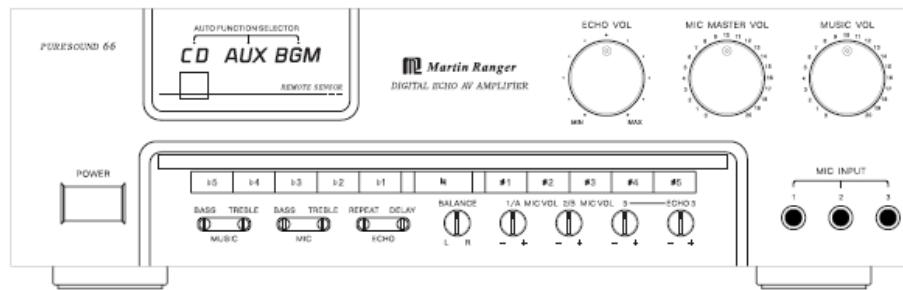


Owner's Manual

Thank you for purchasing this unit. To make full and effective use of this unit, please read this Owner's Manual carefully before operating this unit.

After reading, retain this booklet together with the Warranty Card for future use in case of difficulty or trouble.



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SAFETY PRECAUTIONS

In case of abnormality.



In case an abnormal noise or smell is generated from the unit during use, immediately switch the power off, unplug the power cord from the power outlet, and consult your dealer or an authorized service center for a check-up.

Do not open the unit.



High-voltage components are used inside the unit. Do not open the cabinet to check or modify the unit, for this will cause the danger of electric shock. Performance degradation or malfunction due to the user modification will not be covered by the warranty.

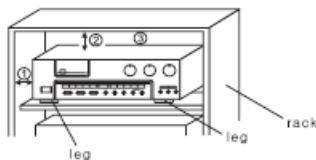
Do not exceed the maximum power capacity.



The components equipped with the rear panel AC OUTLETS accept the connection of other stereo system components.

However, do not connect components the total power consumption of which exceed the power capacity marked on the rear panel, for this may cause malfunction or fire hazard. Also note that components in which large current flows when the power is switched on, such as a TV set, cannot be connected to such an AC outlet unless it has been designed to accept the connection of a TV set.

The unit placement in the rack.



The following measurement of rack size must be observed:

- ① Between R/L side of Pure Sound 66 and R/L sides of the rack; more than 5cm
- ② Between upper side of Pure Sound 66 and the rack; more than 10cm
- ③ Rear of the rack must be opened

※ Do not remove legs.

Keep away from water and foreign objects.



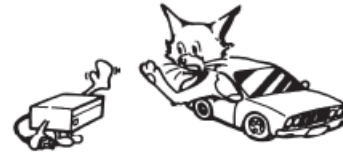
Do not insert or drop metallic objects, such as a hairpin, nail and coin, or flammable objects, such as paper and matches, through the ventilation holes or other openings on the unit, for this will cause malfunction or hazard of fire and electric shock. In case water or a foreign object enters into the unit, consult an authorized service center or your dealer for a check-up.

Do not damage the power cord.



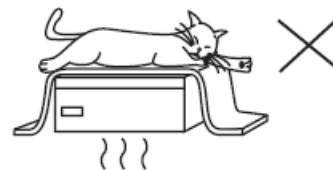
Hold the power plug when plugging or unplugging the power cord. Do not pull the cord or touch it with wet hands, for this may cause short-circuit or electric hazard. Do not leave the power cord under this unit, or under furniture, or between objects. Also do not tie the power cord with another cord, tie a knot in the power cord, or leave it in a place where people walk frequently.

When the unit is not to be used for a long period...



Before you are away from home for a long period of time, for example going on a trip, set the power switch fo off and unplug the power plug from the power outlet for safety. This will prevent fire hazard due to unexpected accidents with the unit.

Appliance with ventilation openings.



These openings must not be blocked or covered. If they are blocked or covered accidentally, the inside temperature will rise, and cause a fire. There are ventilation openings on upper and bottom of the case to prevent overheating.

