



User Manual - D16

IMPORTANT SAFETY INSTRUCTIONS

Never expose the amplifier to any kind of moisture. This product should not be used outdoors, near bathtubs, sinks, wet basements or swimming pools. This product is meant for indoor use only. Avoid placing this amplifier near heat sources such as radiators, heat registers or stoves. This amplifier should not be used in direct sunlight. Before connecting any cables to the amplifier, the power switch must be in the OFF position. Locate the amplifier where there is adequate ventilation to the sides of the amplifier. If the amplifier is used in a cabinet an additional cooling fan might be necessary. Make sure that the speakers that will be connected to this amplifier can handle the output power from the amplifier. Do not use this amplifier with a power receptacle or extension cord that is not adequately rated to handle the power requirements of the amplifier, or that will not allow the blades of the plug to be fully inserted to prevent blade exposure.

IMPORTANT SAFETY INSTRUCTIONS

Your unit is designed and manufactured to operate within defined design limits, and misuse may result in electric shock or fire. To prevent your unit from being damaged, the following rules should be observed for its installation, use, and maintenance. Please read the following safety instructions before operating your unit. Keep these instructions in a safe place for future reference.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized plug. A polarized plug has two blades with one wider than the other. The wide bladed is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- 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.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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.
- To reduce the risk of electric shock or component damage, switch off the power before connecting other components to your Unit.
- Unplug the power cord before cleaning your Unit. A damp cloth is sufficient for cleaning. Do not use a liquid or a spray cleaner on your Unit. Do not use abrasive cleaners.
- Always use the accessories recommended by the manufacturer to insure compatibility.
- When moving your Unit from an area of low temperature to an area of high temperature, condensation may form in the housing. Wait before turning on your Unit to avoid causing fire, electric shock, or component damage.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of our Unit and to protect it from overheating, be sure these openings are not blocked or covered. Do not place your Unit in a bookcase or cabinet unless proper ventilation is provided.
- Never push any object into the slots and openings on your Unit enclosure. Do not place any objects on the top of your Unit. Doing so could short circuit parts causing a fire or electric shock.
- Never spill liquids on your Unit.
- **WARNING:** Exposure to loud sounds can damage your hearing causing hearing loss and tinnitus (ringing or buzzing in the ears).
- Minimum distances of 5 cm around the apparatus for sufficient ventilation;
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.;
- No naked flame sources, such as lighted candles, should be placed on the apparatus;
- Attention should be drawn to the environmental aspects of battery disposal;
- The use of apparatus in moderate climates
- Exposure to loud noises, ears may become accustomed to the sound level, which may result in permanent damage to hearing without any noticeable discomfort.
When connected to a power outlet, power is always flowing into your Unit. To totally disconnect power, unplug the power cord.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- The wall socket should be located near your Unit and be easily accessible.



- Keep your Unit away from moisture. Do not expose your Unit to rain or moisture. If water penetrates into your Unit, unplug the power cord and contact your dealer. Continuous use in this case may result in fire or electric shock.
- Do not use your Unit if any abnormality occurs. If any smoke or odor becomes apparent, unplug the power cord and contact your dealer immediately. Do not try to repair your unit yourself.
- Avoid using dropped or damaged appliances. If your Unit is dropped and the housing is damaged, the internal components may function abnormally. Unplug the power cord immediately and contact your dealer for repair. Continued use of your Unit may cause fire or electric shock.
- Do not install your Unit in an area with heavy dust or high humidity. Operating your Unit in environments with heavy dust or high humidity may cause fire or electric shock.
- Ensure that the power cord and any other cables are unplugged before moving your Unit.
- When unplugging your Unit, hold the power plug, not the cord. Pulling on the power cord may damage the wires inside the cord and cause fire or electric shock. When your Unit will not be used for an extended period of time, unplug the power cord.
- To reduce risk of electric shock, do not touch the connector with wet hands.
- Insert the remote control batteries in accordance with instructions. Incorrect polarity may cause the battery to leak which can damage the remote control or injure the operator.
- See the important not and rating located on the back of the unit.
- **WARNING** - This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filled with liquid near the equipment (such as a vase, or flowerpot) or expose it to dripping, splashing, rain, or moisture.
- **CAUTION** - Danger of explosion or fire if batteries are mistreated. Replace only with the same or specified type.
- Do not leave the batteries exposed to direct sunlight for a long period of time with doors and windows closed. Do not disassemble the batteries or dispose of it in fire.
- Where the MAINS plug or appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Class 2 Wiring: Caution - Risk of Electrical Shock. Disconnect all power before connecting any wire.

WARNING:
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



WARNING

Do not ingest the battery, Chemical Burn Hazard
(The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
Keep new and used batteries away from children.
If the batter compartment does not close securely, stop using the product and keep it away from children.
If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

IMPORTANT SAFETY INSTRUCTIONS

N'exposez jamais l'amplificateur à une humidité quelconque. Ce produit ne doit pas être utilisé à l'extérieur, près des baignoires, des éviers, des sous-sols humides ou des piscines. Ce produit est destiné à une utilisation en intérieur uniquement. Évitez de placer cet amplificateur à proximité de sources de chaleur telles que des radiateurs, des registres de chaleur ou des cuisinières. Cet amplificateur ne doit pas être utilisé en plein soleil. Avant de connecter des câbles à l'amplificateur, l'interrupteur d'alimentation doit être en position OFF. Localisez l'amplificateur dans un endroit suffisamment ventilé sur les côtés. Si l'amplificateur est utilisé dans une armoire, un ventilateur de refroidissement supplémentaire peut être nécessaire. Assurez-vous que les enceintes qui seront connectées à cet amplificateur peuvent gérer la puissance de sortie de l'amplificateur. N'utilisez pas cet amplificateur avec une prise de courant ou une rallonge ne répondant pas aux spécifications de puissance de l'amplificateur ou ne permettant pas l'insertion complète des broches de la fiche afin d'éviter toute exposition.

CONSIGNES DE SÉCURITÉ IMPORTANTES

Votre appareil est conçu et fabriqué pour fonctionner dans les limites définies, et une mauvaise utilisation peut provoquer un choc électrique ou un incendie. Pour éviter que votre appareil ne soit endommagé, les règles suivantes doivent être observées pour son installation, son utilisation et sa maintenance. Veuillez lire les consignes de sécurité suivantes avant d'utiliser votre appareil. Conservez ces instructions dans un endroit sûr pour référence ultérieure.

