



PS604A
PS404A

PowerShare

Adaptable Power Amplifiers

Installation and Operating Guide
Guía de instalación y funcionamiento
Guide d'installation et d'utilisation
Installations- und Bedienungsanleitung
Manuale di installazione e funzionamento
Installatie- en bedieningshandleiding

Please read this owner's guide and save it for future reference.

This product is intended for installation by professional installers only! This document is intended to provide professional installers with basic installation and safety guidelines for this product in typical fixed-installation systems. Please read this document before attempting installation.

WARNINGS:



- All Bose products must be used in accordance with local, state, federal and industry regulations. It is the installer's responsibility to ensure installation of the product is performed in accordance with all applicable codes, including local building codes and regulations. Consult the local authority having jurisdiction before installing this product.



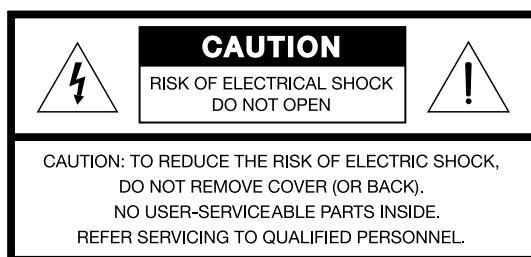
- To reduce the risk of fire or electrical shock, do not expose the product to rain or moisture.
- Do not expose this apparatus to dripping or splashing, and do not place objects filled with liquids such as vases, on or near the apparatus. Exposure to liquid may create a fire hazard.
- Do not place any naked flame sources, such as lighted candles, on or near the apparatus.
- This product is not intended for installation or use in indoor water facility areas (including, without limitation, indoor pools, indoor water parks, hot tub rooms, saunas, steam rooms and indoor skating rinks).



Contains small parts which may be a choking hazard. Not suitable for children under age 3.

CAUTIONS:

- This product shall be connected to an AC mains socket outlet with a protective earthing (grounding) connection. Caution: Do not mount the chassis in locations where condensation may occur.
- Do not make unauthorized alterations to this product; doing so may compromise safety, regulatory compliance, system performance, and may void the warranty.
- Only use the mounting hardware recommended by the rack manufacturer.



This symbol means there is uninsulated, dangerous voltage within the product enclosure that may constitute a risk of electrical shock.



This symbol means there are important operating and maintenance instructions in this guide.

NOTES:

- The product label is located on the bottom of the product.
- Where the mains plug or appliance coupler is used as the disconnect device, such disconnect device shall remain readily operable.
- This product is not designed or tested to be powered or charged by a power inverter.
- This product is not designed or tested for use in vehicles or boats.

For Japan:

Note: Provide an earth connection before the main plug is connected to the mains.

For Denmark, Finland, Norway, and Sweden:


English: The device must be connected to an outlet with a protective earth connection.


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

Finnish: Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.

Norwegian: Apparatet må tilkoples jordet stikkontakt.

Swedish: Apparaten skall anslutas till jordat uttag.

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 a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the 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 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 third prong is provided for your safety. If the provided plug does not fit in 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.

 This product conforms to all applicable EU directive requirements. The complete Declaration of Conformity can be found at www.Bose.com/compliance.

Product Ratings:

Input Voltage: 100-240 VAC

Frequency: 50/60 Hz

Current or Power: 700 W maximum (PS604A); 500 W maximum (PS404A)

Information About Products That Generate Electrical Noise (FCC Compliance Notice for US)

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at one's own expense.

This product complies with the Canadian ICES-003 Class A specifications.

CAN ICES-3(A)/NMB-3(A)

For China:



仅适用于海拔 2000m 以下地区安全使用

Only suitable for use at areas with altitude less than 2000 m.



仅适用于非热带气候条件下安全使用

Only suitable for use at non-tropic climate areas.

Lea esta guía del usuario y consérvela para consultarla en el futuro.

Este producto está diseñado para ser instalado únicamente por instaladores profesionales. Este documento está diseñado para proveer las pautas de seguridad e instalación básicas a los instaladores profesionales de este producto en sistemas de instalación fija comunes. Lea este documento antes de comenzar con su instalación.

ADVERTENCIA:



- Todos los productos Bose deben instalarse conforme a las leyes locales, estatales, federales y del sector. Es responsabilidad del instalador asegurarse de que la instalación del producto se realice conforme a las normas legales correspondientes, incluidas las normas de construcción locales. Consulte a la autoridad local competente antes de instalar este producto.



- Para reducir el riesgo de incendio o descarga eléctrica, no exponga este producto a la lluvia o la humedad.
- No exponga el aparato a goteos o salpicaduras y no coloque encima ni cerca del aparato objetos llenos de líquido; por ejemplo, floreros. La exposición a líquidos podría generar el riesgo de incendio.
- No coloque sobre el producto, o en su proximidad, fuentes de llamas sin protección; por ejemplo, velas encendidas.
- Este producto no está diseñado para ser instalado o utilizado en zonas de instalaciones de agua (incluidos, sin limitarse a, piscinas techadas, parques acuáticos techados, jacuzzis, saunas, salas de vapor y pistas de patinaje techadas).



Contiene piezas pequeñas que pueden suponer riesgo de asfixia. No adecuado para niños de menos de 3 años.

PRECAUCIÓN:

- Este producto deberá conectarse a una toma de corriente de CA con una conexión a tierra que sirva de protección.
- No realice alteraciones no autorizadas a este producto; esto podría comprometer la seguridad, el cumplimiento de las normas y el rendimiento del sistema, y podría anular la garantía.
- Utilice únicamente las herramientas de montaje que recomienda el fabricante del rack.




Este símbolo indica que dentro de la carcasa del producto hay voltaje peligroso y no aislado, que podría significar un riesgo de descarga eléctrica.




Este símbolo indica que en esta guía se incluyen instrucciones de mantenimiento y funcionamiento importantes.

NOTAS:

- La etiqueta del producto se encuentra en la parte inferior.
- Si se utiliza la clavija de conexión de red eléctrica o el acoplador del artefacto como el dispositivo de desconexión, dicho dispositivo de desconexión deberá permanecer listo para funcionar.
- Este producto no está diseñado ni probado para recibir alimentación o carga de un inversor.
- Este producto no está diseñado ni probado para utilizarse en embarcaciones o vehículos.

1. Lea estas instrucciones.
2. Guarde estas instrucciones.
3. Preste atención a las advertencias.
4. Siga todas las instrucciones.
5. No use este aparato cerca del agua.
6. Límpielo solamente con un paño seco.
7. No obstruya ninguna abertura de ventilación. Realice la instalación conforme a las instrucciones del fabricante.
8. No lo instale cerca de ninguna fuente de calor, como radiadores, rejillas de calefacción, estufas u otros aparatos (incluidos los amplificadores) que produzcan calor.
9. No anule el propósito de seguridad del enchufe con conexión a tierra o polarizado. Un enchufe polarizado tiene dos hojas, una más ancha que la otra. Un enchufe con conexión a tierra tiene dos clavijas planas y un tercer conector a tierra. La clavija plana más ancha o el tercer conector son para su seguridad. Si el enchufe suministrado no encaja en la toma de corriente, consulte con un electricista para cambiar la toma de corriente obsoleta.
10. Proteja el cable de alimentación para que nadie lo pise o lo perfora, especialmente en enchufes, receptáculos de tomas múltiples y en el punto donde salen del dispositivo.
11. Use solamente los accesorios especificados por el fabricante.
12.  Use solamente con el carro, el soporte de piso, el trípode, el soporte o la mesa especificado por el fabricante, o vendido con el dispositivo. Cuando se usa un carro, tenga precaución al moverlo con el dispositivo para evitar lesiones por tropiezos.
13. Desenchufe este aparato durante tormentas eléctricas o cuando no lo utilice durante períodos prolongados.
14. Derive todas las tareas de mantenimiento a personal calificado. Se requieren tareas de mantenimiento si el aparato se daña de alguna manera; por ejemplo, si se daña el enchufe o el cable de alimentación, si se derrama líquido o si caen objetos dentro del aparato, si el aparato se expone a la lluvia o la humedad, si no funciona normalmente; o bien, si se cae.

 Este producto cumple los requisitos de todas las Directivas de la UE aplicables legalmente. Encontrará la declaración de conformidad completa en www.Bose.com/compliance.

Especificaciones del Producto:

Voltaje de Entrada: 100-240 VAC

Frecuencia: 50/60 Hz

Consumo: 700 W maximum (PS604A): 500 W maximum (PS404A)

Información sobre productos que generan ruido eléctrico (Nota de homologación FCC para EE UU)

Nota: Este equipo se ha probado y ha demostrado que cumple con los límites para dispositivos digitales de clase B, de acuerdo con el apartado 15 de las normas de la FCC. Estos límites están diseñados para ofrecer una protección razonable contra las interferencias perjudiciales cuando el aparato se utiliza en un entorno comercial. Este equipo genera, utiliza y puede irradiar energía de radiofrecuencia y, si no se instala y se utiliza de acuerdo con el manual de instrucciones, podría ocasionar interferencias perjudiciales para las comunicaciones por radio. La utilización de este equipo en una zona residencial podría causar interferencias dañinas. En ese caso, la corrección de la interferencia correrá a cargo del usuario.

Este producto cumple las especificaciones canadienses para dispositivos de clase A ICES-003.

CAN ICES-3(A)/NMB-3(A)

Consultez attentivement cette notice d'utilisation et conservez-la pour toute référence future.

L'installation de ce produit doit être effectuée par un technicien professionnel ! Ce document à l'intention des installateurs professionnels contient les directives de pose et de sécurité relatives à ce produit en installation fixe. Lisez attentivement ce document avant l'installation.

AVERTISSEMENTS:



- Tous les produits Bose doivent être installés dans le respect des réglementations locales et nationales. L'installateur est responsable du respect de tous les codes et règlements locaux et nationaux en vigueur applicables à l'installation du produit. Consultez les autorités locales compétentes avant d'installer ce produit.



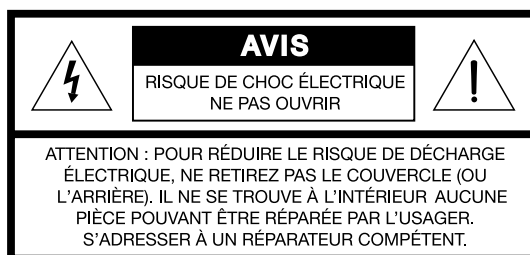
- Pour limiter les risques d'incendie ou d'électrocution, n'exposez pas l'appareil à la pluie ou à l'humidité.
- Protégez l'appareil de tout risque de ruissellement ou d'éclaboussure. Ne placez pas d'objets contenant des liquides, tels que des vases, sur l'appareil. L'exposition aux liquides peut induire un risque d'incendie.
- Ne placez jamais d'objets enflammés, tels que des bougies allumées, sur l'appareil.
- Ce produit n'est pas destiné à être monté ou utilisé dans des installations humides en intérieur (par exemple piscine intérieure, parc aquatique intérieur, baignoire à remous, sauna, hammam, patinoire intérieure, etc.).



