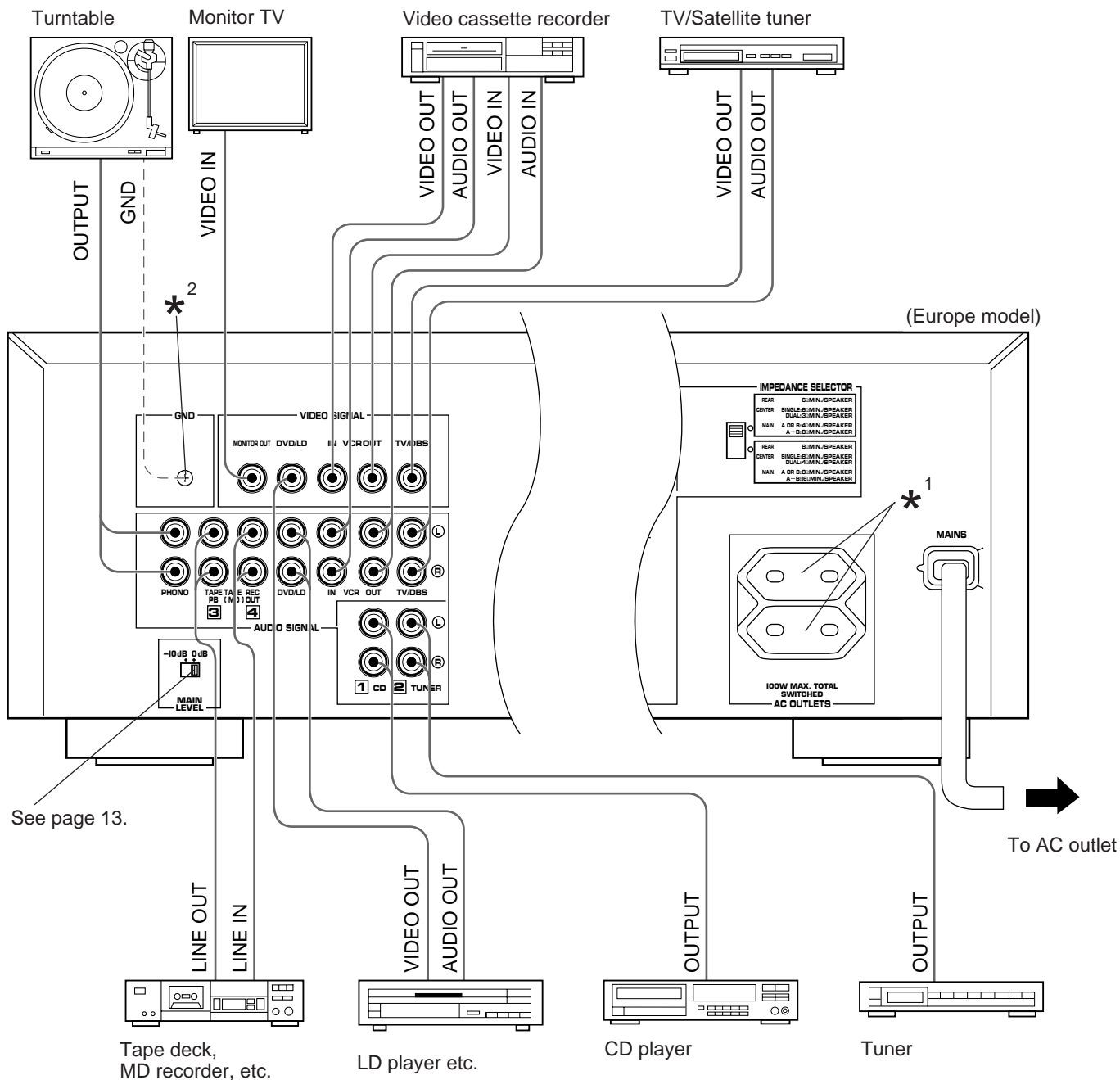
When making connections between this unit and other components, be sure all connections are made correctly, that is to say L (left) to L, R (right) to R, “+” to “+” and “-” to “-”. Also, refer to the owner’s manual for each component to be connected to this unit.

* If you have YAMAHA components numbered as 1, 2, 3, etc. on the rear panel, connections can be made easily by making sure to connect the output (or input) terminals of each component to the same-numbered terminals of this unit.

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***¹ AC OUTLET(S) (SWITCHED)**
 (Europe and General models) 2 SWITCHED OUTLETS
 (U.K. model) 1 SWITCHED OUTLET
 Use these to connect the power cords from your components to this unit.

The power to the **SWITCHED** outlets is controlled by this unit's **POWER** switch or the provided remote control transmitter's **POWER** key. These outlets will supply power to any component whenever this unit is turned on.

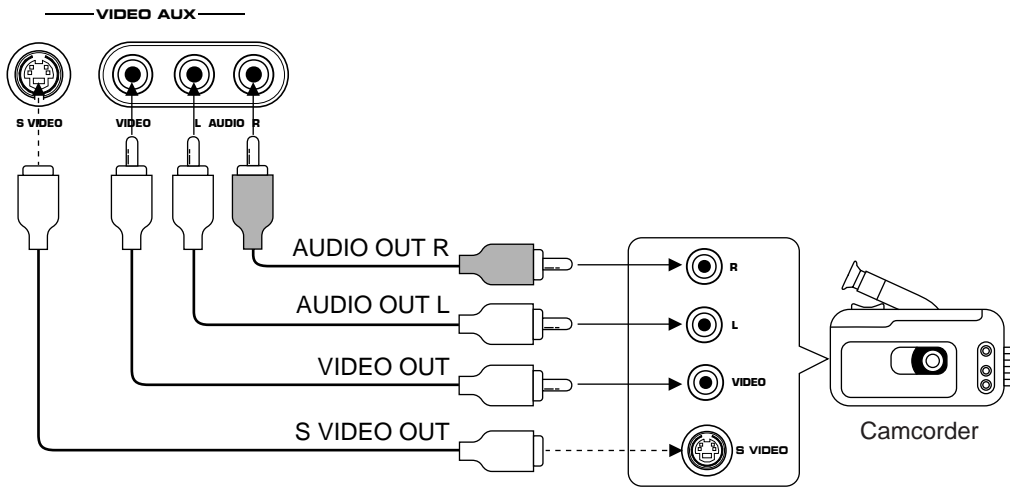
The maximum power (total power consumption of components) that can be connected to the **SWITCHED AC OUTLET(S)** is 100 watts.

***² GND terminal (For turntable use)**
 Connecting the ground wire of the turntable to the **GND** terminal will normally minimize hum, but in some cases better results may be obtained with the ground wire disconnected.

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CONNECTING TO VIDEO AUX TERMINALS (ON THE FRONT PANEL)

These terminals are used to connect any video input source such as a camcorder to this unit.

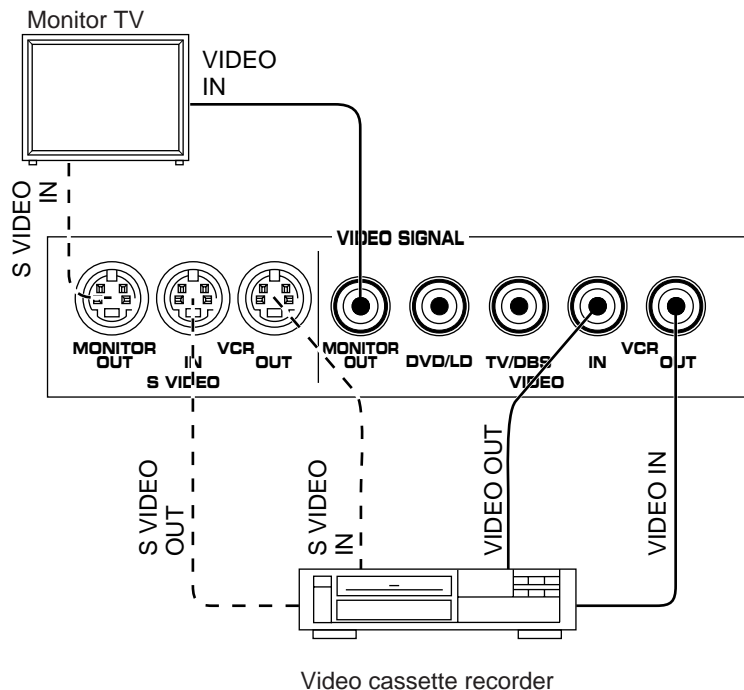


DSP-A592 only

CONNECTING TO S VIDEO TERMINALS

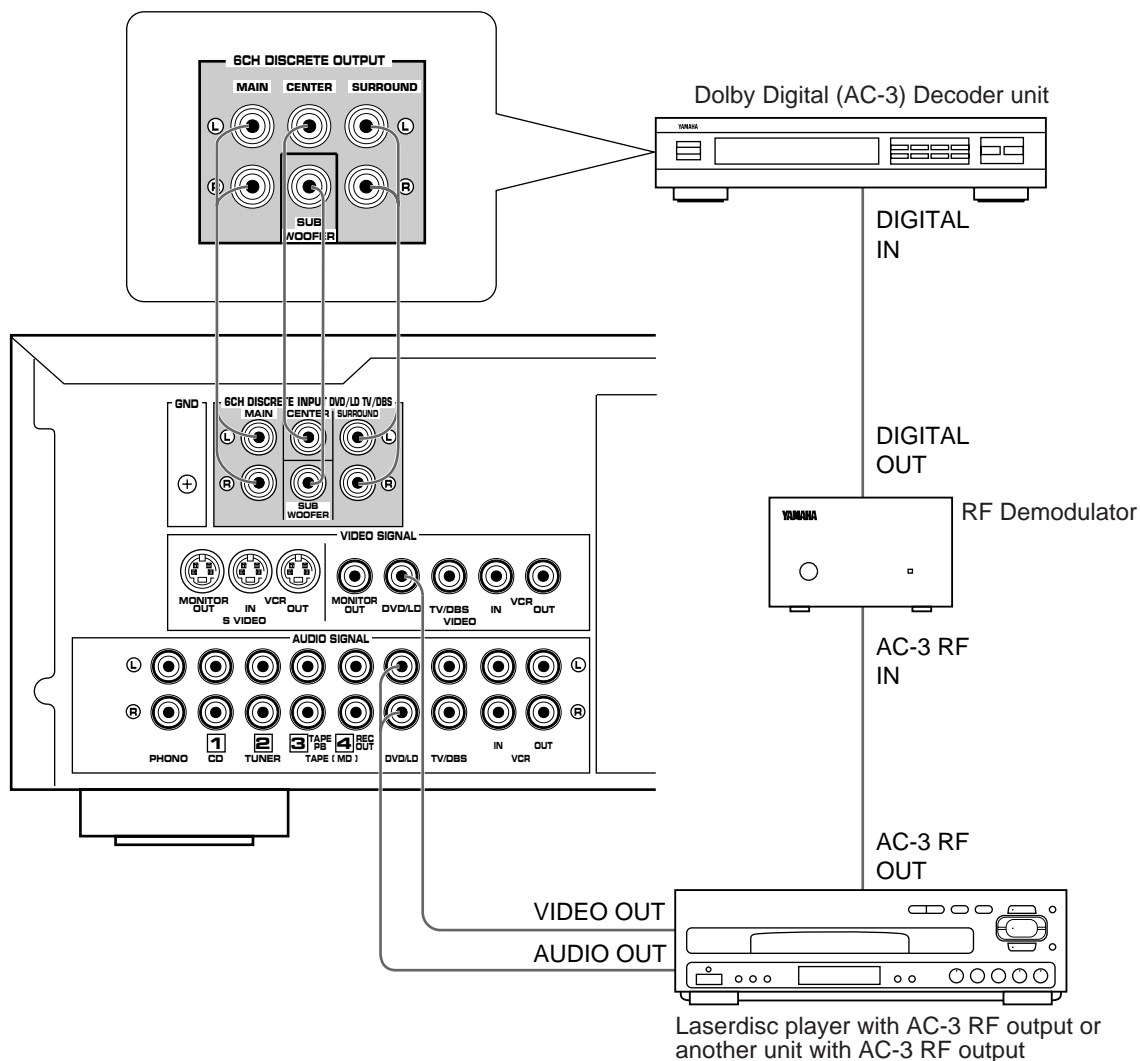
If you have a video cassette recorder and a monitor equipped with "S" (high-resolution) video terminals, those terminals can be connected to this unit's **S VIDEO** terminals. Connect the video cassette recorder's "S" video input and output terminals to this unit's **S VIDEO VCR IN** and **OUT** terminals respectively, and connect the monitor's "S" video input terminal to this unit's **S VIDEO MONITOR OUT** terminal. Otherwise, connect the video cassette recorder's composite video terminals to this unit's composite video terminals, and connect the monitor's composite video input terminal to this unit's composite **MONITOR OUT** terminal.

