



**MONITOR SPEAKER**

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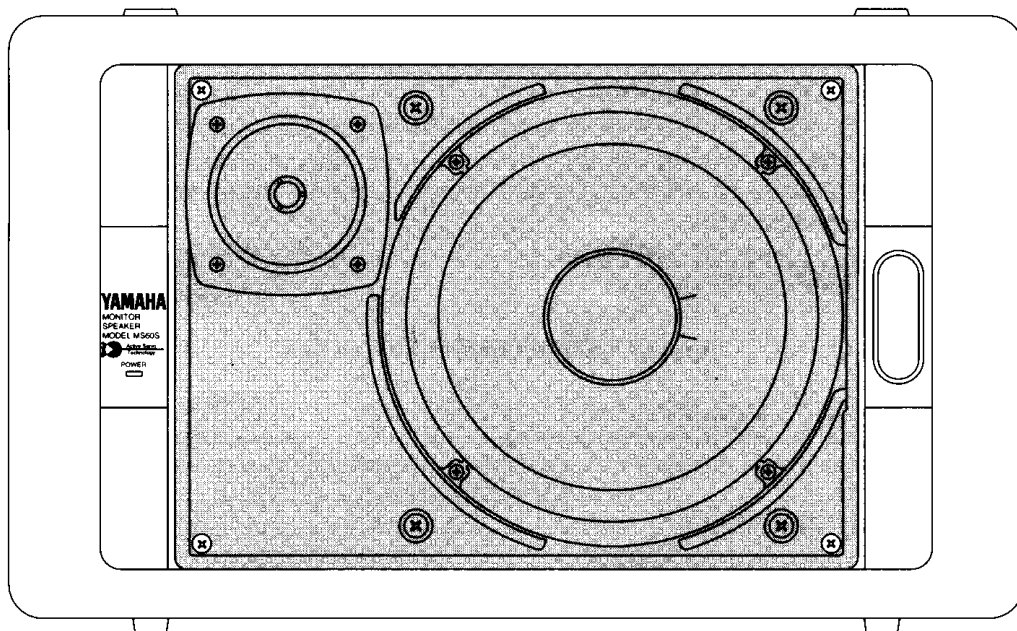
# **MS60S**

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**OPERATING MANUAL**

**MODE D'EMPLOI**

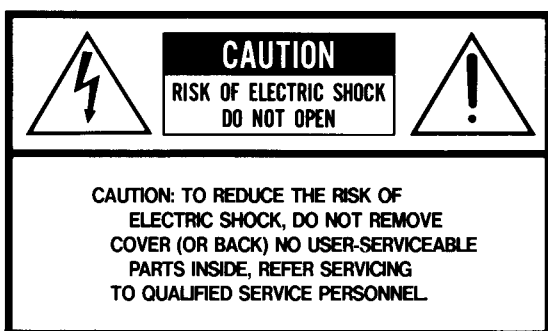
**BEDIENUNGSANLEITUNG**



# YAMAHA Active Servo Technology

Thank you for purchasing the Yamaha MS60S powered monitor speaker system. Yamaha's ongoing research in audio technology has resulted in the YAMAHA Active Servo Technology used in the MS60S, providing a revolutionary advance over previous speaker systems. This technology unifies the construction of the ported cabinet and the negative output impedance of the 60W amplifier, enabling superb reproduction of the low-frequency range, together with a tight, well-defined sound. Three inputs are provided, allowing both microphone (balanced) and line level (unbalanced) sources to be connected. A 20cm woofer and horn-type tweeter in a bass reflex enclosure provide a flat efficient response from low- to high-frequency ranges. Efficient magnetic shielding allows the MS60S to be used even with audio-visual components.

To ensure long and trouble-free use of your MS60S, please read this manual carefully before use.



## ● Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you 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 you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## IMPORTANT NOTICE FOR THE UNITED KINGDOM

### Connecting the Plug and Cord

**IMPORTANT.** The wires in this mains lead are coloured in accordance with the following code:

BLUE : NEUTRAL                      BROWN : LIVE

As the colours of the wires in the mains 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 colored RED.

