Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for FCC, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and , if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

  Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

5.1 CH Home Theater Speaker System
Surround Speakers Wireless

WA300

HOME THEATRE SYSTEM

Welcome for using our new 2.4 Wireless Surround System!

This system is designed to solve the problems of wiring between the surround speakers and amplifier. It is easy and convenient to use as well as helping you in setting furniture indoor. You can have maximum enjoyment by this system which is found No Loss of Sound, No Harmonic Distortion, Interference Free and Wider Area Coverage (In open area, it is able to cover 100 metres and penetrate through 7 walls indoor.) Please read this manual thoroughly and carefully for the features and operation of this system that can ensure a trouble free installation.

Unpacking and Installation

Please unpack your unit carefully. We recommend you to keep the the carton and packing material. They will be helpful whenever if you need to move your unit or return if for service. To avoid damage, never place the unit near radiators, in front of heating vents, in direct sun light, in excessive humid or near water.

For Your Safety

When disconnecting the AC power cord, pull the power plug. Do not pull the cord by itself. Never touch the AC power plug with wet hands as this could cause fire or electric shock. Avoid overloading AC power plugs and extension cords beyond their capacity as this could cause fire. When not in use, unplug the AC power plug from the AC power outlet if the unit will not be used for several months or more.

Damage Requiring Service

Do not attempt to repair the unit by yourself. It should be done by a qualified service technician.

Caution

- For the best transmission, please do not put the transmitter on the floor.
- To reduce the risk of electric shock, do not remove the cover of transmitter.
- If the unit is played at high volumes, the area around the adaptor will become very hot, please do not touch the adaptor or allow anything blocking the ventilation.
- Keep the transmitter in dry condition.

Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Before Connecting the AC Cord

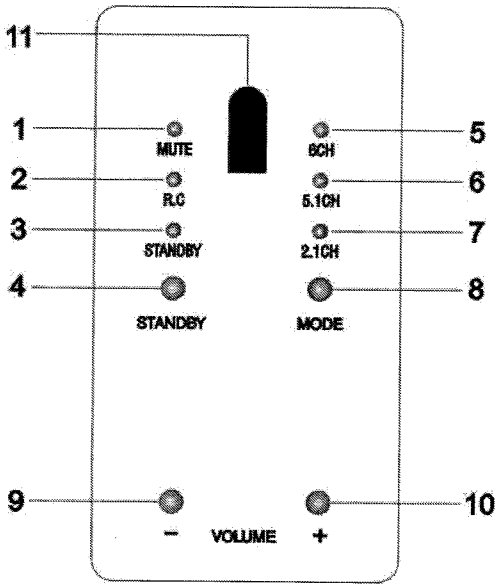
Check that the degree of voltage shown on the rear panel matches your local voltage.

AC 120V

Check Your Packing List

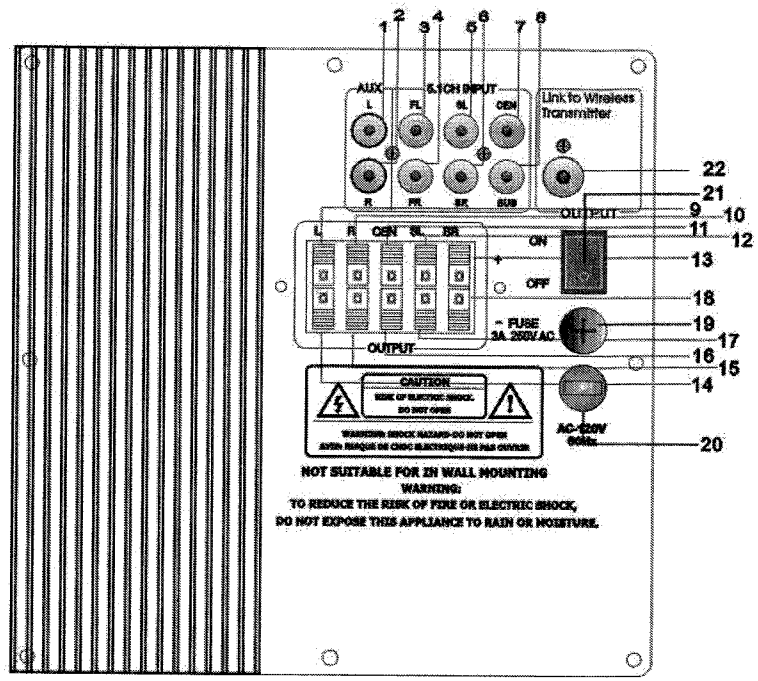
1. HC-38W(WH-20P)	
5.1 CH Active subwoofer	1 pc
2. Satellite Speakers	
Center Speaker	1 pc
Front Speaker	2 pc
Wireless Surround Speaker	2 pc
Center Speaker Cable	1 pc @ 3 meters
Front Speaker Cable	2 pcs @ 3 meters
3. Remote Control	1 pc
4. Battery(AAA)	2 pcs
5. Instruction Manual	1 pc
6. Wireless Transmitter(WA-300)	1 pc
7. Transmitter Cable	1 pc
8. DVD Cable	1 pc
9. DVD Player	1 pc