Note
If video signals are sent to both **S VIDEO** input and composite input terminals, the signals will be sent to their respective output terminals independently.



DSP-A592 only**Connecting with a Dolby Digital (AC-3) Decoder**

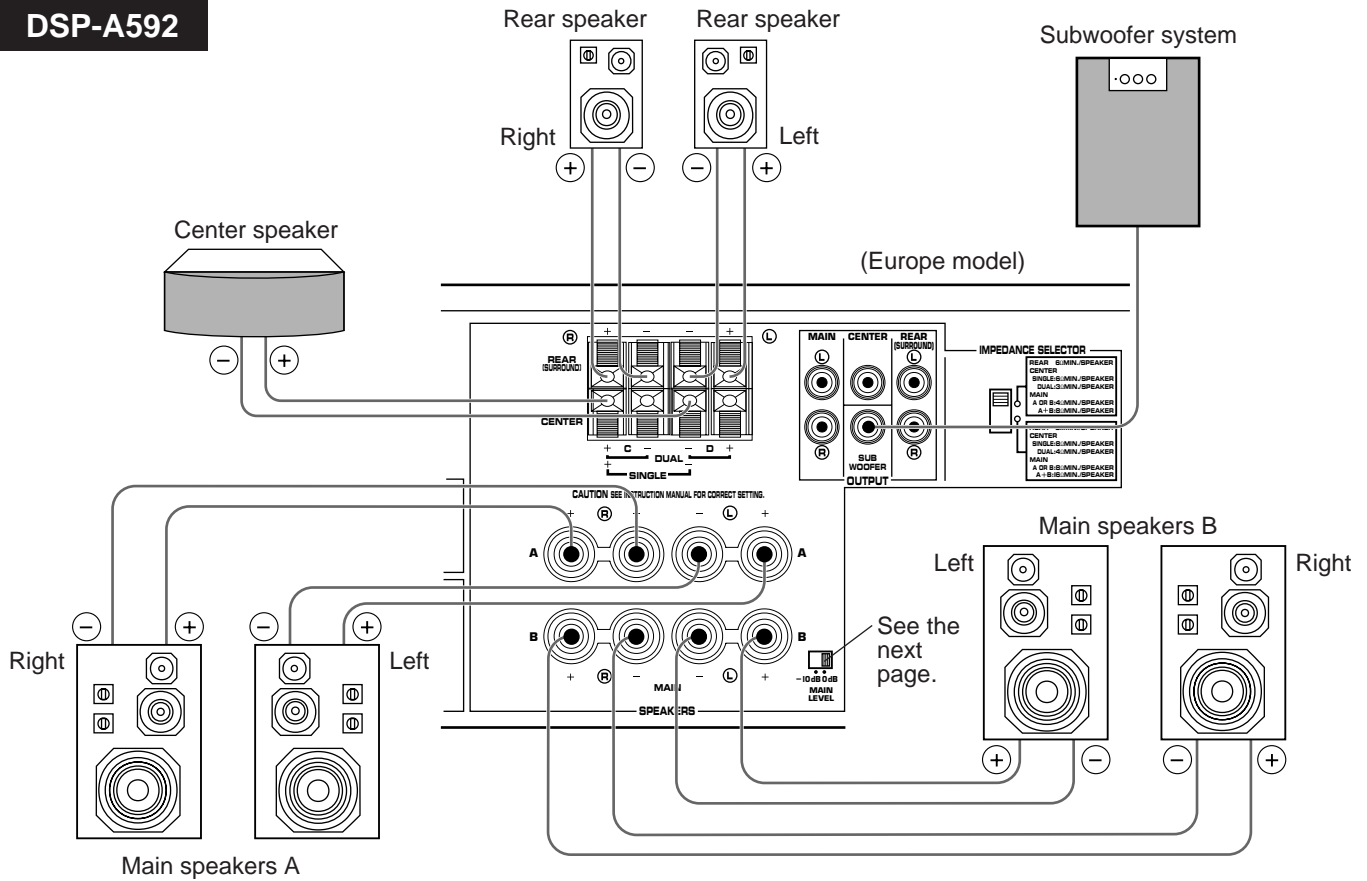
If you have a Dolby Digital (AC-3) Decoder unit or an LD player etc. which incorporates a Dolby Digital (AC-3) Decoder, its discrete outputs can be connected to this unit.

**Notes**

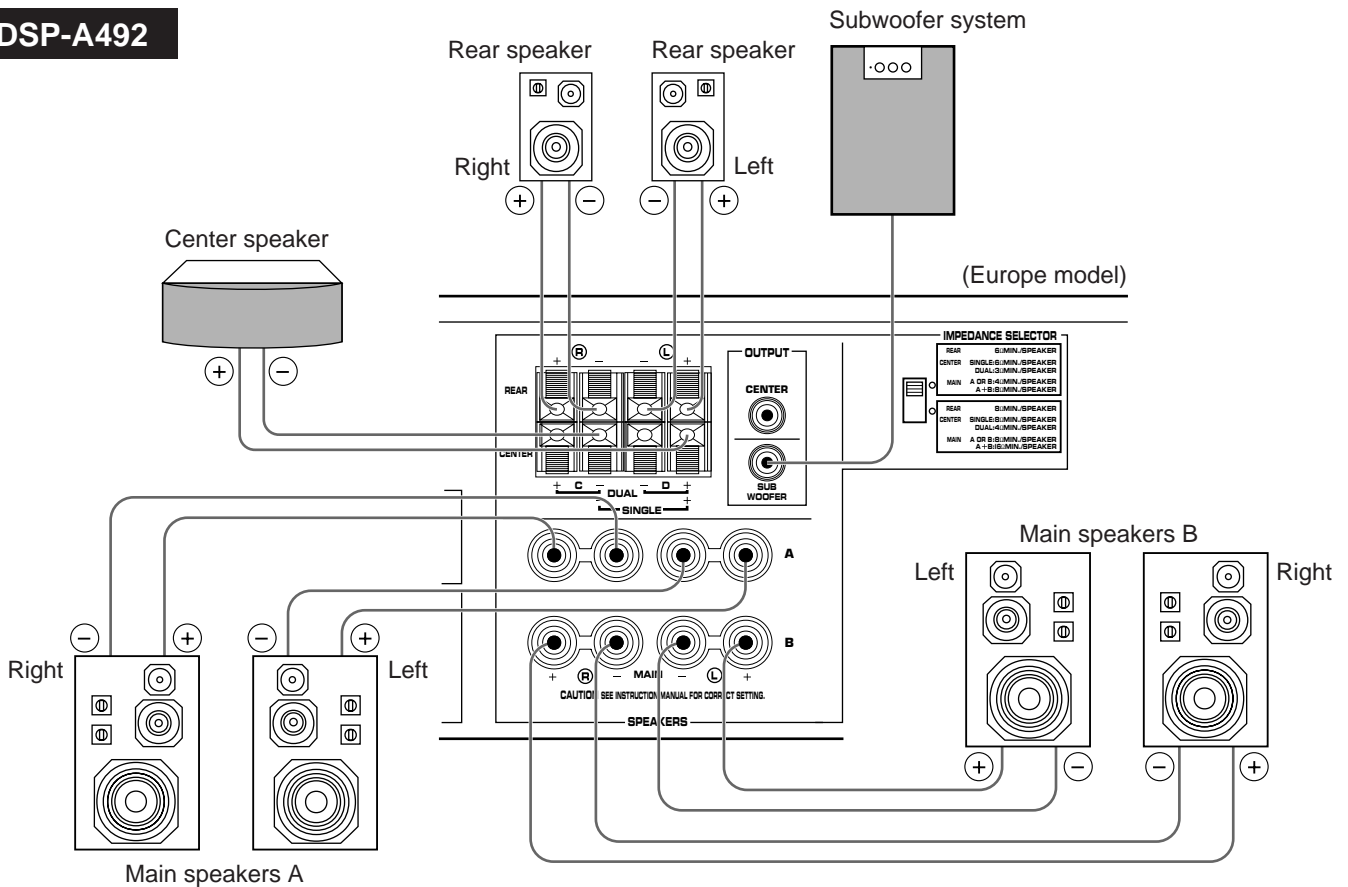
- The laserdisc player (or another unit) must be also connected to the DVD/LD (or TV/DBS) AUDIO SIGNAL input terminals of this unit for playing a source with the Dolby Pro Logic Surround decoded or in normal stereo (or monaural).
- The discrete signals input to this unit cannot be recorded by a tape deck, MD recorder or VCR. To record a source played on the laserdisc player (or another unit), it must be connected to the DVD/LD (or TV/DBS) AUDIO/VIDEO SIGNAL input terminals of this unit.
- If you made no connection to the SUBWOOFER input terminal of this unit or you will not use a subwoofer, you should make a setting for distributing signals at the LFE channel to the right and left MAIN output terminals on the Dolby Digital (AC-3) Decoder unit. (For details, refer to the owner's manual for the Dolby Digital (AC-3) Decoder unit.

CONNECTING SPEAKERS

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Note

Use speakers with the specified impedance shown on the rear of this unit.

Note on main speaker connections:

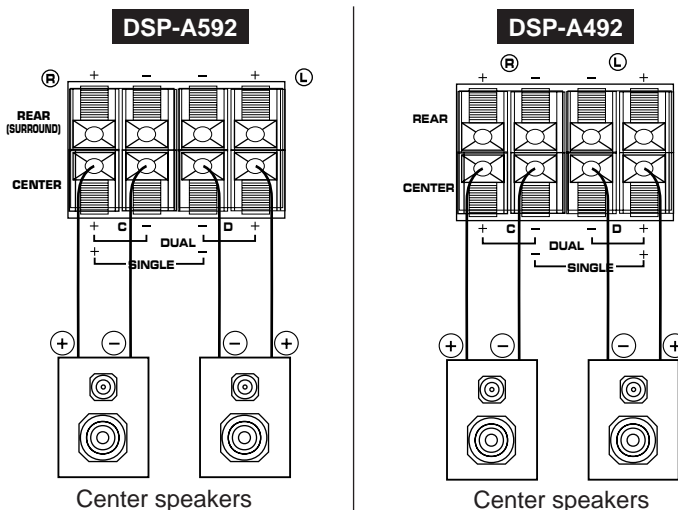
One or two speaker systems can be connected to this unit. If you use only one speaker system, connect it to either the **SPEAKERS A** or **B** terminals.