FEATURES

- Power output 120W+120W(8 ohms) / 220W+220W (4 ohms).
- Three line inputs Auto function by the order of priority.
- Built-in high quality digital echo.
- Five microphones available simultaneously.
- Built-in key controller allows to transpose the key of music over 2.5 tones, in ± 5 positions. (Reset automatically at the end.)
- Wireless remote controller (Control of Music, Microphone, Echo, Keycontroller.)

HANDLING PRECAUTIONS

Do not install the unit in following places...

- In a place which is exposed to direct sunlight or near a source of heat such as a radiator.
- In a place where the heat cannot escape due to poor ventilation, or where is very humid or dusty.
- In an unstable place with excessive vibrations or sloping.
- In a place with may be exposed to rain, such as near a window.
- In a place which may be exposed to soot, vapor or heat, such as near a cooking table.

BEFORE CONNECTIONS

Connection precautions

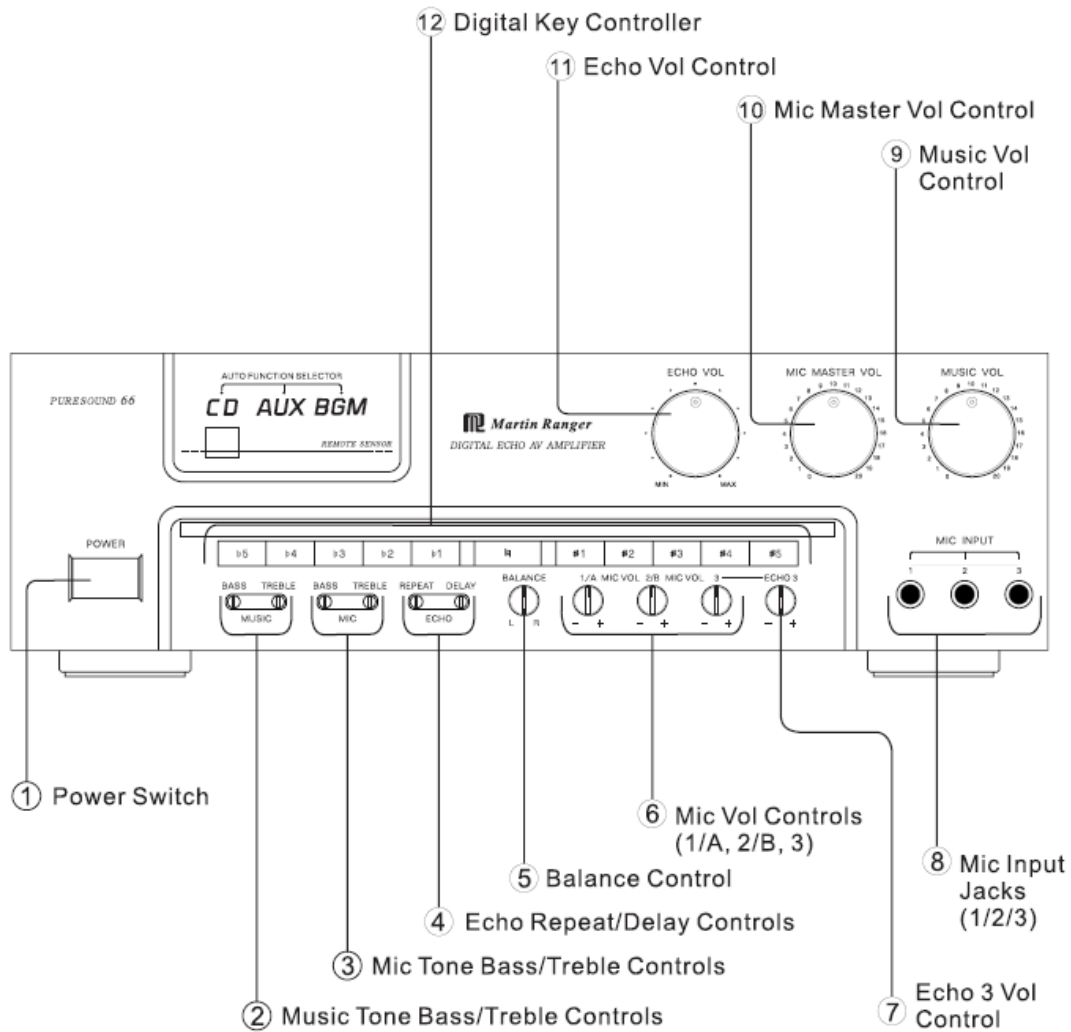
- Be sure to switch off the powers of the related equipment before making any connection.
- The "White" input/output jacks of the amplifier are designed for the left channel, while the "Red" jacks are for the Right channel. Be sure to connect the cords without mistaking the correspondences of the Left and Right channels.
- Insert the plugs of the connection cords securely into the jacks. If the connection is incomplete, sound may not be produced or noise may be generated.
- When unplugging the power cord from the power outlet, be sure to grasp the plastic molding of the plug and pull.

