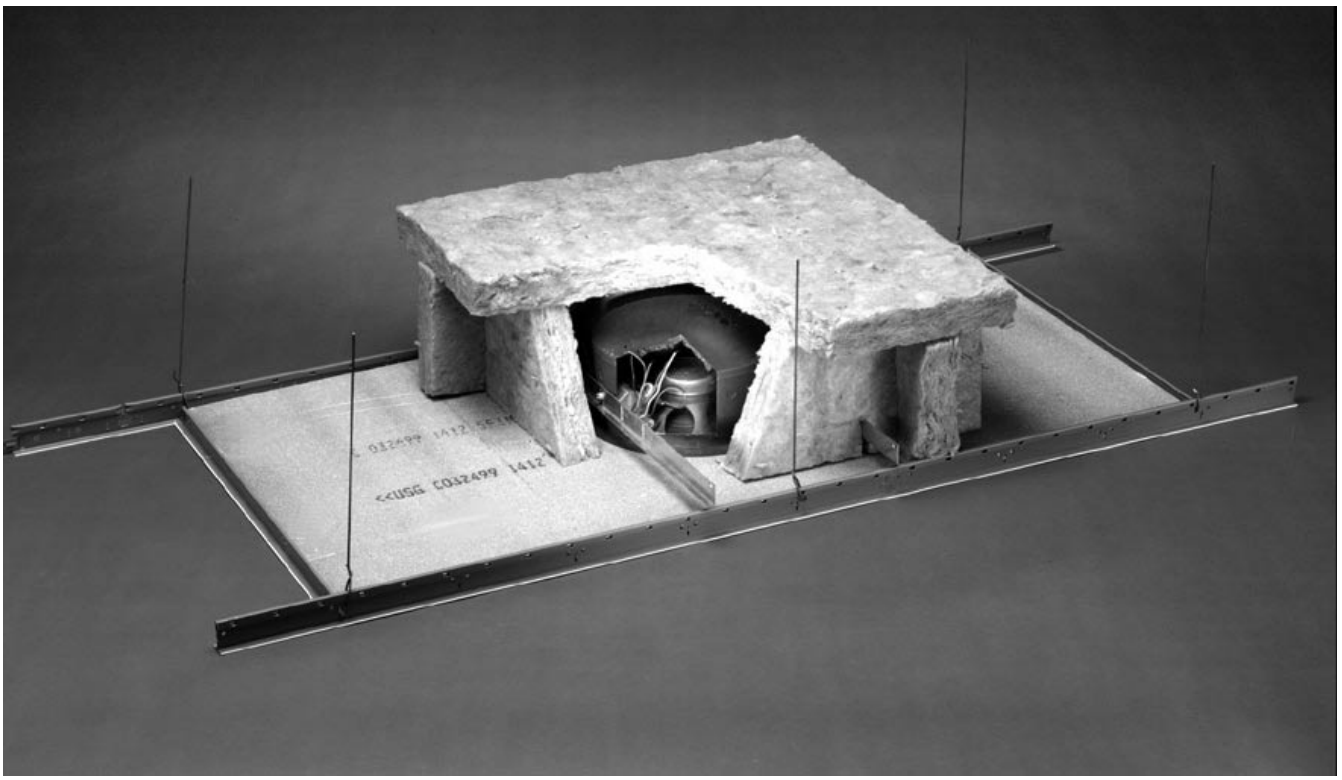
Selling
Specifying
Installing

Atlas-Soundolier FR Series

UL Classified Fire-Resistant Speaker Assemblies



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Part 1

Introduction and Executive Summary

Even an isolated fire in a public building could adversely affect the strength and safety of the roof structure or floor above the fire. For this reason, the building codes of many localities require fire-resistant ceiling systems in public buildings. This type of ceiling acts as a "protective membrane" to help confine the fire to its area of origin.

All components, including loudspeakers, must be specifically approved for use in a fire-resistant ceiling. Any openings, such as those required for loudspeakers, must be properly sealed to maintain the ceiling's integrity. A metal-can loudspeaker system seals the opening but cannot maintain the ceiling's fire-resistance properties because the metal readily conducts the heat of the fire into the space above the ceiling. Atlas-Soundolier's FR Series solves this problem by both sealing the opening and blocking the heat of the fire, thereby maintaining the fire resistance properties of the ceiling.

