

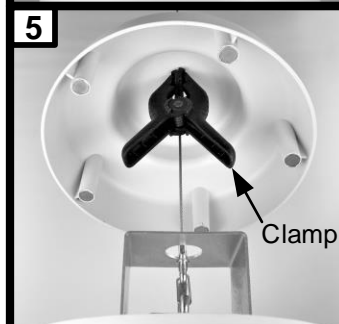
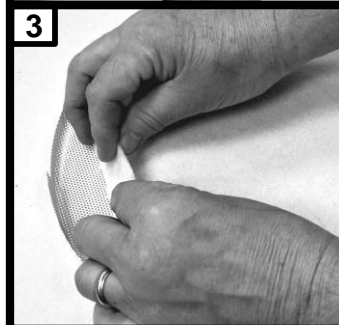
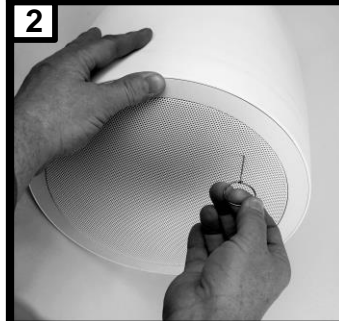


WARNING! Pendant-Mount Speaker installation should only be performed by experienced qualified professionals with a complete working knowledge of load-rated hardware and safe installation, mounting, and rigging techniques. Improperly installed equipment can result in property damage, personal injury, death, and/or liability for the installing contractor. The speaker system must be mounted in accordance with all local, state, and federal building codes and regulations and the installation must conform to industry standard practices. It is the responsibility of the installer to properly select all installation hardware, rigging hardware, and safety or restraint cables to be used. Before installation, it is the responsibility of the installer to consult a licensed mechanical or structural engineer to evaluate and certify the structural integrity and safety of any mounting method and the suitability of that method to be used to mount the pendant loudspeaker to the building structure in this particular installation. All speaker rigging systems must be designed with a minimum of a 5X safety factor. Lowell Manufacturing Company is not responsible for the use, misuse, misapplication, or unsafe installation of any loudspeaker that it has manufactured.



Product Specifications

Model	Driver	Power Rating	Frequency Resp. & Sensitivity	Transformer Taps	Dispersion	Install Weight	Optional Accessories
ESP-62TB (black) ESP-62TW (white)	6-1/2" coaxial (with HF tweeter)	50 watts @ 8 ohms EIA426B	64Hz - 20kHz ± 6dB 88.6dB (8Ω, 1W@1M)	100V (32W, 16W, 8W, 4.2W) 70V (32W, 16W, 8W, 4W, 2W) 25V (4.4W, 2.2W, 1.1W, .55W, .28W)	120° conical @ 2kHz octave (-6dB)	8.5 lbs (not including hardware)	ESP-CBL (cable set) ESP-6-BRKTB ESP-6-BRKTW (U-bracket)
ESP-82TB (black) ESP-82TW (white)	8" coaxial (with HF tweeter)	120 watts @ 8 ohms EIA426B	64Hz - 20kHz ± 6dB 90.0dB (8Ω, 1W@1M)	100V (120W, 60W, 30W, 15W) 70V (120W, 60W, 30W, 15W, 7.5W) 25V (15W, 7.5W, 3.75W, 1.88W, 0.94W)	105° conical @ 2kHz octave (-6dB)	15.6 lbs (not including hardware)	ESP-CBL (cable set) ESP-8-BRKTB ESP-8-BRKTW (U-bracket)
ESP-82CTDB (black) ESP-82CDTW (white)	8" coaxial (with HF compression driver)	150 watts @ 8 ohms EIA426B	67Hz - 20kHz ± 6dB 91.5dB (8Ω, 1W@1M)	100V (120W, 60W, 30W, 15W) 70V (120W, 60W, 30W, 15W, 7.5W) 25V (15W, 7.5W, 3.75W, 1.88W, 0.94W)	70° conical @ 2kHz octave (-6dB)	19.0 lbs (not including hardware)	ESP-CBL (cable set) ESP-8-BRKTB ESP-8-BRKTW (U-bracket)



Illustrations and Instructions

Note that in the pictures, illustrations, and instructions, a white ESP-62TW pendant speaker has been used, but all illustrations and instructions also apply to the other ESP Series models: ESP-62TB, ESP-82TB, ESP-82TW, ESP-82CDTB, ESP-82CDTW.

