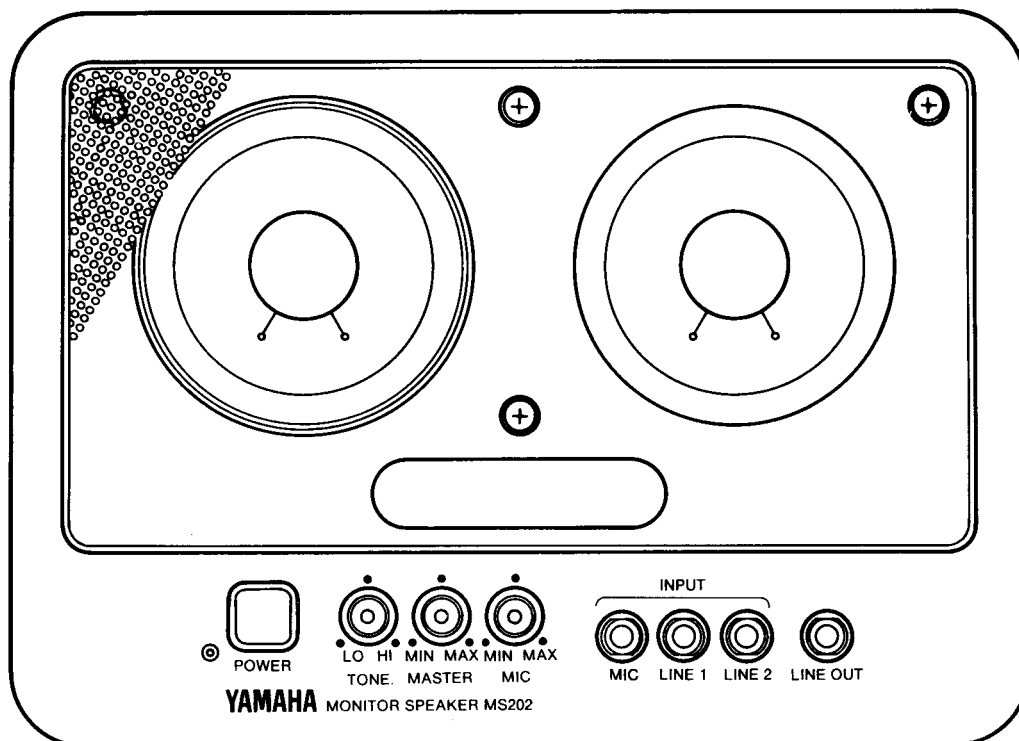

YAMAHA

MONITOR SPEAKER

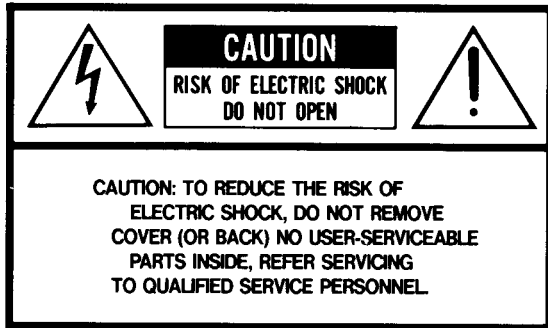
MS202

OPERATING MANUAL

Faint handwritten text, possibly a signature or date.



Thank you for purchasing the Yamaha MS202 Monitor Speaker. The MS202 is a powered speaker with two 4" full range speakers designed for home recording or practice. Since magnetic field-canceling speakers are used, the MS202 can be placed next to a television without interfering with the picture, making it the perfect choice for A/V system application.



● 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.

SAFETY INSTRUCTIONS (PREPARED IN ACCORDANCE WITH UL STANDARD 1270)

