

# Cone Loudspeakers, Wall Baffle, Ceiling Grilles, and Assemblies

## Speaker Model Variations and Accessories



S86



S810

### Features

- High quality, direct radiator speakers
- 7 watts and 15 watts power handling capacity
- Provision for quick attachment of transformer
- Available with transformer mounted and wired

### Specifications

	S86	S810
Cone Diameter:	8"	8"
Magnet Weight:	6 oz.	10 oz.
Magnet Material:	Ceramic	Ceramic
Voice Coil Impedance:	8 ohms	8 ohms
Voice Coil Diameter:	3/4"	1"
Frequency Response:	50Hz to 12kHz	70Hz to 15kHz
Axial Sensitivity (at 4 feet with 1-watt input):	95dB	96dB
Power Handling Capacity (program material):	7 watts	15 watts
Depth:	3-1/4"	3-1/4"
Shipping Weight:	16 @ 25 lbs.	16 @ 34 lbs.

#### Optional Speaker/Transformer Combinations:

- S86T725, S810T725 – S86, S810 speaker with 25/70V transformer (Model T725)
- S86T725BR – S86 speaker with 25/70V transformer and terminal strip (-BR)

#### Accessories:

- T725 Transformer – 25V or 70V; Power Taps (watts): 4, 2, 1, 1/2, 1/4, 1/8; Voice Coil: 8 ohms
- T72510 Transformer – 25V or 70V; Power Taps (watts): 10, 5, 2-1/2, 1-1/4, 5/8; Voice Coil: 8 ohms
- Attenuators – AT10A, AT35A: 10-watt and 35-watt, respectively

### Description

The Bogen Models S86 and S810 8" cone-type loudspeakers provide excellent sound quality and trouble-free operation. Their magnetic structure is designed for maximum air gap energy and the diaphragms have been selected for high sensitivity and optimized response characteristics. The speakers are easy to install in ceiling grilles or wall baffles. Mounting holes have been provided for quick attachment of a transformer.

Transformers include the Model T725, which matches an 8-ohm speaker to a 25- or 70-volt line with six power taps for either voltage (4, 2, 1, 1/2, 1/4, and 1/8 watt), and the Model T72510 which matches an 8-ohm speaker to a 25- or 70-volt line with five power taps for either voltage (10, 5, 2-1/2, 1-1/4, 5/8 watts).

The S86 and S810 are available in factory assembled versions, with the Model T725 transformer already mounted. The S86 assembly is also available with a terminal strip (-BR), and volume control (-V).

Bogen also offers the speakers, fully assembled with a transformer, in an attractively finished wall baffle (Model WB8), or in ceiling grilles for recessed installation. Assemblies are also available with optional volume control and/or terminal strip.





WB8

## Wall Baffle, Grilles, Accessories

- Sturdily constructed
- Attractively styled and finished
- Wall baffle surface mounts at an angle for downward sound dispersion

### WB8 Wall Baffle

The **WB8** baffle is ruggedly constructed of 3/8" particle board, glued and covered in simulated walnut vinyl with a black grille cloth. Side corner joints are reinforced with glue blocks. It is handsomely styled and looks well in virtually any decor. The sloping front provides extra downward sound dispersion.

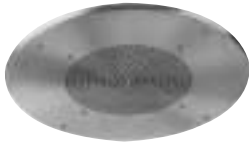
CG8A (shown),  
CG8AW



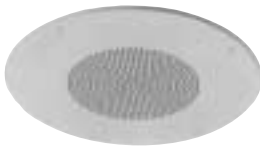
### Ceiling Grilles

Sturdily constructed and handsomely styled, these metal grilles protect and conceal recessed 8" ceiling speakers. They are shipped complete with the hardware needed to mount speaker to grille. Models CG8A, CG8AW, PG8A, PG8W, and SG8W.

PG8A (shown),  
PG8W



SG8W



### RE84 Ceiling Speaker Enclosure

The **RE84** is a protective enclosure for an 8" speaker, designed for recessed installations, and for use with any of the Bogen ceiling grilles. One-piece steel construction includes a mounting ring and a foam insert to reduce metallic resonance. The **RE84** is finished in rust-resistant black primer and is tapered for easy stacking. UL approved.

MR8



RE84

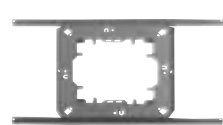


### MR8 Mounting Ring

The **MR8** is a cold-rolled steel unit which will mount any of the Bogen ceiling grilles, for installations where the **RE84** is not used.

