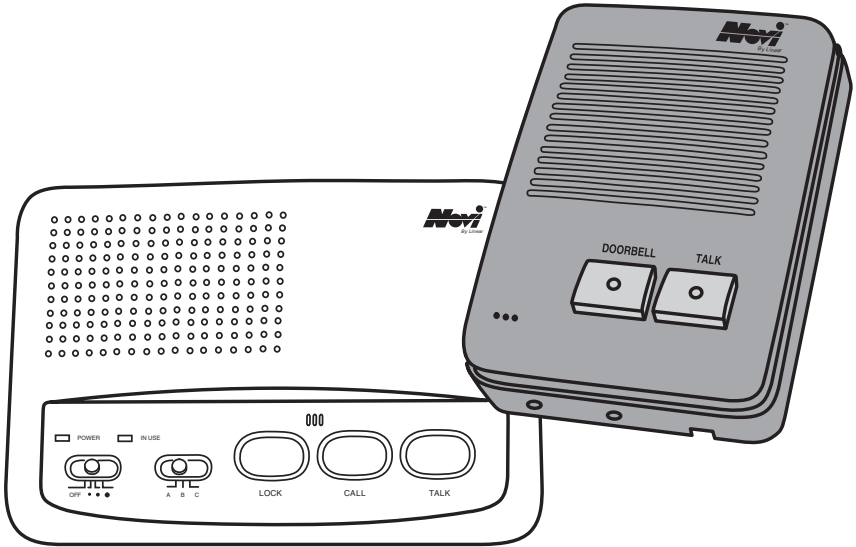


# Doorbell Intercom Security System



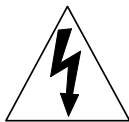
## Installation Guide



Model DB-301



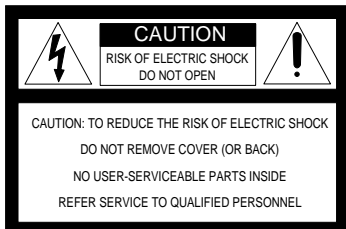
## EXPLANATION OF GRAPHIC WARNING SYMBOLS



This symbol 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 electric shock.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the device.



★ **WARNING!** To prevent fire or shock hazard, do not expose this device to rain, water, or wet locations.

★ **CAUTION!** To prevent electric shock, match wide blade of plug to wide slot, fully insert.

## IMPORTANT SAFETY NOTES



☞ **POWER SOURCE** This unit should only be connected to a 110-120 VAC power source as marked on the unit.



☞ **GROUNDING OR POLARIZATION** This unit is equipped with a polarized AC power cord plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug.



☞ **NON-USE PERIODS** Always turn the unit off and unplug when it is not being used or left unattended for long periods of time.



☞ **OBJECT AND LIQUID ENTRY** Never push objects of any kind into the unit through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.



☞ **CLEANING** Unplug the unit from the wall outlet before cleaning or polishing it. Do not use liquid cleaners, aerosol cleaners, gasoline or other flammable fluid. Clean the exterior of the unit with a slightly damp cloth.



☞ **WATER AND MOISTURE** Do not use power line operated units near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.



☞ **VENTILATION** The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the unit should not be situated on a bed, sofa, rug or placed in a built-in installation that may block the flow of air through the ventilation openings.



- ☞ **POWER CORD PROTECTION** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- ☞ **READ INSTRUCTIONS** All the safety and operating instructions should be read before the product is operated.
- ☞ **RETAIN INSTRUCTIONS** The safety and operating instructions should be retained for future reference.
- ☞ **HEED WARNINGS** All warnings on the product and in the operating instructions should be adhered to.
- ☞ **FOLLOW INSTRUCTIONS** All operating and use instructions should be followed.
- ☞ **ATTACHMENTS** Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- ☞ **ACCESSORIES** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- ☞ **OVERLOADING** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- ☞ **REPLACEMENT PARTS** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- ☞ **SAFETY CHECK** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- ☞ **WALL OR CEILING MOUNTING** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
- ☞ **HEAT** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## SERVICE NOTES

☞ **DAMAGE REQUIRING SERVICE** Unplug the unit from the wall outlet and refer servicing to qualified service personnel under the following conditions.