Power consumption of AC power outlets

- Be careful that the total power consumption does not exceed the wattage marked on the rear panel. Do not connect other appliances than the system components to the power outlets of this unit.
- Do not connect a TV set to this unit; even if the power consumption value marked on a TV set is below the permissible limit of this unit, a larger current than the permissible value may flow when the TV power is turned on.

NAMES OF PARTS AND THEIR FUNCTIONS

[FRONT PANEL]



① **Power Switch**

Press this switch to turn the power ON. Press it again to turn the power OFF.

② **Music Tone Bass/Treble Controls**

These controls are used to boost or cut the low and high frequency responses.

③ **Mic Tone Bass/Treble Controls**

These controls are used to boost or cut the low and high frequency response of microphones 1,2,3, A and B.

④ **Echo Repeat/Delay Controls**

Adjust the parameters of the echo effect with these controls as desired.

Delay Controls : Adjust the delay time with this control.

Repeat Controls : Adjust the interval of repetitions with this control.

⑤ **Balance Control**

With this control you can adjust the balance of the volume between the left and right channels.

⑥ **Mic Vol Controls (1/A, 2/B, 3)**

1/A: This control adjusts the microphone input level from the MIC INPUT 1 jack (front panel) and MIC A jack (rear panel).

2/B: This control adjusts the microphone input level from the MIC INPUT 2 jack (front panel) and MIC B jack (rear panel).

3: This control adjusts the microphone input level from MIC INPUT 3 jack on the front panel.

Normally, set these controls to the center positions.

⑦ **Echo 3 Vol Control**

This control affects the echo level of the microphone input to the MIC INPUT 3 jack. When this control is in the maximum position, the echo mixing amount is the same as the amount set by the ECHO VOL control.

⑧ **Mic Input Jacks (1/2/3)**

These jacks are for connecting microphones.

⑨ **Music Vol Control**

This control allows you to adjust the volume of the musical source.
(The volume of BGM is controlled on the rear panel.)

