



# ***INSTALLATION INSTRUCTIONS***

## **D5KP**

**DIGI-5 DDS Digital Distribution System  
OLED Keypad for 1-source and 4-source systems**

## Safety Information



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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) instruction in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## IMPORTANT SAFETY INFORMATION

**Read Information** — All the safety and operating information should be read before the appliance is operated.

**Follow Information** — All operating and use information should be followed.

**Retain Information** — The safety and operating information should be retained for future reference.

**Heed Warnings** — All warnings on the appliance and in the operating instructions should be heeded.

**Wall Mounting** — Mounting of this appliance should be done only by an authorized installer.

**Ventilation** — The appliances should be situated so that their location or position does not interfere with their proper ventilation. These appliances should never be placed near or over a radiator or heat register. These appliances should not be placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

**Non-Use Periods** — Appliances that are left unattended and unused for long periods of time should be de-energized.

**Grounding or Polarization** — Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one blade wider than the other blade. A grounding type plug has two blades and a third grounding prong. The polarized wide blade and the third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

**Power Cord Protection** — Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.

**Water** — Do not use the apparatus near water.

**Cleaning** — Unplug the apparatus from the power outlet before cleaning. Use only a dry cloth to clean the apparatus.

**Power Lines** — An outdoor antenna should be located away from power lines. When installing an outside antenna system, extreme care should be taken to avoid touching power lines or circuits, as contact with them may be fatal.

**Object and Liquid Entry** — Never insert objects of any kind through the openings of these appliances, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Care should be taken so that objects do not fall and liquids are not spilled into the appliance through openings in the enclosure.

**Servicing** — Do not attempt to service these appliances yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**Damage Requiring Service** — These appliances should be serviced by qualified service personnel when:

- A power supply connection or a plug has been damaged or
- If liquid has been spilled into the appliance or objects have fallen into the appliance or
- The appliance has been exposed to water or moisture or
- The appliance does not appear to operate normally or exhibits a marked change in performance or
- The appliance has been dropped or the enclosure damaged.

**Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards. The Master Control Unit battery should be replaced only after turning the power off and only by an authorized installer.

**Safety Check** — Upon completion of any service or repairs to this audio product, ask the service technician to perform safety checks to determine that the audio product is in proper operating condition.

**Lightning Storms** — Unplug this apparatus during lightning storms or when unused for long periods of time.

**Attachments and Accessories** — Use only attachments/accessories specified by the manufacturer.

**Cart, Stand, Tripod, Bracket or Table** — Use only with a 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.

**Disconnect Device** — Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain operable.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not in-stalled and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications not expressly approved by Xantech could void the user's authority to operate the equipment

### **Caring For the D5KP**

Clean only with a dry soft cloth.

It is important to properly care for your D5KP Keypad and Amplifier. Follow these guidelines to ensure your device is preserved and protected.

- Do not expose the D5KP to rain, liquids or moisture for an extended period of time.
- Do not expose the D5KP to temperature extremes.

### **Operating Temperatures & Environments**

Operating Temperature: 32-104°F (0-40° C)

Humidity: 0-90%

### **Precautions**

- Always exercise care when operating the D5KP Keypad and Amplifier.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- In the unlikely event that smoke, abnormal noise, or strange odor is present, immediately power the D5KP off. Please report the problem to your dealer immediately.

**Never attempt to disassemble the D5KP. You will lose any product warranty on the unit.**

## 1.0 Introduction

### Exceptional Performance

The D5KP is Xantech's Amplified OLED Controller for the D5SH, D5SH4, D5RH, and D5XH Digital Audio Hub. The D5KP is required to control each zone of a DIGI-5 Digital Distribution System. It provides Source Selection, Volume, Mute and Power control as well as control of all connected audio sources with its built-in IR receiver. Additionally, it provides amplification for the zone's speakers using an on-board 30 watts per channel Digital amplifier.

### About DIGI-5 Technology

DIGI-5 is a revolutionary new technology standard that provides a complete end-to-end digital audio solution over CAT-5 wiring. DIGI-5 is based on advanced digital distribution and amplification circuits that allow multi-room audio systems to be installed quickly and cost effectively.

DIGI-5 is a collaboratively developed technology that is licensed by the Linear Home Technology Group and is being initially integrated on a Linear group-wide basis, targeted to expand market and consumer acceptance of such systems.

### Features

- Vivid OLED Controller for Xantech's DIGI-5 Digital Delivery System
- Built-In Digital Amplifier – 30 Watts per Channel
- Simple, Easy to Read OLED
- Includes Screw-less Wall Plate (white)
- Quick Plug and Play Installation – No PC Software Programming Required
- Built-In IR Receiver for System and Audio Source Control
- Companion D5IP Source Input Wall Plate (Sold Separately) Allows for Connection of In-Room Audio Sources such as MP3 or Gaming System Players

### D5KP Accessories

- D5PS Digital Audio Power Supply (required only with D5SH or D5SH4)
- D5SH 1 Source, 4 Zone Structured Wiring Hub (required distribution hub)
- D5SH4 4 Source, 4 Zone Structured Wiring Hub (required distribution hub)
- D5RH 4 Source, 4 Zone Rack Mount Hub (required distribution hub)
  - Note: This manual will reference connection to the D5RH only.
- D5XH 4 Source, 6 Zone Rack Mount Expansion Hub (optional)
- D5IP Source Input Wall Plate (required)
- D5MR Slim-line IR Remote
- D5LR Learning Remote Control
- D5KCK Keypad Color Kit (contains almond, ivory, and black)

## Defining Terms

### Zone

A Zone is defined as an area of the house that has separate source selection capabilities from all other areas of the house. Typically, a zone is comprised of a single room, but it is possible for a zone to spread across multiple rooms (kitchen/dining room, master bedroom/master bath) or for multiple zones to be contained in one room (game room/bar area or multiple zones in the yard).

### Local Source / Source

A Source is any audio (or audio/video) device that is connected to the D5RH source input. Any Source can be heard in any zone in the system.

## 2.0 System Design Overview/Applications

### Planning

Before installing the D5KP, it is essential to have a detailed and accurate system design. The first step to a good design is to map the system. It is advisable to mark up a copy of the house floor plan with speaker, keypad and equipment locations, etc. Make sure that all locations are decided upon before pre-wiring so that all necessary wiring and installation hardware is in place.

It is essential that ALL system components are accounted for prior to the pre-wire stage. After establishing design goals, make a detailed list of all components. Include source equipment, keypad, expansion hubs, local source wall plates, IR emitters, etc.

### Pre-Construction

In a pre-construction installation, walls and ceilings are open with no drywall installed. This is desirable and allows the installer greater access than in retro-fit applications. Before actually running any wire or cable, take the time to look around each room or area of the house and plan your wire paths for maximum efficiency. Look for routes through uncluttered parts of the stud wall or ceiling that allow you to group all low-voltage (video, speaker wires, CAT-5, telephone, etc.) wires wherever possible. It is a good practice to label both ends of all cables and to protect wires by tying a plastic bag over the ends.

Note: Do not run low-voltage wires closer than 12" from high-voltage wires. If necessary, cross low-voltage wires at a 90° angle to prevent interference.

