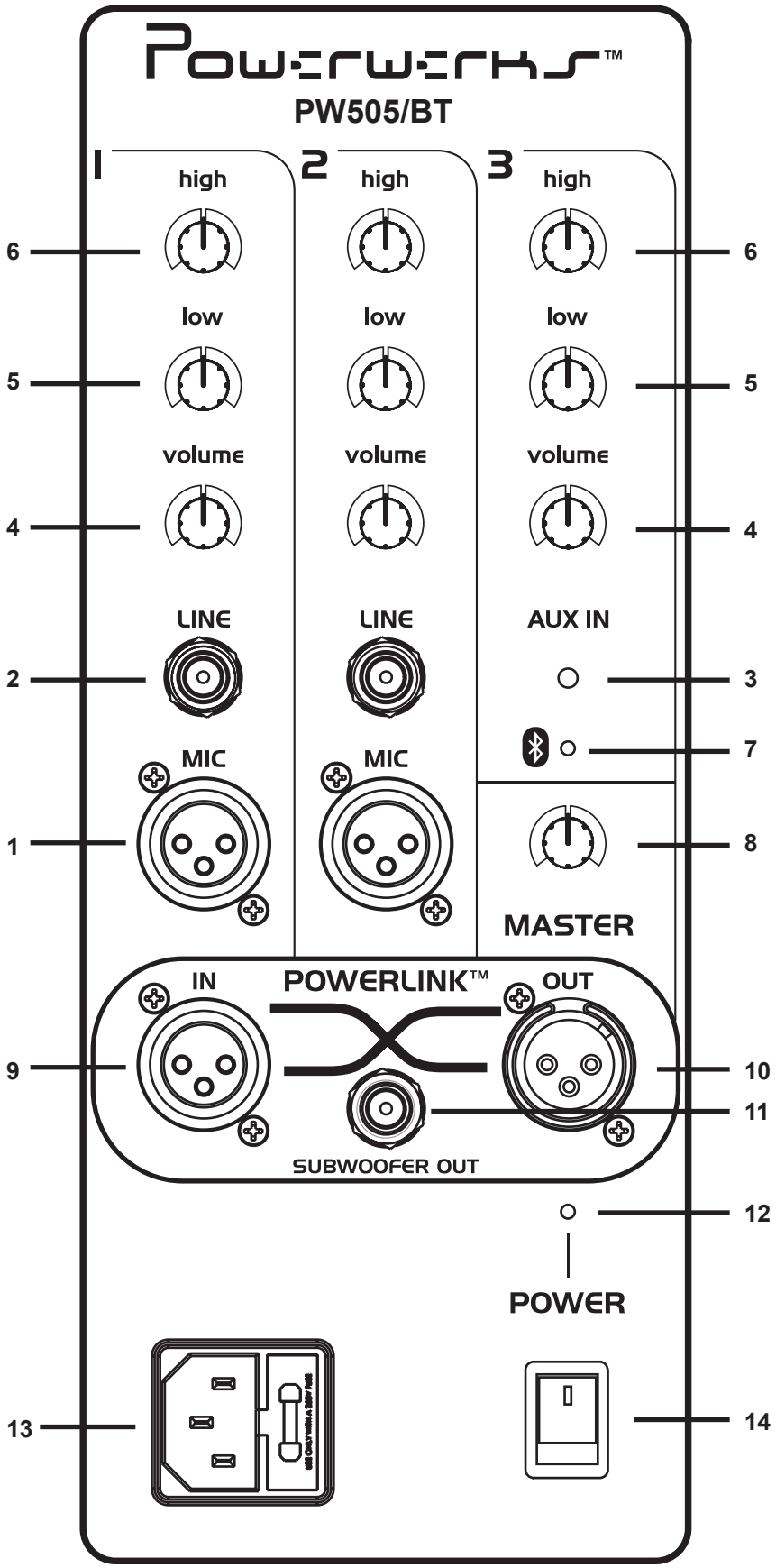
PW505/BT

Personal PA System

Congratulations on the purchase of your PW505/BT PERSONAL PA SYSTEM.

Your PW505/BT Model draws on decades of amp design and manufacturing experience at Powerwerks. This model was built from the ground up to offer world-class tone, useful features and reliable performance. Inside this manual you'll find valuable information about your product's controls and specifications. Being familiar with its features will help you effectively use your system. We wish you many years of enjoyment with your Powerwerks PW505/BT.