Front Panel



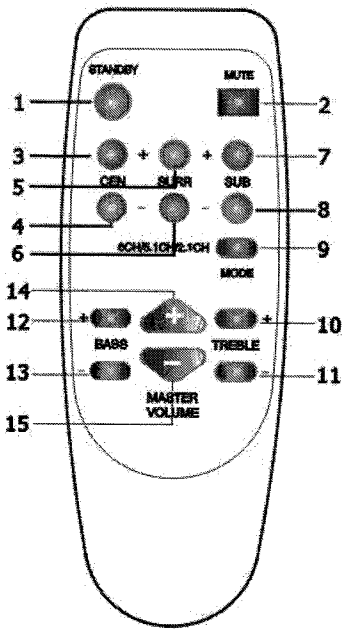
1. MUTE LED <Red>
2. Remote Control INDICATOR LED <Red>
3. Standby LED <Red>
4. Standby Switch
5. 6CH LED <Green>
6. 5.1CH LED <Green>
7. 2.1CH LED <Green>
8. Mode Selector
9. Master Volume "Down"
10. Master Volume "Up"
11. Remote Control Receiver

Rear Panel



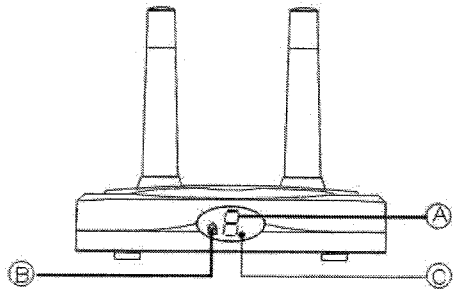
1. AUX L-CH Audio Input
2. AUX R-CH Audio Input
3. 5.1CH L-CH Audio Input
4. 5.1CH R-CH Audio Input
5. 5.1CH L-CH Surround Audio Input
6. 5.1CH R-CH Surround Audio Input
7. 5.1CH Center Channel Audio Input
8. 5.1CH Sub-Bass Channel Audio Input
9. Main L-CH Output "+"
10. Main R-CH Output "+"
11. Center CH Output "+"
12. Surround L-CH Output "+"
13. Surround R-CH Output "+"
14. Main L-CH Output "-"
15. Main R-CH Output "-"
16. Centre CH Output "-"
17. Surround L-CH Output "-"
18. Surround R-CH Output "-"
19. Fuse Holder
20. AC Input
21. ON/OFF Power Switch
22. Link to Wireless Transmiter

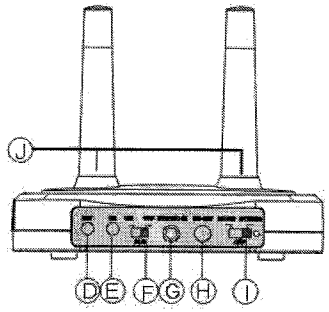
Remote Control



1. Standby
2. Mute Button
3. Center Volume (+) high
4. Center Volume (-) low
5. Surround Volume (+) high
6. Surround Volume (-) low
7. Woofer Volume (+) high
8. Woofer Volume (-) low
9. 2.1CH/5.1CH/6CH Mode
10. Treble (+) high
11. Treble (-) low
12. Bass (+) high
13. Bass (-) low
14. Master Volume (+) high
15. Master Volume (-) low

