



Dueta

Owner's Manual

972-312-9900
www.htd.com
info@htd.com

Safety instructions for the Dueta

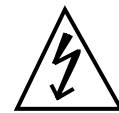
Warning - To reduce the risk of fire or shock, do not expose this appliance to rain or moisture.

Caution - To reduce the risk of fire or shock, do not remove the cover or back. No user serviceable parts inside.
Refer servicing to qualified service personnel.

Caution - To prevent electric shock, match wide blade of plug to wide slot, fully insert.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical 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 this appliance.



Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

Retain Instructions

The safety and operating instructions should be kept for future reference.

Heed Warnings

All of the warnings on the appliance and in the operating instructions should be adhered to.

Follow Instructions

All operating and use instructions should be followed.

Water and Moisture

The appliance should not be used near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

Ventilation

The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings. Never place the appliance in a confined space such as a bookcase, or built-in cabinet, unless proper ventilation is provided.

Heat

The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances that produce heat. Position the appliance at least 4" away from any heat-producing amplifier, including HTD amplifiers.

Power Sources

The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

Grounding or Polarization

Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

Lightning

Unplug this device during lightning storms.

Power Cord Protection

Route the power cord so that it is not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the plugs, receptacles, and the point where the cord exits from the appliance.

Cleaning

Unplug the appliance from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the appliance only.

Non-Use Periods

The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.

Object and Liquid Entry

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

Damage Requiring Service

The appliance should be serviced by qualified personnel when:

- a) the power supply cord or the plug has been damaged
- b) objects have fallen, or liquid spilled into the appliance
- c) the appliance has been exposed to rain
- d) the appliance does not appear to operate normally or exhibits a marked change in performance or
- e) the appliance has been dropped, or the enclosure damaged

Servicing

The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Product Servicing

If your system fails to operate properly, please contact HTD directly for further assistance at 972-312-9900.

Additional information, including detailed specifications for each model, can be found on our website, www.htd.com. Thanks again for choosing Home Theater Direct!

Warranty

All HTD electronics include a free two-year parts and labor warranty. Warranty registration occurred automatically at the time your order was placed. There is no need to complete or mail in additional paperwork.

Consignes de sécurité importantes

1. Lisez ces instructions.
2. Conservez ces instructions.
3. Respectez tous les avertissements.
4. Suivez les instructions.
5. Ne pas utiliser cet appareil près de l'eau.
6. Nettoyez uniquement avec un chiffon humide.
7. Ne pas obstruer les ouvertures de ventilation. Installer conformément aux instructions du fabricant.
8. Ne pas installer près de sources de chaleur telles que des radiateurs, registres de chaleur, poêles ou autres appareils (incluant les amplificateurs) qui produisent de la chaleur.
9. Ne pas contourner le dispositif de sécurité de la fiche polarisée type. Une fiche polarisée possède deux lames dont 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.
10. Protégez le cordon d'alimentation ne soit piétiné ou pincé, en particulier au bouchon, prises de courant, et au point où ils sortent de l'appareil.
11. Utilisez uniquement des fixations / accessoires spécifiés par le fabricant.
12. Utilisez seulement avec un chariot, un support, un trépied, une console ou table spécifié par le fabricant ou vendu avec l'appareil. Lorsque vous utilisez un chariot, soyez prudent lorsque vous déplacez l'ensemble chariot / appareil pour éviter les blessures en cas de chute.
13. Débranchez cet appareil durant les orages ou si inutilisé pendant de longues périodes de temps.
14. Confiez toute réparation à un personnel qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque façon que ce cordon d'alimentation ou la fiche est endommagé, du liquide a été renversé ou des objets sont tombés dans l'appareil, l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas normalement , ou s'il est tombé.

AVERTISSEMENT: Pour réduire le risque d'incendie ou un choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité. L'appareil ne doit pas être exposé au ruissellement ou aux éclaboussures et aucun objet rempli de liquide, comme des vases, ne doit être placé sur l'appareil



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Introduction to Dueta

Welcome to the HTD family! Dueta by HTD is the next generation of whole house audio distribution that will be enjoyed for many, many years to come!

The **HTD Dueta AMP** is a whole house audio distribution system that can independently distribute audio and POWER the speakers for the 6 “A” Rooms with the built-in 12-channel amplifier. It can be expanded up to 12 total zones by adding external amplification to power the additional “B” rooms!

The **HTD Dueta Controller** is a whole house audio distribution controller that has the same features that the Dueta AMP has to offer, but it requires external amplification which gives you the flexibility to choose a more powerful external amplifier that best suits your needs.

The Dueta AMP and Dueta Controller both have 6 source inputs, including 5 stereo 3.5mm analog inputs and 1 optical input. You can connect any audio source (i.e. audio streamers, televisions, record players, etc.) that have an audio output to these controllers. The Dueta systems allow you to listen to the audio from those sources in any rooms you want to hear them in and in any combination.

Both whole house audio systems can be controlled from any iOS and/or Android device using the HTD Dueta app! The Dueta app is extremely intuitive and user-friendly. It gives you complete command of every room in your home from the palm of your hand. The app is extremely customizable with options that are not offered with most whole house audio systems on the market.

Optional CP1 Control Pads that can be purchased separately for any rooms that you would like to control from an in-wall control pad. The CP1 control pads are very simple and user-friendly!

While the Dueta whole house audio systems are designed to install easily, you may have questions about your whole house audio system or just need some technical support. If you get through this manual and still need assistance, you are in great hands with HTD! Our expert customer support reps are available Monday through Friday from 8am to 6pm Central Time. Our office is located in Texas, and we are more than happy to assist you with any help that you may need! You can call us at **972-312-9900** during our normal hours of operation or send us an email at **support@htd.com**.

Important Warnings and Helpful Tips

1. We will refer to CAT cable throughout this manual. When we refer to CAT cable this refers to CAT5, CAT5e and CAT6 cables. You can use any of these cables with HTD whole house audio systems. However, do **NOT** mix them. You will use the same CAT cable for any devices connected to the Dueta systems.
2. Do **NOT** run any CAT cables for the Dueta system through patch panels. While patch panels can keep the wiring very organized, the Dueta systems are not just sending packets of data like network connections. We are sending power and audio over the CAT cables. Not all patch panels are compatible, so it is best practice to avoid running CAT cables for an HTD system through a patch panel.
3. The Dueta whole house audio systems have 6 source inputs that you can use. If you need to connect more than 6 audio sources to your whole house audio system, please contact HTD and we can give you guidance on what your best option would be.

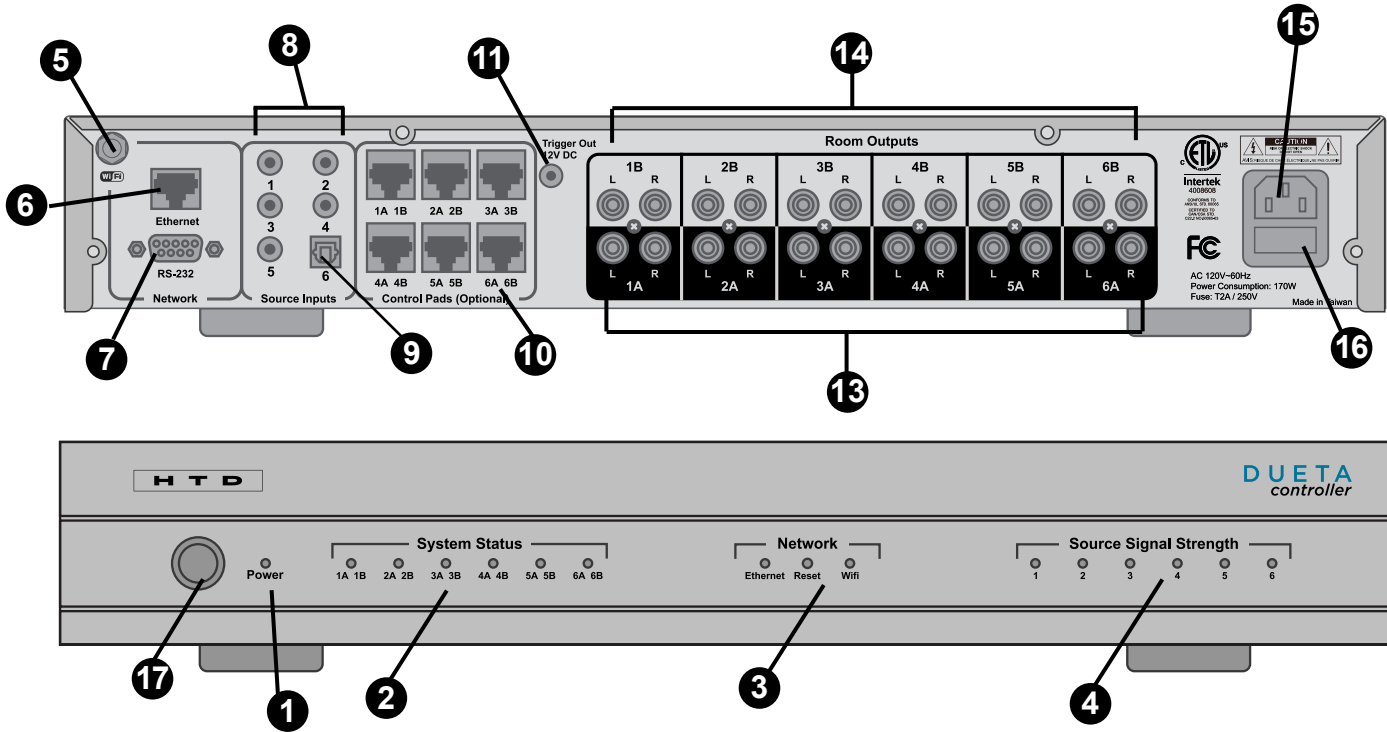
4. Do **NOT** connect any CAT cables while the controller is powered on. Always verify that the controller is powered off when making these connections.
5. **ONLY** terminate your CAT cables with the appropriate RJ45 tips for your specific CAT cable. Only connect the tips using the **568A** or **568B** standards. You **CANNOT** simply connect the 8 wires in the same order on both ends. Make sure that you follow the same standard for all of the CAT cable tips. Wiring the tips with different standards will result in erratic system behavior or make it malfunction completely.

