

A.6X

PRODUCT GUIDE

VSSL™

SET YOUR MUSIC FREE™

TABLE OF CONTENTS

Intro to VSSL	2
Product Overview	2
Specifications	4
Getting Started	5
Playing Music	7
Voice Control	9
VSSL App	10
Device Status	11
Troubleshooting	13
Warranty Information	15
Safety Information	16

WELCOME TO VSSL

VSSL strives to deliver the best music listening experience based on your music ecosystem. By incorporating Apple AirPlay 2, Google Chromecast, Amazon, and Spotify Connect, you can choose your favorite music app, device, and ecosystem.

Note: Your favorite music apps are maintained outside of the VSSL system. These apps may be subject to updates or changes and could affect the performance of your music system.

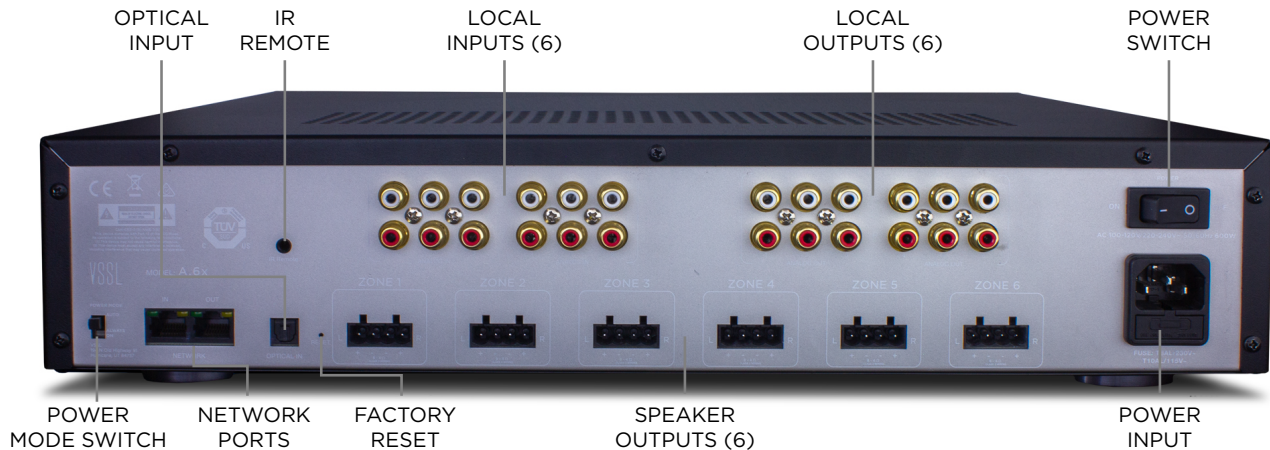
PRODUCT OVERVIEW



FRONT PANEL

Power Indicator	Indicates the power state of the device. There are two power states, auto and always on.
Zone Status Indicators	Indicates the status of the zones. See the Device Status section later for more details.

REAR PANEL



Power Mode Switch

Auto - after 15 min of no music output, the device will enter a low power state. Always On - the device will remain in full power even with no music output.

Network Ports

(1) 10/100MB network input, (1) 10/100MB network output. Ethernet cable on high-speed internet required.

Optical Input

For use with TOSLINK cable, global digital input.

IR Remote Input

For remote control of the device. Use the included IR receiver cable. IR commands can be learned for volume+, volume-, and mute.

Factory Reset

Can use a pin to reset the device to its factory settings.

Local Inputs (6)

Local RCA line-level inputs, can be fixed volume or variable.

Local Outputs (6)

Local RCA line-level outputs, can be fixed volume or variable.

Speaker Outputs (6)

Use the phoenix connector supplied. Output is not bridgeable. The L+, L- are positive and negative outputs for the left channel speaker while the R+, R- are the positive and negative outputs for the right channel speaker.

Power Input

100-120/220-240VAC 50/60 Hz
Use the power cord supplied with the unit. Adapters can be used for international power connections.

ACCESSORIES

Rack Ears

Used for installation in a standard equipment rack.

Phoenix Connectors (3)

Can accept size 12-20 gauge speaker wire.

Power Cord

Standard 3-prong power adapter for the U.S.