Note on a subwoofer connection:

You may wish to add a subwoofer to reinforce low frequencies. Connect the **SUBWOOFER OUTPUT** terminal of this unit to the **INPUT** terminal of the subwoofer amplifier, and connect the speaker terminals of the subwoofer amplifier to the subwoofer. With some subwoofers, including the Yamaha Active Servo Processing Subwoofer System, the amplifier and subwoofer are in the same unit.

Note on center speaker connection:

One or two center speakers can be connected to this unit. If you cannot place the center speaker on or under the TV, it is recommended to use two center speakers and place them on both sides of the TV to orient the center sound at the center position. For connecting two center speakers, follow the method shown below.

**How to Connect:**

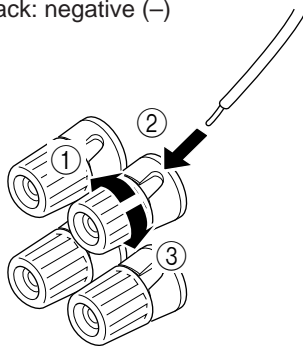
Connect the **SPEAKERS** terminals to your speakers with wire of the proper gauge, cut as short as possible. If the connections are faulty, no sound will be heard from the speakers. Make sure that the polarity of the speaker wires is correct, that is the + and - markings are observed. If these wires are reversed, the sound will be unnatural and lack bass.

Caution

Do not let the bare speaker wires touch each other and do not let them touch any metal part of this unit. This could damage this unit and/or speakers.

For connecting to the MAIN SPEAKERS terminals

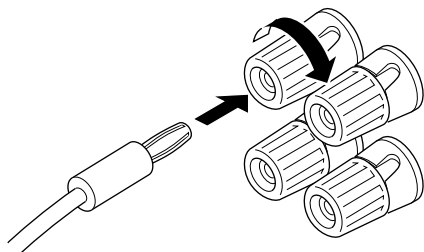
Red: positive (+)
Black: negative (-)



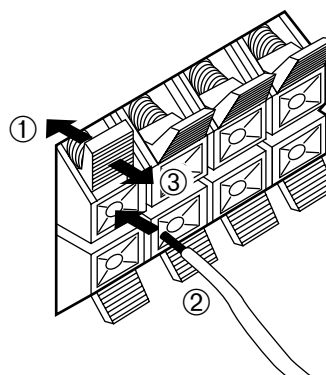
- ① Unscrew the knob.
- ② Insert the bare wire.
[Remove approx. 5mm (1/4") insulation from the speaker wires.]
- ③ Tighten the knob and secure the wire.

<General model only>

Banana Plug connections are also possible. Simply insert the Banana Plug connector into the corresponding terminal.

**For connecting to the REAR and CENTER SPEAKERS terminals**

Red: positive (+)
Black: negative (-)

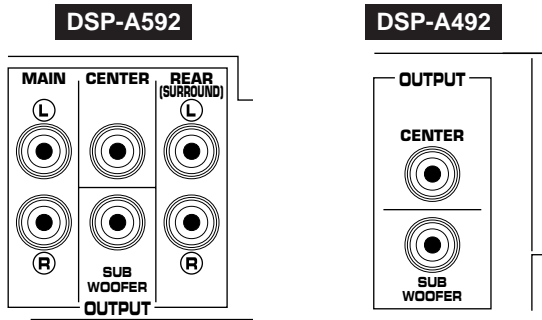


- ① Press the tab.
- ② Insert the bare wire.
[Remove approx. 5mm (1/4") insulation from the speaker wires.]
- ③ Release the tab and secure the wire.

MAIN LEVEL switch <U.K. and Europe models only>

Normally set to "0 dB". If desired, you can decrease the output level at the **MAIN SPEAKERS** terminals by 10 dB by setting this switch to "-10 dB".

OUTPUT terminals (for driving speakers with external amplifiers)



MAIN OUTPUT terminals **DSP-A592 only**

These terminals are for main channel line output. There is no connection to these terminals when you use the built-in amplifier.

However, if you drive main speakers with an external stereo power amplifier, connect the input terminals of the external amplifier (MAIN IN or AUX terminals of a power amplifier or an integrated amplifier) to these terminals.

* Output signals from the MAIN OUTPUT terminals only are affected by the use of **BASS**, **TREBLE**, **BALANCE** controls and **BASS EXTENSION** switch.

CENTER OUTPUT terminal

This terminal is for center channel line output. There is no connection to this terminal when you use the built-in amplifier. However, if you drive a center speaker with an external power amplifier, connect the input terminal of the external amplifier to this terminal.

IMPEDANCE SELECTOR switch

Be sure to switch this only when the power of this unit is turned off.

Select the position whose requirements your speaker system meets.

 (Upper position)

Rear: The impedance of each speaker must be 6Ω or higher.

Center: If you use one center speaker, the impedance of the speaker must be 6Ω or higher.
If you use two center speakers, the impedance of each speaker must be 3Ω or higher.

Main: If you use one pair of main speakers, the impedance of each speaker must be 4Ω or higher.
If you use two pairs of main speakers, the impedance of each speaker must be 8Ω or higher.

REAR (SURROUND) OUTPUT terminals

DSP-A592 only

These terminals are for rear channel line output. There is no connection to these terminals when you use the built-in amplifier.

However, if you drive rear speakers with an external stereo power amplifier, connect the input terminals of the external amplifier (MAIN IN or AUX terminals of a power amplifier or an integrated amplifier) to these terminals.

SUBWOOFER OUTPUT terminal

This terminal is for connecting with the input terminal of an amplifier for driving a subwoofer.

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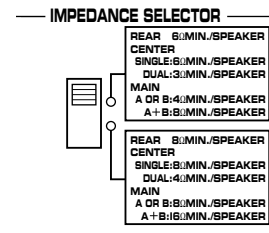
When the input signals to this unit are in normal 2-channel stereo, this terminal outputs only frequencies below 150 Hz (200 Hz for General model only) from the main and center channels. When discrete signals are input to this unit and are selected as the input source, this terminal outputs signals from the subwoofer channel.

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This terminal outputs only frequencies below 150 Hz (200 Hz for General model only) from the main and center channels.

Note

Output level of signals from all of these terminals are adjusted by the use of **VOLUME** control on the front panel or **VOLUME** keys on the remote control transmitter.



(Europe model)

 (Lower position)

Rear: The impedance of each speaker must be 8Ω or higher.

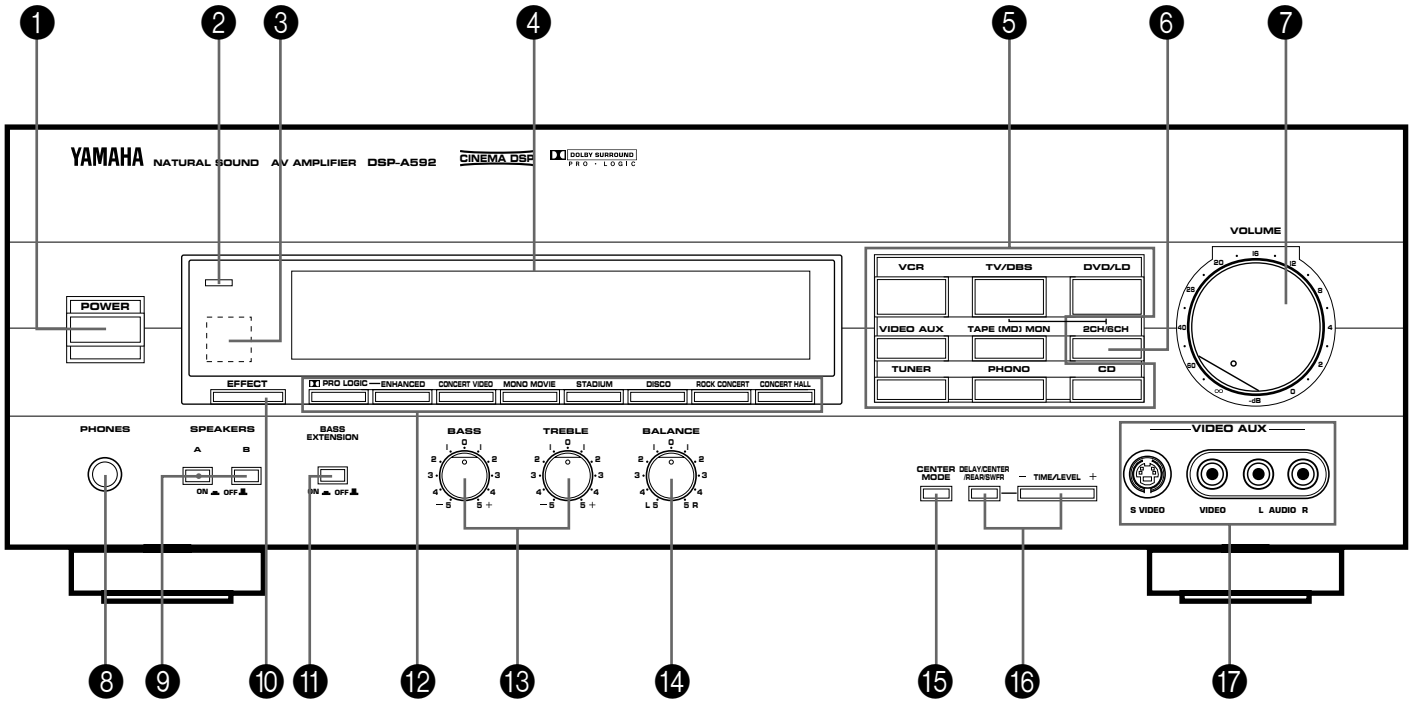
Center: If you use one center speaker, the impedance of the speaker must be 8Ω or higher.
If you use two center speakers, the impedance of each speaker must be 4Ω or higher.

Main: If you use one pair of main speakers, the impedance of each speaker must be 8Ω or higher.
If you use two pairs of main speakers, the impedance of each speaker must be 16Ω or higher.

