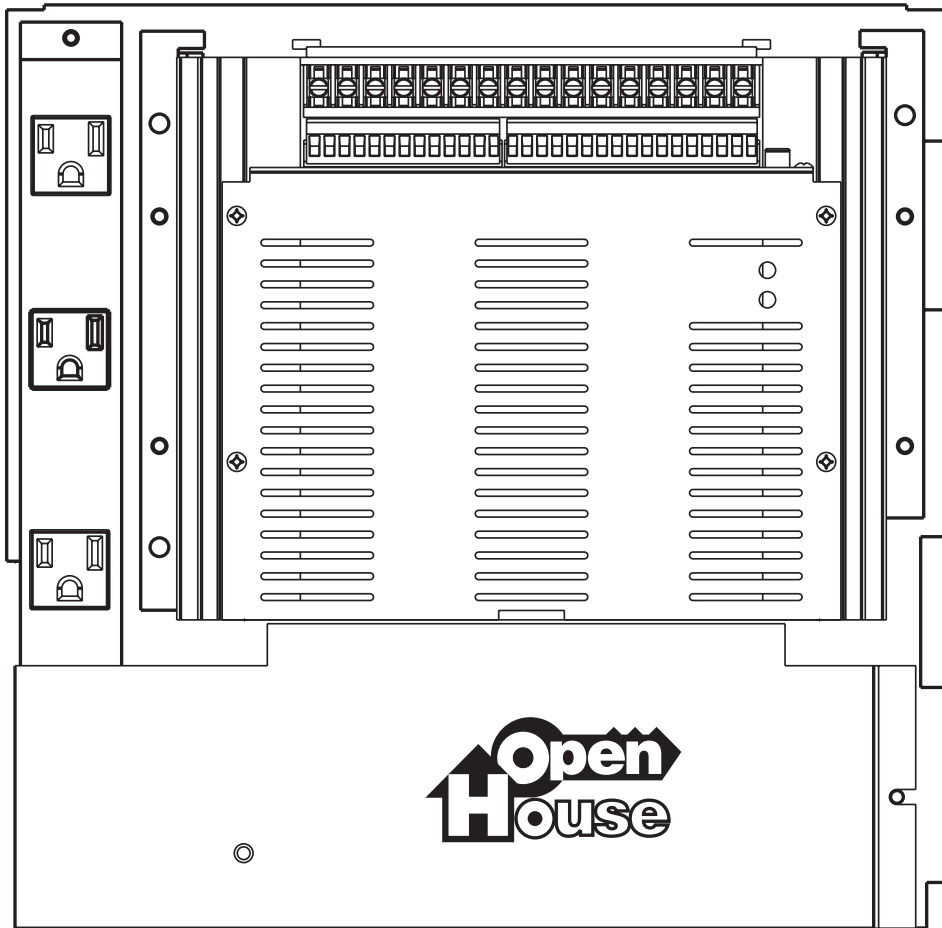




H560

MUSIC & COMMUNICATIONS
DISTRIBUTION CENTER

WARNING **RISK OF ELECTRIC SHOCK** **DO NOT OPEN!**

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.

Power Sources—The appliances should be connected to a power supply only of the type described in the operating instructions or as marked on each appliance. If you are not sure of the type of power supply to your home, consult your authorized ELAN dealer or local power company.

Grounding or Polarization—These audio products must be connected to a grounding-type alternating-current circuit on a dedicated circuit breaker. This is a safety feature. The green safety wire from the A.C. circuit must be connected.



Water and Moisture—To reduce the risk of electric shock or fire, these appliances 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.

Power Cord Protection—A.C. Power supply circuits should be routed by a certified electrician only, in accordance with the NEC standards.

Telephones—Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning. Do not use a telephone to report a gas leak if the leak is in the vicinity of the OpenHouse electronic equipment because of risk of fire or explosion.

Cleaning—Turn off the circuit breaker to this audio product before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

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.

Outdoor Antenna Grounding—If an outside antenna or cable system is connected to these audio products, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the U.S. National Electrical Code, and Section 54 of the Canadian Electrical Code, provide information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See the grounding diagram (right).

Overloading—Do not overload wall outlets and extension cords, as this could result in fire or electric shock.

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:

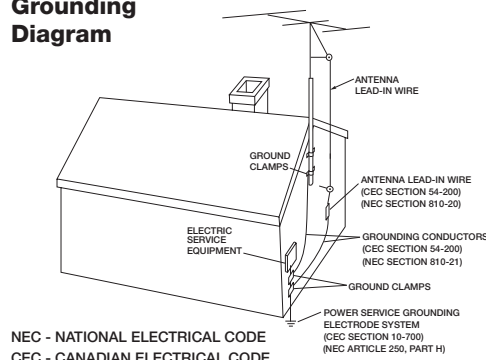
- A power supply connection or a plug has been damaged or
- If liquid has been spilled into the appliance or objects have fallen into the appliance or
- The appliance has been exposed to water or moisture or
- The appliance does not appear to operate normally or exhibits a marked change in performance 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—For added protection for these audio products during an electrical storm, or when they are left unattended and unused for long periods of time, turn off the circuit breaker, and disconnect the antenna or cable system. This will prevent damage to the audio products due to lightning and power-line surges.

Grounding Diagram



IMPORTANT USER INFORMATION

H560 has been registered with the Federal Communications Commission (FCC) in accordance with Parts 68 of its rules. On the front panel of the H560 Music & Communications Distribution Amplifier is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be given to the telephone company.

FCC Registration Number:	5J7USA-30852-MA-T
Ringer Equivalence Number (REN):	0.6B 1.1F
Load Number (LN):	12B (Canada only)

The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all those devices ring when your number is called. In most, but not all areas, the sum of all RENs of all devices connected to one line should not exceed five (5.0). To find out the number of devices you may connect to your line, as determined by the REN, contact your local telephone company for the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But, if advance notice isn't practical, you will be notified as soon as possible. You will be notified of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service. If you experience trouble with this telephone equipment, please contact TECHNICAL SUPPORT at 1-800-999-5225 for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure the equipment is not malfunctioning.

If the telephone features are not functioning or are malfunctioning, switch off the circuit breaker connected to the system. This will directly connect the telephone line with all the telephones connected to the package. Contact your dealer for repairs.

This equipment may not be used on coin service provided by the telephone company. Connection of party lines is subject to state tariffs. (Contact your state public utility commission for information).

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

Notice

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

The Load Number (LN) determines the number of devices you may connect to your line. The LN sum of all devices connected to one line shall not exceed 100.

Repairs to certified equipment can only be made by your local OpenHouse Installer.

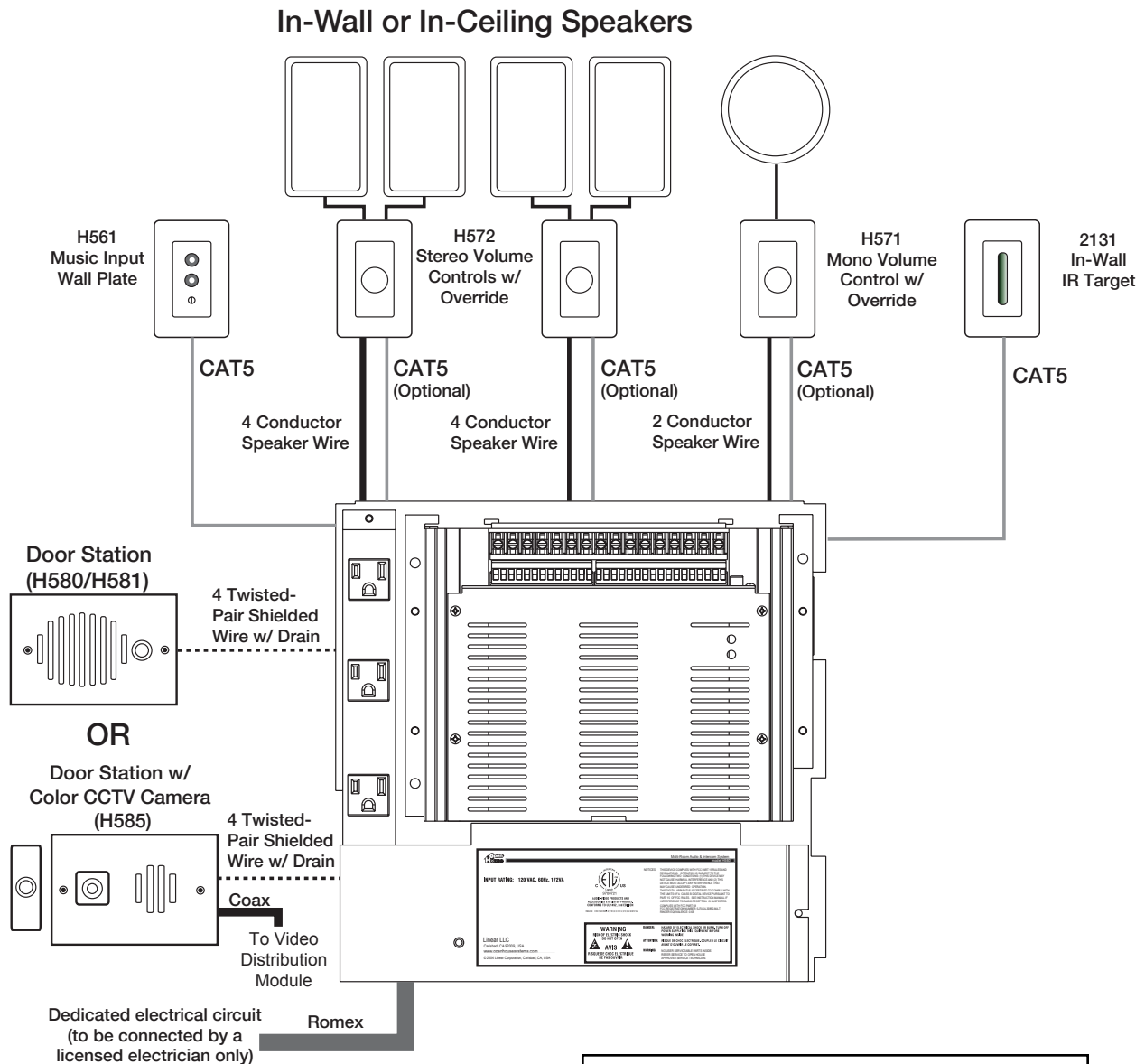
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of Industry Canada.

Contact TECHNICAL SUPPORT at 1-800-999-5225 for repairs to certified equipment.

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4. Telephone and Door Station Connections.....	20
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H560 System Overview & Wire Runs

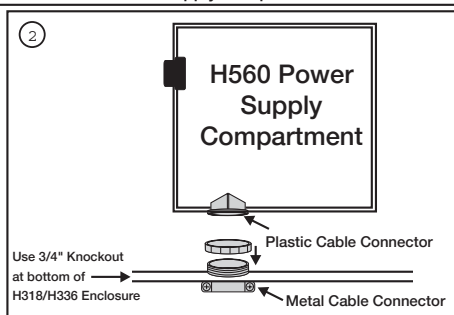
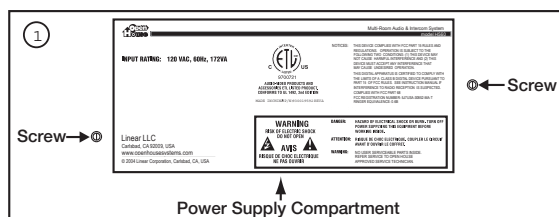


CAT5 MUST BE RUN TO VOLUME CONTROLS IF UTILIZING PAGE AND/OR DOORBELL FEATURES!