- Lisez ces instructions.
- Gardez ces instructions.
- Respectez tous les avertissements.
- Suivez toutes les instructions.
- Ne pas utiliser cet appareil près de l'eau.
- Nettoyer uniquement avec un chiffon sec.
- Ne bloquez aucune bouche d'aération. Installez conformément aux instructions du fabricant.
- Ne l'installez pas à proximité de sources de chaleur telles que radiateurs, bouches de chaleur, poêles ou autres appareils (y compris les amplificateurs) produisant de la chaleur.
- Ne détruisez pas la sécurité de la fiche polarisée. Une fiche polarisée a deux broches dont l'une plus large que l'autre. La lame large est fournie pour votre sécurité. Si la fiche fournie ne rentre pas dans votre prise, consultez un électricien pour remplacer la prise obsolète.
- Protégez le cordon d'alimentation contre les risques de piétinement ou de pincement, notamment au niveau des fiches, des prises de courant et du point de sortie de l'appareil.
- Utilisez uniquement les pièces jointes / accessoires spécifiés par le fabricant.
- Utilisez uniquement avec le chariot, le support, le trépied, le support ou la table spécifiés par le fabricant, ou vendu avec l'appareil. Lorsqu'un chariot est utilisé, soyez prudent lorsque vous déplacez le combiné chariot / appareil pour éviter les blessures dues au renversement.
- Débranchez cet appareil en cas d'orage ou lorsque vous ne l'utilisez pas pendant une période.
- Confiez toute réparation à un personnel qualifié. Un entretien est nécessaire lorsque l'appareil a été endommagé de quelque manière que ce soit, par exemple si le cordon d'alimentation ou la fiche est endommagé, si du liquide a été renversé ou si des objets sont tombés dans l'appareil, si l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas, normalement, ou a été abandonné.
- Pour réduire les risques d'électrocution ou de dommages aux composants, mettez l'appareil hors tension avant de connecter d'autres composants à votre appareil.
- Débranchez le cordon d'alimentation avant de nettoyer votre appareil. Un chiffon humide suffit pour le nettoyage. N'utilisez pas de nettoyant liquide ou en aérosol sur votre appareil. Ne pas utiliser de nettoyants abrasifs.
- Utilisez toujours les accessoires recommandés par le fabricant pour assurer la compatibilité.
- De la condensation peut se former dans le boîtier lorsque vous déplacez votre appareil d'une zone de basse température vers une zone de température élevée. Attendez avant de mettre votre unité en marche pour éviter de provoquer un incendie, un choc électrique ou des dégâts matériels.
- Les fentes et les ouvertures à l'arrière et au bas de l'armoire sont destinées à la ventilation. Pour assurer le bon fonctionnement de notre appareil et le protéger contre la surchauffe, assurez-vous que ces ouvertures ne sont ni obstruées ni recouvertes. Ne placez pas votre appareil dans une bibliothèque ou une armoire sans ventilation adéquate.
- Ne poussez jamais d'objet dans les fentes et les ouvertures de votre appareil. Ne placez aucun objet sur le dessus de votre unité. Cela risquerait de court-circuiter des pièces et de provoquer un incendie ou un choc électrique. Ne renversez jamais de liquides sur votre appareil.
- AVERTISSEMENT: L'exposition à des sons forts peut endommager votre audition, entraînant une perte d'audition et des acouphènes (bourdonnements dans les oreilles).
- Distances minimales de 5 cm autour de l'appareil pour une ventilation suffisante; La ventilation ne doit pas être entravée en recouvrant les orifices de ventilation avec des objets tels que des journaux, des nappes, des nappes, etc.
- Aucune source de flamme nue, telle que des bougies allumées, ne doit être placée sur l'appareil;
- L'attention devrait être attirée sur les aspects environnementaux de l'élimination des batteries;
- L'utilisation d'appareils dans les climats modérés
- L'exposition aux bruits forts, les oreilles peuvent s'habituer au niveau sonore, ce qui peut entraîner des dommages irréversibles à l'audition sans aucun inconfort notable.
- Lorsqu'il est connecté à une prise de courant, votre appareil est toujours alimenté. Pour déconnecter totalement l'alimentation, débranchez le cordon d'alimentation.
- Ne surchargez pas les multiprises et les rallonges. Une surcharge peut provoquer un incendie ou un choc électrique. La prise murale doit être située près de votre appareil et être facilement accessible.
- Gardez votre appareil à l'abri de l'humidité. N'exposez pas votre appareil à la pluie ou à l'humidité. Si de l'eau pénètre dans votre appareil, débranchez le cordon d'alimentation et contactez votre revendeur. L'utilisation continue dans ce cas peut provoquer un incendie ou un choc électrique.



- N'utilisez pas votre appareil en cas d'anomalie. Si de la fumée ou une odeur se dégage, débranchez le cordon d'alimentation et contactez votre revendeur immédiatement. N'essayez pas de réparer votre appareil vous-même.
- Évitez d'utiliser des appareils tombés ou endommagés. Si votre appareil tombe et que le boîtier est endommagé, les composants internes risquent de ne pas fonctionner normalement. Débranchez immédiatement le cordon d'alimentation et contactez votre revendeur pour le faire réparer. L'utilisation continue de votre appareil peut provoquer un incendie ou un choc électrique.
- N'installez pas votre appareil dans un endroit très poussiéreux ou très humide. Utiliser votre appareil dans des environnements très poussiéreux ou très humides peut provoquer un incendie ou un choc électrique.
- Assurez-vous que le cordon d'alimentation et tous les autres câbles sont débranchés avant de déplacer votre appareil.
- Lorsque vous débranchez votre appareil, tenez la prise d'alimentation, pas le cordon. En tirant sur le cordon d'alimentation, vous risquez d'endommager les fils à l'intérieur du cordon et de provoquer un incendie ou un choc électrique. Lorsque votre appareil ne sera pas utilisé pendant une période prolongée, débranchez le cordon d'alimentation.
- Pour réduire les risques d'électrocution, ne touchez pas le connecteur avec les mains mouillées.
- Insérez les piles de la télécommande conformément aux instructions. Une polarité incorrecte peut entraîner une fuite de la batterie, ce qui peut endommager le contrôle à distance ou blesser l'opérateur.
- Voir l'important pas et le classement situé à l'arrière de l'appareil.
- AVERTISSEMENT - Cet équipement n'est pas imperméable. Pour éviter tout risque d'incendie ou d'électrocution, ne placez pas de récipient rempli de liquide à proximité de l'équipement (tel qu'un vase ou un pot de fleurs) et ne l'exposez pas à l'écoulement, les éclaboussures, la pluie ou l'humidité.
- ATTENTION - Risque d'explosion ou d'incendie si les batteries sont maltraitées. Remplacez uniquement par le même type ou le type spécifié.
- Ne laissez pas les piles au soleil pendant une longue période, portes et fenêtres fermées. Ne démontez pas les piles et ne les jetez pas au feu.
- Lorsque la fiche d'alimentation ou le coupleur d'appareil est utilisé comme dispositif de déconnexion, le dispositif de déconnexion doit rester facilement utilisable.
- Câblage de classe 2: Attention - Risque de choc électrique. Débranchez toutes les sources d'alimentation avant de connecter un fil.

