



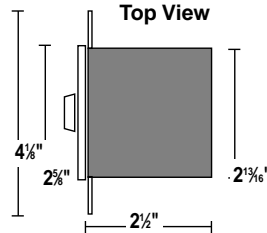
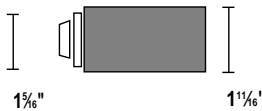
"ORIGINAL" WHISPERTOUCH® 8-OHM STEREO VOLUME CONTROLS

DWT-8



DWT-8 Series

Shown with Decora-style subplate (Supplied)



Side View

FEATURES

- Provides Precision Level Control in 3dB Increments (Lowest 6 Steps)
- 50-Watt Rating Achieves Clear, Stereo Music Reproduction in 8-Ohm Applications
- Impedance-Matching Capability of 2X, 4X & 8X Provides Flexibility in System Design
- Low Profile Styling is a Favorite for Architects and Designers
- 1x Setting Allows Use As A Standard 8Ω Non-Impedance Matching Volume Control
- Decora-Style Plate Available in White or Ivory

APPLICATION

Superior styling of WhisperTouch controls combined with their fine-tune level capability make them ideal for residential/custom installation and professional applications of all kinds including: private homes, medical and legal offices, dental groups, studios, and high-profile businesses that demand clear music reproduction and precise level control.

GENERAL DESCRIPTION

WhisperTouch volume controls provide for clear, distortion-free stereo music reproduction when one or multiple loudspeaker pairs are powered by a single amplifier. Model DWT-8 is an 8 ohm device with a decora-style wall plate.

Frequency response is 20Hz - 20kHz (-3dB, +0). Attenuation is accomplished in ten steps plus positive off. The first six steps are 3dB for fine tune control at low listening levels, the next three steps are 6dB, followed by one 9dB step and finally one 28dB step before "off".

The low-profile knob is pleasant to the touch and adjusts easily. It measures 1 5/16" Dia. and projects a mere 1/2" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and un-interrupted transition when changing volume settings. High quality units require 12 to 18-gauge wire and terminate with convenient plug-in connectors. Assemblies measure 2 3/8" deep and mount into a standard 20 cu.in. E.O. Box (by others). Specify plate color: suffix (-I) for ivory or (-W) for white.

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for stereo, 8-ohm application shall be Atlas Sound WhisperTouch Model _____. Attenuation shall be accomplished in ten steps with a positive off position. The first six steps shall be 3dB, the next three steps shall be 6dB, followed by one 9dB step and one 28dB step for a total attenuation of 73dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard 20 cu. in. E.O. box. The wall plate shall be decora-style, finished in _____ (ivory or white) with a matching low-profile knob.

IMPEDANCE JUMPER SETTINGS

REQUIRED AMPLIFIER OUTPUT IMPEDANCE	MAX. QTY. 8-OHM LOUDSPEAKER PAIRS JUMPER SETTING				MAX. QTY. 4-OHM LOUDSPEAKER PAIRS JUMPER SETTING			
	@1X	@2X	@4X	@8X	@1X	@2X	@4X	@8X
8-Ohm	1	2	4	8	0	1	2	4
4-Ohm	2	4	8	16	1	2	4	8
2-Ohm	4	8	16	32	2	4	8	16
1-Ohm	8	16	32	64	4	8	16	32

MODEL SERIES*	POWER RATING	IMP.	INSERTION LOSS	FREQUENCY RESPONSE	STEPS	TYPE	PLATE STYLE	REQUIRES (ORDER SEPARATELY)	WEIGHT
DWT-8	50 Watts	8 Ohm	.5dB	20 Hz - 20 kHz (-3dB, +0)	6 @ 3dB 3 @ 6dB 1 @ 9dB 1 @ 28dB (11 Steps Total, plus "off")	Stereo	Decora** 1 5/16" x 2 3/8"	12-18 Gauge Wire & 20 cu. in. E.O. Box (by others***)	1 lb (.45 Kg)

* suffix model with color: ivory(-I), white (-W).

***E.O. Box by others. Carlton Model B120A or equivalent recommended for all 8-ohm models.

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FOUR

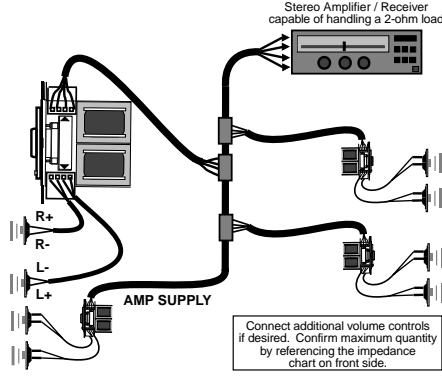
**INSTALLATION
INSTRUCTIONS
FOR WHISPERTOUCH
MODELS DWT-8**

These diagrams show examples of a system that uses 8-ohm loudspeakers and an amplifier capable of handling a 2-ohm load.

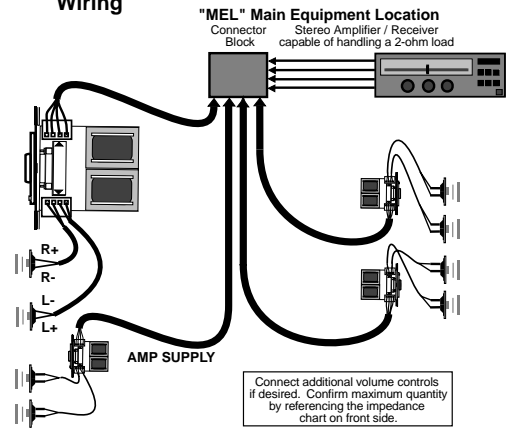
Set each WhisperTouch volume control impedance jumper according to the chart on the front of this sheet.

The wiring depicts how volume controls can be daisy chained or wired in home run fashion from each volume control to the amplifier.

**"Daisy Chain"
Wiring**



**"Home Run"
Wiring**



Mounting Location:

Volume controls should be placed in accessible wall locations that are close to entryways, exits, light switches, or telephones. They may also be ganged with other low voltage* controls such as keypads or infrared repeaters.

*Note: WhisperTouch should not be mounted into the same electrical box used for a 110-volt device—even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.

Mounting Requirements:

Switched WhisperTouch units are slightly taller, wider, and deeper than most volume controls and requires a 20 cu in. E.O. box with a minimum inside depth of 2.75" and a minimum inside height of 2.985". Recommended boxes for new construction include: Carlon PVC switch box #B-120A, and RACO PVC outlet box. For retrofit applications, CADDY drywall trim ring #MPLS may be used.

Calculating the proper Impedance settings for the system:

WhisperTouch is an impedance-matching stereo volume control that allows multiple loudspeaker pairs and volume controls to be connected, in parallel, without the additional cost of a separate impedance-matching device. For flexibility in system design, WhisperTouch has three impedance matching capabilities: 2X, 4X and 8X, as well as a 1X non-impedance matching setting that allows the unit to be used as a standard 8 Ohm volume control.

To determine which setting should be used (1X, 2X, 4X and 8X) you will need to know the number of loudspeaker pairs, the loudspeaker impedance, and the load capability (output impedance) of the amplifier. Most amplifiers will handle a load down to four or two ohms with some going as low as 1 ohm.

Using the chart on page one; cross reference the number of loudspeaker pairs to the amplifier impedance. Notice that the 4X jumper setting will allow twice as many loudspeaker pairs.

Example: If you have 8 pairs of 8-ohm loudspeakers and an amplifier capable of handling a 4 ohm load you must set WhisperTouch at the 4X setting for the amplifier to drive all 8 pairs of speakers at

full volume. Note that the 2X setting allows only 4 pairs of 8-ohm loudspeakers to operate on a 4 ohm load. If however, you could select an amplifier with a 2 ohm output impedance, the same 8 loudspeakers could operate on a 2 ohm load (at the 2X setting) or 16 loudspeaker pairs (at the 4X setting). Whenever possible, the lowest jumper setting for a given amplifier should be selected.

Changing Impedance Jumpers:

Once the proper impedance setting is determined, locate the impedance jumpers (black plastic modules) on the back side of the circuit board. One jumper is for the right channel, the other for the left. Next, locate the 1X, 2X, 4X and 8X settings on the circuit board for each channel. If the settings are correct, continue to the next step. If the settings need to change, simply slide the jumper modules off and reinstall them on to the correct two pins.

Limitations:

WhisperTouch limits the degree of impedance matching to eight times so that music quality and overall performance is not sacrificed. We do not recommend that any quality, multi-room music system be connected to a device which provides 16X impedance matching as it may limit the amplifier's power and system performance.

Prewiring and Installation:

A. Mount the outlet box or plaster ring in the wall (see mounting requirements). Each room's wiring can be individually run back to the amplifier (home run) or connected from one room to the other (daisy chain). The daisy chain wiring method connects one set of speakers with volume control in parallel to the next, using connection block or crimp connectors in between. This method has the advantage of requiring less wiring for the system rough-in, but allows for little or no system upgrading for future applications.