## CONTENTS

PRECAUTIONS .....	2
GENERAL SPECIFICATIONS .....	2
PANEL .....	3
EXAMPLE SETUPS .....	5
BLOCK DIAGRAM/DIMENSIONS .....	6
OPTIONS .....	7

# PRECAUTIONS

1. **AVOID EXCESSIVE HEAT, HUMIDITY, DUST AND VIBRATION**  
Keep the unit away from locations where it is likely to be exposed to high temperatures or humidity—such as near radiators, stoves, etc. Also avoid locations which are subject to excessive dust accumulation or vibration which could cause mechanical damage.
2. **AVOID PHYSICAL SHOCKS**  
Strong physical shocks to the unit can cause damage. Handle it with care.
3. **DO NOT OPEN THE UNIT OR ATTEMPT REPAIRS OR MODIFICATIONS YOURSELF**  
This product contains no user-serviceable parts. Refer all maintenance to qualified YAMAHA service personnel. Opening the unit and/or tampering with the internal circuitry will void the warranty. Do not remove the screws holding the metal grille to the plastic cabinet. This will prevent accidental damage to the speakers. To avoid accidental electric shock, avoid inserting anything into the plastic case or the speaker reflex port.
4. **MAKE SURE POWER IS OFF BEFORE MAKING OR REMOVING CONNECTIONS**  
Always turn the power OFF prior to connecting or disconnecting cables. This is important to prevent damage to the unit itself as well as other connected equipment.
5. Although the MS60S is fitted with magnetic shielding to minimize interference to audio-visual components, color distortion may appear on a color TV or monitor if the MS60S is placed too close. If this symptom is observed, increase the distance between the TV/monitor and MS60S.
6. **HANDLE CABLES CAREFULLY**  
Always plug and unplug cables—including the AC cord—by gripping the connector, not the cord.
7. **CLEAN WITH A SOFT DRY CLOTH**  
Never use solvents such as benzene or thinner to clean the unit. Wipe clean with a soft, dry cloth.
8. **WHEN USING A STACK**  
This equipment can be used as a two unit stack. To operate safely and to prevent tipping the equipment over, never stack more than two units at one time. This equipment should be set up in a location which is steady and level.
9. **ALWAYS USE THE CORRECT POWER SOURCE**  
Make sure that the power source voltage specified on the rear panel matches your local AC mains supply.  
U.S. & Canadian Models: 120V AC, 60Hz  
General Model: 220/240V AC, 50/60Hz
10. When rack-mounting the unit, allow enough free space around the unit for normal ventilation. This should be: 10 cm at the sides, 30 cm behind, and 40 cm above.  
For normal ventilation during use, remove the rear of the rack or open a ventilation hole.  
If the airflow is not adequate, the unit will heat up inside and may cause a fire.
11. Do not place a container with liquid or small metal objects on top of this unit. Liquid or metal objects inside this unit are a fire and electrical shock hazard.