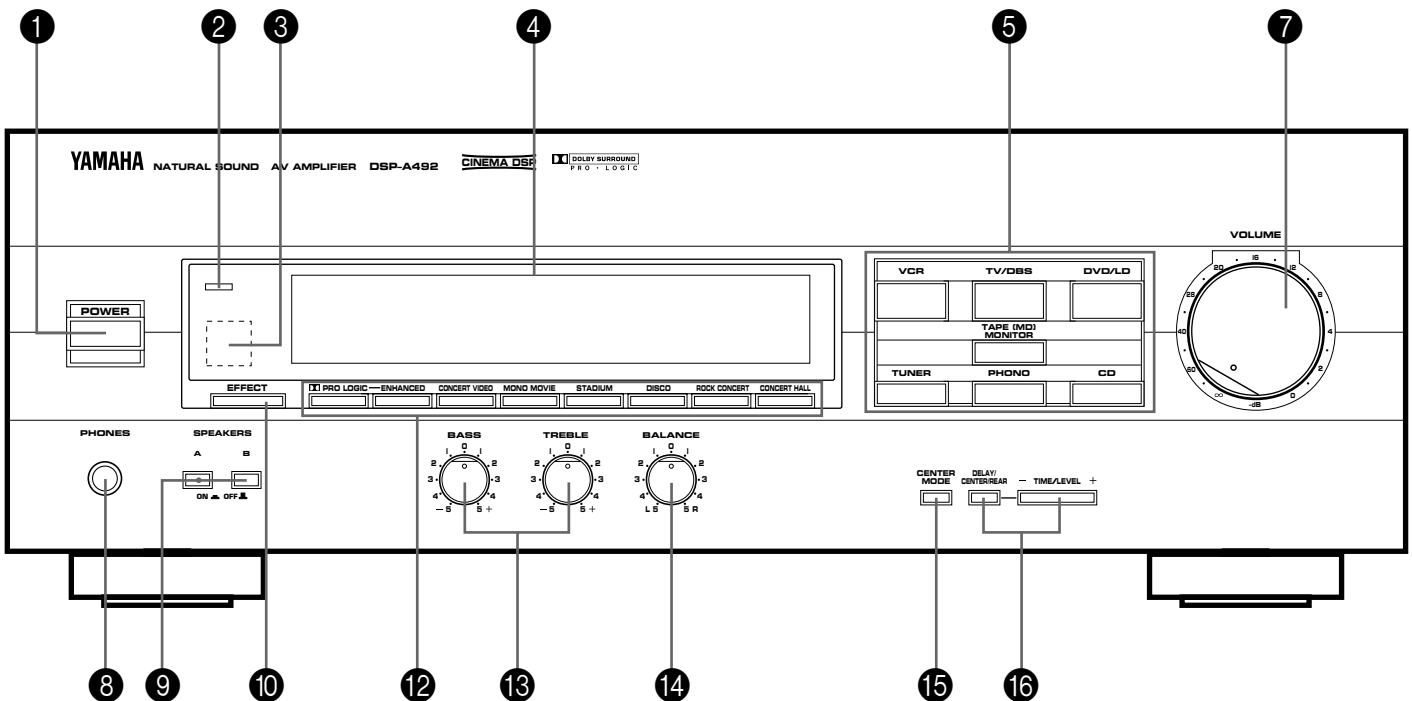
CONTROLS AND THEIR FUNCTIONS

FRONT PANEL

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1 POWER switch

Press this switch to switch the power on. Press it again to switch the power off.

2 Standby mode indicator

While the power is on, pressing the **POWER** key on the remote control transmitter switches the unit to the standby mode. In this mode, this indicator is illuminated.

3 Remote control sensor

Receives signals from the remote control transmitter.

4 Display panel

Shows various information. (Refer to page 17 for details.)

5 Input selector buttons

Select a program source to listen to or watch. When a button is pressed, the name of selected source appears on the display.

6 2CH/6CH selector button **DSP-A592 only**

When the **TV/DBS** or **DVD/LD** input source is selected, pressing this button switches the input signals between 2 channel stereo signals and 6 channel discrete signals. When switched to "6CH", discrete signals from the unit connected to the 6CH DISCRETE INPUT DVD/LD TV/DBS terminals of this unit are selected as the input signals.

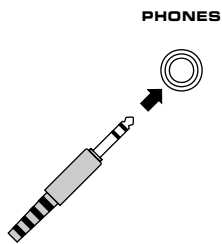
7 VOLUME control

Used to raise or lower the volume level.

8 PHONES jack

When you listen with headphones, connect the headphones to the **PHONES** jack. You can listen to the sound to be output from the main speakers through headphones.

When listening with headphones privately, set both the **SPEAKERS A** and **B** switches to the **OFF** position and switch off the digital sound field processor (so that no DSP program name is illuminated on the display) by pressing the **EFFECT** button.



9 SPEAKERS switches

Set the switch **A** or **B** (or both **A** and **B**) for the main speaker system (connected to this unit) you will use to the **ON** position. Set the switch for the main speaker system you will not use to the **OFF** position.

10 EFFECT button

Switches on/off the digital sound field processor (including the Dolby Pro Logic Surround decoder).

11 BASS EXTENSION switch **DSP-A592 only**

When this switch is pressed inward (**ON**), boosts bass frequency response at the main left and main right channels while maintaining overall tonal balance. If you do not have a subwoofer, the use of this switch will be effective to reinforce the bass frequencies.

12 DSP program selector buttons

Select a DSP program. When a button is pressed, the name of selected program lights up on the display.

13 Tone controls

These controls are effective only for the sound from the main speakers.

BASS

Used to increase or decrease the low frequency response. The 0 position produces flat response.

TREBLE

Used to increase or decrease the high frequency response. The 0 position produces flat response.

14 BALANCE control

Adjusts the balance of the output volume to the left and right speakers to compensate for sound imbalance caused by speaker location or listening room conditions.

15 CENTER MODE button

Selects a center channel output mode (**NORMAL**, **WIDE** or **PHANTOM**). (For details, refer to page 21.)

16 DELAY/CENTER/REAR/SWFR and TIME/LEVEL +/- buttons **DSP-A592**

Adjust the delay time (**DELAY**), the rear channel output level (**REAR**), center channel output level (**CENTER**) and the output level to the **SUBWOOFER OUTPUT** terminal (**SWFR**). Select the item which you want to adjust by pressing the **DELAY/CENTER/REAR/SWFR** button and adjust its time or level by pressing the **TIME/LEVEL +/-** button.

DELAY/CENTER/REAR and TIME/LEVEL +/- buttons

DSP-A492

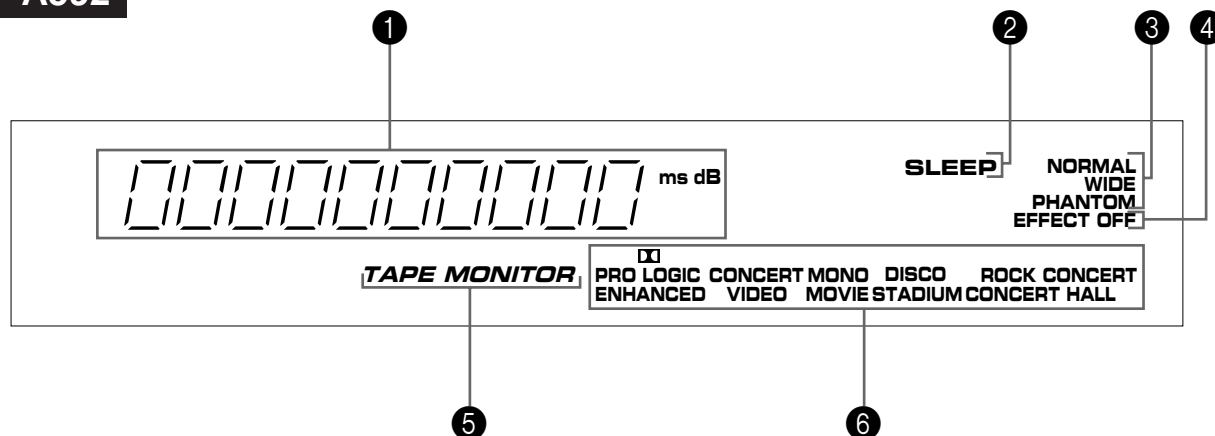
Adjust the delay time (**DELAY**), the rear channel output level (**REAR**) and the center channel output level (**CENTER**). Select the item which you want to adjust by pressing the **DELAY/CENTER/REAR** button and adjust its time or level by pressing the **TIME/LEVEL +/-** button.

17 VIDEO AUX terminals **DSP-A592 only**

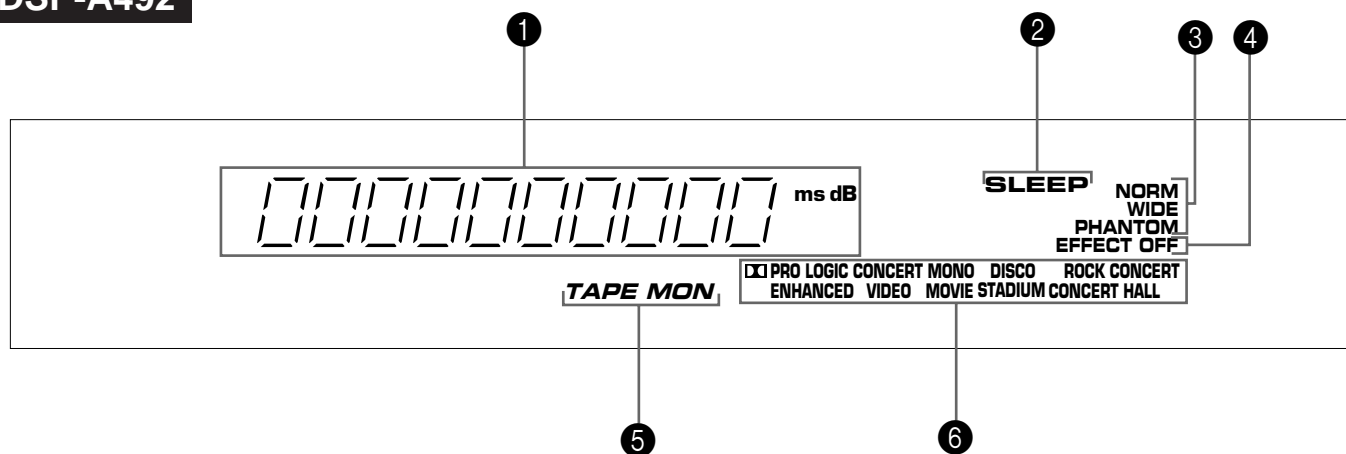
Connect an auxiliary video or audio input source unit such as a camcorder to these terminals. If the connected video unit has a S video output terminal, connect it to the S VIDEO terminal to obtain a high resolution picture. The source connected to these terminals can be selected by the corresponding input selector button.

DISPLAY PANEL

DSP-A592



DSP-A492



1 Multi-information display

Displays various information, for example name of selected DSP program and name of selected input source.

2 SLEEP indicator

Lights up while the built-in SLEEP timer is functioning.

3 Center channel mode indicators

The name of a selected center channel mode lights up only when a program which uses the Dolby Pro Logic Surround decoder is selected.

4 EFFECT OFF indicator

Lights up if neither the digital sound field processor nor the Dolby Pro Logic Surround decoder is on. In this state, sound output is 2-channel stereo.

5 TAPE MONITOR indicator DSP-A592

Lights up when the tape deck (or MD recorder etc.) is selected as the input source by pressing the **TAPE (MD) MON** button.

TAPE MON indicator DSP-A492

Lights up when the tape deck (or MD recorder etc.) is selected as the input source by pressing the **TAPE (MD) MONITOR** button.

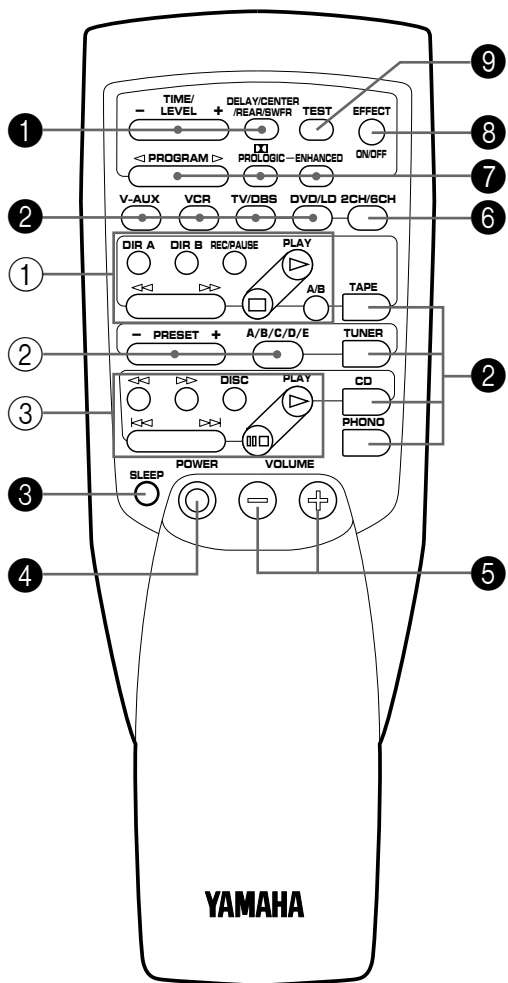
6 DSP program indicators

The name of a selected DSP program lights up when the built-in digital sound field processor and/or the Dolby Pro Logic Surround decoder is on.