### Retro-Fit Wiring/ Post Construction

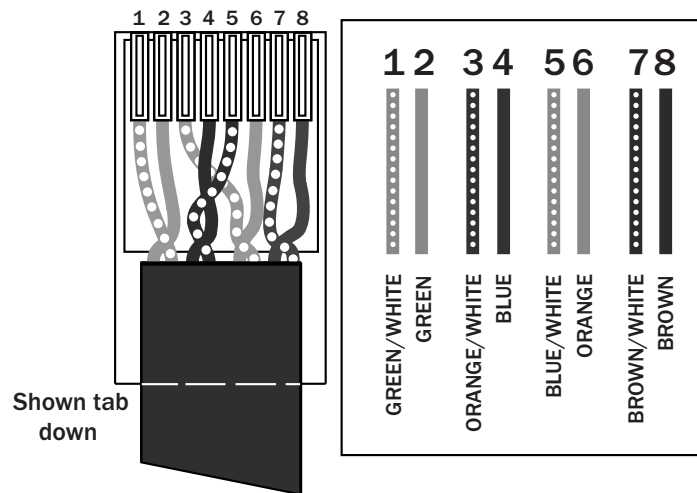
Retro-fit installations are more difficult to complete than pre-construction because walls and ceilings are intact. Typically wires must be fished into position through walls, floors and ceilings. Holes must be cut; speakers mounted directly in the ceiling or walls with no rough-in brackets and keypads and local source wall plates must be mounted in existing drywall.

## Pre-Wiring

### D5RH and D5SH, D5SH4 Digital Audio Distribution Hub to D5KP Amplifier Keypad

The D5SH4 and all associated components are wired using CAT-5 terminated to the T-568A Wiring Standard (Figure 2.1). When pre-wiring, run lengths of CAT-5 from the pre-determined R5RH and D5SH, D5SH4 Digital Distribution Hub location (the “head-end”) to each Amplifier Keypad location. The CAT-5 routes all audio, power, IR and status information needed for full system operation. Use a 110 Punch-down tool to connect the CAT-5 wiring to the Digital Audio Distribution Hub.

Note: For maximum performance over long runs (more than 150 ft) run an additional 16AWG 2-conductor wire for external power.



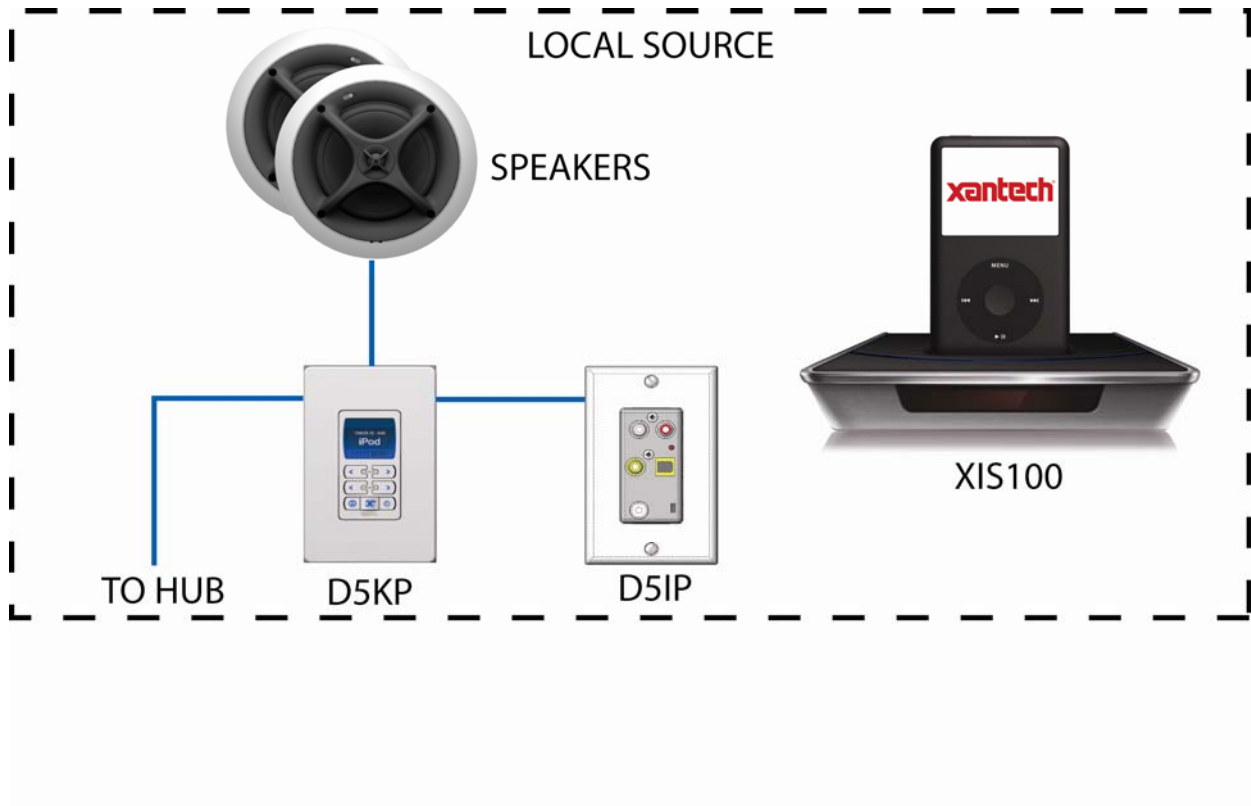
**Figure 2.1: T-568A Wiring Standard**

### D5KP Amplifier Keypad to Speakers

Run 16AWG 2-conductor stranded copper speaker wire between the D5KP Amplifier Keypad locations and speaker locations.

## D5IP Local Sources to the D5KP Amplifier Keypad

Local sources are only available within the area that they are installed. They will not be available to other areas of the house as they are not distributed by the D5RH, D5SH, or D5SH4. Run lengths of CAT-5 from any local (in-room) source to the Amplifier Keypad located in that area. The D5KP must be connected to an external power supply or a distribution hub (for power).



## D5KP - FRONT

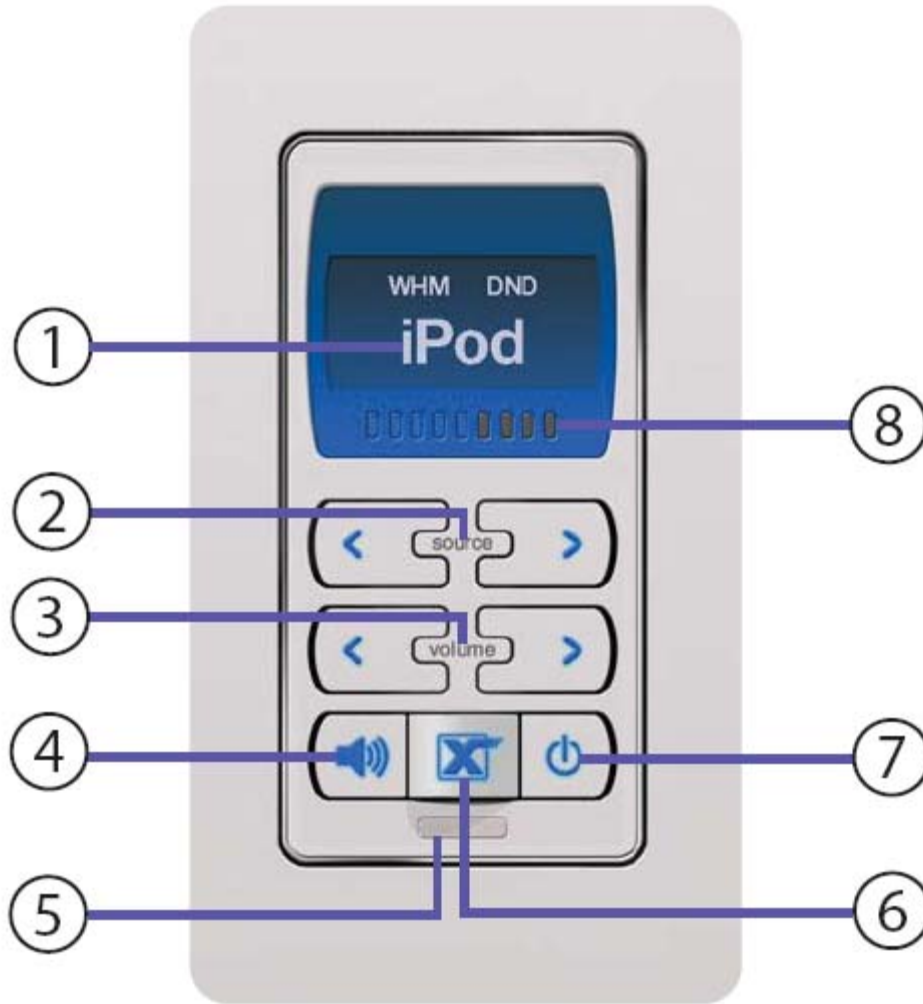


Figure 2.1: Front of D5KP Keypad

ITEM	DESCRIPTION
1	OLED Screen
2	SOURCE Selection
3	VOLUME Selection
4	MUTE Button
5	IR 'Eye'
6	MAIN Button
7	POWER Button
8	VOLUME BAR Indicator