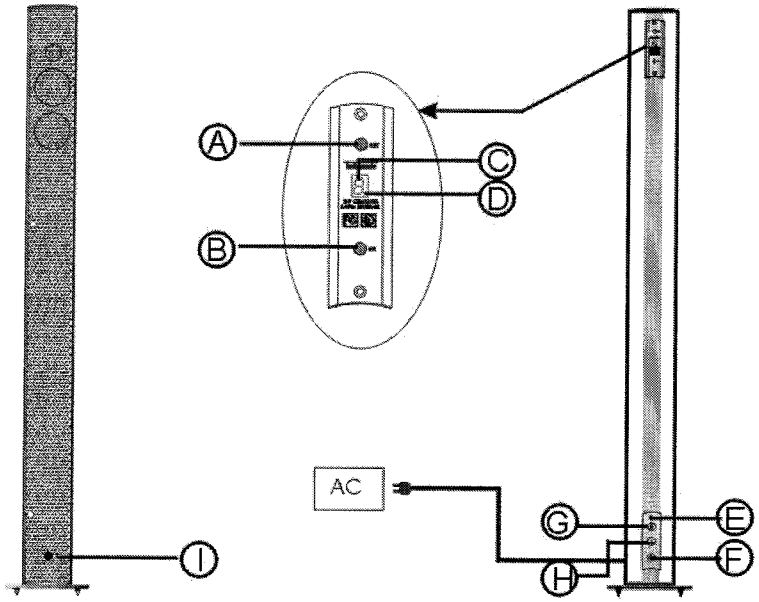
Transmitter





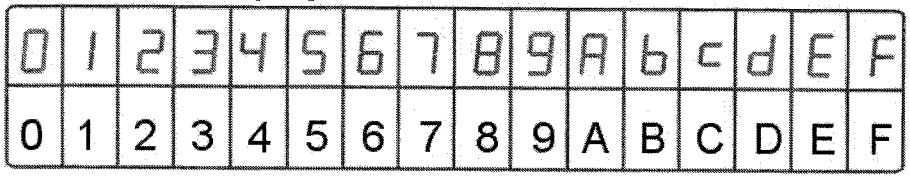
Ⓐ. RF Channel Display
Ⓑ. Standby LED (Yellow)
Ⓒ. SET Display
Ⓓ. SET Button
Ⓔ. RF Channel Button
Ⓕ. ALC Switch(ON/OFF)
Ⓖ. Stereo Line Input
Ⓗ. DC-12V Input
Ⓘ. Power(ON/OFF)
Ⓙ LED Indicator (Blue)

WIRELESS SURROUND SPEAKER



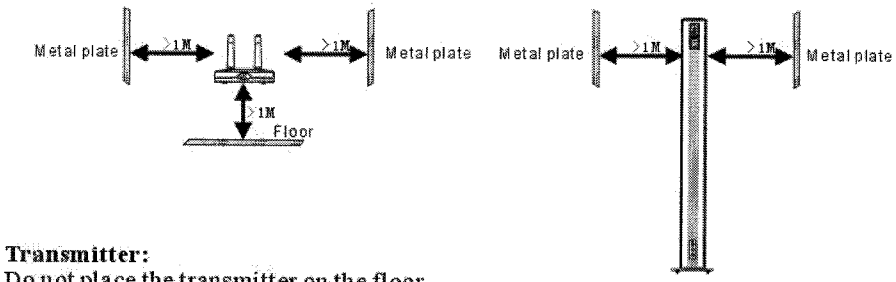
Ⓐ. SET Button
Ⓑ. RF Channel Button
Ⓒ. RF Channel Display
Ⓓ. SET Display
Ⓔ. Power Display
Ⓕ. AC Input
Ⓖ. ON/OFF
Ⓗ. Fuse Holder
Ⓘ. LED Indicator (Blue)