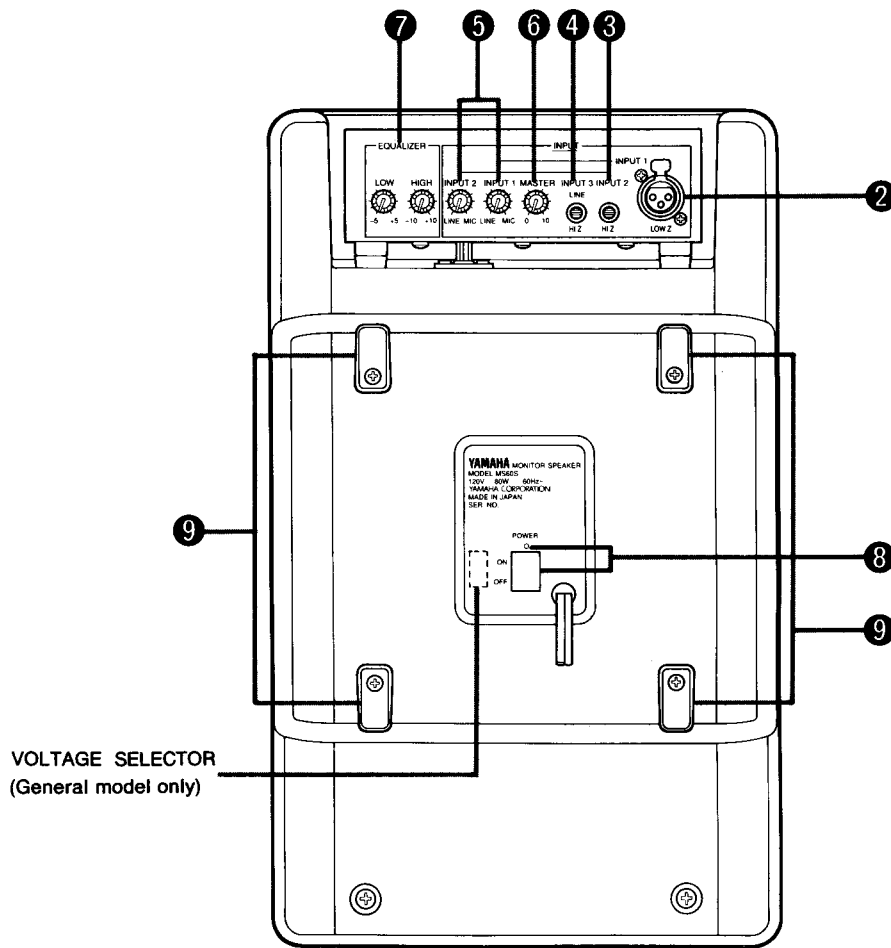
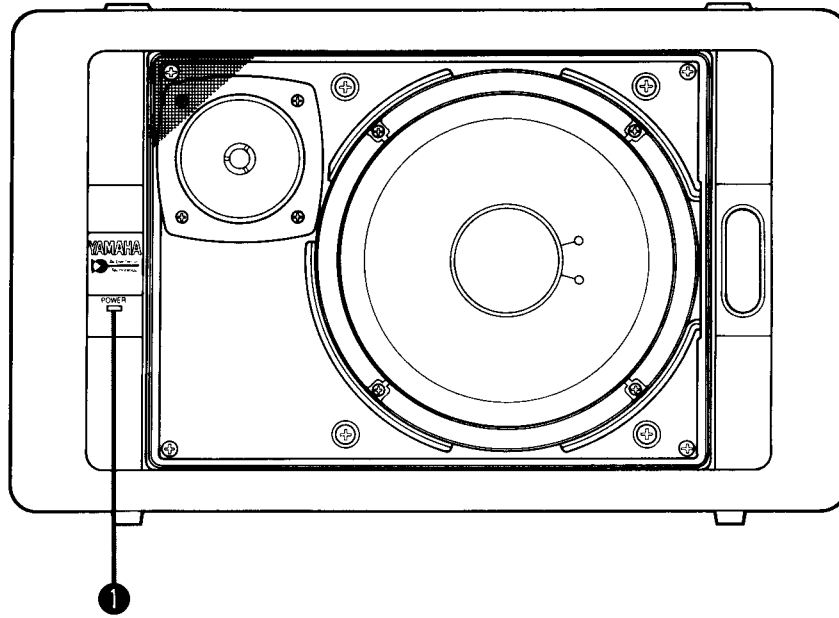
# SPECIFICATIONS