NOTE: CAT Cable 568B is the most recent standard and most commonly used, so we encourage you to use the 568B standard instead of the 568A standard.

6. Do **NOT** connect speaker wires while the controller is powered on. Always ensure that the controller is powered off when making these connections.
7. Do **NOT** connect any **TRIGGER** cable while the controller or amplifier are powered on. Always ensure that BOTH the controller and amplifier(s) are powered off when making these connections. Making these connections while the units are powered on can reverse the trigger functionality or disable it altogether and is not covered under warranty.
8. If you are upgrading from an HTD Lync or MC/MCA whole-house audio system, you will **NOT** connect a gateway to the RS232 port. The gateway is built into the Dueta Amp/Controller.

Product Features

Dueta Controller

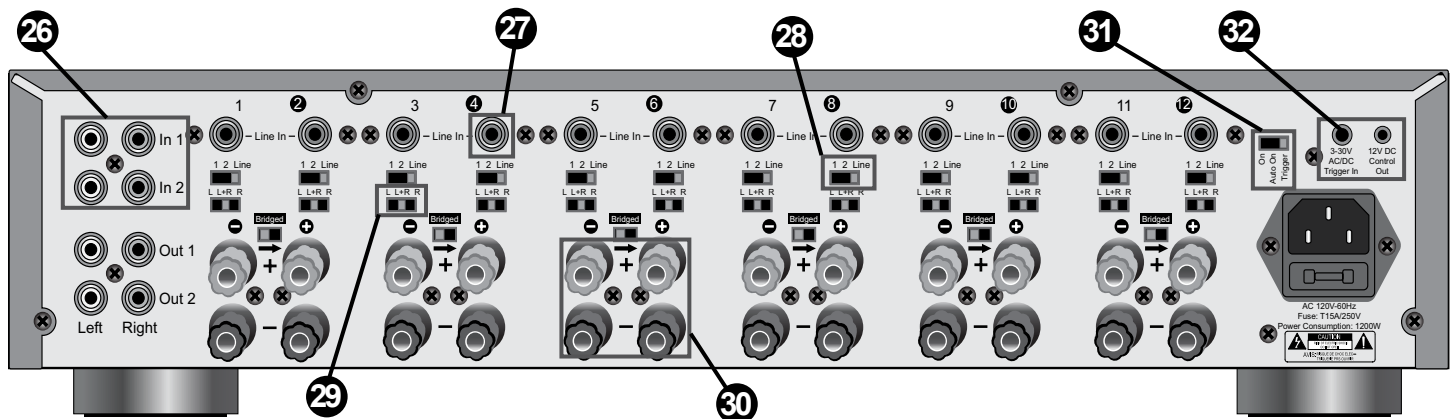


Included with Dueta

(6) Shielded Stereo Patch Cable (3 feet long)
(1) Power Cable

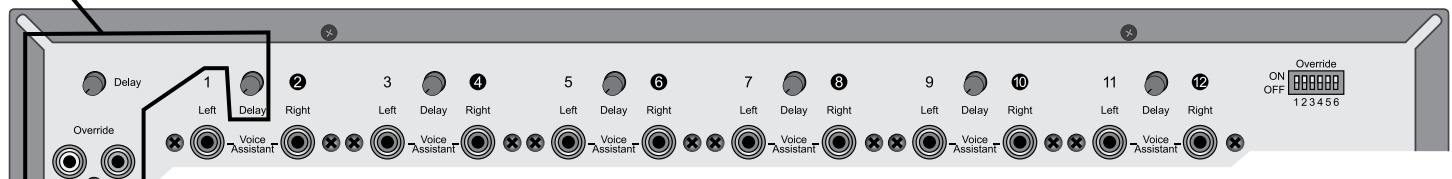
(1) 3.5mm to 3.5mm Trigger Cable
(1) 2.5mm to 3.5mm Trigger Cable

Amp Model DMA-1240 & DMA-1240ADS



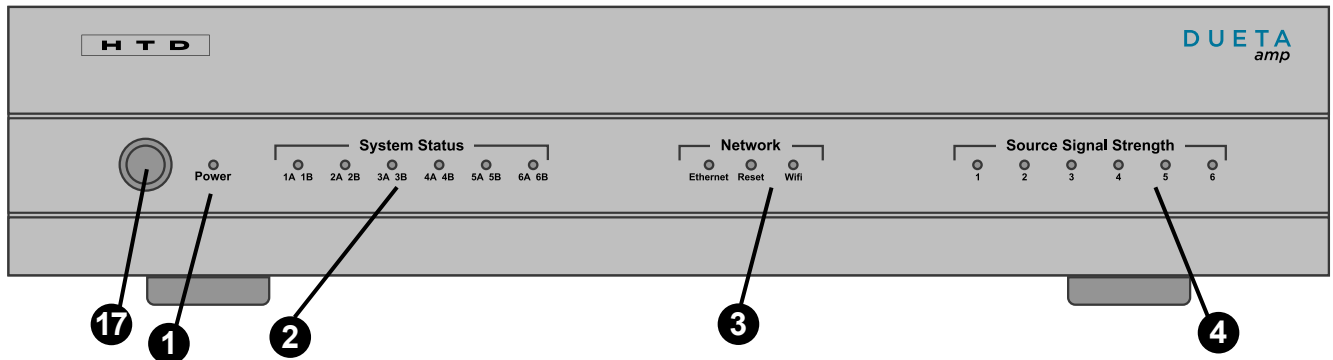
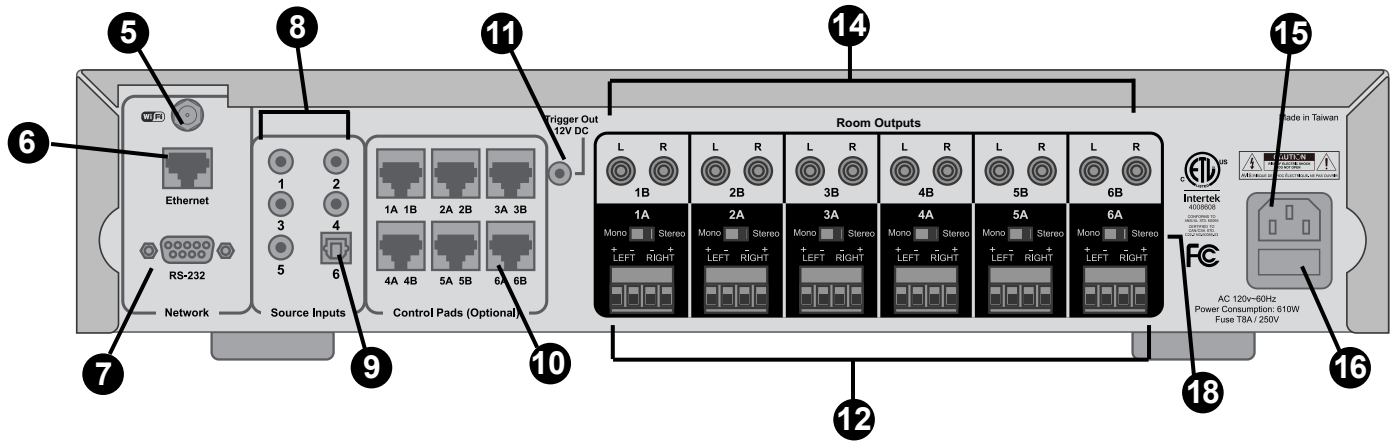
Model DMA-1240ADS ONLY

This section, found only in model DMA-1240ADS, includes inputs for devices like televisions, BTX, Echo Dot. These are used in addition to the typical amplifier connections shown on pages 11-12. See the amplifier owner's manual for details.