BLUETOOTH PAIRING INSTRUCTIONS:
To connect your Bluetooth device to the Powerwerks Bluetooth receiver for the first time, navigate to the Bluetooth settings menu on you Bluetooth enabled device. Ensure that Bluetooth is enabled and your Powerwerks product is powered on. Perform a scan for available devices. Select and pair to the Powerwerks product in the list of available devices. Enter 0000 for the passcode if prompted. Once paired, a connection can be established. Depending on the device, future connections may be established automatically when a previously paired Bluetooth device is in range of the Powerwerks Bluetooth receiver.

The Bluetooth receiver in Powerwerks Bluetooth products is an A2DP device and will work with other A2DP compatible Bluetooth devices including most smart phones. Additional hardware and/or driver software may be required for computers with integrated Bluetooth adaptors due to a lack of support for A2DP devices by some operating systems.

A2DP protocol only allows for one to one device connections. Therefore, only one Bluetooth device can be connected to a Powerwerks Bluetooth product at one time. Similarly, a Bluetooth device can only be connected to one Powerwerks Bluetooth product at one time. Plugging a 1/8” connector into the AUX jack disables the Powerwerks Bluetooth receiver.

CONTROLS & FUNCTIONS OVERVIEW

INPUT SECTION:
This is where you may plug in microphones, instruments, keyboards, drum machines and other audio devices, adjust the volume, bass and treble.

1. MIC Inputs: These XLR inputs are designed for low-impedance microphones or equipment that has a mic-level advanced output (often called a Direct Out). Note: These inputs receive 15-volt phantom power. This is used to provide power to condenser microphones. Phantom power will not damage any dynamic or non-condenser microphone.

2. LINE Inputs: These ¼-inch inputs may be used to connect high-impedance microphones or keyboards, drum machines and other audio devices.

3. AUX IN: Use this stereo input to connect an external audio device such as an MP3, CD player or computer for playback Note: Right and Left channels are summed to mono on this input

4. Volume: Use these controls to adjust the volume level of each channel and the relative balance between them.

5. Low: Determines the emphasis of bass frequencies. Turning this knob clockwise creates a deeper, warmer tone. If you need a brighter sound, reduce the bass by turning counterclockwise.

6. High: Turned clockwise, this control accents treble frequencies to produce clearer, crisper sound. Turn counterclockwise to make the sound softer and less bright.

7. Bluetooth LED(Available with PW505BT model only): Indicates that a Bluetooth equipped device has successfully paired with the PW505BT.

8. Master Volume: Controls the overall volume of all channels and input on POWERLINK
Note: *Does not affect POWERLINK Output level.*

9. POWERLINK IN: This balanced XLR Jack accepts the POWERLINK output from another PW505/BT using a standard mic cable. Channels from both Powerwerks PW505/BT's are summed together. Use the channel volume controls to get the mix of the channels (If a channel is not used turn the volume all the way down). MASTER volume controls the loudness of the mix through its PW505/BT. It does not affect volume of a linked PW505/BT.
Note: *The shield connection (pin 1) on this jack is connected to chassis ground. It is not lifted.*

10. POWERLINK OUT: This balanced XLR Jack accepts the POWERLINK input from another PW505/BT using a standard mic cable. Channels from both PW505BT's are summed together. Use the channel volume controls to get the mix of the 6 channels (If a channel is not used turn the volume all the way down). MASTER volume controls the loudness of the mix through its PW505/BT. It does not affect volume of linked PW505/BT. This jack may also be used to connect the PW505/BT to a power amp with a balanced line input.
Note: *The shield connection (pin 1) on this jack does not connect to chassis ground. It is lifted.*

11. Subwoofer Out: The PW505/BT subwoofer output jack sends a line level unbalanced low frequency signal crossed over at 150Hz to a powered subwoofer. It will also work with any powered subwoofer that accepts a line level input. A crossover that rolls off the frequencies below 150Hz through the PW505/BT's speakers is activated when using this jack with a standard ¼" mono (tip/Sleeve) SHIELDED instrument cable. When Subwoofer jack is not used, this crossover is bypassed and PW505BT speakers are full range. Note: It is recommended to connect subwoofer using a standard ¼" mono (tip/sleeve) SHIELDED instrument cable bewcause the sleeve connection to ground activates crossover on speakers. When possible, plug AC cable on PW505/BT and SubWoofer into same outlet or power strip. This will prevent possible ground loop hum through the system.