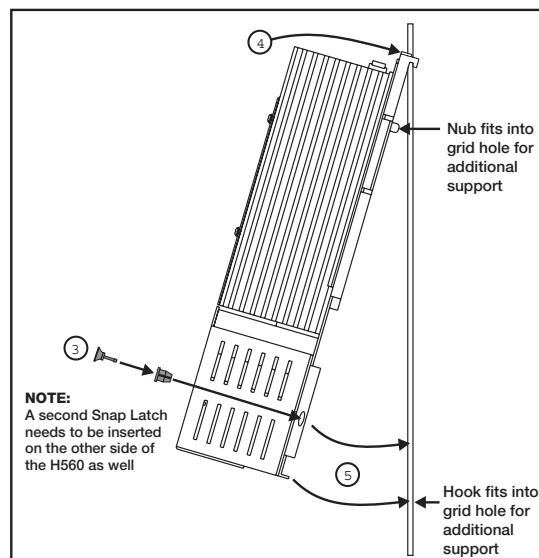
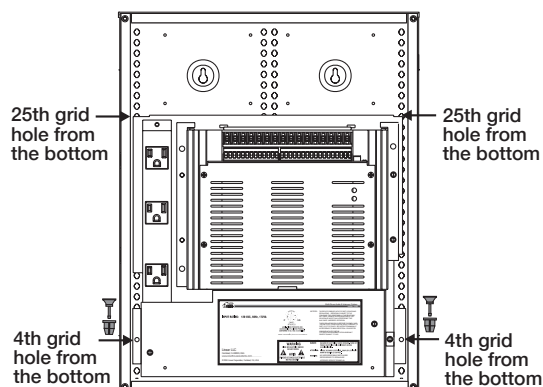
1. Distribution Center Installation

To mount the H560 into an Enclosure :

1. Remove power supply cover. Be sure not to lose the screws once you remove them!
2. Install cable connectors into hole at bottom of the H560 power supply compartment and into 3/4" knock-out at bottom of the enclosure. It is important that this be done now as access will not be available once the H560 pan has been attached to the grid. Replace power supply compartment cover when done.
3. Push 'Snap Latch' grommets (2) into the holes of the H560 pan. Push 'Snap Latch' pins half-way into grommets.
4. Hook pan to the grid from the top. See diagrams below for installing the H560 into enclosures. Different grill holes are used for each enclosure.
5. Slowly swing pan into place. Metal nub and bottom hook fit into grid holes, providing additional support.
6. Push Snap Latch pins fully into grommets to lock the H560 in place.



H318 or H336 Enclosure

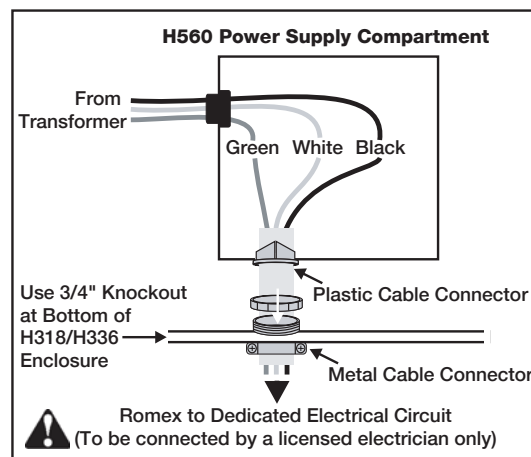
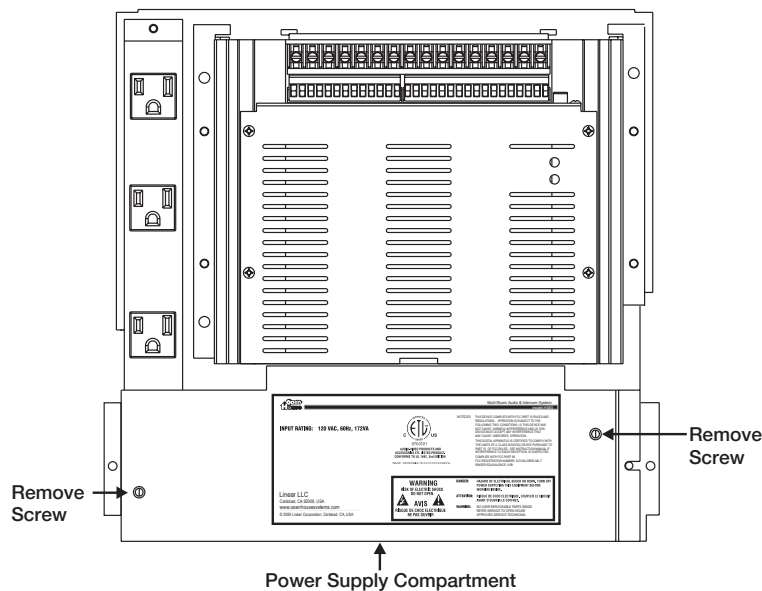


120VAC Connections



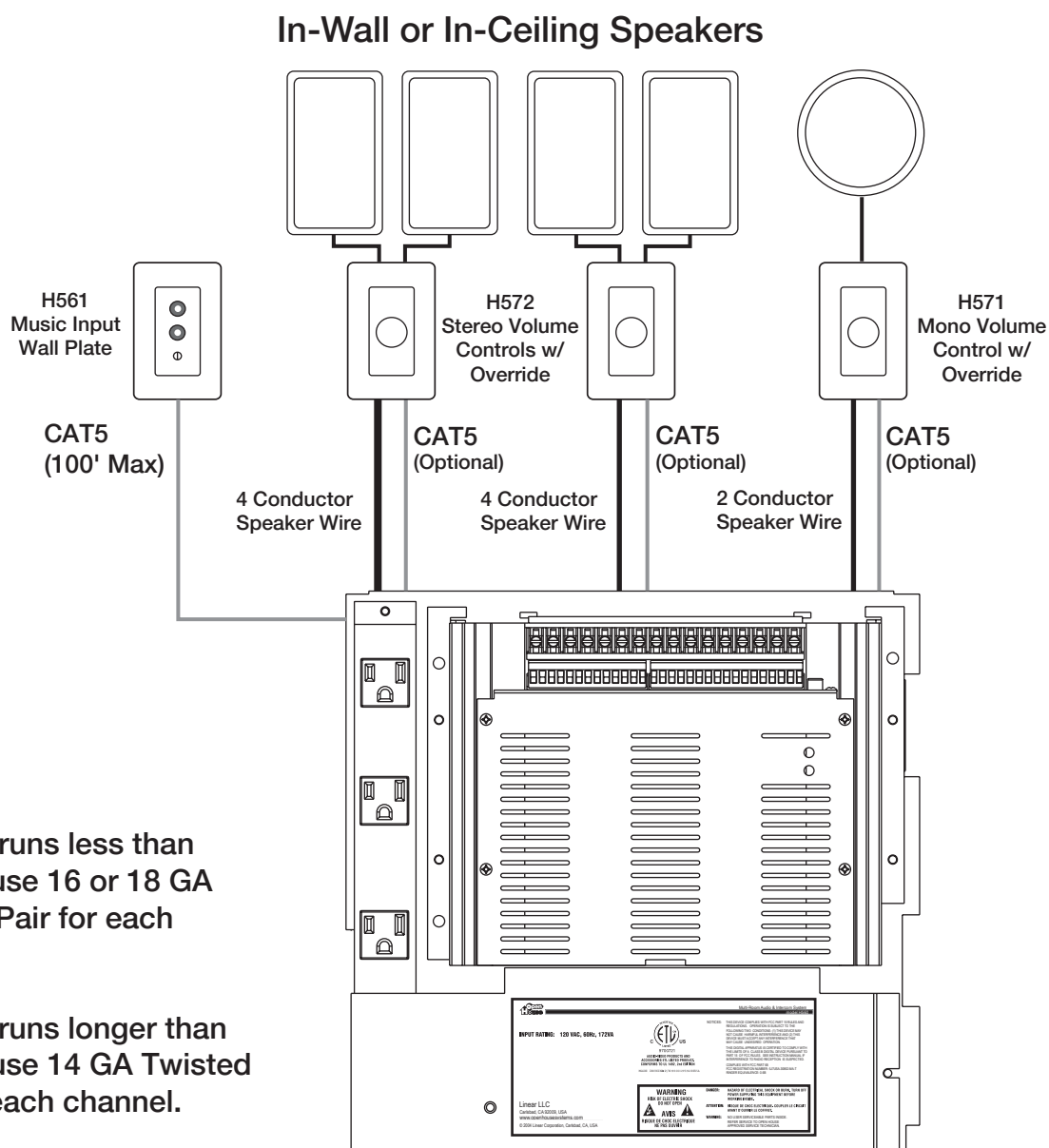
WARNING:
All 120VAC Electrical Connections Should
be Made by a Licensed Electrician Only!

1. Remove power supply cover (be sure not to lose the screws once you remove them!)
 2. Connect the H560 to a dedicated electrical circuit as shown in the diagram below.
 3. Replace power supply compartment cover when finished.
- A cable connector should already have been installed in the hole at bottom of the H560 power supply compartment and in the 3/4" knock-out at bottom of enclosure. If not, you will need to remove the H560 from the grid and follow the directions on p. 7.



This section details the audio connections necessary for proper installation of the H560. These connections include:

- **Music Input Wall Plate (H561)**
- **Volume Controls (H571/H572)**
- **Speakers (Mono and/or Stereo)**



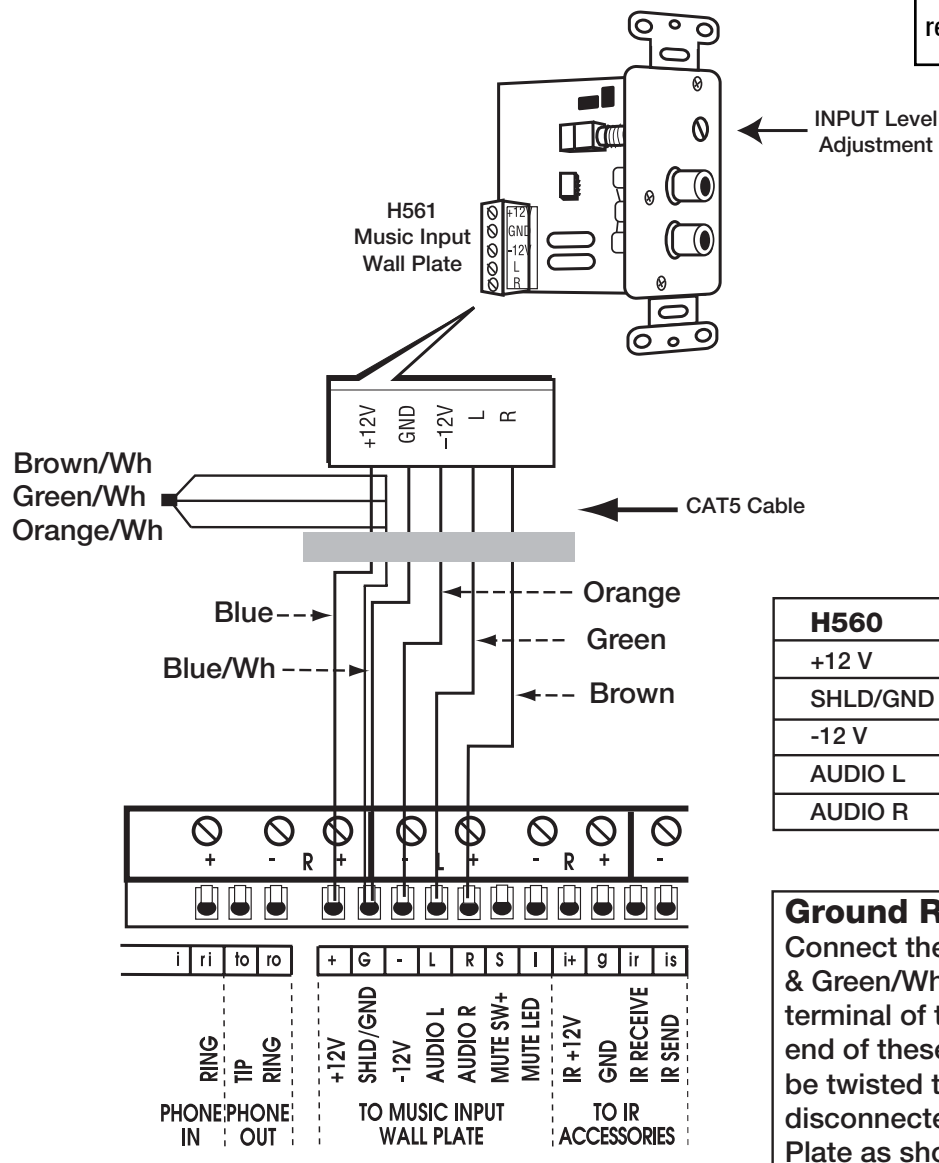
Connecting the Music Input Wall Plate to the H560

The H561 Music Input Wall Plate is an in-wall preamp that sends the audio from the homeowner's receiver to the H560.