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
 2. Retain Instructions — The safety and operating instructions should be retained for future reference.
 3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
 4. Follow Instructions — All operating and use instructions should be followed.
 5. Water and Moisture — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
 6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
 - 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
- 
7. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
 8. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
 9. Heat — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
 10. Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
 11. Grounding or Polarization — The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
 12. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
 13. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
 14. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
 15. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
 16. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
 17. Servicing — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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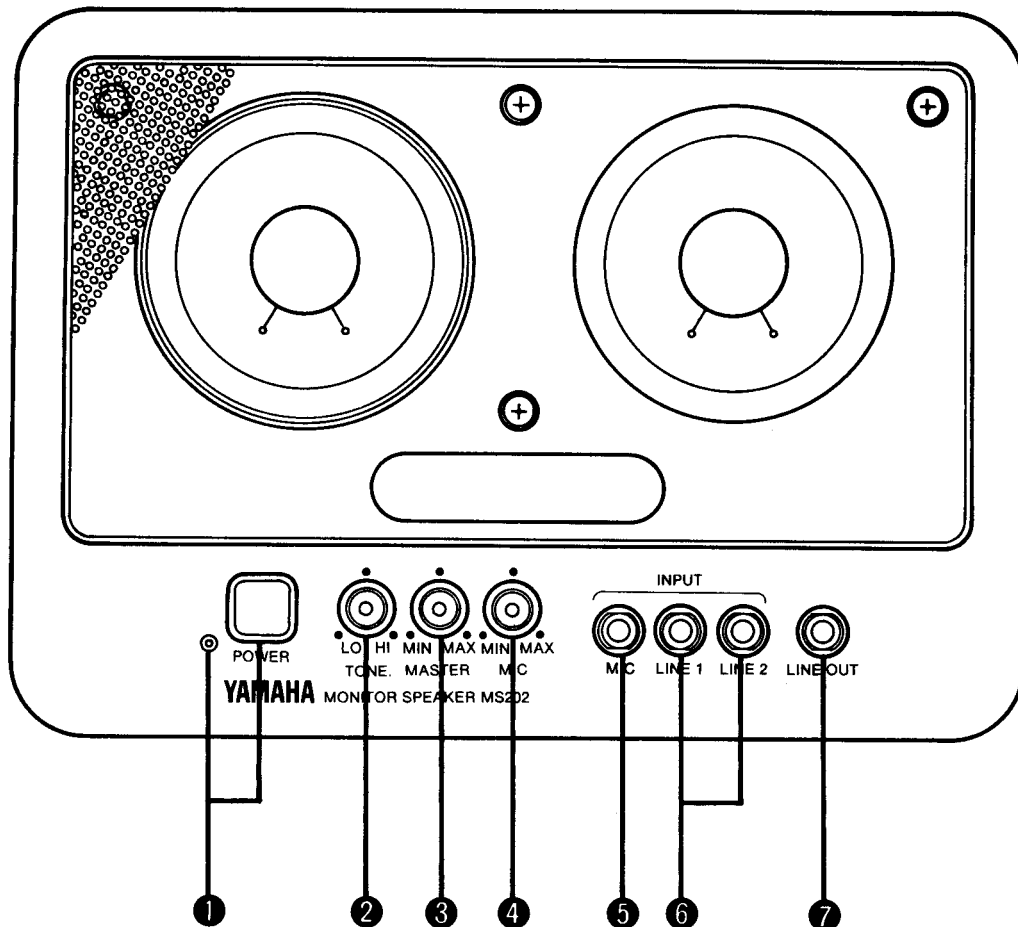
PRECAUTIONS

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.
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. **HANDLE CABLES CAREFULLY**
Always plug and unplug cables—including the AC cord—by gripping the connector, not the cord.
6. **CLEAN WITH A SOFT DRY CLOTH**
Never use solvents such as benzine or thinner to clean the unit. Wipe clean with a soft, dry cloth.
7. **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