### TB8 Tile Bridge

The **TB8** is a load bearing T-bar support designed to sustain the weight of an 8" speaker, grille and protective enclosure in suspended ceiling construction. Use of the **TB8** improves environmental safety and eliminates unsightly sag in 2'-by-2' and 20'-by-4' acoustic ceiling tiles.



TB8



AT10A

### Speaker Line Attenuators

The **AT10A** and **AT35A** are 10-watt and 35-watt attenuators that permit setting the output level at loudspeakers on a 25V or 70V line without altering the amplifier volume setting. They provide a choice of 10 stops and an "off" position.

Technical Specifications	Wall Baffle	Ceiling Grilles				
	WB8	CG8A	CG8AW	PG8W	PG8A	SG8W*
Speaker Accommodated	8" cone	8" cone	8" cone	8" cone	8" cone	8" cone
Constructed of	3/8" Particle Board	Aluminum (contoured)	Aluminum (contoured)	Steel	Aluminum	Steel
Finish	Walnut Vinyl**	Satin Aluminum	Semi-gloss White Enamel	Semi-Gloss White Enamel	Satin Aluminum	Semi-Gloss White Enamel
Diameter/Dimensions	See Below†	12-5/8"	12-5/8"	13"	13"	13"
Shipping Weight	4 @ 10 lbs.	15 @ 8 lbs.	15 @ 9 lbs.	20 @ 27 lbs.	20 @ 10 lbs.	10 @ 13 lbs.

\* Features hidden speaker mounting studs • \*\*With black grille cloth • † 9-1/2"W x 9-1/2"H x 5-1/4"D (3-1/4" D at bottom)

# Assemblies For Easy Installation

- Speaker plus transformer
- Speaker, transformer, baffle or grille
- Optional volume control
- Optional terminal strip

Labor-saving, factory-assembled versions of the **S86** and **S810** loudspeakers are available. Both can be ordered with the model **T725** transformer mounted and wired. The **S86** can also be ordered with a transformer and terminal strip for easy connection to the audio line.

For even greater convenience and time-savings, the speakers are available fully-assembled on a white ceiling grille (model **PG8W**) for recessed installation, or in a wall-mounting baffle (model **WB8**). The assembled version options include a volume control (recessed or knob) and/or terminal strip.



S86T725



S86T725BR

## S86T725(BR) & S810T725 Assemblies with Transformer

The basic factory-assembled loudspeaker. Includes the **S86** or **S810** speaker with model **T725** transformer mounted and wired. The S86 can also be ordered with a terminal strip (**S86T725-BR**).

## S86T725PG8W Assemblies with Transformer & Ceiling Grille

The **S86** loudspeaker with model **T725** transformer is available mounted to a **PG8W** ceiling grille. The list below shows all the available configurations:

<b>S86T725PG8W</b>	S86T725 mounted to a PG8W grille
<b>S86T725PG8WVR</b>	S86T725PG8W with recessed volume control (-VR)
<b>S86T725PG8WVK</b>	S86T725PG8W with knob volume control (-VK)
<b>S86T725PG8WBR</b>	S86T725PG8W with terminal strip (-BR)
<b>S86T725PG8WBRVR</b>	S86T725PG8WBR with recessed volume control
<b>S86T725PG8WBRVK</b>	S86T725PG8WBR with knob volume control



S86T725PG8WBR

## S810T725PG8W Assemblies with Transformer & Ceiling Grille

The **S810** loudspeaker with model **T725** transformer is available mounted to a **PG8W** ceiling grille. The list below shows all the available configurations:

<b>S810T725PG8W</b>	S810T725 mounted to a PG8W grille
<b>S810T725PG8WVR</b>	S810T725PG8W with recessed volume control (-VR)
<b>S810T725PG8WVK</b>	S810T725PG8W with knob volume control (-VK)



WBS8T725BR

## WBS8T725 & WBS810T725 Assemblies with Transformer & Wall Baffle

The **S86** and **S810** loudspeakers with model **T725** transformer are available mounted to the **WB8** baffle. The list below shows all the available configurations:

<b>WBS8T725</b>	S86T725 mounted in a WB8 baffle
<b>WBS8T725V</b>	WBS8T725 with recessed volume control (-V)
<b>WBS8T725BR</b>	WBS8T725 with terminal strip (-BR)
<b>WBS8T725BRV</b>	WBS8T725BR with recessed volume control (-V)
<b>WBS810T725</b>	S810T725 mounted in WB8 baffle

# Architects and Engineers Specifications

## S86 Cone Loudspeaker

The loudspeaker shall be a Bogen model **S86** (or transformer coupled **S86T725** or **S86T725BR**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 50Hz to 12kHz. Axial sensitivity shall be 95dB, at four feet with one-watt input. The loudspeaker shall have a 6 oz. ceramic magnet, a 3/4" inch voice coil, and a power handling capacity of 7W, minimum. Mounting holes shall be provided for attaching an optional transformer. Speaker depth shall be 3-1/4".