This is a LINE LEVEL input only (Tape Out).

DO NOT Connect Speaker Level Audio to the H560 as this will damage the unit!

OpenHouse recommends the use of a FIXED line level output (Tape Out, for example) from the receiver so that music can be heard in every room regardless of the receiver's volume setting.



H560	H561 Wall Plate
+12 V	Blue +12V
SHLD/GND	Blue/Wh GND
-12 V	Orange -12V
AUDIO L	Green L
AUDIO R	Brown R

Ground Return Connections

Connect the Brown/Wh, Orange/Wh, & Green/Wh to the SHLD/GND terminal of the H560. The other end of these conductors should be twisted together and left disconnected at the H561 Wall Plate as shown.

Determining the Maximum Amount of Speakers and Volume Controls w/ Override That Can Be Connected to the H560.

The following tables assume:

1. One H572 Stereo Volume Control w/ Override at an impedance match setting of 8X per 8 ohm stereo pair.
2. One H571 Mono Volume Control w/ Override at an impedance match setting of 16X per 8 ohm mono speaker.
3. All mono speakers are distributed evenly between the H560's mono speaker connections.

Number of 8 Ohm Stereo Speaker Pairs Connected to the H560	Maximum Number of 8 Ohm Mono Speakers Allowed
0	24
1	20
2	16
3	12
4	8
5	4
6	0



Failure to comply with the Maximum Speaker and Override Volume Control Specifications may cause damage to the amplifier and will VOID the manufacturer's warranty.

Based on the same assumptions, the table below indicates the combinations of Stereo and Mono speakers that can be connected to the H560 when using **4 or 6 Ohm speakers**.

Number 4 or 6 Ohm Stereo Speaker Pairs Connected to the H560	Maximum Number of 8 Ohm MONO Speakers Allowed
0	12
1	9
2	6
3	3
4	0



All H572 Stereo Volume Controls must be set to 8X Impedance Match.

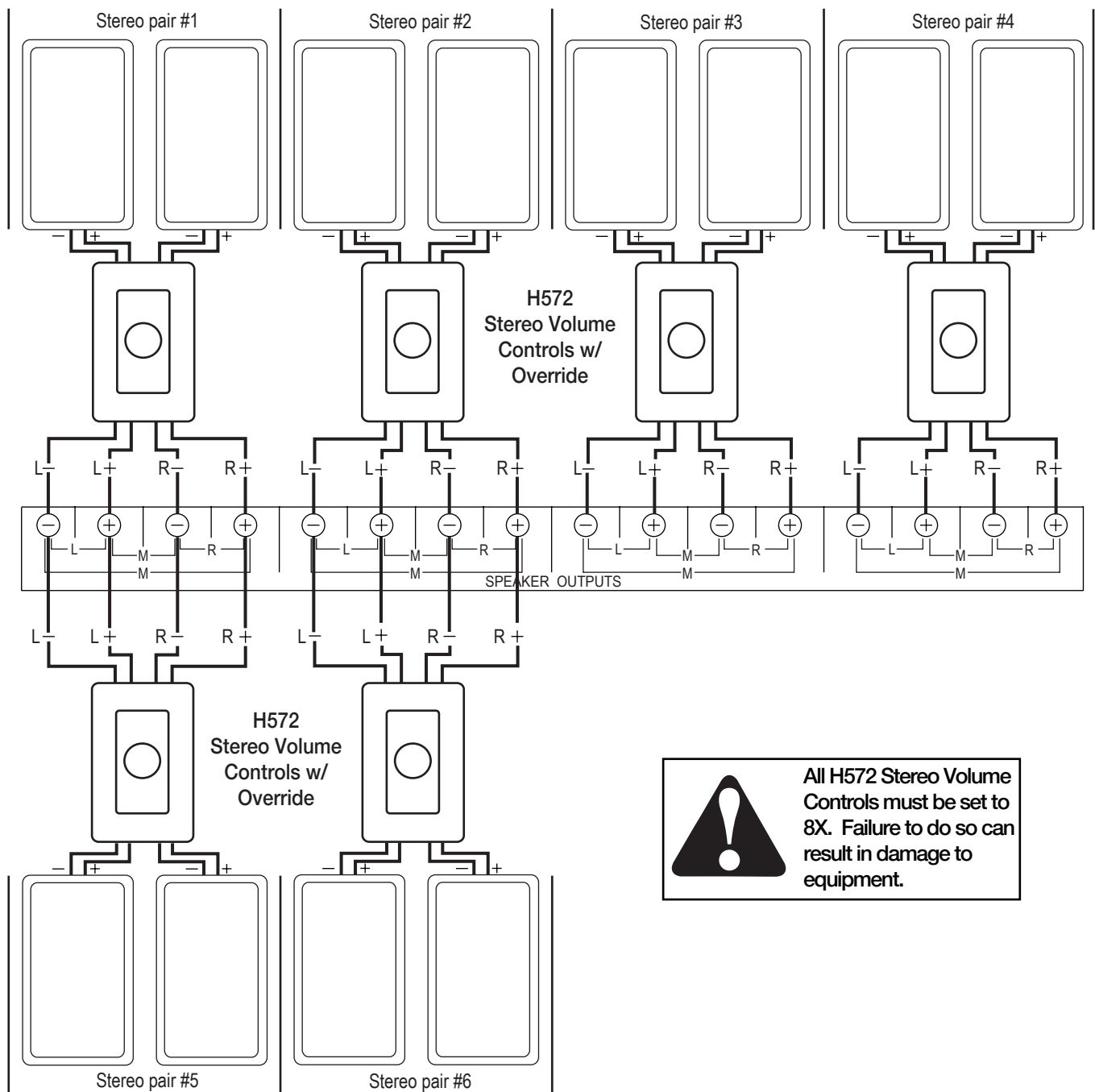
All H571 Mono Volume Controls must be set to 16X Impedance Match.

A maximum of 12 Volume Controls using the Override Feature can be connected to the H560. See page 15 for further details.



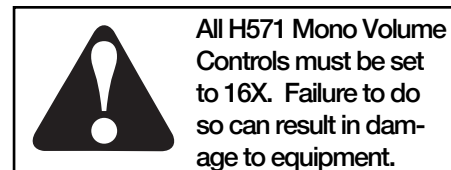
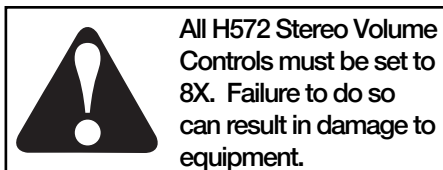
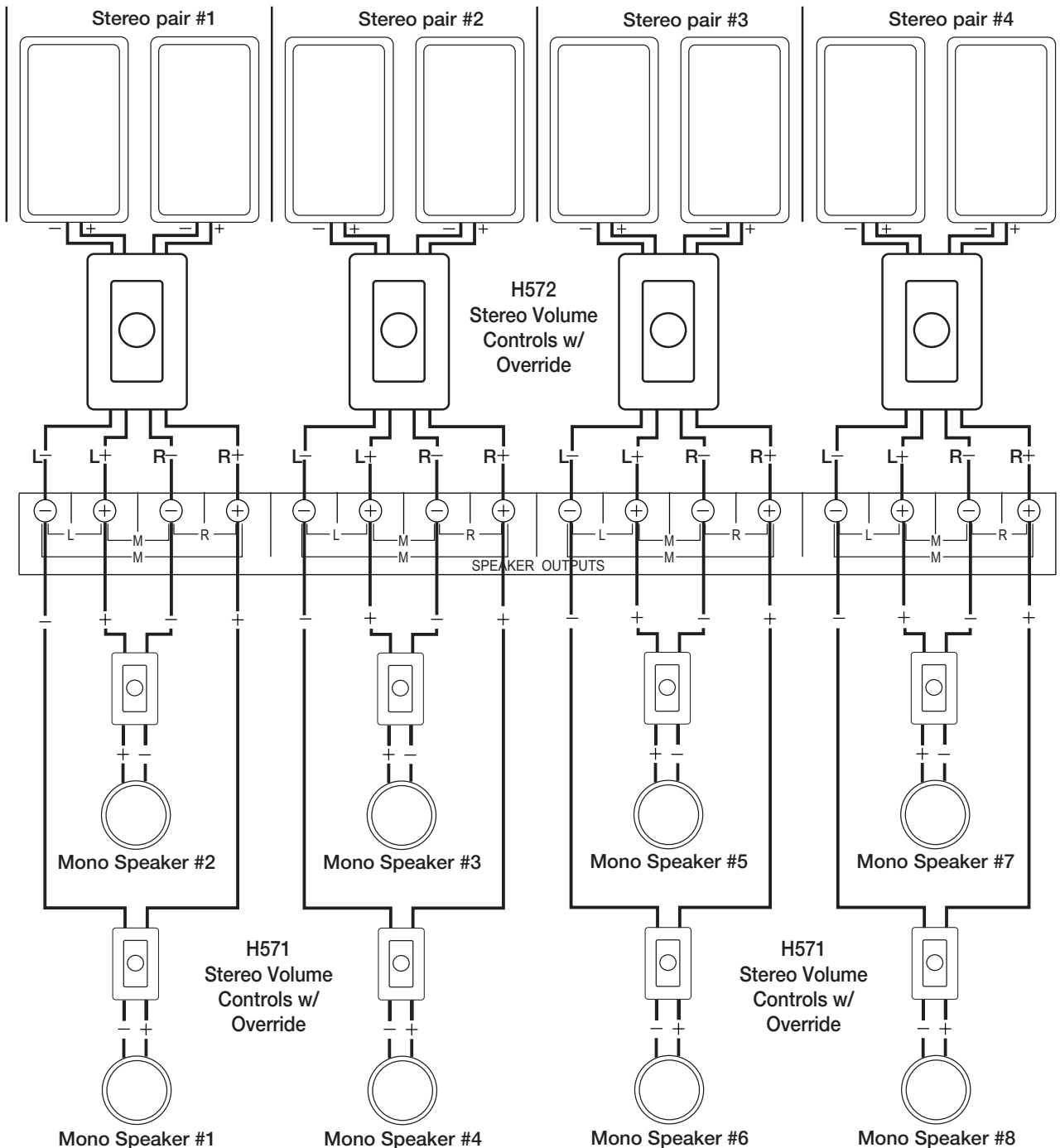
The H560 is designed specifically for use with OpenHouse H571 and/or H572 Volume Controls w/ Override ONLY! Failure to comply with this specification may cause damage to the amplifier and will VOID the manufacturer's warranty.