⑩ **Mic Master Vol Control**

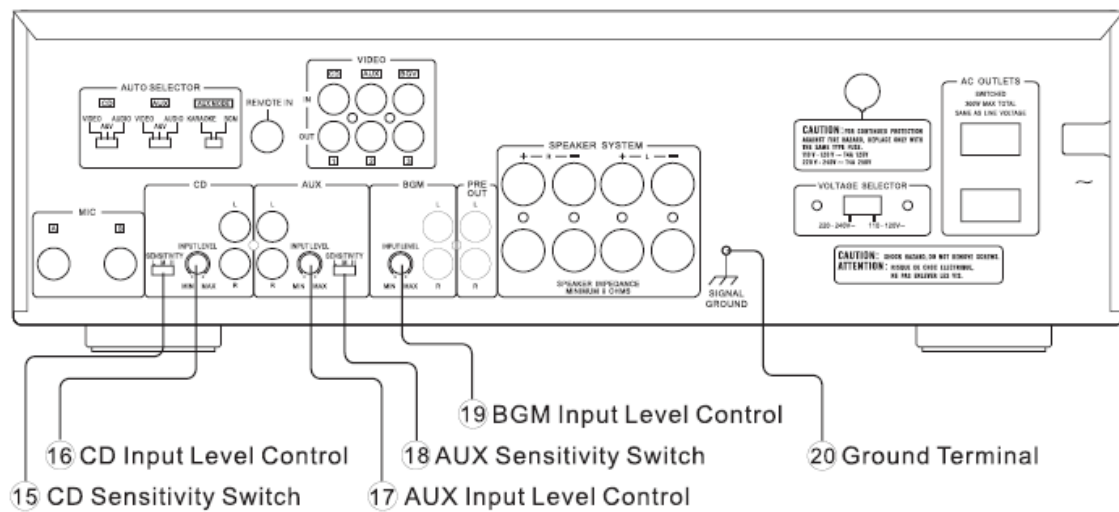
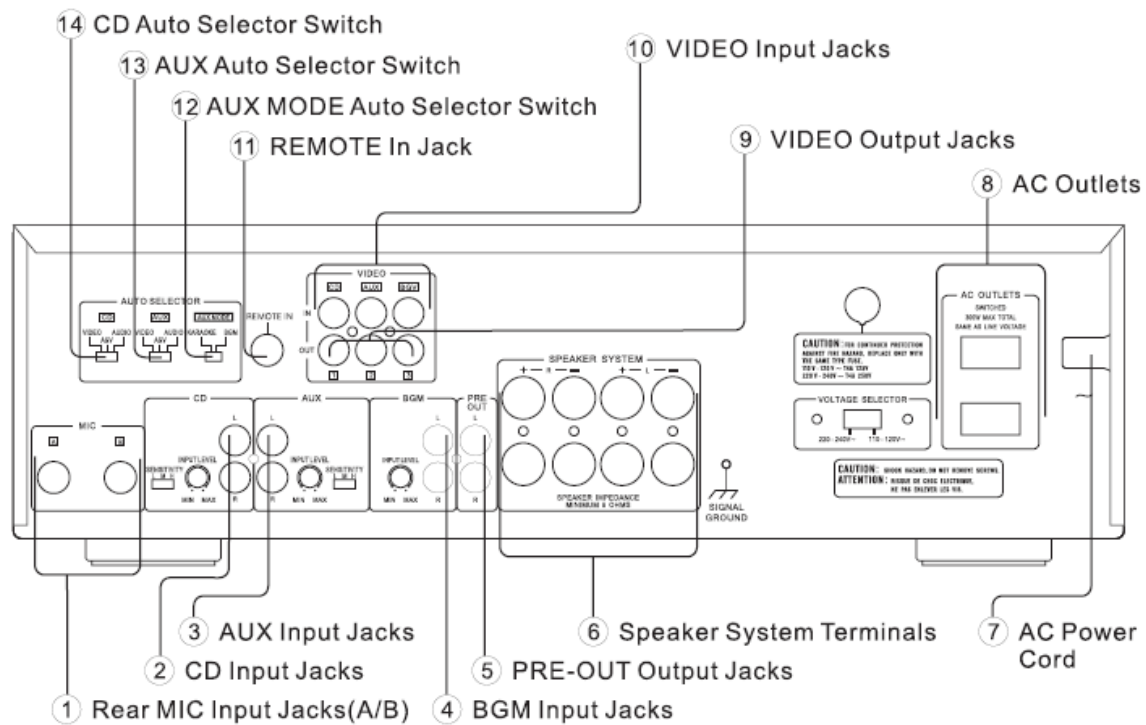
This control adjusts the overall volume of all microphones.

⑪ **Echo Vol Control**

This control affects the echo amount mixed in the microphone inputs to the MIC INPUT 1 and 2 jacks and MIC A and B jacks.

⑫ **Digital Key Controller**

Press the required button to transpose the key of the music played. The key can be changed in half-tone step for five steps in both upward and downward directions.
(The key returns to the standard after the completion of a tune.)



① Rear Mic Input Jacks(A/B)

These jacks are also for connecting microphones. The A jack is connected to the same circuit as the Mic Input 1 jack on the front panel, and the B jack is connected to the same circuit as the Mic Input 2 jack on the front panel.

② CD Input Jacks

Connect the output jacks of the CD player to these jacks.

③ AUX Input Jacks

Connect the output jacks of the CD player or VCR to these jacks.

④ BGM Input Jacks

Connect the output jacks of the BGM function (cable broadcasting) to these jacks.