16 Channel Display



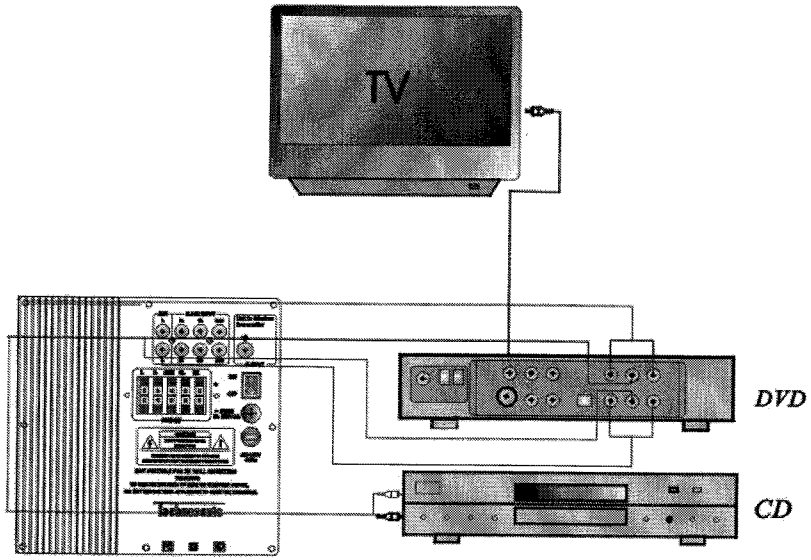
WIRELESS SURROUND OF CONTROLS

Transmitter and wireless surround speakers operation.
1.Connect the AC power with the speakers.
2.Turn the power (G) on. Red light turns on.
3.Turn on the transmitter. The LED indicator (I) turns blue.
If no sound is received, no need to change the channel.
If speaker receives incorrect signal (noise or unwanted music), you must change the channel. Go to 4.
4.Press Set button (A) until 'SET' (D) lights up.
5.Press (B) to select channel.
6.Press (A) again to secure the selected channel.
Connect the transmitter to the subwoofer.
1.Turn on the transmitter power. The light turns up.
2.Check if the receiver signal light turns up.
3.Select the channel to match with selected channel on the speaker.
4.Play your movie or music.
How to use ALC (Auto signal Level control) on the transmitter:
1.When you play music and the audio signal is too low, please switch the ALC 'ON'.
2.When you play movie, please switch the ALC 'OFF'.
Using the "Mixed/Stereo/Power Off" on the transmitter.
1.Switch the button to 'OFF'.
Suggest to turn the transmitter and all connected equipment power 'OFF' before connection.
2.Turn the switch to 'Stereo'.
Suggest to turn the switch to 'Stereo' when you play movie.
3.Turn the switch to 'Mixed' to operate in mono mode.
Additional usage
When you do not play movie, you can place the surround speaker in another room for hi-fi stereo music enjoyment.



Transmitter:
Do not place the transmitter on the floor.
Do not place the transmitter behind or inside any metallic objects.
For better transmission, suggest the transmitter to be put on the desk or on top of TV.
Wireless surround:
Do not place the transmitter behind or inside any metallic objects.