Product Features

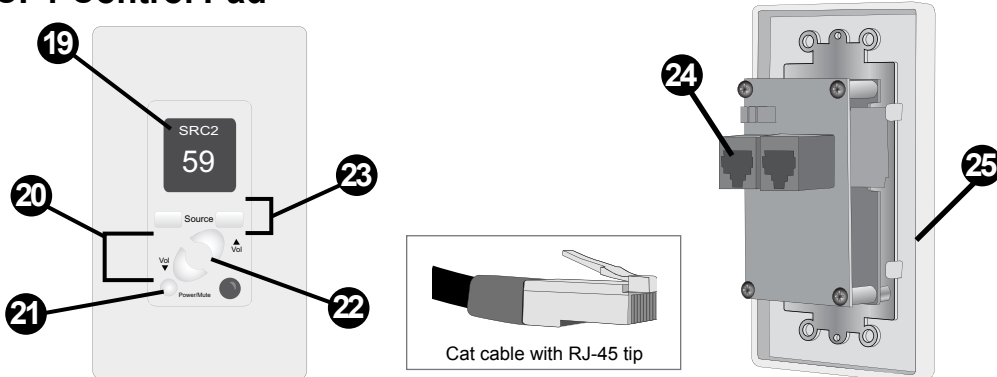
Dueta Amp



Included with Dueta Amp

- (6) Shielded Stereo Patch Cable (3 feet long)
- (1) Power Cable
- (1) 3.5mm to 3.5mm Trigger Cable

CP1 Control Pad



CP1 Control Pad is connected to the central Dueta system using Cat cable with RJ-45 tips at both ends. CP1 Control Pad is an active device that uses power supplied over Cat cable.

Product Features Descriptions

1. **Power Indicator Light:** If the power button is in the off position, you will not have a light on. If the Dueta device is powered on, but all zones are powered off, the light will illuminate a dim blue color. If all rooms on the Dueta device are powered off for 12 minutes, the light will turn an amber color. If you turn on a room, the light will illuminate a bright blue color.
2. **System Status Lights:** If both the “A” and “B” rooms are powered off, the light for those rooms will not be illuminated. When either the “A” or “B” room is powered on, the light will illuminate a bright blue color.
3. **Network Lights:** The ethernet light will illuminate a soft amber color when the Dueta controller is hardwired with an ethernet cable to your network router and has joined the network. The WiFi light will illuminate a soft amber color if you connect the Dueta controller wirelessly to your WiFi network.
4. **Source Signal Strength Lights:** These lights will blink a green color when the Dueta device receives an audio signal from an audio source connected to the Source Inputs on the rear panel. The stronger the audio signal the brighter the light will illuminate and the more rapid it will blink. If the light is not illuminated check that the source is connected and that the audio source volume is set to maximum volume.
5. **WiFi Antenna Connection:** If you are not able to hardwire a CAT cable from your network router to the Dueta device, you will connect the included antenna to setup the Dueta device on your WiFi network wirelessly with the Dueta app. (See Dueta App User Manual)
6. **Ethernet Port:** Connect a hardwire CAT cable from your WiFi network router to connect the Dueta device to your WiFi network for Dueta app control.
7. **RS232 Port:** This can be used to connect 3rd party home automation systems for simple integration.
8. **Analog 3.5mm Audio Source Inputs:** Connect analog audio source outputs to these inputs to input the audio into the Dueta device.
9. **Digital Optical Audio Source Input:** Connect an audio source with a digital optical audio output to this input to input the audio into the Dueta AMP/Controller.
10. **CP1 Control Pad RJ45 Ports:** Connect optional CP1 control pads in rooms, you will connect the CAT cables from the CP1 control pad locations to the appropriate RJ45 port.
11. **Trigger Output:** Used to trigger on and off an external amplifier.
12. **“A” Room Powered Amplifier Speaker Connections:** Speaker wires for the “A” Rooms will be connected to these speaker wire connectors (up to four 8-ohm speakers per connector).
13. **“A” Room Line Level Outputs:** Connect these outputs to an external amplifier(s) with RCA cables to use the “A” rooms.
14. **“B” Room Line-Level Outputs:** Connect these outputs to an external amplifier(s) with RCA cables to use the “B” Rooms.

Product Features Descriptions (cont.)

15. **AC Power Cord Connection:** You will connect the included power cable and plug it into your AC power outlet.
16. **Fuse Housing:** Included fuse that will break if there is an unexpected A/C power surge to the power module.
17. **Power ON/OFF Button:** Turn the controller/amplifier on and off.
18. **Mono/Stereo Switch:** Set “A” outputs to STEREO to output a stereo signal for dedicated right and dedicated left audio signals (ideal for most situations). Set to MONO to sum the left and right audio signals for unique speaker layouts.
19. **LCD Screen:** displays selected source, volume level, and setup menu options.
20. **Volume (up/down):** Used to adjust volume level. Also both buttons can be pressed simultaneously to enter setup mode.
21. **CP1 Power Button:** Powers the room on/off. Also for Mute and Power All Off.
22. **Back-lit, soft touch buttons:** Screen and buttons will remain lit for 30 seconds at which point the lights will extinguish until any button is pressed.
23. **Source buttons:** Used to select source and to change options in the setup menu.
24. **Two RJ45 connectors:** Use one for connecting Cat5e cable to controller. Optionally, use the other RJ45 connector to add a second control pad in the same zone.
25. **“Screwless” Decora style frame:** (included) snaps in place for a professional appearance.
26. **In 1 and In 2:** Typically used for whole house audio zones only when more than 4 speakers are required in a zone. Can also be used to add a subwoofer to a zone.
27. **Line In:** Typically used with whole house audio controllers.
28. **1, 2, Line Switch:** Set to Line unless using In 1 or In 2 (see #26)
29. **Left, Left + Right, Right Switch:** Set to Left, Left + Right, or Right using In 1 or In 2 (see #26). Switch position is irrelevant when “Line” (#28) is selected.
30. **Speaker Binding Posts:** Connect speaker wires ensuring that they are connected in the correct polarity, positive speaker wire to red positive binding post and negative speaker wire to negative binding post. Speaker wires can be stripped and connected “bare wire” or you can connect optional banana plugs to the speaker wires to easily connect them to the binding posts.
31. **On/Auto On/Trigger Switch:** When set to On, the amplifier will always remain powered on. When set to Auto On, the amplifier will go into sleep mode when an audio signal is not detected (typically only used when connecting an audio source directly to the amplifier). When set to Trigger, the amplifier will go into sleep mode when all rooms are powered off (**recommended** when connected to a whole house audio controller).

Product Features Descriptions (cont.)