Certaines pièces présentent un risque de suffocation. Ne pas laisser à la portée des enfants de moins de 3 ans.

ATTENTION:

- Cet appareil doit être raccordé à une prise secteur dotée d'une protection par mise à la terre.
- Toute modification non autorisée peut compromettre votre sécurité, le respect des réglementations et le bon fonctionnement de l'appareil, et en invalidera la garantie.
- Utilisez exclusivement le matériel de montage en rack recommandé par le fabricant.




Ce symbole indique la présence d'une tension électrique dangereuse non isolée à l'intérieur de l'appareil, susceptible d'induire un risque de choc électrique.




Ce symbole signale la présence d'instructions importantes relatives au fonctionnement et à l'entretien de l'appareil dans ce guide.

REMARQUE:

- L'étiquette d'identification du produit est située au-dessous de l'appareil.
- Lorsque la fiche d'alimentation ou la prise multiple est utilisée comme dispositif de débranchement de l'appareil, elle doit rester facilement accessible.
- Ce produit n'a pas été conçu ou testé pour être alimenté ou chargé au moyen d'un onduleur.
- Ce produit n'a pas été conçu ou testé pour être utilisé dans des véhicules ou des bateaux.

1. Veuillez lire ces instructions.
2. Veuillez conserver ces instructions.
3. Respectez tous les avertissements.
4. Suivez toutes les instructions.
5. N'utilisez pas cet appareil à proximité d'eau ou d'une source d'humidité.
6. Utilisez uniquement un chiffon sec pour le nettoyage.
7. Ne bloquez jamais les orifices d'aération. Suivez les instructions du fabricant pour l'installation.
8. N'installez pas cet appareil à proximité d'une quelconque source de chaleur, telle qu'un radiateur, une arrivée d'air chaud, un four ou tout autre appareil (notamment des amplificateurs) produisant de la chaleur.
9. Veillez à profiter de la sécurité offerte par les fiches de type terre ou polarisées. Les fiches polarisées sont équipées de deux bornes de largeurs différentes. Les fiches de type terre sont équipées de deux bornes et d'un orifice pour la mise à la terre. Ces deux types de dispositifs ont pour but d'assurer votre sécurité. Si la prise fournie ne s'adapte pas à votre prise de courant, consultez un électricien pour qu'il remplace cette prise obsolète.
10. Protégez le cordon d'alimentation contre les risques de piétinement ou de pincement, notamment au niveau des fiches, des prises de courant et des branchements à l'appareil.
11. Utilisez uniquement les accessoires spécifiés par le fabricant.
12.  Utilisez uniquement le chariot, le support, le trépied, l'équerre ou la table spécifié(e) par le fabricant ou vendu(e) avec l'appareil. Si vous utilisez un chariot, faites attention à ne pas faire basculer l'ensemble chariot/appareil.
13. Débranchez cet appareil pendant les orages ou au cours des longues périodes de non utilisation.
14. Confiez toute réparation à du personnel qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque façon que ce soit (endommagement du cordon d'alimentation ou de la fiche électrique, renversement d'un liquide ou de tout objet sur l'appareil, exposition de l'appareil à la pluie ou à l'humidité, mauvais fonctionnement, chute de l'appareil, etc.).

 Ce produit est conforme à toutes les directives de la Communauté Européenne qui s'y appliquent. L'attestation complète de conformité est disponible à l'adresse www.Bose.com/compliance.

Spécifications du produit:

Tension d'entrée : 100-240 VAC

Fréquence : 50/60 Hz

Courant ou puissance : 700 W maximum (PS604A); 500 W maximum (PS404A)

Informations sur les produits générateurs de bruit électrique (Notice de conformité FCC pour les USA)

Remarque : ce matériel a fait l'objet de tests prouvant sa conformité aux limites imposées aux appareils numériques de classe A, conformément à la partie 15 des réglementations de la FCC. Ces limites sont conçues pour offrir une protection raisonnable contre les interférences nuisibles lorsque l'appareil est utilisé en environnement commercial. Cet appareil génère, utilise et est susceptible d'émettre de l'énergie à certaines fréquences radio. À ce titre, s'il n'est pas installé ou utilisé conformément aux instructions, il est susceptible de perturber les communications radio. L'utilisation de cet équipement dans une zone résidentielle risque de provoquer des interférences nuisibles, auquel cas l'utilisateur devra remédier au problème à ses propres frais.

Ce produit est conforme aux spécifications de la réglementation ICES-003 pour la classe A du Canada.
CAN ICES-3(A)/NMB-3(A)

Bitte lesen Sie diese Bedienungsanleitung durch und bewahren Sie sie zum späteren Nachschlagen auf.

Dieses Produkt darf nur von fachkundigen Monteuren installiert werden! Dieses Dokument soll fachkundigen Monteuren grundlegende Installations- und Sicherheitsrichtlinien für dieses Produkt in typischen Festinstallationssystemen bieten. Bitte lesen Sie dieses Dokument vor der Installation durch.

WARNUNG:



- Alle Produkte von Bose müssen gemäß den örtlichen und staatlichen Vorschriften sowie gemäß allen Branchenbestimmungen verwendet werden. Der Monteur ist dafür verantwortlich, sicherzustellen, dass die Installation des Produkts gemäß allen geltenden Vorschriften durchgeführt wird, einschließlich örtlicher Bauvorschriften und Bestimmungen. Wenden Sie sich vor der Installation dieses Produkts an die zuständige Abnahmebehörde.



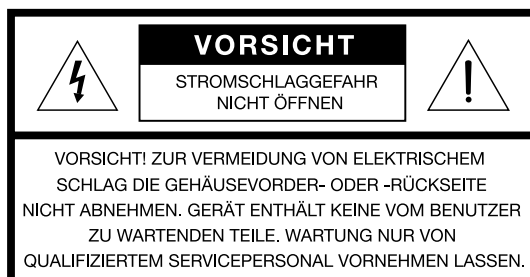
- Um Brände und Stromschläge zu vermeiden, darf dieses Produkt weder Regen noch Feuchtigkeit ausgesetzt werden.
- Schützen Sie das Gerät vor tropfenden oder spritzenden Flüssigkeiten, und stellen Sie keine mit Flüssigkeiten gefüllten Gefäße (z. B. Vasen) auf das Gerät oder in die Nähe des Geräts. Durch den Kontakt mit Flüssigkeiten entsteht ggf. Brandgefahr.
- Stellen Sie keine brennenden Kerzen oder ähnliches auf das Gerät oder in die Nähe des Geräts.
- Dieses Produkt ist nicht für die Installation oder Verwendung in Innenbereichen mit Wassereinrichtungen (zum Beispiel Schwimmbädern, Wasserparks, Räume mit Whirlpools, Saunas, Dampfbäder und Eislaufbahnen) gedacht.



Enthält kleine Teile, die verschluckt werden können und eine Erstickungsgefahr darstellen. Nicht geeignet für Kinder unter drei Jahren.

ACHTUNG:

- Dieses Produkt muss an eine 230-V-Wechselstrom-Steckdose mit Erdungsschutz angeschlossen werden.
- Keine nicht autorisierten Veränderungen am Produkt vornehmen. Diese können die Sicherheit, die Einhaltung von Richtlinien und die Systemleistung beeinträchtigen. In diesem Fall kann die Garantie ungültig werden.
- Verwenden Sie nur die vom Rack-Hersteller empfohlenen Montagehilfsmittel.




Dieser Warnhinweis warnt vor nicht isolierten gefährlichen Spannungsquellen im Inneren des Produktes, die ein Stromschlagrisiko darstellen können.




Dieser Warnhinweis weist auf wichtige Bedien- und Wartungsinformationen in dieser Anleitung hin.

HINWELT:

- Das Etikett mit der Produktbezeichnung befindet sich auf der Unterseite des Geräts.
- Falls Sie den Netzstecker oder eine Mehrfachsteckdose verwenden, um das Gerät von der Stromversorgung zu trennen, sollten Sie sicherstellen, dass Sie jederzeit auf den Stecker zugreifen können.
- Das Produkt wurde nicht für den Betrieb oder das Aufladen mit einem Wechselrichter entwickelt oder getestet.
- Das Produkt wurde nicht für den Betrieb in Fahrzeugen oder Booten entwickelt oder getestet.

1. Lesen Sie die folgenden Anweisungen.
2. Bewahren Sie die Anweisungen auf.
3. Beachten Sie alle Warn- und Sicherheitshinweise.
4. Befolgen Sie alle Anweisungen.
5. Verwenden Sie dieses Gerät nicht in der Nähe von Wasser.
6. Reinigen Sie das Gerät nur mit einem sauberen, trockenen Tuch.
7. Achten Sie darauf, dass die Lüftungsöffnungen nicht blockiert sind. Stellen Sie das Gerät nur in Übereinstimmung mit den Herstelleranweisungen auf.
8. Stellen Sie das Gerät nicht in der Nähe von Wärmequellen auf, wie Heizkörpern, Wärmespeichern, Öfen oder anderen Geräten (auch Verstärkern), die Wärme erzeugen.
9. Achten Sie darauf, dass die Schutzfunktion des Schutzkontaktsteckers nicht beeinträchtigt wird. Ein gepolter Stecker hat zwei Stromkontakte, von denen einer breiter als der andere ist. Ein Schutzkontaktstecker hat zwei Stromkontakte und einen dritten Erdungskontakt. Der breite bzw. dritte Kontakt dient Ihrer Sicherheit. Falls der mitgelieferte Stecker nicht in Ihre Steckdose passt, wenden Sie sich an einen qualifizierten Elektriker, um die Steckdose auszutauschen.
10. Verlegen Sie das Netzkabel so, dass es keine Stolpergefahr darstellt und nicht beschädigt werden kann – insbesondere im Bereich von Steckern und Steckdosen und dort, wo das Netzkabel aus dem Gerät herausgeführt wird.
11. Verwenden Sie nur Zubehör-/Anbauteile, die vom Hersteller zugelassen sind.
12.  Verwenden Sie für das Gerät nur Rollwagen, Ständer, Dreibeine, Halterungen oder Tische, die vom Hersteller zugelassen sind oder zusammen mit dem Gerät verkauft werden. Falls Sie einen Rollwagen verwenden, dürfen Sie die Einheit Gerät/Rollwagen nur mit Vorsicht bewegen, damit Verletzungen beim möglichen Umkippen ausgeschlossen sind.
13. Ziehen Sie das Netzkabel bei Gewitter oder bei längerer Nichtbenutzung des Gerätes aus der Steckdose.
14. Alle Reparatur- und Wartungsarbeiten nur von qualifiziertem Kundendienstpersonal durchführen lassen. Wartungsarbeiten sind in folgenden Fällen nötig: Bei jeglichen Beschädigungen wie z. B. des Netzkabels oder Netzsteckers, wenn Flüssigkeiten oder Gegenstände in das Gehäuse gelangt sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, fallen gelassen wurde oder nicht ordnungsgemäß funktioniert.