Connections



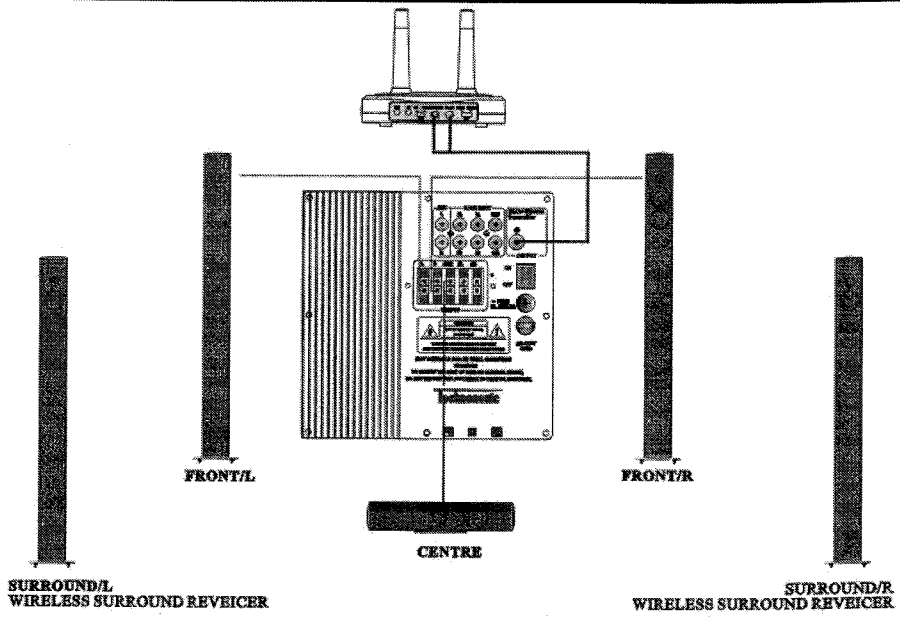
Connecting Equipment

Jacks and plugs of the connecting cord are color-coded as follows :
Red jacks and plugs : For the right channel of audio signals
White jacks and plugs : For the left channel of audio signals

NOTE :
Insert the plugs fully into the jacks. Loose connections may produce a humming sound or other noise interference.

IMPORTANT :
Connect the speakers and all other external equipments first and lastly connect the AC power cord.

Connecting Speakers



Speaker terminals

Connect front, left and right and center speakers to 5.1 speaker output Terminals, while left and right surround speakers require NO wiring.

1.Connect the line and signal cord of the transmitter to transmitter output terminal.
2.Connect the front, left and right speaker cords to the FRONT SPEAKER terminals.
3.Connect the center speaker cord to the CENTER SPEAKER terminal.
4.Plug in the power cords of the wireless left and right surround speakers to A/C power sockets.

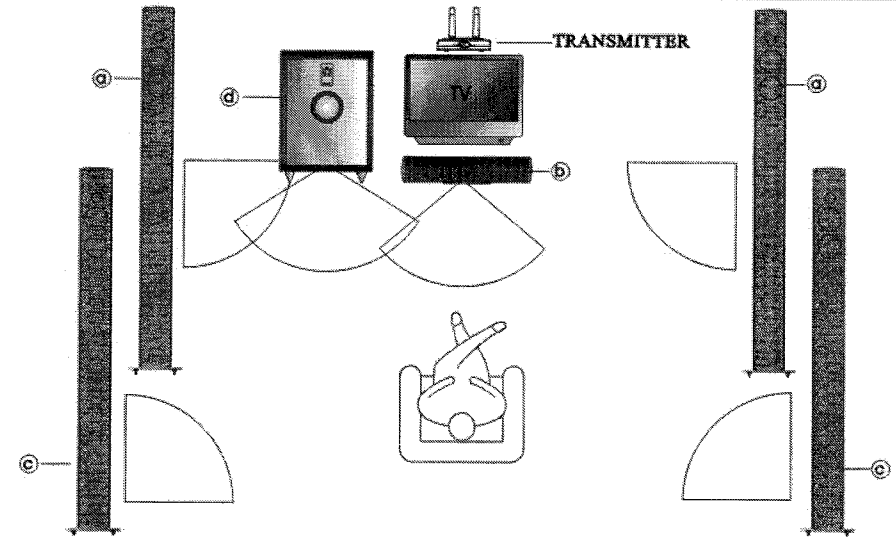
Connecting + to +, - to - terminals

To get the proper sound effect, the speaker terminals on the unit and the speaker Should be connected with proper polarity; the + terminal on the unit should be connected to the + terminal on the speaker (and - to -).

Improper connections of the SPEAKERS can cause short circuits.

NOTE :
Do not leave objects generating magnetism near the speakers.

Positioning The Speakers



"Recommended speakers position" to enjoy ideal effect of the Dolby Digital Surround, Dolby Pro Logic, DTS surround or Stereo effect.

ⓐ **Front Speakers**

ⓑ **Center Speaker**

Position in the center of the two front speakers. In addition, position on or below the TV set, if connecting a TV set .

ⓒ **Surround Speakers**

Place the surround speakers directly to the side slightly side of a slightly behind the listening area. Align them horizontally.

ⓓ **Subwoofer**

Place the sub-woofer any place on the floor not near the TV. (There is no directional effect for bass)

NOTE :

DTS surround, Dolby Pro Logic and Dolby Digital Surround, depends on DVD Player or any decoder. This speaker system is providing 5.1 virtual surround sound Effect.