IR Receiver Cable

Receives IR signals from remotes

SPECIFICATIONS

Zones	6
Channels	12
Amplifier	Class D 50 watts/ch RMS @ 8Ω/4Ω
Inputs	(1) network, (6) RCA, (1) optical, (1) IR
Wireless Inputs	AirPlay 2, Chromecast built-in, Spotify Connect, Alexa Cast
Outputs	(6) RCA, (1) network
EQ	7 band parametric adjustable
S/N	>80 dB A-weighted
Frequency Response	20-20kHz
Rack Space	2U
Dimensions No Feet	17" W x 14" D x 3.37" H
Dimensions With Feet	17" W x 14" D x 4.15" H
Shipping Weight	25 lbs.

1. PREP YOUR NETWORK

New Installation Steps

- Do not install your VSSL before checking your network.
- Analyze your existing network topology.
- Login to your network equipment.
- Make adjustments according to network settings suggestions.
- Reboot your networking equipment.

Recommendations

- **Recommended** – Download speeds of at least 1Mbps
- **Not recommended** – Satellite internet, 3G/4G/LTE hotspot or cellular INTERNET
- **Not supported** – Guest WiFi networks, shared networks

Network Topology Best Practices

- In homes with access points, it is recommended that an AP controller be present and that all access points be consolidated to a single switch. The VSSL should be installed within that same switch.
- In homes with a switch, ensure the switch is placed downstream from the router.
- In homes with 2 routers (e.g. modem/router combo unit from ISP and 3rd party router) ensure the ISP router is placed in “Bridge Mode” in order to avoid a Double NAT.
- Do not connect your VSSL via ethernet cable to access points, mesh points, or network extenders.
- Ensure that the ethernet (patch) cable is fully functional. Note: ethernet cables commonly degrade over time.

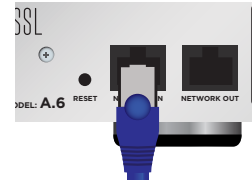
General Router Settings

To configure your router, it's important to consult the manual that corresponds with your exact router model.

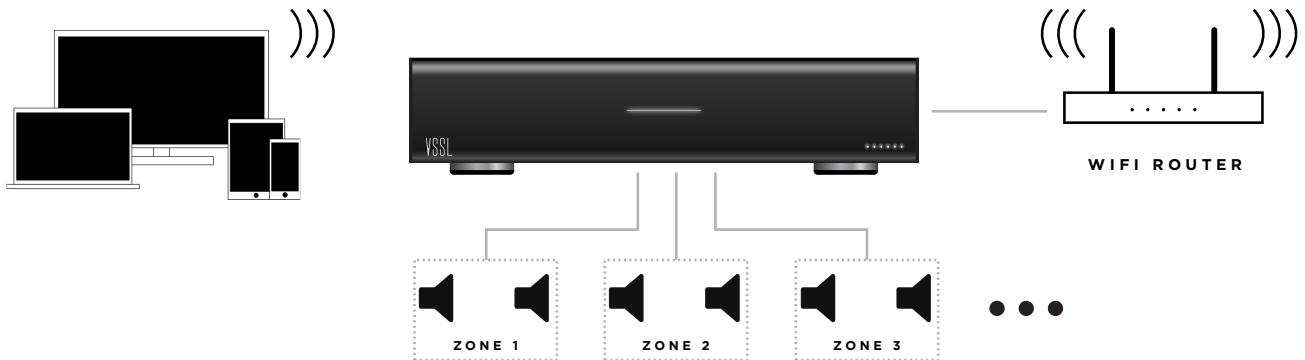
- Ensure the router has the most up-to-date firmware installed.
- Avoid Double NAT when using 3rd party router/mesh system by placing the ISP router in “Bridge Mode” (e.g., Google, eero).
- Ensure that the ethernet (patch) cable is fully functional. Note: ethernet cables commonly degrade over time.
- Separate the 2.4GHz and 5GHz WiFi bands and ensure that they maintain different SSID's.
- Enable “UPnP” (Universal Plug and Play).
- When using access points, disable “AP Isolation” or “Client Isolation”.
- Enable “Multicasting” (multicast terminology differs between manufacturers).
- Disable “IPv6” and only use “IPv4”.
- Enable “IGMP” (Internet Group Management Protocol).
- When using Apple devices, enable “Bonjour” or “ZeroConf Discovery”.
- Ensure managed switches and access point controllers follow the same network topography suggestions as detailed above.
- See more router-specific suggestions at vssl.com/support.