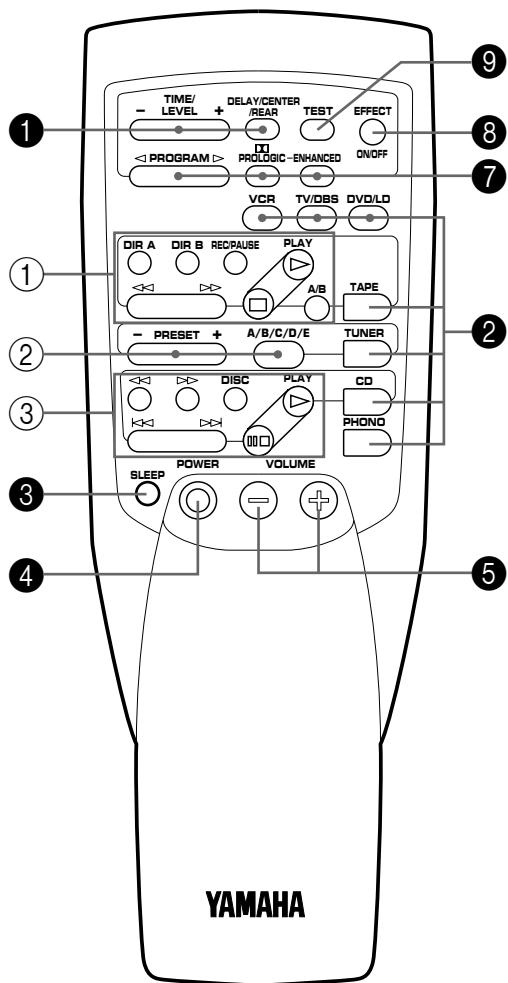
REMOTE CONTROL TRANSMITTER

The remote control transmitter provided with this unit is designed to control all the most commonly used functions of this unit. If the CD player, tuner and tape deck connected to this unit are YAMAHA components designed for remote control compatibility, then this remote control transmitter will also control various functions of each component.

DSP-A592



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For Control of This Unit

1 DELAY/CENTER/REAR/SWFR and TIME/LEVEL +/- keys **DSP-A592**

Adjust the delay time (DELAY), the rear channel output level (REAR), center channel output level (CENTER) and the output level to the SUBWOOFER OUTPUT terminal (SWFR). Select the item which you want to adjust by pressing the **DELAY/CENTER/REAR/SWFR** key and adjust its time or level by pressing the **TIME/LEVEL +/-** key.

DELAY/CENTER/REAR and TIME/LEVEL +/- keys **DSP-A492**

Adjust the delay time (DELAY), the rear channel output level (REAR) and the center channel output level (CENTER). Select the item which you want to adjust by pressing the **DELAY/CENTER/REAR** key and adjust its time or level by pressing the **TIME/LEVEL +/-** key.

2 Input selector keys

Selects input source.

3 SLEEP timer key

This key is used to turn the built-in SLEEP timer on and off, and to set the SLEEP time. (See page 31 for details.)

4 POWER key

Turns the power on/off.

* While the power is on, pressing the **POWER** key on the remote control transmitter switches the unit from the power-on mode to the standby mode, and vice versa. (In the standby mode, the standby mode indicator on the front panel is illuminated.)

5 VOLUME +/- keys

Turns the volume level up/down.

6 2CH/6CH selector key **DSP-A592 only**

When the **TV/DBS** or **DVD/LD** input source is selected, pressing this key switches the input signals between 2 channel stereo signals and 6 channel discrete signals. When switched to "6CH", discrete signals from the unit connected to the 6CH DISCRETE INPUT DVD/LD TV/DBS terminals of this unit are selected as the input signals.

7 Program selector keys

PROGRAM:

When the built-in digital sound field processor (including the Dolby Pro Logic Surround decoder) is on, this key changes the currently selected DSP program whenever the right or left side of this key is pressed.

PROLOGIC:

Directly selects the **PRO LOGIC** program.

ENHANCED:

Directly selects the **PRO LOGIC ENHANCED** program.

8 EFFECT ON/OFF key

Switches on/off the digital sound field processor (including the Dolby Pro Logic Surround decoder).

9 TEST key

Used for speaker balance adjustment. (For details, refer to page 20–22.)

For Other Component Control

Identify the remote control transmitter keys with your component's keys. If these keys are identical, their functions will be the same. On each key function, refer to the corresponding instruction on your component's manual.

1 Tape deck keys

Controls tape deck.

* **DIR A, B** and **A/B** are applicable only to double cassette tape deck.

* For a single cassette deck with automatic reverse function, pressing **DIR A** will reverse the direction of tape running.

2 Tuner keys

Controls tuner.

+: Selects higher preset station number.

-: Selects lower preset station number.

A/B/C/D/E: Selects the group (A – E) of preset station numbers.

3 CD player keys

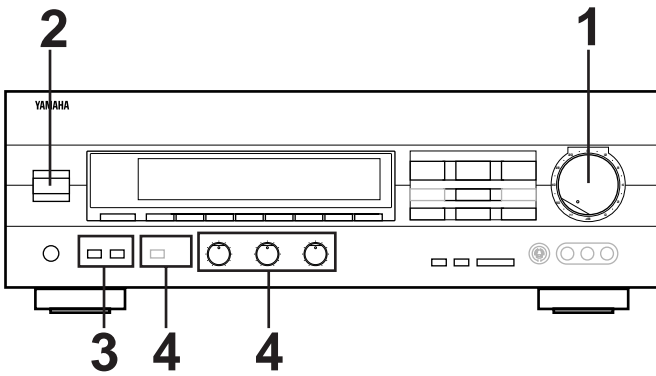
Controls compact disc player.

* **DISC** is applicable only to compact disc changer.

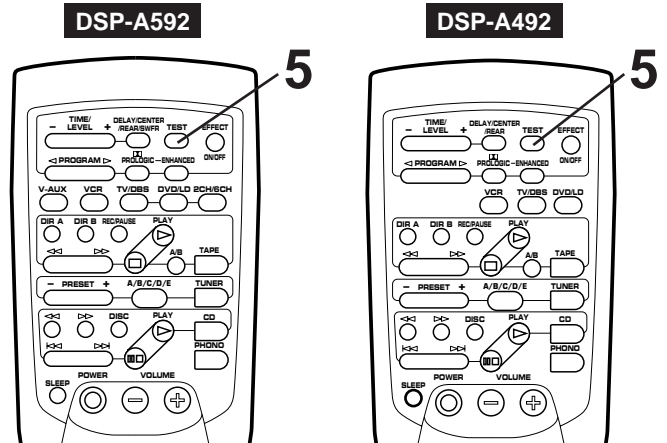
SPEAKER BALANCE ADJUSTMENT

This procedure lets you adjust the sound output level balance between the main, center, and rear speakers using the built-in test tone generator. When this adjustment is performed, the sound output level heard at the listening position will be the same from each speaker. This is important for the best performance of the digital sound field processor and the Dolby Pro Logic Surround decoder.

The adjustment of each speaker output level should be done at your listening position with the remote control transmitter. Otherwise, the result may not be satisfactory.



: Provided for DSP-A592 only.



1

Set to the "∞" position.

2 Turn the power on.

3 Select the main speakers to be used.

* If you use two main speaker systems, press both the A and B switches.

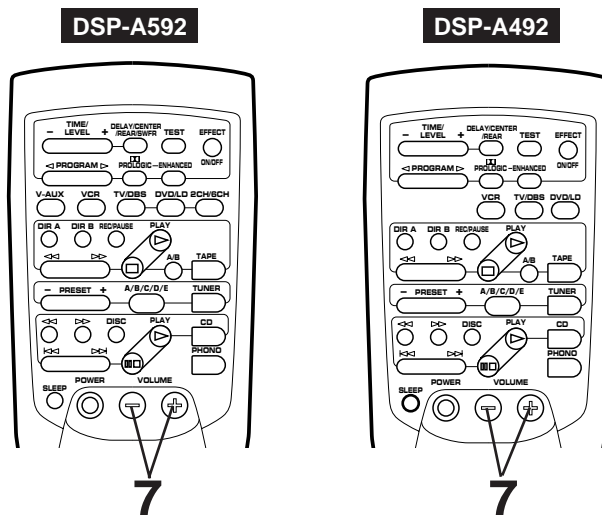
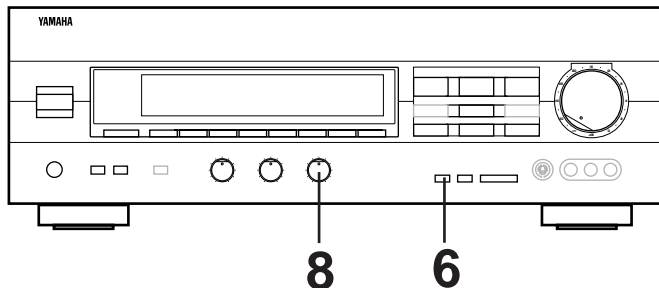
4

Set to the "0" position.

Set to the "OFF ()".

5

TEST LEFT



6 Select the center channel output mode suitable for your speaker configuration. (Refer to **"SPEAKER CONFIGURATION"** on page 7.)

On the feature of each mode, refer to the **"Note"** shown below.

Note
In step 6, when you select a center channel output mode, note the following.

For 5 speaker configuration)

NORMAL: Select this mode when you use a center speaker that is smaller than the main speakers. In this mode, the bass tone will be output from the main speakers.

WIDE: Select this mode when you use the center speaker approximately same sized as the main speakers.

For 4 speaker configuration)

PHANTOM: Select this mode when you do not use the center speaker. The center sound will be output from the left and right main speakers.

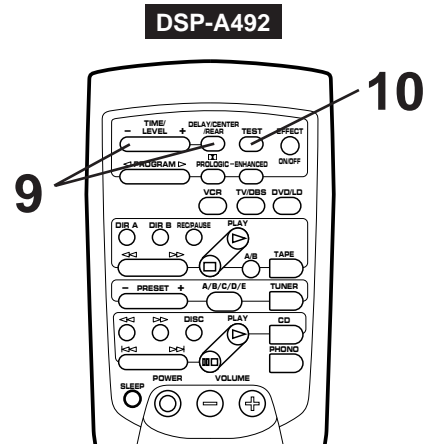
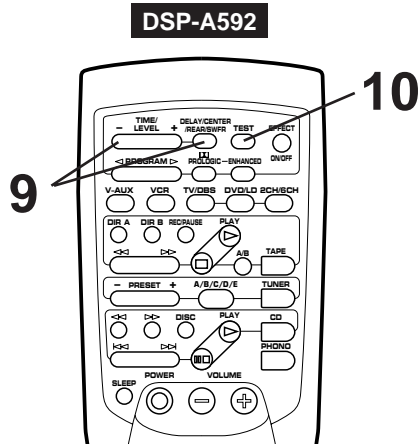
7 Turn up the volume.