# D5KP - REAR

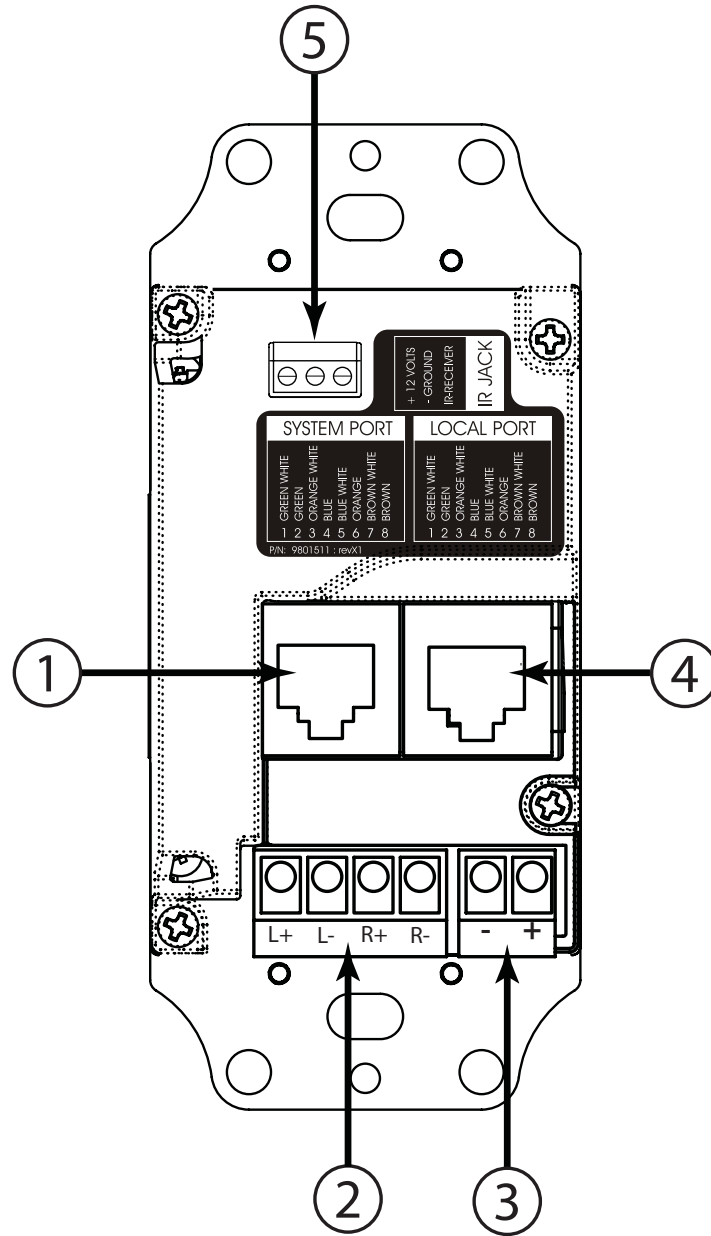


Figure 2.2: Front of D5KP Keypad

ITEM	DESCRIPTION
1	SYSTEM RJ-45 Port
2	Speaker Output Connector
3	AUX Power Connector
4	LOCAL RJ-45 Port
5	External IR Input Jack

## Installation

The D5KP is designed to mount in a standard single-gang rough-in box (J Box). Typical mounting height is 56-60" from the floor to the bottom of the frame. This provides optimum viewing for the largest number of people.

Note: Do not mount the D5KP in the same rough-in box as high voltage devices such as electrical outlets or switches.

After running CAT-5 and terminating the ends, route the wires from the D5RH, D5SH, or D5SH4 and D5IP (if applicable) into the back of the rough-in box, then connect them to the appropriate RJ-45 connectors on the rear of the D5KP. Connect all 16 AWG 2 conductor speaker wires. If using an IR Receiver, strip the ends of three conductors of the CAT-5 and insert into the screw terminals of the IR Input Jack. Specific connections are detailed in the Connections section.

Once connections are made, mount the D5KP in to the rough-in box using the 2 provided screws. Mount the Trim Plate Bracket as shown in the figure below, and then snap the Screw-less Trim Plate in place.

Make sure that the arrows on both the Trim Plate Bracket and the Trim Plate are pointed UP.