With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes you have designated for the left channel, right channel, positive, and negative leads.

B. If using the "Home Run" wiring method, each room's speaker/volume control wiring should be individually run back to the Main Equipment Location "MEL" in a "home-run" fashion. Run a total of four conductors of speaker cable from the amplifier location to each room's volume control box.

Note: Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before prewiring.

C. Next, run a two-conductor speaker cable from the outlet box to the corresponding left and right speakers. Mark each cable [LEFT] and [RIGHT] and determine the polarity of each channel (positive and negative).

D. Cut the cable accordingly, allowing enough cable to hang outside the outlet box, to properly connect the volume control. Tuck the cable back into the outlet box to prevent damage during drywall installation.

E. If desired, the terminal block may be removed from the volume control to more easily accommodate wiring. Strip 1/4" of insulation off each conductor and insert the wires into the terminal block. Tighten the terminal block screws firmly and re-install the terminal block onto the pins.

F. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid left into the center position.

Note: In retrofit applications, metal extension plates and non-recommended outlet boxes may require field modification to accept the units' higher and deeper profile.

G. Secure unit with supplied screws. We recommend loosening the screws 1/4 turn to allow 1/4" movement side-to-side and front-to-back. This will allow the face plate to fit flush when the cover plate is installed.

H. Mount the cover plate and tighten the screws.

REFERENCES TO WHISPERTOUCH ON THIS THIS INSTALL SHEET APPLY ONLY TO MODEL DWT-8

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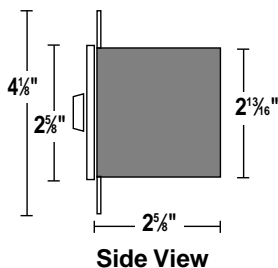
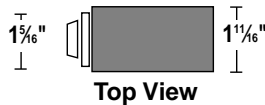
"SWITCHED" WHISPERTOUC[®] 8-OHM STEREO VOLUME CONTROLS

DWS-8



DWS-8 Series

Shown with Decora-style subplate (Supplied)



IMPEDANCE JUMPER SETTINGS

REQUIRED AMPLIFIER OUTPUT IMPEDANCE	MAX. QTY. 8-OHM LOUDSPEAKER PAIRS JUMPER SETTING				MAX. QTY. 4-OHM LOUDSPEAKER PAIRS JUMPER SETTING			
	@1X	@2X	@4X	@8X	@1X	@2X	@4X	@8X
8-Ohm	1	2	4	8	0	1	2	4
4-Ohm	2	4	8	16	1	2	4	8
2-Ohm	4	8	16	32	2	4	8	16
1-Ohm	8	16	32	64	4	8	16	32

FEATURES

- Two-Color LED and Pushbutton Switch Provide Visual Indication and Convenient Access to the Active Sound System
- Pushbutton Switch Shuts Off with the System and Remains Off Until Reselected
- Provides Precision Level Control in 3dB Increments (Lowest 6 Steps)
- 50-Watt, 8-Ohm Rating Achieves Clear, Stereo Music Reproduction
- Impedance-Matching Capability of 2X, 4X & 8X Provides System Design Flexibility
- 1x Setting Allows Use As A Standard 8Ω Non-Impedance Matching Volume Control
- Low-Profile Styling is Offered with Decora-Style or Standard Plate in Ivory or White

APPLICATION

Top-of-the-line, 8-ohm WhisperTouch DWS Series offers superior styling, fine-tune level control, and an on/off switch for local audio access control. They are the perfect choice for residential/custom installation and professional applications of all kinds including: homes, medical, legal, and dental offices, studios, and high-profile businesses that expect clear music reproduction and precise level control.

GENERAL DESCRIPTION

WhisperTouch 8-ohm, switched volume controls provide for clear, distortion-free stereo music reproduction when one or multiple loudspeaker pairs are powered by a single amplifier. Model DWS-8 is an 8-ohm device with a smart on/off switch, LED status indicator, and a volume-control knob mounted to a decora-style wall plate.

Frequency response is 20Hz - 20kHz (-3dB, +0). Attenuation is accomplished in ten steps plus positive off. The first six steps are 3dB for fine tune control at low listening levels, the next three steps are 6dB, followed by one 9dB step and finally one 28dB step before "off".

The "switched" WhisperTouch series features an electronic on/off pushbutton switch that provides access to the active audio system without going to the main equipment location. It also turns itself off when the system shuts down, and remains off until re-selected, thereby avoiding the problem of mass audio distribution at previous system settings. The "switched" WhisperTouch volume controls also feature a two-color LED that provides remote visual indication of system availability. It appears "red" when the audio system is on, changing to "green" when the volume control is activated.

Volume adjustments are made easily with the unique WhisperTouch low-profile knob. Pleasant to the touch, this small knob measures 15/16" Dia. and projects a mere 1/2" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and uninterrupted transition of volume levels. High-quality units feature terminal block connectors for easy hook-up and require a 12 VDC power supply (order separately). Recommended models include PS-M12 which will power up to 3 units, or PS12-10 which will power up to 12 units. Assemblies measure 2 3/4" deep and mount into a 20 cu.in. E.O. Box such as Carlon Model B120A or equivalent. Specify plate color: suffix (-I) for ivory or (-W) for white.

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for stereo, 8-ohm application shall be Atlas Sound WhisperTouch Model _____. Attenuation shall be accomplished in ten steps with a positive off position. The first six steps shall be 3dB, the next three steps shall be 6dB, followed by one 9dB step and one 28dB step for a total attenuation of 73dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard 20 cu. in. E.O. box. The wall plate shall be decora-style, finished in _____ (ivory or white) with a matching low-profile knob. 12 VDC power supply is required; specify Model _____. (PS12-10: powers up to 12 units, or PS-M12: powers up to 3 units).

MODEL SERIES*	POWER RATING	IMP.	INSERTION LOSS	FREQUENCY RESPONSE	STEPS	TYPE	PLATE STYLE	REQUIRES (ORDER SEPARATELY)	WEIGHT
DWS-8	50 Watts	8 Ohm	.5dB	20Hz - 20kHz (-3dB, +0)	6 @ 3dB 3 @ 6dB 1 @ 9dB 1 @ 28dB 72dB Total	Stereo Switched	Decora** 1 1/8" x 2 5/8"	12-18 Gauge Wire & 20 cu. in. E.O. Box (by others***) PS-M12 (200 mA) Powers up to 3 Units or PS12-10 (1 Amp) Powers up to 12 Units	1 lb (.45 Kg)

(11 Steps Total, plus "off")

* Suffix model with color: ivory (-I), white (-W)
***Carlon Model B120A or equivalent recommended.

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FOUR

INSTALLATION INSTRUCTIONS FOR WHISPERTOUCH MODELS DWS-8

These diagrams illustrate a system with 8-ohm loudspeakers and an amplifier capable of handling a 4-ohm load.

Each WhisperTouch volume control jumper is at the 2X setting (refer to the impedance chart on front side).

Mounting Location: The wiring depicts how volume controls should be placed in accessible locations on the back of the unit, exits, light switches or telephones. They may also be ganged with other low voltage controls such as keypads or intercom speakers.

***Note:** WhisperTouch should not be mounted into the same electrical box used for a 110-volt device—even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.

Mounting Requirements:

Switched WhisperTouch units are slightly taller, wider, and deeper than most volume controls and requires a 20 cu in. E.O. box with a minimum inside depth of 2.75" and a minimum inside height of 2.985". Recommended boxes for new construction include: Carlon PVC outlet box #B-120A, and RACCO PVC outlet box. For retrofit applications, CADDY drywall trim ring #MPLS may be used.

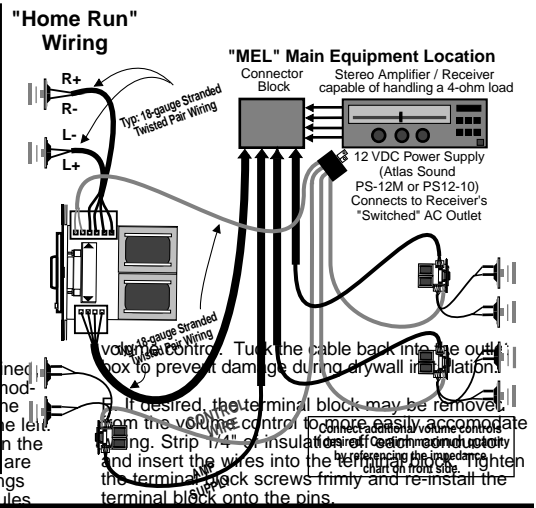
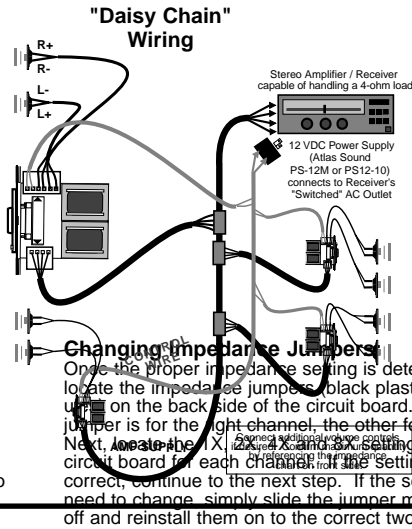
Calculating the proper Impedance settings for the system:

WhisperTouch is an impedance-matching stereo volume control that allows multiple loudspeaker pairs and volume controls to be connected, in parallel, without the additional cost of a separate impedance-matching device. For flexibility in system design, WhisperTouch has three impedance matching capabilities: 2X, 4X and 8X, as well as a 1X non-impedance matching setting that allows the unit to be used as a standard 8 Ohm volume control

To determine which setting should be used (1X, 2X, 4X and 8X) you will need to know the number of loudspeaker pairs, the loudspeaker impedance, and the load capability (output impedance) of the amplifier. Most amplifiers will handle a load down to four or two ohms with some going as low as 1 ohm.