<b>GENERAL SPECIFICATIONS</b>	
Type	YST Powered Speaker
Frequency Range	40 Hz — 20 kHz
Max. SPL	108 dB SPL (60 W, 1 m on axis)
Enclosure	Bass reflex type, magnetic shielding construction
Dimensions (W × H × D)	445 × 275 × 244 mm (17-1/2 × 11 × 9-1/2 in)
Weight	10 kg (22 lb)
<b>SPEAKER SECTION</b>	
Components	LF : 20 cm Cone (JA2015) × 1 HF : Horn (JA0562) × 1
Sensitivity	90 dB SPL (1 W, 1 m on axis)
Nominal Impedance	8 Ω
Crossover Frequency	4 kHz
<b>AMP. SECTION</b>	
Output Power	60 W at 1 kHz, THD=1%, RL=8 Ω
Frequency Response	20 Hz — 20 kHz
Input Sensitivity	INPUT 1 -50 dB — -20 dB / 600 Ω / XLR-3-31 type
/Impedance	INPUT 2 -50 dB — -20 dB / 10 kΩ / Phone Jack
/Connectors	INPUT 3 -20 dB / 10 kΩ / Phone Jack
Hum & Noise	≤ -58 dB (MASTER : min)
Controls	INPUT 1,2 MASTER EQUALIZER LOW : ±5 dB at 70 Hz HIGH : ±8 dB at 10 kHz
Power Requirement	POWER "ON/OFF" US & CANADIAN MODELS : AC 120 V, 60 Hz GENERAL MODEL : AC 230 V, 50 Hz
Power Consumption	80 W

NOTE: XLR connector is balanced, phone connectors are unbalanced.  
0 dB = 0.775 V r.m.s.  
Specifications and appearance subject to change without notice.

# PANEL

## FRONT PANEL



## REAR PANEL

# PANEL

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- ❶ **POWER INDICATOR:** When the switch on the back panel is turned on, this red indicator will light up.
- ❷ **INPUT 1 CONNECTOR:** This is a low-impedance XLR-3-31-type balanced connector, used primarily for the connection of low-impedance microphones. The INPUT 1 GAIN control allows precise matching of input levels. Input impedance is 600Ω.
- ❸ **INPUT 2 CONNECTOR:** This is a high-impedance 1/4" phone connector which may be used for line-level input or for high-impedance microphones, depending on the setting of the INPUT 2 GAIN control. Input impedance is 10kΩ.
- ❹ **INPUT 3 (LINE) CONNECTOR:** This is a high-impedance 1/4" phone connector used for line-level (cassette recorder, electronic keyboard, etc) connections (-20 dB/10 kΩ). There is no gain control for this input.
- ❺ **INPUT 1 & 2 GAIN CONTROLS:** These controls allow you to adjust the gain of the head amplifiers of INPUT 1 and 2 between -50 dB and -20 dB. When turned fully clockwise, these inputs are suitable for use with microphones (-50 dB), and when turned fully counterclockwise, line sources, such as electronic keyboards or a cassette recorder, may be used (-20 dB). If you are using line level sources, do not turn these controls too far clockwise, otherwise a distorted sound will result. If you can hear distortion from a line source, even after these controls have been turned fully counterclockwise, reduce the output level of the line source.
- ❻ **MASTER LEVEL CONTROL:** This control, when turned fully counterclockwise, takes the total volume down to the minimum level, and when turned clockwise, increases the total level. It is a good idea to turn the level down when connecting or disconnecting instruments or microphones to or from the MS60S.
- ❼ **EQUALIZER CONTROLS:** HIGH-This cuts and boosts the signal at 10 kHz. When turned clockwise, the signal at this frequency will be boosted by 8 dB, and when turned counterclockwise, a corresponding cut of 8 dB will be made. LOW-This cuts and boosts the signal at 70 Hz. When turned clockwise, the signal at this frequency will be boosted by 5 dB, and when turned counterclockwise, a corresponding cut of 5 dB will be made. In the "flat" (center click position), these equalizer controls have no effect.
- ❽ **POWER SWITCH AND INDICATOR:** When this switch is ON, the red LED above the switch will light up (as will the square red LED on the front panel.)
- ❾ **CORD REEL:** When transporting or storing the MS60S, the power cord may be unplugged from the AC outlet, and coiled round the cord reel. (The cord is not wrapped round the cord reel when the MS60S is shipped.)

## CAUTION

- Since electric circuits are included in the cabinet of MS60S, take care not to drop the conductive items such as screwdrivers, bared wires to the port on the front panel.
- Don't put off the punching grille from the front panel by using the screwdriver.