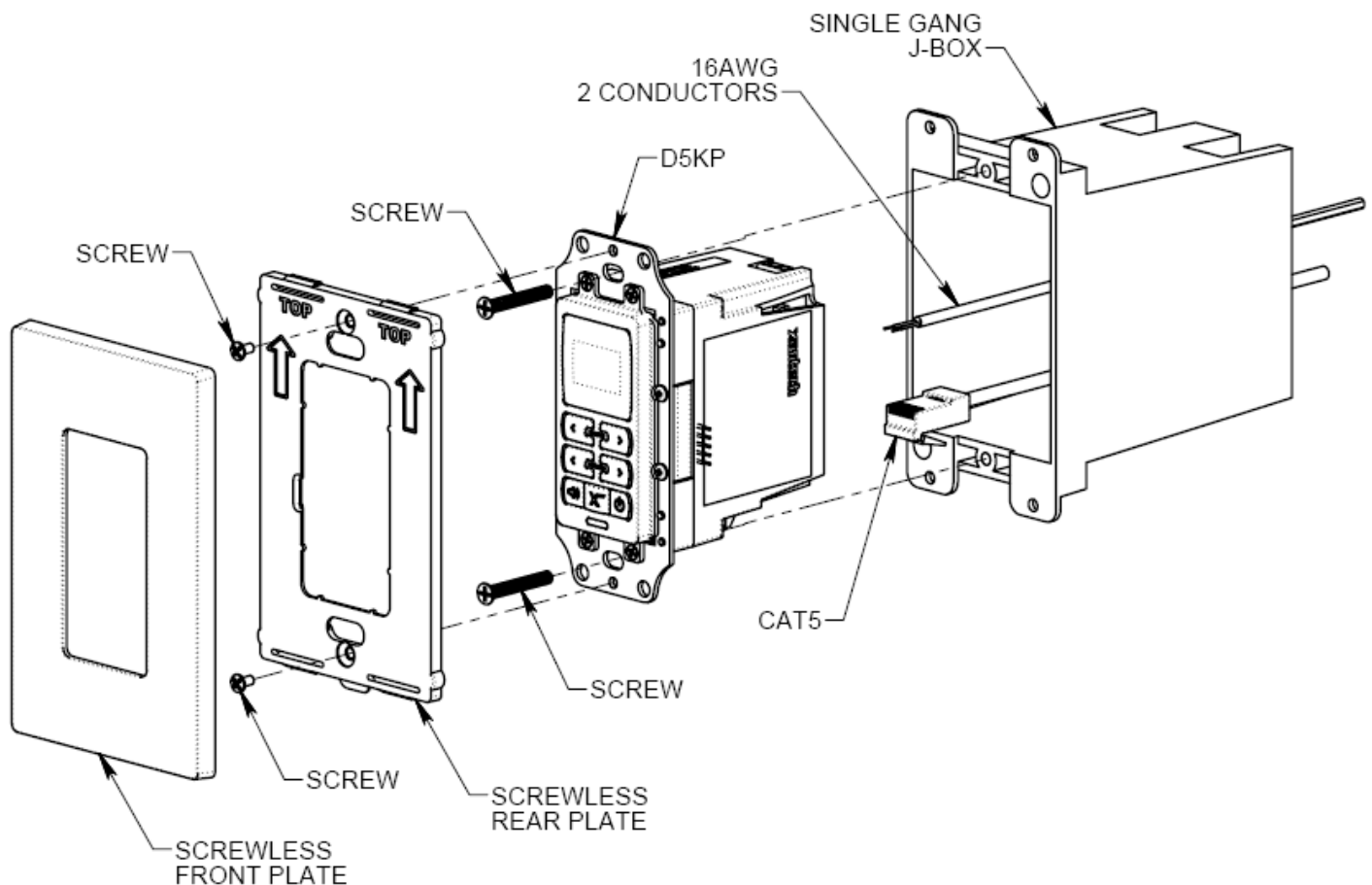


Figure 2.3: D5KP Keypad Installation

### 3. Connections

#### ZONE OUT – D5RH

The 'ZONE OUT' RJ-45 connector's interface with D5KP Amplified Keypad through CAT-5 cables wired to the T-568A Standard. These connectors carry IR information from the keypad as well as audio information to the D5KP Amplifier Keypad. Status information is also carried between the D5RH chassis and the Amplifier Keypads. While a great deal of information is handled by the 'ZONE OUT' connections, the connections are straightforward. Simply connect CAT-5 cables terminated to the T-568A configuration (Figure 2.0) from each Amplifier Keypad to the corresponding 'ZONE OUT' connector as shown in Figure 3.0.

**Note:** For wire runs up to 150', the CAT-5 connections are all that is necessary. For wire runs over 150', use the AUX POWER OUT connectors as described in the section entitled Auxiliary Power Connector (AUX POWER OUT).

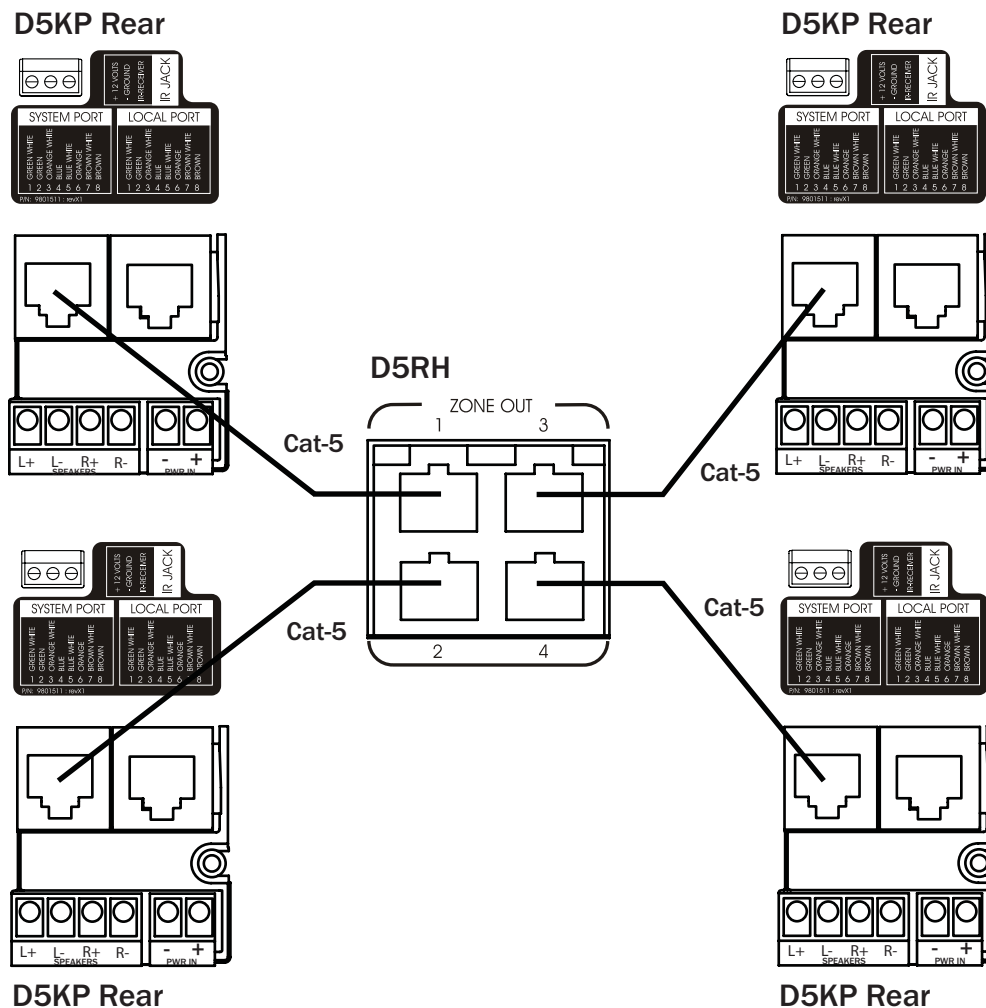
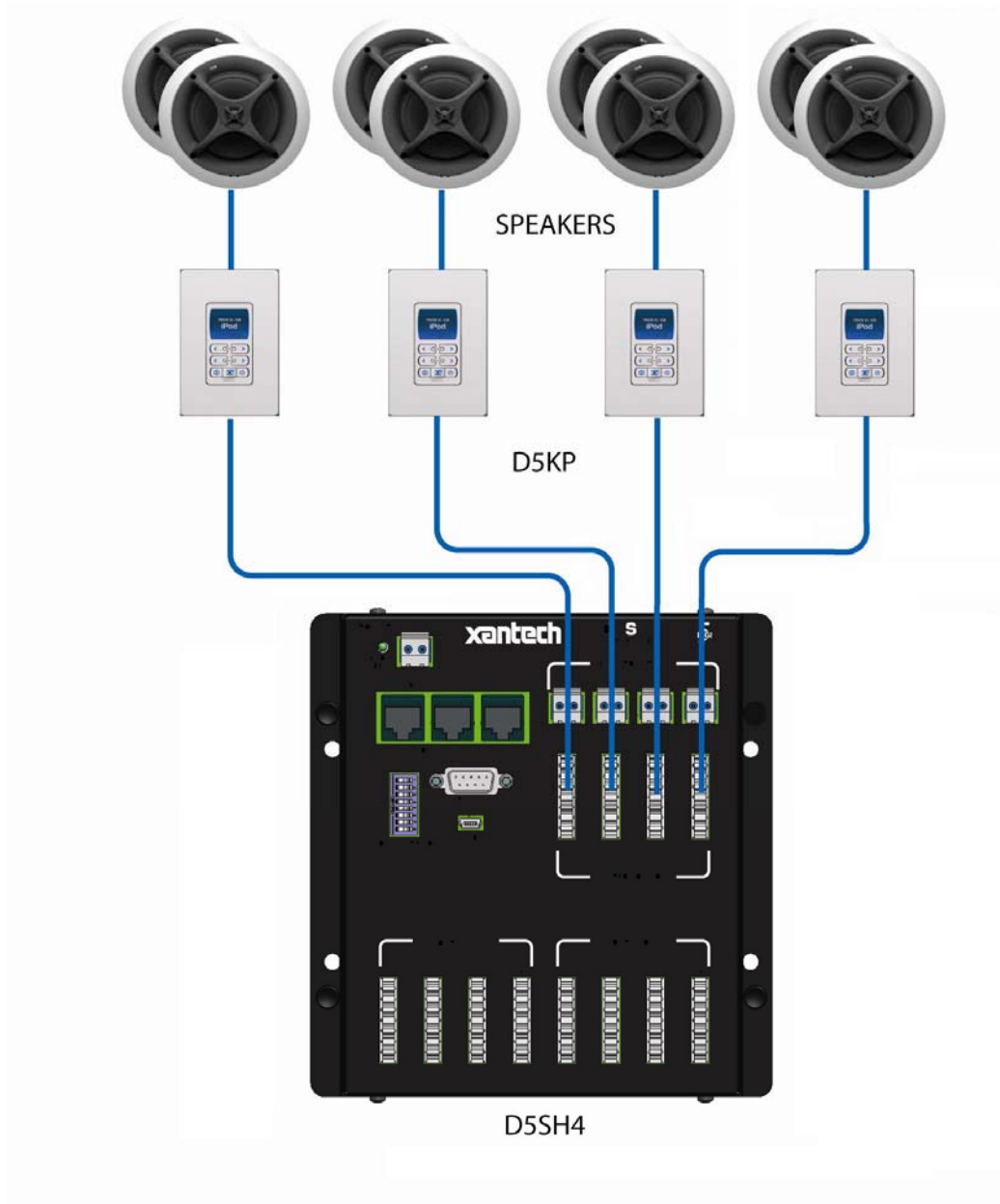