Using the chart on page one; cross reference the number of loudspeaker pairs to the amplifier impedance. Notice that the 4X jumper setting will allow twice as many loudspeaker pairs.

Example: If you have 8 pairs of 8-ohm loudspeakers and an amplifier capable of handling a 4 ohm load you must set WhisperTouch at the 4X setting for the amplifier to drive all 8 pairs of speakers at full volume. Note that the 2X setting allows only 4 pairs of 8-ohm loudspeakers to operate on a 4 ohm load. If however, you could select an amplifier with a 2 ohm output impedance, the same 8 loudspeakers could operate on a 2 ohm load (at the 2X setting) or 16 loudspeaker pairs (at the 4X setting). Whenever possible, the lowest jumper setting for a given amplifier should be selected.



Limitations:

WhisperTouch limits the degree of impedance matching to eight times so that music quality and overall performance is not sacrificed. We do not recommend that any quality, multi-room music system be connected to a device which provides 16X impedance matching as it may limit the amplifier's power and system performance.

Prewiring and Installation:

A. Mount the outlet box or plaster ring in the wall (see mounting requirements). Each room's wiring can be individually run back to the amplifier (home run) or connected from one room to the other (daisy chain). The daisy chain wiring method connects one set of speakers with volume control in parallel to the next, using connection block or crimp connectors in between. This method has the advantage of requiring less wiring for the system rough-in, but allows for little or no system upgrading for future applications. With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes you have designated for the left channel, right channel, positive, and negative leads and the (+) and (-) power supply leads.

B. If using the "Home Run" wiring method, each room's speaker/volume control wiring should be individually run back to the Main Equipment Location "MEL" in a "home-run" fashion. Run a total of six conductors of speaker cable from the amplifier location to each room's volume control box. Four conductors are speaker outputs and the two additional conductors connect to the 12VDC power supply. Power Supply conductors may be as small as 22 gauge.

Note: Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before prewiring.

C. Next, run a two-conductor speaker cable from the outlet box to the corresponding left and right speakers. Mark each cable [LEFT] and [RIGHT] and determine the polarity of each channel (positive and negative).

D. Cut the cable accordingly, allowing enough cable to hang outside the outlet box, to properly connect the

F. The WhisperTouch DWS-8 Series electronic control requires a 12VDC power supply plugged into the "SWITCHED" outlet of the stereo system receiver, preamplifier, or integrated amplifier. The power supply rating is determined by the quantity of DWS-8 units connected to the system. The formula is as follows:

Qty of DWS-8 x 100mA = power supply mA rating.

EXAMPLE: A system with nine DWS-8 controls would require a 900 mA (approximately 1 amp) supply such as PS12-10.

G. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid left into the center position.

Note: In retrofit applications, metal extension plates and non-recommended outlet boxes may require field modification to accept the units' higher and deeper profile.

H. Secure unit with supplied screws. We recommend loosening the screws 1/4 turn to allow 1/4" movement side-to-side and front-to-back. This will allow the face plate to fit flush when the cover plate is installed.

I. Mount the cover plate and tighten the screws.

Testing and operating the on/off feature:

- A. Turn on the receiver that powers WhisperTouch.
- B. The red indicator light on the WhisperTouch should turn on, but music will not be playing.
- C. Press the On/Off button once. The green indicator light will turn on and music will begin playing.
- D. Adjust the volume.
- E. Press the On/Off button again to turn off the music in that room.

*References to WhisperTouch® on this this install sheet apply only to model DWS-8

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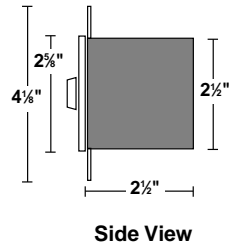
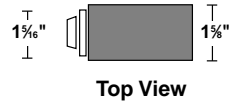


"ORIGINAL" WHISPERTOUCH® 70.7-VOLT STEREO & MONO VOLUME CONTROLS

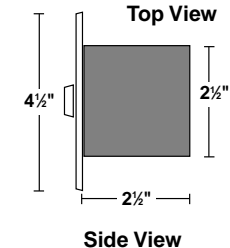
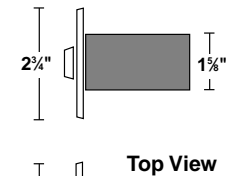
DWT-15, SWT-15,
SWTM-15



DWT-15 / DWTM-15 Series
Shown with optional cover plate
(By others.)



SWT-15 / SWTM-15 Series



FEATURES

- Provides Precision Level Control in 1.5dB Increments (Lowest 3 Steps).
- 15-Watt Unit Delivers Clear, Distortion-Free Music Reproduction in 70.7 Volt Distributed Applications.
- Low-Profile Styling is a Favorite for Architects and Designers.
- Offered in Stereo and Mono Configurations
- Choice of Decora-Style or Standard Plate in White or Ivory.

APPLICATION

Systems Installers can now utilize the high-fidelity performance and styling of WhisperTouch volume controls in 70.7-volt applications. Low-profile controls provide for fine-tune level control of distributed sound systems in medical, legal, and professional office suites, recording studios, large retail facilities, and wherever clear music reproduction and precise level control are desired.

GENERAL DESCRIPTION

WhisperTouch volume controls for 70.7-volt distributed application provide clear, distortion-free music reproduction and fine-tune control at low listening and "background" music levels. Models DWT-15 and SWT-15 are 15-watt stereo devices with decora-style or standard wall plate respectively. Models DWTM-15 and SWTM-15 are 15-watt mono devices with decora-style or standard plate.

Models for 70.7V application have a frequency response of 40Hz-20kHz (-3dB,+0). Attenuation is accomplished in ten steps plus positive off; the first three steps are 1.5dB for fine-tuning capability at low listening levels; the next six steps are standard 3dB.

The low-profile knob is pleasant to the touch and adjusts easily. It measures 7/8" Dia. and projects a mere 3/8" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and uninterrupted transition when changing volume settings. High-quality units require 14 to 22-gauge wire and terminate with convenient terminal strips. Assemblies measure 2 1/2" deep and mount into a standard UL Listed 18 cu.in. E.O. Box (by others). Specify plate color: suffix (-I) for ivory or (-W) for white.

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for 70.7-volt application shall be Atlas Sound WhisperTouch Stereo Model _____ (DWT-15, SWT-15) or mono Model _____ (DWTM-15 or SWTM-15). Attenuation shall be accomplished in ten steps with a positive off position. The three lowest steps shall be 1.5dB, and the next six steps shall be 3dB, for a total attenuation of 22.5dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard UL Listed 18 cu.in. E.O. box. The wall plate shall be _____ (standard or decora-style), finished in _____ (ivory or white) with matching low-profile knob. Decora-style Models DWT-15, and, DWTM-15 require Decora-style cover plate model _____ in _____ (Ivory or white).

MODEL SERIES*	POWER RATING	VOLTAGE	INSERTION LOSS	FREQUENCY RESPONSE	STEPS	TYPE	PLATE STYLE	REQUIRES	WEIGHT
DWT-15	15 Watts	70.7 Volts	.5dB	40 Hz - 20 kHz (-3dB, +0)	3 @ 1.5dB	Stereo	Decora** 1 1/8" W x 2 1/8" H	14-22 ga. wire & 18 cu.in. UL Listed E.O. Box***	.9 lb (379 Kg)
6 @ 3dB									
22.5 Total					Stereo	Standard			
SWTM-15						Mono	2 1/8" W x 4 1/2" H		

*Suffix model with color: ivory(-I), white (-W).
***UL Listed E.O. Box by others. Carlon Model B118A or equivalent recommended.