SPECIFICATIONS

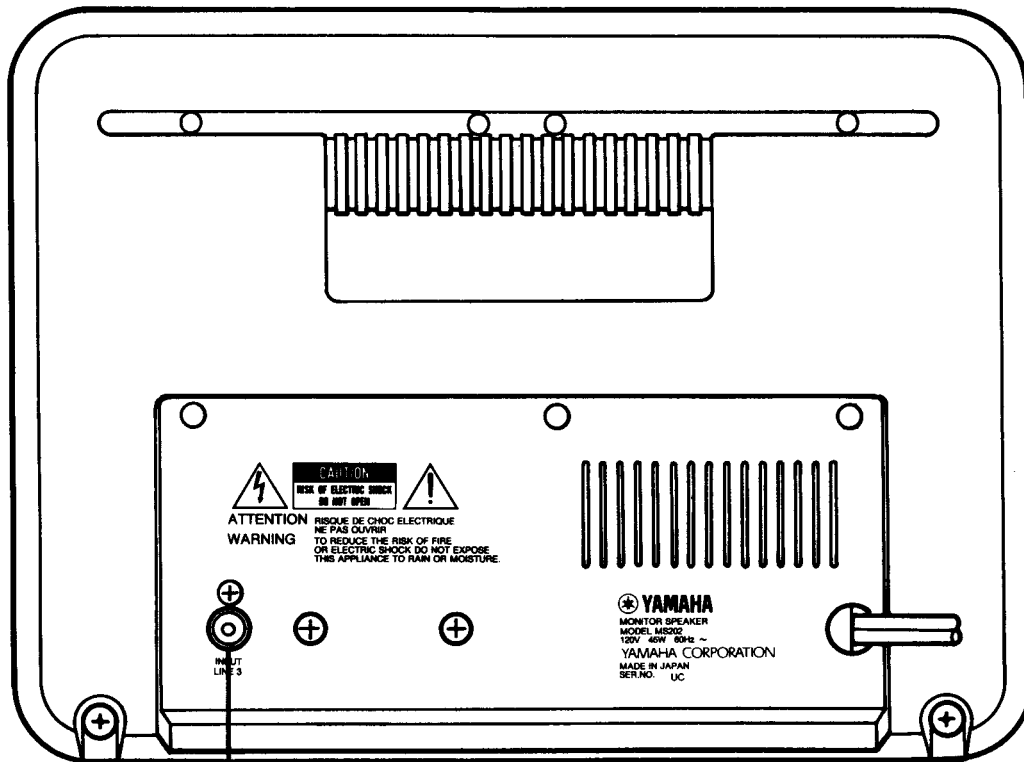
GENERAL SPECIFICATIONS	
Type	Bass Reflex Powered Speaker
Frequency Range	70 Hz - 18 kHz (Tone Con. : Flat)
Max. SPL	103 dB SPL (20W, 1m on axis)
Dimensions (W × H × D)	292 × 214 × 198 mm (11-1/2 × 8-3/8 × 7-3/4 in)
Weight	3.9 kg (8 lb 6 oz)
SPEAKER SECTION	
Components	JA1060 [10cm (4in), Cone] × 2
Sensitivity	90 dB SPL(1W, 1m on axis)
Nominal Impedance	4Ω
AMP. SECTION	
Output Power	20 W at 1 kHz, THD=0.5%, RL=4Ω
Frequency Response	40 Hz - 20 kHz ± $\frac{1}{3}$ dB
Input Sensitivity	MIC -50 dB / 10 kΩ / Phone Jack
/Impedance	LINE 1, 2 -20 dB / 15 kΩ / Phone Jack
/Connectors	LINE 3 -20 dB / 15 kΩ / RCA Pin Jack
Output Level /Impedance	LINE OUT -20 dB / 600 Ω (Nominal) / Phone Jack
/Connectors	
Hum & Noise	≤ -58 dB (MASTER Volume : min)
Controls	MIC MASTER TONE Lo-max +12 dB at 100 Hz Center Flat Hi-max +12 dB at 10 kHz
Power Requirement	POWER "ON/OFF" AC120 V, 60 Hz / US & CANADIAN Models AC230 V, 50/60 Hz / Other Models
Power Consumption	45 W

FRONT PANEL



- ① **POWER SWITCH/POWER INDICATOR LED:** Press this switch to turn AC power ON. The POWER indicator LED will light to indicate that power is ON. Press a second time to turn power OFF.
- ② **TONE CONTROL:** As you turn this control to the left, the low frequencies (100Hz) will be boosted up to 12dB max. As you turn this control to the right, the high frequencies (10kHz) will be boosted up to 12dB. Center position is no effect.
- ③ **MASTER VOLUME:** This control can adjust the overall volume level (MIC and LINE inputs).
- ④ **MIC VOLUME:** This control can adjust the volume level of a microphone connected to the MIC INPUT jack. If MASTER VOLUME is turned all the way down, the mic will not be heard.
- ⑤ **MIC INPUT:** A microphone with standard 1/4" phone plug can be plugged into this input.
- ⑥ **LINE 1,2 INPUT:** Electronic musical instrument such as home keyboard can be plugged directly into these 1/4" inputs.
- ⑦ **LINE OUTPUT:** The combined signals from LINE 1,2 INPUT and MIC INPUT can be put out from this 1/4" phone jack. You could connect this LINE OUTPUT to a tape recorder input to be recorded, or to another powered speaker system for further amplification. The output signal level is not affected by the MASTER VOLUME level.