Figure 3.0: ZONE OUT Connections

## ZONE OUT – D5SH, D5SH4

The 'ZONE OUT' RJ-45 connector's interface with D5KP Amplified Keypad through CAT-5 cables wired to the T-568A Standard. These connectors carry IR information from the keypad as well as audio information to the D5KP Amplifier Keypad. Status information is also carried between the D5SH, D5SH4 chassis and the Amplifier Keypads. While a great deal of information is handled by the 'ZONE OUT' connections, the connections are straightforward. Simply connect CAT-5 cables terminated to the T-568A configuration (Figure 2.0) from each Amplifier Keypad to the corresponding 'ZONE OUT' connector as shown in Figure 3.0.

**Note:** For wire runs up to 150', the CAT-5 connections are all that is necessary. For wire runs over 150', use the AUX POWER OUT connectors as described in the section entitled Auxiliary Power Connector (AUX POWER OUT).



## Auxiliary Power Connector (AUX POWER OUT) – D5RH and D5SH, D5SH4

For wire runs over 150', it is recommended to run an additional 16 AWG/2-conductor wire from the head-end location to the Amplified Keypad locations. This will allow the AUX POWER OUT terminals to supply additional power to the Amplifier Keypads to compensate for the additional distance. For wire runs over 300', 16 AWG/2 conductor wire is required. The maximum wire run using CAT-5 and 16 AWG/2-conductor is 600'. Make all connections between the D5RH and the D5KP Amplifier Keypad as previously described, then make the aux power connections described below.

To make connections:

- 1 Ensure that system power is OFF!
- 2 Strip the ends of the 16 AWG wire 1/4" on both ends of the wire run.
- 3 Remove the terminal strip from the AUX POWER OUT connector on the D5RH or D5SH, D5SH4.
- 4 Loosen the screws for the appropriate zone's terminal pairs on the terminal strip.
- 5 Insert the wires into the terminal strip, paying close attention to polarity (+/-).
- 6 Tighten the screws on the terminal strip.
- 7 Remove the terminal strip from the PWR IN connector of the D5KP.
- 8 Loosen the screws on the D5KP's PWR IN terminal.
- 9 Insert the wires into the terminal, paying close attention to polarity (+/-).
- 10 Tighten the screws on the D5KP's PWR IN terminal.
- 11 Connect the terminal strip back onto the AUX POWER OUT connector on the D5RH or D5SH, D5SH4.

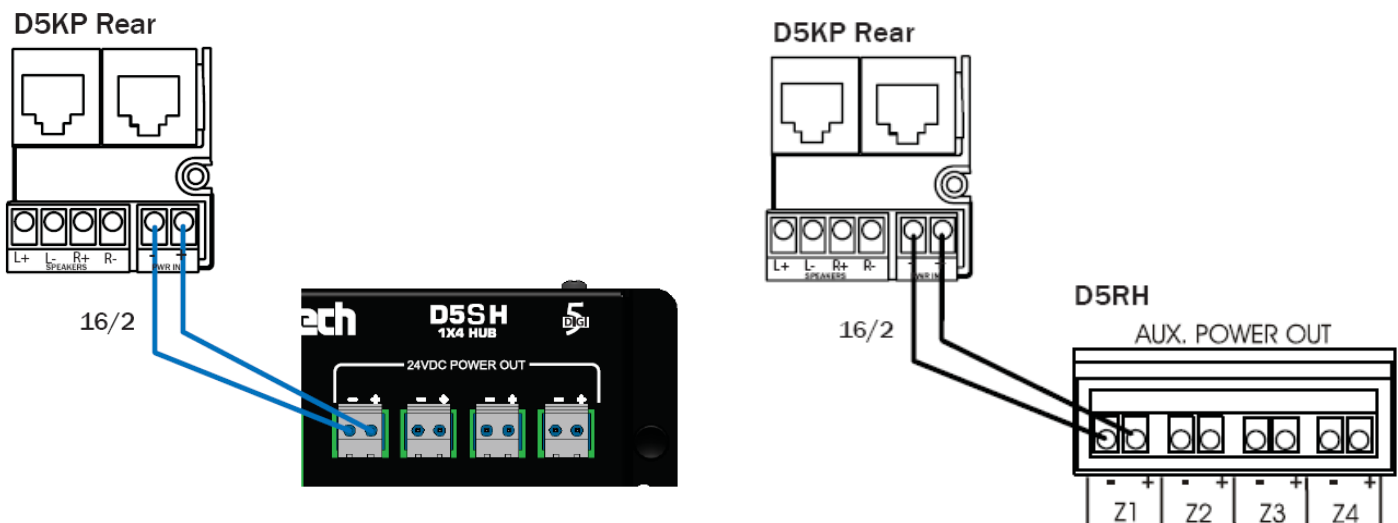


Figure 3.1: AUX POWER OUT Connections on D5SH and D5RH

## D5IP Source Input Wall Plate

Interconnecting between the D5KP and the D5IP Source Input Plate consists of plugging in a CAT-5 cable terminated to an RJ-45 connector wired to T-568A standard (see Figure 2.0) to the RJ-45 jack on the rear of the D5IP. The other end simply plugs into the LOCAL PORT RJ-45 jack on the rear of the zone's D5KP Amplified Keypad. See Figure 3.2 for details.