– (For **S86T725** add) A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length.

– (For **S86T725BR** add) A terminal strip shall be provided for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt connection.

## S810 Cone Loudspeaker

The loudspeaker shall be a Bogen model **S810** (or transformer coupled **S810T725**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 70Hz to 15kHz. Axial sensitivity shall be 96dB, at four feet with one-watt input. The loudspeaker shall have a 10 oz. ceramic magnet, a 1" voice coil, and power handling capacity of 15 watts, minimum. Mounting holes shall be provided for attaching an optional transformer. Speaker depth shall be 3-1/4".

– (For **S810T725** add) A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length.

## WB8 Wall Baffle

The loudspeaker wall baffle shall be a Bogen model **WB8**, or equivalent, capable of housing an 8" cone-type loudspeaker and angled for additional downward sound dispersion. The baffle shall be constructed of 3/8" particle board, glued and covered in simulated walnut vinyl. Glue blocks shall be used to reinforce all side corner joints. The speaker opening shall be covered with a black grille cloth. Hardware for mounting speaker to baffle shall be supplied with the unit. Overall dimensions shall be 9-1/2"W x 9-1/2"H x 5-1/4"D (top) x 3-1/4"D (base).

## Ceiling Grilles

– (Use for **CG8A**) The ceiling speaker grille shall be a Bogen model **CG8A** aluminum grille, or equivalent, capable of protecting and concealing a recessed 8" cone-type loudspeaker. The diameter of the grille shall be 12-5/8" and it shall be contoured and finished in satin aluminum.

– (Use for **CG8AW**) The ceiling speaker grille shall be a Bogen model **CG8AW** aluminum grille, or equivalent, capable of protecting and concealing a recessed 8" cone-type loudspeaker. The diameter of the grille shall be 12-5/8" and it shall be contoured and finished in white semi-gloss enamel.

– (Use for **PG8W**) The ceiling speaker grille shall be a Bogen model **PG8W** steel grille, or equivalent, capable of protecting and concealing a recessed 8" cone-type loudspeaker. The diameter of the grille shall be 13" and it shall be low profile and finished in white semi-gloss enamel.

– (Use for **PG8A**) The ceiling speaker grille shall be a Bogen model **PG8A** aluminum grille, or equivalent, capable of protecting and concealing a recessed 8" cone-type loudspeaker. The diameter of the grille shall be 13" and it shall be low profile and finished in satin aluminum.

– (Use for **SG8W**) The ceiling speaker grille shall be a Bogen model **SG8W** steel grille, or equivalent, capable of protecting and concealing a recessed 8" cone-type loudspeaker. The diameter of the grille shall be 13", the speaker mounting studs shall be hidden, and the grille shall be low profile and finished in white semi-gloss enamel.

## Wall Baffle/Speaker Assemblies

### WBS8T725

The surface-mounting loudspeaker assembly shall be a Bogen model **WBS8T725** (or **WBS8T725V**, **WBS8T725BR**, or **WBS8T725BRV**), or equivalent, 8" cone-type loudspeaker having a frequency response of at least 50Hz to 12kHz. Axial sensitivity shall be 95dB, at four feet with one-watt input. The loudspeaker shall have a 6 oz. ceramic magnet and a 3/4" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length.

The loudspeaker shall be assembled in a wall baffle for surface mounting, angled for additional downward sound dispersion. The baffle shall be constructed of 3/8" particle board, glued and covered in simulated walnut vinyl. Glue blocks shall be used to reinforce all side corner joints. The speaker opening shall be covered with a black grille cloth. Overall dimensions shall be 9-1/2"W x 9-1/2"H x 5-1/4"D (top) x 3-1/4"D (base).

– (For **WBS8T725V** add) The assembly shall include a control for adjusting the volume of the loudspeaker.

– (For **WBS8T725BR** add) A terminal strip shall be included for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt power connection.

– (For **WBS8T725BRV** add) A terminal strip shall be included for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt power connection. A control shall also be included for adjusting the volume of the loudspeaker.

## **WBS810T725**

The surface mounting loudspeaker shall be a Bogen model **WBS810T725**, or equivalent, 8" cone-type loudspeaker having a frequency response of at least 70Hz to 15kHz. Axial sensitivity shall be 96dB, at four feet with one-watt input. The loudspeaker shall have a 10 oz. ceramic magnet and a 1" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length.