REAR PANEL



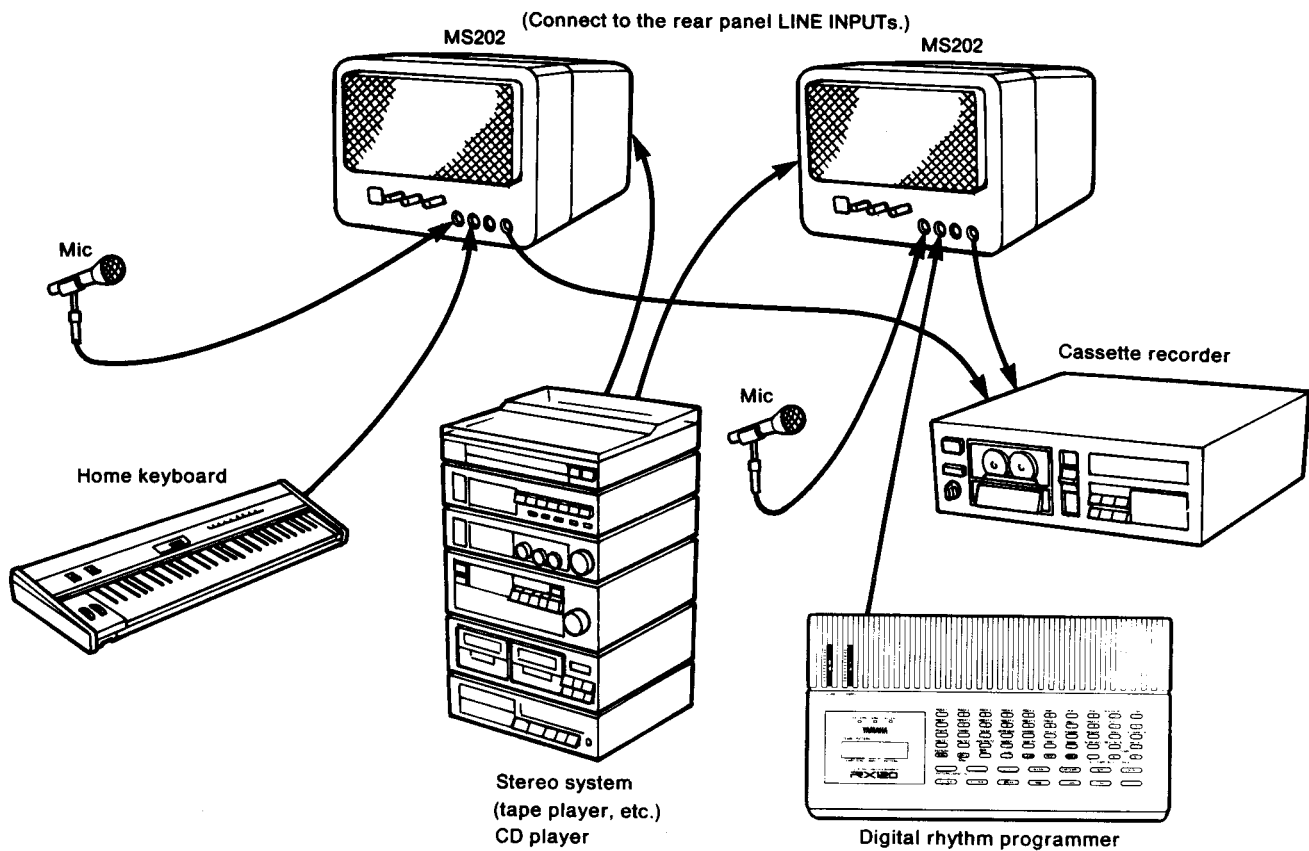
U.S. and Canadian models

- ⑧ **LINE INPUT:** The output of any standard audio source can be connected to this RCA pin jack.