Note that the Lowell ESP Series pendant speakers are for INDOOR USE ONLY !
Please read through this entire installation manual before beginning the installation.

Painting an ESP Pendant Series speaker:

1 Before spray painting the pendant speaker, cover the driver and selector switch to protect them. Plastic paint guards like the one shown are sold separately by Lowell Manufacturing or cardboard and masking tape can be used. A light fine sanding of the plastic parts can help the paint to adhere to the plastic surfaces. Be sure to use spray paint that is suitable for ABS plastic. Do not install the fine mesh grille and safety string until the spray paint has dried.

2 When painting the pendant speaker after it has been installed, first remove the front grille using the grille removal tool provided with each ESP Series speaker, and remove the safety string plug that attaches the fine mesh grille to the speaker. Before spray painting the pendant speaker, cover the driver and selector switch to protect them from the spray paint. Plastic paint guards are sold separately by Lowell Manufacturing or cardboard and masking tape can be used.

3 If it is desired to spray paint the fine mesh front grille, the scrim on the back of the grille must first be removed. Gently peel the scrim piece off of the metal grille. Remove any fibers that remain stuck to the rear of the grille. Spray paint the grille using several very light coats so the fine mesh grille holes are not blocked with paint. After the paint has dried, replace the scrim material on the rear of the grille using a light layer of all purpose spray adhesive. When all paint and glue have completely dried, insert the safety string plug securely into the hole on the front of the pendant speaker (in the hole near the driver), and push the fine mesh grille firmly in place.

Installing the ESP Pendant speaker using cables:

Lowell Manufacturing recommends hanging the ESP Series pendant-mount speakers using the Lowell ESP-CBL cable hanging kit (sold separately). That cable kit consists of two (2) 15' Snap-On-Hook No. 2 Gripple Cables and two (2) Gripple Express fasteners. All are UL-Listed and CSA approved. Pay strict attention to the "Gripple" cable installation instructions included with the ESP-CBL kit. Note that one cable in the kit is to be used for the main suspension cable. The second cable is to be used for the mandatory safety cable. Also note that per the "Gripple" cable installation instructions, the Gripple cables may not be used in a chlorinated environment such as near a swimming pool, hot tub, or shower.

4 The design of the rigging method and choice of the load-rated hardware to be used to attach the hanging cables to the building structure, is the responsibility of the installer. Note that the top cover is held to the pendant speaker by magnets so it can be removed by pulling at the top hole of the cover. Install the main suspension cable hook through the center slot on the cable bracket on top of the pendant-mount speaker as shown, and then feed the cable through the top cover. Attach the main suspension cable to the building structure and adjust the speaker height as desired (following carefully the "Gripple" cable installation instructions included).

5 After the main suspension cable has been secured and adjusted, it is helpful to use a plastic clamp (not provided but available at any hardware store) to hold the top cover up and out of the way while adjusting the safety cable and terminating the speaker wires.

6 Install the mandatory safety cable through one of the side slots as shown. The safety cable should be snug but not so tight that it causes the pendant-mount speaker to hang crooked. The center main suspension cable should hold the weight of the pendant-mount speaker. The main suspension cable, the mandatory safety cable, and the audio speaker cables will all pass through the hole in the top cover before being attached to building structure.