Stereo Speaker Pair Connections (MAX 6 Stereo Pairs rated at 8 Ohms per Speaker)



Combination Stereo & Mono Speaker Connections

Shown: 4 Stereo pair & 8 Mono speakers. All speakers rated at 8 Ohms.

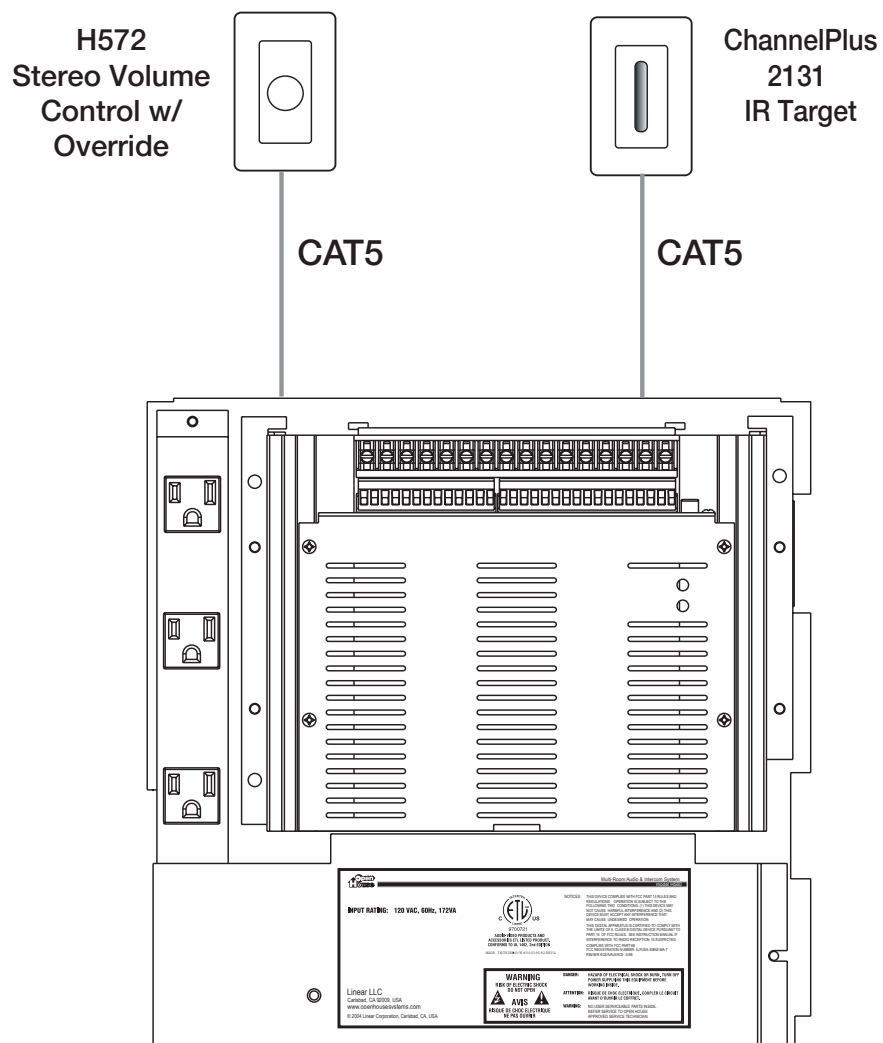


3. Control Device Connections

This section details the various Control Device connections possible with the H560. These connections include:

- Volume Control Override Connections
- IR Receivers and Emitters

H560 Control Wire Runs

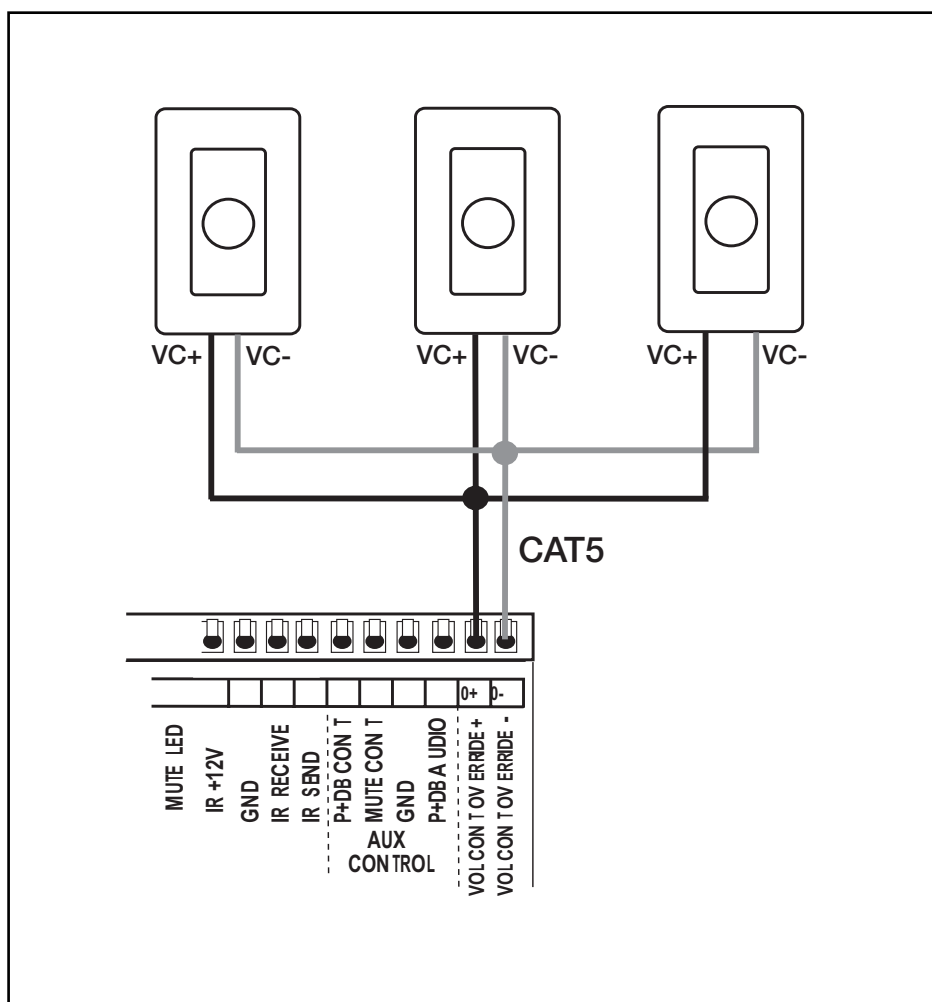


Volume Control Override Connections

When hard wiring Volume Override Connections:

1. Connect all VC+ and VC- wires in parallel as shown below.
2. Connect VOL CONTROL OVERRIDE+ from H560 to VC+ of Volume Controls.
3. Connect VOL CONTROL OVERRIDE- from H560 to VC- of Volume Controls.

A maximum of 12 Volume Controls using the Override Feature can be connected if using this wiring method!

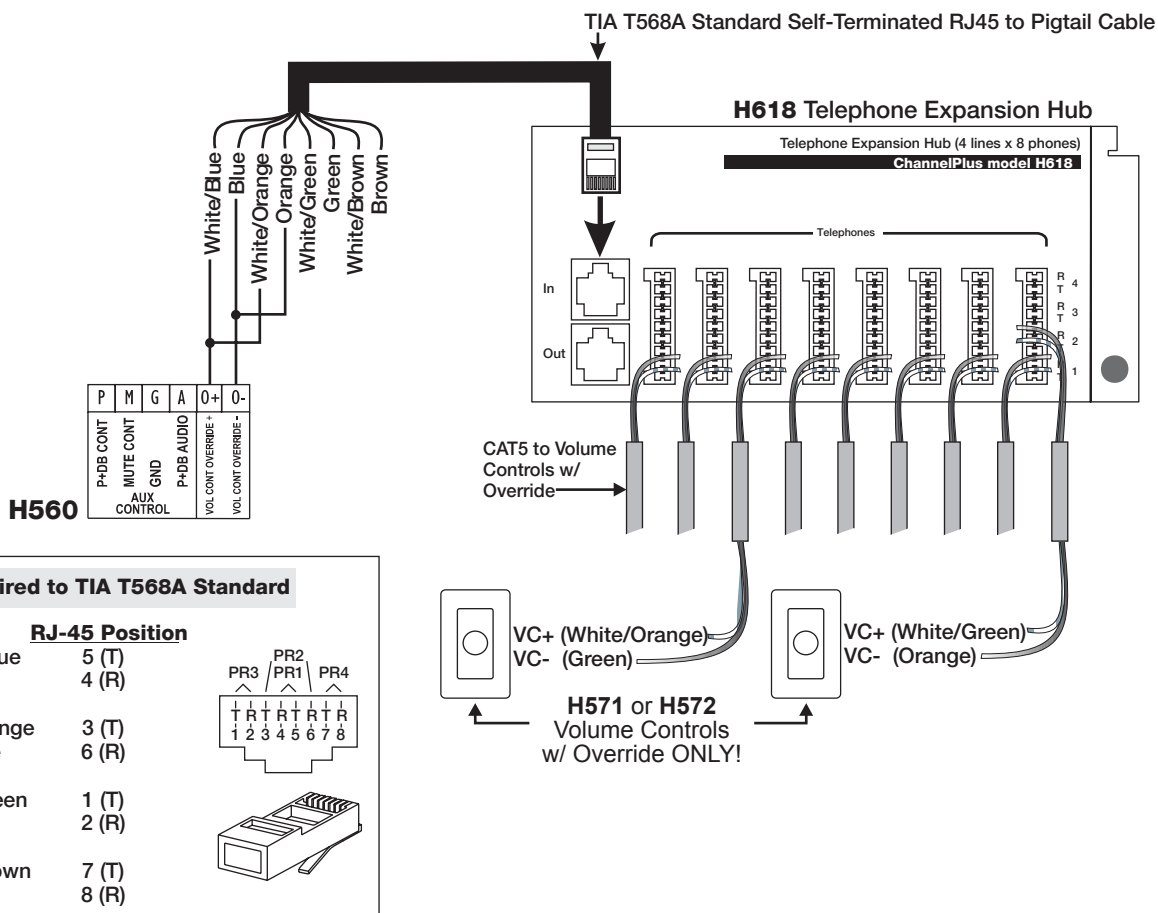


Volume Control Override Connections (continued)

When using an OpenHouse H618 Telephone Expansion Hub and a Standard TIA T568A Self-Terminated Cable:

- Reference the diagram below for PIN configuration.
- Plug RJ45 end of pigtail into RJ45 IN jack on the H618 Telephone Expansion Hub.
- If wiring up to 8 Volume Controls:
 - Connect WHITE/BLUE to VOL CONTROL OVERRIDE+ and BLUE to VOL CONTROL OVERRIDE- as shown below.
 - Each Position 1 punchdown location (WHITE/ORANGE & GREEN) of the H618 Expansion Hub is active.
- If wiring 9 to 12 Volume Controls:
 - Connect WHITE/ORANGE to WHITE/BLUE.
 - Connect these wires to VOL CONTROL OVERRIDE+ as shown below.
 - Connect ORANGE to BLUE.
 - Connect these wires to VOL CONTROL OVERRIDE- as shown below.
 - Each Position 1 punchdown location (WHITE/ORANGE & GREEN) is active. Each Position 2 punchdown location (WHITE/GREEN & ORANGE) is active.
- Do not connect more than 4 Volume Controls on Position 2.