You will hear a test tone (like pink noise) from the left main speaker, then the center speaker, then the right main speaker, and then the rear speakers, for about two seconds each. The display changes as shown below.

* The test tone from the left rear speaker and the right rear speaker will be heard at the same time.

8 Adjust the **BALANCE** control so that the effect sound output level of the left main speaker and the right main speaker are the same.

CONTINUED



9 Adjust the sound output levels of the center speaker and the rear speakers so that they become almost as same as that of the main speakers.

- a) Press once or more so that "CENTER" or "REAR" appears on the display.
 * Select "CENTER" to adjust the output level of the center speaker, and select "REAR" to adjust the output level of the rear speakers.

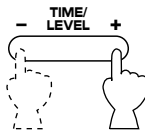
DSP-A592



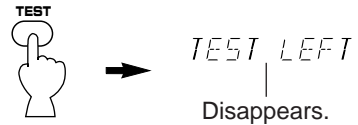
DSP-A492



- b) Adjust its level.
 * Pressing the + side raises and the - side lowers the level.



10 Cancel the test tone.



Notes

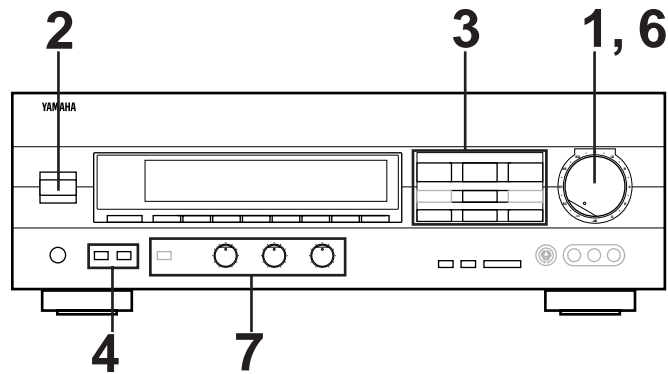
- Once you have completed these adjustments, you can adjust whole sound level on your audio system by using the **VOLUME** control (or the **VOLUME** keys on the remote control transmitter) only.
- If you use external power amplifiers, you may also use their volume controls to achieve proper balance.
- In step 9, if the center channel mode is in the "PHANTOM" position, the sound output level of the center speaker cannot be adjusted. This is because in this mode, the center sound is automatically output from the left and right main speakers.

<U.K. and Europe models only>

- If there is insufficient sound output from the center and rear speakers, you may decrease the main speaker output level by setting the **MAIN LEVEL** switch on the rear panel to "-10 dB".

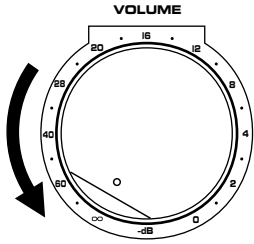
BASIC OPERATIONS

TO PLAY A SOURCE



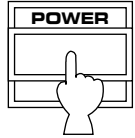
 : Provided for DSP-A592 only.

1

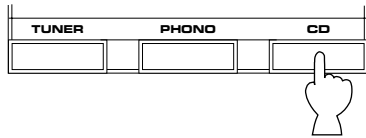


Set to the "∞" position.

2 Turn the power on.

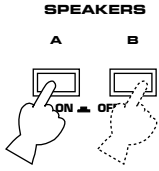


3 Select the desired input source by using the input selector buttons.
(For video sources, turn the TV/monitor ON.)



* The name of the selected input source will appear on the display.

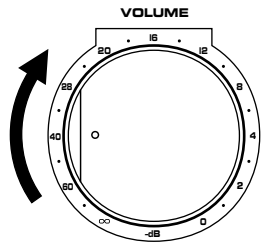
4 Select the main speakers to be used.



* If you use two main speaker systems, press both the A and B switches.

5 Play the source.

6



Adjust to the desired output level.

7 If desired, adjust the **BASS, TREBLE, BALANCE** controls, etc. (refer to page 26) and use the digital sound field processor. (Refer to page 28.)

To turn off the power
Press the **POWER** switch again.

Notes on using the input selector buttons

DSP-A592

- Note that pressing on each input selector button selects the source which is connected to the corresponding input terminals on the rear panel.
 - To select the source connected to the **VIDEO AUX** terminals on the front panel, press **VIDEO AUX**.
- The selection of **TAPE (MD) MON** cannot be canceled by pressing another input selector button. To cancel it, press **TAPE (MD) MON** again so that "TAPE MONITOR" disappears from the display. When you select a button other than **TAPE (MD) MON**, make sure that "TAPE MONITOR" is not illuminated on the display.
- If you select the input selector button for a video source without canceling the selection of **TAPE (MD) MON**, the playback result will be the video image from the video source and the sound from the audio tape (or MD etc.).
- Once you play a video source, its video image will not be interrupted even if the input selector button for an audio source is selected.

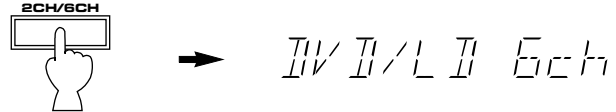
DSP-A492

- Note that pressing on each input selector button selects the source which is connected to the corresponding input terminals on the rear panel.
- The selection of **TAPE (MD) MONITOR** cannot be canceled by pressing another input selector button. To cancel it, press **TAPE (MD) MONITOR** again so that "TAPE MON" disappears from the display. When you select a button other than **TAPE (MD) MONITOR**, make sure that "TAPE MON" is not illuminated on the display.
- If you select the input selector button for a video source without canceling the selection of **TAPE (MD) MONITOR**, the playback result will be the video image from the video source and the sound from the audio tape (or MD etc.).
- Once you play a video source, its video image will not be interrupted even if the input selector button for an audio source is selected.

DSP-A592 only

To listen to a decoded source using Dolby Digital (AC-3) by reproducing the signals input to the 6CH DISCRETE INPUT DVD/LD TV/DBS terminals of this unit.

In step 3, select **TV/DBS** or **DVD/LD**, and then press the **2CH/6CH** button so that "6ch" appears on the display. Discrete signals from the unit connected to the 6CH DISCRETE INPUT DVD/LD TV/DBS terminals of this unit are selected as the input signals.



To cancel it, press the **2CH/6CH** button again or select another input source.

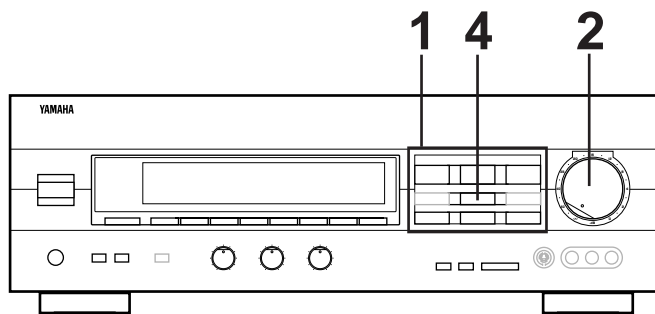
Note for reproducing discrete signals with Dolby Digital (AC-3) decoded:

- Your speaker system must include a center speaker.
- Your speaker system must include a subwoofer.
 - Connect a subwoofer which has a built-in amplifier to the **SUBWOOFER OUTPUT** terminal of this unit.
 - You can do without using a subwoofer. If you do so, you should make a setting for distributing signals at the LFE channel to the right and left **MAIN** output terminals on the Dolby Digital (AC-3) Decoder unit. For details, refer to the owner's manual for the Dolby Digital (AC-3) Decoder unit.

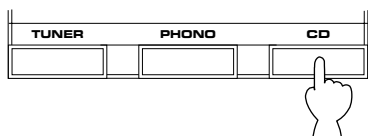
Notes

- When you switch to the "6CH" mode, the built-in Digital Sound Field processor will not work and adjustment of delay time cannot be made.
- Switching this unit to the "6CH" mode will input no signal to this unit if there is no connection to the 6CH DISCRETE INPUT DVD/LD TV/DBS terminals of this unit.

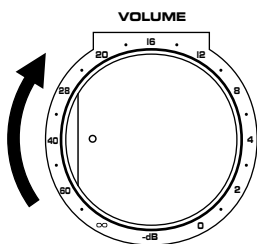
TO RECORD A SOURCE TO TAPE (OR MD)



- 1** Select the source to be recorded.



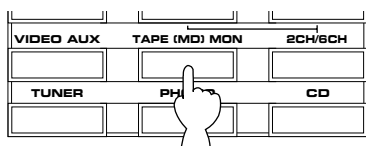
- 2** Play the source and then turn the **VOLUME** control up to confirm the input source.



- 3** Begin recording on the tape deck (or MD recorder etc.) or VCR connected to this unit.

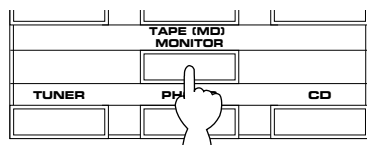
4 **DSP-A592**

If the tape deck (or MD recorder etc.) is used for recording, you can monitor the sounds being recorded by pressing **TAPE (MD) MON** so that "TAPE MONITOR" lights up on the display.



DSP-A492

If the tape deck (or MD recorder etc.) is used for recording, you can monitor the sounds being recorded by pressing **TAPE (MD) MONITOR** so that "TAPE MON" lights up on the display.



Notes

DSP-A592

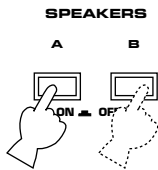
- The settings of DSP and the **VOLUME, BASS, TREBLE, BALANCE** controls and the **BASS EXTENSION** switch have no effect on the material being recorded.
- In step 1, do not make an input source selection so that "6ch" appears on the display. Signals input to this unit's 6CH DISCRETE INPUT DVD/LD TV/DBS terminals cannot be recorded by a tape deck, MD recorder or VCR.

DSP-A492

- The settings of DSP and the **VOLUME, BASS, TREBLE** and **BALANCE** controls have no effect on the material being recorded.

Selecting the SPEAKER system

Because one or two speaker systems (as main speakers) can be connected to this unit, the **SPEAKERS** switches allow you to select speaker system **A** or **B**, or both at once.



Adjusting the BALANCE control

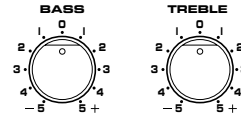
Adjust the balance of the output volume to the left and right speakers to compensate for sound imbalance caused by speaker location or listening room conditions.



Note

This control is effective only for the sound from the main speakers.

Adjusting the BASS and TREBLE controls



BASS : Turn this clockwise to increase (or counter-clockwise to decrease) the low frequency response.

TREBLE : Turn this clockwise to increase (or counter-clockwise to decrease) the high frequency response.

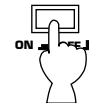
Note

These controls are effective only for the sound from the main speakers.

Using the BASS EXTENSION switch DSP-A592 only

You can boost bass frequency response by setting this switch to the "ON" position. This switch is effective only on the sound from the main speakers.

BASS
EXTENSION



USING DIGITAL SOUND FIELD PROCESSOR (DSP)

This unit incorporates a sophisticated, multi-program digital sound field processor. The processor allows you to electronically expand and change the shape of the audio sound field from both audio and video sources, creating a theater-like experience in your listening room. You can create an excellent audio sound field by selecting a suitable sound field program (this will, of course, depend on what you will be listening to), and adding desired adjustments.