ATTENTION:
Pour réduire les risques d'incendie ou choc électrique, ne l'exposez pas appareils à la pluie ou l'humidité.



	Le symbole éclair représentant une pointe de flèche, dans un triangle équilatéral, est destiné à alerter l'utilisateur de la présence d'une tension dangereuse non isolée dans le boîtier du produit pouvant être suffisamment importante pour constituer un risque de choc électrique pour les personnes.
	Le point d'exclamation dans un triangle équilatéral est destiné à alerter l'utilisateur de la présence d'instructions importantes d'utilisation et de maintenance (entretien) dans la documentation accompagnant l'appareil.



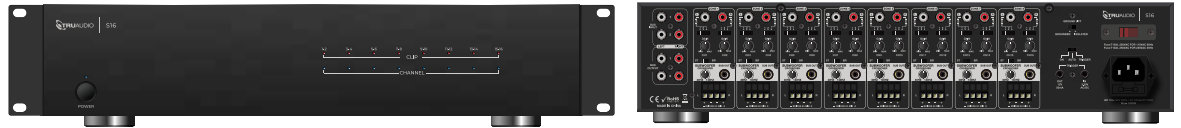
ATTENTION

Ne pas ingérer la batterie, Risque de brûlure chimique
(La télécommande fournie avec) Ce produit contient une pile bouton / pièce. En cas d'ingestion de la pile bouton, elle peut provoquer de graves brûlures internes en seulement 2 heures et entraîner la mort.
Conservez les piles neuves et usagées hors de portée des enfants.
Si le compartiment à batterie ne se ferme pas correctement, arrêtez d'utiliser le produit et gardez-le hors de portée des enfants.
Si vous pensez que les piles ont pu être avalées à l'intérieur d'une partie du corps, consultez immédiatement un médecin.

At TruAudio the “Sound of Innovation” is not just a tagline, they are words we live by. The D16 amplifier is a revolutionary amplifier breaking the mold of the standard amplifier. The D16 amplifier has sixteen channels of high performance power along with eight subwoofer RCA outputs with a built in adjustable crossover. We found the number one thing customers want from their distributed audio system is sound quality and realism. By adding a TruAudio passive subwoofer to our D16 amp you now can add great sound and bass discreetly and easily to any room. The D16 is full of state of the art and advanced features that can be customized to fit most any system.

Box Contents

- D16 amplifier
- Power cord
- Rack ears
- Manual

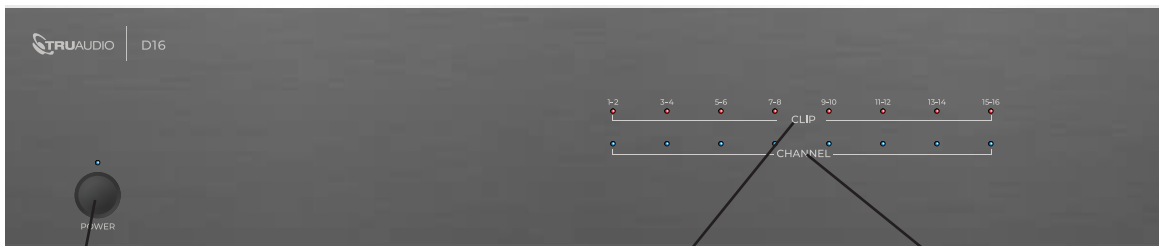


Features

- Zone input gain control
- Max output with ALL channels driven
- 8 RCA subwoofer outputs
- Speaker level subwoofer capability
- Adjustable subwoofer crossovers per zone
- Bus 1 & Bus 2 inputs and outputs
- Signal sense
- Stereo & bridge mode
- Trigger in & out
- Ground lift
- On-Off-trigger
- Class D digital amplifiers
- Anti-clipping protection circuitry
- Fault safety circuitry
- Front panel LED lights
- 2 Internal fans

Front Panel

Power switch on the front of the D16 will light “blue” when the D16 is on, the light will be off when the amplifier is powered off, and red when in standby. We have placed an LED light ladder on the front of the amplifier to help you quickly identify the state of the amp by zone.



1

2

3

1. Power button

2. Clipping status LED's

3. Channel status LED's

Front Panel LED Lights

Quick Reference Chart

	LED COLOR	DESCRIPTION
POWER	BLUE	Unit is on
	RED	Unit is in standby, no signal
	OFF	Unit is off
CHANNEL	BLUE	Zone is active
	RED	Zone fault
	OFF	No signal
CLIP	RED	Source is set to high
	OFF	Source is set correctly

NOTE: If the channel LED is RED you have a fault and need to fix that issue. Once fixed the light should go back to BLUE if the zone is being used or OFF if the zone is not being used. Fault is typically the positive and negative speaker wire touching.

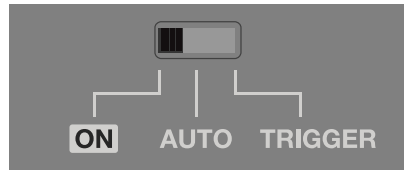
NOTE: If one of the clip LED lights is “flashing,” then that zone is clipping. To resolve this, you need to lower the input source volume and/or lower the gain for that channel until the LED stops flashing.

Rear Panel



- | | | |
|---------------------|------------------------------|--|
| 1. Bus In | 6. Stero/Bridge Switch | 11. On/Auto/Trigger |
| 2. Bus Out | 7. Subwoofer Crossover | 12. Input Voltage Switch (110v/220v) |
| 3. Line In (Analog) | 8. Subwoofer RCA Out | 13. Trigger In/Out |
| 4. Input Switch | 9. Phoenix Speaker Connector | 14. AC Fuse <small>T15AL 250VAC FOR 115VAC 60Hz
T10AL 250VAC FOR 230VAC 50Hz</small> |
| 5. Input Gain Knob | 10. Ground Lift Switch | 15. AC Input |

On/Auto/Trigger



On Mode (Recommended):

All zone LED lights will be off until an audio signal is introduced to the BUS or LINE-IN inputs. When an audio signal is present, the amplifier will turn on immediately and the appropriate zone lights will turn blue to indicate the zone or zones that are on. After about 20 minutes without an audio signal the zone or zones will enter a low power mode. Zone LED lights will remain off until each zone senses an audio source to the zone input.

Auto Mode:

When the amplifier detects an audio signal the D16 will turn on. After approximately 20 minutes without an audio signal the amplifier will go into standby mode. When the D16 is in sleep mode there will be a 10 to 15 second delay to power the amplifier back on and play an audio signal.