- ➔ **If liquid has been spilled into the unit.**
- ➔ **If the unit has been exposed to water.**
- ➔ **If the unit has been dropped, enclosure, cord, or plug damaged.**
- ➔ **If the unit does not operate normally when following the operating instructions.**
- ➔ **When the unit exhibits a distinct change in performance.**

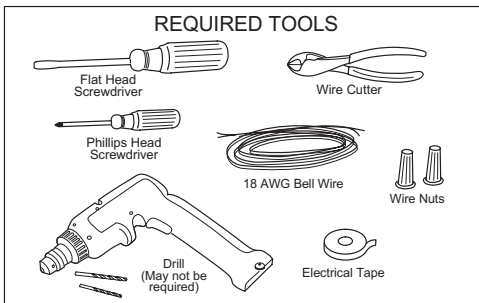
**THE USER SHOULD NOT ATTEMPT TO SERVICE THE UNIT. ALL SERVICING SHOULD BE REFERRED TO QUALIFIED PERSONNEL.**

**Changes or modifications to the unit may void the users authority to operate the equipment.**

## DOORBELL INTERCOM SYSTEM FEATURES

- Allows you to answer your door without ever opening your door.
- Allows you to answer your door from any room in your house.
- Easily converts any doorbell into a complete in-home intercom and security system.
- Provides safety, security and peace of mind.
- Easy to install and operate.

☞ **NOTE:** "WIRELESS TECHNOLOGY" can infer sound transmission is carried on the airwaves or through the electrical wiring of your home or business. Linear Wireless Intercom Products have sound carried on the electrical wiring. The wiring in your building must be able to complete an electrical loop without any interference. This means that the electrical line coming from the transformer outside your building, will enter your building, loop through each room and exit at the same point where it entered. If there has been an added loop brought in, remodeling done, or a sub-transformer is present, transmission may not be possible.



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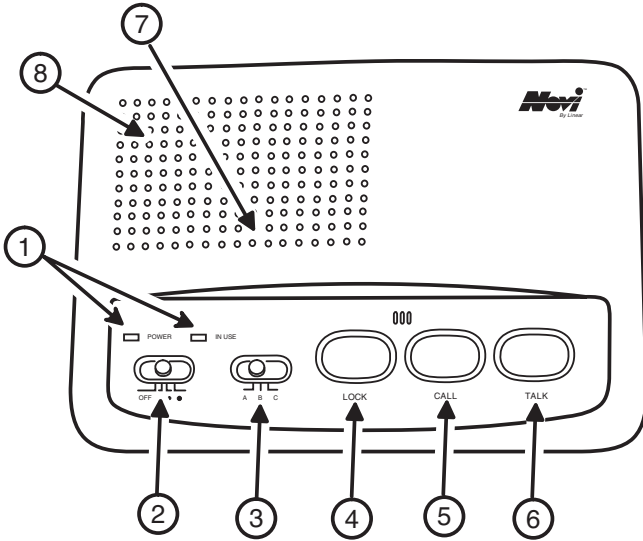
Thank you for your purchase of the Linear Doorbell Intercom Security System. Linear is proud to bring to the public an easy-to-install and use in-home security and communications system. By using your home's electrical wiring to carry sound, the Doorbell Intercom Security System offers you the opportunity to answer the door from any electrical outlet on your property.\* In addition to the convenience that this product brings, you will also appreciate the security feature, that makes it possible to talk to people outside your door, without actually opening it.

\*This occurs if all outlets around the property are connected to the same electrical loop that the household wiring is on. Most homes in the U.S. will have only one electrical loop on the property.

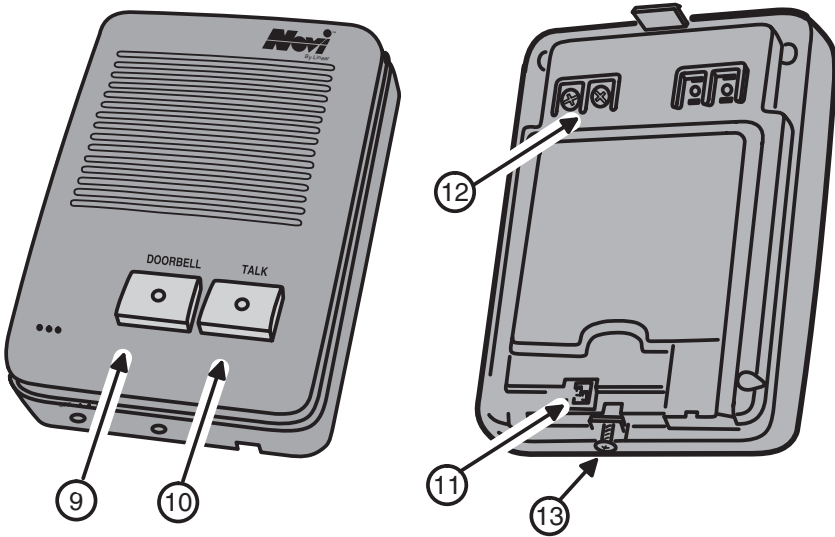
***For technical assistance  
Call: 1-800-842-5378***