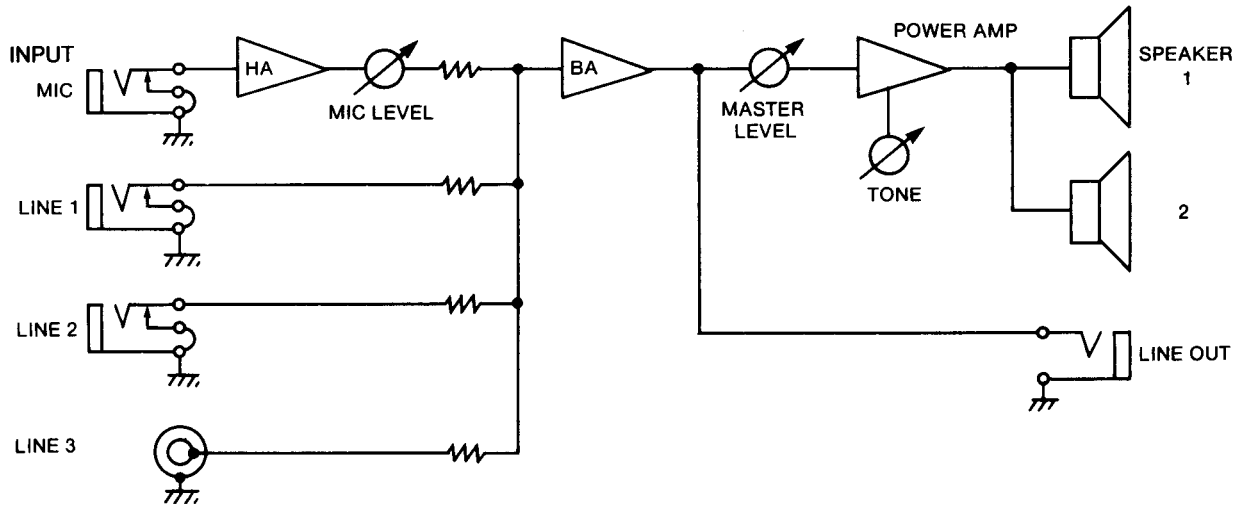
EXAMPLE SETUP

After switching the power off for all components in your system, connect the MS202's power cable to an AC outlet. There are any number of ways to use the MS202, and exact connections will depend on your system and needs. Here is one example setup.

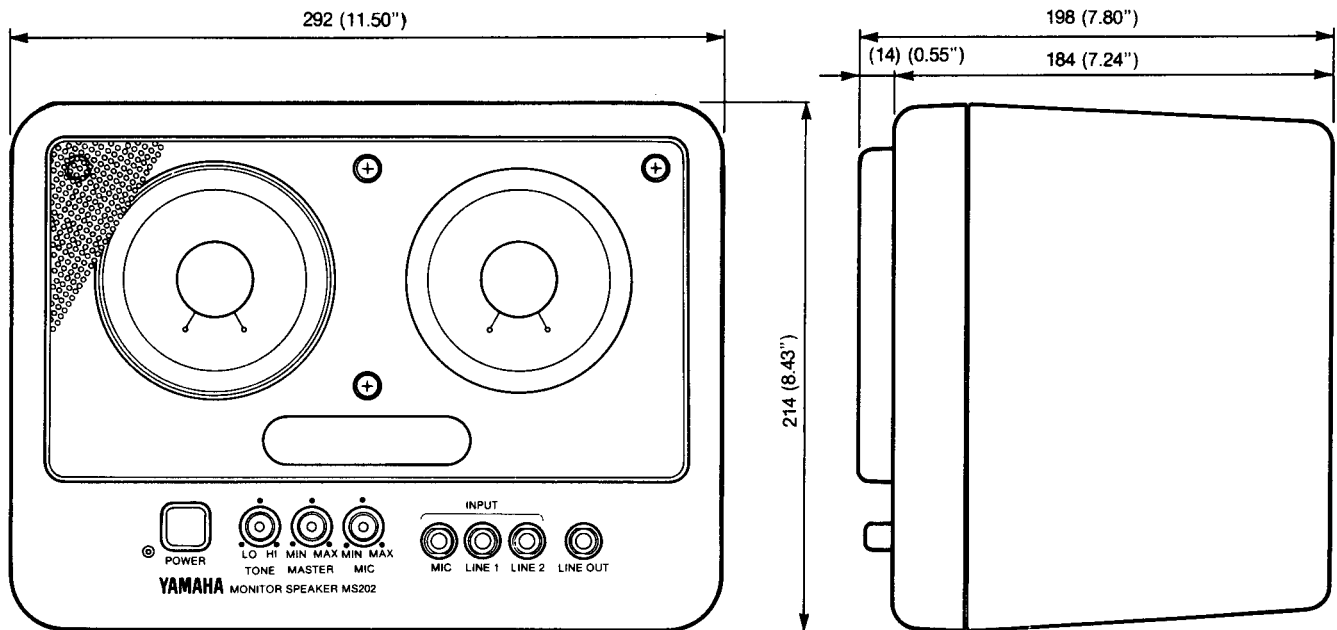
A pair of MS202s can be used as amplification for a stereo monitor system. You can sing and play along with the music on mics and instruments plugged into the front panel LINE INPUTS. For example, electronic keyboards and rhythm boxes can be plugged in directly into LINE INPUTS. The LINE OUT jacks can be connected to the input of a cassette recorder.



