LIMITED WARRANTY

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from the date of purchase a properly installed product proves to be defective, and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States.

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Date of Installation Builder or Installer

Model No. and Product description

IF YOU NEED ASSISTANCE OR SERVICE:

PEAVEY ELECTRONICS CORPORATION
PEAVEY.COM

Designed and Engineered in the U.S.A.
By Peavey Electronics Corporation
Assembled in China Under Strict
Peavey-Specific guidelines and Standards

Please be prepared to provide:
product model number • Date and Proof of purchase • The nature of the difficulty

Rev. 01/2000

Two-Way In Wall Speaker

Model: WS-52T
Impedance: 8 Ohms nominal, Power Handling Capacity: 50 Watts
Wall Cut out dimensions: 243×156×70mm

INTRODUCTION

The WS-52T two-way in-wall speaker consists of a 5" woofer and one swivel 1" silk dome tweeters. A mounting (rough-in) frame is not required when the speakers are installed in existing construction or a retrofit application.

The speaker consists of three parts:
- a baffle on which the drivers (woofer and tweeters) are mounted
- plastic mounting frame
- grille

The three-piece construction allows for flexibility. For example, the frame can be mounted on the wall and painted along with the grille. Later, the baffle can be removed from its protective carton and mounted on the frame. Or, pre-install the baffle on the frame, mount the assembly on the wall put grille in place, all at the same time. The speaker can be painted at any time by covering the baffle with a cardboard prior to applying paint.

LOCATING THE SPEAKERS

Before you mount the speaker, consider the best place to mount them. The exact location of your speaker depends on how you want to use these speakers. There are three ways of using them:
1. As primary speakers in your system. depends on how you use your favorite room for main entertainment purposes.
2. As surround (rear) speakers in home theater application.
3. As speakers for background music.

RECOMMENDED SPEAKER WIRING

A sufficient quantity of the correct gauge of speaker cable (wires) will be needed. The gauge (AWG) of speaker wire to choose depends on the distance between your amplifier and the speakers.
- Up to 50 feet between amplifier and speaker
  Use 16 AWG speaker cable
- For more than 50 feet between amplifier and speaker
  Use 14 AWG speaker cable

Add at least 25% extra length of wire to the estimated length.

INSTALLING THE SPEAKER

Once you have established the location of your speakers, You are ready for their installation.
Use the template provided to make a rectangular hole at the chosen location. Refer to Figures 4 and 5. Attach the speaker wires to the appropriate speaker terminals on the back of the speaker baffle, observing polarity. Make sure that the wing tabs on the speaker frame are rotated inward. Place the speaker into the hole cut out. Now tighten the wing tab screws from the front. The wing tabs will rotate and lock the speaker frame to the drywall. Mount the speaker baffle on the frame using screws supplied. the installation is over.
Do not mount the grille yet.

INSULATION AND BACK BOX

The speakers are designed to work satisfactorily withour there being any insulation in the wall or ceiling cavity. If insulation is behind the speaker, be certain the insulation fibers do not fall into the woofer metal frame which will prevent the woofer cone from moving. The speakers are also designed to work optimally without a back box attached. The speaker is designed to be mounted in a normal wall or ceiling cavity

THE SWIVEL TWEETER

High frequencies the tweeter produce are directional; high frequencies travel in straight lines. Therefore, you need to be almost directly in Line with the tweeter to be able to hear these frequencies clearly. The speaker is equipped with one tweete that can be rotated. The tweeter can be swiveled independently to cover a large listening area. Gently press around the edges of the tweeter to rotate and point them to the desired area. Low frequencies are non-directional; they spread in all directions and can, therefore, be heard from anywhere. For this reason, woofers, which produce low frequencies, need not be rotated.