If Using a TIA T568A Standard Self-Terminated Cable



IR Receiver Connections

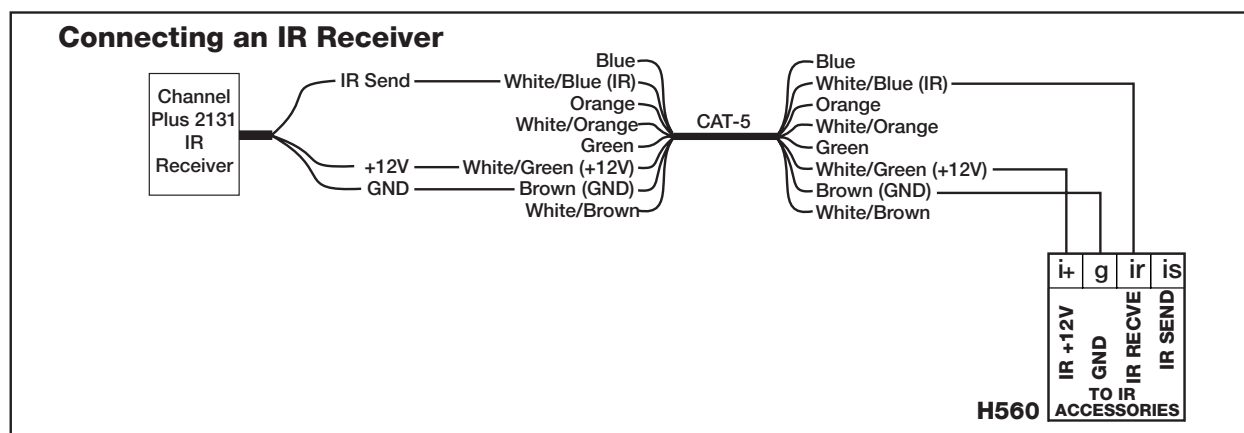
The H560 has a built-in IR engine that allows connectivity of multiple IR receivers. This engine can pass IR to multiple emitters in order to control multiple system sources.

To connect a ChannelPlus IR receiver to the H560:

1. Connect IR Receiver to CAT5 as shown below.
2. Connect CAT5 to H560 as shown below.

It may be convenient to use OpenHouse standard color codes when making these connections:

IR = WHITE/BLUE
+12V = WHITE/GREEN
GND = BROWN

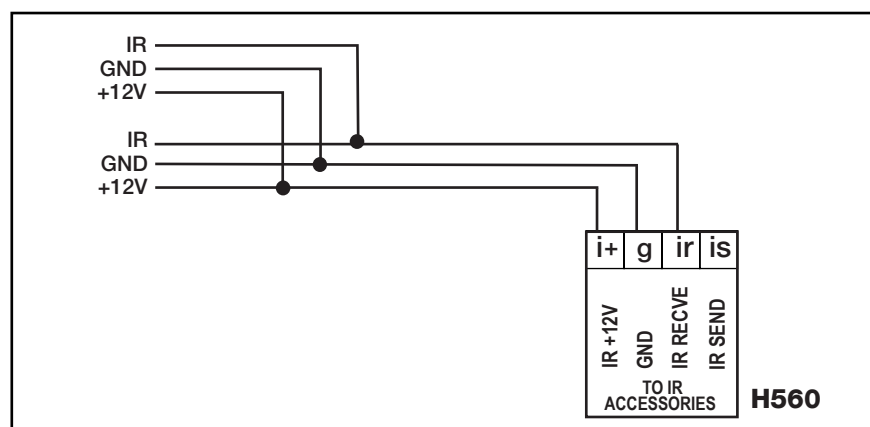


Connecting Multiple IR Receivers

To connect multiple IR Receivers to the H560:

Connect IR, GND, and 12VDC in parallel as shown below.

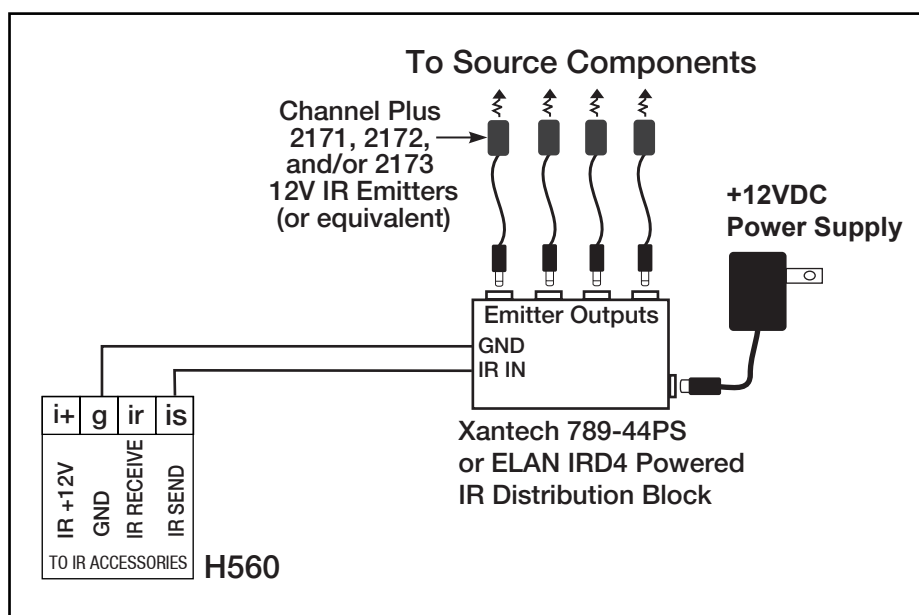
**MAXIMUM NUMBER OF IR
RECEIVERS ON THIS CIRCUIT = 4**



Connecting IR Emitters

To connect IR Emitters to the H560:

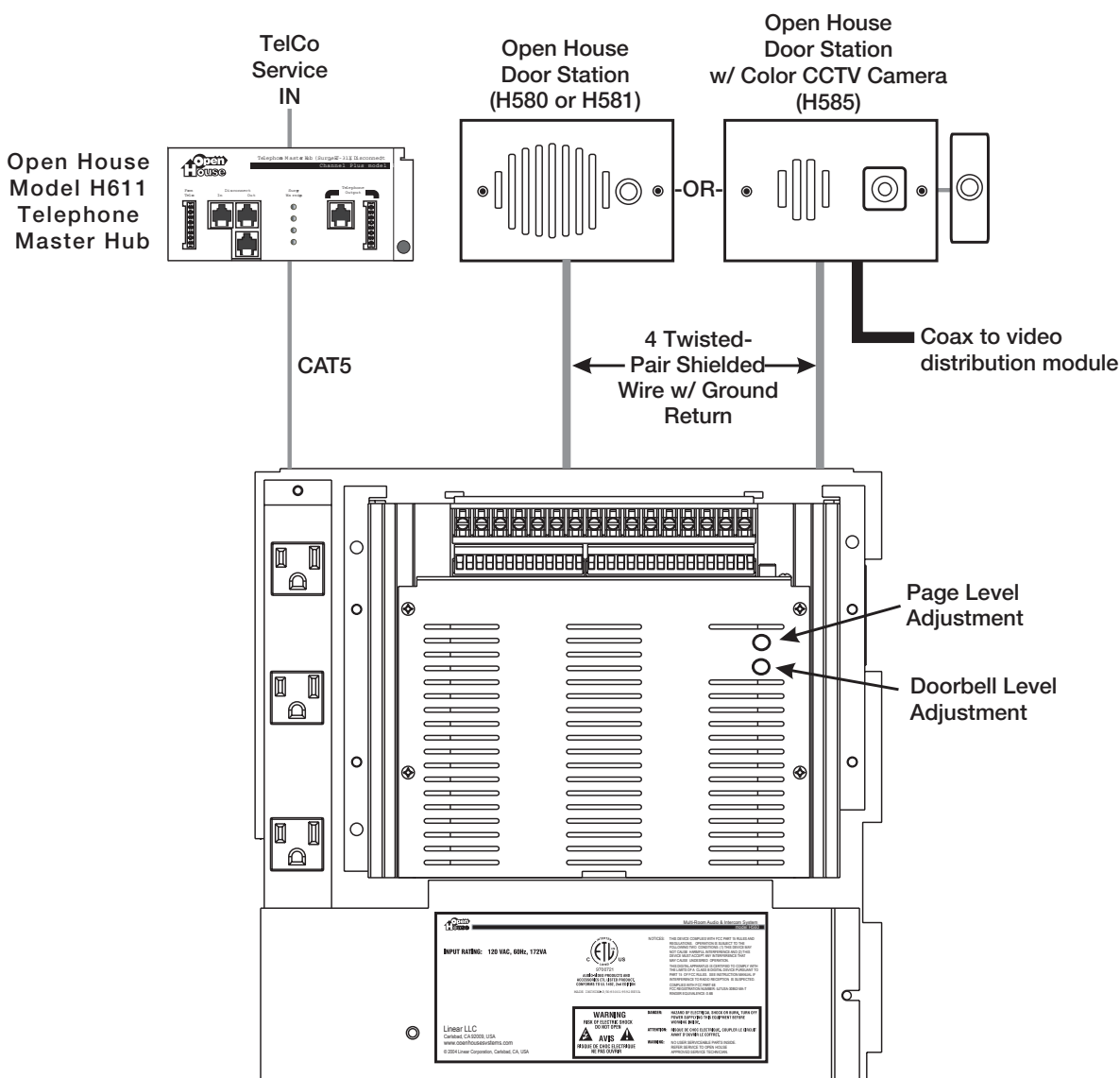
1. Connect IR SEND (is) and GND from the H560 to a Xantech 789-44PS or ELAN IRD4 Powered IR Distribution Block as shown below.
2. Plug IR mini-emitters into EMITTER OUTPUTS of the Connecting Block.
3. Attach Emitters to source components.



4. Telephone & Door Station Connections

This section details the procedures necessary to enable the Communication features of the H560. These connections include:

- Telephone Service
- Door Stations (H580/H581/H585)

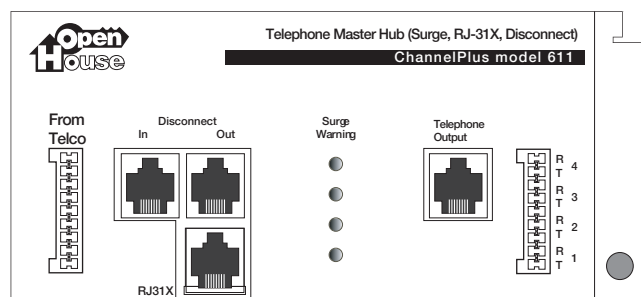


Connecting Telephone Service to the System

The H611 Telephone Master Hub

The H611 is an OpenHouse grid-mount module that provides surge protection for up to 4 incoming telephone lines as well as offering an RJ31X jack for security systems and a Quick Disconnect. Telephone Outputs (RJ45 and 110 punchdown) provide easy expansion capabilities. The H611's jacks are wired to TIA T568A standard.

H611 Telephone Master Hub

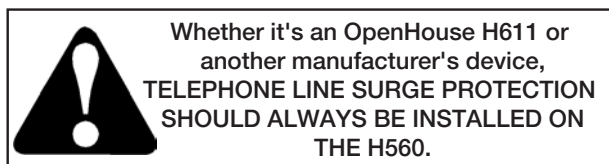


OpenHouse strongly recommends the use of two H611 Telephone Master Hubs for every H560 installation. Using two H611s provides the homeowner with:

- **Surge Protection** on both the H560 Telephone Input & Output. This helps protect the H560 from surge ingress that can come from the incoming telephone line or from the telephone extensions.
- A **Quick Disconnect** that, in the event of failure, removes the H560 from the telephone loop without disabling the homeowner's telephones.