 Dieses Produkt erfüllt alle vorgeschriebenen EU-Richtlinien. Die vollständige Konformitätserklärung ist einsehbar unter www.Bose.com/compliance.

Leistungsdaten:

Eingangsspannung: 100–240 VAC

Frequenz: 50/60 Hz

Nennleistung: Max. 700 W (PS604A); Max. 500 W (PS404A)

Informationen über Produkte, die elektrisches Rauschen verursachen (Hinweis zur FCC-Einhaltung für die USA)

Hinweis: Dieses Gerät wurde geprüft. Es stimmt mit den Regelungen für Geräte der Klasse A gemäß Teil 15 der FCC-Vorschriften überein. Diese Grenzwerte sollen einen angemessenen Schutz gegen elektromagnetische Störungen beim Betrieb in gewerblicher Umgebung gewährleisten. Dieses Gerät erzeugt und verwendet Hochfrequenzstrahlung und kann sie auch aussenden. Daher verursacht das Gerät, wenn die Installation und Benutzung nicht in Übereinstimmung mit dieser Bedienungsanleitung erfolgt, möglicherweise Störungen des Funkverkehrs. Beim Betrieb dieses Geräts in Wohngebieten können erhebliche Störungen des Funkverkehrs verursacht werden. Eventuell daraus entstehende Kosten trägt allein der Benutzer des Geräts.

Dieses Produkt erfüllt die kanadische Richtlinie ICES-003, Klasse A.
CAN ICES-3(A)/NMB-3(A)

Leggere questo manuale d'uso e conservarlo come riferimento per il futuro.

Questo prodotto deve essere installato esclusivamente da installatori professionisti. Il presente documento ha lo scopo di fornire agli installatori professionisti le istruzioni di base per l'installazione e la sicurezza del prodotto negli impianti convenzionali a installazione fissa. Leggere attentamente il documento prima di procedere all'installazione.

AVVERTENZA:



- Tutti i prodotti Bose devono essere installati in conformità con gli standard locali, statali, federali e di settore. È responsabilità dell'installatore assicurare che l'installazione del prodotto sia eseguita in conformità con tutte le normative vigenti, compresi i regolamenti edilizi locali. Prima di installare il prodotto, chiedere informazioni all'autorità locale preposta.



- Per ridurre il rischio di incendio o scosse elettriche, il prodotto non deve essere esposto a pioggia o umidità.
- Non esporre l'apparecchio a gocce o schizzi, e non porre oggetti contenenti liquidi quali vasi sopra o in prossimità dell'apparecchio. L'esposizione ai liquidi può provocare il rischio di incendi.

- Non collocare sorgenti di fiamme libere (ad esempio, candele accese) sull'apparecchio o in prossimità di esso.
- Il prodotto non deve essere installato o utilizzato in aree di servizio o intrattenimento vicine all'acqua (ad esempio, piscine coperte, parchi acquatici al chiuso, sale con vasche riscaldate, saune, bagni turchi e piste di pattinaggio al chiuso).



Contiene pezzi di piccole dimensioni che possono rappresentare un pericolo di soffocamento. Non adatto per bambini di età inferiore ai 3 anni.

ATTENZIONE:

- Questo prodotto deve essere collegato a una presa di corrente alternata dotata di un impianto protettivo di messa a terra.
- Eventuali modifiche non autorizzate possono compromettere la sicurezza, la conformità alle normative e le prestazioni del sistema, e quindi invalidare la garanzia.
- Utilizzare esclusivamente l'hardware di montaggio raccomandato dal produttore dell'unità rack.




Questo simbolo segnala la presenza di tensione non isolata e pericolosa all'interno dell'involucro del prodotto, con il rischio di scossa elettrica.



Questo simbolo segnala le istruzioni importanti dal punto di vista del funzionamento e della manutenzione all'interno della guida.

NOTAS:

- L'etichetta identificativa è situata sul fondo del prodotto.
- La spina dell'alimentazione o dell'accoppiatore deve essere raggiungibile facilmente e rapidamente se è utilizzata come dispositivo di spegnimento.
- Il prodotto non è progettato o testato per l'alimentazione o la ricarica mediante convertitore di corrente.
- Il prodotto non è progettato o testato per l'utilizzo su veicoli o natanti.

1. Leggere queste istruzioni.
2. Conservare queste istruzioni.
3. Prestare attenzione a tutte le avvertenze.
4. Seguire tutte le istruzioni.
5. Non utilizzare l'apparecchio in prossimità di acqua.
6. Utilizzare solo un panno asciutto per la pulizia.
7. Non ostruire le aperture di ventilazione. Installare il prodotto in conformità con le istruzioni fornite dal produttore.
8. Non installare i diffusori in prossimità di fonti di calore, quali termosifoni, radiatori, stufe o altri apparecchi (compresi gli amplificatori) che generano calore.
9. Non escludere l'obiettivo di sicurezza della spina polarizzata o con messa a terra. Una spina polarizzata è dotata di due poli, uno più largo dell'altro. Una spina con messa a terra è dotata di due poli e di un terzo terminale di massa. Il polo largo o il terzo terminale sono presenti per sicurezza. Se la spina in dotazione non è adatta alla presa, rivolgersi a un elettricista per la sostituzione della presa obsoleta.
10. Fare in modo che il cavo di alimentazione non venga calpestato o schiacciato, soprattutto in corrispondenza di spine, prese e nel punto di uscita dall'apparecchio.
11. Utilizzare solo sistemi di aggancio/accessori specificati dal produttore.
12.  Utilizzare solo carrelli, supporti, treppiedi, staffe o tavoli specificati dal produttore o venduti insieme all'apparato. Quando si utilizza un carrello, prestare attenzione durante lo spostamento dell'insieme carrello/apparecchio per evitare di rovesciarlo causando danni.
13. Scollegare l'apparecchio durante i temporali o quando rimane inutilizzato a lungo.
14. Affidarsi a personale qualificato per tutti gli interventi di assistenza. Gli interventi di assistenza si rendono necessari quando l'apparato ha subito danni di qualsiasi tipo, ad esempio se il cavo di alimentazione o la spina sono danneggiati, se è stato versato del liquido o sono caduti oggetti sull'apparato, se l'apparato è stato esposto a pioggia o umidità, se non funziona normalmente o è caduto.

CE Questo prodotto è conforme a tutte le direttive EU prescritte dalla legge. La dichiarazione di conformità completa è disponibile all'indirizzo www.Bose.com/compliance.

Rating del prodotto:

Tensione in entrata: 100-240 VAC

Frequenza: 50/60 Hz

Valore corrente o potenza: massimo 700 W (PS604A); massimo 500 W (PS404A)

Informazioni sui prodotti che generano interferenze elettriche (avviso di conformità FCC per gli Stati Uniti)

Nota: Questa apparecchiatura è stata sottoposta a collaudo ed è risultata conforme ai limiti relativi ai dispositivi digitali di Classe A previsti dalla parte 15 delle norme FCC. Tali limiti sono stati fissati allo scopo di assicurare un'adeguata protezione dalle interferenze dannose quando l'apparecchiatura è utilizzata in un'installazione commerciale. Questa apparecchiatura genera, utilizza e può irradiare energia a radiofrequenza e, se non installata e utilizzata in conformità con il manuale di istruzioni, può interferire negativamente con le comunicazioni radiofoniche. L'utilizzo di questa apparecchiatura in un'area residenziale può provocare interferenze dannose, nel qual caso l'utente dovrà adottare misure correttive a proprie spese.

Questo prodotto è conforme alle specifiche canadesi ICES-003 per i prodotti di Classe A.
CAN ICES-3(A)/NMB-3(A)

Lees deze gebruikershandleiding zorgvuldig door en bewaar deze voor toekomstig gebruik.

Dit product is uitsluitend bestemd voor installatie door professionele installateurs! Dit document is bedoeld om professionele installateurs essentiële installatie- en veiligheidsrichtlijnen te bieden voor dit product in standaardssystemen voor vaste installatie. Lees dit document door voordat u begint met de installatie.

WAARSCHUWINGEN:

- Alle Bose-producten moeten worden geïnstalleerd volgens de plaatselijke en landelijke voorschriften en industriënormen. Het is de verantwoordelijkheid van de installateur om ervoor te zorgen dat de installatie van het product wordt uitgevoerd volgens alle van toepassing zijnde voorschriften, inclusief plaatselijke bouwvoorschriften. Neem contact op met de juiste plaatselijke overheidsinstanties voordat u dit product installeert.



- Stel het apparaat niet bloot aan regen of vocht, om het risico van brand of elektrische schokken te verlagen.
- Stel dit apparaat niet bloot aan druipende of spattende vloeistoffen en plaats geen met vloeistoffen gevulde voorwerpen, zoals vazen, op of bij het apparaat. Blootstelling aan vloeistoffen kan leiden tot brandgevaar.
- Plaats geen open vlam, zoals een brandende kaars, op of bij het product.
- Dit product is niet bedoeld voor installatie of gebruik in overdekte ruimten voor wateractiviteiten (waaronder overdekte zwembaden, overdekte waterparken, stoomruimten, sauna's, bubbelbadkamers en overdekte ijsbanen).



Bevat kleine onderdelen die een verstikkingsgevaar kunnen vormen. Niet geschikt voor kinderen jonger dan 3 jaar.

WAARSCHUWINGEN:

- Dit product moet worden aangesloten op een geaard AC-stopcontact.
- Er mogen geen wijzigingen aan het product worden aangebracht door onbevoegden. Dergelijke wijzigingen kunnen de veiligheid, de naleving van voorschriften en de werking van het systeem in gevaar brengen en kunnen ertoe leiden dat de garantie vervalt.
- Gebruik uitsluitend het door de fabrikant aanbevolen montagemateriaal.




Dit symbool duidt op gevaarlijke niet-geïsoleerde spanning in de behuizing van het product die tot elektrische schokken kan leiden.




Dit symbool geeft aan dat deze handleiding belangrijke gebruiks- en onderhoudsinstructies bevat.

OPMERKINGEN:

- Het productlabel bevindt zich aan de onderkant van het product.
- Wanneer de netstekker of aansluiting van een apparaat als stroomonderbreker wordt gebruikt, dient deze stroomonderbreker steeds goed bereikbaar te zijn.
- Dit product is niet ontworpen voor of getest op gebruik met een omvormer voor voeding of opladen.
- Dit product is niet ontworpen voor of getest op gebruik in voertuigen of vaartuigen.