Trigger Mode:

The amplifier will only turn on and off when using the 12v trigger input and/or output. There will be a few second power cycle period from the time power is applied to the trigger to the time an audio signal is played. For general use it is recommended that the amplifier be left in the "ON" position.

NOTE: *The amplifier has a 10 second power cycle period before it will play an audio signal if either the Auto or Trigger are selected. This is normal and required to comply with the EU < .5 WATT ERP directive.*

BUS 1 & 2 Inputs

There are "right" and "left" RCA style connectors labeled as "1" & "2". These inputs are used for sending a single audio source (i.e. CD, Tuner, MP3 etc.) to more than one zone.

BUS 1 & 2 Outputs

There are "right" and "left" RCA style connectors labeled as "1" & "2". These outputs are used to loop the audio source that is connected to the "BUS INPUTS" out to a second amplifier.

NOTE: *By using the **BUS INPUTS/OUTPUTS** together you can run "MONO" to all channels of the amplifier. Discussed later in this manual.*

Zone Line Inputs

These RCA style input connectors are the audio inputs for each individual channel of the amplifier. Attach your audio sources here. We suggest using a good quality RCA patch cable for best performance. The RCA inputs are labeled "Left" and "Right".

ST/BR Switch (Stereo/Bridge)

Use this switch to change between stereo and bridge mode for each zone.

Stereo Mode:

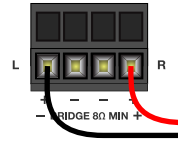
Stereo mode will play the audio entering the amplifier through the left & right input channels out to the left & right speakers attached to that zone.

Bridge Mode:

Bridged mode will take the audio entering the LEFT channel of the zone ONLY and send it out of the outermost ports of the phoenix connector.

Bridged mode will output up to 150w @8Ω.

Bridge mode must see an 8Ω signal, lower than 8Ω will damage the amplifier.



Crossover Knob for Subwoofer RCA

This knob is used to adjust the crossover frequencies (40Hz to 140Hz) sent out of the “SUB OUT” RCA jack.

Gain Adjustment

This knob adjusts the output level for each zone independent. Set the input gain control to your desired level and make sure the speakers are not distorting at very loud volumes.

Ground Lift Switch

If there is a problem with a 60Hz ground loop with this amplifier due to poor house electrical grounding, this switch can sometimes help eliminate the noise or hum problem that can occur.

Speaker Terminals

These Phoenix type terminal connectors are used to connect the speakers to the amplifier. Max gauge of speaker wire is 14 AWG.

Anti-Clipping Protection Circuitry

The anti-clipping circuitry will automatically reduce the output level going to the speaker from the amplifier when it senses the volume is too loud. The RED clipping light will flash until you lower the source or the input gain control for that zone.

Fault Safety Circuitry

If by accident the speaker wires cross (touch each other) the blue channel LED light for that zone will turn solid RED. No sound will come from any speakers attached to the faulted wires until you correct the fault (separate the touching wires). No damage will come to the Amp.

AC Voltage

Input AC voltage switch is set to 115V, if using this amplifier in a location where you will be using 220V than you **MUST** undo the screws holding the clear glass over the voltage switch and push the slider to the right to the 220V setting.