⑤ PRE-OUT Output Jacks

Connect the input jacks of the extension Power amplifier or the Mixer to these jacks.

⑥ Speaker System Terminals

Connect speakers with an impedance of 8 to 16 ohms to these jacks.

⑦ AC Power Cord

Plug this cord into an AC wall outlet.

⑧ AC Outlets

UNSWITCHED

(Total power consumption max. 300W):

The power is permanently supplied through these outlets regardless of the Power switch setting on the front panel. (In this case, the powers of the connected components should be turned ON-OFF by their respective Power switches.)

⑨ Video Output Jacks

Connect with the video input of the monitor TV.

⑩ Video Input Jacks

Connect with the video output of a CD karaoke player, LD karaoke player or video camera, etc.

⑪ Remote In Jack

This jack inputs the external remote control signal.

⑫ AUX Mode Auto Selector Switch

This switch selects whether the input function is to be switched to CD or not in case CD signal is input while the AUX function is selected.

Karaoke: The AUX function is not switched to CD even when CD signal is input.

BGM : The AUX function is switched to CD when CD signal is input.

⑬ AUX Auto Selector Switch

This switch selects the types of signals detected by the automatic audio / video switching function to switch the input function.

Audio: Switching based on audio signal

A & V : Switching based on both audio and video signals

Video: Switching based on video signal

⑭ CD Auto Selector Switch

This switch selects the types of signals detected by the automatic audio / video switching function to switch the input function.

Audio: Switching based on audio signal

A & V : Switching based on both audio and video signals

Video: Switching based on video signal

⑮ CD Sensitivity Switch

This switch sets the sensitivity level at which the CD audio signal is detected and the input function is switched automatically to CD source)

Low : Set to this position if the function is not switched to BGM or another function even after the CD play is finished.

Middle: Normally set to this position.

High : Set to this position in case the function is switched to another function in the middle of CD play.

⑯ CD Input Level Control

Adjust this control to balance the CD input level with respect to other input (AUX).

⑰ AUX Input Level Control

Adjust this control to balance the AUX input level with respect to other input (CD).

⑱ AUX Sensitivity Switch

This switch sets the sensitivity level at which the AUX audio signal is detected and the input function is switched automatically to AUX source.

Low : Set to this position if the function is not switched to BGM or another function even after the AUX source play is finished.

Middle: Normally set to this position.

High : Set to this position in case the function is switched to another function in the middle of AUX source play.