**Requires Decora-style cover plate (this is a standard item typically ordered in bulk with other electrical supplies).
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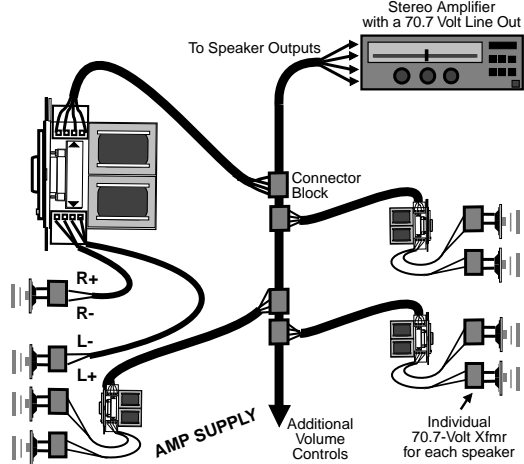
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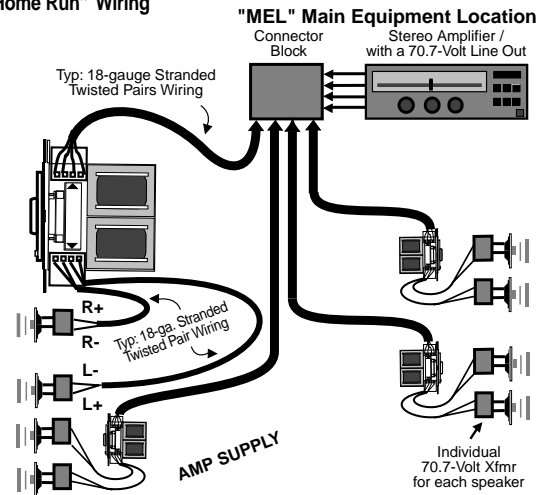
INSTALLATION INSTRUCTIONS OF THE WHISPERTOUCH® MODELS DWT-15, DWTM-15, SWT-15, AND SWTM-15

These diagrams show examples of a system that uses 70.7-Volt Xfmr / Speaker Combinations with an amplifier capable of delivering the total power consumption of all the speakers.

"Daisy Chain" Wiring



"Home Run" Wiring



Mounting Location:

Volume controls should be placed in accessible wall locations close to entryways, exits, light switches, or telephones. They may also be ganged with other low voltage two-piece controls such as keypads or infrared repeaters.

Note: *WhisperTouch® should not be mounted into the same E.O. box used for a 110-volt device—even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.*

Mounting Requirements:

WhisperTouch® 70.7-volt controls are 2.5" deep and mount into a standard 18 cu.in. UL Listed E.O. Box such as the Carlon Model B118A.

Prewiring and Installation:

A. Mount the outlet box or plaster ring in the wall (see mounting requirements).

B. Run a total of 2-twisted pair (4-conductors) of speaker cable from the Main Equipment Location or "MEL" to each room's volume control box (**Note:** only 1 twisted pair is required in mono applications). The 2-twisted pair speaker cable should be 14-22 gauge stranded copper conductors and will route the amplifier speaker-level signal from the audio amplifier to each WhisperTouch volume control.

Note: *Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before prewiring.*

The Home Run Wiring Method individually routes each set of wires with volume control back to the main equipment location or "MEL" to provide maxi-

mum flexibility in system configuration. This method is preferred if future upgrades are anticipated. For example: If the home run wiring method is used, an additional multi-pair cable (such as a 4 twisted-pair 22-gauge solid copper telephone type) could be added as the "control wire" to allow your installation to be easily upgraded for future applications. This "control wire" would be used for future keypads, infrared remote controls, or other devices such as WhisperTouch controls with electronic on/off switch (Series DWS-15, DWSM-15, SWS-15, SWSM-15).

The Daisy Chain Wiring Method connects one set of speakers with volume control in parallel to the next, using a connection block or crimp connectors in between. This method has the advantage of requiring less wiring for the system rough-in but allows for little or no system upgrading for future applications.

With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes designated for the left channel, right channel, positive, and negative leads.

C. Next, route one single twisted pair (2-conductor) speaker cable from the volume control location to the Left and one to the Right speaker location. Mark cable [LEFT] and [RIGHT] and determine the polarity of each channel (positive and negative).

D. Cut the cable accordingly allowing enough cable to hang outside the outlet box to properly connect the volume control. Tuck the cable back into the outlet box to prevent damage during drywall installation.

E. Strip 1/4" of insulation off each conductor. Tightly twist the end of each wire until there are no frayed ends.

F. Insert four speaker wires and four amplifier wires into screw terminals marked L+ L- R- R+ on the volume control.

G. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid left into the center position. It is not uncommon for the connectors to fit snugly to the center ribs of specified J-boxes.

H. Secure the unit with supplied screws. We recommend loosening the screws 1/4 turn to allow 1/4" movement side-to-side and front-to-back. This will allow the face plate to fit flush when the cover plate is installed.

I. Mount the cover plate (ordered separately on Decora-style models) and tighten the screws.

High-Performance Coaxial Loudspeakers



Architecturally pleasing and easy-to-install coaxial loudspeakers are offered in 4", 6", and 8" sizes. Selection includes a variety of transformers, enclosures, grilles, and mounting accessories to meet varying sound and aesthetic requirements. Request information on Strategy Series Loudspeakers.

*References to WhisperTouch® on this this Install sheet apply only to models DWT-15, DWTM-15, SWT-15, and SWTM-15

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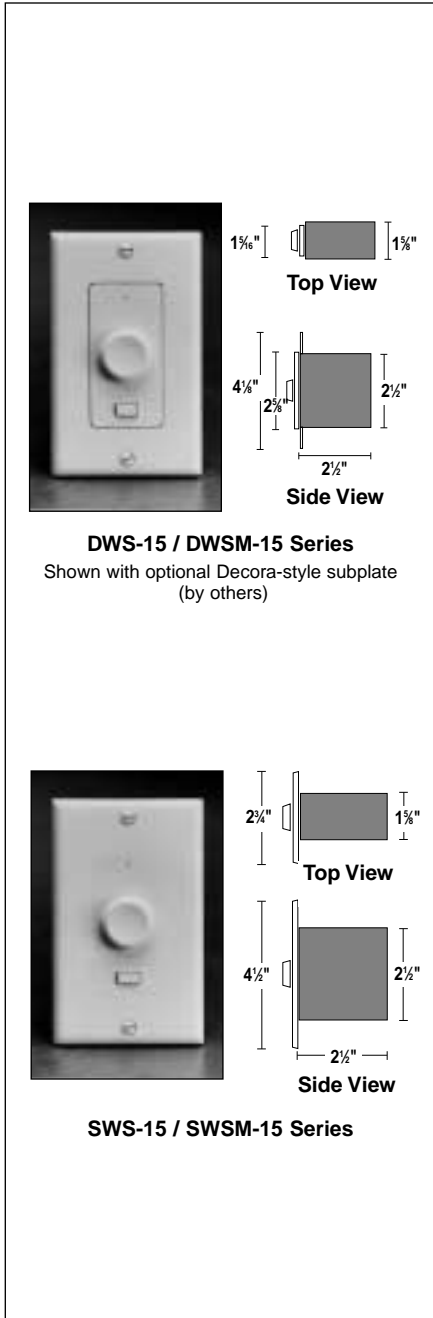
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"SWITCHED" WHISPERTOUCH® 70.7-VOLT STEREO AND MONO VOLUME CONTROLS

DWS-15, DWSM-15,
SWS-15, SWSM-15



FEATURES

- Two-Color LED and Pushbutton Switch Provide Visual Indication and Convenient Access to the Active Sound System
- Pushbutton Switch Shuts Off with the System and Remains Off Until Reselected
- Lowest Three Steps provide Precision Level Control in 1.5dB Increments
- 15-Watt Unit Delivers Clear Music Reproduction in 70.7 Volt Distributed Systems
- Low-Profile Styling is Offered with Decora-Style or Standard Plate in Ivory or White

APPLICATION

Top-of-the-line, WhisperTouch volume controls with electronic on/off switch are now available for 70.7-volt application. Series DWS(M) and SWS(M) offer superior styling, fine-tune level control, and an on/off switch for local audio access control. They are ideal for distributed sound systems in medical, legal, and professional office suites, large retail facilities, and wherever quality music reproduction and precise level control are desired.

GENERAL DESCRIPTION

WhisperTouch switched volume controls for 70.7-volt use provide for clear, distortion-free music reproduction and fine-tune control at low listening and "background music" levels. Models DWS(M)-15 and SWS(M)-15 are 15-watt devices with a smart on/off switch, LED status indicator, and a volume-control knob mounted to a decora-style or standard wall plate respectively. Models with (M) suffix denote mono configuration.

Models for 70V application have a frequency response of 40Hz - 20kHz (-3dB, +0). Attenuation is accomplished in ten steps plus positive off. The first three steps are 1.5dB for fine-tune control at low listening levels; the next six steps are standard 3dB.

Switched assemblies feature an electronic on/off pushbutton switch that provides access to the active audio system without going to the main equipment location. It also turns itself off when the system shuts down, and remains off until re-selected, thereby avoiding the problem of mass audio distribution at previous system settings. Switched assemblies also feature a two-color LED that provides remote visual indication of system availability. It appears "red" when the audio system is on and changes to "green" when the volume control is activated.