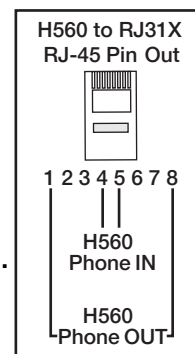
The reason that two H611s are required to obtain these safeguards is that the RJ31X jack on the H611 is wired in front of the surge protection circuitry. Using only one H611 would provide surge protection only on Phone IN and would disable telephone service if the Quick Disconnect jumper cable is removed.

IF THERE IS A SECURITY SYSTEM IN THE HOME, TWO H611s MUST BE USED.



H611 Connections The "From Telco" punchdown connector on the H611 automatically routes Line 1 (Blue pair) to the RJ31X jack. This would be the H560 line.

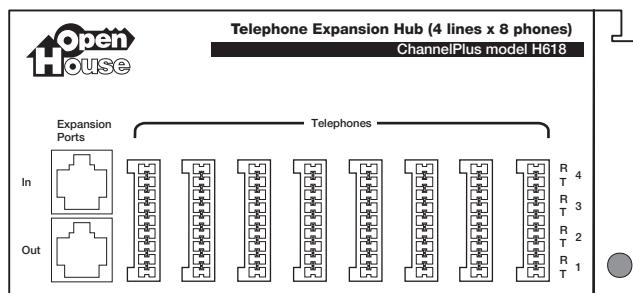
The center pins on the RJ31X jack are connected to the H560 Phone IN. The outer pins of the RJ31X jack connect to the H560 Phone OUT.



H618 Telephone Expansion Hub

The OpenHouse H618 Telephone Expansion Hub is used to distribute the surge-protected C.O. Lines coming from the H611 to 8 telephone wall plates. If more than 8 extensions are needed, additional H618s can be added to the system. The Expansion Ports on the H618 make this easy.

H618 Telephone Expansion Hub



Modems, Fax Machines, Satellite & Cable

To ensure problem-free operation, any device other than a telephone that uses the phone line to dial out or receive data should be connected 'in front of' the H560. Such devices include:

- Modems
- Fax Machines
- Answering Machines
- Satellite & Cable Boxes
- Digital Music Servers

OpenHouse recommends the use of Dual Telephone Wall Plates with the top jack wired for telephone use and the bottom jack wired in front of the H560 for use with these devices

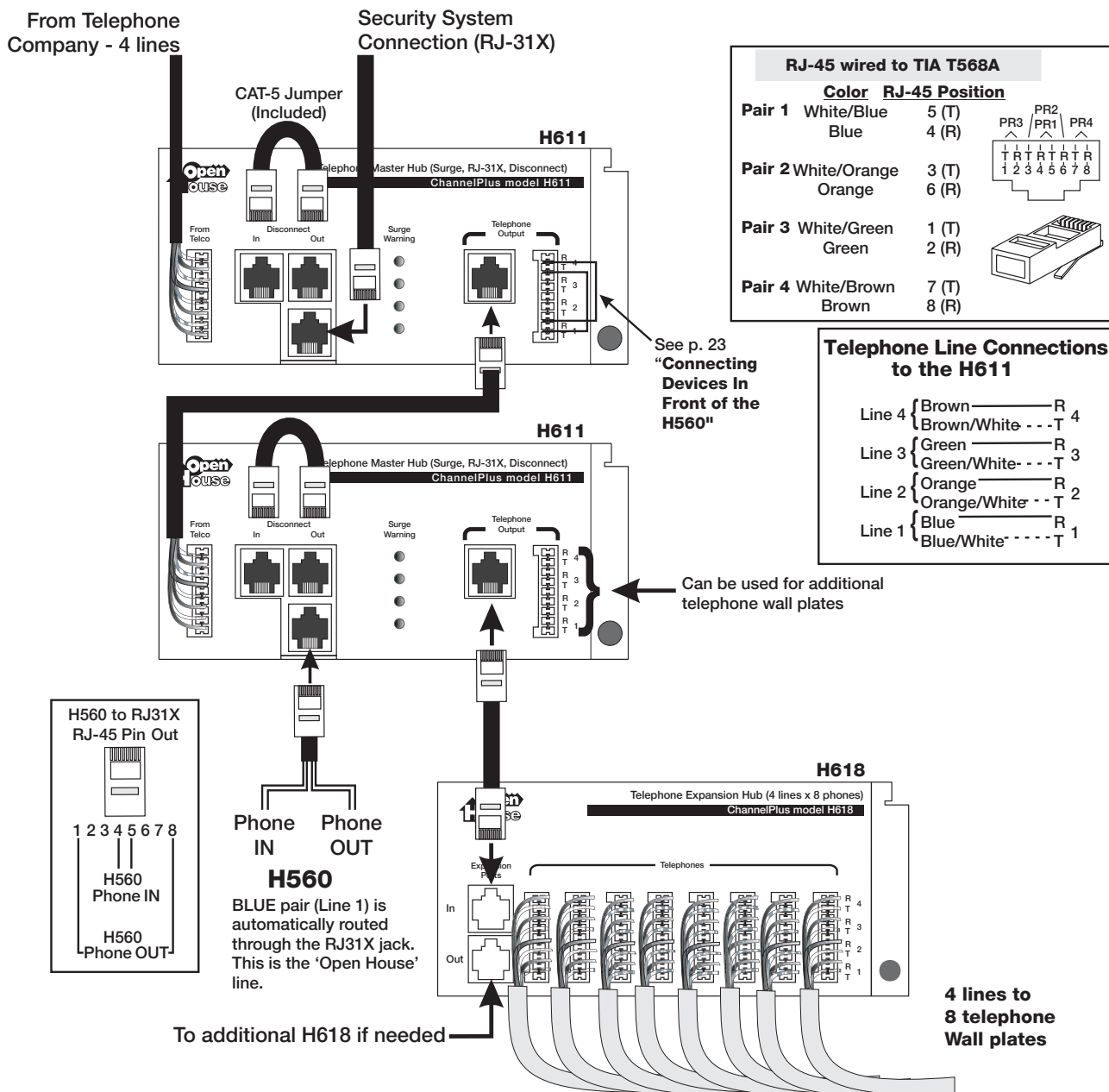
See "**Connecting Devices In Front Of The H560**" on page 23.

Connecting Telephone Service to the System (continued)

The diagram below shows telephone service connections using 2 OpenHouse H611s and an OpenHouse H618 Telephone Expansion Hub.

IMPORTANT NOTE:

The RJ-45 jacks on the H611 Master Hub and H618 Expansion Hub are wired to TIA T568A standard. **DO NOT USE H693 RJ45 INTERCONNECT CABLES WITH THESE DEVICES.** The pin-outs for T568A standard self-terminated cables are shown below.



Connecting Telephone Service to the System (continued)

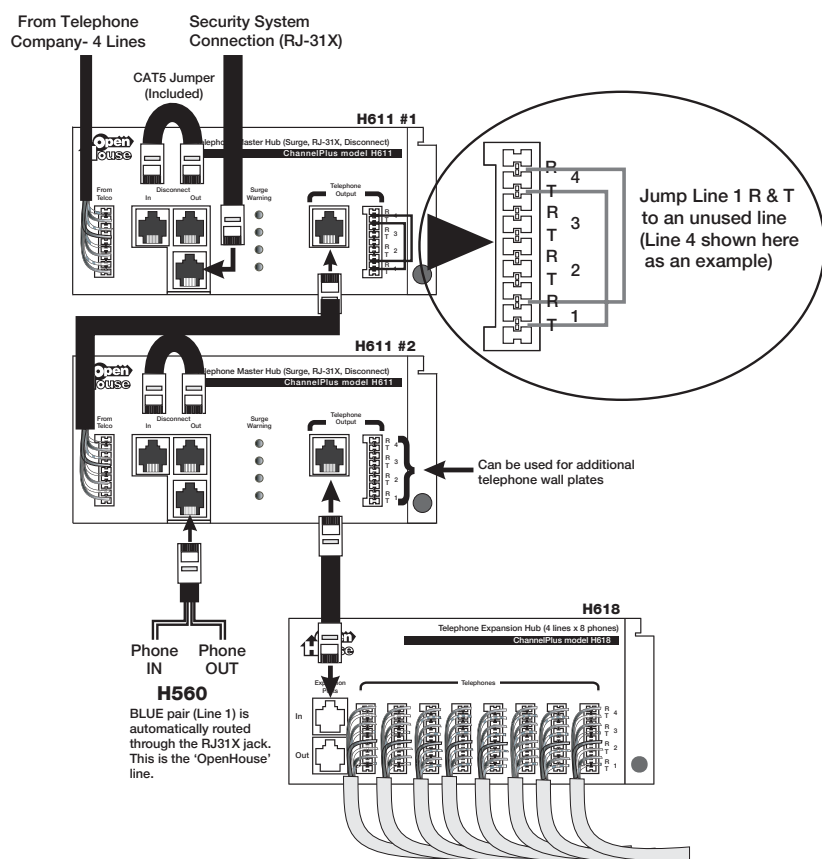
Connecting Devices 'In Front Of' the H560

To ensure problem-free operation, devices such as Modems, Fax/Answering Machines and Cable/Satellite boxes should be connected 'in front of' the H560.

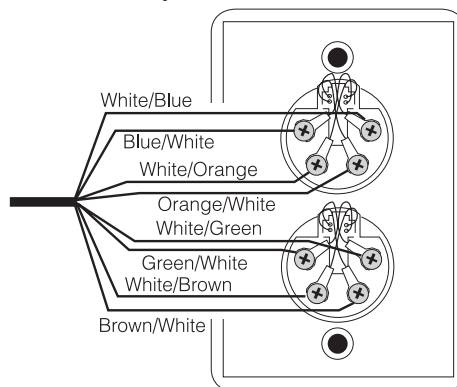
An Easy Way To Do It

The H611 accepts up to 4 phone lines. Since most homes do not have 4 lines, the extra punchdown

positions on the H611 Output Punchdown Connector can be used for connecting these devices 'in front of' the H560. In the wiring example shown below, Line 4 is not an active telephone line. By 'jumping' Line 1 to Line 4 any device connected to the bottom jack of a Dual Telephone Wall Plate would be connected directly to the phone line before it hits the H560.



Dual Telephone Wall Plate, rear view



Pair	Screw Color	+/-	Wire Color
1	Green	+	White/Blue
	Red	-	Blue/White
2	Black	+	White/Orange
	Yellow	-	Orange/White
3	Green	+	White/Green
	Red	-	Green/White
4	Black	+	White/Brown
	Yellow	-	Brown/White

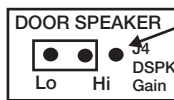
Connecting an OpenHouse Door Station (H580/H581/H585) to the H560

1. Use 22/24 AWG , 8 conductor, 4 twisted pair shielded cable w/ drain between the H560 and the Door Station location(s).
2. Connect the Drain wire to SHLD/GND position on the H560.
3. Connect DB-/DB+, MIC-/MIC+, SPKR-/SPKR+, and L-/L+ (if applicable) as shown in the diagram below.
4. Test functions and make adjustments as shown below.

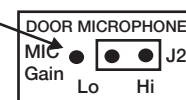
INSTALLATION TIP:



The Door Speaker and Door Microphone levels can be adjusted by repositioning 2 shunts on the H560's PC Board . To gain access to the shunts, the top cover of the H560 must be removed. Make sure you are fully grounded before removing cover or touching the PC Board. A wrist strap connected to an earth ground is recommended. See p. 26 for cover removal instructions.