32. Trigger In: when used, amp stays in sleep mode until a room is powered on.

33. Delay/Override Adjustments/Inputs: See the amplifier owner's manual for details.

Connecting the Dueta System

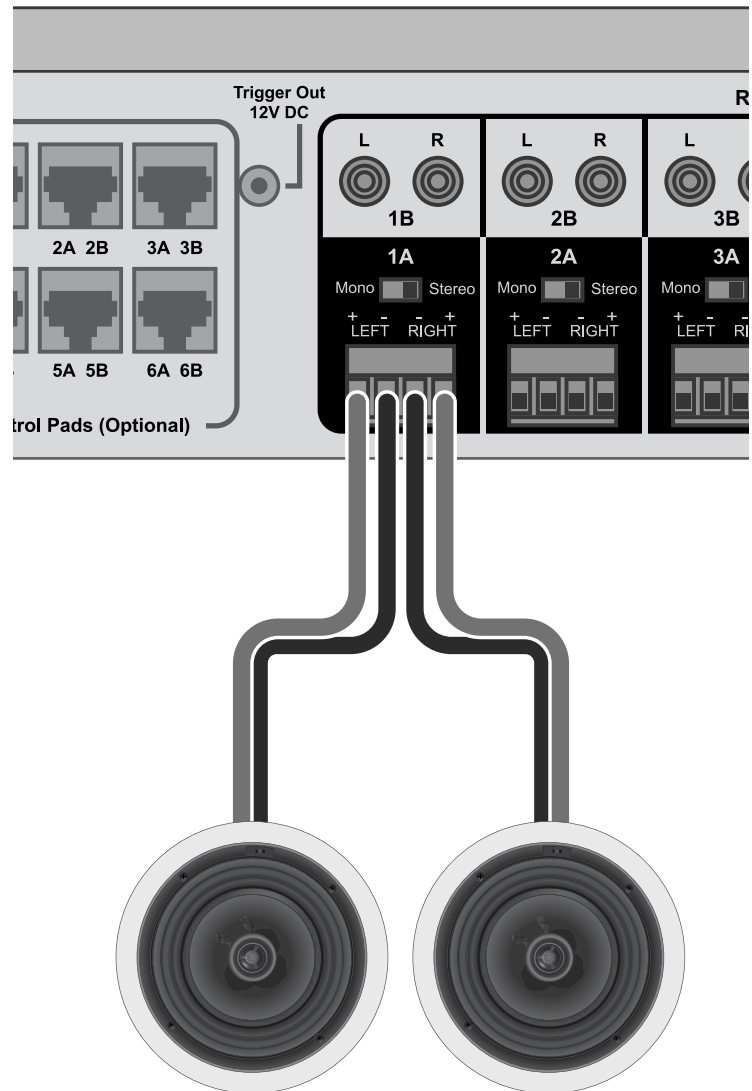
Connecting Speaker Wires for the “A” Room Amplifier channels on the Dueta AMP

Tools Needed:

- 1 small flat-head screwdriver
- Wire Strippers

Note: If you ran 2-conductor speaker wires, then you should have a red positive wire and black negative wire for each speaker. If you ran 4-conductor speaker wire, then the first speaker should have a red positive wire and a black negative wire. The second speaker will have a white positive wire and a green negative wire.

1. Verify that the Dueta AMP is powered off.
2. Identify the speaker wires for each of your rooms (hopefully they are labeled).
3. Strip ¼” of the outer sheathing on each of the speaker wires.
4. Twist the speaker strands so that they will easily slide into the green phoenix connectors.
5. Remove the phoenix connector from Room 1A.
6. Loosen all 4 of the screws on the top-side of the phoenix connector.
7. Locate the speaker wires for the first room that you want to connect. From left to right on the phoenix connector with the screws facing towards the ceiling.
8. Connect the first speaker positive (+) wire to the first speaker wire input and connect the first speaker negative (-) wire to the second speaker wire input.
9. Tighten both of the screws for this speaker wire to secure them to the phoenix connector.
10. Connect the second speaker negative (-) wire to the third speaker wire input and connect the second speaker positive (+) wire to the speaker wire input to the fourth speaker wire input.
11. Tighten both of the screws for this speaker wire to secure them to the phoenix connector.
12. Repeat these steps for Rooms 2A – 6A.



Connecting the Dueta System (cont.)

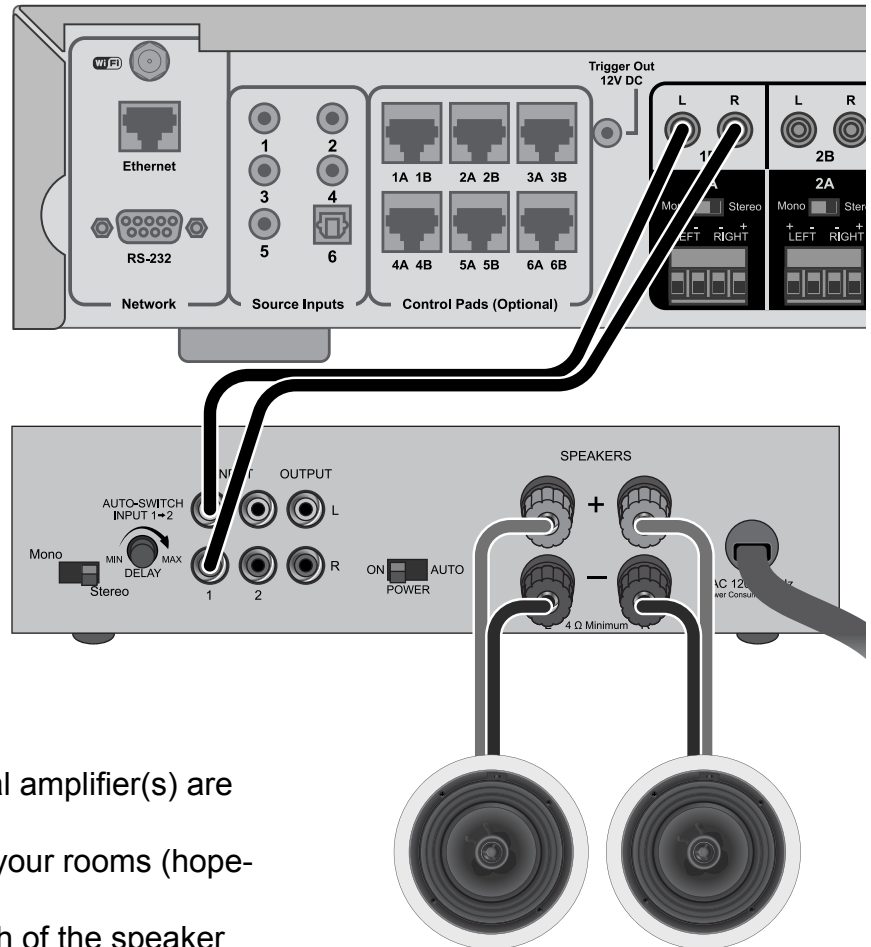
Note: Check all speaker wire connections to ensure that they are all secure and that you do not have exposed speaker wire strands touching each other or touching bare metal. This could cause the amplifier(s) to go into protection mode until the speaker wires are connected properly.

Connecting Speaker Wires for the “B” Room Outputs on the Dueta AMP

Tools Needed:

- Red and White RCA cables for each room you want to connect
- Wire Strippers
- OPTIONAL: Banana plugs

Note: An external 12-channel amplifier will be required if you are using all 6 of the “B” Rooms. If you are only using a couple of the “B” Rooms, you will need a 2-channel amplifier (i.e. SZA-1 amplifier or PLA-240ADS amplifier) for EACH “B” output that you use. If you purchase an external amplifier from HTD, we highly recommend purchasing banana plugs to make connecting speaker wires to the amplifier(s) very simple.



1. Verify that the Dueta AMP and external amplifier(s) are powered off.
2. Identify the speaker wires for each of your rooms (hopefully they are labeled).
3. Strip ¼" of the outer sheathing on each of the speaker wires.
4. Twist the speaker strands so that they will easily connect to the posts on the external amplifier.
5. Connect a red and white RCA cable to the “1B” output on the Dueta AMP.
6. Connect the red and white connectors on the other end of the RCA cable to the RCA inputs on the external amplifier.
7. Locate the speaker wires for the “1B” room that you want to connect.
8. Connect the first speaker positive (+) wire to the positive post on the external amplifier and connect the first speaker negative (-) wire to the negative post on the amplifier.
9. Tighten the positive and negative speaker wire posts to secure the speaker wires.
10. Connect the second speaker positive (+) wire to the positive post on the external amplifier and connect the second speaker negative (-) wire to the negative post on the amplifier.
11. Tighten the positive and negative speaker wire posts to secure the speaker wires.
12. Repeat these steps for Rooms 2B – 6B.

Connecting the Dueta System (cont.)

Note: Check all speaker wire connections to ensure that they are all secure and that you do not have exposed speaker wire strands touching each other or touching bare metal. This could cause the amplifier(s) to go into protection mode until the speaker wires are connected properly.

Connecting Speaker Wires for the “A” Room Outputs on the Dueta Controller

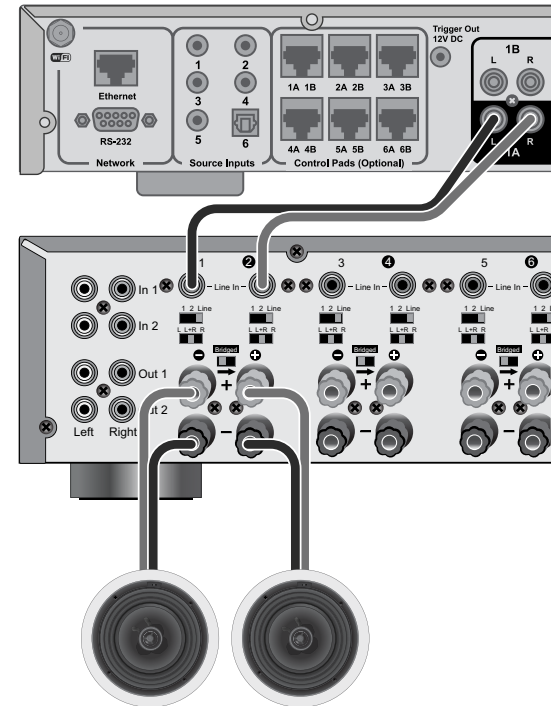
Tools Needed:

- Red and White RCA cables for each room you want to connect
- Wire Strippers
- OPTIONAL: Banana plugs

Note: An external 12-channel amplifier will be required if you are using all 6 of the “A” Rooms. If you are only using a couple of the “A” Rooms, you will need a 2-channel amplifier (i.e. SZA-1 amplifier or PLA-240ADS amplifier) for EACH “A” output that you use. If you purchase an external amplifier from HTD, we highly recommend purchasing banana plugs to make connecting speaker wires to the amplifier(s) very simple.