OPERATION AND NOTICE 1

Power-on

(Be sure to check the connections before you power on your system)

1. Plug the AC cord to rear AC socket and to the wall AC socket.
2. Press ON/OFF switch to power on the system.
3. STANDBY LED lights on.
4. Press STSNDBY button to Operation or Standby the system.

Source Input

After finished system set-up. Switch between AUX or 5.1 CH output by "MODE" on remote handset/front panel control. If input source from AUX, then you could select 2.1 CH or 6 CH output control by "MODE" from remote handset or front panel.

Tone Control

1. Master volume is for controlling the sound level. Low and High
2. Center volume is for controlling the center channel sound level. Low and High
3. Surround volume is for controlling the surround sound level. Low and High
4. Sub-woofer volume is for controlling the active sub-woofer sound level. Low and High
5. The Bass and Treble, Control is built-in the remote control. Low and High

Mute

When you press the MUTE button, the speaker will stop producing sound. Press the MUTE button again, then the sound will come back immediately.

Troubleshooting Guide

Problem	Possible Causes and Remedy
No sound and display.	• Poor connection from power plug and socket. • The Power button is set "off". • Check the amplifier fuse.
No sound but with display	• The Volume knob is set to Min. • The speaker cable is disconnected. • Check RCA cable
No sound from the front speakers	• Poor connection from speaker cable. • Reconnect the speaker cable Correctly.
No sound from one of the front speakers	• Poor connection of speaker cable (positive & negative) is connected to one point. • Check RCA cable for loose connection.
No sound from the Center speakers	• MODE is not set correctly.Reset correctly. • Center Volume is set to Min. • The speaker cable (positive & negative) is connected to one point.
No sound from the Surround speakers	• MODE is not set correctly. Reset correctly. • Surround Volume is set to Min. • The speaker cable (positive & negative) is connected to one point.
No surround effects	• The MODE is wrongly selected. • The speaker cable (positive & negative) is connected to one point.

Specifications of WA300

SPEAKERS

	FRONT	CENTER	SURR	SUB
Drive Size	2x2" Piezo Film	2x2" Piezo Film	2x2" Piezo Film	6.5"
Power Handling	20W	20W	20W	40W
Impedance	8Ω	8Ω	4Ω	8Ω
Frequency Range	250Hz-20kHz	250Hz-20kHz	250Hz-20kHz	50Hz-250Hz
Sensitivity (1w/1m)	85dB	85dB	85dB	90dB
Dimensions (HxWxD) - mm	910x102x95	110x360x95	910x102x95	360x220x270
Weight (kg)	2.3	1.0	2.3	12.0

Packing Dimensions (HxWxD) - mm..... 625x305x980

AMPLIFIER

	FRONT	CENTER	SURR	SUB
Power Output (RMS)				
Total Harmonic Distortion	1% at 20W,8Ω	1% at 20W,8Ω	1% at 20W,4Ω	1% at 40w,8Ω
Frequency Response (±1dB)	250Hz-20kHz	250Hz-20kHz	250Hz-20kHz	20Hz-250Hz
Channel Separation	70dB	70dB	70dB	70dB
Input Sensitivity	2000mv	2000mv	2000mv	2000mv
Signal to Noise Ratio	85dB	85dB	85dB	85dB
5.1ch Input Sensitivity	1600mv	1600mv	1600mv	1600mv

Power Requirements
Voltage.....120V AC
Frequency.....60Hz
Audio Input.....1
Bass.....Yes
Treble.....Yes
Fuse.....3A

WIRELESS SURROUND

R F:

Frequency Range:	2.446575GHz-2.474850GHz	Modulation Mode:	FM
Channel Space:	225K	Distortion:	<0.5%
Channel Bandwidth:	200KHz	Channel Separation:	80dB
Receiver Sensitivity:	-100dBm	Signal to Noise Ratio:	85dB
Transmitter Power:	<10mw	Up to 16 channels to select	
Transmitter Size(mm):	Ø100*21	High reception sensitivity and maximum area of coverage:80m.	
Modulation Frequency:	20~20KHz		

Power Requirements
Voltage.....120V AC
Frequency.....60Hz
Fuse.....1.5A
Output.....1
AMP Power.....20W
The Interior Wireless Stereo Receiver

Technosonic has a policy of continuous product developement and reserves the right to change specifications without prior notice.