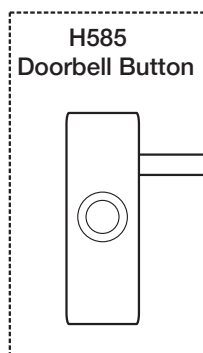


Default shunt position is Hi. Move to opposite pins to lower levels.

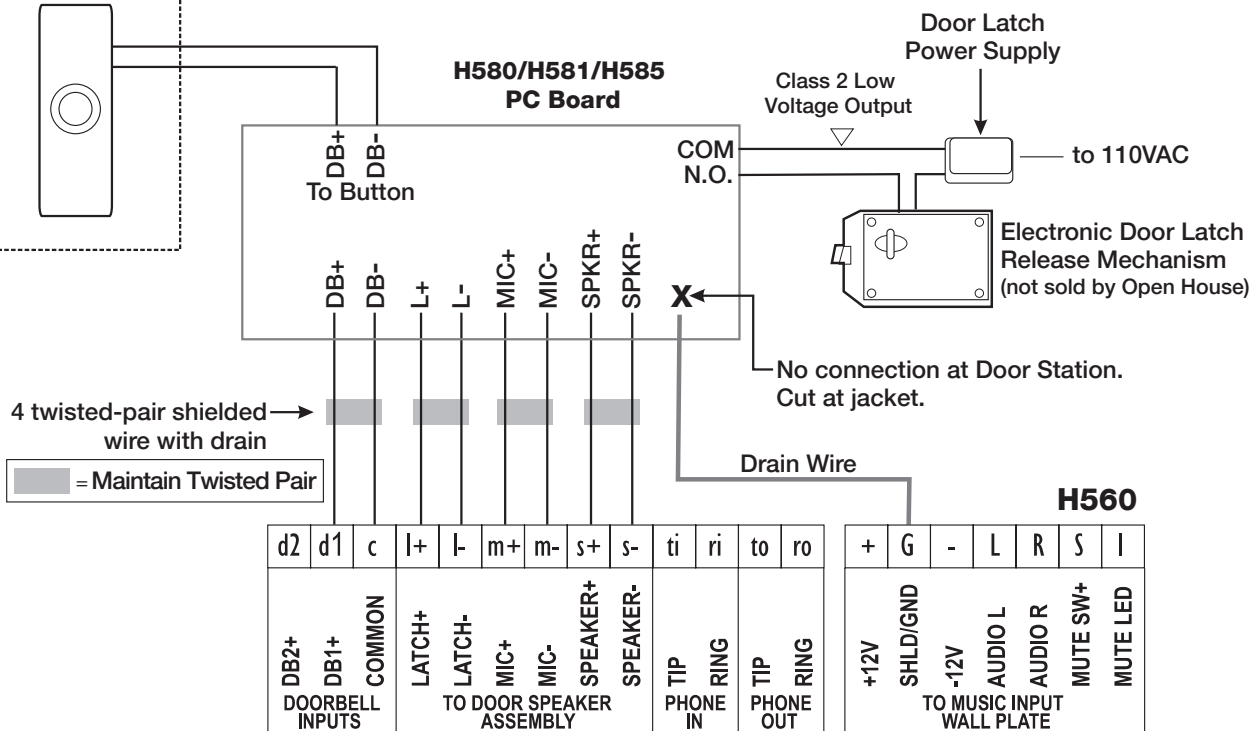


See **Gaining Access to the H560 PC Board**, p. 26.

H585 ONLY

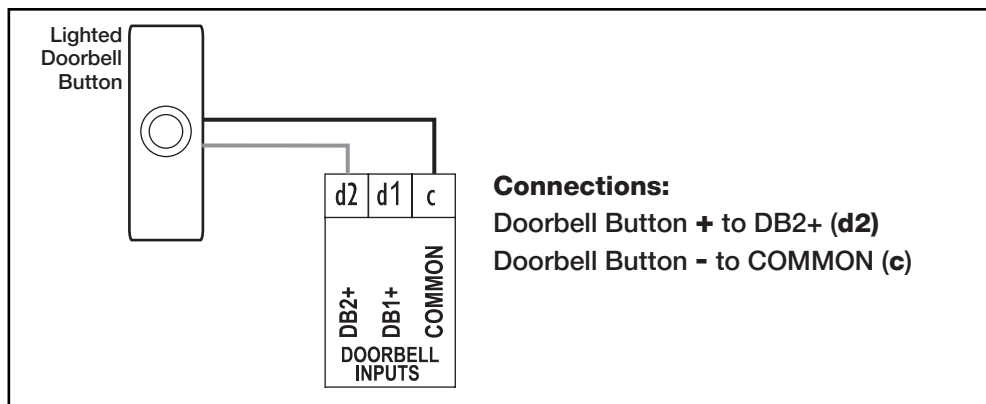


H580/H581/H585 PC Board



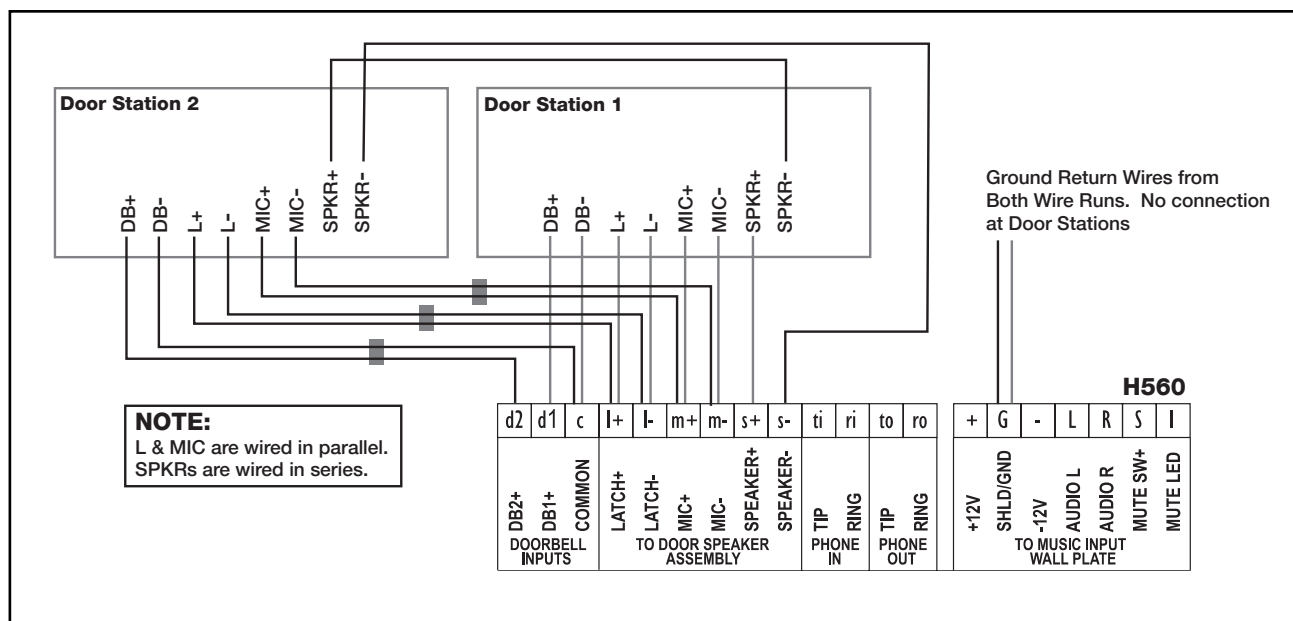
Connecting a Second Doorbell Button

1. The H560 provides two distinct door chimes: a 3-note chime for Door Station 1 and a 2-note chime for Door Station 2.
2. Although only 2 conductors are required to connect a second doorbell button, using a 4 twisted-pair shielded wire with drain permits an upgrade to a second Door Station if desired in the future.



Connecting Two Door Stations

1. The H560 provides two distinct door chimes: A 3-note chime for Door Station 1 and a 2-note chime for Door Station 2. It does not, however, provide for independent access to the Door Stations. Pressing #,3 on a telephone will connect you to both Door Stations. Pressing #,3,0 will activate both door latches (if connected).
2. When connecting two Door Stations the Doorbell, Latch and Microphone connections are wired in parallel; the Speakers are wired in series.



5. Troubleshooting

This section details the procedures necessary to troubleshoot problems that may arise when installing or operating the H560. After following these procedures to their conclusion, call Open House Tech Support at (800-999-5225) if unable to remedy the situation. These procedures include:

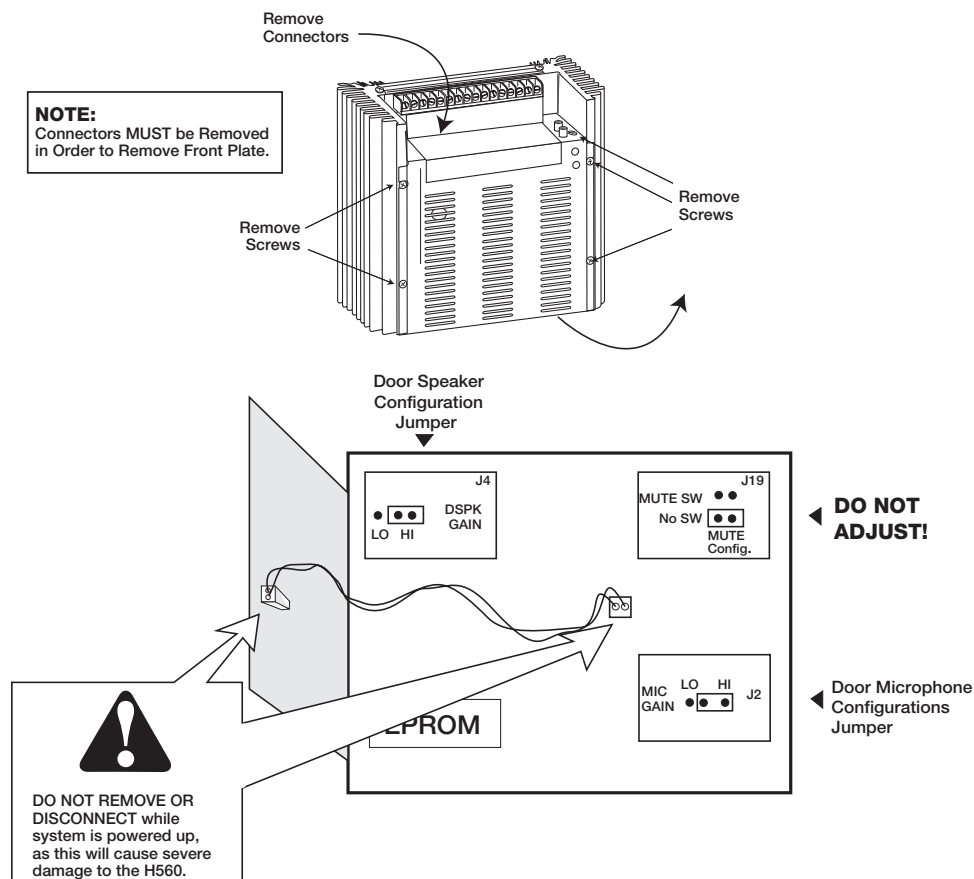
- **Gaining Access to the H560 PC Board**
- **Troubleshooting Audio, Telephone and Door Station**

Gaining Access to the H560 PC Board

1. Turn off the AC power to the unit.
2. Remove the screw located to the right of the two Line Level Output jacks.
3. Remove the four screws located on the front cover of the H560.
4. Remove both Multi-Pin Connectors.
5. Carefully ease off the H560's cover from the bottom, making sure not to bend or break the Line Level Output RCA Jack.