In addition, this unit incorporates a Dolby Pro Logic Surround decoder for multi-channel sound reproduction of sources encoded with Dolby Surround. The operation of the Dolby Pro Logic Surround decoder can be controlled by selecting a corresponding DSP program including a combined operation of the Yamaha DSP and the Dolby Pro Logic Surround.

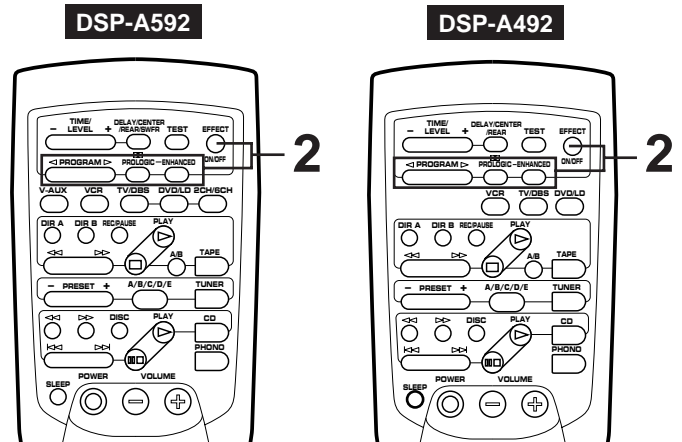
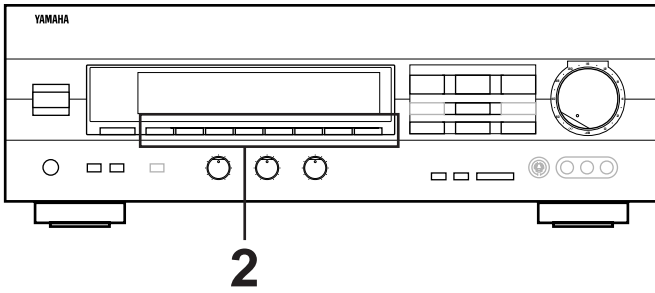
Brief Overview of Digital Sound Field Programs

The following list gives you a brief description of the sound fields produced by each of the DSP programs. Keep in mind that most of these are precise digital recreations of actual acoustic environments. The data for these sound fields was recorded at actual locations using sophisticated sound field measurement equipment.

Note
The channel level balance between the left and right rear effect speakers may vary depending on the sound field you are listening to. This is due to the fact that most of these sound field recreations are actual acoustic environments.

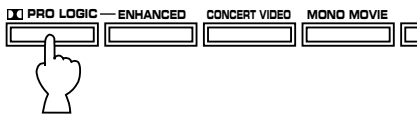
PROGRAM	FEATURE
<input checked="" type="checkbox"/> PRO LOGIC	This program is used for playback of sources encoded with Dolby Surround. The application of a sophisticated digital signal processing system reduces crosstalk and directs or steers the sound source more smoothly and precisely, as compared to conventional types.
<input checked="" type="checkbox"/> PRO LOGIC ENHANCED	This program is also used for playback of sources encoded with Dolby Surround. Enhancing the "Normal" Dolby Pro Logic, the DSP technology simulates the multi-surround speaker systems of a 35 mm movie theater. This effect creates a wide surround sound field, and expands the sound stage with an improved presence image. This program is used for musical based movies, as well as drama and comedy based movies.
CONCERT VIDEO	This program is effective for music videos and gives excellent depth and clarity for vocals. For opera, the orchestra and stage are ideally recreated, letting you feel as if you were in an actual concert hall.
MONO MOVIE	This program is designed specifically to enhance mono source programs. Compared to a strictly mono setting, the sound image created in this mode is wider and slightly forward of the speaker pair, lending an immediacy to the overall sound. It is particularly effective when used with old mono movies, news broadcasts and dialog.
STADIUM	This program gives you long delays between direct sounds and effect sounds, and extraordinarily spacious feel of a large stadium.
DISCO	This program recreates the acoustic environment of a lively disco in the heart of a very lively city. The sound is dense and highly concentrated. It is also characterized by a high-energy, "immediate" sound.
ROCK CONCERT	This program is ideally suited for rock music. You will experience a very dynamic or lively sound field.
CONCERT HALL	In this program, the center will appear to be deep behind the main speakers, creating an expansive large hall ambience. Orchestra and opera music are suited for this sound field.

To play a source with the digital sound field processor



1 Follow steps 1 – 6 shown in “**BASIC OPERATIONS**” on page 23.

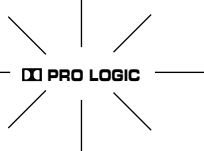
2 Select the desired program that is suitable for the source.



DSP-A592



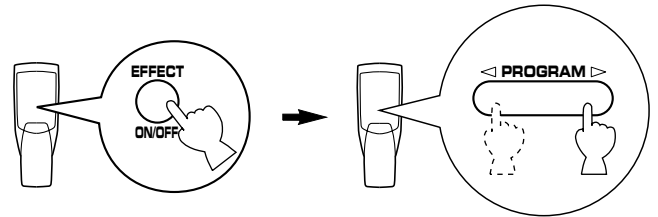
DSP-A492



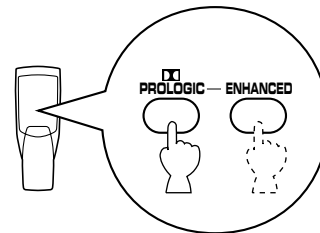
The selected program name is shown on the display.

3 If desired, adjust the delay time and the output level of each speaker. (For details, refer to the corresponding descriptions on page 29 and 30.)

- When a monaural sound source is played with **DOLBY PRO LOGIC** or **DOLBY PRO LOGIC ENHANCED**, no sound is heard from the main speakers and the rear speakers. Sound is heard only from the center speaker. However, if the center channel mode is in **PHANTOM**, the main speakers output the sound of the center channel.
- When this unit's Dolby Pro Logic Surround decoder is used, if the main-source sound is considerably altered by overadjustment of the **BASS** or **TREBLE** control, the relationship between the center and rear channels may produce an unnatural effect.
- To select a DSP program on the remote control transmitter, first turn the DSP on so that a program name lights up on the display by pressing the **EFFECT** key. Next, select a desired DSP program by pressing the **<** or **>** side of **PROGRAM** key.



* Pressing the **PRO LOGIC** or **ENHANCED** key turns the DSP on and selects the corresponding program directly.



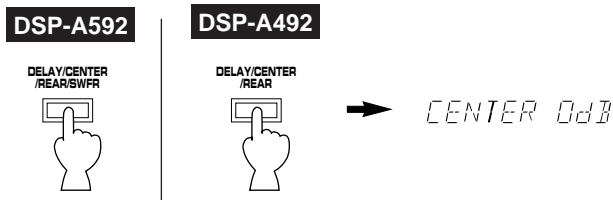
Notes

- Program selection can be made to individual input sources. Once you select a program, it is linked with the input source selected at that time. So, when you select the input source next time, the same program is automatically called.
- If you prefer to cancel the DSP, press the **EFFECT** button. The sound will be the normal 2-channel stereo without surround sound effect.
- When **CONCERT VIDEO**, **MONO MOVIE**, **DISCO**, **STADIUM**, **ROCK CONCERT** or **CONCERT HALL** is selected, no sound is heard from the center speaker.

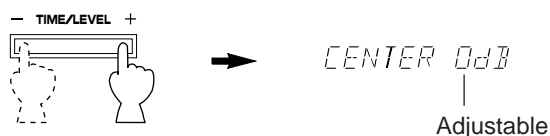
Adjustment of the CENTER LEVEL

If desired, you can adjust the sound output level of the center speaker even if the output level is already set in “**SPEAKER BALANCE ADJUSTMENT**” on page 22.

- 1 Press once or more so that “CENTER” appears on the display.



- 2 By continuously pressing the “+” or “-” side of the **TIME/LEVEL** button, the level value changes continuously. The value stops changing momentarily at the preset point (0 dB).



Control range: MIN, -20 to +10 dB

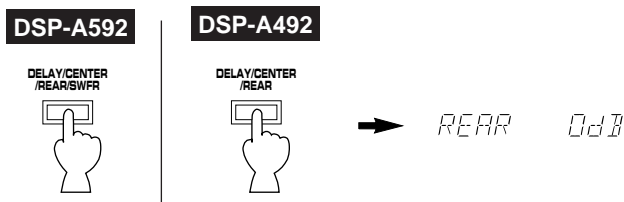
Notes

- **DSP-A592**
This adjustment can be made only when the digital sound field program **DOLBY PRO LOGIC** or **DOLBY PRO LOGIC ENHANCED** is selected, or the “6CH” input source mode is selected.
- **DSP-A492**
This adjustment can be made only when the digital sound field program **DOLBY PRO LOGIC** or **DOLBY PRO LOGIC ENHANCED** is selected.
- Once the output level is adjusted, the level value will be the same in all the digital sound field programs mentioned above.

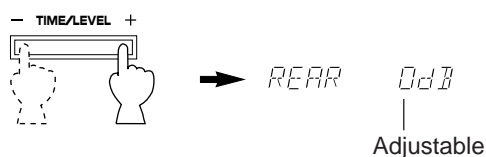
Adjustment of the REAR LEVEL

If desired, you can adjust the sound output level of the rear speakers even if the output level is already set in “**SPEAKER BALANCE ADJUSTMENT**” on page 22.

- 1 Press once or more so that “REAR” appears on the display.



- 2 By continuously pressing the “+” or “-” side of the **TIME/LEVEL** button, the level value changes continuously. The value stops changing momentarily at the preset point (0 dB).



Control range: MIN, -20 to +10 dB

Notes

- **DSP-A592**
This adjustment can be made only when the built-in digital sound field processor is on, or the “6CH” input source mode is selected.
- **DSP-A492**
This adjustment can be made only when the built-in digital sound field processor is on.
- Once the output level is adjusted, the level value will be the same in all the digital sound field programs.

Adjustment of DELAY TIME

You can adjust the time difference between the beginning of the sound from the main speakers and the beginning of the effect sound from the rear speakers. The larger the value, the later the effect sound is generated. This adjustment can be made to all programs individually.

- PRO LOGIC** : from 15 to 30 milliseconds
(Preset value: 20 milliseconds)
- PRO LOGIC ENHANCED** : from 15 to 30 milliseconds
(Preset value: 20 milliseconds)
- CONCERT VIDEO** : from 1 to 100 milliseconds
(Preset value: 28 milliseconds)
- MONO MOVIE** : from 1 to 100 milliseconds
(Preset value: 20 milliseconds)
- STADIUM** : from 1 to 50 milliseconds
(Preset value: 45 milliseconds)
- DISCO** : from 1 to 100 milliseconds
(Preset value: 14 milliseconds)
- ROCK CONCERT** : from 1 to 100 milliseconds
(Preset value: 17 milliseconds)
- CONCERT HALL** : from 1 to 100 milliseconds
(Preset value: 30 milliseconds)

1 Press once or more so that "DELAY" appears on the display.

DSP-A592

DELAY/CENTER
/REAR/SWFR



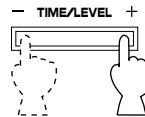
DELAY 30 ms

DSP-A492

DELAY/CENTER
/REAR



2 By continuously pressing the "+" or "-" side of the **TIME/LEVEL** button, the value changes continuously. The value stops changing momentarily at the preset point.