2. PLAN YOUR AUDIO SYSTEM

Your A.6x requires a connection to your high-speed network via ethernet cable.



Plan how each device within your audio system will be connected and where they will be located within your home. Ensure that you follow all speaker, subwoofer and external device manufacturers' guidelines for wiring and powering. As each zone of your A.6x is stable down to 4 ohms, ensure the speaker impedance load for each channel does not fall below 4 ohms.



3. INSTALLATION OPTIONS

Tabletop - Ensure the location has adequate ventilation and at least 0.5" of headroom above the device. If you are going to stack multiple A.6x devices on top of each other, you must use the magnetic feet attached to the bottom.

Rack - Use the included rack mount ears to install into a rack. It is recommended to have at least 0.5" of head room above the A.6x.

4. DOWNLOAD THE VSSL APP

Once you're ready to set up your A.6x, download the app from the app store on your mobile device. Open the app and we'll guide you through connecting and setting up your A.6x.



PLAYING MUSIC


Listening to music with VSSL is easy. Just play music in your favorite music streaming app, choose your preferred streaming method, and select the zone(s) to play to.

AIRPLAY 2

Use AirPlay 2 to stream music, podcasts, radio and more directly from your favorite apps to your A.6x. With AirPlay 2, you're in control of your audio. If you have more than one VSSL zone within your home, you can enjoy your favorite music or podcasts throughout your house — in perfect sync. You can even play different songs in different rooms.

CHROMECAST BUILT-IN

Chromecast built-in is a platform that lets you cast your favorite music from your phone, tablet or laptop right to your speakers. Easily control your speakers with apps you already know and love from your iPhone®, iPad®, Android phone or tablet, Mac® or Windows® laptop, or Chromebook.

With Chromecast built into your VSSL A.6x, your phone becomes your remote. Simply tap the Cast button  from the app to stream music/tunes/podcasts/ playlists from your phone, tablet or laptop to your VSSL A.6x.

Note: Go to the Chromecast built-in website for a full list of Chromecast enabled apps.
<https://www.google.com/cast/apps>

For configuring groups and volume control of Chromecast sessions, you must use the Google Home app. The Google Home app is available on iOS and Android.

SPOTIFY CONNECT

Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn more.

Note: The Spotify software is subject to third party licenses found here:
www.spotify.com/connect/third-party-licenses

ALEXA CAST

Alexa Cast allows you to play (cast) and control music on any of your VSSL zones from your Amazon Music iOS or Android app. Your devices do not need to be on the same WiFi network as your mobile device and you can target any VSSL zone from anywhere. Your app becomes a remote control for your A.6x.

LOCAL MUSIC LIBRARY

For local music you can use any DLNA, Chromecast, Alexa, or AirPlay-based streaming app to play content to your VSSL A.6x. You can also use these apps to access local music from a NAS drive. See instructions for External Audio Source (Input).

EXTERNAL AUDIO SYSTEM (OUTPUT) ---

You can connect your A.6x to an external amplifier system (e.g., home theater receiver, high-powered amplifier, outdoor audio system). The A.6x is capable of acting as the source in these systems.

1. Connect the external amplifier to one of the analog outputs.
2. The output by default is variable, which allows you to control the volume of the external system from your phone or other streaming devices. A fixed output can be configured in the VSSL app.
3. Within the VSSL app's device settings, assign whichever of the 6 zones that will supply the line-level signal to the specified output.

EXTERNAL AUDIO SYSTEM (INPUT) ---

You can connect your A.6x to the audio output of any device. Wire the output of any audio source to any of the local inputs (e.g., satellite TV box, record player).

1. Connect the external audio source to the A.6x optical, analog, or coaxial input.
2. If the external audio source has an IR remote, connect the provided IR sensor on the back panel and learn its controls through the VSSL app.
3. Set priority to "Local first" within the VSSL app's zone settings.
4. Within the VSSL app's "Zones" section, select the desired zone's RCA icon, then choose the corresponding input to be assigned.

Note: By default, the A.6x sets priority to "Streaming first" in the case that 2 sources are attempting to play to a zone.

