

# SHS-LF

## Strategically Hidden Subwoofer



### Features

- 70.7V / 100V and 8Ω Operation
- (4) 3.5" x 4.75" Woofers
- Sealed Enclosure Design Provides Optimal Bass Response
- Quick and Easy Installation (Built-In Tile Rail Arms That Mechanically Expand From the Enclosure)
- Detachable, Phoenix Style, Four-pole Euro Connectors for Easy Daisy Chain Wiring
- Subtle Form & Design Blends Into Any Ceiling
- Flange, Diffuser, Lens Kits, and Paint Shield Included
- UL1480A & UL2043, CSA C22.2 No. 205-17

### Applications

The Strategically Hidden Speaker is designed to blend into the aesthetic of any ceiling while retaining optimal sound performance. The SHS-LF is a Strategically Hidden Subwoofer designed to complement the sound quality of the SHS-6T2 and SHS-3T2 to provide low frequencies where high quality, full-spectrum audio is required. The SHS-LF is particularly suited for venues where hi-fidelity music is used to enhance guest experience. The SHS-LF uses the same rail system as the SHS-6T2, ensuring quick and easy installation.

### General Description

The SHS-LF comprises 4 low frequency drivers inside a concealed enclosure providing optimal deep bass performance. The discrete subwoofer will amaze listeners. A 70V/100V transformer is included with primary taps at 1.9, 3.8, 7.5, 15, 30, and 60 watts (@70.7V) to match and balance the subwoofer with full range speakers without the need for separate amplification. The tap selector switch also includes a transformer bypass setting for 8Ω / direct coupled applications.

The SHS-LF is also an installer's dream with its integrated rail system. All the parts are built into the enclosure including the tile rails, with no rail screws required for installation. Once the 4 rails are pulled out from the enclosure it is ready for installation. An installer only needs to drill a 2.75" hole into the ceiling tile, set the product through the hole, and screw on the adaptive dispersion lens.

The SHS-LF ships with the ability to utilize the Adaptive Dispersion Lens in two different configurations for various applications. Installations with ceilings between 10' and 14' should use the 8mm dispersion lens with the solid lens cover attached. Installations with ceiling heights above 14' or in applications that require maximum output, the direct fire lens should be used with the perforated panel attached.

The concealed design is achieved using a patented 3" diameter dispersion lens with a micro trim ring. Once installed, the visual appearance is minimized to the size of a high-end ceiling sprinkler head.

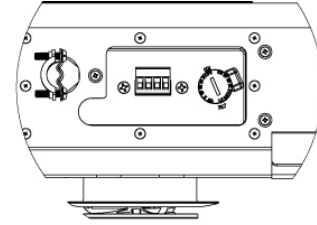
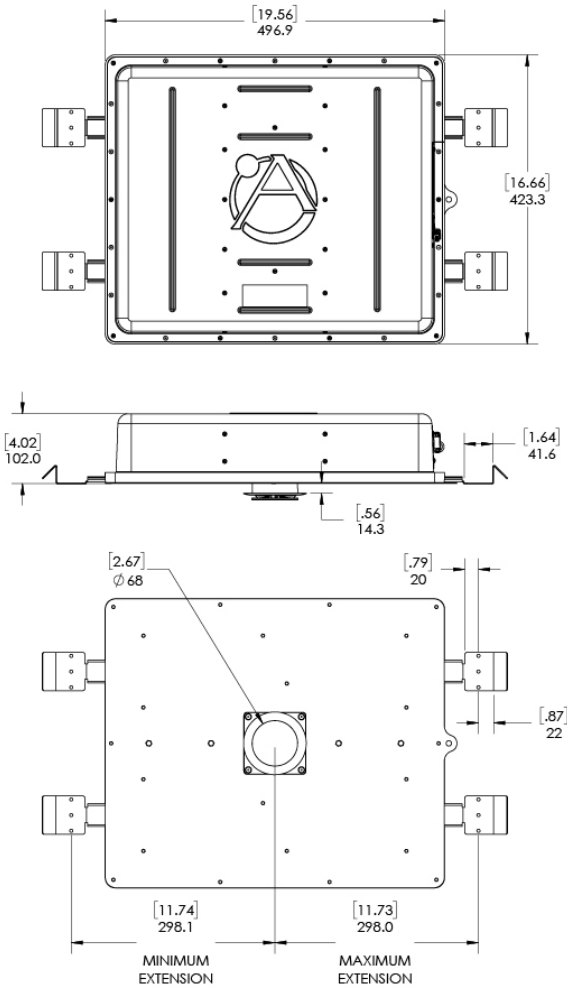
The SHS can become a true chameleon through AtlasIED's DesignLab. AtlasIED offers custom color matching via UV printer that enables an integrator to submit an image or sample of the ceiling, then, using a state-of-the-art print service, a custom lens and trim ring that matches the submitted sample will be shipped to the customer.

