

# YAMAHA



# AST-S1

*Natural Sound Active Servo Processing Speakers*

*Thank you for purchasing the Yamaha AST-S1 Active Servo Processing Speakers.*

*The AST-S1 represents an entirely new concept in speaker design. Developed through the application of advanced Yamaha audio technology, these speakers feature the revolutionary Active Servo Technology Speaker System. When connected to a Yamaha Active Servo Processing Amplifier, they will provide wide-range detailed sound and excellent ambience. In order to obtain optimum performance from your new AST-S1 speakers and to ensure proper operation and maximum listening enjoyment, please read this owner's manual carefully before using them.*

**CENTER**

## Owner's Manual

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### IMPORTANT:

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

Model: **AST-S1**

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.


## PRECAUTIONS


Read this before operating your AST-S1.


**AST** Connect these speakers only to an Active Servo Processing Amplifier equipped to accept the Active Servo Processing Cartridge (such as the Yamaha AST-A10).


 Before using the speakers, insert the Active Servo Processing Cartridge AST-KS1 (provided) into the cartridge holder of the Active Servo Processing Amplifier.


 In order to maintain the speaker cabinet's finish, prevent it from coming into contact with water vapor, alcohol, benzene, insecticide, etc. Do not place plastic coverings on top of the speakers as the color could come off and stick to the finish. To clean, wipe with a dry, soft cloth.

 To prevent the enclosure from warping or discoloring, do not place the speakers in places where they will be exposed to direct sunlight or excessive humidity.

 Do not place the speakers where they are liable to be knocked over or exposed to falling objects. Furthermore, stable placement will also ensure good sound.

 Placing the speakers on the same stand or shelf as the turntable can cause howling.

 These speakers feature a magnetically shielded design, but there is still a chance that placing them too close to a TV set might impair the picture colors. Should this happen, place TV sets away from the speakers.

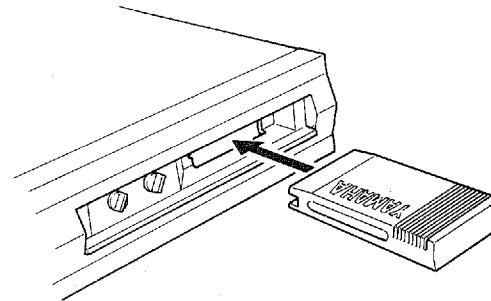
 Never touch the woofer or tweeter units with your hands or expose them to excessive shocks. If they are dented or bent the sound will be distorted as well.

## THE ACTIVE SERVO PROCESSING CARTRIDGE (AST-KS1)

- The cartridge included with the AST-S1 speakers should be inserted in the cartridge holder of the AST-A10.
- The AST-KS1 cartridge is specially designed to match the characteristics of the AST-S1 speaker system. Do not attempt to use it with any other speakers. Connections with speakers other than the Active Servo Processing Speakers could damage the Active Servo Processing Amplifier itself and the connected speakers.

### ■ INSERTING THE CARTRIDGE

- AMP & POWER OFF 仕様*
- ① Open the amplifier's front panel door by pressing on its lower portion.
  - ② Insert the cartridge into the cartridge holder with the connector side facing the holder.
    - Be sure to insert the cartridge into the Active Servo Processing Amplifier (AST-A10) before using the speakers. Also, make sure that the last two digits of the cartridge model number match the last two digits of the speaker system you are using.  
Cartridge ..... AST-KS1  
Speaker system ..... AST-S1



### NOTES:

- This cartridge contains precision components. Never force it when inserting or drop it.
- Do not rub or scratch the cartridge connector portion with hard objects.
- Store the cartridge in a place where it will not be subjected to extremely hot (40°C or over) or cold (-5°C or lower) temperatures. Also, do not store it in very humid (90% or over) or dusty places.

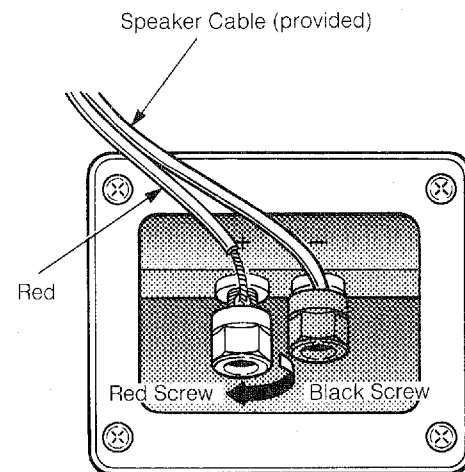
## CONNECTIONS TO THE AMPLIFIER

- This speaker system must not be connected to any amplifier other than an Active Servo Processing Amplifier equipped to accept Active Servo Processing Cartridges. Connecting these speakers to a conventional amplifier is possible. However, this will result in impaired performance and sound.
- Be sure to turn the amplifier power off before making connections.