Adjustable

DELAY 30 ms

Notes

- Adding too much delay will cause an unnatural effect with some sources.
- When the **TIME/LEVEL** button is pressed, sound is momentarily interrupted.

Note

The values of the delay time, center level and rear level you set the last time will remain memorized even when the power of this unit is off.

However, if the power cord is kept disconnected for more than one week, these values will be automatically changed back to the original factory settings.

SETTING THE SLEEP TIMER

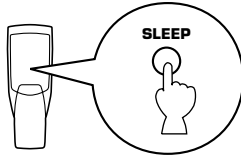
If you use the SLEEP timer of this unit, you can make this unit turn off automatically. When you are going to sleep while enjoying a broadcast or other desired input source, this timer function is helpful.

Notes

- The SLEEP timer can be controlled only with the remote control transmitter.
- The components on which the SLEEP timer is effective are the sources connected to the **SWITCHED AC OUTLET(S)** on the rear panel of this unit.

To set the SLEEP time

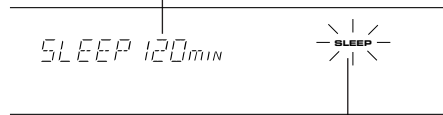
1



Press once or more to select the desired SLEEP time.

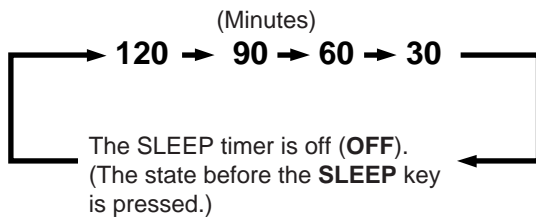


Indicates the SLEEP time.



Lights up.

Whenever the **SLEEP** key is pressed, the SLEEP time will change as follows.

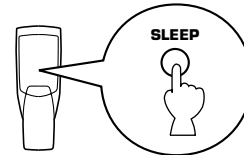


After a while, the display returns to the indication before the SLEEP timer is set.

2

The unit will be turned off automatically at the selected SLEEP time.

To cancel the selected SLEEP time



Press once or more so that "SLEEP OFF" appears on the display. (It will soon disappear and the "SLEEP" indicator will go off from the display.)

Note

The SLEEP timer setting can also be canceled by turning off the power with the **POWER** switch or disconnecting the power plug of this unit from the AC outlet.

TROUBLESHOOTING

If the unit fails to operate normally, check the following points to determine whether the fault can be corrected by the simple measures suggested. If it cannot be corrected, or if the fault is not listed in the SYMPTOM column, disconnect the power cord and contact your authorized YAMAHA dealer or service center for help.

	SYMPTOM	CAUSE	REMEDY
Amplifier	The unit fails to turn on when the POWER switch is pressed, or turns off suddenly soon after the power is turned on.	Power cord is not plugged in or is not completely inserted.	Firmly plug in the power cord.
		The IMPEDANCE SELECTOR switch on the rear panel is not set to the upper or the lower end exactly.	Set the switch to the upper or the lower end exactly.
	No sound or no picture.	Incorrect output cord connections.	Connect the cords properly. If the problem persists, the cords may be defective.
		Appropriate input source is not selected.	Select an appropriate input source with the input selector buttons.
		The SPEAKERS switches are not set properly.	Set the SPEAKERS switch which corresponds to the speakers to be used to the ON position.
		Speaker connections are not secure.	Secure the connections.
	The sound suddenly goes off.	The protection circuit has been activated because of short circuit etc.	Turning the unit off and then on will reset the protection circuit.
		The SLEEP timer has functioned.	Cancel the SLEEP timer function.
	Only one side speaker outputs the sound.	Incorrect setting of the BALANCE control.	Adjust it to the appropriate position.
		Incorrect cord connections.	Connect the cords properly. If the problem persists, the cords may be defective.
	Sound "hums".	Incorrect cord connections.	Firmly connect the audio plugs. If the problem persists, the cords may be defective.
		No connection from the turntable to the GND terminal.	Make the GND connection between the turntable and this unit.
	The volume level is low while playing a record.	The record is being played on a turntable with an MC cartridge.	The player should be connected to the unit through the MC head amplifier.
	The volume level cannot be increased, or sound is distorted.	The power to the component connected to the REC OUT terminals of this unit is off.	Turn the power to the component on.
	No sound from the rear speakers.	The sound output level to the rear speakers is set to minimum.	Raise the sound output level to the rear speakers.
The monaural sound source is played in DOLBY PRO LOGIC or DOLBY PRO LOGIC ENHANCED mode.		Select another program suitable for the monaural sound source.	
No sound from the center speaker.	The sound output level to the center speaker is set to minimum.	Raise the sound output level to the center speaker.	
	The center channel mode is in PHANTOM mode.	Select NORMAL or WIDE.	
	Incorrect sound field program selection.	Select the appropriate program.	
Remote control transmitter	The remote control transmitter does not work.	Direct sunlight or lighting (of an inverter type of fluorescent lamp etc.) is striking the remote control sensor of the main unit.	Change the position of the main unit.
		The batteries of this remote control transmitter are too weak.	Replace the batteries with new ones.
Others	The sound is degraded when listening with the headphones connected to the compact disc player or cassette deck that are connected with this unit.	The power to this unit is off.	Turn the power to this unit on.

SPECIFICATIONS

AUDIO SECTION

Minimum RMS Output Power per Channel
Main L, R
8 ohms, 20 Hz to 20 kHz, 0.04% THD
<DSP-A592>70W+70W
<DSP-A492>65W+65W
Center
<DSP-A592>
8 ohms, 1 kHz, 0.07% THD.....70W
<DSP-A492>
8 ohms, 1 kHz, 0.09% THD.....65W
Rear
<DSP-A592>
8 ohms, 1 kHz, 0.3% THD35W+35W
<DSP-A492>
8 ohms, 1 kHz, 0.7% THD20W+20W
Maximum Power [General model only]
8 ohms, 1 kHz, 10% THD
Main L, R
<DSP-A592>110W+110W
<DSP-A492>100W+100W
Center
<DSP-A592>110W
<DSP-A492>100W
Dynamic Power per Channel
(by IHF Dynamic Headroom measuring
method)
<DSP-A592>
8/6/4/2 ohms.....95/120/150/170W
<DSP-A492>
8/6/4/2 ohms.....95/115/145/165W
DIN Standard Output Power per Channel
4 ohms, 1 kHz, 0.7% THD
[Europe model only]
<DSP-A592>110W
<DSP-A492>95W
IEC Power
8 ohms, 1 kHz, 0.1% THD
[Europe model only]
<DSP-A592>85W
<DSP-A492>80W
Power Band Width
<DSP-A592>
8 ohms, 30W, 0.08% THD
.....10 Hz to 50 kHz
<DSP-A492>
8 ohms, 30W, 0.1% THD
.....10 Hz to 50 kHz
Damping Factor (SPEAKERS A)
8 ohms, 20 Hz to 20 kHz80 or more
Input Sensitivity/Impedance
PHONO MM2.5 mV/47 k-ohms
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR
.....150 mV/47 k-ohms
6CH DISCRETE INPUT DVD/LD TV/DBS
<DSP-A592 only>150 mV/50 k-ohms
Maximum Input Signal
PHONO MM
1 kHz, 0.5% THD
<DSP-A592>115 mV
<DSP-A492>100 mV
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR
1 kHz, 0.5% THD
<DSP-A592> (EFFECT ON)2.2V
<DSP-A492> (EFFECT OFF).....2.5V

Output Level/Impedance
REC OUT150 mV/2.5 k-ohms
PRE OUT (MAIN)
<DSP-A592 only>2.2V/1.2 k-ohms
PRE OUT (REAR)
<DSP-A592 only>1.6V/1.2 k-ohms
SUBWOOFER (EFFECT OFF)
<DSP-A592>6.0V/1.5 k-ohms
<DSP-A492>3.5V/1 k-ohms
Headphone Jack Rated Output/Impedance
Output Level (8 ohms, 0.04% THD)
<DSP-A592>0.5V
<DSP-A492>0.45V
Impedance
<DSP-A592>390 ohms
<DSP-A492>330 ohms
Frequency Response (20 Hz to 20 kHz)
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR
.....0±0.5 dB
RIAA Equalization Deviation
PHONO MM.....0±0.5 dB
Total Harmonic Distortion (20 Hz to 20 kHz)
PHONO MM to REC OUT
1V0.02%
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR to
SP OUT
30W/8 ohms
<DSP-A592>0.02%
<DSP-A492>0.03%
Signal-to-Noise Ratio (IHF-A Network)
PHONO MM to REC OUT
(5 mV Input Shorted)
<DSP-A592>
[Europe and U.K. models].....82 dB
[General model]85 dB
<DSP-A492>80 dB
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR to
SP OUT (Shorted)
<DSP-A592>99 dB
<DSP-A492>93 dB
Residual Noise (IHF-A Network)
MAIN L/R140 µV
Channel Separation (Vol. -30 dB, EFFECT
OFF)
PHONO MM (Input Shorted)
<DSP-A592>
1 kHz/10 kHz60 dB/50 dB
<DSP-A492>
1 kHz.....60 dB
CD/TUNER/TAPE/DVD-LD/TV-DBS/VCR
(Input 5.1 k-ohms Terminated)
<DSP-A592>
1 kHz/10 kHz60 dB/45 dB
<DSP-A492>
1 kHz.....60 dB
Tone Control Characteristics
BASS: Boost/cut.....±10 dB (50 Hz)
Turnover Frequency.....(350 Hz)
TREBLE: Boost/cut.....±10 dB (20 kHz)
Turnover Frequency.....(3.5 kHz)
Bass Extension
<DSP-A592 only>.....+6 dB (50 Hz)
Gain Tracking Error (0 to -60 dB)3 dB

VIDEO SECTION

Video Signal Type
[Europe and U.K. models]PAL
[General model]NTSC/PAL
Video Signal Level.....1 Vp-p/75 ohms
S-Video Signal Level
<DSP-A592 only>
Y1 Vp-p/75 ohms
C0.286 Vp-p/75 ohms
Maximum Input Level.....1.5 Vp-p or more
Signal-to-Noise Ratio50 dB or more
Monitor Out Frequency Response
.....5 Hz to 10 MHz, -3 dB

GENERAL

Power Supply
[Europe and U.K. models]
.....AC 230V, 50 Hz
[General model]
.....AC 110/120/220/240V, 60/50 Hz
Power Consumption
<DSP-A592>270W
<DSP-A492>230W
Maximum Power Consumption
(8 ohms, 1 kHz, 10% THD, When 5 channels
are driven)
[General model only]
<DSP-A592>630W
<DSP-A492>540W
AC Outlets
3 SWITCHED OUTLETS
[General model]100W max. total
2 SWITCHED OUTLETS
[Europe model]100W max. total
1 SWITCHED OUTLET
[U.K. model]100W max. total
Dimensions (W x H x D)
<DSP-A592>435 x 151 x 379.5 mm
(17-1/8" x 5-15/16" x 14-15/16")
<DSP-A492>435 x 151 x 266.5 mm
(17-1/8" x 5-15/16" x 10-1/2")
Weight
<DSP-A592>11.0 kg (24 lbs. 3 oz.)
<DSP-A492>8.7 kg (19 lbs. 2 oz.)
AccessoriesRemote control transmitter
Batteries

Specifications are subject to change without
notice.

YAMAHA

YAMAHA ELECTRONICS CORPORATION, USA 6660 ORANGETHORPE AVE., BUENA PARK, CALIF. 90620, U.S.A.
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