Volume adjustments are made easily with the unique WhisperTouch low-profile knob. Pleasant to the touch, this small knob measures 3/8" Dia. and projects a mere 3/8" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and uninterrupted transition of volume levels. High-quality units are terminated with 18-gauge color-coded pigtail leads and require a 12 VDC power supply (order separately). Recommended models include PS-M12 which will power up to 3 units or PS12-10 which will power up to 12 units. Assemblies measure 2 3/4" deep and mount into a standard 18 cu.in. E.O. Box (by others). Specify plate color: suffix (-I) for ivory or (-W) for white.

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for 70.7 application shall be Atlas Sound WhisperTouch® stereo Model _____. (DWS-15, SWS-15) or mono Model (DWSM-15, SWSM-15). Attenuation shall be accomplished in ten steps with a positive off position. The three lowest steps shall be 1.5dB, the next six shall be 3dB, for a total of 22.5dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard 18 cu.in E.O. Box (by others). Wall plate styling shall be _____ (decora or standard), finished in _____ (ivory or white). Decora-style models require cover plate model _____ in _____ (ivory or white). 12 VDC power supply is required; specify Model _____ (PS12-10: powers up to 12 units, or PS-M12: powers up to 3 units).

MODEL SERIES*	POWER RATING	VOLTAGE	INSERTION LOSS	FREQ RESP.	STEPS	TYPE	PLATE STYLE	REQUIRES (Order Separately)	WEIGHT
DWS-15	15 Watts	70.7 Volts	.5dB	40 Hz - 20 kHz (-3dB, +0)	3 @ 1.5dB 6 @ 3dB 22.5 Total	Stereo Mono	Decora**	18 cu. in. E.O. Box (by others) and 12-VDC Power Supply: PS-M12 (200 mA) powers up to 3 units or PS12-10 (1 Amp) powers up to 12 units	1.1 lb. (.5 Kg)
DWSM-15							1 5/8" W x 2 3/8" H		
SWS-15							Standard		
SWSM-15							2 3/4" W x 4 1/2" H		

* Suffix model with color: ivory (-I), white (-W)

**Requires Decora-style cover plate (this is a standard item typically ordered in bulk with other electrical supplies) Decora® is a registered Trademark of Leviton Corp.

Specifications subject to change without notice



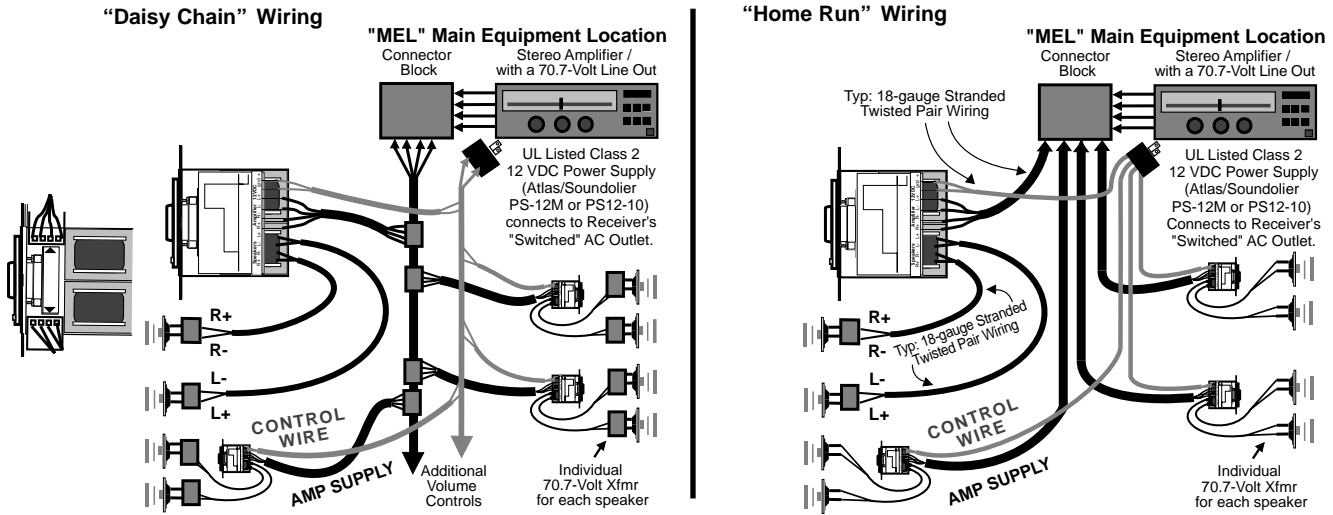
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FOUR

INSTALLATION INSTRUCTIONS FOR WHISPERTOUCH® MODELS DWS-15, DWSM-15, SWS-15, AND SWSM-15

These diagrams show examples of a system that uses 70.7-Volt Xfmr / Speaker Combinations with an amplifier capable of delivering the total power consumption of all the speakers.



Mounting Location:

Volume controls should be placed in accessible wall locations that are close to entryways, exits, light switches, or telephones. They may also be ganged with other low voltage 1 two-piece controls such as keypads or infrared repeaters.

Note: *WhisperTouch® should not be mounted into the same electrical box used for a 110-volt device—even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.*

Mounting Requirements:

WhisperTouch® 70.7-volt controls are 2.5" deep and mount into a standard UL Listed 18 cu.in E.O. Box such as the Carlon Model B118A.

Prewiring and Installation:

- Mount the outlet box or plaster ring in the wall (see mounting requirements).
- Run a total of 2-twisted pair (4-conductors) of speaker cable and a minimum of 1-twisted pair (2-conductors) "control cable" from the Main Equipment Location "MEL" to each room's volume control box (Note: only 1 twisted pair is required in mono applications. The 4-twisted pair speaker cable should be 14 to 22-gauge, stranded copper conductors. The 1-twisted pair "control" wire may be 22 gauge or larger, solid conductors. The 4-twisted pair speaker cable routes the amplified speaker-level signal from the audio amplifier to each WhisperTouch® volume control. The single-pair "control wire" routes the 12VDC power supply from "MEL" to each WhisperTouch® volume control.
Note: *Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before prewiring.*

The Home Run Wiring Method individually routes each set of speaker wires back to the main equipment location or "MEL" to provide maximum flexibility in system configuration. This method is preferred if future upgrades are anticipated. For example: 1-pair of conductors is required to operate the "switched" feature of WhisperTouch® controls, however, installing a multi-pair cable (such as a 4-twisted pair, 22-gauge copper telephone type) as the

"control wire" will allow your installation to be easily upgraded for future applications. Keypads, Infrared Remote Controls, and other devices can be wired using this "multi-conductor control wire" technique.

The Daisy Chain Wiring Method connects one set of speakers with volume control in parallel to the next, using a connection block or crimp connector in between. This method has the advantage of requiring less wiring for the system rough-in but the disadvantage of allowing little or no opportunity for future system upgrades.

With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes you have designated for the left channel, right channel, positive, and negative leads and the (+) and (-) power supply leads.

- Next, route a single twisted pair (2-conductor) speaker cable from the volume control location to each Left and Right speaker location. Mark each cable [LEFT] and [RIGHT] or MONO and determine the polarity of each channel (positive and negative).
- Cut the cable accordingly—allowing enough extra cable to hang outside the outlet box for proper connection to the volume control. Tuck the excess cable back into the outlet box to prevent damage during drywall installation.
- Strip 1/2" of insulation off each conductor and use wire nuts or butt splices to connect the WhisperTouch® pigtail wiring to your speaker cables.
- The WhisperTouch® electronic volume control requires a UL Listed, Class 2 12VDC power supply plugged into the "SWITCHED" AC outlet of the stereo system receiver, preamplifier, or integrated amplifier. Each WhisperTouch® volume control requires approximately 100ma for proper operation. The power supply rating is determined by the quantity of DWS-15 units connected to the system. The formula is as follows:

$$\text{Qty of DWS-8} \times 100\text{mA} = \text{power supply mA rating.}$$

EXAMPLE: A system with nine DWS-15 controls would require a 900 mA (approximately 1 amp) supply. Note: The Atlas Sound Model PS-M12 power supply will support up to three (3) WhisperTouch® controls while the Atlas Sound Model PS12-10 Power Supply will support a maximum of twelve (12) WhisperTouch® controls.

G. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch® may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid left into the center position.

Note: *In retrofit applications, metal extension plates and non-recommended outlet boxes may require field modification to accept the units' higher and deeper profile.*

H. Secure the unit with supplied screws. We recommend loosening the screws 1/4 turn to allow 1/4" movement side-to-side and front-to-back. This will allow the face plate to fit flush when the cover plate is installed.