System	
Model Type	SHS-LF
Type	In-Ceiling Subwoofer
Operation Mode	Non-powered passive
Operating Range (-10db)	36 Hz - 141 Hz
Frequency Response (+/- 5dB)	46 Hz - 127 Hz
Nominal Input Sensitivity (1W @1m)	87 dB
Max Input Ratings (8 ohm)	200 W
Transformer Taps - 70V	1.9W, 3.8W, 7.5W, 15W, 30W, 60W
Transformer Taps - 100V	3.8W, 7.5W, 15W, 30W, & 60W
Max SPL at 1 m (passive)	110dB
Recommended Signal Processing	5 Band Peq Correction
Recommended Power Amplification	200W 8 Ohm, 60W 70.7 Vrms, 60W 100 Vrms.
Transducers	
LF Transducer Qty and Size	4 pcs 3.5" x 4.75" woofer
LF Voice Coil Size	1"
Maximum Output	98.7 dB
Nominal Impedance	8 Ohms
Minimum Impedance	6.58 Ohms
Crossover Frequency	N/A
Driver Protection	None
Enclosure	
Color	Gray
Enclosure Material	Steel
Grille Material	N/A
Baffle Material	ABS Plastic
Mount Material	Steel Tile Bridge Arms
Input Connection	4 Pole Euro Block
Controls	Rotary Switch
Mounting / Rigging Provisions	Included mounting arms
Safety Features	1 Safety Hangpoint
Safety Agency Ratings	UL1480A & UL2043, CSA C22.2 No. 205-17
Ingress Protection	N/A
Environmental Testing	N/A
Cutout Diameter	2.75" Hole
Logo	Embossed in Backcan
Product Dimensions (HxWxD)	4.58" (116.3mm) x 24.56" ( 623.8 mm) x 16.66" (423.3mm)
Shipping Dimensions (HxWxD)	6.125" ( 155.6 mm) X 29.25" ( 742.9 mm) x 19.75" ( 501.6 mm)
Net Weight	28.70 Lbs (13.02 kg)
Shipping Weight	34.75 Lbs (15.76 kg)
Warranty Coverage	
Warranty Period	5 Years

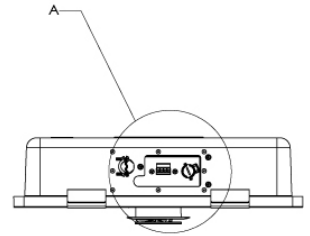
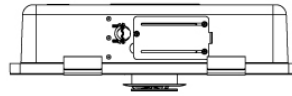
NOTES:

1. Sensitivity: Half space, 1 meter, 2.83 volts RMS
2. Power: All power figures are calculated using the rated nominal impedance.
3. Frequency response and sensitivity are half-space measurements.
4. All measurements were done with the Direct Fire Lens and Direct Fire Grille.

## Dimensional Drawings



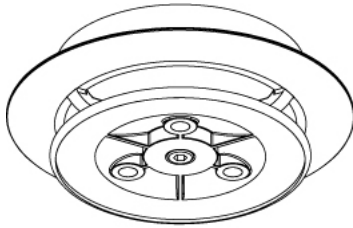
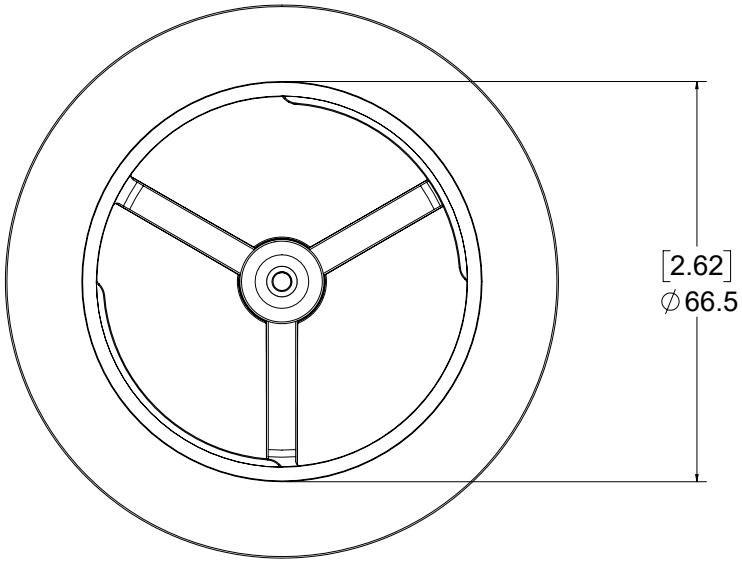
DETAIL A  
SCALE 1 : 2



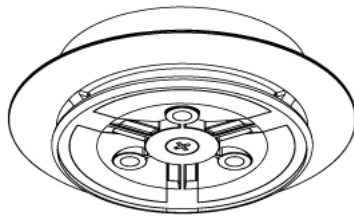
### Supplied Accessories:

- Flange
- Direct Fire Lens (4mm)
- Direct Fire Grille
- Standard Lens (8mm)
- Solid Lens Cover