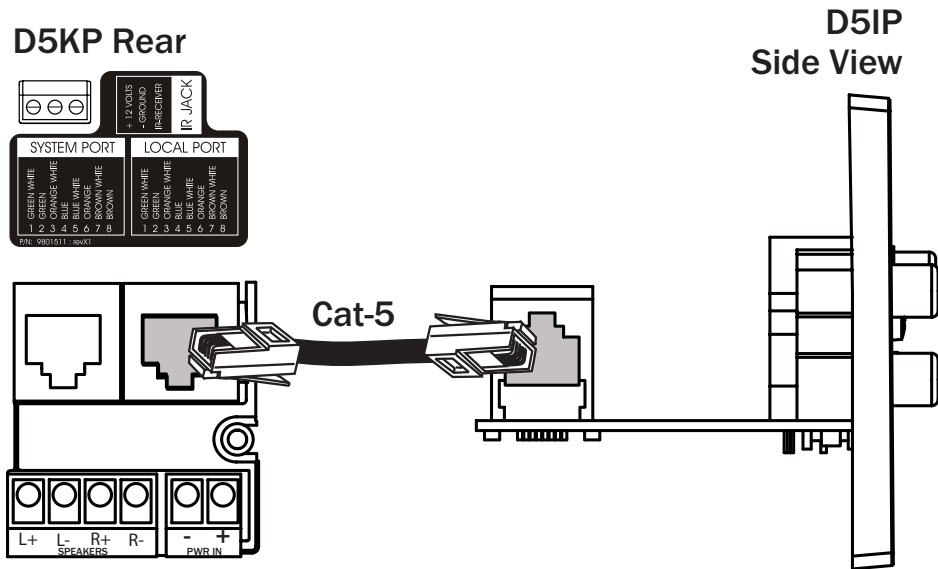


Figure 3.2: D5IP to D5KP Connections

## External IR Receiver Connections

Use a standard IR Receiver such as Xantech's 291D Series in areas where a hand-held remote needs to be pointed somewhere other than at the D5KP. Typical IR Receiver locations are near a TV or other equipment such as a Local Source (DVD Player, CD Player, A/V Receiver, etc.). Use a CAT-5 wire to extend the IR Receiver's cable if necessary and connect the other end to the D5KP. Only three conductors of the CAT-5 will be used. By default, the D5KP External and Internal IR is active. To disable the External or Internal IR, see Section 4.0.

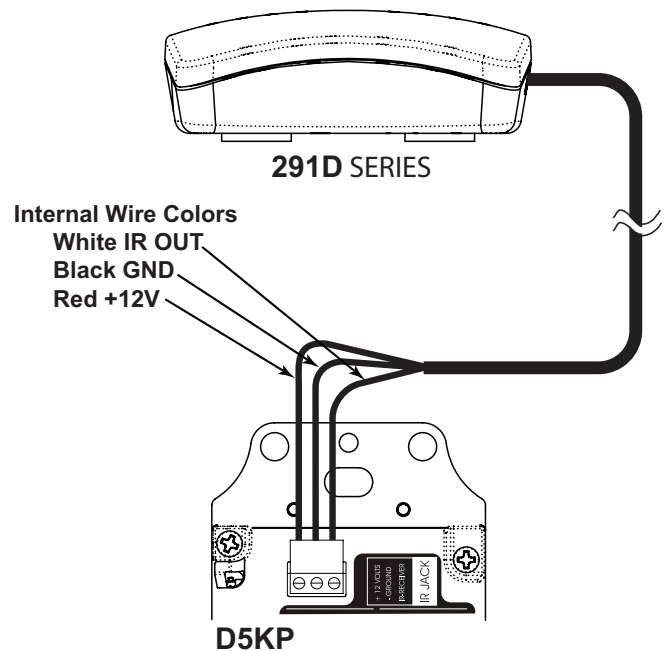


Figure 3.3: D5KP to External IR Connections

## Internal IR Receiver

The internal IR receiver is located beneath the 'X' button. The internal IR receiver can receive and respond to commands from the D5MR (mini-remote control) and the D5LR (learning remote control). It will also pass-thru IR remote control commands to audio sources via an emitter. An emitter must be connected to the D5IP or the emitter outputs from the D5RH. The internal IR receiver is plasma, LCD, and CFL friendly.

The internal IR receiver is factory set to an IR carrier repeat frequency of 38kHz. This will be correct for the majority of installations. However, some manufacturer's components that you wish to control may use different carrier frequencies (such as RCA DSS satellite receivers that use 56kHz). If you are sure the carrier frequencies fall within the range of 32kHz to 56kHz, you can adjust the internal IR receiver to match them for the best range performance. The adjustment can be made through the potentiometer located on the front of the keypad.

To adjust, proceed as follows:

1. First, try the internal IR receiver. If it works well with good range, do not make any adjustments!
2. If it does not work or has poor range (less than 15 feet), determine the IR carrier frequency of the product you wish to control. Contact the manufacturer of the product, if necessary, to determine this frequency.
3. Using a small blade type screwdriver, rotate the adjustment until the desired frequency has been achieved. This can be done by adjusting the settings in eighth-turn increments and trying the remote.
4. If you have products in the same IR system that have different IR carrier frequencies, you will have to adjust the internal IR receiver to a midway position. For example, some may operate at 38kHz and others at 56kHz. In this case, set the adjustment to approximately 47kHz, a midway position.

Note: Some products are more tolerant of compromised frequency settings than others. You may have to "fine tune" the adjustment to "favor" the least tolerant component for the best performance of all units in the system.

ITEM	DESCRIPTION
1	Internal IR receiver 'eye' is Plasma, LCD, and CFL friendly.
2	Carrier adjustment. Used to adjust the output carrier frequency.

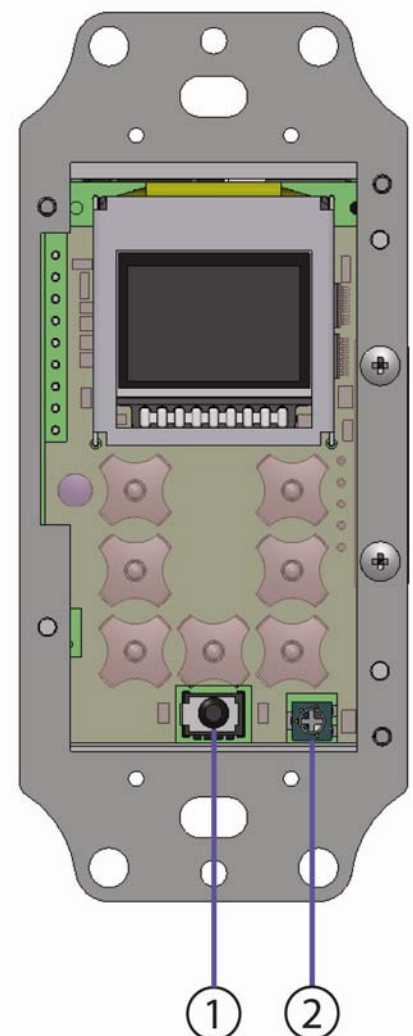


Figure 3.4: Internal IR Receiver

## D5KP Speaker Connections

The D5RH and D5SH, D5SH4 routes digital audio to connected D5KP Amplifier Keypad where the audio is then amplified and sent to in-room speakers.

**WARNING!** The D5KP's amplifier is capable of powering a single pair of 8-6 Ohm speakers. DO NOT connect speakers with a rating of less than 6 Ohms! DO NOT connect more than one speaker to either speaker connector of the D5KP. In doing this, damage to the D5KP may occur and will void the products warranty.

To connect speakers to D5KP Amplifier Keypad:

- 1 Ensure that system power is OFF!
- 2 Remove the SPEAKER CONNECTOR from the D5KP Amplifier Keypad
- 3 Strip speaker wire back 1/4"
- 4 Loosen speaker terminal screws on the speaker connectors
- 5 Insert speaker wires into terminals making sure to maintain +/- polarity
- 6 Tighten screws on speaker terminals
- 7 Re-connect the terminal strip to the SPEAKER CONNECTOR on the D5KP Amplifier Keypad
- 8 Connect speaker wires to the room speakers maintaining correct polarity

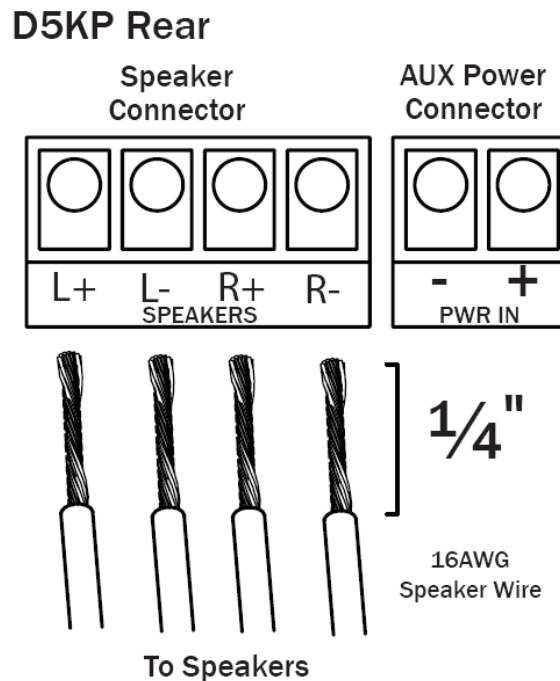


Figure 3.5: Speaker Connections

## 4. D5KP Installer Setup

The D5KP Installer Setup is defined into two categories, “User Parameters” and “Setup Parameters”. User Parameters allows the end-user to change the keypad functionality to his or her needs. Setup Parameters are for the installer to custom create an installation based on the end-users requirements.