CONNECTING A SUBWOOFER ---

A subwoofer is a great way to add more bass to your VSSL system.

1. Connect the subwoofer to one of the A.6x's analog outputs. You can also use a Y RCA adapter to combine the stereo inputs to a mono RCA input on the subwoofer's amplifier. The bus outputs are full range outputs. For best results, reference the subwoofer amplifier manual to ensure the RCA input is passed through the local crossover on the subwoofer.
2. Within the VSSL app's device settings, assign the analog output used to whichever of the 6 zones that will supply the line-level signal to the subwoofer.
3. Within the VSSL app's zone settings, adjust the crossover settings as desired.

Note: To connect to a subwoofer with high-level speaker outputs, you will need to use an amplifier that is capable of receiving a high-level input signal. Reference the subwoofer amplifier manual to ensure proper connection and settings.

VOICE CONTROL

GOOGLE ASSISTANT

The VSSL A.6x works seamlessly with the Google Assistant. Using Google Assistant on your Android, Google Home speaker, or other certified Google Assistant device you can say things like:

- “Play some music in the master bedroom”
- “Stop the music in the kitchen”

You can even set the default playback from your Google Home speaker to shorten your phrases to:

- “Play music”
- “Turn up the volume”
- “Stop”



AMAZON ALEXA

For the first time ever, VSSL now supports Amazon Alexa! Control your VSSL zones with Alexa’s music skills and automation.



Simply login to your Amazon account through the VSSL app interface. Your VSSL zone is then instantly available within the Alexa app. In the Alexa app, change the name of the zone and add it to a group under “Set Up Multi-Room Music.”

APPLE SIRI

As a certified AirPlay 2 product, you can use your A.6x with Siri on your iPhone, Mac, or Apple TV. Using Siri, you can say things like:

- “Play ‘I Want It All’ by Queen on all speakers”
- “Play something I like on all speakers”
- “Play some rock on kitchen speaker”
- “Play/pause music”
- “Play the next song”
- “Play the song before this one” etc.
- “Repeat last song/album/playlist”
- “Fast forward 30 seconds”, “Rewind 10 seconds”, etc.

To use Siri with your A.6x, you must first add the device to your home in the iOS Apple HomeKit app. Please follow the recommended procedure from Apple. See the following support article: <https://support.apple.com/en-us/HT208724>.

INITIAL SETUP

When your A.6x is plugged into power, the VSSL app will automatically recognize your device and initiate setup. Simply follow the prompts to name your zones and choose how you would like to stream to your amplifier.

PLAYBACK & VOLUME CONTROL

On the home screen, you will be directed to a list of available zones on your WiFi network. Here you may adjust the volume of each zone, control the playback on existing streams, and assign external input sources.

PAGING

Your A.6x can turn any and all zones into an internal paging system.

- Upon entering the app, simply tap the microphone icon at the top right of the screen, press and hold the desired zone to page to, then record your message.
- The page volume can be adjusted in the settings as long as you are logged into the app with your email.

IR CONTROL

Your A.6x can learn IR codes to control your TV's or control system's volume with its original remote.

- Connect the included IR cable to the IR Remote port on the back panel.
- In the VSSL app zone settings with the remote in hand, follow the prompts on the screen to choose which zones to control and learn the IR codes for Volume+, Volume-, and Mute functions.

MAX VOLUME

You can set volume limits on any of your zones by adjusting the left and right channel max volume slider. For your convenience, the app acts as an SPL meter and calculates the current sound pressure in decibels (dB).

PRIORITY

By default, the A.6x sets priority to "Streaming first" in the case that 2 different source types are attempting to play to a zone. For scenarios where you desire to have the local input take priority over a stream, toggle the zone's priority setting to "Local first." This is especially helpful in cases where speakers are being used for both TV watching and listening to distributed audio.

EQ SETTINGS

You can fine tune any of your zones to improve & tailor your listening experience.

- Toggle on "Enable EQ" and adjust the basic treble, mid, and bass preset sliders.
- Finer frequency range adjustments can be made under "Advanced EQ."