Underwriters Laboratories proved the effectiveness of the FR Series in a 3-hour fire test under UL Standard 263, "Fire Tests of Building Construction and Materials."

As a result of the UL testing, the FR Series Fire-Resistant Speaker Assemblies carry the UL mark and are "UL Classified" for use in specified 1-hour, 2-hour and 3-hour, fire-resistant ceiling systems.

Part 1 (continued)

The benefits are clear.

1) UL Classification

The UL mark is universally recognized and respected. Local regulatory agencies can feel confident in approving the UL Classified FR Series.

2) Quick-Install FR Series Fire-Resistant Speaker Assemblies

The installed cost of an FR Series system will be substantially lower than the installed cost of a conventional loudspeaker system using contractor-constructed drywall fire boxes.

3) Proven Performance

FR Series loudspeaker components are UL Classified versions of proven Atlas-Soundolier models. Thus, installing an FR Series system means no compromise in Atlas-Soundolier's high performance and quality standards.

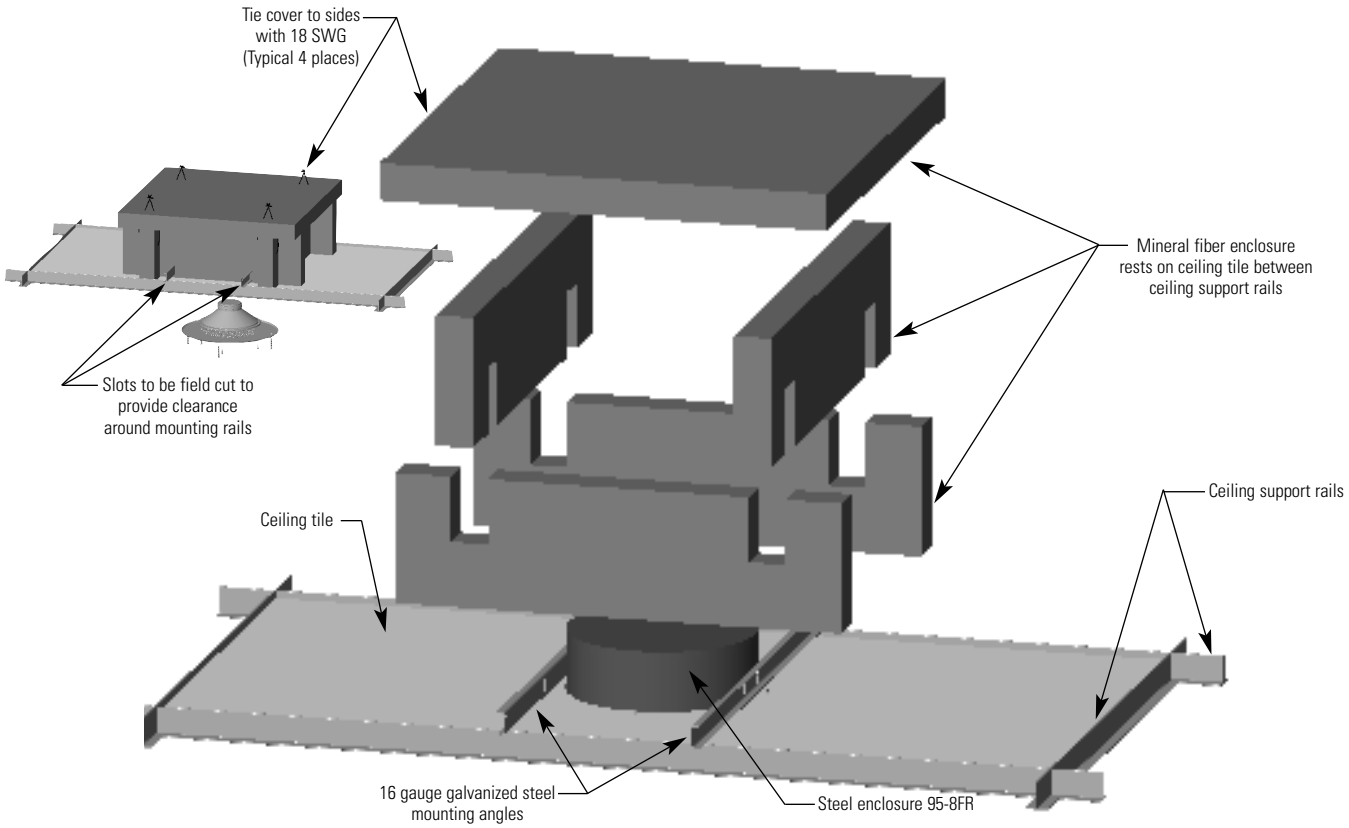
Specify with confidence.