# DOORBELL INTERCOM SECURITY SYSTEM

## WI-3P 3-CHANNEL INTERCOM



## DB-300 DOORBELL MODULE



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## **Wireless Intercom**

### **1. IN USE & POWER INDICATORS**

Lights when intercom is activated, lights when AC power is on.

### **2. POWER/VOLUME SWITCH**

Turns unit on and off, controls volume.

### **3. CHANNEL SELECTOR**

Allows you to select between channels.

### **4. LOCK BUTTON**

Press down for continuous monitoring. (Used only when communicating between two or more wireless intercoms.)

### **5. CALL BUTTON**

Pages other units on the same channel. (Used only when communicating between two or more wireless intercoms.)

### **6. TALK BUTTON**

Press to talk. Release to listen.

### **7. MICROPHONE**

High-gain microphone monitors your voice.

### **8. SPEAKER**

Clearly transmits pure, static-free, two-way voice communication.

---

## **Doorbell Module**

### **9. DOORBELL BUTTON**

Produces a doorbell sound.

### **10. TALK BUTTON**

Press to talk, Release to listen

### **11. CHANNEL SELECTOR**

Allows you to select between channels.

### **12. WIRE TERMINALS**

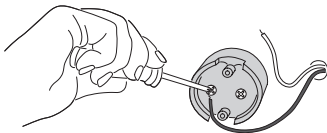
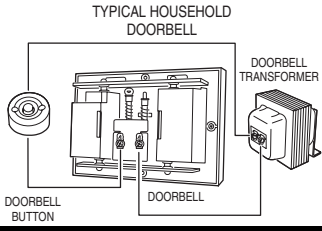
Used to connect transformer to doorbell.

### **13. RETAINING SCREW**

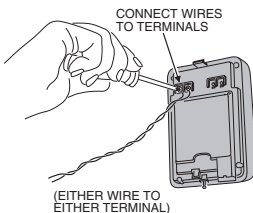
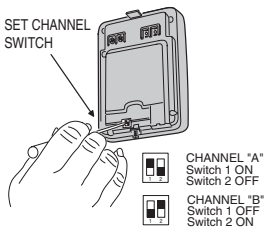
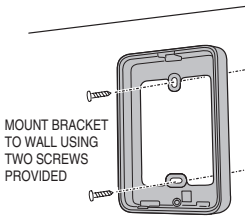
Secures doorbell module to mounting plate.

# DOORBELL MODULE INSTALLATION

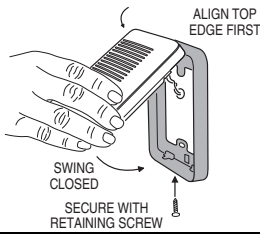
## Installing Using Existing Doorbell Wiring



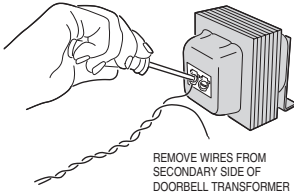
DISCONNECT AND REMOVE EXISTING DOORBELL BUTTON



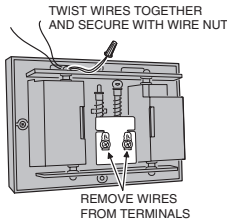
1. In a typical household doorbell system, the three components (doorbell button, doorbell and doorbell transformer) are wired in a loop (see figure).
- ★ **WARNING!** Before proceeding, turn off the circuit breaker (or remove fuse) that supplies current to your existing doorbell transformer. Press the doorbell button to double check that the power is off.
2. Remove and disconnect existing doorbell button.
3. Attach doorbell-mounting bracket to wall using the two screws provided.
4. Set doorbell module channel switches to select intercom channel. For Channel "A" set Switch 1 ON and Switch 2 OFF. For Channel "B" set Switch 1 OFF and Switch 2 ON.
5. Connect existing wires to terminals on doorbell module (either wire to either terminal).



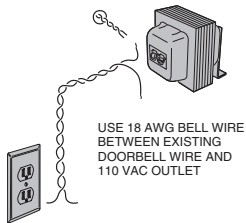
6. Attach doorbell module to doorbell mounting bracket (secure with retaining screw later after adjusting volume).