Loudspeaker System Specifications

WS-52T Ceiling/Wall Speaker

Frequency Response, 1 meter on-axis, swept-sine in 1/2 space environment:
68 Hz to 18 kHz (+/-3dB)

Usable Low Frequency limit (-10 dB point):
47 Hz

Power Handling:
50W continuous
100W program
200W peak

Sound Pressure Level, 1 Watt, 1 meter equivalent in anechoic environment:
88 dB SPL, (2.83 V input)

Maximum Sound Pressure Level (1 meter):
102dB SPL continuous
108dB SPL peak

Transducer Complement:
One 5 ¼" treated paper woofer, one 1" dome tweeter

Impedance (Z):
Nominal: 8 Ω
Minimum: 6.0 Ω

Crossover Frequency:
4 kHz

Input Connections:
Block terminals

Input Ranges:
100V(20W,10W,5W,2.5W)
70V(20W,10W,5W,2.5W)
8 OHM

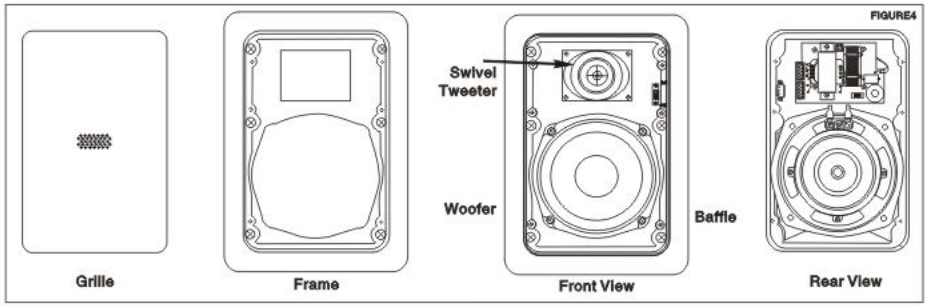
Enclosure Materials & Finish:
White ABS plastic frame and metal grille

Mounting provisions:
Wall mount or ceiling mount.

Overall Dimensions (H x W x D):
9.563 in. x 6.125 in. x 2.75 in. (Cutout)
11.0 in. x 7.5 in. Outside Dimensions

Net Weight:
4 Lbs. 4.8 ozs per speaker(1.95 kg)

Features
- Full-range, two-way system
- Adjustable tweeter angle
- 100 Watts program power handling
- Easy, attractive install
- White plastic frame and white metal grille can be painted any color



Description

The WS-52T is a full-range two way speaker system designed for use in wall or ceiling mount situations. The 5 1/4" woofer provides for good bass response, while the 1" dome tweeter offers superior high frequency dispersion, as well as +/- 20 degrees of angle adjustment. The two combine to offer a clean, clear sound in a conveniently mounted package.
The mounting system provides quick and easy installation, and avoids the clumsy frames and secondary pieces that most other wall/ceiling speakers require for mounting. The white frame and grille can be readily painted any color to suit a wide range of applications.

Frequency Response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the WS-52T is measured at a distance of 1-meter using a 1 watt (into the nominal impedance) swept-sine input signal. The selected drivers in the WS-52T combine to give a smooth frequency response from 68 Hz to 18 kHz .

Power Handling

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a full-range form of the AES Standard 2-1984. Using audio band 20 Hz to 20 kHz pink noise with peaks of four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. This rating is contingent upon having a minimum of 3 dB of amplifier headroom.

Mounting

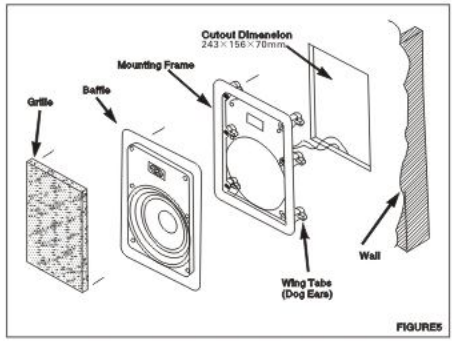
The WS-52T comes with the hardware necessary to mount into a wall.
Caution: Before installing this speaker, check local electrical codes first.