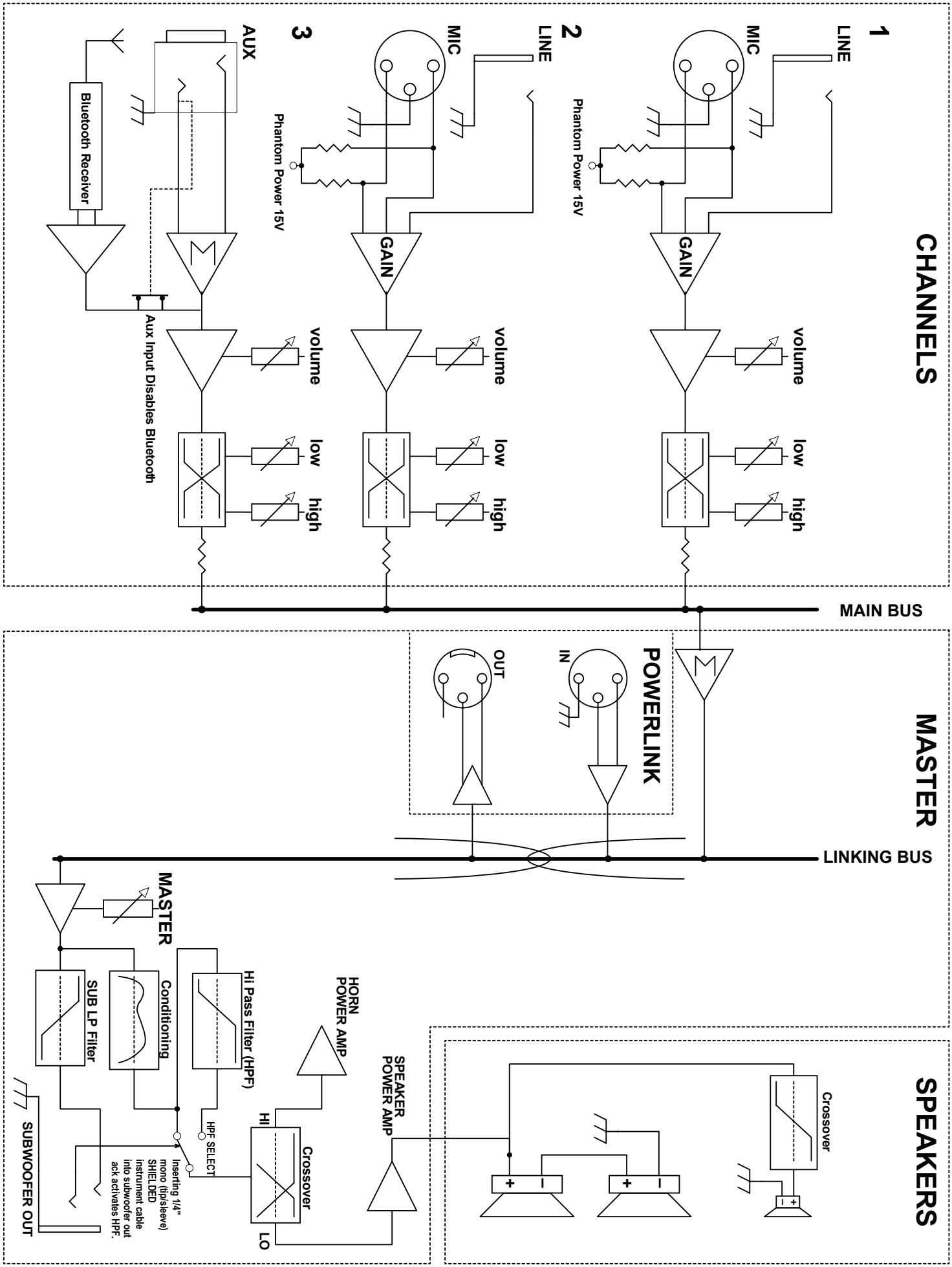
12. Power Indicator Light: Indicates that the power switch is in the "ON" position.

13. AC Power Cord Receptacle: Insert the PW505/BT's AC cord firmly into the AC receptacle. Be sure to use the cable provided with your PW505/BT. The power cord can be removed for storage or replacement if damaged. Note: Replace the AC cord if its protective jacket is damaged or ground pin is damaged or removed.