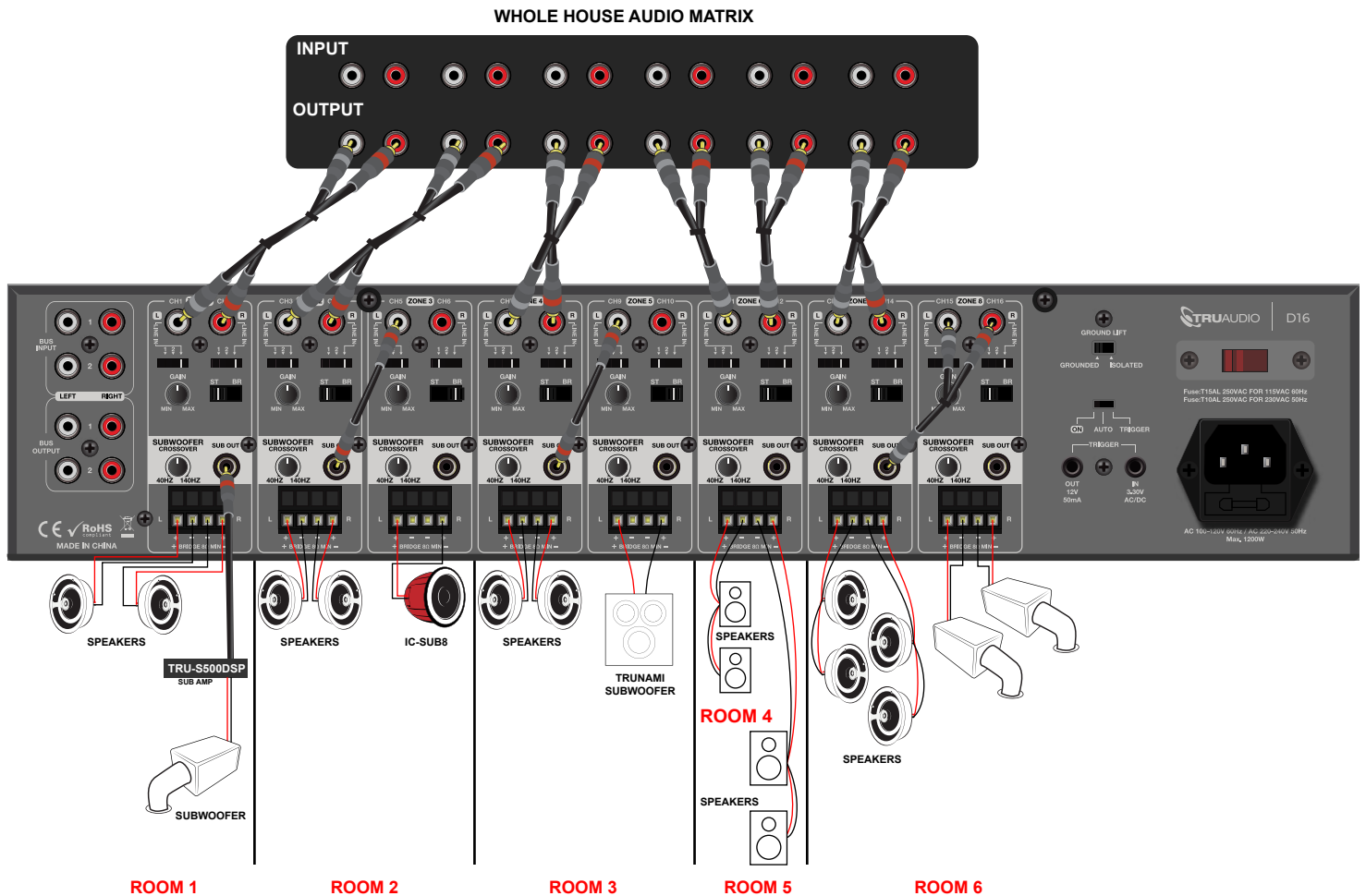
115V Switch Position



220V Switch Position



Sample Home Installation

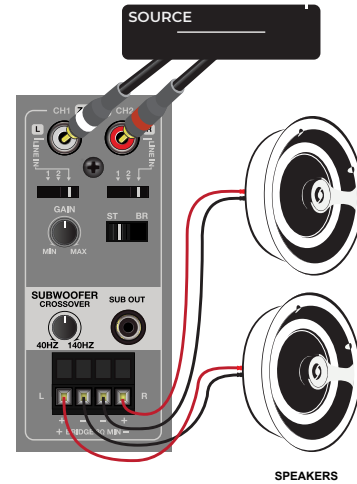


Function

Standard Speaker Installation

- Attach your source to the “line in” or “bus in”
- Set the input switch to the appropriate source.
- Set the ST/BR switch to ST (stereo)
- Now attach your two speakers to the phoenix connector, left & right channel.

(Diagram shows input set to “line in”)



Subwoofer Wiring

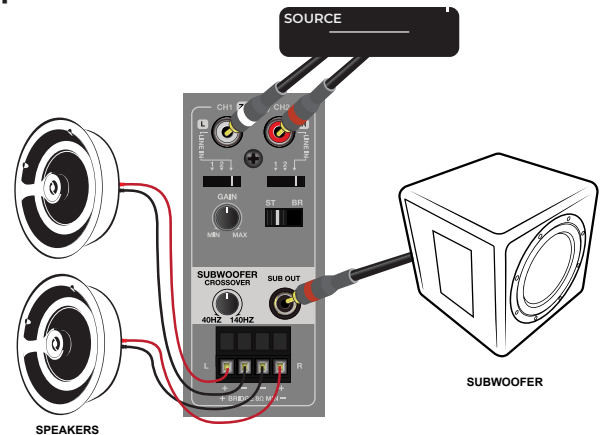
There are multiple ways to configure setup of a subwoofer on the D16.

1. To an active powered subwoofer or subwoofer amplifier
2. To a passive subwoofer

(1) Using the Subwoofer RCA output to a stand alone powered subwoofer.

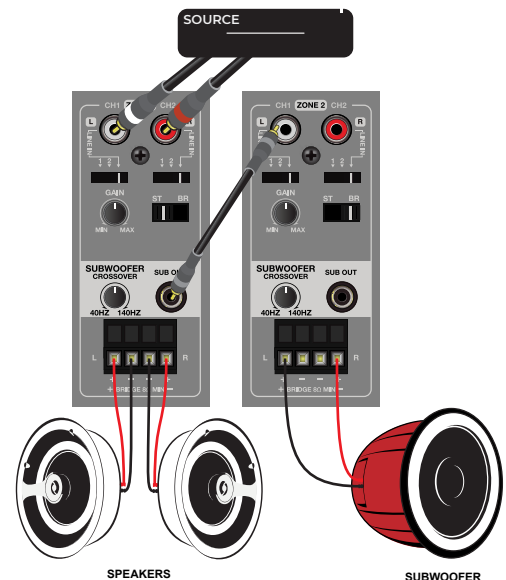
- Attach your source to the “line in” or “bus in”
- Set the input switch to the appropriate source.
- Attach a single RCA wire from the “SUB OUT” of that zone to a powered subwoofer.
- Turn the crossover knob clockwise all the way to the 140Hz position on the D16. Now use the crossover on your powered subwoofer or subwoofer amplifier.

(Diagram shows input set to “line in”)

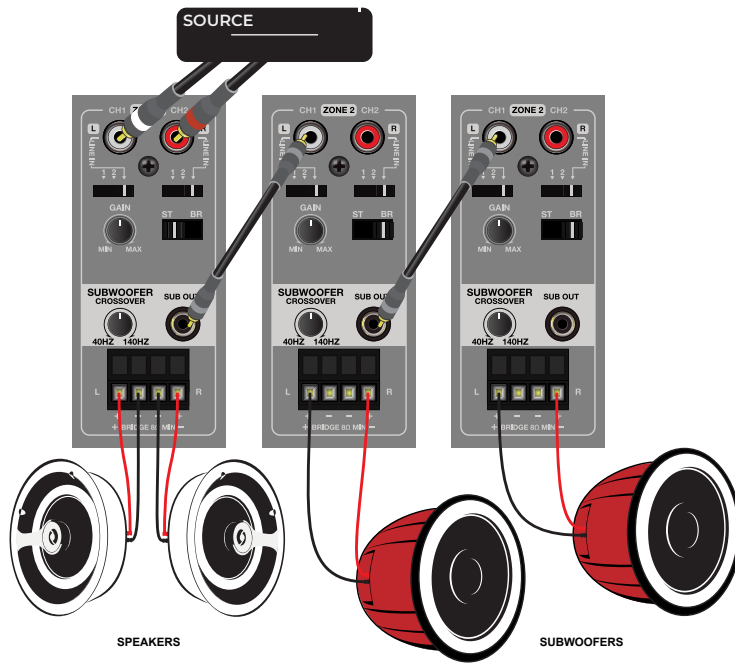


(2) Outputting a subwoofer signal over speaker wire to the TruAudio IC-SUB-8 passive subwoofer

- Attach your source to the “line in” or “bus in”
- Set the input switch to the appropriate source.
- Attach a single RCA wire from the “SUB OUT” for that zone to the next zone “line in” LEFT channel.
- Set the first zone to “ST” and attach your two speakers to the phoenix connector.
- Next set that subwoofer zone to “BR” Bridged and attach the subwoofer wires to that zone to the outermost portions of the phoenix connector. (the bridged terminals)
- Now play music and adjust the crossover and the gain knobs on both zones till you get the music and subwoofer sounding the way you like. Use your source volume to increase and decrease the sound.