Skip to "ESP Series Pendant Speaker System Wiring:" on Page 4 of 4

Installing ESP Series Pendant Speaker using pipe:

WARNING: Each pendant-mount speaker model includes a pipe bracket with a hole that is sized for 3/4" rigid conduit, 3/4" ceiling fan pipe, or other type of 3/4" pipe. UL cannot evaluate your custom pipe hanging system, so it is the responsibility of the installer to consult with a licensed mechanical or structural engineer to certify the structural integrity and safety of any pipe hanging system that is used to hang a pendant-mount speaker manufactured by Lowell Manufacturing Company (including the pipe, attachment method to building structure, fittings, washers, safety pins etc.) The pipe hanging system must meet all local, state, and federal building codes and regulations. The pipe hanging details given in the pictures illustrate the use of the pipe hanging bracket only and do not imply any pipe rigging system recommendation by Lowell Manufacturing.

7 Before mounting the pendant speaker on the pipe-hanging system, remove the top lid from the pendant speaker, remove the top rubber grommet, and slide the top cover up on the pipe. It is helpful to use a plastic clamp (not provided but available at any hardware store) to hold the top cover up on the pipe and out of the way while mounting the pendant speaker.

8 Install the certified pipe hanging system. Hang the pendant-mount speaker by installing the speaker's pipe bracket to the certified pipe hanging system using approved fittings or pins etc.

9 Lowell Manufacturing recommends the use of the Lowell ESP-CBL hanging cable kit (sold separately) for the mandatory safety cables required. The ESP-CBL kit consists of two (2) 15' Snap-On-Hook No. 2 Gripple Cables and two (2) Gripple Express fasteners. All are UL-Listed and CSA approved. Pay strict attention to the "Gripple" cable installation instructions included with the ESP-CBL kit. Note that the two (2) cables in the ESP-CBL kit will provide the one (1) mandatory safety cable for two (2) different pendant speakers that are hung by pipe. Attach the mandatory safety cable to the middle slot, feed it up through the pipe, and attach the safety cable to building structure that will still be in place if the pipe hanging system fails. Feed the audio speaker cable or cables through the pipe making sure they are long enough to reach the Phoenix-type connector on top of the pendant speaker.

Skip to "ESP Series Pendant Speaker System Wiring:" on Page 4 of 4

Mounting ESP Series Speaker using a U-bracket:

Refer to the installation safety guidelines "WARNING" on page 1 of 4.

The ESP-6-BRKTB (black for ESP-62TB), ESP-6-BRKTW (white for ESP-62TW), ESP-8-BRKTB (black for ESP-82TB or ESP-82CTB), and ESP-8-BRKTW (white for ESP-82TW or ESP-82CTW), are U-bracket mounting kits (sold separately) that allow the ESP Series pendant speakers to be mounted to a wall, post, beam, truss, or other type of suitable building structure that can support the weight.