14. Power: This switch activates AC power to the powered PA.

PW505/BT Powered PA Specifications

Output Power 1%	50W	8 Ohm load
Accepted Inputs	Channels 1 and 2	Mic XLR Balanced, Line level 1/4" Un-balanced
	Channel 3	1/8" Stereo Line Level
Hum & Noise	-65dB	Residual Noise, all level controls 0% (minimum)
	-48dB	Nominal System Noise, all level controls at 50%
System Gain (Measurements made at 1kHz)	+70dB	Mic to Speaker Output (CH 1 & 2)
	+56dB	Line to Speaker Output (CH 1 & 2)
	+42dB	AUX IN to Speaker Output
Channel EQ (high, low)	4kHz and above , 800Hz and below.	
POWERLINK (IN and OUT)	Both jacks accept a balanced input and sends a pre-master volume output mix of channels. Recommended use: Linking two PW50BT units together.	
Subwoofer Out	Line Out	20Hz-150Hz.
Phantom Power	+15V	Mic inputs (Ch 1 & 2)
Power Requirements	USA/Canada	120VAC/60Hz, 80W nominal
	Europe	230VAC/50Hz, 80W nominal
	UK	230VAC/50Hz, 80W nominal
	Australia	240VAC/50Hz, 80W nominal
	Japan	100VAC/50-60Hz, 80W nominal
Speakers	Two 5"	25W 16 Ohm each
Horn	3.5" Prezo Driver	
Power Capacity	50W	RMS
Frequency Response	60HZ-20kHz	Full range (subwoofer jack not used)
	150HZ-20kHz	Crossover Active (1/4" mono plug in subwoofer jack)
Nominal Impedance	8 Ohms	Not designed for external speakers
Bluetooth Module Features	Bluetooth 3.0+EDR compliant.Typical +2dBm Class 2 output power. Audio DAC:94dB SNR.A2DP profile support.	
Dimensions & Weight	mm/kg	192 W x 478 H x 185 D / 7.2 kg
	Inches/Pounds	7.6 W x 18.8 H x 7.3 D / 16 lb



Powerwerks PW505BT SIGNAL FLOW DIAGRAM

Powerwerks™

PowerWerks
c/o Hanser Music Group
Cincinnati, Ohio 45246
(859) 817- 7103

LIMITED PRODUCT WARRANTY

WHO IS COVERED?

The Powerwerks Limited Warranty applies to the original retail purchaser. The original purchase receipt is required for any warranty claims.

This Warranty applies only to products purchased in the United States by a U.S. resident. Products purchased by a consumer living outside the United States from a U.S. Powerwerks Dealer or a U.S.-based website are NOT covered under the terms of this limited warranty. Products purchased outside the United States are subject to country-specific warranties. Contact the Powerwerks International Distributor in your country for details.

WHAT IS COVERED?

Powerwerks warrants this product to be free of defects in materials and workmanship for a period of three (3) years from the original date of purchase.

Powerwerks warrants loudspeakers to be free from defects in material and workmanship for a period of one (1) year from the date of original purchase.

This speaker warranty is subject to the following exclusions and limitations:

1. Speaker must be inspected by Powerwerks or an Authorized Service Center for damage or misuse.
2. Speakers damaged due to overpowering are not covered under this warranty.
3. Powerwerks reserves the right to repair or replace the speaker with one of comparable quality.

WHAT IS NOT COVERED?

This warranty is subject to the following conditions and exclusions:
Defects caused by wear and tear, misuse or neglect are not covered by this warranty.

This warranty will be void if:
A. The unit has been altered or modified.
B. The serial number has been removed or defaced.
C. The unit has been operated improperly.

This warranty is for Powerwerks products only. Any service claims resulting from other brands used in conjunction with Powerwerks products will not be allowed or honored.

WHERE DO I GO?

All warranty service must be performed by PowerWerks or by an Authorized PowerWerks Service Center. All component replacement costs will be assumed by Powerwerks within this warranty period. The labor costs will be covered by Powerwerks according to the established current rate schedules. Transportation to and from the warranty center is the sole responsibility of the purchaser. Powerwerks assumes no liabilities for damages incurred in transit to or from the service center.

WHAT DO I DO?

If warranty repairs become necessary, the owner is responsible for delivery of the unit to an Authorized PowerWerks Service Center. If return is to be made to PowerWerks, the customer must first obtain a Return Authorization from Powerwerks' Service Department by telephone or mail. After receipt of a Return Authorization, the owner must ship the unit with a copy of the original sales receipt and a detailed description of the needed repairs. Please include your Return Authorization number on all correspondence. Repaired products will be returned freight collect. PowerWerks will, at its option, repair or replace defective parts or products.