DEVICE STATUS



DEVICE STATUS INDICATOR

All Zones Blinking Red	The device is booting up.
All Zones Solid Red	The device has lost connection to the network. Check the ethernet cable or networking device. See Troubleshooting section.
One Zone Solid Red	The zone has a connection error, see troubleshooting section of this guide.
Any Zone Solid White	The specific zone(s) are active.
Zones Blinking White	The device is ready and waiting for setup in the VSSL app.
All Zones Flashing From Left to Right	The device is updating its firmware.
All Zones No Lights	Standby, the device is awaiting a command.

POWER INDICATOR

Solid Bright	The device is on and ready.
Solid Dim	The device is in a low power sleep mode.
Pulsing	The device is in a boot up sequence.

BOOT UP

During boot up, the power and zone status indicators will cycle through multiple red and white flashing light sequences. Upon powering the A.6x for the first time, or after a factory reset, 6 flashing white zone status indicator lights indicates the unit is ready to be set up.

POWER MODES

Auto mode - Enabled by default, this mode allows the device to enter into a network standby mode after 10 minutes of no music output. To wake the A.6x, simply start a music stream to the device.

Always On mode - This setting can be adjusted in the VSSL app.

SOFTWARE UPDATES

Your VSSL system checks for updates automatically on a daily basis and will only update while music is not currently streaming. These updates ensure delivery of new features and will keep your system running bug-free. While an update is loading, the zone indicator lights will flash in sequence from left to right and the power LED will flash on and off during its installation. The system then reboots.

TROUBLESHOOTING

VSSL APP SPINS

When opening the app, the screen spins and cannot find a zone.

1. Make sure the device is connected to the same network as the VSSL. If the device is having trouble connecting to the internet, the zone status indicators will all be red.
2. If the zone status indicators are blinking white, your A.6x requires setup in the VSSL app.
3. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.
4. Visit vssl.com/knowledgebase/vssl-networking-support/ and make the following adjustments to your network with the help of your Internet Service Provider.
5. Reboot your network.
6. Perform a factory reset from the app or hold in the reset button for at least 5 seconds after network adjustments have been made.

MISSING DEVICE

You cannot see your zone within the music streaming app.

1. Ensure the device is powered on by checking the power indicator light.
2. Check your internet connection.
3. Make sure the device is connected to the same network as the VSSL. If no network is connected the zone status indicators will be red.
4. If the zone status indicators are blinking white, your A.6x requires setup in the VSSL app.
5. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.

CAN'T CONNECT TO A ZONE

You can see your zone within the music streaming app but cannot establish a connection.

1. Reboot your A.6x by flipping the power switch on the back of the unit off and on again.
2. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.
3. Visit vssl.com/knowledgebase/vssl-networking-support/ and make the following adjustments to your network with the help of your Internet Service Provider.
4. Reboot your network.
5. Perform a factory reset from the app or hold in the reset button for at least 5 seconds after network adjustments have been made.

NO MUSIC OUTPUT

You are able to connect/play to your zone, but no music can be heard from the speakers.

1. Check your speaker connections. Make sure all the cables are properly terminated in the phoenix connectors and there are no wires touching across to other ports.
2. Open the VSSL app to make sure the zone you're playing to is not muted and the volume is turned up high enough to hear.
3. Ensure each zone's max impedance load does not exceed 4 ohms. Visit vssl.com/support for more information on impedance, amplifiers, and speakers.
4. Try different streaming protocols AirPlay 2, Chromecast, and Spotify Connect within different music apps like Apple Music, Spotify, or Pandora.
5. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.

TROUBLESHOOTING

MUSIC STOPS

Your music intermittently stops on its own and/or the zone disconnects from the device.

1. Close and restart the music app that was being used when the music stopped.
2. Try reducing wireless interference by moving the source device closer to the WiFi router or access point. Check your internet connection.
3. Try different streaming protocols AirPlay 2, Chromecast, and Spotify Connect within different music apps in order to isolate the issue.
4. Check the music service's online site to find reports of possible service outage.
5. Visit vssl.com/knowledgebase/vssl-networking-support/ and make the following adjustments to your network with the help of your Internet Service Provider.
6. Reboot your network.
7. Perform a factory reset from the app or hold in the reset button for at least 5 seconds after network adjustments have been made.

ZONE INDICATOR LIGHTS ARE SOLID RED

Your A.6x is stuck with 6 red zone indicator lights indicating no network connection.

1. Check your internet connection and replace your ethernet cable.
2. Reboot your A.6x by flipping the power switch on the back of the unit off and on.
3. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.