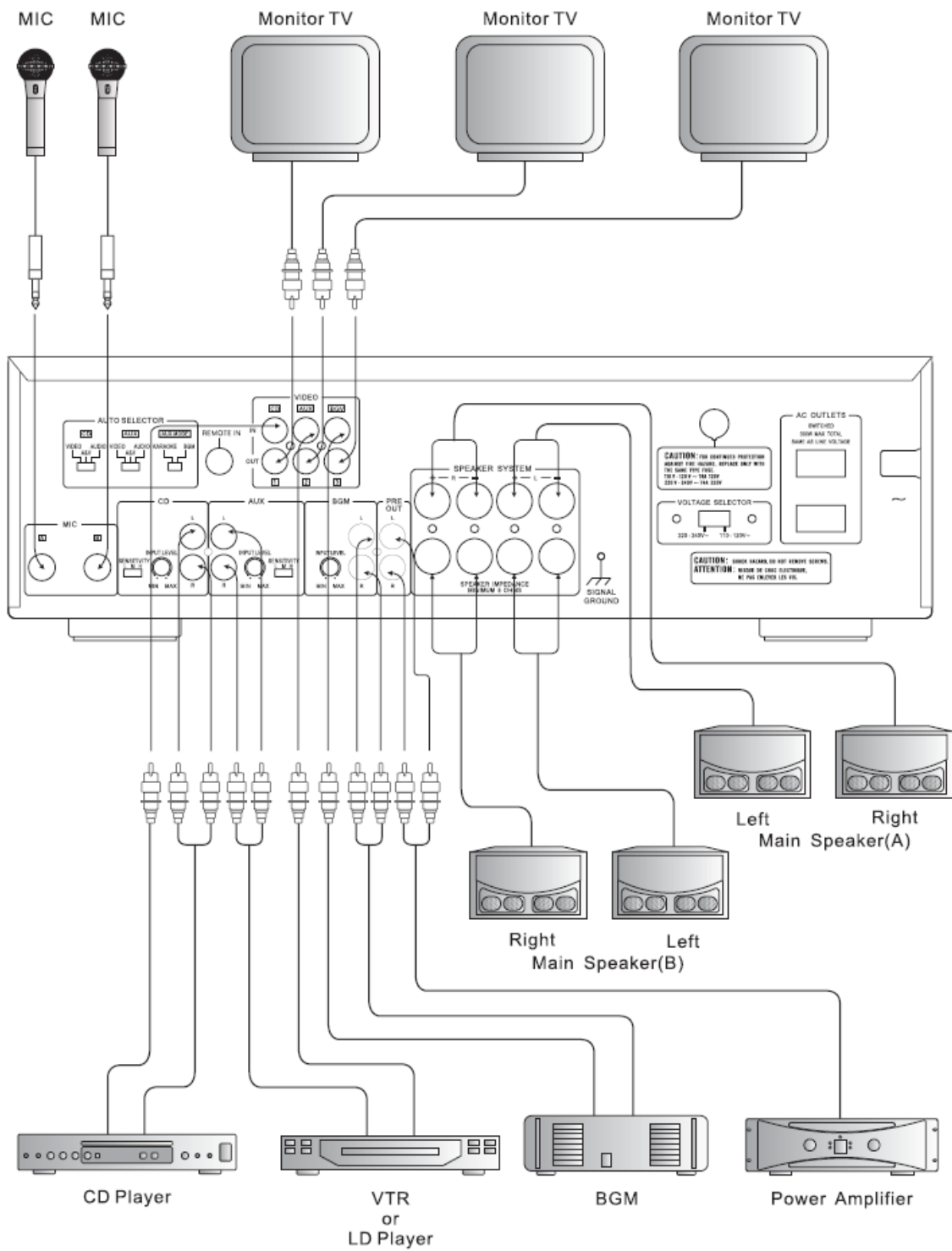
⑲ BGM Input Level Control

Adjust this control to optimize the BGM input level. Note that the BGM level cannot be varied by the Music Vol control on the front panel.

⑳ Ground Terminal

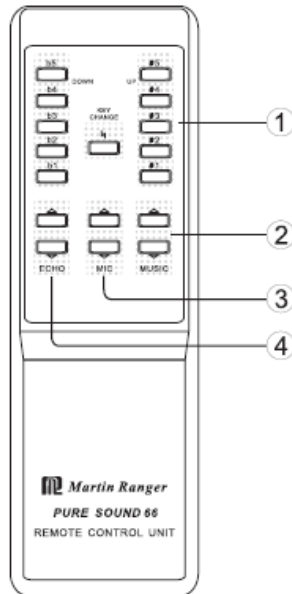
The grounding wire shall be connected to a grounding line to reduce the risk of electric shock.

SYSTEM CONNECTIONS



REMOTE CONTROL

Names of parts and their Functions



① Key Change Buttons

- Upward (#1 to #5)
The key can be transposed upward from the standard key up to 2-1/2 tone above it in 5 steps, half tone per step.
- Standard (♯)
Press to reset to the standard key.
- Downward (♭ 1 to ♭ 5)
The key can be transposed downward from the standard key down to 2-1/2 tone below it in 5 steps, half tone per step.
(The key returns to the standard key after every tune.)

② Music Vol Control Buttons

- Press one the buttons to increase or decrease the music volume. The LED on the Music Vol control of the main unit blinks during the adjustment. A fine adjustment is available by pressing a button intermittently.

③ Mic Master Vol Control Buttons

- Press one of the buttons to increase or decrease the overall volume of the microphones. The LED on the Mic Master Vol control of the main unit blinks during the adjustment. A fine adjustment is available by pressing a button intermittently.

④ Main Echo Level Control Buttons

- Press one of the buttons to increase or decrease the echo amount.