1. Lees deze instructies door.
2. Bewaar deze instructies.
3. Neem alle waarschuwingen in acht.
4. Volg alle instructies.
5. Gebruik dit apparaat niet in de buurt van water.
6. Alleen met een droge doek reinigen.
7. Zorg dat u de ventilatieopeningen niet blokkeert. Installeer het apparaat volgens de instructies van de fabrikant.
8. Installeer het product niet in de buurt van warmtebronnen, zoals radiatoren, warmteroosters, kachels of andere apparaten (waaronder versterkers) die warmte produceren.
9. Schakel de functie van de gepolariseerde of geaarde stekker niet uit. Een gepolariseerde stekker heeft twee poten, waarvan de ene breder is dan de andere. Een geaarde stekker heeft twee poten en een pin voor de aarding. De brede poot of de derde poot is bedoeld voor uw veiligheid. Als de bijgeleverde stekker niet in het stopcontact past, neem dan contact op met een elektricien om het verouderde stopcontact te vervangen.
10. Zorg dat er niet op het netsnoer wordt gestaan of gelopen en dat het niet wordt afgeknelnd, met name bij de stekkers en stopcontacten en het punt waar deze uit het apparaat komen.
11. Gebruik uitsluitend aansluitstukken/accessoires die door de fabrikant worden gespecificeerd.
12.  Gebruik het product uitsluitend in combinatie met het verrijdbare plateau, het statief, de beugel of de tafel die door de fabrikant worden vermeld of samen met het apparaat worden verkocht. Als u een verrijdbaar plateau gebruikt, moet u het apparaat en het plateau voorzichtig verplaatsen zodat deze niet kunnen omvallen en letsel veroorzaken.
13. Haal de stekker van dit apparaat uit het stopcontact bij onweer of als het langere tijd niet wordt gebruikt.
14. Laat alle reparaties en onderhoud over aan bevoegde servicemedewerkers. Onderhoud is vereist als het apparaat is beschadigd. Dit is bijvoorbeeld het geval als het netsnoer of de stekker is beschadigd, als er vloeistof is gemorst of voorwerpen in het apparaat zijn gevallen, als het apparaat is blootgesteld aan regen of vocht, niet normaal werkt of is gevallen.

 Dit product voldoet aan alle vereisten van de EU-richtlijnen, zoals wettelijk vereist. De volledige conformiteitsverklaring kunt u vinden op www.Bose.com/compliance.

Productvermogen:

Ingangsspanning: 100-240 VAC

Frequentie: 50/60 Hz

Stroomsterkte: Maximaal 700 W (PS604A); Maximaal 500 W (PS404A)

Informatie over producten die elektrische ruis genereren (FCC Compliance Notice voor de VS)

Opmerking: Dit apparaat is getest waarbij is vastgesteld dat het voldoet aan de limieten voor een digitaal apparaat van klasse A, volgens deel 15 van de FCC-voorschriften. Deze limieten zijn bedoeld om redelijke bescherming te bieden tegen schadelijke storing bij installatie in een handelsomgeving. Dit apparaat genereert en gebruikt radiofrequente energie en kan deze uitstralen en het kan, als het niet geïnstalleerd en gebruikt wordt volgens de instructies, schadelijke storing veroorzaken aan radiocommunicatie. Gebruik van dit apparaat in een woonwijk kan schadelijke storing veroorzaken. In dit geval is de gebruiker verplicht op eigen kosten de storing te verhelpen.

Dit product voldoet aan de specificaties van de Canadese ICES-003 klasse A.
CAN ICES-3(A)/NMB-3(A)

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Product Overview

This guide provides installation and operating information for Bose® PowerShare PS604A and PS404A amplifiers. Bose PowerShare adaptable power amplifiers deliver 600 watts (PS604A) or 400 watts (PS404A) for fixed-install applications. Through patented technology, total amplifier power is shared across all output channels, allowing installers the freedom to utilize power where needed. With support for both low- and high-impedance loads up to 100V, PowerShare amplifiers adapt to a wide range of applications. Onboard configurable loudspeaker processing and direct access to zone controllers eliminate the need for an additional signal processor in many installations, while outstanding audio performance and reliability are assured with patented technologies inherited from the field-proven PowerMatch® line. This unique set of features and technologies makes PowerShare one of the most versatile high-performance amplifiers available.

Product Features

• PowerShare Technology

Patented PowerShare technology allows the total wattage to be shared asymmetrically across all outputs, as each output is capable of delivering full power. Instead of selecting amplifier power based on the needs of the largest zone, installers now have the freedom to use total amplifier power in the application. This enables more flexibility during the initial design, or later on-site when making unplanned changes that take advantage of surplus power.

• Load-Independent Outputs

Each channel can be configured for low-impedance (4-8 Ω) or high-impedance (70/100V) applications without bridging, use of jumpers, or software settings.

• DFL™ System

The Dual Feedback Loop system, inherited from the field-proven Bose PowerMatch® amplifier line, improves performance through continuous monitoring and control of both the current and voltage delivered to each output load. This combination provides improved linearity and lower distortion, while protecting loudspeakers.

• Integrated Loudspeaker Processing with Optional PowerShare Editor Configuration

For applications requiring additional signal processing, the PowerShare Editor software offers real-time selection and control of Bose loudspeaker EQs, 9-band PEQs, matrix mixing, crossover, delay, and mute/output polarity through a USB connection. For basic setups without a PC, rear-panel settings allow installers to recall Bose loudspeaker equalization and protection per output channel. These features eliminate the need for an external signal processor in many applications.

• ControlCenter Zone Controller Accessories

Bose ControlCenter CC-1 zone controllers can be directly attached for remote adjustment of amplifier outputs, further extending stand-alone amplifier applications.

• Auto-Standby

Designed to save power consumption when not in use. PowerShare amplifiers can be configured to automatically enter standby mode when the audio signal falls below a set threshold, then wake when audio returns.

• PowerShare Amplifier Series

The PowerShare family consists of four 1U amplifiers: 2- and 4-channel fixed-install models, and one 2-channel portable model.

Included Accessories

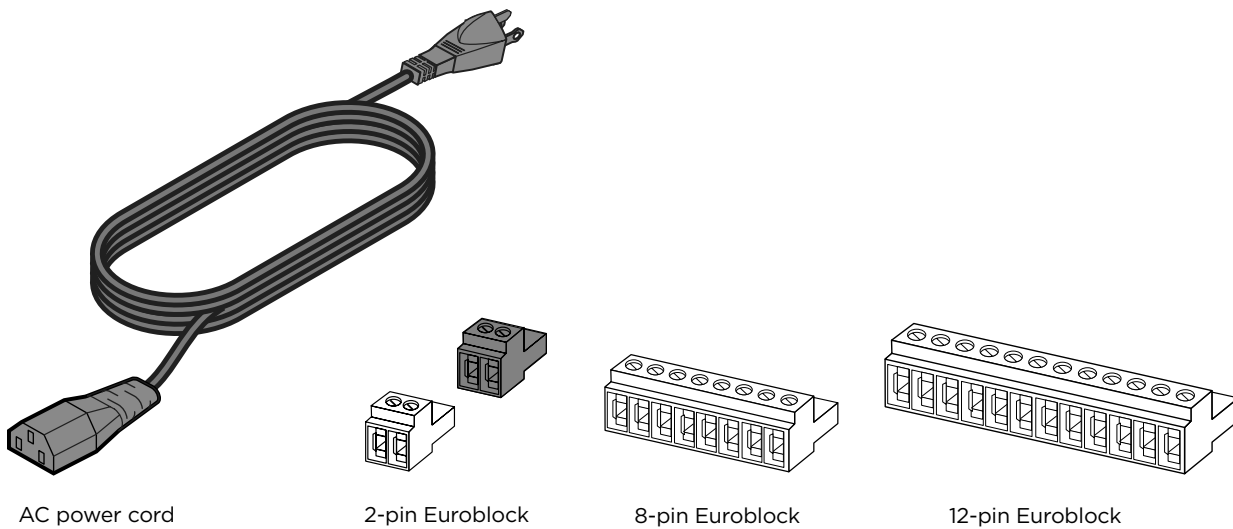
Each PowerShare amplifier carton contains one amplifier plus the items indicated in the following table:

	PS604A	PS404A
12-pin Euroblock	1	1
8-pin Euroblock	1	1
2-pin Euroblock	1	1
AC power cord*	1	1
Owners Guide	1	1

* The appropriate power cord for your region is included.

Each connector accepts 12-30 AWG wire.

Figure 1. PowerShare amplifier carton contents

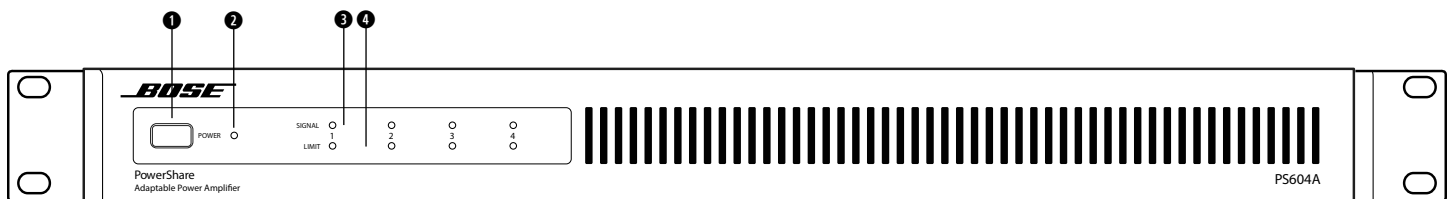


PowerShare PS604A/PS404A

The PS604A is a 4-channel installed amplifier that allows its total 600 watts to be shared asymmetrically across all four outputs. The PS404A is a 4-channel installed amplifier that allows its total 400 watts to be shared asymmetrically across all four outputs. Independently control the output level, EQ, and low-impedance/high-impedance (Low-Z/Hi-Z) settings for each output. Each amplifier supports built-in loudspeaker EQs for the FreeSpace DS 16, DS 40, DS 100, FS3B, Panaray 402 and 802 Series IV, MA12EX, and RoomMatch Utility RMU105 and RMU108, as well as a Flat setting for FS3 systems. For applications that require more customization, access the advanced digital loudspeaker processing features using the free web-downloadable PowerShare Editor software. Both amplifiers also support up to four gangable CC-1 ControlCenter zone controllers for remote volume control using CAT 5 cables.

PS604A/PS404A Front Panel

Figure 2. PowerShare PS604A amplifier front panel



❶ **POWER Switch** - ON/OFF AC power.

❷ **POWER LED** - Solid green LED indicates the unit is ON. Blinking green LED indicates the unit is in lower-power mode. Solid amber LED indicates an over-temperature fault. A solid red LED indicates a power supply fault.

❸ **INPUT 1, 2, 3, 4 SIGNAL LED** - Each LED operates independently.

- If the SENSITIVITY DIP switch is set to 4 dBu, then the LED is green from -40 dBu to 9 dBu, with a typical input of 4 dBu. LED is amber from 9 dBu to 12 dBu. LED goes red, indicating input clipping, over 12 dBu.
- If the SENSITIVITY DIP switch is set to 12 dBu, then the LED is green from -40 dBu to 17 dBu, with a typical input of 12 dBu. LED is amber from 17 dBu to 20 dBu. LED goes red, indicating input clipping, over 20 dBu.

All LEDs display solid red if a power supply fault is detected.

❹ **OUTPUT 1, 2, 3, 4 LIMIT LED** - Each LED operates independently.