I. Mount the cover plate (Decora-style only - order separately) and tighten the screws.

Testing and operating the on/off feature:

- Turn on the receiver that powers WhisperTouch®.
- The red indicator light on the WhisperTouch® should turn on, but music will not be playing.
- Press the On/Off button once. The green indicator light will turn on and music will begin playing.
- Adjust the volume.
- Press the On/Off button again to turn off the music in that room.

*References to WhisperTouch® on this this Install sheet apply only to models DWS-15, DWSM-15, SWS-15, and SWSM-15

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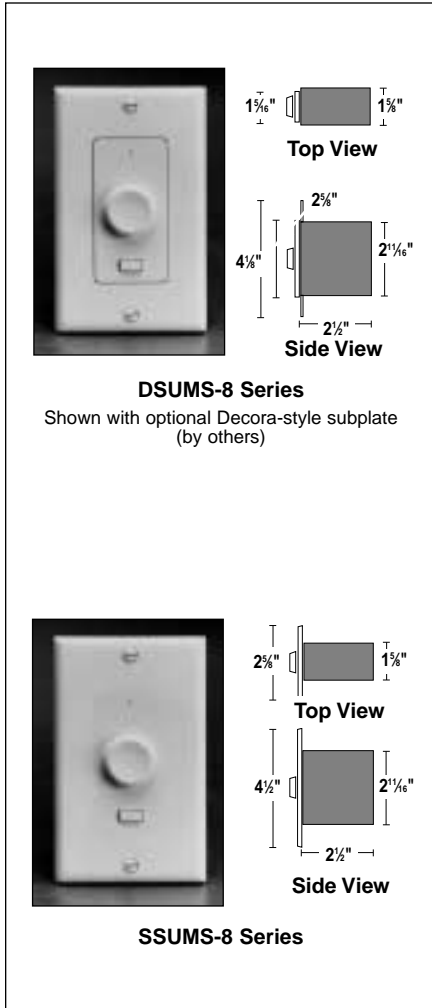
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WHISPERTOUCH® "SWITCHED/SUMMING" VOLUME CONTROLS

STEREO SUMMING TO MONO 8-OHM

DSUMS-8
SSUMS-8



DSUMS-8 Series

Shown with optional Decora-style subplate (by others)

SSUMS-8 Series

FEATURES

- Patented Device Combines L/R Channel Signals for Output to a Single Speaker While Maintaining Quality Stereo Signal and Amplifier Output Separation
- On/off Switch Automatically Puts Speakers into "Stand-by" Mode Making Them Available Not Indiscriminantly Active When The Audio is Turned On.
- Two-Color LED Provides Visual Indication of Audio System Status
- Lowest Three Steps Provide Precision Level Control in 1.5dB Increments
- Easy-to-Adjust Impedance Jumpers Provide On-site and Future Design Flexibility

APPLICATION

WhisperTouch Summing Volume Controls combine left and right stereo channels for broadcast to a single speaker. They are a unique way to cost-effectively bring stereo sound to a single speaker without losing the audio information that is desired by listeners. Summing controls are an opportunity for the dealer / installer to offer customers additional audio coverage for low installed cost.

Switched Summing Models DSUMS-8 and SSUMS-8 feature a unique on/off switch that utilizes relay contacts to access the audio system. When the A/V system is powered off, the relay opens—breaking contact to the volume control. When the A/V system is re-activated the contacts remain open—eliminating unexpected music in areas throughout the office, retail area, or home. Music is selectively restored by simply touching the switch.

GENERAL DESCRIPTION

Model Series DSUMS-8 and SSUMS-8 are 25-watt, stereo-summing-to-mono, 8-ohm volume controls with on/off switch, status LED, and decora or standard styling respectively. Both styles have a frequency response of 40Hz - 20kHz (-3dB, +0). Attenuation is accomplished in ten steps: The first position is positive off, the next three steps are 1.5dB for fine-tune control at low listening levels; the next six are standard 3dB.

The "switched" feature of WhisperTouch is an on/off pushbutton that provides access to the active audio system. The pushbutton also includes a relay that resets all speakers to the "off" position when the A/V system is powered down. The speakers remain off until the pushbutton is re-selected, thereby avoiding the problem of mass audio distribution at previous system settings. All switched volume controls also feature a two-color LED that provides remote visual indication of system availability. It appears "red" when the audio system is on, changing to "green" when the volume control is activated.

Volume adjustments on all WhisperTouch models are made easily with the "easy-grip" low-profile knob that measures 7/8" Dia. and projects a mere 3/8" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and uninterrupted transition of volume levels. Units are terminated with 18-gauge color-coded pigtail leads and require a 12 VDC power supply (order separately- see chart below). Assemblies measure 2 1/2" deep and mount into a standard 18 or preferably 20 cu.in. or backless E.O. box (by others) to accommodate the control and its wiring comfortably. Specify unit color: Ivory (-I) or white (-W).

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for 8-ohm application shall be Atlas Sound WhisperTouch® Model _____ (DSUMS-8, SSUMS-8). Control shall combine left and right channel stereo signal for output by a single speaker. Attenuation shall be accomplished in ten steps including positive off, three steps of 1.5dB and six steps of 3dB, for a total attenuation of 22.5dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard 18 or 20 cu. in. E.O. box. The wall plate shall be _____ (standard or decora-style), in _____ (ivory or white) with a matching low-profile knob. Decora-style Model DSUMS-8 requires a cover plate (by others). Unit shall utilize a 12 VDC power supply Model _____ (PS12-10 or PS-M12) to operate the relay switch and status LED.

IMPEDANCE JUMPER SETTINGS				
Required Amplifier Output impedance	Max. Qty. 8-Ohm Loudspeaker Jumper		Max. Qty. 4-Ohm Loudspeaker Jumper	
	Setting @2X	Setting @4X	Setting @2X	Setting @4X
8-Ohm	2	4	1	2
4-Ohm	4	8	2	4
2-Ohm	8	16	4	8
1-Ohm	16	32	8	16

MODEL SERIES*	POWER RATING	IMP.	INSERTION LOSS	FREQUENCY RESPONSE	STEPS	TYPE	PLATE STYLE	ACCESSORY REQUIREMENTS (Order Separately)	WEIGHT
DSUMS-8	25 Watts	8 Ohm	.5dB	40 Hz - 20 kHz (-3dB, +0)	3 @ 1.5dB	Stereo Switched, Input w/ Mono Output	Decora**	18-20 cu. in. E.O. Box (by others***) and 12 VDC Power Supply: PS-M12 (200 mA) powers up to 3 units, or PS12-10 (1 Amp) powers up to 12 units	1 lb. (.454 Kg)
SSUMS-8					6 @ 3dB 22.5 Total		Standard 2 3/4" x 4 1/2"		

* Suffix model with color: Ivory (-I), white (-W). ** Decora-style devices require a cover plate (this is a standard item typically ordered in bulk with other electrical supplies) *** E.O. Box by others. Recommended models include Carlon Model B118A, B120A or equivalent. Decora® is a registered Trademark of Leviton Corporation.

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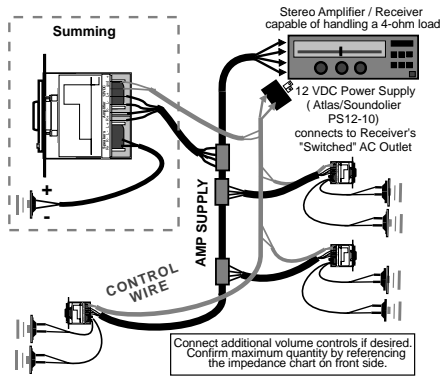
FOUR

**INSTALLATION
INSTRUCTIONS**
For **WHISPERTOUCH MODELS
DSUMS-8 & SSUMS-8**

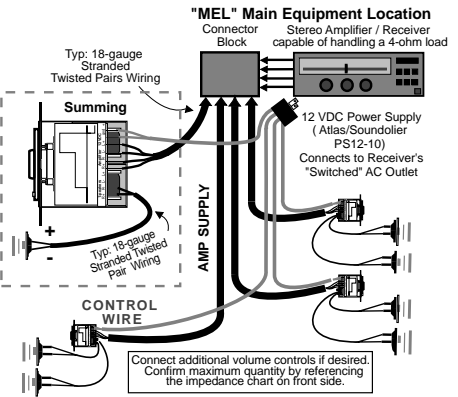
These diagrams illustrate a system with 8-ohm loudspeakers and an amplifier capable of handling a 4-ohm load.

Each WhisperTouch volume control jumper is at the 2X setting (refer to the impedance chart on front side). The wiring depicts how volume controls can be daisy chained or wired in home run fashion from each volume control to the amplifier.

"Daisy Chain" Wiring



"Home Run" Wiring



Switched Summing Volume Controls:

WhisperTouch Switched Summing devices provide installers with a unique opportunity to extend stereo music and audio control to a single speaker for use in small or secondary listening areas. Switched Summing devices install in similar fashion to standard volume controls with only a single set of speaker leads.

Mounting Location:

Volume controls should be placed in accessible wall locations that are close to entryways, exits, light switches, or telephones. They may also be ganged with other low voltage* controls such as keypads or infrared repeaters.