Consultants and architects can specify the FR Series with confidence knowing they meet Atlas-Soundolier's high general performance and quality standards. Architects and building owners will appreciate the FR Series variety of loudspeaker sizes and baffle types. Specifiers, contractors, local building authorities and insurance companies will appreciate the FR Series UL Classification. Contractors will appreciate the FR Series ease of installation. Contractors and building owners will appreciate the FR Series low installed cost.

This publication introduces the FR Series, discusses the regulatory environment, and contains sections on selling and installing the product. **For additional information, contact Atlas-Soundolier at 800-876-7337 or see our web site at www.atlas-soundolier.com.**

Part 2

Understanding the Products



The FR Series Fire-Resistant Speaker Assemblies

Referring to this exploded view, an FR Series Fire-Resistant Speaker Assembly starts with a specific model FR Enclosure-Fiber Kit including pre-cut fiber pieces, metal enclosure, mounting rails and hardware. Each FR Series Fire-Resistant Speaker Assembly also includes a matching FR Series Speaker and Baffle. All components of these Assemblies carry the UL mark and the FR Series Fire-Resistant Speaker Assembly as a whole is UL Classified under UL Standard 263 for use in specified 1-hour, 2-hour and 3-hour, fire-resistant ceiling systems.

Atlas-Soundolier specifiers, dealers and customers will recognize many components of the FR Series. For example, a typical FR Series Fire-Resistant Speaker Assembly would consist of a model 96-4FR FR Enclosure-Fiber Kit, with 96-4FR Enclosure, along with an FC104T70FR Speaker Assembly and a 51-4FR Baffle. The FR Enclosure-Fiber Kit is new but the Speaker Assembly, Baffle and Enclosure are FR Series versions of familiar models.

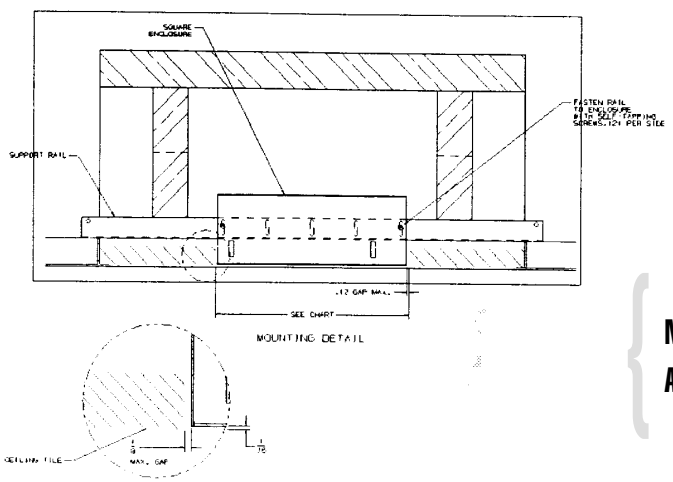
Part 2 (continued)

FR Series Performance, Mechanical Specifications and Aesthetic Choices

The audio performance and mechanical specifications of each FR Series loudspeaker component are the same as the equivalent non-FR Series model. For example, the FC104T70FR carries the same performance and mechanical specifications as the FC104T70. The FR Enclosure-Fiber Kit does not affect audio performance. Its mechanical specifications are listed on the FR Series specification sheet.

The good news of these specifications is that the FR Series offers its fire-resistance and UL Classification benefits with no compromise in Atlas-Soundolier's high performance and quality standards.