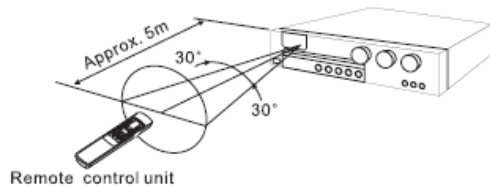
Operation of Wireless Remote Control Unit

1. Wireless remote control

The distance between the wireless remote control unit and the light receptor of this unit should be less than about 5 meters. Note that the remote control may not operated if the light transmitter window of the remote control unit is pointed to other direction than the light receptor or if there is an obstacle between the remote control unit and light receptor.

2. Loading Batteries

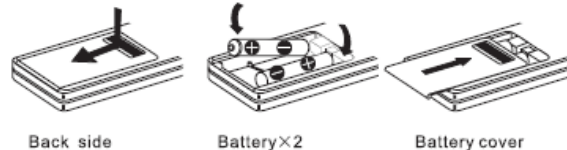
The life of the batteries used in the remote control unit is about half an year with normal use. If the remote control unit is not to be used for a long period of time, take out the batteries from it. When the batteries become weak, replace them earlier.



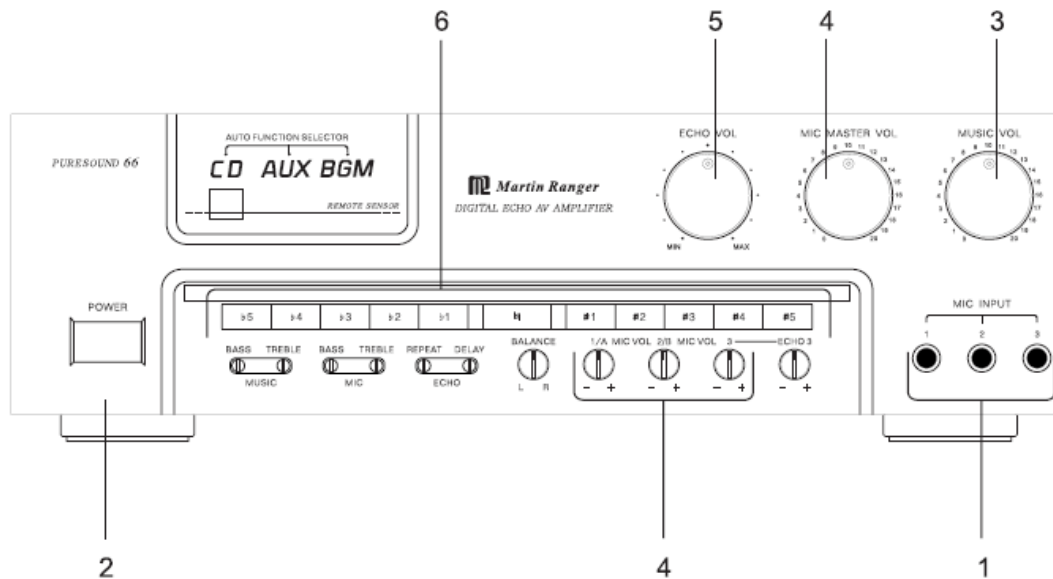
Improper use of batteries may cause danger of battery leakage and explosion.

Be careful in the following:

- (1) Insert batteries so that the positive (+) and negative (-) poles are directed as indicated on the battery case.
- (2) Do not use new and old batteries together.
- (3) Even if the shapes are the same, the voltage of batteries may vary depending on the models. Be careful not to use different models of batteries together.
- (4) Do not dispose of used batteries as wastes that may be burnt later.



GENERAL OPERATION



1. Connect the required number of microphones.
2. Set the Power switches of this unit and other required components to ON (by pressing them in).
3. Play the Karaoke music source component, and adjust the volume with the Music Vol control.
4. Adjust the balance between the volumes of the microphones, and the balance between the overall microphone volume and music volume, by turning the Mic Vol control and Mic Master Vol control.
5. Adjust the echo level by the Main Echo Vol control.
6. Set the desired key by the Digital Key Controller buttons.