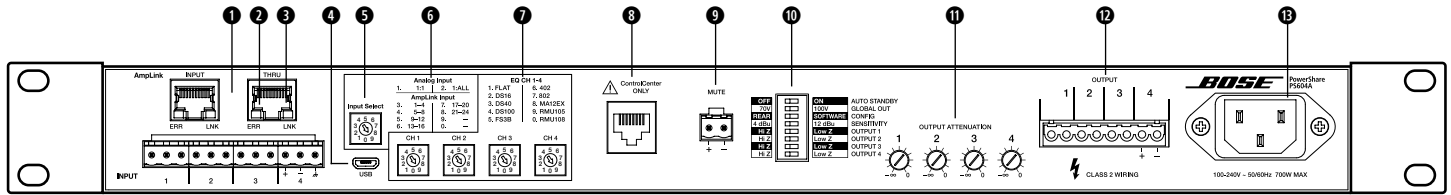
- LED is amber when the amplifier is limiting the corresponding output due to exceeding the specified loudspeaker V_{peak} or V_{rms} limits.

If the sum of the amplifier outputs exceeds 600 watts (PS604A), or 400 watts (PS404A), then the amplifier will limit all outputs equally, and all LEDs will show limiting simultaneously. This is because the amplifier is also measuring and limiting total output power, in addition to individual channel output power. Both amplifiers are capable of delivering 200 watts of average power continuously.

- Each OUTPUT LIMIT LED will display solid red if there is an extra high frequency (EHF) fault on the corresponding output. LED 1 & 2 will display solid red when the outputs are muted due to an amplifier one fault. LED 3 & 4 will display solid red when the outputs are muted due to an amplifier two fault.
- All four LEDs will display solid red when all outputs are muted due to an amplifier fault, or if there is a power supply fault.
- All four LEDs will blink red when all outputs are muted from the rear panel mute connector.

PS604A/PS404A Rear Panel

Figure 3. PowerShare PS604A amplifier rear panel



- ❶ **AmpLink** – INPUT RJ-45 connector that receives up to 24 digital channels from a Bose AmpLink product. The amp also supports a THRU path for daisy-chaining all 24 digital audio channels to other Bose AmpLink products. Do not connect either of these RJ-45s to a network.
- ❷ **AmpLink ERR LED** – Solid yellow indicates muted audio from the mute connector. Blinking yellow indicates an error, which will also mute the audio.
- ❸ **AmpLink LNK LED** – Solid green indicates normal operation.
- ❹ **MICRO-USB** – Connect the amplifier to a PC using a USB connection. This allows you to use the PC-based PowerShare Editor software to configure the advanced features of the amplifier. The CONFIG DIP switch must be set to SOFTWARE to configure the amplifier using the PowerShare Editor software. See the Software Interface section for more details.
- ❺ **INPUT SELECT** – Dial selects if analog or AmpLink audio inputs are used. The default state is analog 1:1.
- ❻ **ANALOG INPUTS** – Balanced 12-pin Euroblock line-level input connector.
- ❼ **CHANNEL 1, 2, 3, 4 EQ** – Each dial provides loudspeaker equalization presets per channel: DS 16, DS 40, DS 100, FS3B, 402, 802, MA12EX, RMU105, and RMU108. Use the Flat setting for FS3 Systems, or for loudspeakers that are not Bose or that do not require EQ. When EQ is selected, the crossover and Vpeak and Vrms limiters for that loudspeaker are automatically loaded. Use the PowerShare Editor software to adjust any of these parameters - see the Software Interface section for more details. In Hi-Z output mode, a 50 Hz high-pass filter (HPF) is automatically added to the Hi-Z selected outputs. The loudspeaker EQ is applied after the 50 Hz HPF.
- ❽ **CONTROLCENTER** – RJ-45 input connector for Bose® CC-1 ControlCenter zone controllers or CV41 4-to-1 Converter only. Do not use this input to connect to a network.
- ❾ **MUTE** – Contact closure connection where a short across the mute connector will mute all outputs. This is the Normally Open (NO) default state. The mute polarity can be inverted to Normally Closed (NC), where an open across the mute connector will mute all outputs, using the PowerShare Editor software. See the Software Interface section for more details.
- ❿ **DIP Switches** – A bank of switches used to set the amplifier configuration. All switches set to the left position is the standard configuration.
 - **AUTO STANDBY** – If enabled (ON), the amplifier goes into lower-power mode after twenty minutes without an input signal. If in lower-power mode and an audio signal is detected, the amplifier will automatically wake and amplify audio within 1 second. The default position is OFF.
 - **GLOBAL OUT** – Sets the output capability to 70V or 100V for all outputs that have their OUTPUT DIP switch set to Hi-Z. In 70V mode, a 100 Vpeak limiter is automatically loaded. In 100V mode, a 141 Vpeak limiter is automatically loaded. These are maximum values that can be lowered using the PowerShare Editor software if necessary. See the Software Interface section for more details.
 - **CONFIG** – In REAR mode, only the rear panel EQ settings are required to configure the amplifier. In SOFTWARE mode, the PowerShare Editor software configures the amplifier, and the rear panel EQ switches are ignored. The rest of the DIP switch settings are always independent of the PowerShare Editor software settings, as the software does not interface with any other DIP switches. See the Software Interface section for more details.
 - **SENSITIVITY** – Select 4 dBu or 12 dBu as the amplifier sensitivity for the line-level inputs.
 - **OUTPUT 1** – Select 70/100V high impedance output (Hi-Z) or 4-8 Ω low impedance output (Low-Z) for OUTPUT 1.
 - **OUTPUT 2** – Select 70/100V high impedance output (Hi-Z) or 4-8 Ω low impedance output (Low-Z) for OUTPUT 2.
 - **OUTPUT 3** – Select 70/100V high impedance output (Hi-Z) or 4-8 Ω low impedance output (Low-Z) for OUTPUT 3.
 - **OUTPUT 4** – Select 70/100V high impedance output (Hi-Z) or 4-8 Ω low impedance output (Low-Z) for OUTPUT 4.
- ⓫ **OUTPUT ATTENUATION 1, 2, 3, 4** – Output attenuators for each output. Turn the attenuators clockwise to decrease attenuation, and counter-clockwise to increase attenuation. Fully clockwise is 0 dB attenuation; fully counter-clockwise is mute. If CC-1 zone controller(s) are used, then the CC-1 becomes the master volume control(s). The position of each attenuator will determine the CC-1 zone controller range for that output. Set each attenuator to 0 dB attenuation to allow each CC-1 zone controller to have full attenuation range. If the CC-1 is disconnected from the amplifier, then the output attenuator becomes the active setting.
- ⓬ **OUTPUT** – Inverted 8-pin Euroblock connectors for loudspeaker connections. Each channel can deliver up to 600 watts (PS604A) or 400 watts (PS404A) regardless of load into 4 Ω, 8 Ω, 70V, or 100V. Outputs are not bridgeable.
- ⓭ **AC INLET** – Removing the AC cord when the amplifier is on is equivalent to powering down using the front panel power switch, and is an acceptable power-down method.

Setting Up the PowerShare Amplifier

The asymmetrical PowerShare capability of the amplifier is easy to use and does not require software to configure. Simply set the output trims according to the power you want distributed to each output load, and the amplifier ensures that the 600 watts (PS604A), or 400 watts (PS404A), peak power is not exceeded. In scenarios where more power is demanded from the amplifier, the amplifier will automatically limit all outputs equally until the power demand is reduced.

How to Set Up a PowerShare Amplifier:

1. Starting with the amplifier power OFF, make all required power, audio, and control connections.
2. For installations only requiring pre-loaded loudspeaker EQ:
 - Set the CONFIG switch to REAR.
 - Set the remaining amplifier configuration switches as necessary.
 - Rotate each channel EQ dial to the required setting.
 - Turn the amplifier ON.
3. For installations that require advanced customization with the PowerShare Editor software:
 - Set the CONFIG switch to SOFTWARE. The EQ dials are now ignored.
 - Set the remaining amplifier configuration switches as necessary.
 - Turn the amplifier ON.
 - Connect the PC or laptop to the amplifiers' USB port.
 - Start the PowerShare Editor software on your PC or laptop and configure each block as required for the application. See the help file for details.
4. If using CC-1 ControlCenter zone controller(s) for remote control, then rotate each amplifier output attenuator to 0 dB attenuation, fully clockwise. This enables each CC-1 zone controller to attenuate over the full range. To have the CC-1 operate across a limited range, increase the output attenuation as needed by rotating the output attenuator counter-clockwise.
5. If all outputs are set to drive 70/100V Hi-Z loudspeakers then rotate each corresponding output attenuator to 0 dB attenuation. Set each loudspeaker tap to the appropriate setting. Based on the total loudspeaker tap settings the amplifier will adapt and deliver the required power to each output. The total amplifier wattage can be distributed in any way across all amplifier outputs. For examples see the PowerShare Application Guide.
6. If all outputs are set to drive 4-8 Ω Low-Z loudspeakers then rotate each output attenuator until the desired level is reached from each output. Play a signal containing the highest normal input level or pink noise. Ensure the material is near the input sensitivity for best noise performance. Observe the limit LED for the output being adjusted. If the signal level is higher than the protection limit for the loudspeaker, you will see the limit LED light amber. Increase the attenuation until the limit LED does not light, or only occasionally lights. The total amplifier wattage can be distributed in any way across all amplifier outputs. For examples see the PowerShare Application Guide.
7. Since each output is configurable to drive either Hi-Z or Low-Z loudspeakers, the amplifier can support mixed-impedance installations. In this case, first configure the Hi-Z channels before configuring the Low-Z channels.
8. When setting up the amplifier, monitor the signal LEDs for input clipping and the limit LEDs for output limiting to ensure the amplifier is working within proper operating conditions. If necessary, make adjustments.

Technical Considerations:

- When a loudspeaker EQ is selected, either from the rear panel dials or in the software, the appropriate crossover and V_{peak} and V_{rms} limiters for that loudspeaker are automatically loaded. They can be adjusted in software if necessary.
- Adjusting the attenuator of a single channel does not affect the level of other channels. The only exception is if the amplifier is attempting to deliver more than the total amplifier wattage. If the total amplifier power is exceeded then the amplifier will limit all outputs simultaneously and equally, until the demand is reduced. If the demand remains too high, the amplifier will gradually limit to an average of 200 watts continuously.
- There are five ways to adjust output power in a PowerShare amplifier application:
 - Adjust input signal level relative to the sensitivity setting of the amplifier.
 - Adjust the output attenuator settings of the amplifier.
 - Adjust the CC-1 ControlCenter zone controller(s) settings.
 - Adjust the limiter settings for each output using the PowerShare Editor software.
 - Adjust the transformer tap settings of any connected Hi-Z loudspeakers.