In addition, specifiers, contractors and building owners can continue to choose from a variety of loudspeaker sizes and baffle types to match the FR Series installation to the ceiling system and décor of a building.



Specifying the FR Series

It's easy to specify the FR Series Fire-Resistant Speaker Assemblies. Just choose a conventional Atlas-Soundolier model that fills the performance and aesthetic needs of the installation. Then, look over the FR Series Selection Chart, included in this publication, to find the closest FR Series Fire-Resistant Speaker Assemblies equivalent.

Applications for the FR Series

The FR Series may be used as the main loudspeaker system in convention centers, hotel ballrooms and meeting rooms, industrial and business conference rooms, low-ceiling churches and many other public buildings. In addition, they may be used as auxiliary loudspeaker systems in arena concourses, theatre foyers, hospital corridors and many other spaces. In general, FR Series systems belong wherever local fire or building codes require fire-resistant ceiling systems or UL Classified loudspeakers.

Standards, Regulatory and Testing Organizations

None of the FR Series Fire-Resistant Speaker Assemblies minimal weight rests on the ceiling tile.

Part 3

UL Status & Fire Resistance Standards, Regulatory & Testing Organizations

To understand how the Atlas-Soundolier FR Series fits in the marketplace, it will help to review the various standards, regulatory and testing organizations. In general, while all of these organizations play a part, the final decision to accept or reject a ceiling design or loudspeaker choice always rests with local authorities.

There are three basic types of authorities who affect the process of loudspeaker system approval in public spaces. *Standards bodies,* like the NFPA, write the standards that affect building construction and component usage (loudspeakers, lighting fixtures, etc.). *Regulatory authorities,* like the local building inspector, inspect and approve buildings and components. *Testing labs,* like Underwriters Laboratories, test the performance of materials and systems.

Unfortunately, the functions and purposes of these standards and regulatory bodies overlap and can be confusing. For example, local regulatory authorities commonly write at least some of their own local standards. While these standards are usually based on recognized national and international standards, they vary from locality to locality.

Finally, it is seldom clear which authority has jurisdiction in a given installation in a given locality. Underwriters Laboratories uses the term "Authority Having Jurisdiction" or "AHJ" to refer to this local authority in a general way.

Underwriters Laboratories (UL) Standards and Testing

Underwriters Laboratories, commonly know by the initials "UL" is an independent, (non-governmental) non-profit product safety testing and certification organization headquartered in Northbrook, Illinois in the USA. UL tests and certifies products according to their many standards. There are three main categories of UL service, "UL Listing", "UL Recognition" and "UL Classification".

1) UL Listing

Listing, UL's most widely known service, means that UL has tested and evaluated representative samples of a product and determined that they met UL's requirements. These requirements are based primarily on UL's published Standards for Safety.

Part 3 (continued)

UL Standards and Testing Con't.

2) UL Recognition (Component Recognition)

UL's Component Recognition Service covers the evaluation of components or materials that will later be used in a complete product or system. These components are products that are incomplete in construction, restricted in performance capabilities or otherwise intended only for incorporation into other end-use products that may be eligible for UL's Listing, Classification or Certificate Service.

3) UL Classification

Classification means that UL has tested and evaluated representative samples of a product with respect to certain properties of the product, a limited range of hazards or suitability of use under limited or special conditions. UL Classifies products to applicable UL requirements and Standards for Safety as well as to the standards of other national and international organizations such as the NFPA, ASTM, NSF International, ISO and IEC.

The FR Series Fire-Resistant Speaker Assemblies are UL Classified, under UL Standard 263, "Fire Tests of Building Construction and Materials", *for use in 32 different 1-hour, 2-hour and 3-hour fire-resistant ceiling system designs as listed in the 1999 UL Fire Resistance Directory.* It is important to understand that not every fire-resistant ceiling system will necessarily conform to one of these 32 UL-specified designs. Fortunately, *the local fire marshal or building inspector has the ultimate authority to approve the use of the FR Series* in a fire-resistant ceiling and most will welcome the FR Series because of its UL Classification.