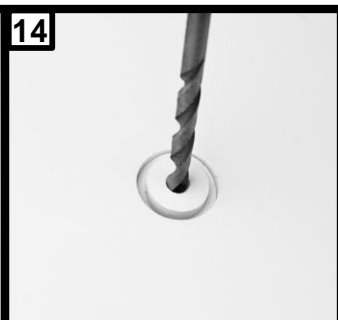
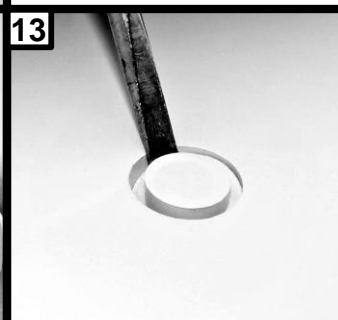
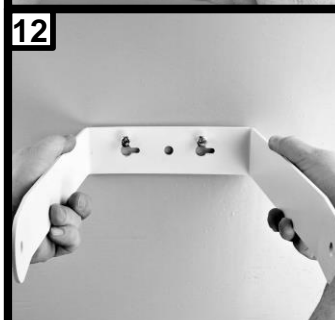
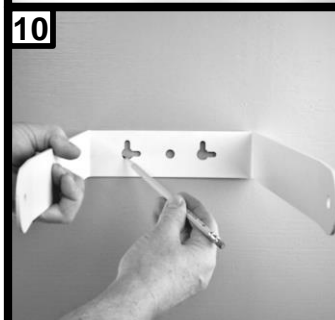
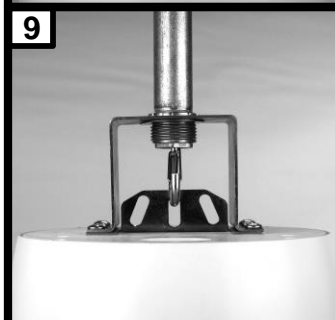
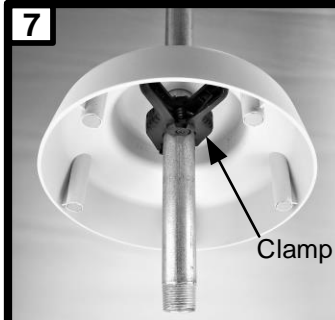
10 Use the U-bracket as a template to mark the location for the load-rated mounting screws (screws to be provided by the installer). Make sure that the heads of the screws will fit through the 1/2" round holes in the bracket, but that the heads of the screws are large enough to hold in the slots of the bracket.

11 Install the mounting screws and tighten the heads so they are within 1/2" of the surface.

12 Test to make sure the U-bracket holes will fit over the heads of the screws as you have installed them, and that the screws will slide down into the slots in the U-bracket as shown.

13 The two round plugs on each side of the enclosure must be removed so the U-bracket knobs can be attached to the threaded inserts below the plugs. The plugs are only attached to the enclosure with a thin layer of plastic at the base of the plugs. Some installers prefer to pry out the plugs using a small flat head screw driver as shown.

14 Other installers find it to be more efficient to drill a 1/8" hole in the plastic plug as shown (being careful not to damage the threaded insert below). Then take the butt end (non-sharpened end) of the 1/8" drill bit and insert it into the hole to use as a pry bar as shown on the next page.

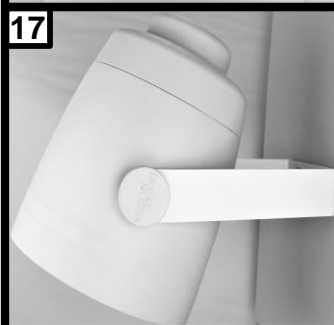




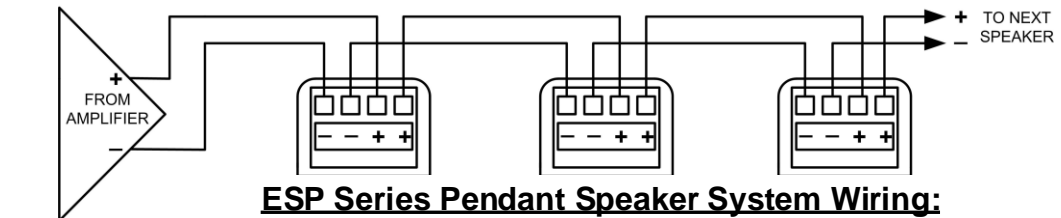
15 Prying the plug side to side and up and down should break the thin plastic and the plastic plug should come out. Clean any remaining plastic away from the threaded metal insert.



16 The U-bracket kit contains two (2) white spacers that each include adhesive on one side. Peel off the paper on the adhesive sides, align the spacers so the holes line up with the threaded insert holes on the sides of the speaker, and with the thickest parts of the spacers closest to the rear removable cover of the speaker, press the spacers so they stick to the pendant speaker. Mount the U-bracket by threading the knob shafts through the bracket and through the spacers on each side. Temporarily tighten both knobs. The final speaker angle will be set after mounting.