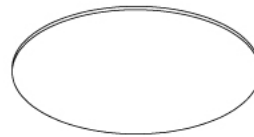
## Dimensional Drawings



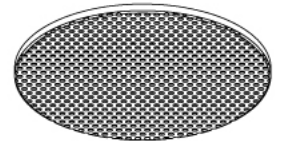
**8mm  
Standard Lens**



**Direct Fire Lens  
(4mm)**



**Solid  
Lens Cover**

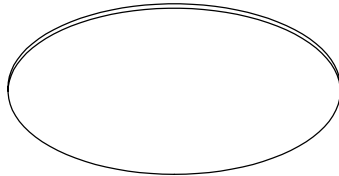
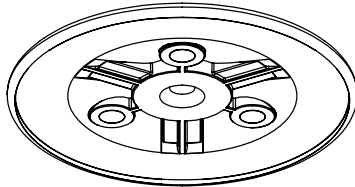
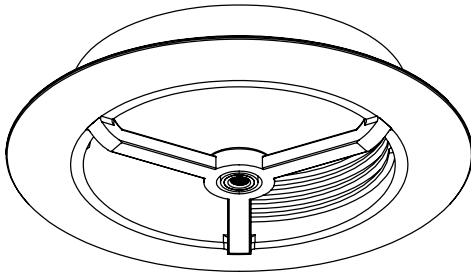


**Direct Fire Grille**

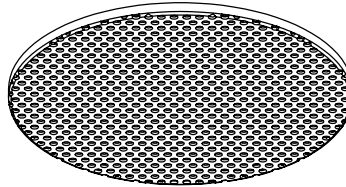
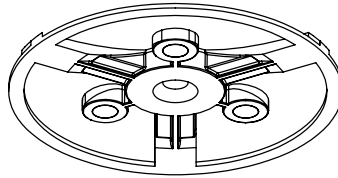
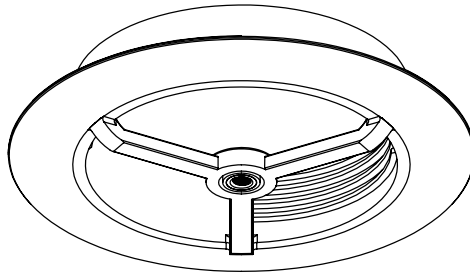
### Supplied Accessories:

- Flange
- Direct Fire Lens (4mm)
- Direct Fire Grille
- Standard Lens (8mm)
- Solid Lens Cover

## Installation Configurations



Standard Lens (8mm)  
with Solid Lens Cover



Direct Fire Lens (4mm)  
with Direct Fire Grille

Use the included spring to increase the diffuser open area.

**Note:** Unit comes with 4mm Direct Fire Lens and Direct Fire Grille Lens Cover installed on the Flange. To change the lens remove lens cover by lifting up under the edge of the cover, unscrew the lens and replacing it with the desired lens.

## Architect and Engineer Specifications

The loudspeaker system shall be AtlasIED SHS-LF or approved equal. System shall include 4 high performance 3.54"x 4.72" subwoofer loudspeakers, sealed bass reflex enclosure, and custom diffuser for conventional ceiling installation. Frequency response for the system shall be 46Hz – 127Hz ( $\pm 5$ dB) and the sensitivity shall be 87dB (SPL at 1W / 1M). Magnets shall be a minimum of 24oz (680g) and the voice coil diameter shall be 1". Transformer shall be 70.7V with primary taps at 1.9, 3.8, 7.5, 15, 30, and 60 watts. A side mount tap selector switch shall be included. This switch shall have a transformer bypass setting for 8 $\Omega$  / direct coupled operation.

Enclosure shall be a deep drawn steel enclosure design. To facilitate connection in conduit systems, enclosure shall be equipped with an access panel covering a recessed terminal cup. This cover shall provide a combination 3/4" (19mm inside diameter) / 1" (25mm inside diameter) knock-out on the side access compression fitting / strain relief to facilitate flexible conduit up to 22mm outside diameter or 1" (25mm inside diameter) conduit when the compression fitting is removed.

External wiring shall be accomplished via a removable, lockable wiring connector with screw-down terminals to provide both secure wire termination and prewiring capability before loudspeaker installation. The 4 pole locking Phoenix Style / Euro connector shall facilitate in / out connections and shall be located in the recessed area behind the conduit access panel.

Seismic support eye shall be provided on side of enclosure for additional suspension point when used in drop tile ceilings. Construction of enclosure shall be a minimum of 18-gauge deep drawn painted metal. The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either 2' x 4' (609mm x 1219mm) or 2' x 2' (609mm x 609mm) suspended ceiling tiles. This assembly must all be installed from above the ceiling tile. Overall depth shall not exceed 4.58" (116.3mm). Grilles can be either 8mm diffuser or 4mm direct fire perforated mesh and finished in white epoxy. Visible speaker baffle shall not exceed 3.7" diameter.