### ■ CONNECTIONS

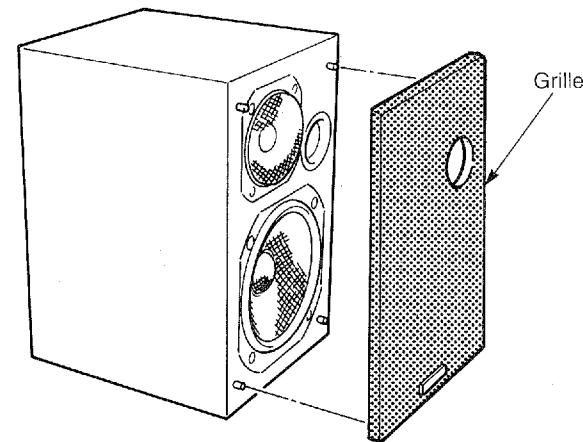
Connect the screw-type input terminals on the backs of the speakers via the supplied cables to the amplifier's SPEAKERS terminals. Make sure you connect the left channel speaker to the amplifier's "L" terminal and the right channel speaker to the amplifier's "R" terminal. Also, take care not to reverse the polarity (+, -). Incorrect polarity will cause distorted sound.

- ① Remove about 20mm (13/16") of insulation from the ends of the supplied speaker cable, taking care that the wire strands remain twisted.
- ② Turn the screw terminal on the back of the speaker counterclockwise to loosen it and insert the exposed conductor of the speaker cable as shown in the illustration. Then turn the screw clockwise to tighten it.



## FRONT GRILLE

The front grille is fastened to the enclosure at four points and can be removed if desired. To remove the grille, hold on to both sides and slowly pull straight forward. To reattach, line up the four clips on the grille with the holes in the enclosure and push gently.



### NOTE:

When the grille is removed, take care not to touch the speaker units (especially the tweeter) with your hands or to exert excessive force with tools, etc.

## SPECIFICATIONS

**Type** ..... 2-way, Active Servo processing type  
Magnetic-shielding type(EIAJ)

### Speakers

**Woofers** ..... Polypropylene cone (JA-1612)

**Tweeters** ..... 2.5cm soft dome (JA-05A7)

**Crossover Frequency** ..... 2.5 kHz, 12 dB/oct

**Maximum Sound Pressure** ..... 112 dB SPL/1 kHz

**Frequency Response** ..... 28 Hz - 20 kHz

**Dimensions (W x H x D)** ..... 188 x 297 x 230 mm (including front grille)  
(7-3/8" x 11-11/16" x 9-1/16")

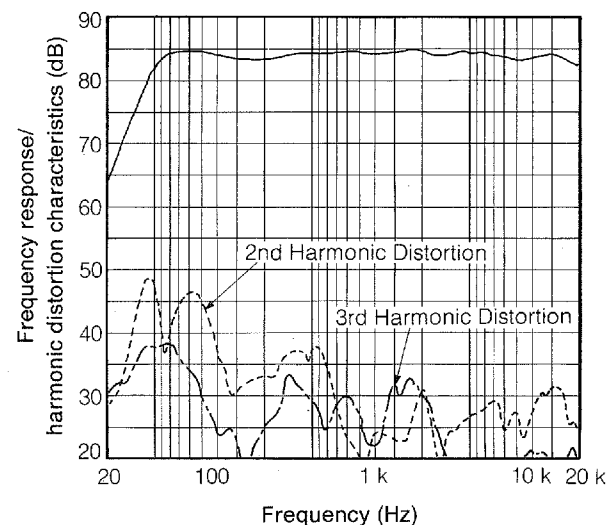
**Cabinet** ..... Vinyl chloride finish

**Weight** ..... 6 kg (13 lbs 3 oz)

**Accessories** ..... Active Servo Processing Cartridge (AST-KS1) x 1  
Speaker cable (4 m) x 2

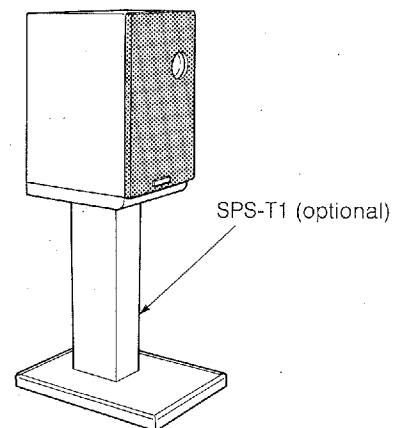
- Specifications are subject to change without notice due to product improvements.
- This speaker system is designed to be usable near a television set. Nevertheless, the TV picture may exhibit uneven colors depending on the way the speakers are positioned. Should this happen, turn off the TV and wait for 15 - 30 minutes before turning it on again. The television's built-in self-demagnetizing function should lessen the adverse affect on the picture of magnetic flux from the speakers. If the effect persists, move the television farther away from the speakers.
- If magnets or magnetic flux producing objects are placed nearby, they can interact with the speakers to produce the uneven colors in the TV picture mentioned above. This point should be kept in mind when deciding speaker placement.

## FREQUENCY CHARACTERISTICS



## Optional Stand

An optional speaker stand (SPS -T1) is available to match the AST-S1 speakers. (A fang nut is provided on the speaker base for securing to the speaker stand.)



# YAMAHA

YAMAHA CORPORATION  
P.O. Box 1, Hamamatsu, Japan

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