17 Hang the pendant speaker by placing the U-bracket over the mounting screws that you previously installed and tighten the mounting screws. To adjust the aiming angle of the speaker, loosen both knobs, adjust the angle, and retighten the knobs. **Warning:** Trying to force a speaker angle change without loosening both knobs, can damage the U-bracket and the spacers.



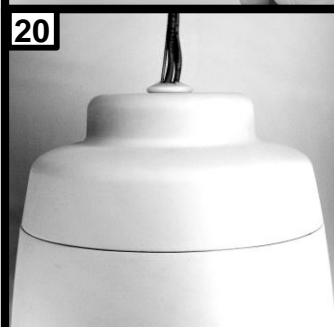
ESP Series Pendant Speaker System Wiring:

Pendant-mount speakers can be fed by a 25V, 70V, or 100V system amplifier with the speaker wiring “daisy-chained” from one speaker to the next in the string as shown above:

The speakers can also be used with the internal matching transformer bypassed by using the 8Ω switch position (on the ESP-82CDTB or ESP-82CDTW) or the 4Ω switch position (on the ESP-62TB, ESP-62TW, ESP-82TB, or ESP-82TW). Note that the ESP-62TB, ESP-62TW, ESP-82TB and ESP-82TW selector switches are marked with a 4Ω position because of a UL requirement regarding minimum impedance measurements. For all practical purposes, impedance calculations for any of the “ESP” Series speakers can be made using an 8Ω nominal impedance for each speaker when the internal transformer is bypassed. Run a single cable from the output of an 8Ω amplifier maximum 50W to only one ESP-62TB or ESP-62TW speaker, amplifier maximum 120W to only one ESP-82TB or ESP-82TW speaker, or amplifier maximum 150W to only one ESP-82CDTB or ESP-82CDTW speaker. Wiring the speaker systems in a series/parallel configuration may be acceptable depending upon the amplifier used. See www.lowellmfg.com/wp-content/uploads/What-is-a-25V-70V-or-100V-Speaker-System.pdf for a discussion of series/parallel wiring.



18 Run the feed wire (and the wire feeding to the next speaker in the string if required) through the spare cable slot and secure with the provided cable tie to provide a strain relief as shown. Unplug the Phoenix-type 4-pin connector from the top of the pendant-mount speaker. Note that two (2) pins are marked with the “+” symbol. Those two pins are in parallel so one (1) pin can be used to terminate the incoming feed cable’s positive conductor and the other pin can be used for the positive conductor of the cable to the next speaker in the string (if one is required). The other two (2) pins are marked with the “-” symbol. Those two pins are in parallel so one (1) pin can be used to terminate the incoming feed cable’s negative conductor and the other pin can be used for the negative conductor of the cable to the next speaker in the string (if one is required). After terminating the field wiring on the Phoenix-type connector, plug the connector back into the Phoenix-type jack on the rear of the speaker. Notice that the Phoenix-type connector can only be plugged in one way, with the rounded edges of the cable connector mating with the rounded edges of the Phoenix-type jack on the rear of the pendant-mount speaker.



19 Using a flat blade screwdriver, set the transformer tap select switch on the face of the speaker to the desired position (see the transformer tap chart on the face of the speaker). **Warning: Do not use the 8Ω or 4Ω switch position when using the output from a 25V, 70V, or 100V amplifier.** Making sure that the safety string is not pinched, press the fine mesh front grille in place until it is firmly seated and flush with the bottom face of the pendant-mount speaker.

20 When all rigging and speaker cable terminations have been completed, lower the top cover and spin it until the holding magnets engage and secure the top cover in place. The top cover grommet may be discarded if the top cover hole is filled with a pipe or hanging cables and speaker cables. If desired, the grommet may be trimmed and installed around the edge of the top hole so that it fills the remaining portion of the top hole for aesthetic purposes.