Importance of Proper Ventilation

For placement of the amplifier, keep the following in mind:

- Make sure that air can circulate freely from left to right for adequate ventilation. There are vents on the sides.
- The temperature of the rack should be controlled to ensure that amplifiers are not exposed to ambient temperatures exceeding 40° C (104° F).
- Do not cover or block amplifier vents.
- Do not place the amplifier in an enclosed space, such as a cabinet.
- Make sure the chassis is protected from heat and kept away from direct heat sources, such as heating vents and radiators.
- The two fans in each amplifier run together at a variable speed. The fans will spin faster as the internal temperature increases in order to keep the amplifier out of thermal shutdown when operating at 40° C (104° F) or less, and at 200 watts of continuous power or less.



CAUTION: Do not allow the chassis to exceed the maximum operating temperature of 40° C (104° F). Be aware of conditions in an enclosed rack that may increase the temperature above room-ambient conditions. If the amplifier becomes too hot, it will go into a thermal protection mode and mute all outputs.

Rack Mounting

PowerShare amplifiers are designed to fit standard 19-inch (48 cm) rack equipment, occupying 1 rack-unit (RU) in height, requiring a mounting depth of 15.8 inches (40.1 cm) from the front rack rail. Use four fasteners with washers (not supplied) to mount the amplifier front panel rack ears to the equipment rack rails.



CAUTION: Only use the mounting hardware recommended by the rack manufacturer.

Mute with Standard Contact Closure

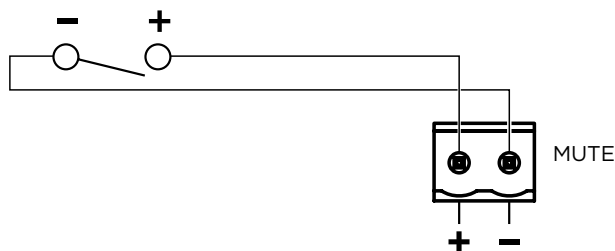
The amplifier is designed to mute all outputs either when the MUTE contacts are shorted together, or when the MUTE contacts are opened, depending on the amplifier configuration.

The default state is Normally Open (NO), where a short across the mute connector will mute all outputs. The mute polarity can be inverted to Normally Closed (NC), where an open across the mute connector will mute all outputs, using the PowerShare Editor software. See the Software Interface section for more details.

Note: All Limit LEDs will blink red when the amplifier is muted from software, or from the rear panel mute connector.

Use the included 2-pin Euroblock.

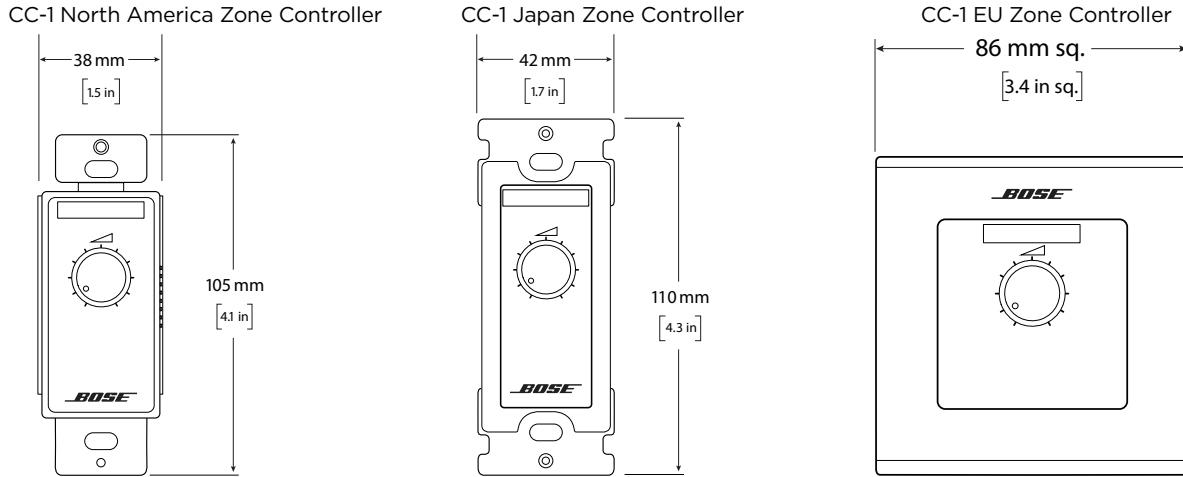
Figure 4. Amplifier mute contact closure



ControlCenter Zone Controllers

Remotely control the volume of the PS604A and PS404A amplifiers using the Bose® CC-1 ControlCenter zone controllers. Controllers are available in two colors (white and black) for each of three regions (North America, Japan, and EU). The North America and Japan controllers fit into any regional 1-gang electrical box, and do not include a wall plate cover. The EU zone controllers come as a finished wall plate of size 86-by-86 millimeters, with 60 to 60.3 millimeter horizontal or vertical screw spacing. Each zone controller also comes with a sheet of pre-printed labels, with two blanks for custom labeling, and two screws for fastening the zone controller to the electrical box.

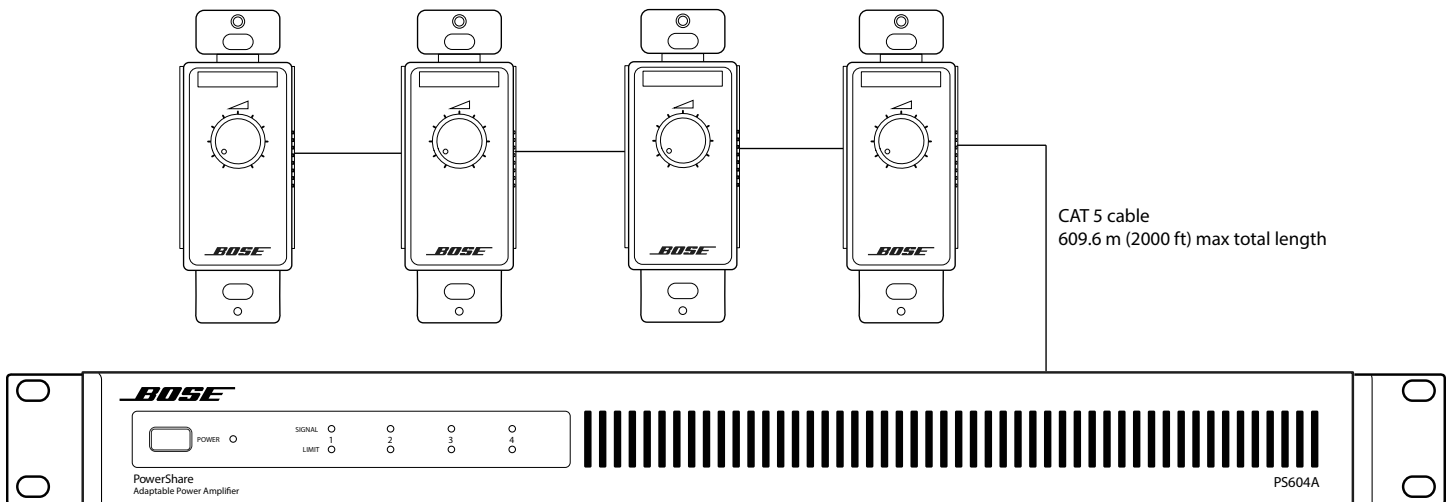
Figure 5. CC-1 ControlCenter zone controllers



Direct CC-1 Zone Controller Connection to the Amplifier

Zone controllers can be ganged together and have a single home run back to the amplifier, using CAT 5 cables and RJ-45 connectors. The PS604A and PS404A support up to four ganged CC-1 zone controllers. Each zone controller can be independently configured to control any output, or combination of outputs, for bi-amping.

Figure 6. Direct CC-1 zone controller connection to amplifier



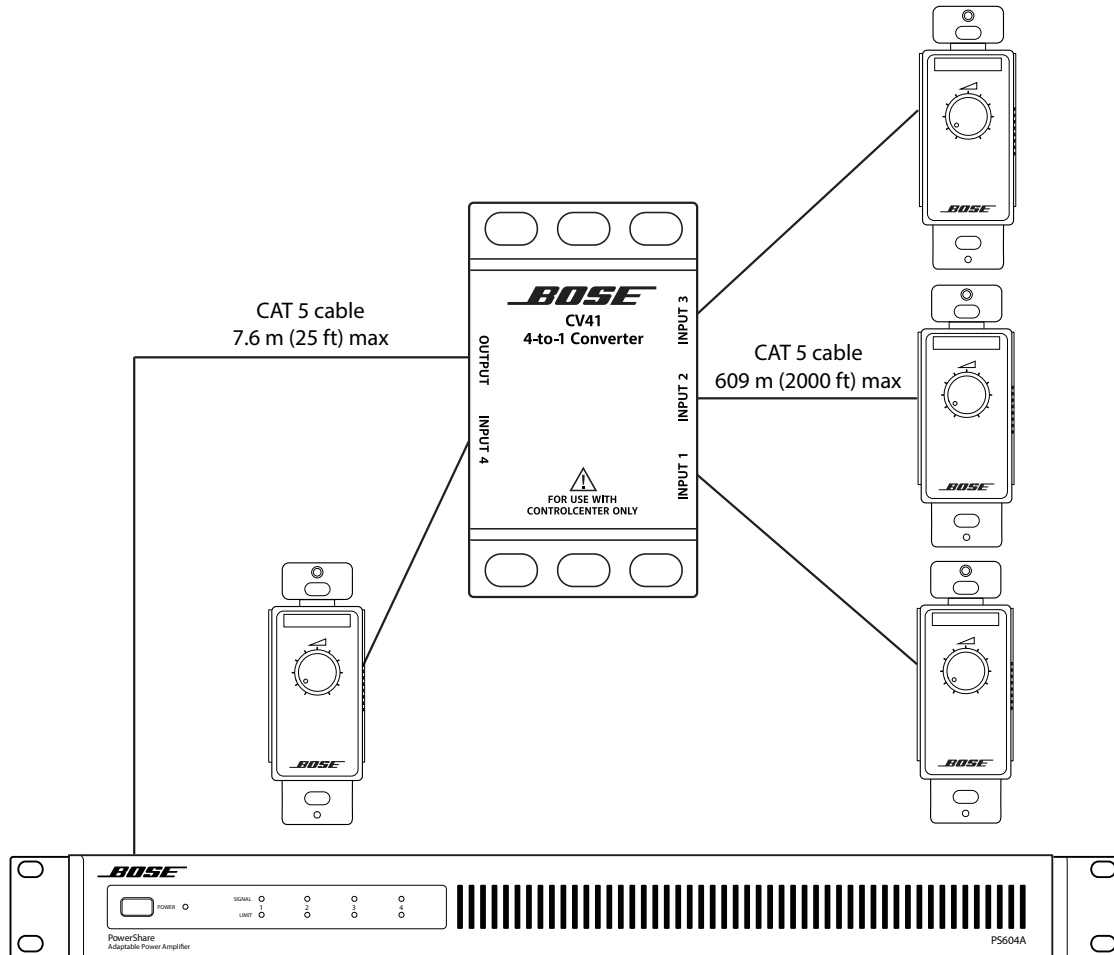
Distributed CC-1 Zone Controller Connection to the Amplifier

For installations using multiple CC-1 zone controllers, you can also connect the zone controllers to the CV41 4-to-1 Converter, then create a single home run from the CV41 back to the amplifier. Create these connections using CAT 5 cables and RJ-45 connectors.