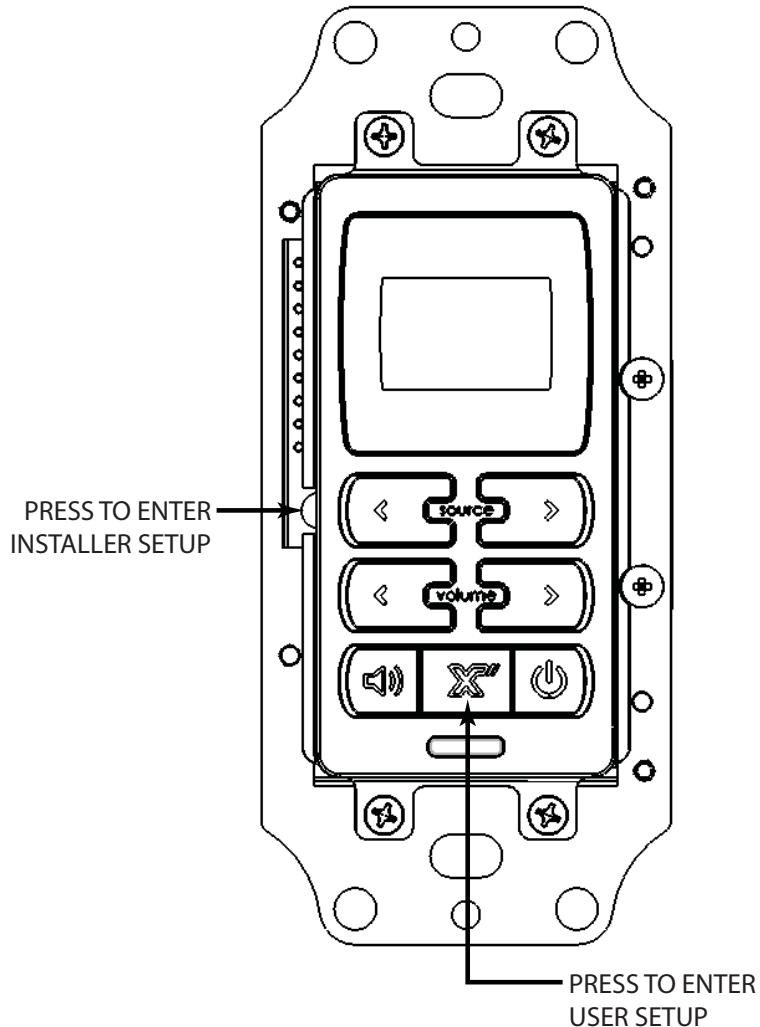


Figure 4.0: D5KP Keypad Parameter Buttons

To access the “**User Parameters**”, press the “X” MAIN button for 3 seconds and a menu will appear.

To access the “**Setup Parameters**”, remove the trim plate and press the setup switch.

Use the “SOURCE RIGHT” and “SOURCE LEFT” buttons to move the cursor next to the parameter to be changed. Use the “VOLUME UP” and “VOLUME DOWN” buttons to change the parameters.

## **USER PARAMETERS**

### **BASS**

The “bass” control allows the sound to be adjusted on the lower frequency range. Using the volume bar as an indicator, the central position shows the default position. Moving the indicator to the left side lowers the bass, reducing the volume of the low frequency sound. Moving the indicator to the right side increases the bass, increasing the volume of the low frequency sound.

The settings for this control can be adjusted from -5, -4, -3, -2, -1, 0 (default), +1, +2, +3, +4, +5.

### **TREBLE**

The “treble” control allows the sound to be adjusted on the higher frequency range. Using the volume bar as an indicator, the central position shows the default position. Moving the indicator to the left side lowers the treble, reducing the volume of the high frequency sound. Moving the indicator to the right side increases the treble, increasing the volume of the high frequency sound.

The settings for this control can be adjusted from -5, -4, -3, -2, -1, 0 (default), +1, +2, +3, +4, +5.

### **BALANCE**

The “balance” control allows the sound to be adjusted from the right or left channel. Using the volume bar as an indicator, the central position shows the default position where both left and right channel audio can be played. Moving the indicator to the left side shifts the audio to the left channel only. Moving the indicator to the right side shifts the audio to the right channel only.

The settings for this control can be adjusted from -5, -4, -3, -2, -1, 0 (default), +1, +2, +3, +4, +5.

### **DRC**

The "DRC" control stands for 'dynamic range compression'. This mode sets limiter thresholds at different volumes allowing a nighttime listening mode that provides a reduction in the dynamic range regardless of the volume level.

The settings for this control can be adjusted from ON to OFF only.

### **LOUDNESS**

The "loudness" control is intended to make audio sound more natural when played at lower volume. The control alters the frequency response curve to correspond to the natural characteristics off the ear.

The settings for this control can be adjusted from ON to OFF only.

## **USER PARAMETERS (continued)**

### **WHOLE HOUSE MUSIC (WHM)**

Whole House Music mode links all zones to share source selection functionality so that the whole house listens to the same source. Any Keypad in any zone can initiate WHM mode. Volume, Mute, and Tone settings remain independent for each zone, but the source selection remains linked. When WHM is deactivated (from any keypad in the system) all zones remain on at current volume levels and source selection, but are unlinked and regain independent source selection capabilities.

All Keypads are defaulted to being included in WHM mode. See “Do Not Disturb” for instructions on how to disable this functionality in a particular zone.

During normal usage, a “WHM” icon will appear if Whole House Music is active.

The settings for this control can be adjusted from ON to OFF only.

### **DO NOT DISTURB (DND)**

Do No Disturb excludes a zone from Whole House Mode and Page / Doorbell functions.

During normal usage, a “DND” icon will appear if Do Not Disturb is active.

The settings for this control can be adjusted from ON to OFF only.

## **SETUP PARAMETERS**

### **SOURCE NAMES**

The source names can be changed. Select the source name that is to be changed and press the “X” button. By default, the source names are “SRC 1”, “SRC 2”, “SRC 3”, “SRC 4”, and “LOCAL”. Use the VOLUME buttons to move the ‘underlining’ cursor to the character that is to be changed. Use the SOURCE buttons to change the character. Once the new name has been established, press the “X” button to return to the SETUP PARAMETERS menu.

### **BACKLIGHT TIMEOUT (TIME OUT)**

This setting determines the amount of time that the keypad backlight and OLED display remains ON after the last button press. Factory Default is 30 seconds.

The settings for this control can be adjusted from 30, 60, 120, 360, and ALL.

### **BACKLIGHT BRIGHTNESS (BRIGHT)**

This setting determines the brightness of the active keypad.

The settings for this control can be adjusted from 0 (Off) to 8.

### **BACKLIGHT POWER BUTTON (DIM)**

This setting determines the brightness of the power button when the backlight is off.