(2a) Adding multiple IC-SUB 8 subwoofers

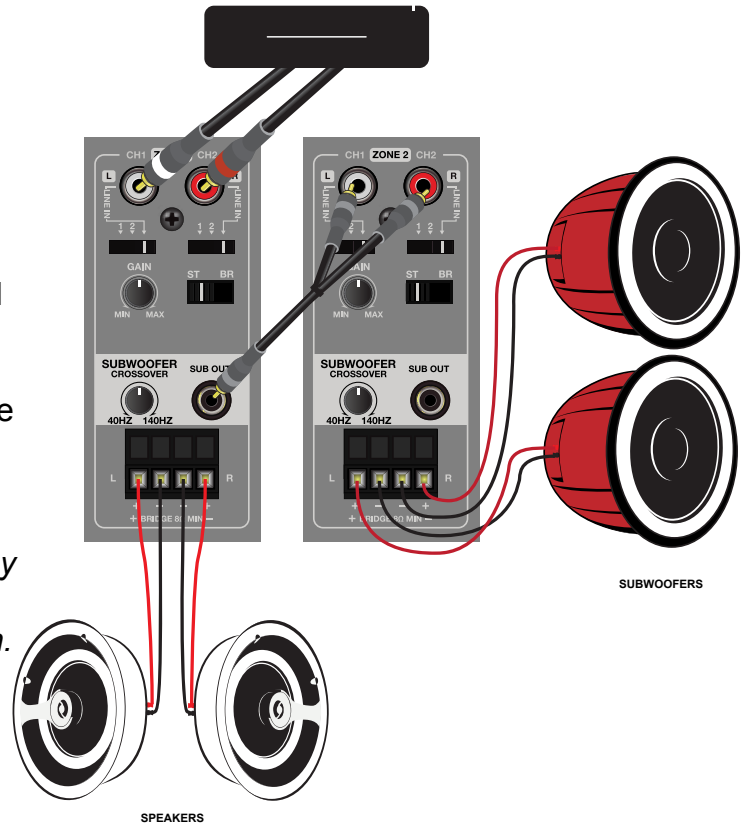


(3) Output a subwoofer signal over speaker wire to (TWO) TruAudio IC-SUB 8 from a single zone.

- Attach your source to the “line in” or “bus in”
- Set the input switch to the appropriate source
- Set the speaker zone to “ST” Stereo
- Attach the speaker wires for your speakers
- From the first zone attach a single RCA to dual RCA cable from the “SUB OUT” for that zone to the next zone “line in” LEFT & RIGHT channel.
- Next set that subwoofer zone to “ST” Stereo and attach each subwoofer wires to the phoenix connector.(left and right)
- Now play music and adjust the crossover and the gain knobs on both zones till you get the music sounding the way you like. Use your source volume to increase and decrease the sound.

This configuration of 2 subwoofers will not be any louder than 1 subwoofer but it will enable you to spread out the bass more evenly in a large room.

(Diagram shows input set to “line in”)



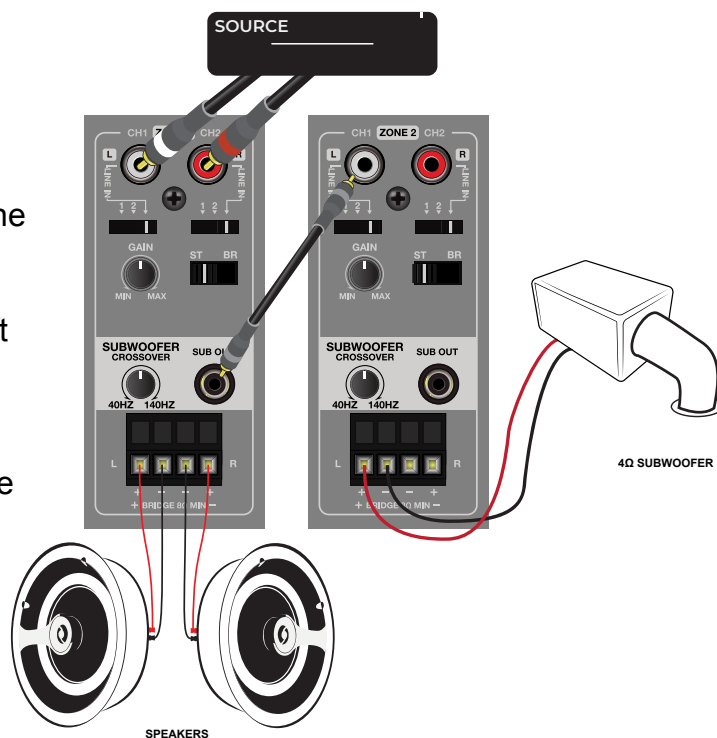
NOTE: The subwoofer channel **MUST BE** switched to “ST” position, not “BR” (in this example).

(4) Output a subwoofer signal over speaker wire to (ONE) TruAudio BP-SUB 12 at 4Ω

- Attach your source to the “line in” or “bus in”
- Set the input switch to the appropriate source.
- Set the speaker zone to “ST” Stereo
- Attach the speakers to that zone
- From the first zone attach a single RCA cable from the “SUB OUT” for that zone to the next zone “line in” LEFT channel.
- Next set that subwoofer zone to “ST” Stereo and attach the BP-SUB-12 subwoofer wires to the left channel of the phoenix connector.
- Now play music and adjust the crossover on the first zone and the gain knobs on both zones till you get the music sounding the way you like. Use your source volume to increase and decrease the sound.

(Diagram shows input set to “line in”)

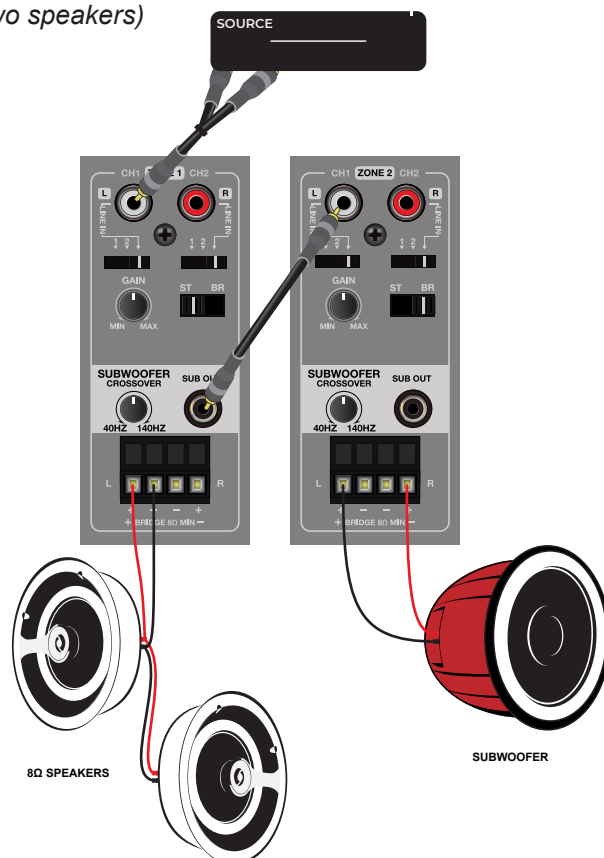
NOTE: The subwoofer channel **MUST BE** switched to “ST” position, not “BR” (in this example).