The CV41 connects up to four CC-1 zone controllers to a PS604A or PS404A. Each zone controller can be independently configured to control any output, or combination of outputs.

If only one CC-1 is used to control all outputs, then the CV41 is not required, as the PS604A and PS404A can accept one RJ-45 connection.

Figure 7. Distributed CC-1 ControlCenter zone controller connection to amplifier



PowerShare Editor Software

Access advanced digital loudspeaker processing features using the free web-downloadable PowerShare Editor software. The PowerShare Editor software accesses all of the FreeSpace®, Panaray®, RoomMatch® Utility, and F1 Passive loudspeaker EQs, as well as real-time 9-band PEQ, matrix mixing, band pass filtering, limiters, delay, mute polarity inversion, and output polarity inversion.

Ensure the CONFIG DIP switch is set to SOFTWARE when using the PowerShare Editor.

The fixed architecture enables the following features:

- **9-Band Parametric EQ (PEQ)**
Adjust input EQ, per channel, om real-time. The default setting is Flat.
- **Matrix Mixer**
The 2x2 or 4x4 matrix mixer assigns input channels to output channels, and can add from +12 of gain to -12 dB of attenuation in 0.5 dB steps to each input. The default setting routes each input to its output (1:1). For example, INPUT 1 is routed to OUTPUT 1, INPUT 2 is routed to OUTPUT 2, etc.
- **Band Pass**
Set high-pass (HPF) and low-pass filters (LPF), per channel. The default setting is Flat. Crossovers are automatically loaded with each loudspeaker EQ.
- **9-Band Speaker EQ**
Choose any FreeSpace, Panaray, RoomMatch Utility, or F1 Passive Bose loudspeaker EQ, with associated limiter settings and crossover, per channel. The default setting is Flat. In Hi-Z output mode, a 50 Hz HPF is automatically added to the Hi-Z selected outputs. The loudspeaker EQ is applied after the 50 Hz HPF.
- **Vpeak and Vrms Limiters**
Both values are loaded automatically when a Bose loudspeaker is selected in the Loudspeaker EQ block. The values are always adjustable. In 70V mode, a 100 Vpeak limiter is automatically loaded. In 100V mode, a 141 Vpeak limiter is automatically loaded. These are maximum values that can be lowered if necessary using the PowerShare Editor software.
- **Delay**
Apply up to 50 ms of delay on Channels 1 & 2 for each amplifier model, in increments of 0.1 ms. The default setting is 0 ms delay.
- **Output**
Each output can be set to inverted output polarity. The default state is non-inverted.
- **Mute Polarity**
The default state is Normally Open (NO), where a short across the mute connector will mute all outputs. The mute polarity can be inverted to Normally Closed (NC), where an open across the mute connector will mute all outputs.
Note: All Limit LEDs will blink red when the amplifier is muted from software, or from the rear panel mute connector.

Setup files can be saved and loaded into other similar PowerShare amplifiers for quick duplication of amplifier settings.

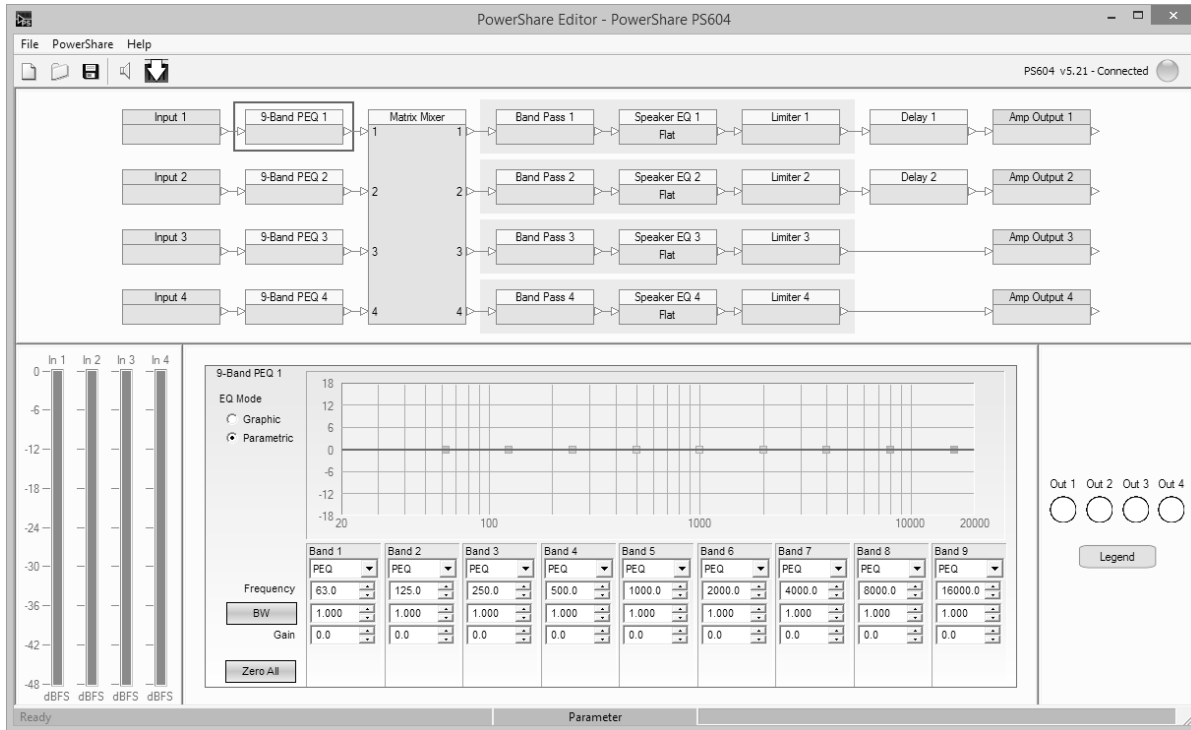
Amplifier DIP Switch Settings

The position of the CONFIG DIP switch, located on the rear panel of the amplifier, determines whether the amplifier settings are configured using the PowerShare Editor software or the rear panel EQ dials.

- If the CONFIG DIP switch is set to SOFTWARE, configure the amplifier using PowerShare Editor software. You can disconnect the amplifier from the PC when setup is complete and the amplifier will retain the settings.
If you use the PowerShare Editor software to configure the amplifier, and then change the DIP switch setting to REAR, the amplifier loads the EQ dial settings instead, and the other settings configured using the software return to their default states. The software settings do not get erased. If the DIP switch is changed back to SOFTWARE, all of the software settings are reloaded. The Input Select dial setting of analog 1:ALL is treated as analog 1:1 in SOFTWARE mode. Any required signal routing for analog or AmpLink inputs will be done in the matrix mixer.
- If the CONFIG DIP switch is set to REAR, configure the amplifier using the EQ dials on the rear panel of the amplifier.
If you configure the amplifier using the rear panel EQ dials, and then change the DIP switch setting to SOFTWARE, the amplifier configuration changes to software loaded settings. If the amplifier has not been configured by software, then all the settings return to their default states. If the DIP switch is changed back to REAR, then the EQ dial settings are reloaded. The Input Select dial settings will also be loaded when switched back to REAR mode.

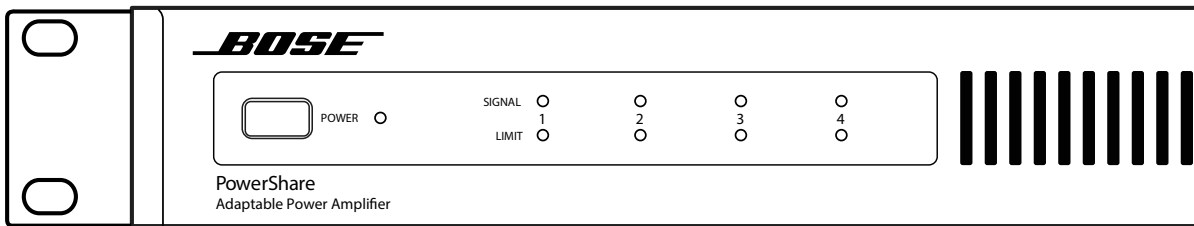
4-Channel Configuration

Figure 8. PowerShare Editor software 4-channel configuration for PS604A and PS404A amplifiers



LED Fault Indications

Figure 9. PS604A and PS404A



POWER LED (both amplifiers)

Solid amber LED indicates an over-temperature fault

Solid red LED indicates a power supply fault

SIGNAL LED (both amplifiers)

All four LEDs will display solid red if a power supply fault is detected

LIMIT LED (both amplifiers)

Each LIMIT LED will individually display solid red if there is an EHF fault on that channel

LIMIT LED 1 & 2 will display solid red when the outputs are muted due to an amplifier one fault

LIMIT LED 3 & 4 will display solid red when the outputs are muted due to an amplifier two fault

All four LEDs will display solid red if there is a power supply fault

Troubleshooting

Problem	What to do
No power	<ul style="list-style-type: none"> • Turn on power. Green LED on front panel will be visible when power is on. • Make sure the power cord is plugged in. • Try a different AC outlet that is working with another piece of equipment.
Power is on, but no sound	<ul style="list-style-type: none"> • Make sure the input source is turned on. • Verify that there is an input signal from the source. • Check the cable connections from the source to the amplifier. • Make sure the OUTPUT ATTENUATION controls are not turned down to mute. • If a CC-1 zone controller is connected to the ControlCenter connector on the rear panel, make sure the volume control on the zone controller is turned up. • If a contact closure is connected to the MUTE connector on the rear panel, check the switch to ensure the mute function has not been triggered. • Make sure that loudspeaker taps are set correctly. • Check that the amplifier has adequate ventilation. Improper ventilation could cause the amplifier to go into thermal protection mode and no audio will be heard. • Ensure that the output wiring is correct. A short circuit will cause the amplifier to go into protection mode and no audio will be heard.
Power is on, but sound is low	<ul style="list-style-type: none"> • Verify that the audio input source output is turned up to a nominal level. • Check the cable connections from the source to the amplifier. • Make sure the OUTPUT ATTENUATION controls are not turned down too low. • If a CC-1 zone controller is connected to the ControlCenter connector on the rear panel, make sure the volume control on the user interface is turned up. • Make sure that loudspeaker taps are set correctly.
Sound is distorted	<ul style="list-style-type: none"> • Verify that the SIGNAL LED on the front-panel is not red, indicating clipping. If it is red, reduce the source output level, or increase the amplifier sensitivity to 12 dBu. • If the input source signal is clean, verify that the loudspeakers are not overdriven or damaged. Check the loudspeaker tap setting.
Unnatural sound	<ul style="list-style-type: none"> • Verify that the proper EQ preset is selected for the loudspeakers being used.

Additional Information

Refer to the owner's guide (online at pro.Bose.com) for more information about your product (including accessories and replacement parts). To request a printed copy, use the phone numbers provided.