1. Verify that the Dueta Controller and external amplifier(s) are powered off.
2. Identify the speaker wires for each of your rooms (hopefully they are labeled).
3. Strip ¼” of the outer sheathing on each of the speaker wires.
4. Twist the speaker strands so that they will easily connect to the posts on the external amplifier.
5. Connect a red and white RCA cable to the “1A” output on the Dueta Controller.
6. Connect the red and white connectors on the other end of the RCA cable to the RCA inputs on the external amplifier (Line In for channels 1 & 2 if using an HTD 12-channel amplifier).
7. Locate the speaker wires for the “1A” room that you want to connect.
8. Connect the first speaker positive (+) wire to the positive post on the external amplifier and connect the first speaker negative (-) wire to the negative post on the amplifier.
9. Tighten the positive and negative speaker wire posts to secure the speaker wires.
10. Connect the second speaker positive (+) wire to the positive post on the external amplifier and connect the second speaker negative (-) wire to the negative post on the amplifier.
11. Tighten the positive and negative speaker wire posts to secure the speaker wires.
12. Repeat these steps for Rooms 2A – 6A.

Note: Check all speaker wire connections to ensure that they are all secure and that you do not have exposed speaker wire strands touching each other or touching bare metal. This could cause the amplifier(s) to go into protection mode until the speaker wires are connected properly.



Connecting the Dueta System (cont.)

Connecting Speaker Wires for the “B” Room Outputs on the Dueta Controller

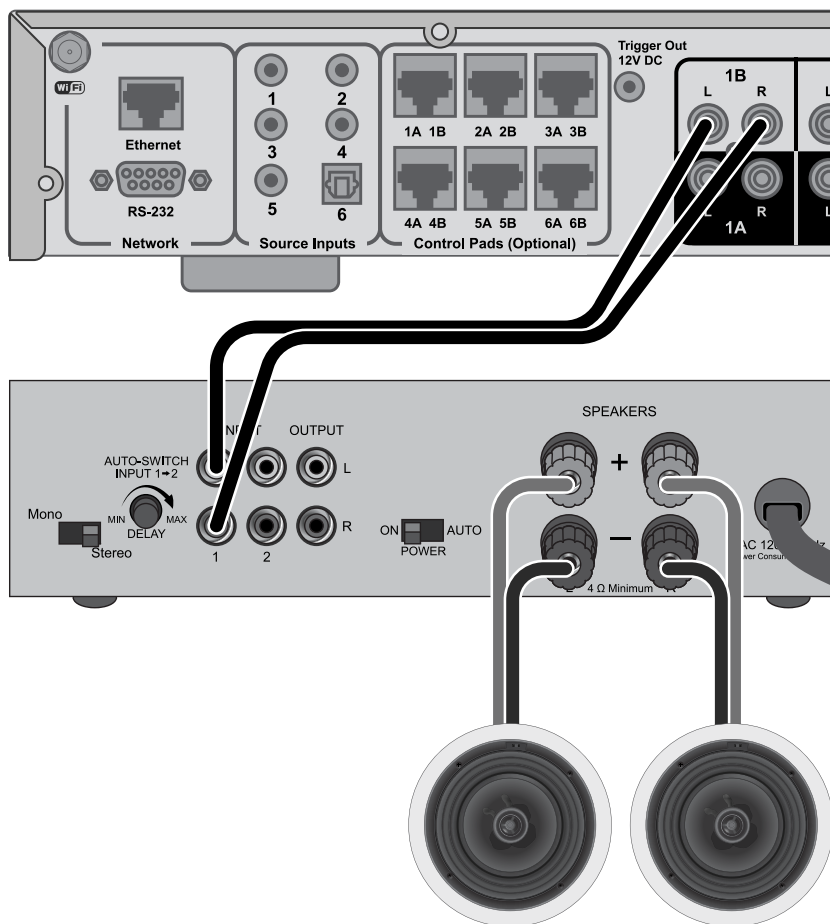
Tools Needed:

- Red and White RCA cables for each room you want to connect
- Wire Strippers
- OPTIONAL: Banana plugs

Note: An external 12-channel amplifier will be required if you are using all 6 of the “B” Rooms. If you are only using a couple of the “B” Rooms, you will need a 2-channel amplifier (i.e. SZA-1 amplifier or PLA-240ADS amplifier) for EACH “B” output that you use. If you purchase an external amplifier from HTD, we highly recommend purchasing banana plugs to make connecting speaker wires to the amplifier(s) very simple.

1. Verify that the Dueta Controller and external amplifier(s) are powered off.
2. Identify the speaker wires for each of your rooms (hopefully they are labeled).
3. Strip ¼” of the outer sheathing on each of the speaker wires.
4. Twist the speaker strands so that they will easily connect to the posts on the external amplifier.
5. Connect a red and white RCA cable to the “1B” output on the Dueta Controller.
6. Connect the red and white connectors on the other end of the RCA cable to the RCA inputs on the external amplifier.
7. Locate the speaker wires for the “1B” room that you want to connect.
8. Connect the first speaker positive (+) wire to the positive post on the external amplifier and connect the first speaker negative (-) wire to the negative post on the amplifier.
9. Tighten the positive and negative speaker wire posts to secure the speaker wires.
10. Connect the second speaker positive (+) wire to the positive post on the external amplifier and connect the second speaker negative (-) wire to the negative post on the amplifier.
11. Tighten the positive and negative speaker wire posts to secure the speaker wires.
12. Repeat these steps for Rooms 2B – 6B.

Note: Check all speaker wire connections to ensure that they are all secure and that you do not have exposed speaker wire strands touching each other or touching bare metal. This could cause the amplifier(s) to go into protection mode until the speaker wires are connected properly.



Connecting the Dueta System (cont.)

Connecting Dueta AMP/Controller to your home Wifi

The Dueta whole house audio systems will need network connectivity to control them using the Dueta app from an iOS and/or Android device.

Hardwire (Preferred)

Connect a CAT cable from your home's router/switch to the ethernet port on the back of the Dueta AMP/Controller. Follow the instructions in the Dueta App manual to connect the Dueta app to your Dueta system.

Wireless

Hardwiring the Dueta controller to your home's network router is preferred. However, in some cases, this is not always an option. Connect the included antenna to the antenna connector on the back of the Dueta AMP/Controller. Follow the instructions in the Dueta App manual to Wirelessly connect the Dueta system to your WiFi network. Follow the instructions in the Dueta App manual to connect the Dueta app to your Dueta system.

Connecting Trigger Cable from Dueta AMP to External HTD Amplifier

The Dueta AMP has a 3.5mm mono output to "trigger" on an external amplifier when a Room is powered on. This will ensure that an external amplifier will go into "Standby" mode when all Rooms are powered off. We include a 3.5mm to 3.5mm mono cable with all Dueta systems.

1. Verify that the Dueta AMP and external amplifier are powered off.
2. Connect the included 3.5mm to 3.5mm mono cable is connected to the port labeled "Trigger Out 12VDC" on the Dueta AMP.
3. Connect the other end of the trigger cable to the "3-30V AC/DC Trigger In" on the HTD 12-channel amplifier.
4. Set the switch to the left of the Trigger In port on the amplifier that is labeled "On", "Auto On" and "Trigger" to the "Trigger" position.

Connecting Trigger Cable from Dueta Controller to External HTD Amplifier

The Dueta Controller has a 3.5mm mono output to "trigger" on an external amplifier when a Room is powered on. This will ensure that an external amplifier will go into "Standby" mode when all Rooms are powered off. We include a 3.5mm to 3.5mm mono cable with all Dueta systems.

1. Verify that the Dueta Controller and external amplifier are powered off.
2. Connect the included 3.5mm mono cable to the port labeled "Trigger Out 12VDC" on the Dueta Controller.
3. Connect the other end of the trigger cable to the "3-30V AC/DC Trigger In" on the HTD 12-channel amplifier.
4. Set the switch to the left of the Trigger In port on the amplifier that is labeled "On", "Auto On" and "Trigger" to the "Trigger" position.