Note: *WhisperTouch should not be mounted into the same electrical box used for a 110-volt device—even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.*

Mounting Requirements:

WhisperTouch® summing controls are 2 1/2" deep and mount into a standard 18 or 20 cu. in. E.O. Box such as the Carlon Model B118A or B120A. For retrofit applications, CADDY drywall trim ring #MPLS may be used.

Calculating the proper Impedance settings for the system:

The WhisperTouch impedance-matching volume controls allow multiple loudspeakers and volume controls to be connected, in parallel, without the additional cost of a separate impedance-matching device. For flexibility in system design, WhisperTouch has two impedance matching capabilities: 2X and 4X.

To determine which setting should be used (2X or 4X) one needs to know the number of loudspeakers, the loudspeaker impedance, and the load capability (output impedance) of the amplifier. Most amplifiers will handle four or two ohms and some as low as 1 ohm.

Using the chart on page one; cross reference the number of loudspeakers to the amplifier impedance. Notice that the 4X jumper setting will allow twice as many loudspeakers.

Example: If there are eight 8-ohm loudspeakers and an amplifier capable of handling a 4-ohm load you must set WhisperTouch at the 4X setting for the amplifier to drive all 8 speakers at full volume. Note that the 2X setting allows only four 8-ohm loudspeakers to operate on a 4 ohm load. If however, you could select an amplifier with a 2 ohm output impedance, the same 8 loudspeakers could operate on a 2 ohm load (at the 2X setting) or 16 loudspeakers (at the 4X setting). Whenever possible, the lowest jumper setting for a given amplifier should be selected.

Changing Impedance Jumpers:

Once the proper impedance setting is determined, locate the two impedance jumpers (black plastic modules) on the back side of the circuit board. One jumper is for the right channel, the other for the left. Next, locate the 2X and 4X settings on the circuit board for each channel. If the settings are correct, continue to the next step. If the settings need to change, simply slide the jumper modules off and reinstall them on to the correct two pins.

Limitations:

WhisperTouch limits the degree of impedance matching to four times so that music quality and overall performance is not sacrificed. We do not recommend that any quality, multi-room music system be connected to a device which provides 8X or 16X impedance matching as it may limit the amplifier's power and system performance.

Prewiring and Installation:

A. Mount the outlet box or plaster ring in the wall (see mounting requirements). Each room's wiring can be individually run back to the amplifier (home run) or connected from one room to the other (daisy chain). The daisy chain wiring method connects one speaker with volume control in parallel to the next, using a connection block or crimp connectors in between. This method has the advantage of requiring less wiring for the system rough-in, but provides for little or no system upgrading for future applications.

With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes you have designated for the left channel, right channel, positive, and negative leads and the (+) and (-) power supply leads.

B. If using the "Home Run" wiring method, each room's speaker/volume control wiring should be individually run back to the Main Equipment Location "MEL" in a "home-run" fashion. Run a total of six conductors from the amplifier location to each room's control box. Four conductors are speaker outputs from the amplifier and the two additional conductors connect to the 12VDC power supply. Power Supply conductors may be as small as 22 gauge.

Note: Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before pre-wiring.

C. Next, run a two-conductor speaker cable from the outlet box to the single speaker location. Maintain proper polarity to the speaker.

D. Cut the cable accordingly, allowing enough cable to hang outside the outlet box, to properly connect the volume control. Tuck the cable back into the outlet box to prevent damage during drywall installation.

E. Strip 1/2" of insulation off each conductor and use wire nuts or butt splices to connect the WhisperTouch pigtail wiring to your speaker cables.

F. Switched WhisperTouch Models DSUMS-8 and SSUMS-8 require a 12VDC power supply plugged into the "SWITCHED" outlet of the stereo system receiver, preamplifier, or integrated amplifier. The power supply rating is determined by the quantity of DSUMS-8 units connected to the system. The formula is as follows:

Qty of DSUMS-8 x 100mA = power supply mA rating.

Example: A system with nine DSUMS-8 controls would require a 900 mA (approximately 1 amp) supply such as PS12-10.

G. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid left into the center position.

H. Secure unit with supplied screws. On decorative devices, we recommend loosening the screws 1/4 turn to allow movement side-to-side and front-to-back. This allows for a flush fit when the cover plate is installed.

Testing and operating the on/off feature:

- Turn on the receiver that powers WhisperTouch.
- The red indicator light on the WhisperTouch should turn on, but music will not be playing.
- Press the On/Off button once. The green indicator light will turn on and music will begin playing.
- Adjust the volume.
- Press the On/Off button again to turn off the music in that room.

*References to WhisperTouch® on this install sheet apply only to models DSUMS-8 and SSUMS-8

Specifications subject to change without notice



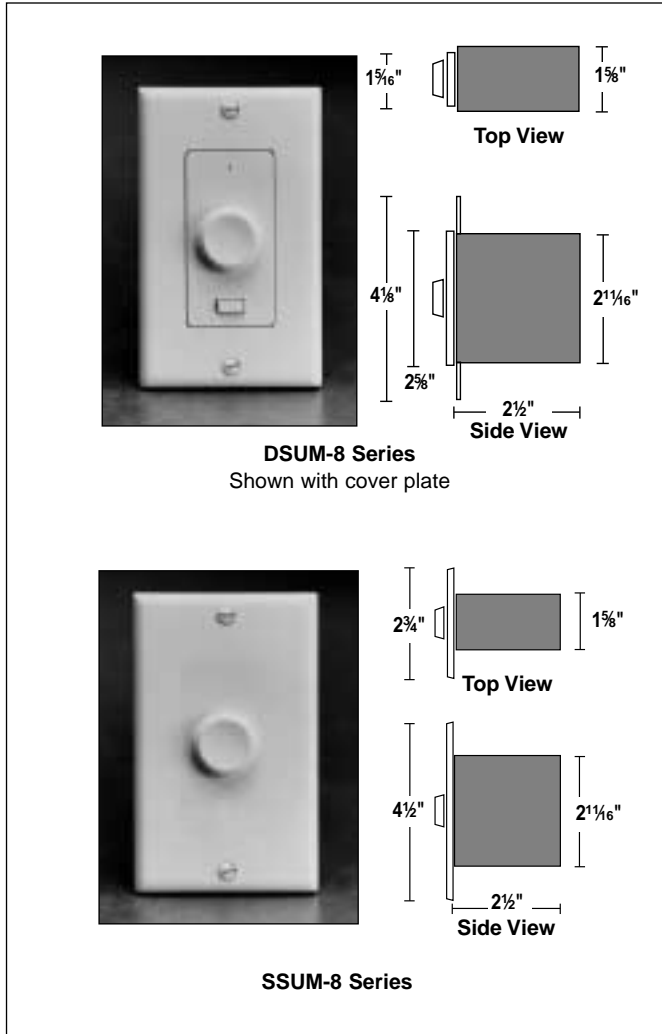
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"SUMMING" WHISPERTOUCH® VOLUME CONTROLS, STEREO TO MONO 8-OHM

**DSUM-8
SSUM-8**



DSUM-8 Series
Shown with cover plate

SSUM-8 Series

FEATURES

- Patented Device Combines Left and Right Channel Signals for Output to a Single Speaker Without Degrading Stereo Signal
- Handles 25 Watts and Maintains Amplifier Output Separation
- Provides Precision Level Control in 1.5dB Increments (Lowest 3 Steps)
- Easy-to-Adjust Impedance Jumpers (2X and 4X) Provide On-site and Future Design Flexibility
- Low-Profile Styling is a Favorite for Architects and Designers

APPLICATION

WhisperTouch Summing Volume Controls combine left and right stereo channels for broadcast to a single speaker. They are a unique way to cost-effectively bring stereo sound to a single speaker without losing the audio information that is desired by listeners. Summing controls also give the dealer / installer a new opportunity to offer customers additional audio coverage for low installed cost. They are the perfect solution for achieving stereo sound in small or secondary listening areas of offices or homes including small conference areas, hallways, entryways, and bathrooms.

GENERAL DESCRIPTION

Model Series DSUM-8 and SSUM-8 are 25-watt, stereo summing to mono 8-ohm volume controls with decora-style** or standard wall plate respectively. Both styles have a frequency response of 40Hz - 20kHz (-3dB, +0). Attenuation is accomplished in ten steps: the first position is positive off, the next three steps are 1.5dB for fine-tune control at low listening levels; the next six are standard 3dB.

The easy-grip low profile knob is 7/8" Dia. and projects a mere 3/8" for unobtrusive yet functional operation. The control operates smoothly with fine detents and make-before-break contacts for gradual and uninterrupted transition when changing volume settings. High quality units use terminal strip connections and require 14 to 20 AWG. Assemblies measure 2 1/2" deep and mount into a standard 18 or preferably 20 cu. in. or backless E.O. box (by others) to accommodate the control and its wiring comfortably. Specify unit color: Ivory (-I) or white (-W).