The loudspeaker shall be assembled in a wall baffle for surface mounting, angled for additional downward sound dispersion. The baffle shall be constructed of 3/8" particle board, glued and covered in simulated walnut vinyl. Glue blocks shall be used to reinforce all side corner joints. The speaker opening shall be covered with a black grille cloth. Overall dimensions shall be 9-1/2"W x 9-1/2"H x 5-1/4"D (top) x 3-1/4"D (base).

## **Ceiling/Speaker Assemblies**

### **S86T725PG8W & Variations**

The loudspeaker assembly shall be a Bogen model **S86T725PG8W** (or **S86T725PG8WVR**, **S86T725PG8WVK**, **S86T725PG8WBR**, **S86T725PG8WBRVR**, or **S86T725PG8WBRVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 50Hz to 12kHz. Axial sensitivity shall be 95dB, at four feet with one-watt input. The loudspeaker shall have a 6 oz. ceramic magnet and a 3/4" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer

primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length.

The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in white semi-gloss enamel.

– (For **S86T725PG8WVR** add) A recessed control shall be included to adjust the volume of the loudspeaker.

– (For **S86T725PG8WVK** add) A control, accessible from the front of the grille, shall be included to adjust the volume of the loudspeaker.

– (For **S86T725PG8WBR** add) A terminal strip shall be included for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt power connection.

– (For **S86T725PG8WBRVR** add) A terminal strip shall be included for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt power connection. A recessed control shall be included to adjust the volume of the loudspeaker.

– (For **S86T725PG8WBRVK** add) A terminal strip shall be included for connection of the audio line. Terminals shall be labeled for 4, 2, 1, 1/2, 1/4, and 1/8 watt power connection. A control, accessible from the front of the grille, shall be included to adjust the volume of the loudspeaker.

### **S810T725PG8W & Variations**

The loudspeaker shall be a Bogen model **S810T725PG8W** (or **S810T725PG8WVR**, or **S810T725PG8WVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 70Hz to 15kHz. Axial sensitivity shall be 96dB, at four feet with one-watt input. The loudspeaker shall have a 10 oz. ceramic magnet and a 1" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The transformer primary and secondary leads shall be stripped, tinned, and shall be at least 6" in length. The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in white semi-gloss enamel.

## Accessories

### RE84 - Ceiling Speaker Enclosure

The protective enclosure for the 8" cone-type loudspeakers shall be a Bogen model **RE84**, or equivalent, designed for recessed installations. It shall be constructed of one-piece heavy-gauge steel, and shall include a speaker mounting ring. A foam insert shall be permanently attached to the inner surface, to prevent metallic resonance. Four combination 1/2" – 3/4" conduit knockouts shall be provided at 90 degree intervals, and the unit shall be finished in a rust-retardant black primer coating. The dimensions shall be: 12-1/4" dia. x 4-1/2"D.

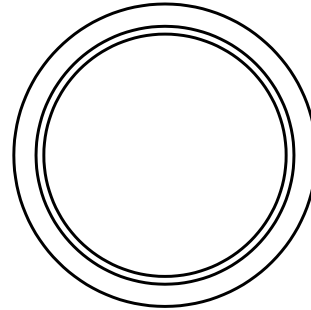
RE84



### MR8 - Mounting Ring

The plaster ring shall be a Bogen model **MR8**, or equivalent, circular cold-rolled steel unit. It shall be finished in a rust-retardant gray primer coating, and the dimensions shall be: 12" dia. x 3/4"D.

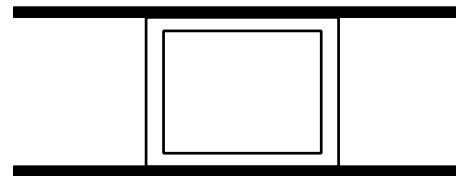
MR8



### TB8 - Tile Bridge

The load bearing T-bar support shall be a Bogen model **TB8**, or equivalent, capable of sustaining the weight of an 8" speaker, grille and protective enclosure in suspended ceiling construction. It shall be manufactured of steel and shall be finished with a rust-retardant galvanized coating. The unit shall measure: 24"W x 3/4"H x 14-3/4"D.

TB8



### Attenuators

The speaker line attenuator shall be a Bogen model (specify **AT10A** or **AT35A**), and shall permit setting the output level at loudspeakers on a 25V or 70V line without altering the amplifier volume setting. The attenuator shall provide a choice of 10 stops and an "off" position, and shall be capable of controlling up to 10-/35-watt speaker systems.

**BOGEN**<sup>®</sup>  
COMMUNICATIONS, INC.

50 Spring Street, Ramsey, New Jersey 07446, U.S.A.  
(201) 934-8500 FAX: (201) 934-9832; www.bogen.com