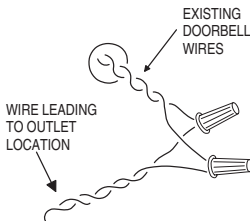
7. Disconnect low-voltage (24 VAC) interior wires from existing doorbell transformer.



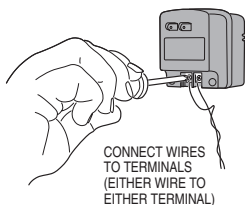
8. Disconnect the two wires inside the doorbell and twist them together. Secure and insulate wires with a wire nut.



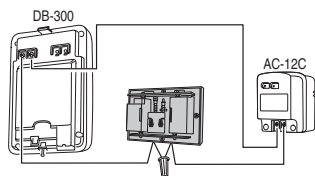
9. Route 18 AWG bell wire from the location of the wires disconnected in Step 7 to a nearby 110 VAC outlet location.



10. Connect existing wires to the 18 AWG bell wire with two wire nuts.

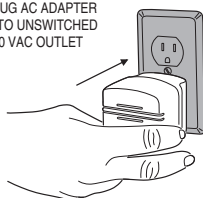


11. Connect the other end of the 18 AWG bell wire to the AC adapter terminals (either wire to either terminal).



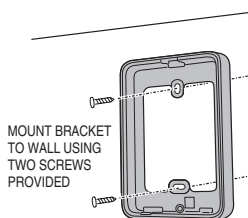
12. A DB-301 system wired using the existing doorbell wiring will be set up as shown in the figure.

PLUG AC ADAPTER  
INTO UNSWITCHED  
110 VAC OUTLET

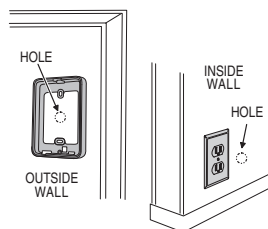


13. Plug adapter into an unswitched 110 VAC power outlet. Turn on circuit breaker (or replace fuse) to restore power to other devices on that circuit.

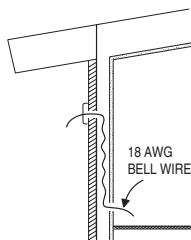
### Installing As A New Independent System



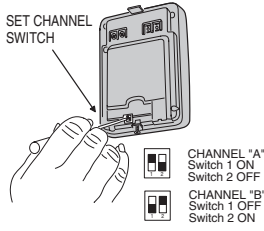
1. Attach doorbell-mounting bracket to wall using the two screws provided.



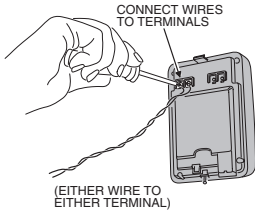
2. Drill holes to provide wiring access from doorbell-mounting bracket to a nearby 110 VAC power outlet.



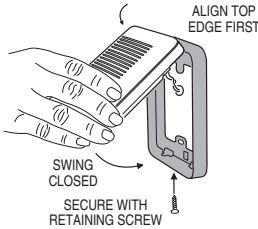
3. Route 18 AWG bell wire from doorbell-mounting bracket to 110 VAC outlet location.



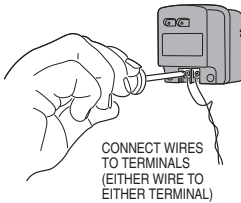
4. Set doorbell module channel switches to select intercom channel. For Channel "A" set Switch 1 ON and Switch 2 OFF. For Channel "B" set Switch 1 OFF and Switch 2 ON.



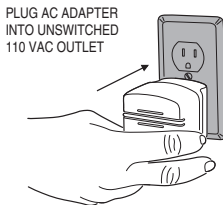
5. Connect wires to terminals on doorbell module (either wire to either terminal).