To assure this approval, consult with these local authorities in a project's design stages, work closely with the ceiling system designers and installers and be sure to install the FR Series according to Atlas-Soundolier guidelines.

For more information on UL services or to order a UL Fire Resistance Directory, call UL at 800-704-4050 or visit their web site at www.ul.com.

Part 3 (continued)

National Fire Protection Association (NFPA)—National Electrical Code (NEC)

The NFPA is an international non-profit organization, headquartered in Quincy, Massachusetts, USA, that produces the National Electrical Code (NEC) and the National Fire Codes. Major sections of NFPA code are included in most local fire codes.

NFPA 251, "Standard Methods of Tests of Fire Endurance of Building Construction and Materials," cites additional test requirements for fire-rated ceiling systems and *refers to UL 263, the UL Standard under which the FR Series was tested.*

NFPA/ANSI 90A, "Installation of Air Conditioning and ventilating Systems" includes sections dealing with loudspeakers installed in ceiling cavity plenums. NFPA 72, the National Fire Alarm Code, has sections dealing with loudspeakers used as fire alarm signaling devices.

For more information on the NFPA, visit their web site at www.nfpa.org.

International Conference of Building Officials (ICBO) — UBC Standard

The International Conference of Building Officials is a non-profit service organization owned and controlled by its member cities, counties and states. The ICBO's primary publication is the Uniform Building Code and its related documents. The UBC is the basis for most local building codes.

For more information on the ICBO, visit their web site at www.icbo.org.

American National Standards Institute (ANSI) Standards

The American National Standards Institute is a non-profit, membership organization serving as administrator and coordinator of the United States private sector voluntary standardization system.

ANSI does not develop standards but facilitates their development by establishing consensus among qualified groups. Many NFPA codes have been accepted as ANSI standards.

ANSI is the U.S. representative to the International Organization for Standardization (ISO) and, via the U. S. National Committee (USNC), the International Electrotechnical Commission (IEC).

For more information about ANSI, visit their web site at www.ansi.org.

Part 3 (continued)

American Society for Testing and Materials (ASTM) Standards

The American Society for Testing and Materials is a non-profit organization that, through 132 different standards-writing committees, publishes standard test methods, specifications, practices, guides, classifications and terminology. As an example, ASTM Standard E119-98 deals with test methods for fire tests of building construction and materials. *ASTM standard E119-98 is cited in the UL test used for the FR Series.*

For more information about the ASTM, visit their web page at www.astm.org.

Local Authorities Standards, Testing, Regulatory

The ultimate authority to accept or reject a particular product or a specific installation rests with one or more local authorities. Local authorities include building inspectors, electrical inspectors and the local fire marshal.

Local authorities may be state, county or city government agencies. These local authorities are responsible for writing local building codes and other regulations. Most use all or substantial portions of national codes such as the NEC and UBC. Certain non-governmental organizations, such as insurance companies, also influence both the regulatory process and job-site approvals.

Some localities have added additional, and sometimes stricter, standards to these national codes. New York, Chicago, Las Vegas, Los Angeles and the state of California are among those localities that have added building or fire safety standards to their codes.

Fortunately, most local authorities will accept products that are UL Classified for the specific application in which they are to be used. Thus, the Atlas-Soundolier FR Series should be welcome in almost every locality and installation. To assure this acceptance, *make sure the ceiling system itself conforms to local codes and install the FR Series according to Atlas-Soundolier guidelines.*

Atlas-Soundolier has received approval to use certain other Atlas-Soundolier products in specific localities including Chicago. Contact Atlas-Soundolier for more information on this subject.

Part 3 (continued)

Insurance Companies

The building insurer may wish to approve product choice and construction standards. Insurance companies, like local governmental authorities, are likely to accept products that are UL Classified for the specific application and, for this reason, they should welcome the FR Series.

Often, insurance companies act as regulatory approval "consultants" to specifiers and contractors on a job site. It is very much in their interest to see that products used on the job conform to local regulations and are installed correctly. Thus, the insurer may be a good source of information if local regulations are confusing.