Retrofit application *(Adding a subwoofer to a room that has only two speakers)*

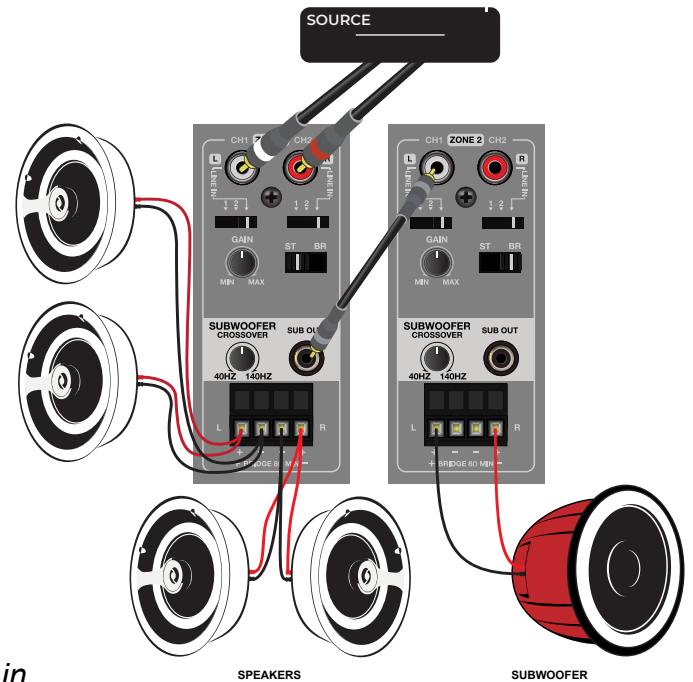
- Attach your source using a single RCA “Y” cable to the “line in” left channel on ZONE 1
- Run a single RCA wire from the “SUB OUT” ZONE 1 to ZONE 2 “line in” on the Left channel
- Set Zone 1 to “ST” and ZONE 2 to “BR”
- Attach both of your previously installed speakers to the same wire coming from the left channel.
- Attach the newly installed IC-SUB 8 to the other speaker wire and now attach that wire to ZONE 2 to the BRIDGED outputs.
- Now play music and adjust the crossover on the first zone and the gain knobs on both zones till you get the music sounding the way you like. Use your source volume to increase and decrease the sound.

NOTE: The speakers must be 8Ω each.



Wiring a room with four 8Ω speakers and one In-Ceiling Sub: using 2 zones of the D16 amplifier

- Attach your source using the “line in” or “Bus in”
- Run a single RCA cable from the “SUB OUT” ZONE 1 to ZONE 2 “line in” on the left channel
- Set Zone 1 to “ST” and ZONE 2 to “BR”
- Attach all 4 of your speakers to zone 1 (2 speakers to the left channel and 2 speakers to the right channel)
- **NOTE:** All 4 speakers MUST be 8Ω
- Attach the installed IC-SUB 8 to ZONE 2 (BRIDGED).
- Now play music and adjust the crossover on the first zone and the gain knobs on both zones till you get the music sounding the way you like. Use your source volume to increase and decrease the sound.



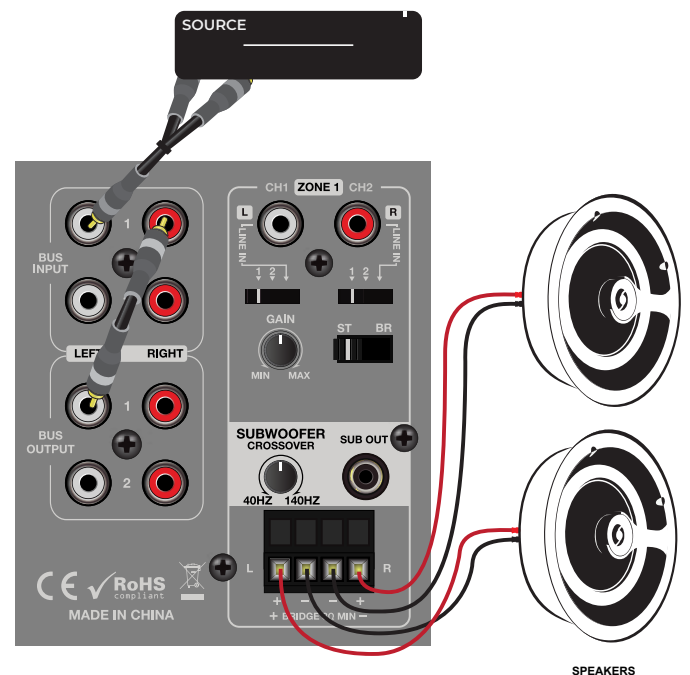
Special NOTE: You can add additional IC-SUB-8's in the ceiling for more bass. See page 9 for details

Mono Wiring

How to wire the D16 to output a mono signal using the BUS inputs & outputs.

- Using a “Y” cable, combine the audio signal (left & right) together from your source and run it to the BUS 1 input “LEFT”.
- Use a single RCA cable and attach the BUS 1 out “LEFT” to BUS 1 in “RIGHT”.
- Now you can hear that audio source come through any speaker by choosing “BUS 1” for that channel.

Special NOTE: Mono is not poor sound (like in the old days) it is just a lack of separation of both left & right channels. Both left & right channels are combined together and heard through one speaker. Best used for outdoor systems or indoors where the listener may move around and NOT be located in the sweet spot between both speakers.