Architectural & Engineering Specifications

The loudspeaker system shall have an operating bandwidth of 68 Hz to 18 kHz with signal processing. The nominal output level shall be 88 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The maximum continuous power handling shall be 50 watts, maximum program power of 100 watts and a peak power input of at least 200 watts, with a minimum amplifier headroom of 3 dB. The overall outside dimensions shall be 11.0 inches high by 7.5 inches wide by 2.75 inches deep. The weight shall be 3.2 pounds. The loudspeaker system shall be a Peavey Architectural Acoustics model WS-52T.

TESTING THE SYSTEM

When all connections have been completed, play music through an amplifier and a music source such as a CD player. Initially, keep the volume control in the amplifier at very low setting. Keep tone controls, if any, at mid position. Slowly increase the volume from the amplifier. Sound should be heard from the left and right speakers. If not , refer to the Troubleshooting Guide.



If you do not wish to paint the speaker, mount the grille at this time. if the grille vibrates when there is high bass sound, you can use the black, sound damping paste that you will find in a little plastic packet located in the carton. Remove a small quantity of this black paste and apply it to the grille edge at top and tottom or sides. Gently press the grille back on to the speaker baffle. The vibration should stop now.
If the speaker are to be painted, refer to the following section prior to installing the grille.

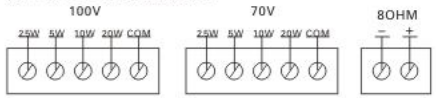
PAINTING THE SPEAKERS

The frame can be painted to compliment the room decor. Use a cardboard sheet to cover the face of the speaker and attach it to the frame using adhesive tape. Use a light roller to paint the frame taking care that no paint seeps through to the woofer or tweeter. Paint the grille separetely . Be certain that the holes on the grille are not clogged. Otherwise, the sound from the speakers will be blocked. A foam sheet in the carton is supplied which can be placed behind the grille and in front ofthe baffle to hide the black speakers behind the grille.
This may not work as well if you paint the speaker frame and grille another color.

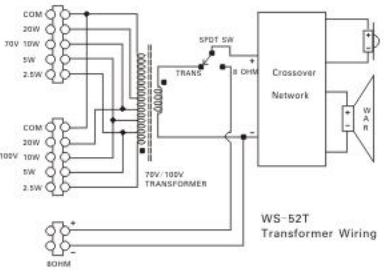
TRANSFORMER INPUT

There is a switch to select the Transformer input or 8 OHM input. The input connecting block terminals are on the PCB board and their input ranges are as following:

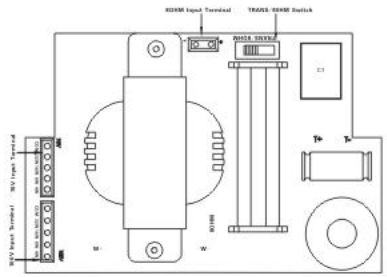
INPUT BLOCK TERMINALS



WS-52T Schematic as following:



Right picture is PCB assembling drawing:



TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Possible Remedy
1. No sound from either speaker.	1. Improper source selected at amplifier. 2. Mute button pressed. 3. Wrong speaker output selected A or B. 4. Amplifier shuts off because of short circuit. 5. Transformer/8Ohm switch in the wrong position.	1. Select proper source. 2. Defeat Mute button. 3. Select proper position on A/B switch. 4. Check all wires and remove the short. Check proper operation of Amplifier/Receiver. 5. Change switch setting
2. Sound from only one speaker.	1. There is missing connection. 2. Balance control on amplifier turned all the way to left or right.	1. Check all wires and make all connections. 2. Set the control to mid position.
3. Weak bass sound.	1. Wrong polarity on one speaker.	1. Check polarity & rewire, if necessary.
4. Amplifier shuts as volume is increased.	1. Amplifier is overloaded.	1. Short circuit in wire. Check all wires & remove short. 2. Make sure that if you have connected more than one speaker per channel on the amplifier, the minimum impedance requirement of amplifier is met. Most amplifiers are designed to take only one 8 Ohm speaker per channel.
5. Weak sound or will not play very loud.	1. Using transformer input with 8 Ohm output.	1. Connect to 8 Ohm"input terminals and change switch to "8 Ohm"position