Notes for Proper Use of Microphones

- Talk into the microphone by holding it at a distance of 5 to 10 centimeters from your mouth.
- To ensure clear voice, hold the microphone by a position at a certain distance from the head.
- Do not block the lower part of the windscreen. This will disturb proper voice reproduction with unclear bass, and howling also tends to occur in such a case.

5 to 10 cm (2 to 4 inch) away from your mouth.

Hold the microphone at a certain distance from the head.



MAINTENANCE

When, the set gets dirty, wipe with a soft, dry cloth. If the set is extremely dirty, soak a soft cloth in a solution by 5 to 6 times of tableware detergent, wring it tight, wipe the dirt away, and finally wipe the set with a dry cloth.

Never use alcohol, thinner, benzine, insecticide or other volatile agents, for they may damage the surface paint or gloss of the set. Also do not wipe the set with a chemical cloth or leave it on the set for a long period, for the surface finish may be degraded or the paint may be stripped off.

TROUBLESHOOTING

Should faults occur, it is in many cases due to a simple operation mistake or like. On the basis of the following checks you will be able to rectify a number of faults yourself without difficulty.

If the fault cannot be remedied after the following check, please consult you dealer.

Symptom	Possible Causes	Remedy
Speaker sound is not output at all.	<ol style="list-style-type: none"> 1. The Power ON/OFF switch is set to "OFF". 2. The Power cord is unplugged. 3. The Music Vol control is in the minimum position. 	<ol style="list-style-type: none"> 1. Set the Power ON/OFF switch to "ON". 2. Plug the power cord securely into the power outlet. 3. Adjust the Music Vol control.
Sound is not output from one of the speakers.	<ol style="list-style-type: none"> 1. The Balance control is turned fully to an extreme position. 2. One of the speaker cords are disconnected. 	<ol style="list-style-type: none"> 1. Set the control to the center position. 2. Insert the cord securely into the terminals.
Microphone sound is not output.	<ol style="list-style-type: none"> 1. The microphone plug is not fully inserted. 2. The switch on the microphone is set to "OFF". 3. The corresponding Mic Vol control or Mic Master Vol control is in the minimum position. 4. The microphone is too apart from your mouth, or the microphone handling is improper. 	<ol style="list-style-type: none"> 1. Insert the plug securely into the jack. 2. Set the switch on the microphone to "ON". 3. Adjust the control. 4. Refer to the user's manual supplied with your microphone.

ETIQUETTE OF SOUND



The karaoke performance you enjoy may disturbing others. When performing karaoke, be sure to consider your neighbors. The volume of karaoke is at your command. Remember that even small sound transmits very well in the quiet night, be specially careful in karaoke performance in the night. It is recommended to close the windows to avoid sound leakages to the neighbors, and have considerations for comfortable living environments of others.

SPECIFICATIONS

Amplifier	Power Supply
Maximum Output	Supply Voltage AC 110V-125V or 220V-250V
At 1KHz, 8ohm 120W+120W	50Hz / 60Hz
At 1KHz, 4ohm 220W+220W	Power Consumption 145W
Total Harmonic Distortion 0.05%	Max. 350W
(1KHz, 60W, 8ohm)	AC Power Outlets
Input Jacks (Sensitivity / Impedance)	UNSWITCHED (300W max.) 2
MIC 4.5mV / 3.5 kohm	Dimensions (W×H×D) 420mm×120mm×425mm
CD, AUX 300mV / 20 kohm	Weight 11kg
BGM 300mV / 10 kohm	Accessories
Output Jacks (Output level / Output impedance)	Instruction Manual 1
PRE-Output 2V / 1kohm	Wireless Remote Control Unit 1
Frequency Responses	
MIC 40Hz to 15 KHz, +8/-3dB	
MUSIC 20Hz to 20 KHz, +8/-3dB	
Tone Control Characteristics	
Music Bass +8/-10dB (100Hz)	
Treble +8/-10dB (30KHz)	
Microphone Bass ±10dB (100Hz)	
Treble ±10dB (10KHz)	
Key Control Range 11 setps, ±2-1/2 tones	
Video Input Jack	
(Sensitivity/Input impedance) 1 Vp-p / 75 ohm	
Video Output Jack	
(Output level/Output impedance) ..1Vp-p / 75 ohm	