Connecting the Dueta System (cont.)

Connecting Trigger Cable from HTD 12-channel Amplifier to an additional HTD 12-channel Amplifier

HTD amplifiers have a special 2.5mm mono output to “trigger” on an additional HTD 12-channel amplifier when a Room is powered on. This will ensure that an external amplifier will go into “Standby” mode when all Rooms are powered off. We include a special 2.5mm to 3.5mm mono cable with all Dueta systems that include more than one 12-channel amplifier.

1. Verify that the Dueta Controller and external amplifier(s) are powered off.
2. Connect the included 2.5mm end of the mono cable port labeled “12V DC Trigger Out” on the first HTD 12-channel amplifier.
3. Connect the 3.5mm end of the trigger cable to the “3-30V AC/DC Trigger In” on the second HTD 12-channel amplifier.
4. Set the switch to the left of the Trigger In port on the amplifier that is labeled “On”, “Auto On” and “Trigger” to the “Trigger” position.

Connecting Audio Sources to Dueta Amp and Controller

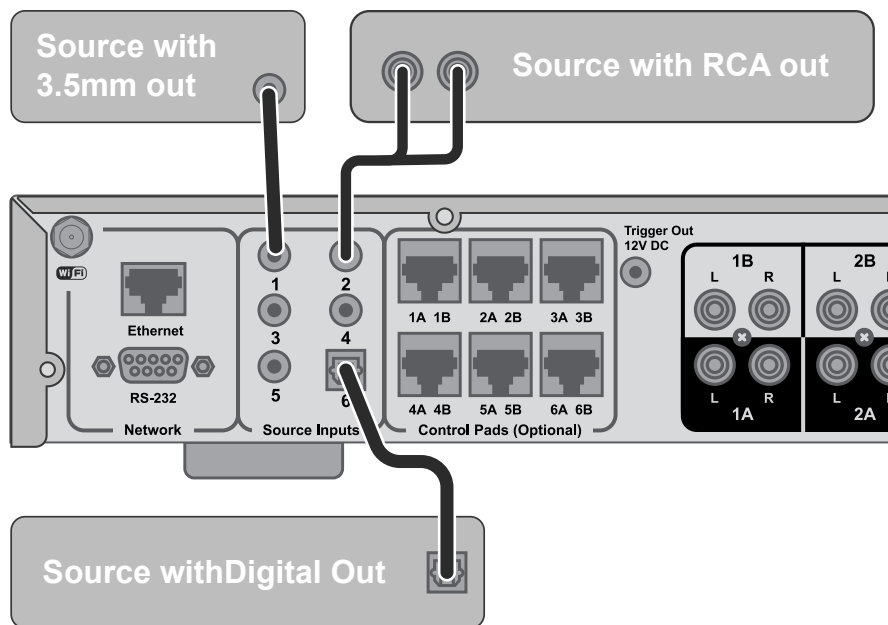
The 3.5mm stereo inputs can be used to connect audio sources with analog audio outputs. The digital optical input can be used to connect an audio source with a digital audio output.

If your audio source has a red and white RCA output, you will connect a cable with a red and white RCA connection on one end and a 3.5mm stereo connection on the other end. The RCA connection will connect to the audio source output and the 3.5mm stereo connection to the source inputs on the back of the Dueta systems.

If your audio source has a 3.5mm stereo audio output, you will connect a cable with 3.5mm connections on both ends. Connect one end of the 3.5mm cable to the audio source output and the 3.5mm stereo connection on the other end to the source inputs on the back of the Dueta systems.

If your audio source has a digital audio output, you will connect an optical cable between the source audio output and the Dueta digital input. Connect one end of the optical cable to the audio source output and the digital connection on the other end to the source input on the back of the Dueta systems.

Note: Always ensure that the volume of your connected audio sources are set to maximum volume for best results. If your audio source has a “fixed” audio output option, then you will enable the fixed volume output.



Connecting the Dueta System (cont.)

Note: Some audio sources have a lower audio output level than others. This can be frustrating when toggling between audio sources. A normal room volume level for one source may be very low volume for another audio source. HTD has an LGB-1 Line Gain Booster that you can purchase separately to boost the line-level audio output of source with lower audio output levels to match the audio output of your other sources.

CP1 Control Pads - Connection and Features

Wiring your home for “A” and “B” CP1 Control Pads

The Dueta Controller and Dueta AMP can be controlled using the Dueta app from any iOS and/or Android device. However, we do offer an optional in-wall control pad for those that would like to take advantage of the convenience of controlling a room from a dedicated control pad.

“Home Run” (Preferred)

When pre-wiring your home, the best option for wiring for the CP1 control pads is to run a dedicated CAT cable from the centrally located Dueta Controller/Dueta AMP location to EACH control pad. You will need a special 2-to-1 CAT Cable Adapter that we have available on our website. Running a dedicated CAT cable from the Dueta Controller/Dueta AMP location gives you the most flexibility for your home.

“Daisy-Chaining”

When pre-wiring your home, you can “daisy-chain” two CP1 control pads to each other. You will do this by running a CAT cable from the centrally located Dueta Controller/Dueta AMP location to the “A” CP1 control pad location. You will then run a CAT cable from the “A” CP1 location to the “B” CP1 location.

NOTE: When using CP1 control pads with the Dueta AMP, the “A” control pad will **ONLY** control the built-in amplification output. The “B” output controls the line-level RCA output that you will connect to an external amplifier. This means that the speakers for the “A” control pad will need to be connected to the green phoenix connector designated for that room.

Connecting the CP1 Control Pads

Before you connect your CP1 control pads, verify that the Dueta Controller/Dueta AMP is powered off. Ensure that the power button on the front of the unit is in the “out” position and the power light is not illuminated.

Connecting CP1 for “A” outputs only

If you are only using the “A” outputs, then simply connect the CP1 control pad for the dedicated output for each room. For example, you want Room “1A” to control your Kitchen speakers – you will connect the CAT cable from the Kitchen control pad location to the “1” ethernet port on the back of the Dueta Controller/Dueta AMP.

Connecting CP1 for “A” & “B” outputs (Homerun CAT cables)

There is a dedicated CAT cable run from the Dueta Controller/Dueta AMP location to the “A” and “B” room CP1 control pads. Consider which rooms you would like to be able to “LINK” together for convenience from the Dueta app. For example, you want for your Kitchen to be “1A” and your Dining Room

CP1 Control Pads - Connection and Features (cont.)

to be “1B”. Connect the CAT cables to one of the RJ45 ports on the CP1 control pads (either port will work). Connect the other end of those CAT cables to the 2-to-1 CAT cable adapter. Connect the RJ45 tip on the CAT cable adapter to the “1” ethernet port on the back of the Dueta Controller/Dueta AMP. Connect the end of the There are 2 black jumpers on the back of the CP1 control pads. Remove one of the black jumpers from one of the CP1 control pads. Leave both jumpers on the back of the other CP1 control pad.

Connecting CP1 for “A” & “B” outputs (Daisy-Chained CAT cables)

There is a CAT cable run from the Dueta Controller/Dueta AMP location to the “A” CP1 control pad and a CAT cable run from the “A” CP1 control pad to the “B” CP1 control pad. For example, you want for your Kitchen to be “1A” and your Dining Room to be “1B”. Connect the RJ45 tip on the CAT cable at the Dueta Controller/Dueta AMP location to the “1” ethernet port on the back of the unit. Connect the other end of the CAT cable to one of the RJ45 ports on the back of the “A” CP1 control pad (either port will work). Connect the CAT cable that is run from the “A” CP1 control pad to the “B” CP1 control pad to the second RJ45 port on the back of the “A” CP1 control pad. Connect the other end of that CAT cable to one of the RJ45 ports on the back of the “B” CP1 control pad (either port will work). There are 2 black jumpers on the back of the CP1 control pads. You will remove one of the black jumpers from one of the CP1 control pads. You will leave both jumpers on the back of the second CP1 control pad.

Setting up CP1 Control Pad(s)

Now that the CP1 pads have been properly connected, you are ready to start using them.

Powering on a CP1 Control Pad

Now that you have made the physical connections for the CP1 control pads, you can power on the Dueta Controller/Dueta AMP. The power button will be in the “in” position. When you turn on the Dueta Controller/Dueta AMP, the power light will quickly flash an amber color and then change to a dim blue light. You want to wait approximately 15 seconds before powering on a CP1 control pad. This allows the controller to complete the query of all the ethernet ports. You will then turn on one of the CP1 control pads. You will notice that the Dueta Controller/Dueta AMP power light is now a bright blue color and the System Status light for that zone will also be bright blue.