INDICATOR LIGHTS ARE DEAD

Even after turning on, neither power nor zone indicator lights turn on.

1. Ensure the power cord is fully inserted into the back of the A.6x.
2. Perform a factory reset from the app or holding in the reset button for at least 5 seconds.
3. Contact the VSSL support team.

GOOGLE HOME APP CANNOT FIND ZONE TO SETUP

While attempting to setup in Google Home, cannot find zone

1. Ensure the device is powered on by checking the power indicator light.
2. Check your internet connection.
3. Make sure the device is connected to the same network as the VSSL. If no network is connected all 6 zone status indicators will be solid red.
4. Perform a factory reset from the app or hold in the reset button for at least 5 seconds.

MY STREAMING APP IS FROZEN WITH MUSIC PLAYING

1. Hard close and restart the app on your device.
2. Reboot your A.6x from the VSSL app or by flipping the power switch on the back of the unit off and on.

Note: For more support and other questions please visit, vssl.com/support

WARRANTY INFORMATION

All VSSL branded products have a limited one (1) year warranty. The VSSL Product Warranty covers defects in materials and workmanship in every VSSL product for one (1) year from the date of shipment from VSSL or the date of the original retail purchase from an authorized VSSL Dealer. The VSSL Product Warranty will cover the cost of parts and repair labor on all products deemed to be defective by Soundvision Technologies. The VSSL Product Warranty does not guarantee that VSSL products will at all times operate without interruption or will be error-free, or that all errors may be corrected. The warranty extends only to the original purchaser of the product and not to any subsequent owner.

Soundvision Technologies' obligation under this warranty is limited to repairing or replacing any component found defective in material or workmanship under normal conditions of use with an equal and/or current product. Products to be repaired or returned under this warranty must be returned to VSSL through an authorized VSSL dealer with all transportation and insurance charges prepaid. The warranty period is not extended if we repair or replace your product.

There are some exclusions to the VSSL Product Warranty, including but not limited to:

- Products which have been abused, modified, or disassembled;
- Problems that result from external causes such as accident, abuse or misuse;
- Use that is not in accordance with VSSL product instructions;
- Products with missing or altered serial numbers;
- Products which have had their housings opened or are otherwise tampered with; or
- Problems caused by using third party accessories, parts, or components.

COPYRIGHT

THE INFORMATION CONTAINED IN THIS DOCUMENT IS ACCURATE AT THE TIME OF PRINTING. HOWEVER, THIS INFORMATION MAY BE CHANGED OR UPDATED AT ANY TIME WITHOUT NOTICE.

This document is protected under the copyright laws of the United States and other countries. All rights are reserved. No part of this publication may be reproduced, copied, or transmitted in any form or by any means, electronic or mechanical, including but not limited to photocopying, recording, information retrieval systems, or computer networks without the express written permission of VSSL, LLC.

VSSL™ is a registered trademark of VSSL, LLC, registered with the U.S. Patent and Trademark Office. Additionally VSSL has other product names and slogans that are protected under U.S. Trademark laws, which may not be used without the express written permission of VSSL, LLC. Please take notice that VSSL™ products may also be protected by one or more patents issued by the U.S. and other countries.

Android, Google Play and Chomecast are trademarks of Google Inc.

iPhone®, iPod®, iPad®, AirPlay®, AirPlay2®, iTunes®, Mac®, OS X®, macOS™, Apple Music™, and Siri® are trademarks of Apple Inc., registered in the U.S. and other countries.

Amazon, Alexa and all related logos and motion marks are trademarks of Amazon.com, Inc. or its affiliates.

Windows® is a trademark of Microsoft Corporation registered in the U.S. and other countries.

August 2020

© 2020 by VSSL, LLC. All rights reserved.

IMPORTANT SAFETY INFORMATION

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not bypass the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as; power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



WARNING

- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- An appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Please always keep at least 20cm away from this device.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la section 15 des réglementations de la FCC. Le fonctionnement de l'appareil est sujet aux deux conditions suivantes :

- (1) cet appareil ne doit pas provoquer d'interférences néfastes, et
- (2) cet appareil doit tolérer les interférences reçues, y compris celles qui risquent de provoquer un fonctionnement indésirable.

Note: This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This product 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 product 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.

Please take attention that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.