The settings for this control can be adjusted from 0 (Off) to 8.

### **PAGE/DOORBELL VOLUME (P/D VOL)**

This setting determines the Page / Doorbell Volume Level for the zone in which the D5KP is installed. Be sure to activate the page or doorbell audio from the connected communications controller and then adjust the volume to the desired level.

The settings for this control can be adjusted from 0 (Off) to 20 (max volume).

### **INITIAL VOLUME (INIT VOL)**

In order to guard against unexpected high volume levels when the system is turned on, a maximum turn-on volume level can be set for each keypad. If the volume level prior to turning the room off is lower or equal to the max turn-on volume level, the room will come back on at the max turn-on volume level instead of the last volume level. Be sure the audio source is selected and active and then adjust the volume to the desired level.

The settings for this control can be adjusted from 0 (Off) to 20 (max volume).

## **SETUP PARAMETERS (continued)**

### **INTERNAL IR ENABLE (IR INT)**

This setting allows the built-on IR Receiver to be disabled if desired. This feature is useful in the built-in IR receiver is being flooded by a plasma TV, compact fluorescent light or sunlight. The Local IR Receiver input on the rear of the unit remains active regardless of this setting. The built-in IR Receiver is enabled by default.

The settings for this control can be adjusted from ON to OFF only.

### **EXTERNAL IR ENABLE (IR EXT)**

This setting allows the external IR Receiver connection to be disabled if desired. The internal IR Receiver input on the front of the unit remains active regardless of this setting. The external IR Receiver is disabled by default.

The settings for this control can be adjusted from ON to OFF only.

### **LOCAL SOURCE LOCK-OUT (LOCL DET)**

This setting determines if the LOCAL SOURCE can be selected. By default, the LOCAL SOURCE can be selected.

The settings for this control can be adjusted from ON to OFF only.

### **SOURCE LOCK-OUT (SRC LCK)**

This setting determines which sources can be selected in the zone in which the D5KP is installed, allowing for parental control or removing the source selection option if that particular source will not be connected. By default, all connected sources can be selected.

Source lock-out can be set by both the end-user and the installer under the “USR” setting. The installer can keep the end-user from using this feature by using the “ON” setting.

### **USER PARAMETER LOCK-OUT (USR)**

User parameters can also be restricted under Installer Setup. The User parameters that can be restricted are BASS, TREBLE, BALANCE, DRC, LOUDNESS, WHM, and DND. This setting determines which sources can be selected in the zone in which the D5KP is installed, allowing for parental control. By default, all connected sources can be selected by the USR. In “SETUP PARAMETERS”, this is noted by “USR” next BASS, TREBLE, BALANCE, DRC, LOUDNESS, WHM, and DND. If USR is not selected, than these parameters cannot be changed in USER PARAMETERS

## 5. Troubleshooting

Symptom	Possible Cause	Solution
D5KP does not power up	1. RJ-45 plug crimped incorrectly; or wiring pin-out of RJ-45 reversed.	Verify wiring pin-out and RJ-45 crimp. Correct by re-crimping RJ-45 to CAT-5 cable.
	2. Break in CAT-5 between Zone and "Head-End".	Check RJ-45 to RJ-45 connections with cable tester or voltmeter.
No control or IR sources	1. Wiring: Incorrect wiring between D5KP and D5RH.	Verify and correct wiring.
	IR emitter defective at source.	Replace IR emitter.
Intermittent IR source control	IR flooding	Check to see if ambient light is shining on built in IR receiver or in direct line with plasma TV noise. If the IR indicator is flashing when IR is not being sent, IR flooding is indicated. Disable the built-in IR Receiver. Consider use of an external IR Receiver.
No audio	Loose speaker wires or bad connection.	Check both ends of speaker wires to ensure proper connection.
	Defective speaker(s)	Swap with known good speaker and test.
	Source(s) not playing audio	Verify that the source(s) turned ON, playing audio, etc. Check Tape Monitor settings on A/V or Stereo Receiver.
	Zone is in MUTE	Check MUTE Indicator LED on D5IP.
	Multi-channel digital audio formats (5.1, 7.1 etc.) are not supported by D5KP, D5IP, D5RH, etc.	Change Audio Source – Digital Output to PCM Stereo.
Distorted Audio	Source Input Gain too high on D5RH or D5IP.	Reduce GAIN DIP switch settings on D5RH or D5IP.
	Defective/Incompatible speaker	Check for damaged speaker.

## Xantech Limited Warranty

(Effective for products sold after July 1, 2006)

Xantech Corporation ("Xantech") warrants to the holder of a valid proof of purchase as the first end-user purchaser ("You"), its products to be free from defects in materials and workmanship for the periods specified below from the date of purchase. This limited warranty extends only to You for product purchased and used in the United States of America. For product purchased outside of the United States of America, the terms of this warranty apply EXCEPT that You must contact the Xantech authorized distributor in your region for warranty services. Product is not intended for end user installation. If within the applicable warranty period above You discover such item was not as warranted above and You promptly notify Xantech in writing, Xantech shall repair or replace the items at its option. Xantech may elect which remedy or combination of remedies to provide in its sole discretion. Xantech may use functionally equivalent reconditioned/refurbished/pre-owned or new products or parts under this limited warranty. This warranty shall not apply (a) to product which shall have been installed by other than an authorized Xantech installer, (b) to installed product which is not installed to Xantech's specifications, (c) to product which shall have been repaired or altered by others than Xantech, (d) to charges for installation or set up or adjustment of customer controls, (e) to product that has suffered normal cosmetic deterioration (f) to product which shall have been subjected to negligence, misuse, abuse, accident, or damage by circumstances beyond Xantech's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or any other catastrophic events beyond Xantech's control, or (g) to product which shall have been subjected to improper operation, connected equipment failure or malfunction, inadequate packing or shipping damage, maintenance or storage, or to other than normal use of service. The foregoing warranties do not cover reimbursement for labor, transportation, shipping, removal, installation, or other expenses which may be incurred in connection with repair or replacement. All claims for product shipping damage must be processed within 3 days of receipt by You.

A Xantech Return Authorization (RA) must be obtained from Xantech by You, your installer or your distributor for Product covered under this warranty. Covered product must be sent to Xantech together with proof of purchase, RA number, prepaid and insured to Xantech. Freight collect shipments will be refused. Risk of loss or damage in transit is borne by the sender. Xantech's warranty does not cover Products which have been received improperly packaged, altered, or physically damaged. Products will be inspected upon receipt.

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XANTECH PRODUCT (go to <a href="http://Xantech.com/warranty">Xantech.com/warranty</a> for model numbers)	WARRANTY DURATION
IR Receivers and IR Emitters	Limited Lifetime
A/V distribution and Control	Limited Lifetime
Remote Control Switchers	Limited Lifetime
Modules and Connecting Blocks	Limited Lifetime
Accessories	Limited Lifetime
Speakers	Limited Lifetime
Volume Controls and Speaker Selectors	5 year Limited
DIGI-5, MRC, BX, ZPR and Commercial Products	2 year Limited
Amplifiers	2 year Limited
Control Interfaces	2 year Limited
Hand Held Remote Controls	1 year Limited
SPLCD Product	1 year Limited
Source Components	1 year Limited

## Specifications

Sampling Frequency	48kHz
Audio Resolution	24 Bit, Stereo
Output Power	30 Watts Per Channel
THD + Noise Full Scale	0.06%
Dynamic Range	96dB
Frequency Response	20Hz-20kHz +/- 0.1dB

Dimensions	
D x W x L	2.62" x 1.8" x 4.07" (66.5 mm x 45.7 mm x 103.4 mm)
Weight	6 oz. Unit Weight 12.8 oz. Shipping Weight

Xantech Corporation

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