LIMITATION OF WARRANTY:

POWERWERKS SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR CONSEQUENTIAL, SPECIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN OR FAILURE OF POWERWERKS PRODUCTS. POWERWERKS' LIABILITY AND YOUR REMEDY FOR DAMAGES AGAINST POWERWERKS SHALL NOT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF THIS POWERWERKS PRODUCT.

This warranty is effective on the date of purchase.

FOR YOUR RECORDS

Model _____ Serial #: _____

Date Purchased _____ Dealer _____

Dealer Address _____

City _____ State _____ Zip Code _____

Original Sales Receipt or a legible copy must be presented for any warranty repair or transaction.

Powerwerks™

PW505/BT

OWNER'S MANUAL

www.powerwerks.com

IMPORTANT SAFETY INSTRUCTIONS

FRENCH

Danger
L'exposition a des niveaux eleves de bruit peut provoquer une perte permanente de l'audition, Chaque organisme humain reagit differemment quant a la perte de l'audition, mais quasiment tout le monde subit une diminution de l'acuite auditive lors d'une exposition suffisamment longue au bruit intense. Les autorites competentes en reglementation de bruit ont defini les expositions tolerees aux niveaux de bruits:

DURATION PER DAY (HOURS)	8	6	4	3	2	1
SOUND LEVEL (dB)	90	93	95	97	100	103

Selon les autorites, toute exposition dans les limites citees ci-dessus,peuvent provoquer certaines pertes d'audition. Des bouchons ou protections dans l'appareil auditif ou sur l'oreille doivent etre portes lors de l'utilisation de ce systeme d'amplification afin de prevenir le risque de perte permanente de l'audition, Dans le cas d'expositions superieures aux limites precitees il est recommande, afin de se premunir contre les expositions aux pressions acoustiques elevees potentiellement dangeureuses, aux personnes exposees aux equipements capables de delivrer de telles puissances, tels ce systeme d'amplification en fonctionnement, de proteger l'appareil auditif.

ATTENTION
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR.

ATTENTION: AFIN DE LIMITER LE RISQUE DE CHOC ELECTRIQUE. NE PAS ENLEVER LE CHASSIS. NE CONTIENT PAS DE PIECES POUVANT ETRE REPAREE PAR L'UTILISATEUR. CONFIER LE SERVICE APRES-VENTE AUX REPARATEURS AGREES.

CE SYMBOLE A POUR BUT D'AVERTIR L'UTILISATEUR DE LA PRESENCE DE VOLTAGE DANGEREUX NON-ISOLE A L'INTERIEUR DE CE PRODUIT QUI PEUT ETRE DE PUISSANCE SUFFISAMMENT IMPORTANTE POUR PROVOQUER UN CHOC ELECTRIQUE AUX PERSONNES.

CE SYMBOLE A POUR BUT D'AVERTIR L'UTILISATEUR DE LA PRESENCE D'INSTRUCTIONS D'UTILISATION ET DE MAINTENANCE DANS LES DOCUMENTS FOURNIS AVEC CE PRODUIT.

AFIN DE REDUIRE LES RISQUÉ D'INCENDIE ET DE DECHARGE ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan
Apparatet må tilkoples jordet stikkontakt
Apparaten skall anslutas till jordat uttag

Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

1. Lire avec attention toutes les recommandations et précautions d'emploi avant d'utiliser ce produit.
2. Toutes les recommandations et précautions d'emploi doivent être conservées afin de pouvoir s'y reporter si nécessaire.
3. Lire et comprendre tous les avertissements énumérés dans les précautions d'emploi.
4. Suivre toutes les précautions d'emploi pour utiliser ce produit.
5. Ce produit ne doit pas être utilisé près d'eau, comme par exemple baignoires, éviers, piscine, sous-sol humides ... Etc.
6. Utiliser exclusivement un chiffon sec pour nettoyer ce produit.
7. Ne bloquér aucune ouverture de ventilation. Ne pas placer le produit tout contre un mur ou dans une enceinte fernée, cela gênerait le flux d'air nécessaire au refroidissement.
8. Ne pas placer le produit près de toute source de chaeur telle que radiateurs, arrivées d'air chaud, fourneaux ou autres appareils générant de la chaleur (incluant les amplificateurs producteurs de chaleur) .
9. Ne pas négliger la sécurité que procure un branchement polarisé ou avec raccordement à la terre, Un branchement polarisé comprend deux fiches dont l'une est plus large que l'autre. Un branchement à la terre comprend deux fiches plus une troisième reliée à la terre. Si la fiche secteur fournie ne s'insert pas dans votre prise de courant. consulter un 'électricien afin de remplacer votre prise obsolète.
10. Protéger le cordon d'alimentation de tout écrasement ou pincement, particulièrement au niveau des fiches, des réceptacles utilisés et à l'endroit de sortie de l'appareil. Ne pas casser la fiche de terre du cordon d'alimentation.
11. Utiliser uniquement les accessoires spécifiés par le constructeur.
12. Utiliser uniquement avec le chariot de transport, le support, le trépied, la console ou la table spécifiés par le constructeur ou vendus avec l'appareil. Lors de l'utilisation d'un chariot, bouger avec précaution l'ensemble chariotlappareil afin d'éviter les dommages d'un renversement.
13. Débrancher cet appareil lors d'orages ou s'il n'est pas utilisé pendant une longue période.
14. Des précautions doivent être prises afin qu'aucun objet ne tombe et qu'aucun liquide ne se répande à l'intérieur de l'appareil par les orifics de ventilation ou n'importe quelle autre ouverture.
15. Pour toutes interventions techniques s'adresser à un technicien qualifié.L'intervention technique est nécessaire lorsque l'appareil a été endommagé de n'importe quelle façon, comme par exemple si le cordon secteur ou sa fiche sont détériorés,si du liquide a coulé ou si des objets sont tombés à l'intérieur de l'apparei1,si l'appareil a été exposé à la pluie ou à l'humidité, s'il ne fonctionne pas normalement ou s'il est tombé.
16. ATTENTI0N:Pour réduire le risque d'incendie ou de choc electrique ne pas exposer l'appareil à la pluie ou à l'humidité.
17. Quand La prise MAINS, au coupler, est utilisé pour la source d'alimentation êlectrique. Il est conseillê de garder cette prise facilement accessible.
18. Borne de terre de protection: L'appareil doit être connecté à un connecteur AC principale avec un raccordement à la terre de protection.

IMPORTANT SAFETY INSTRUCTIONS

Danger
Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably to noise induced hearing loss but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time.

The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

DURATION PER DAY (HOURS)	8	6	4	3	2	1
SOUND LEVEL (dB)	90	93	95	97	100	103

According to OSHA, any exposure in the above permissible limits could result in some hearing loss. Earplugs or protectors in the ear canal or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss. If exposure in excess of the limits as put forth above, to insure against potentially harmful exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of inducing high sound pressure levels, such as this amplification system, be protected by hearing protectors while this unit is in operation.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: *TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE CHASSIS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.*

AVIS: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR.

THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF NON-INSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.

THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.

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.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan
Apparatet må tilkoples jordet stikkontakt
Apparaten skall anslutas till jordat uttag

Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be kept for future reference.
3. Read and understand all warnings listed on the operating instructions.
4. Follow all operating instructions to operate this product.
5. This product should not be used near water, i.e. Bathtub, sink, swimming pool, wet basement, etc.
6. Only use dry cloth to clean this product.
7. Do not block any ventilation openings, It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
8. Do not install this product near any heat sources; such as, radiators, heat registers, stove or other apparatus (including heat producing amplifiers) that produce heat.
9. Do not defeat 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 being walked on or pinched, particularly at Plugs, convenience receptacles and the point where they exit from the apparatus. Do not break the ground pin of the power supply cord.
11. Only use attachments 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 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. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation ports or any other openings.
15. 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.
16. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
17. When the MAINS plug, or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
18. Protective Ground Terminal: The apparatus shall be connected to an AC main socket with a protective earth ground connection.

Caution:
This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference r eceived, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts 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.

Changes or modifications not expressly approved by the party r esponsible for compliance could void the user's authority to operate the equipment.

This equipment 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 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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

MPE Reminding
To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de facon à ce que la population ne puisse y être exposée à une distance de moin de 20 cm. Installer les antennes de facon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l ' antenne. L a FCC des éltats-unis s tipule q ue c et a ppareil doit ê tre en t out temps éloigné d 'au moins 20 c m des personnes pendant son functionnement.