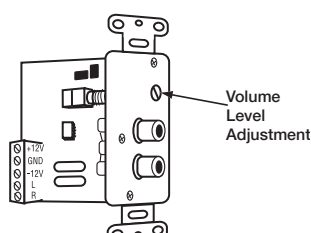


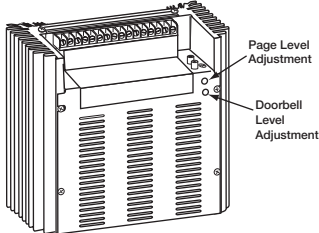
You **MUST** be fully grounded before accessing the H560 PC Board. Open House recommends the use of a grounding wrist strap anchored to an earth ground.



H560 Audio Distribution Amplifier Reference Voltages

Between H560 Pins:	Voltage Should Read:
+12V (+) and SHLD/GND (G)	+12 VDC
-12V (-) and SHLD/GND (G)	-12 VDC
PHONE OUT TIP (to) and PHONE OUT RING (ro)	+24 VDC
VOL CONT OVERRIDE+ (O+) and VOL CONT	12 VDC between O+ and O- only when Page/DB is active O+ will always read +12 VDC to any Ground except O-
DB1+(d1) or DB2+ (d2) and DOORBELL COMMON (C)	+12 VDC
LATCH+ (l+) and LATCH- (l-)	+12 VDC only when #,3,0 is pressed and held
MIC+ (m+) and MIC- (m-)	+5 VDC
SPEAKER+ (s+) AND SPEAKER- (s-)	0 VDC
IR+12V (l+) and GND (g)	+12 VDC
MUTE SW+ (S) and SHLD/GND (G)	+4.75 VDC

Symptom	Possible Cause	Possible Solution
No music (doorchime & page ok) 	- Mis-wired Music Input Wallplate. - Fuses are blown.	- Confirm that the audio source and the RCA patch cord between audio source & the Music Input Wallplate are good. - Be sure that Volume Controls are turned up - Confirm that the Input Level Adjustment pot on the Music Input Wallplate is turned up. - Check for +/- 12 VDC present at the Music Input Wallplate and verify L & R audio wires are connected properly. If not, check the fuses with a meter. Replace with 4A slow blow fuses only. - Cycle power to the H560 by going to the main electrical circuit panel and turning the appropriate breaker off, waiting 30 seconds, then turning the breaker back on. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.

Symptom	Possible Cause	Possible Solution
AUDIO No Doorbell 	• Bad, stuck or mis-wired Doorbell button • Doorbell level turned down	1. Be sure that Volume Controls are turned up. 2. Be sure that the Doorbell Volume Adjustment pot on the front of the H560 is turned up (clockwise). 3. With a piece of wire, paper clip, etc., short together the doorbell pins (DB+ and Common) on the H560. This bypasses any potential wiring or doorbell button problems. If the music mutes and the doorchime is heard, you may have a faulty doorbell button or wiring. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
No Paging Audio (music is ok)	• Mis-wired telephone jack • Mis-wired Override Volume Control • Not using touch-tone telephone • Telephone incompatibility	1. Be sure that all Volume Controls are turned up. 2. Be sure that the Page Volume Adjustment pot on the front of the H560 is turned up (clockwise). 3. Confirm that Paging Audio is not being heard in all rooms and from all telephones. If this is not the case, you may have a mis-wired telephone jack, a faulty or incompatible telephone, or a mis-wired Volume Control w/ Override. 4. Verify that you are getting the System Dial Tone and press #,7 to page. If still unsuccessful, connect a single-line, corded, touch-tone telephone or butt set directly to the H560 Phone Out pins ("to" and "ro") and try paging again. This bypasses any potential wiring problem occurring after the H560. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
Paging audio drops out	• Page volume set too high • Mis-wired Override Volume Control	1. Turn down the Page Volume Adjustment pot on the front of the H560 to a very low level (counter clockwise). Confirm that page no longer drops out, and slowly increase the level (clockwise) until you reach an acceptable volume without the page dropping out. <i>continued next page.....</i>

Symptom	Possible Cause	Possible Solution
continued.... Paging audio drops out		2. If page still drops out, check the VC+/VC- connections at all Volume Controls that have the Override feature (a process of elimination; i.e. removing the VC+/VC- wires from each Volume Control one by one, may quickly lead you to the culprit). If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
Music is distorting	• H561 Music Input Wallplate level is too high • One or more Volume Controls may be mis-wired or defective	1. Make sure you are feeding only a line level audio output (not speaker level!) to the Music Input Wallplate. Turn down the input level adjustment on Music Input Wallplate. 2. If music still distorts, one or more volume controls may be mis-wired or defective. To verify, remove all volume controls from the H560. Using an ohm meter on the disconnected wires coming back from the volume control to the H560, check to see that the impedance between the L+ and L-, and R+ and R- of all pairs of wires equals 6 to 9 ohms. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
Music is cutting out	• H561 Music Input Wallplate level is too high • Mute Switch jumpers in wrong position • H560 is overloaded and going into thermal shut-down	1. Make sure you are feeding only a line level audio output (not speaker level!) to the Music Input Wallplate. Turn down the input level adjustment on Music Input Wallplate. 2. Mute Switch Jumpers should NOT be changed. Jumper should remain in "No SW" position. 3. Be sure you have not exceeded the maximum recommended speaker and volume control limits outlined in this manual. Be sure you are using only the specified OpenHouse Volume Controls. 4. Remove all volume controls from the H560. Using an ohm meter on the disconnected wires coming back from the volume control to the H560, check to see that the impedance between L+ and L-, and R+ and R- of all pairs of wires equals 6 to 9 ohms. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.

Symptom	Possible Cause	Possible Solution
TELEPHONE No Dial Tone (neither OpenHouse system dial tone or C.O. dial tone present)	- Mis-wired telephone jacks - Mis-wire between H560 and punchdown block	- Confirm that dial tone is not present on any of the phones in the house. - Verify that +24VDC (+/- 4V) is present between H560 phone out pins "to" and "ro". - Disconnect the incoming phone line from the H560 (pins "ti" and "ri"). Connect a single-line, corded, touch-tone telephone or butt set directly to the H560 Phone Out pins ("to" and "ro") and try paging again. This bypasses any potential wiring problem occurring after the H560. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
Unable to dial out or no ring in	- Non touch-tone telephone - Inactive C.O. service - Mis-wired OpenHouse phone inputs and/or outputs - Telephone incompatibility - Too many phones (no ring in)	- Verify that phone(s) is not set on "pulse". - Verify that the problem is not specific to a particular telephone. - Verify that C.O. service is active (if an RJ-31 jack was installed), unplug the OpenHouse line and connect a phone or butt set directly to the jack. If no RJ-31 jack was installed, disconnect the incoming phone line from the OpenHouse Phone In pins ("ti" and "ri") and connect a phone or butt set directly to the incoming line). Try dialing out/in. - Once C.O. Service is verified, reconnect the incoming line to the H560 Phone In pins ("ti" and "ri"), then connect a single-line, corded, touch-tone telephone or butt set directly to the H560 Phone Out pins ("to" and "ro"), verify system dial tone and try dialing out/in. This bypasses any potential wiring problem occurring after the H560. - A possible cause of 'no ring in' is that the number of phones in the house has exceeded the Ringer Equivalency voltage provided by the telephone company. To verify, unplug all but one telephone and have someone dial in. If the phone rings, check the Ringer Equivalency Number (REN) of all the phones in house (the FCC requires that this number be listed on all telephones). If the total REN exceeds 5.0 (including a REN of 0.6 for the YHN system), this may be the cause of your 'no ring in'. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.

Symptom	Possible Cause	Possible Solution
No OpenHouse Telephone features or cannot break OpenHouse dial tone	• Non touch-tone phone • Incorrect key sequence • Telephone incompatibility	1. Verify system dial tone. 2. Verify that phone is not set to "pulse". 3. Be sure you are using the correct key sequence to initiate the desired feature (see Telephone Quick Reference Guide immediately following the index). 4. Try another touch-tone telephone. If, after trying all of the above, the problem persists, call OpenHouse Technical Support for assistance.
Phones ring once, then stop, or, phones ring, pick up, no one there	• Low Loop Current	1. Call your local phone company and find out the value of the 'Loop Current' being sent to the home. The system requires a minimum Loop Current of 18mA

Technical Services**800-999-5225**



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Limited Warranty

Linear LLC warrants this product to be free from defects in material and workmanship for 2 years. The time period will be measured using the date code labeled on the product. Linear LLC is not responsible for damage to the product resulting from the buyer's improper handling, stocking or warehousing of the product. Any implied warranty arising from the sale of the product including implied warranties of merchantability and fitness for purpose are limited. Linear LLC shall not be responsible for any losses, damages or expenses, whether direct, consequential, or incidental arising from the use or the inability to use the product. Some states and countries do not allow limitations or how long an implied warranty lasts or the exclusion or limitation or incidental or consequential damages, so the above exclusions may not apply. The Linear LLC warranty gives specific legal rights in addition to other rights, which may exist and vary from state to state and country to country.

The warranty is limited to repair or replacement of products returned, freight prepaid, to Linear LLC, there is NO PROVISION FOR LABOR COST OR OTHER REIMBURSEMENTS OF ANY KIND.

1. Failures due to product abuse, such as negligence, improper use, and electrical surge including damage from lightning, water damage or other damage due to natural disasters are not covered by the warranty. The most common form of product abuse is surge damage caused by lightning.
2. The warranty shall also be voided by any tampering with the date code, labels or other markings on the product.
3. Products that are damaged in transit to Linear LLC due to improper packaging or by the carrier (shipping company) will not be covered under the warranty. If the product was damaged or lost by the carrier, it is the sender's responsibility to create a claim against the carrier.
4. The user is responsible for all labor costs associated with removing, reinstalling and returning the product to Linear LLC.

Linear LLC, at its option, will repair or replace the defective product. Replacements will be made from B-Stock, if an exact replacement is not available, Linear LLC, at its option, will select the nearest equivalent product. The user is responsible for freight charges to Linear LLC. Linear LLC will return warranted repaired or replacements by UPS Ground or an equivalent service. A customer may pay the additional costs for second-day or next-day service.

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-999-5225 for an RPA# and other important details.

Telephone Quick Reference Guide

PAGE	# , PAGE 7	“P” for PAGE. Speak into the phone receiver and your voice will be heard throughout the house over the speakers. Pressing # automatically places a caller on hold; to return to the caller after the page, press # again.
PHONE-TO-PHONE INTERCOM	# , PAGE 7 , Inter 0	This allows you to talk with someone at another phone in the house after a page, without the conversation being heard over the speakers.
HOLD	# , GHF 4	“H” for HOLD. Allows you to place caller on hold, hang up, and take the call on another phone in the house.
DOOR SPEAKER	# , DEF 3	“D” for DOOR. Allows you to use a telephone to speak with a visitor at the door..
DOOR LATCH (OPTIONAL)	# , DEF 3 , Inter 0	Activates the door latch relay. The relay operates as long as you hold the Inter 0 .
SYSTEM	# , WXYZ 9	The System Bypass allows you to use outside phone services that require use of the # key.
MUSIC MUTE	# , MNO 6	This command allows you to mute the music coming through your speakers for the duration of an incoming or outgoing call.

Note: If you have a caller on the line and you activate any of the features, the caller is automatically placed on hold.

Off Hook Alert - If phone is left off hook, after two minutes a “beep” is heard over all the speakers.

Telemute - Music mutes for the duration of the telephone ring.