6. Attach doorbell module to doorbell-mounting bracket (secure with retaining screw later after adjusting volume).

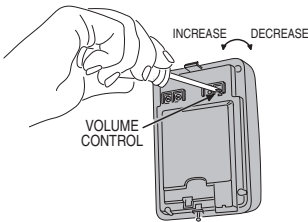
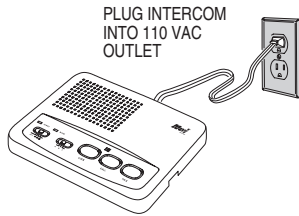


7. Connect wires to AC adapter terminals (either wire to either terminal).



8. Plug the adapter into an unswitched 110 VAC power outlet.

## INTERCOM INSTALLATION



1. Choose where you want to plug in the wireless intercom that is being used as a doorbell. Make sure that the channel selector on each of the intercoms you install are on the same channel as the doorbell module. We recommend that you dedicate at least one intercom per floor. (Do not change the channel position on dedicated intercoms after you have installed the system).
2. Locate the volume control screw on the back of the doorbell module. Use a small Phillips-head screwdriver to raise or lower volume. To increase the volume of doorbell module, turn screw counter clockwise.

## TESTING THE SYSTEM

Make sure doorbell module AC adapter is plugged in and that Wireless Intercom is plugged in. You should see light shining through both buttons on the front of the doorbell module. This indicates power is present.

1. Ask someone to assist you. One person should stand at door, while second person stands next to the Intercom.
2. Person at door should press DOORBELL button. This should produce a doorbell sound.
3. Person at intercom should now press and hold down TALK button and speak to the person at doorbell. Then release to wait for reply.
4. The person at door should now press TALK and answer back.
5. To continue conversation, simply press TALK button back and forth between the two locations, remembering to release the buttons when waiting for a reply.
6. If the sound is good, you may now replace the retaining screw.

The LOCK and CALL buttons on the wireless intercom have no practical use in the doorbell application. They are used only when communicating between two or more wireless intercoms. You may purchase additional wireless intercoms to create an in-home communication system. You would use whatever channel or channels that have not been assigned to the Doorbell Intercom Security System. Remember that the wireless intercoms assigned to the Doorbell Intercom System are dedicated and should not be used for any other purpose.

# TROUBLESHOOTING

## **No Sound**

- ☞ Check to see if channel selection is the same on doorbell module and wireless intercom.
- ☞ Make sure LOCK button on wireless intercom is up.
- ☞ Make sure wireless intercom is turned on and volume control is up.
- ☞ Make sure volume control on back of doorbell module is turned up.
- ☞ Make sure the light shines through on both buttons on front of doorbell module, if the lights are not there, this means electricity is not reaching the module. Check to see if wires connecting doorbell module and AC adapter are firmly connected. Make sure that AC adapter is plugged into outlet and that there is electricity at outlet.
- ☞ You may have damaged wire connecting the doorbell module and AC adapter. Reconnect doorbell module and AC adapter with good wire.
- ☞ You may have more than one electrical loop. Try moving wireless intercom to other outlets around your home to see if any connect with the electrical line the adapter is plugged into. If all of the above have been tried without success, disconnect adapter and doorbell module and reconnect with a few feet of wire. Plug adapter into an outlet and plug wireless intercom into same outlet. If both units are on the same channel, but do not communicate, call the telephone number on the enclosed warranty card.

## **Poor Sound Quality**

- ☞ Fluorescent lights, computers, base units of cordless phones and touch-activated appliances may cause a scratchy or broken signal. The strength of Linear filters is superior to most other intercoms; however, modern consumers are adding more technologically advanced products to their household current, some of these products may cause electrical interference. Please try the following steps to determine if improvement is possible.
  1. Change channel on back of doorbell module and on wireless intercom.
  2. Plug wireless intercom into different outlets around the property.
  3. You may have a loose connection. Check all terminals and wire.

## SPECIFICATIONS

DESCRIPTION	SPECIFICATION
<b>DOORBELL MODULE</b>	
POWER SOURCE	12 VAC AT 60 Hz
CARRIER FREQUENCY	(A) 230 kHz, (B) 260 kHz
RF OUTPUT POWER	80 mW (70 mW - 100 mW)
AUDIO OUTPUT POWER	500 mW
STANDBY CURRENT	30 mA
MAXIMUM CURRENT	180 mA
DIMENSIONS	3" x 5-1/4" x 1-1/4"
WEIGHT	8-1/4 oz
<b>3-CHANNEL WIRELESS INTERCOM</b>	
POWER SOURCE	110-120 VAC AT 60 Hz
CARRIER FREQUENCY	(A) 230 kHz, (B) 260 kHz (C) 290 kHz
RF OUTPUT POWER	100 mW
AUDIO OUTPUT POWER	500 mW
MODULATION METHOD	FREQUENCY MODULATION (FM)
TRANSMIT/RECEIVE	PHASE LOCKED LOOP (PLL)
DIMENSIONS	6" x 5" x 1"
WEIGHT	1 Lb.