Adjusting the D16 Amplifier

Speaker

Subwoofer

Gain Control

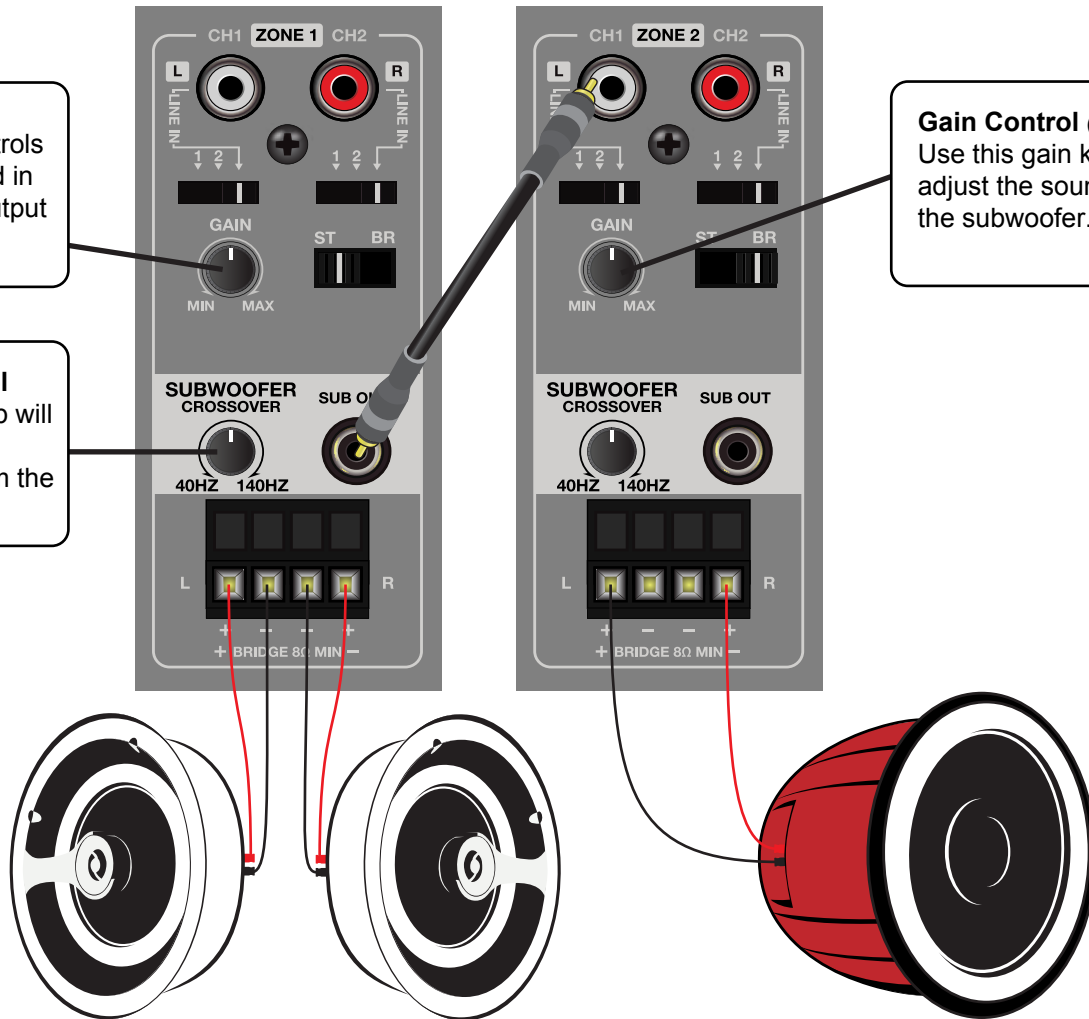
The gain knob controls the input signal and in turn, the volume output from the speakers.

Crossover Control

The crossover knob will set the crossover frequency sent from the "SUB OUT."

Gain Control (Second Zone)

Use this gain knob to adjust the sound level for the subwoofer.



Cooling

In order to keep the D16 running smooth it must have proper ventilation. As with all electronic equipment heat is the enemy and will shorten the life. The D16 has ventilation ports on all sides along with 2 fans to help keep it running cool. The D16 must have 2.5" of space on both sides and 1U (1.75") above and below the amplifier. If placing the D16 in a cabinet you MUST make sure the cabinet is vented.

Troubleshooting

The TruAudio D16 is stable to 4Ω, if the amplifier goes below 4Ω's there is a good chance the zone will fail:

To fix you will need to bring the impedance back up to 4Ω or greater

Note: Most 8Ω speakers have TRUE impedance of slightly less than 8Ω which could sometimes cause an issue.

If you are in Bridge mode and the speaker stopped working.

You need to check that the wiring is correctly connected to the phoenix connector and the speaker has an 8Ω rating. Speakers with less than an 8Ω rating can NOT be bridged.

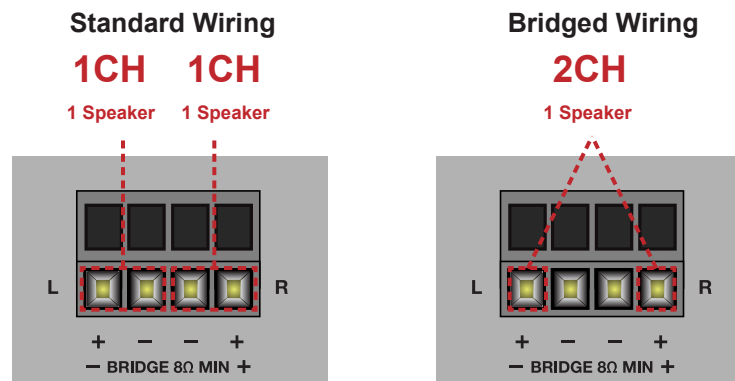
If your speakers are very loud and the IC-SUB-8 subwoofer is not:

You can turn the input gain on the speakers down and turn the input gain up for the subwoofer.

There is a delay of about 10 - 15 seconds to hear music from the time you hit play:

This happens because of amplifier standards we must be in compliance with. If you would like to avoid the delay you can leave the amp in "ON" mode. (when the D16 is not playing music for about 20 minutes it will automatically go into low power mode)

Impedance



SPEAKER IMPEDANCE	STANDARD WIRING	# OF CHANNELS
1 - 8Ω Speaker	OK	1
1 - 8Ω Speaker + 1 - 8Ω Speaker	OK	1
1 - 4Ω Speaker	OK	1
SPEAKER IMPEDANCE	BRIDGED WIRING	# OF CHANNELS
1 - 8Ω Speaker	OK	2
1 - Below 8Ω Speaker	NOT OK	2

Specifications



D16

- Class D Amp / 16 channel
- 8 Subwoofer RCA outputs
- 75W @ 8Ω all channels driven: Full power (20A residential service recommend)
- 150w @ 4Ω
- Bridge - 150w @8Ω (do not bridge under 8Ω, doing so will damage the amp)
- A & B bus: In and Out
- Line in per channel
- Gain knob per zone
- Stereo / Bridge switch per pair
- Removable rack ears: Fits 2U rack space
- THD < .9 @ 8Ω
- THD < 1% @ 4Ω
- Freq. Range : 20Hz – 20kHz
- Signal to Noise - > -90dB (A weighted at full output)
- Input voltage: AC-100-120V 60Hz / AC220-240V 50Hz Manual Switching
- AC fuse: Replaceable; T15AL 250VAC FOR 115VAC 60Hz, T10AL 250VAC FOR 230VAC 50Hz
- Weight: 35.15lbs
- Dimensions: H: 4.1" (105mm) x W: 16.8" (427mm) x D (with RCA ports):13.5" (343mm)

RCA (Subwoofer Out)

- Subwoofer out – (L & R signal summed per zone sent out from “RCA Sub Out” per zone)
- Crossover knob – adjustable from 40Hz to 140Hz
- Freq. Range – 40Hz to 140Hz



USER MANUAL

It is the policy of TRUAUDIO to continuously incorporate improvements into our products. All specifications are subject to change without notice. If you have any questions regarding this or any other TRUAUDIO products, please call 1-888-858-1555, Monday – Friday, 7:00 am – 6:00 pm MST.

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