# EXAMPLE SETUPS

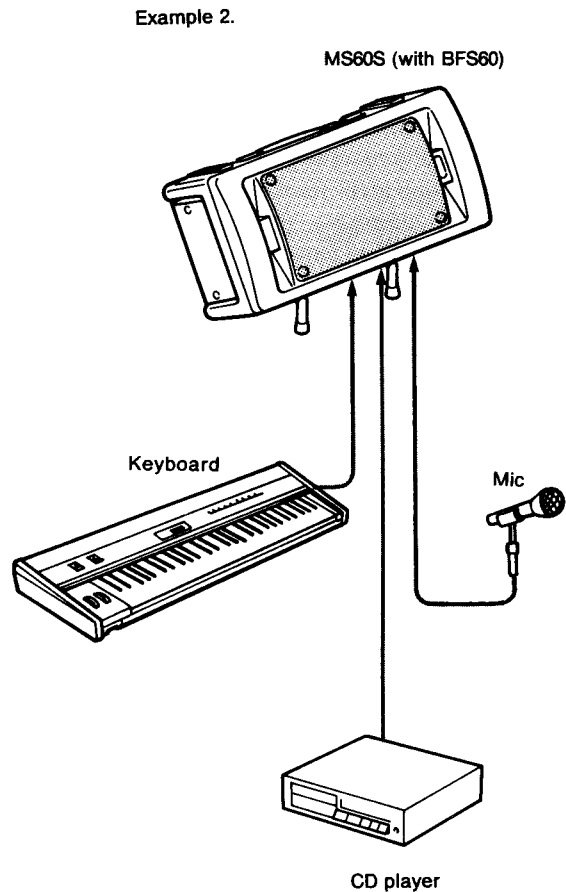
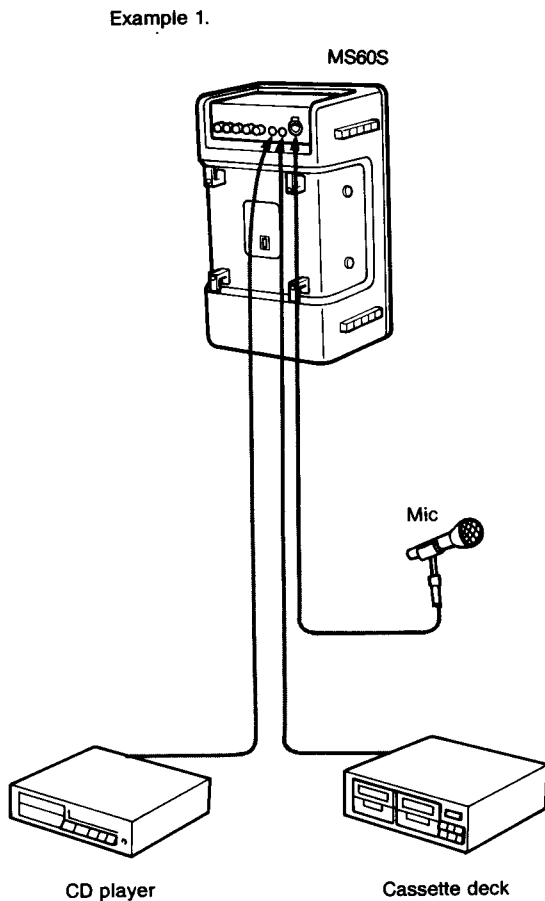
There are a large number of uses for a high-quality MS60S self-powered speaker system. Here are a few examples:

Connect a microphone to INPUT 1 and a cassette deck (or a CD player) to INPUT 2 or 3 for use as a public address/music system at sports events, etc. (example 1)