Naming Audio Sources

We have designed the CP1 control pads to be user-friendly and convenient for controlling an individual room. Before you start controlling your rooms with the CP1 control pads, you will want to make sure that you have at least one audio source connected to the Dueta Controller/Dueta AMP. Of course, you can connect up to 6 unique audio sources, and you will be able to listen to any of the connected audio sources in any zone.

Whether you have one audio source or 6 audio sources, you will want to give these sources unique names to make it easy to identify them when selecting which source you would like to listen to in a zone. You will be able to name your sources from in the Dueta app when you have connected it to your audio system.

The source names that appear on the CP1 control pads are limited to a maximum of 7 characters (including spaces). Here is an example of source names for 6 unique sources connected to your system.

CP1 Control Pads - Connection and Features (cont.)

Source 1: W Pro (WiiM Pro Audio Streamer)

Source 2: W Mini (WiiM Mini Audio Streamer)

Source 3: Record (Vinyl Record Player)

Source 4: LR TV (Living Room TV)

Source 5: BP TV (Back Porch TV)

Source 6: Sonos (Sonos Audio Streamer)

CP1 Control Pad Settings

The CP1 control pads are very convenient to use for powering rooms on/off, muting a room, adjusting volume and selecting the source you want to listen to in a particular room. In addition to those functions, you can personalize the settings for each CP1 control pad and the room audio settings. These adjustments can be found in the setup menu in the CP1 control pad. You can access these settings directly from the control pad by pressing and holding the VOLUME UP and VOLUME DOWN simultaneously for 1 second.

Assigning CP1 control pads for “A” and “B” Rooms

When using both the “A” and “B” outputs, you will need to assign the control pads to “A” or “B”. All CP1 control pads are assigned to the “A” room by default. You will need to assign the CP1 control pad for the “B” room. Do this by pressing and holding the VOLUME UP and VOLUME DOWN buttons on that CP1 control pad simultaneously for approximately 1 second. The screen will show an [A] and a B. You can release the volume buttons. To assign that CP1 control pad as the “B” room, you will tap on the VOLUME UP button one time. You will see that you now have an A and a [B] showing. You can tap on the power button to go back to the main screen or wait approximately 15 second and the screen will go into sleep mode. You have now assigned that CP1 control pad as the “B” room.

Adjusting Font Color

Enter the setup menu as mentioned above and then press the SOURCE UP button 1 time. This will land you on the Font Color setting. You can toggle through the 7 color options that are available by pressing the VOLUME UP or VOLUME DOWN button. When you have the desired font color selected, you can simply tap on the power button.

Adjusting Background Color

Enter the setup menu as mentioned above and then press the SOURCE UP button 2 times. This will land you on the Background Color setting. You can toggle through the 7 color options that are available by pressing the VOLUME UP or VOLUME DOWN button. When you have the desired background color selected, you can simply tap on the power button.

Operation Brightness

Enter the setup menu as mentioned above and then press the SOURCE UP button 3 times. This will land you on the Operation Brightness setting. This adjusts how bright the control pad screen is while in use. You can toggle through the 5 levels that are available by pressing the VOLUME UP or VOLUME DOWN button. When you have the desired brightness level selected, you can simply tap on the power button.

Standby Brightness

Enter the setup menu as mentioned above and then press the SOURCE UP button 4 times. This will land you on the Standby Brightness setting. This adjusts how bright the control pad screen is while in sleep mode. You can toggle through the 5 levels that are available by pressing the VOLUME UP or

CP1 Control Pads - Connection and Features (cont.)

VOLUME DOWN button. When you have the desired brightness level selected, you can simply tap on the power button.

Reset

Enter the setup menu as mentioned above and then press the SOURCE UP button 5 times. This will land you on the Reset setting. This can be used to reset the control pad settings back to the factory default settings. You can toggle between Yes and No by pressing the VOLUME UP or VOLUME DOWN button. If you decide to reset to factory settings, select yes and then you can simply tap on the power button.

CP1 Control Pad Functions

The CP1 control pads are very convenient to use for turning rooms on/off, muting a room, adjusting volume and selecting the source you want to listen to in a particular room. There are other features that are not as obvious.

Power Room On

Power on the CP1 control pad by simply tapping on the POWER button. This will power on the room that the control pad controls so that you can listen to audio.

Power Room Off

Power off the CP1 control pad after waking up the control pad by pressing any button on the CP1. Press and hold the POWER button for approximately 2 seconds. This will power off the room that the control pad is assigned to until you are ready to use the room audio again.

Power All Rooms Off

To easily turn off all the rooms from a CP1 control pad, simply press and hold the POWER button for approximately 4 seconds. This will power off all rooms. Note that the CP1 that you initiate this from will power off after 2 seconds. Continue to press the POWER button for an additional 2 seconds (4 seconds total) to power off all rooms.

Selecting a Source

Selecting a source that you would like to listen to in a particular room can be done by simply tapping the SOURCE UP or SOURCE DOWN button until you reach the desired source selection.

Adjusting Volume

Adjusting the volume level in a particular room can be done by simply tapping or pressing and holding the VOLUME UP or VOLUME DOWN button until you reach the desired volume level.

Mute Volume in a Room

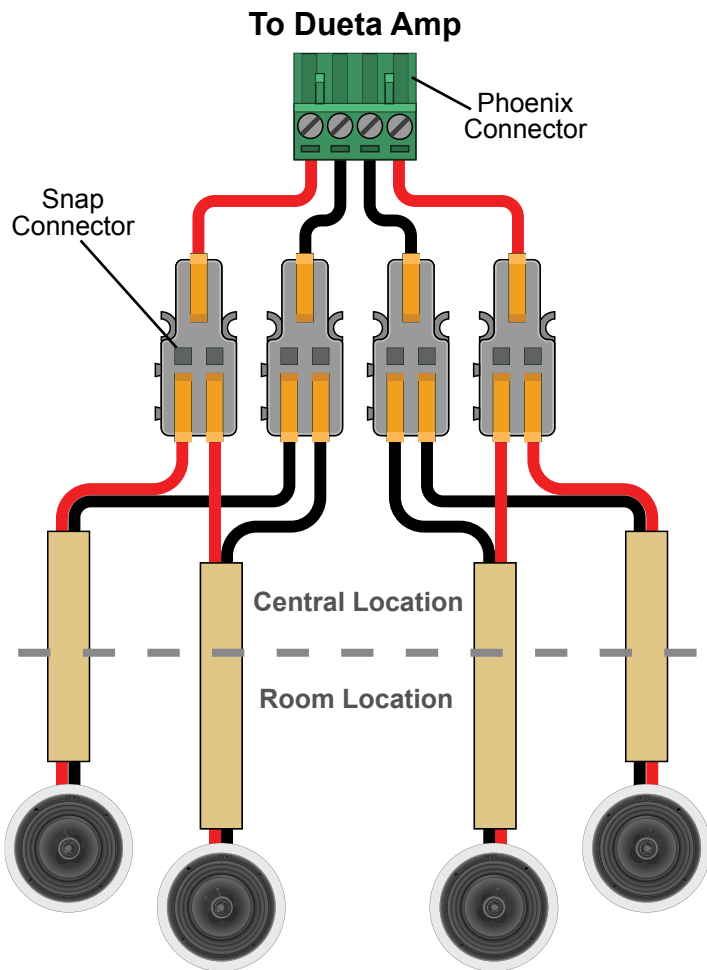
A room volume level can be muted from the CP1 by simply tapping on the POWER button. When you tap the POWER button once, the screen will display "MUTE" until you tap the POWER button again or adjust the volume level from the VOLUME UP or VOLUME DOWN buttons. Note that if the CP1 control pad is in sleep mode, you must wake up the control pad by pressing any button and then tap the POWER button to mute the volume in the room.

Connecting 4 Speakers to a Single Room

In larger rooms, it is common to install four speakers in a single zone. We recommend connecting the two left speakers to one amplifier channel and the two right speakers to the second amplifier channel. Several wiring methods will work, but the diagrams below illustrate our recommended approach.