BLOCK DIAGRAM



DIMENSIONS

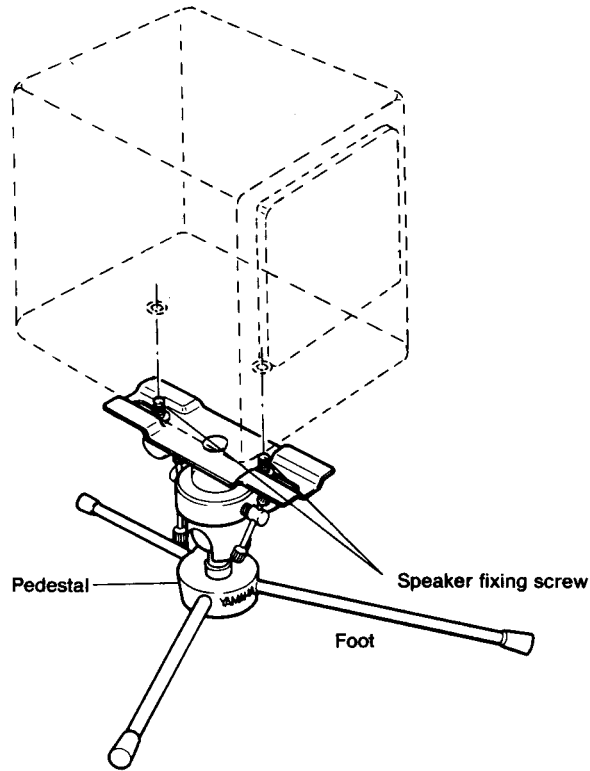


Unit: mm (inch)

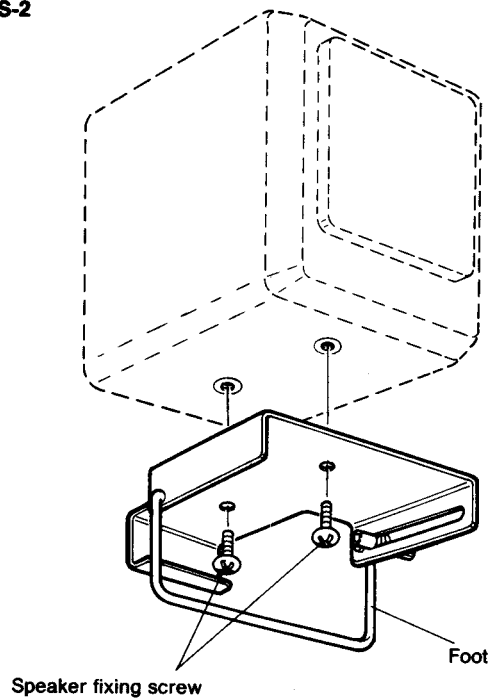
OPTION

YAMAHA Speaker table stands STS-10 and STS-2 are available for the MS202.

STS-10



STS-2



SERVICE

The MS202 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.

YAMAHA