Limited Warranty

Your product is covered by a limited warranty. Visit pro.Bose.com for warranty details.

The warranty information provided with this product does not apply in Australian and New Zealand. See our website at www.bose.com/au/warranty or www.bose.com/nz/warranty for details of the Australian and New Zealand warranty.

Date of Manufacture

The eighth digit in the serial number indicates the year of manufacture; "6" is 2006 or 2016.

AC Current Draw and Thermal Dissipation Information

The amplifier rated channel power for the PS604A is 600 W, distributed across four outputs.

PS604A AC Current Draw and Thermal Dissipation (120 VAC, 60 Hz)						
Test Signal & Power Level	Load Configuration (All channels driven)	Total Audio Output, W	Line Current, A	Thermal Dissipation, Max		
				Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.63	76	258	65
1/8th Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	75	1.60	117	399	101
1/8th Rated Power IEC268 Bandlimited Pink Noise	70/100V	75	1.40	93	317	80
1/3rd Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	200	2.85	142	485	122
1/3rd Rated Power IEC268 Bandlimited Pink Noise	70/100V	200	2.70	124	423	107
PS604A AC Current Draw and Thermal Dissipation (230 VAC, 50 Hz)						
Test Signal & Power Level	Load Configuration (All channels driven)	Total Audio Output, W	Line Current, A	Thermal Dissipation, Max		
				Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.33	76	259	65
1/8th Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	75	0.80	109	372	94
1/8th Rated Power IEC268 Bandlimited Pink Noise	70/100V	75	0.74	95	325	82
1/3rd Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	200	1.50	145	495	125
1/3rd Rated Power IEC268 Bandlimited Pink Noise	70/100V	200	1.40	122	416	105

The amplifier rated channel power for the PS404A is 400 W, distributed across four outputs.

PS404A AC Current Draw and Thermal Dissipation (230 VAC, 50 Hz)						
Test Signal & Power Level	Load Configuration (All channels driven)	Total Audio Output, W	Line Current, A	Thermal Dissipation, Max		
				Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.63	76	258	65
1/8th Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	50	1.25	100	341	86
1/8th Rated Power IEC268 Bandlimited Pink Noise	70/100V	50	1.20	94	321	81
1/3rd Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	133	2.10	119	406	102
1/3rd Rated Power IEC268 Bandlimited Pink Noise	70/100V	133	2.00	107	365	92
PS404A AC Current Draw and Thermal Dissipation (230 VAC, 50 Hz)						
Test Signal & Power Level	Load Configuration (All channels driven)	Total Audio Output, W	Line Current, A	Thermal Dissipation, Max		
				Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.33	76	259	65
1/8th Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	50	0.66	102	347	88
1/8th Rated Power IEC268 Bandlimited Pink Noise	70/100V	50	0.60	88	300	76
1/3rd Rated Power IEC268 Bandlimited Pink Noise	4-8 Ω	133	1.10	120	409	103
1/3rd Rated Power IEC268 Bandlimited Pink Noise	70/100V	133	1.00	97	331	83

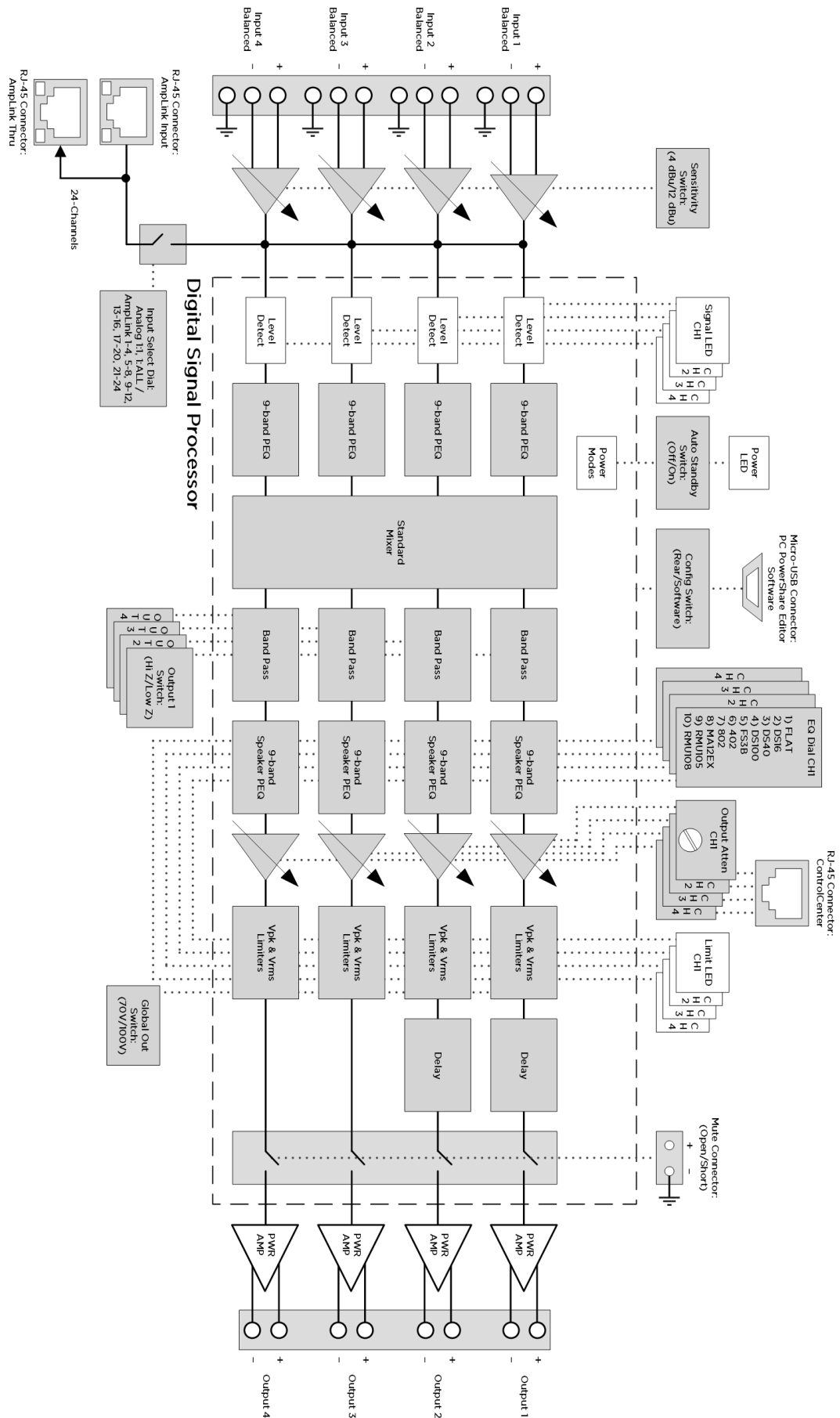
Technical Specifications

Power Rating		
	PS604A	PS404A
Amplifier Power ¹	4 x 150 W	4 x 100 W
Maximum Power per Channel	600 W @ 4-8 Ω, 70/100V	400 W @ 4-8 Ω, 70/100V
Gain (Low-Z mode)	32.0 dB	30.2 dB
Gain (70V mode)	35.0 dB	35.0 dB
Gain (100V mode)	38.0 dB	38.0 dB
¹ All channels driven, THD+N < 0.04%, 1 kHz, 4-8 Ω, 70/100V		
Audio Performance		
Frequency Response	4-8 Ω: 20 Hz - 20 kHz (+/- 0.5 dB, @ 1 W) 70/100V: Same as 4-8 Ω with 50 Hz high-pass filter	
Channel Separation (Crosstalk)	> 85 dB @ 1 kHz, > 65 dB @ 20 kHz	
Signal to Noise Ratio	100 dB (at rated power, A-weighted)	
Audio Inputs		
	Analog	AmpLink
Input Channels	4 balanced	24 digital
Connectors	12-pin Euroblock	RJ-45 (Input)
Input Impedance	20 kΩ	
Maximum Input Level	20 dBu (at 12 dBu sensitivity setting)	
Sensitivity	4 / 12 dBu (low/high sensitivity)	
Audio Outputs		
	Analog	AmpLink
Outputs	4	24 digital
Connectors	8-pin inverted Euroblock	RJ-45 (Thru)
Integrated DSP		
A/D and D/A Converters	24-bit / 48 kHz	
Processing Functions	Matrix mixer, loudspeaker EQ, real-time 9-band PEQ, Vpeak/Vrms limiters, delay, band pass, mute/output polarity inversion	
Loudspeaker Presets	Flat, DS16, DS40, DS100, FS3B, 402, 802, MA12EX, RMU105 and RMU108	
Audio Latency	<1 ms (any analog or AmpLink input to loudspeaker output)	
Indicators and Controls		
Power LED	Solid green: Power is on. Blinking green: Unit is in standby mode. Solid amber: Thermal fault. Solid red: Supply fault.	
Input Signal LED	Green: Signal present. Amber: Input is near clipping. Red: Input is clipping. Solid red: Indicates a fault.	
Output Limit LED	Amber: Amplifier limiting an output. Blinking red: Amplifier muted from rear panel. Solid red: Indicates a fault.	
Controls, Front Panel	Power On/Off	
Controls, Rear Panel	Amplifier mode DIP switches, loudspeaker EQ dials, output attenuators	
Electrical		
	PS604A	PS404A
Mains Voltage	100 VAC - 240 VAC (±10%, 50/60 Hz)	
AC Power Consumption	120 VAC: 14 W (Standby), 700 W (Max) 230 VAC: 14 W (Standby), 700 W (Max)	120 VAC: 14 W (Standby), 500 W (Max) 230 VAC: 14 W (Standby), 500 W (Max)
Mains Connector	Standard IEC (C14)	
Maximum Inrush Current	14.14 A (230 VAC / 50 Hz), 8.04 A (120 VAC / 60 Hz)	
Protections	High temperature, output short, extra high frequency (EHF), excessively low or high AC line voltage	
Physical		
Dimensions	44 mm x 483 mm x 414 mm (1.7" x 19.0" x 16.3")	
Shipping Weight	7.8 kg (17.2 lb)	
Net Weight	6.4 kg (14.1 lb)	
Cooling System	Microprocessor controlled, variable speed fans, left to right air flow	
General		
Inputs (Control)	RJ-45 remote input for volume control using the CC-1 ControlCenter zone controllers, or for connection to the CV41. Micro-USB input for configuring the amplifier with PowerShare Editor software. Mute input control.	

EQ Settings

The following table shows the Bose® loudspeaker EQ file that corresponds to the EQ dial setting on the rear panel of the amplifier.

EQ Dial Position	Setting	Bose Loudspeaker EQ File
1	FLAT	Flat
2	DS16	DS16F Pendant
3	DS40	DS40F/SE
4	DS100	DS100F/SE
5	FS3B	FS3B_100Hz_LP
6	402	402_SeriesIV
7	802	802_SeriesIV
8	MA12EX	MA12EX_WALL
9	RMU105	RMU105
0	RMU108	RMU108



PS604A and PS404A PowerShare Amplifiers

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