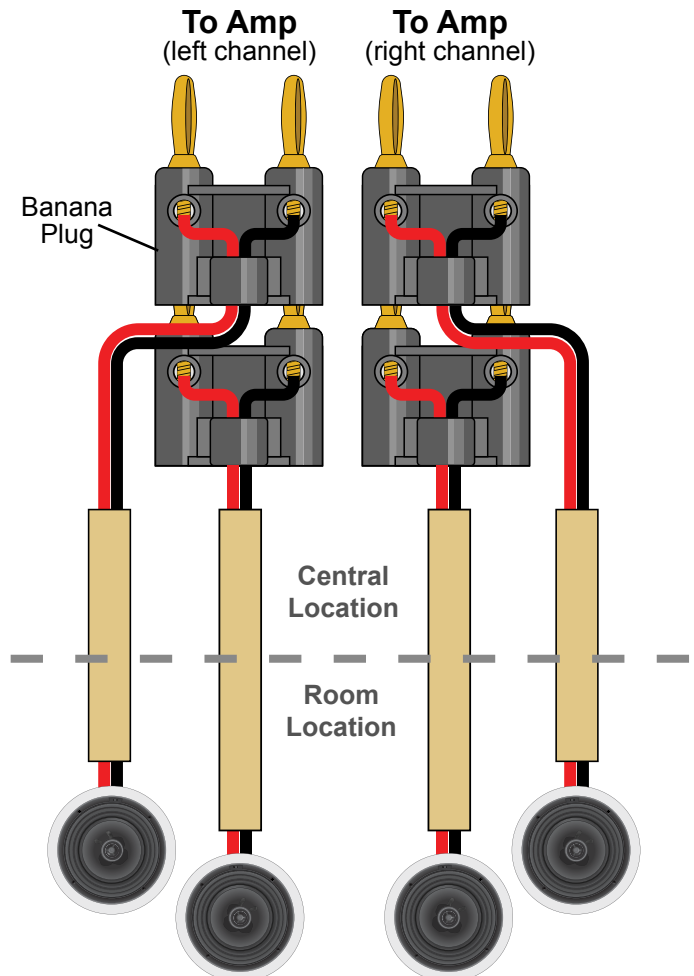
Dueta Amp Connections (Phoenix Terminals)

The Dueta Amp uses Phoenix-style connectors for speaker outputs. For a clean and reliable installation, we recommend using HTD Snap Connectors to combine the positive wires together and the negative wires together before inserting them into the Phoenix connector.



External Amplifier Connections (Banana Plugs)

Audio projects that utilize the Dueta Controller require an external amplifier. When using an external amplifier, it is best practice to use banana plug connectors when connecting to the amplifier's binding posts. Banana plugs provide a secure, professional-grade connection and make future service or adjustments much easier.



Splicing Two Speaker Wires Down To One

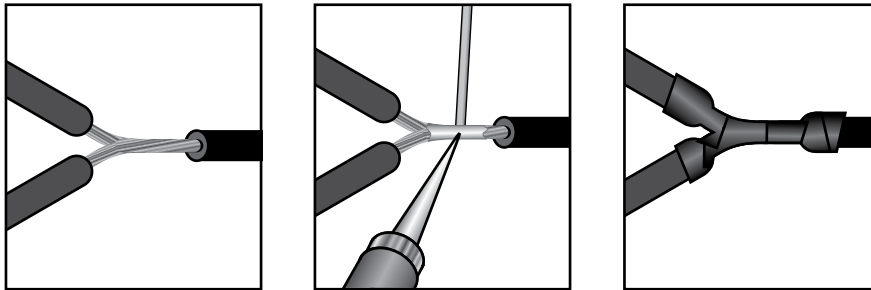
Sometimes it is necessary to connect two speakers to a single connector on an amplifier or volume control. This can be a challenge because, if you just twist the two bared ends of the wires together, the combined wire bundle is often too large to insert into the connector. You may experience just this issue if you are trying to connect more than one speaker to the green speaker connector used for the Dueta Amp.

A simple solution is to splice together the ends of the two wires, along with another single wire. Then you'll have a single wire for the connector on the amplifier or volume control.

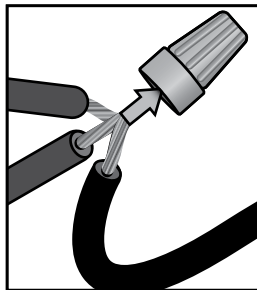
Steps for Splicing Wires:

1. Strip back about $\frac{1}{2}$ " – $\frac{3}{4}$ " of insulation on the ends of the two wires to be spliced together.
2. Strip back about $\frac{1}{2}$ " – $\frac{3}{4}$ " of insulation on the end of a 6"-10" single length of the same wire.
3. Twist the three bare wire ends together tightly.
4. Solder the twisted connection using electrical solder.
5. After the solder cools, wrap plastic electrical tape tightly around the splice.

Note: This example assumes the third wire extending in the opposite direction as the other two. That results in a slimmer, neater joint. Alternately, you could arrange all three wires side-by-side and twist them together.

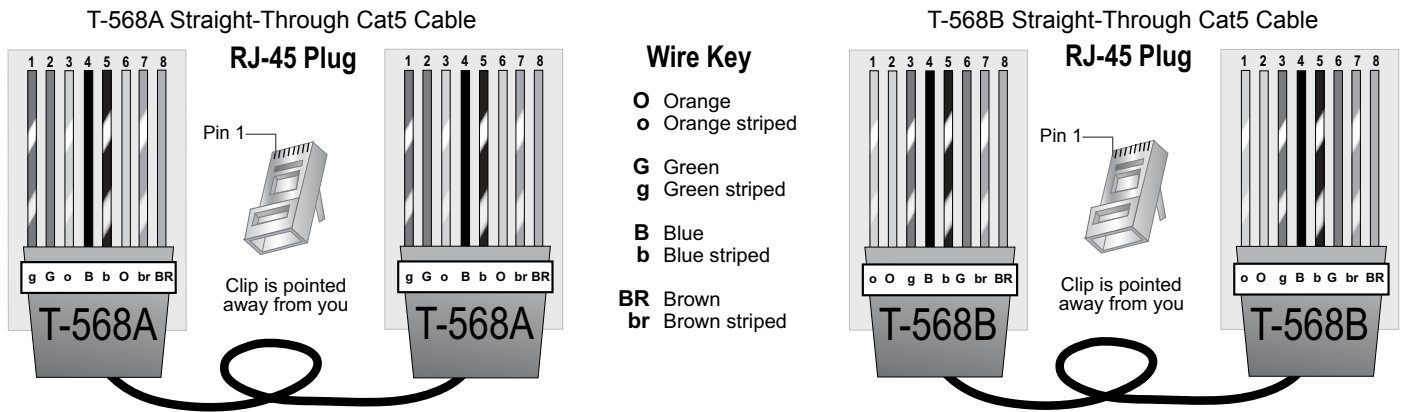


As a less desirable alternative to soldering, you could use one of the plastic “wire nuts” shown below.



Cat Cable and RJ-45 Plugs

After running Cat cable (Cat 5, Cat5e, Cat6) as needed for your installation, use a crimping tool to attach RJ-45 plugs at both ends. Always follow a standard T-568A (recommended) or T568B connection. **Make sure the same standard is used at both ends of the cable.** Never use a “crossover” cable where the two ends of the cable are wired differently.



Tips for Running Cat Cable and Connecting RJ-45 Plugs:

- Do not deform, do not sharply bend, do not stretch, do not staple, do not run parallel with power cables, and do not run Cat cables near noise inducing components.
- Leave at least 3 feet of extra cable at a CP1 Control Pad or source input panel location; 6 feet at the central location. Do not use a patch panel as they only create an opportunity for mis-wiring.
- If you are pulling cables through holes, it is easier to attach RJ-45 plugs after the cable is pulled.
- At the point where the cable attaches to the RJ-45 plug, no more than 1/2" of the Ethernet cable should remain untwisted otherwise it will be susceptible to crosstalk.
- Looking at the RJ-45 plug with the clip facing away from you, pin 1 is on the left and brown is always on the right.
- Odd numbered pins are always striped; even numbered pins are always solid colored.

Note: A short, pre-terminated Cat cable was included with your system. If you are experiencing an issue with a CP1 Control Pad or input panel, try taking that device to the central location and connecting it to the same zone using this cable. Turn off Power Button on front of Dueta Amp/Controller and leave powered off for 30 seconds. After 30 seconds, turn power button back on and wait 15 seconds before powering on a CP1 control pad. If the device functions correctly here but not within the zone, the most common issue is with one end of the long Cat cable being terminated incorrectly. If the problem persists after re-terminating both RJ-45 plugs, it is possible the Cat cable has somehow been damaged. Contact HTD for assistance.

Specifications:	Dueta Controller	Dueta Amp
Stereo Zones	12	12
Stereo Inputs (analog)	5	5
Stereo Inputs (digital)	1	1
Pre-amp outputs	12	6
Powered Amp Channels	N/A	12
8 ohms RMS Watts Per Channel	N/A	20
4 ohms RMS Watts Per Channel	N/A	30
Standby Mode	Y	Y
Dimensions (HxWxD)	3" x 17" x 10.75"	3.8" x 17" x 10.75"
Net Weight	9 lbs.	14 lbs.



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

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

H T D

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