ARCHITECT AND ENGINEER SPECIFICATIONS

Attenuator for stereo summing to mono, 8-ohm application shall be Atlas Sound WhisperTouch Model _____. Control shall combine left and right channel stereo signal for output by a single speaker. Attenuation shall be accomplished in ten steps including positive off, three steps of 1.5dB and six steps of 3dB, for a total attenuation of 22.5dB. Insertion loss shall be no greater than .5dB. Unit shall mount to a standard 18 or 20 cu. in. E.O. box. The wall plate shall be _____ (standard or decora-style), in _____ (ivory or white) with a matching low-profile knob. Decora-style Model DSUM-8 requires a cover plate (by others).

Required Amplifier Output Impedance	IMPEDANCE JUMPER SETTINGS			
	Max. Qty. 8-Ohm Loudspeaker		Max. Qty. 4-Ohm Loudspeaker	
	Jumper Setting @2X	Jumper Setting @4X	Jumper Setting @2X	Jumper Setting @4X
8-Ohm	2	4	1	2
4-Ohm	4	8	2	4
2-Ohm	8	16	4	8
1-Ohm	16	32	8	16

MODEL SERIES*	POWER RATING	IMPEDANCE	INSERTION LOSS	FREQUENCY RESPONSE	STEPS	TYPE	PLATE STYLE	REQUIRES	WEIGHT
DSUM-8	25 Watts	8 ohm	.5dB	40 Hz 20 kHz- (-3dB, +0)	3 @ 1.5dB	Stereo Input w/ Mono Output	Decora**	14-20 AWG, & 18 or 20 cu. in E.O. Box***	.9 lb. (.379 Kg)
SSUM-8					6 @ 3dB 22.5 Total		Standard 2 3/4"W x 4 1/2"H		

*Suffix model with color: ivory(-I), white (-W). **Decora-style devices require a cover plate (this is a standard item typically ordered in bulk with other electrical supplies) ***E.O. Box by others. Recommended models include Carlon Model B118A, B120A or equivalent. Decora® is a registered Trademark of Leviton Corporation.

Specifications subject to change without notice



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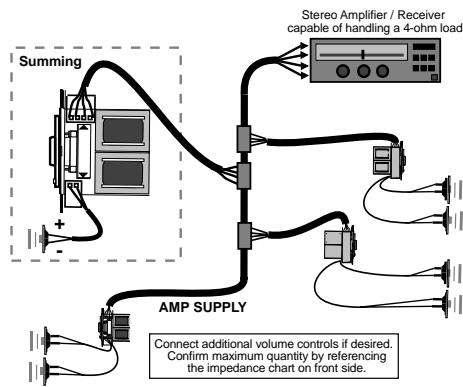
INSTALLATION INSTRUCTIONS For WHISPERTOUCHE MODELS DSUM-8 & SSUM-8

These diagrams show examples of a system that uses 8-ohm loudspeakers and an amplifier capable of handling a 4-ohm load.

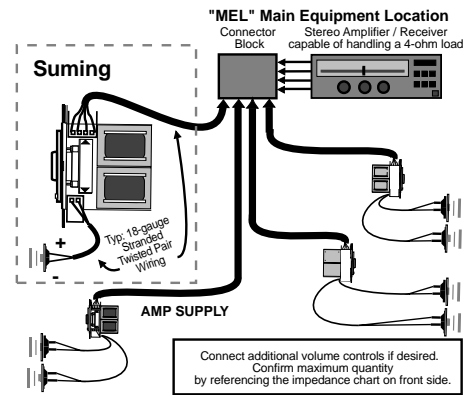
Set each WhisperTouch volume control impedance jumper according to the chart on the front of this sheet.

The wiring depicts how volume controls can be daisy chained or wired in home run fashion from each volume control to the amplifier.

"Daisy Chain" Wiring



"Home Run" Wiring



Summing Volume Controls:

WhisperTouch summing devices provide installers with a unique opportunity to extend stereo music to a single speaker for use in small or secondary listening areas. They install in similar fashion to standard controls with only a single set of speaker leads.

Mounting Location:

Volume controls should be placed in accessible wall locations that are close to entryways, exits, light switches, or telephones. They may also be ganged with other low voltage* controls such as keypads or infrared repeaters.

***Note:** *WhisperTouch should not be mounted into the same electrical box used for a 110-volt device – even if the box says it is partitioned for this purpose. Speaker wires may pick up electrical noise which will be transmitted as a buzzing or popping sound to the loudspeakers.*

Mounting Requirements:

WhisperTouch summing controls are 2½" deep and mount into a standard 18 or 20 cu. in. E.O. Box such as the Carlon Model B118A or B120A. For retrofit applications, CADDY drywall trim ring #MPLS may be used.

Calculating the proper Impedance settings for the system:

The WhisperTouch volume controls are impedance matching devices that allow multiple loudspeakers and volume controls to be connected, in parallel, without the additional cost of a separate impedance matching device. For flexibility in system design, WhisperTouch has two impedance matching capabilities: 2X and 4X.

To determine which setting should be used (2X or 4X), one needs to know the number of loudspeakers, the loudspeaker impedance, and the load capability (output impedance) of the amplifier. Most amplifiers will handle a load of four or two ohms.

Using the chart on page one; cross reference the number of loudspeakers to the amplifier impedance. Notice that the 4X jumper setting will allow twice as many loudspeakers.

Example: If there are eight 8-ohm loudspeakers and an amplifier capable of handling a 4-ohm load you must set WhisperTouch at the 4X setting for the amplifier to drive all 8 speakers at full volume.

Note that the 2X setting allows only four 8-ohm loudspeakers to operate on a 4 ohm load. If however, you could select an amplifier with a 2 ohm output impedance, the same 8 loudspeakers could operate on a 2 ohm load (at the 2X setting) or 16 loudspeakers (at the 4X setting). Whenever possible, the lowest jumper setting for a given amplifier should be selected.

Changing Impedance Jumpers:

Once the proper impedance setting is determined, locate the two impedance jumpers (black plastic modules) on the back side of the circuit board. One jumper is for the right channel, the other for the left. Next, locate the 2X and 4X settings on the circuit board for each channel. If the settings are correct, continue to the next step. If the settings need to change, simply slide the jumper modules off and reinstall them on to the correct two pins.

Limitations:

WhisperTouch limits the degree of impedance matching to four times so that music quality and overall performance is not sacrificed. We do not recommend that any quality, multi-room music system be connected to a device which provides 8X or 16X impedance matching as it may limit the amplifier's power and system performance.

Prewiring and Installation:

A. Mount the outlet box or plaster ring in the wall (see mounting requirements).

Each room's wiring can be individually run back to the amplifier (home run) or connected from one room to the other (daisy chain). The "Daisy Chain" method connects one speaker with volume control in parallel to the next, using a connection block or crimp connectors in between. This method has the advantage of requiring less wiring for the system rough-in, but provides for little or no system upgrading for future applications.

With either method, be sure to mark the cable connected to the amplifier as [INPUT] and write down the color codes you have designated for left channel, right channel, positive, and negative leads.

B. If using the "Home Run" wiring method, each room's speaker/volume control wiring should be individually run back to the Main Equipment Location "MEL" in a "home run" fashion. Run

four-conductor speaker cable from the amplifier location to each room's volume control box. We recommend using 12 to 18-gauge stranded wire.

Note: *Many building and fire codes require cable to be CL-2, CL-3, or FT4 rated. Check with your local building inspector before pre-wiring.*

C. Next, run a two-conductor speaker cable from the outlet box to the single speaker location. Maintain proper polarity to the speaker.

D. Cut the cable accordingly, allowing enough cable to hang outside the outlet box, to properly connect the volume control. Tuck the cable back into the outlet box to prevent damage during dry-wall installation.

E. Strip ¼" of insulation off each conductor. Tightly twist the end of each wire until there are no frayed ends.

F. Insert four amplifier wires into screw terminals marked L+ L- R+ R- on the volume control. Insert two speaker wires into screw terminals marked + - on the control. Secure each wire by tightening the connector screws.

G. Tuck the excess cable from inside the outlet box back out into the wall or fold wires carefully while inserting the volume control into the outlet box. Position the volume control so that the front bracket lines up with the mounting holes on the box. In some cases, WhisperTouch may be a tight fit requiring it to be inserted on the right side of the outlet box and then slid into the center position. It is not uncommon for the connectors to fit snugly to the center ribs of specified J-boxes.

Note: *In retrofit applications, metal extension plates and non-recommended outlet boxes may require field modification to accept the units' higher and deeper profile.*

H. Secure unit with supplied screws. On decorative devices, we recommend loosening the screws 1/4 turn to allow ¼" movement side-to-side and front-to-back. This will allow the unit to fit flush when the cover plate is installed.

REFERENCES TO WHISPERTOUCHE® ON THIS INSTALL SHEET APPLY ONLY TO MODELS DSUM-8 AND SSUM-8

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