Assuring UL Status in an Installed System

There are three steps to maintaining UL Status in an installed system:

1) **Purchase complete FR Series Fire-Resistant Speaker Assemblies**

   An FR Series Fire-Resistant Speaker Assembly includes an FR Enclosure-Fiber Kit with pre-cut mineral-fiber panels, metal Enclosure and mounting rails along with a matching Speaker Assembly and Baffle.

2) **Confirm the Ceiling System Conformance**

   Confirm that the ceiling system itself is properly rated and properly installed.

3) **Install the FR Series Fire-Resistant Speaker Assemblies Properly**

   Follow the FR Series installation instructions carefully.

Terminology: Fire Resistance

UL and other authorities use the term "fire resistance" to describe the ability of a structure such as a ceiling system to act as a barrier against the spread of fire and to confine the fire to its area of origin. A "3-hour fire resistant" rating means the ceiling has met this goal for at least 3 hours in a highly controlled test.

Now, install a loudspeaker system in this 3-hour fire-resistant ceiling. If the ceiling system, with loudspeaker installed, can still pass the 3-hour test, the loudspeaker system can be rated as a "3-hour fire resistant loudspeaker system." And, a loudspeaker system rated for 3-hour fire resistant ceilings can also be used in 1-hour or 2-hour ceiling systems.

This is exactly the kind of test Underwriters Laboratories performed on the FR Series Fire-Resistant Speaker Assemblies. In that test, a 3-hour fire-resistant ceiling with FR Series Fire-Resistant Speaker Assemblies installed performed comparable to the same ceiling with no loudspeakers installed. As a result, the FR Series Fire-Resistant Speaker Assemblies carry the UL mark and are "UL Classified" for use in specified 3-hour, fire-resistant ceiling systems.

Part 3 (continued)

Terminology: Fire Resistance Con't.

Terminology can be misleading. For example, we cannot say that a ceiling system or the FR Series Fire-Resistant Speaker Assemblies are "fire proof". That would imply that the ceiling and loudspeakers can survive a fire intact, which is definitely not the case. The term "fire resistance" is very narrow and only refers to the ability of the ceiling to keep a fire from reaching, and adversely affecting, the strength and safety of the floor or roof structure above.

Terminology: Plenum Rating versus Fire Resistance Rating

NFPA 90A, "Installation of Air Conditioning and Ventilating Systems", defines a "plenum" as the space between the top of the finished ceiling and the underside of the floor or roof above. Plenums may be used to supply or exhaust air from the room below if materials in the plenum are non-combustible or of limited combustibility and "plenum-rated". The primary concern for plenum rating is smoke generation and heat release. UL Standard 2043 covers these concerns for loudspeaker systems.

Fire resistance refers to the ability of a ceiling to keep a fire from reaching, and adversely affecting, the strength and safety of the floor or roof structure above. Fire-resistance requirements are stricter than plenum ratings. Loudspeakers, and other devices, which penetrate the ceiling must maintain the fire-resistance properties of the ceiling. UL Standard 263 defines the requirements for these spaces. As mentioned, the FR Series Fire-Resistant Speaker Assemblies passed this test and are UL Classified for use in specified 1-hour, 2-hour and 3-hour, fire-resistant ceiling systems.

Part 4

Selling & Specifying the FR Series

The Selling Process

Selling is a day-to-day function of contractors and manufacturers. Specifiers, including acoustical consultants and architects, also do their share of selling. Specifiers sell their design services and they also sell client acceptance of the products specified in their designs. Thus, selling the Atlas-Soundolier FR Series is of interest to almost everyone involved in design or installation of a ceiling loudspeaker system.

In most cases, selling the FR Series will be more of a consultive process than a traditional "sell the benefits, then ask for the order" kind of sale. That's because the FR Series will pretty much sell itself once two things happen in a customer's mind:

1) **The customer must realize they have a need.**

2) **The customer must understand how the FR Series fills that need.**

Identifying Customers and Selling the FR Series

Who are the FR Series potential customers? The ultimate user is usually a business or governmental agency or a building owner, management company or leasee in any situation where building codes require a fire-resistant ceiling system or UL Classified loudspeakers.