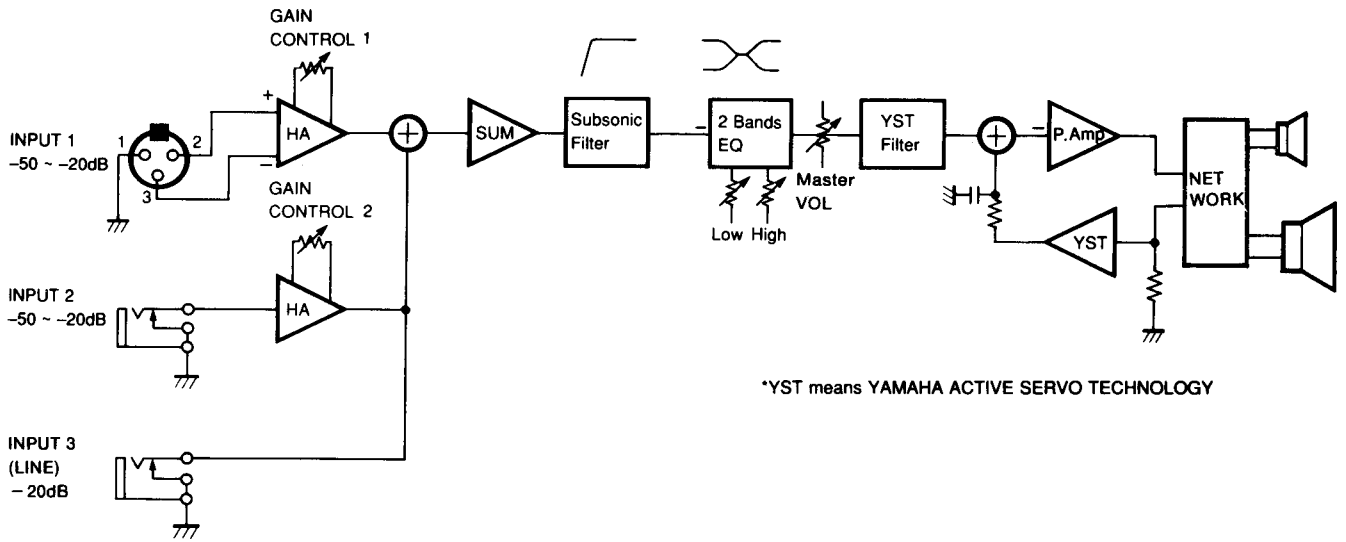
As a "play-along" or "sing-along" amplifier - connecting a microphone to INPUT 1, a home keyboard to INPUT 2 and a pre-recorded music source (tape, CD, etc) to INPUT 3. (example 2)

The MS60S can be used as a compact system for amplifying a voice and an acoustic instrument, such as a guitar, using a microphone for the voice (INPUT 1), and a contact microphone or pickup for the instrument (INPUT 2). Pre-recorded taped backing can be added through INPUT 3.

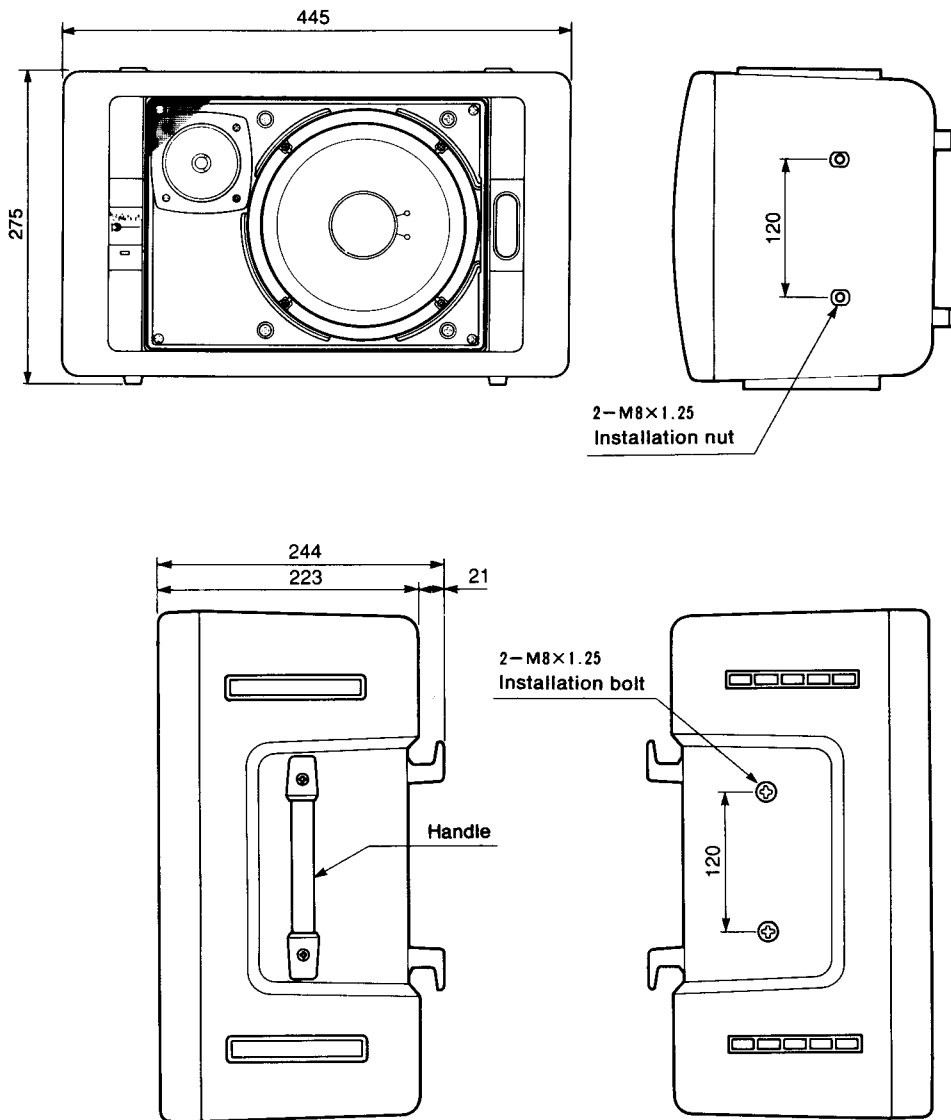
Use the MS60S as a foldback speaker for small concerts, taking the FOLDBACK signal from a mixing console to INPUT 3.



# BLOCK DIAGRAM



# DIMENSIONS



Unit : mm

# OPTIONS

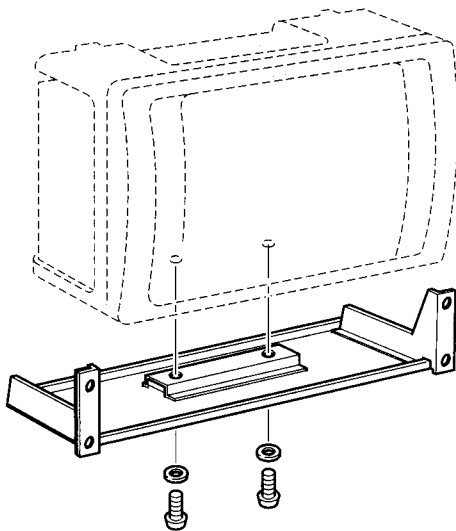
You can also fit an optional foldback adaptor (BFS60) to the MS60S, to maintain it at the correct angle for use as a stage monitor. A rack-mount kit (RK60) is optionally available to enable the fitting of the MS60S in a standard 19" rack.

## CAUTION

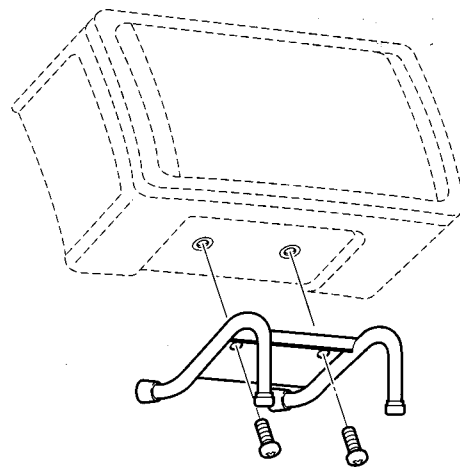
Please note the following when using your MS60S:

- If using the optional BFS60 foldback adaptor, always use the MS60S in the horizontal, never use in the vertical position.

RK60



BFS60



For European Model  
Purchaser/User Information specified in EN55103-1 and EN55103-2.  
Inrush Current: 4A  
Conformed Environment: E1, E2, E3 and E4

## SERVICE

The MS60S is supported by Yamaha's worldwide network of factory-trained and qualified dealer service personnel. In the event of a problem, contact your nearest Yamaha dealer.





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