But, it is unlikely that there will be any single person who can truly be called the "final decision maker". Instead, there will be a complex web of "buying influences". The seller must help each of these buying influences analyze their needs and show them how the FR Series fills those needs. And, while it is likely that no single buying influence has the ability to make the final decision, chances are that several of them, including local regulatory agencies, have the authority to say "no".

In their book, "Strategic Selling", published by Morrow Books, Robert Miller and Stephen Heiman define four types of buyers, the economic buyer, the user buyer, the technical buyer and the "coach". Typically, there are many buying influences in a complex sale but each can be put into one of these categories, simplifying the selling process.

Part 4 (continued)

The Economic Buyer

The economic buyer is any person or entity with budget authority. This includes business financial officers and governmental budget agencies. This buyer's question will be "can we buy the system within our budget"?

The economic buyer will be pleased to learn how the FR Series helps keep costs down. In a project that requires a fire-resistant ceiling, an FR Series system will be much less costly than the labor-intensive alternative of contractor-constructed drywall boxes covering conventional loudspeakers.

The User Buyer

The user buyer is any person or group who will directly benefit from actually using the system. This includes any group who will actually occupy and use a building. This buyer will ask questions like "how does it sound?" and "what does it look like?"

Contractors and installers could also be considered as "user buyers" although their "use" benefits from the sales and installation advantages of the FR Series.

The user buyer will want to know that the FR Series sound quality and coverage consistency meet Atlas-Soundolier's high standards. In addition, the user buyer will be pleased with the FR Series wide variety of cost, performance and aesthetic options.

The Technical Buyer

The technical buyer is any person or agency that writes or enforces technical specifications for the product or project. This includes local regulatory agencies and insurance companies. It may also include purchasing agents and installation contractors. The technical buyer's questions will include "does this product meet our performance requirements?" or "does the product fit in our ceiling structure?" or "does the product meet our local building codes?"

Some technical buyers will be concerned with performance specifications and details of dimensions, weights and installation procedures. These buyers will be pleased with Atlas-Soundolier's high performance standards, competitive warranty and detailed specifications and installation guides.

Other technical buyers, including fire marshals, building inspectors and insurance companies will be concerned with the FR Series ability to meet local building codes. These buyers will want to know that the FR Series Fire-Resistant Speaker Assemblies are UL Classified for use in specified 1-hour, 2-hour and 3-hour fire-resistant ceiling systems.

To assure local approval, consult with local authorities in a project's design stages, work closely with the ceiling system designers and installers and be sure to install the FR Series according to Atlas-Soundolier guidelines.

Part 4 (continued)

The Coach

The coach is anyone who helps the seller locate the other buying influences and determine what it takes to satisfy their needs. Commonly a user buyer is also a coach. A specifier or insurance company may also be a coach.

Evaluating the Competition

There are three types of competition to the FR Series. First, there are products sold by competitive manufacturers. Second, there are other Atlas-Soundolier products with the UL mark or approval by other agencies. Third, there are contractor-constructed solutions designed to win local approval of a non-UL Classified loudspeaker system in a fire-resistant ceiling system.

To evaluate products from a competitive manufacturer, ask the following questions:

1) Is the product UL Classified for use in fire-resistant ceiling systems?

One existing competitor's product was *designed and independently tested* for use in fire-resistant ceiling systems but, as of this printing, *this competitor's product is not UL Classified for use in fire-resistant ceilings.* UL Classification is important to local authorities and will help speed the process of local approval.

It is also possible that a competitor's product may be UL Listed for "Fire Protective Signaling" or "General Signaling" under UL Standard 1480. General Signaling refers only to the product's safety in terms of electric shock or fire hazard. Fire Protective Signaling refers to all the tests of General Signaling plus additional tests for the ability to provide adequate audio performance in a fire signaling application. *Unlike the FR Series, which was tested under UL Standard 263, products tested under UL Standard 1480 are not rated for use in fire-resistant ceilings.*

2) Is the product easy to install and cost effective?

A competitor may recommend a specific model product for use in fire-resistant ceiling systems but specify the use of contractor-constructed drywall enclosures to complete the fire-resistance system. The installed cost of this kind of system will be much higher than the installed cost of an Atlas-Soundolier FR Series system and this kind of system will not be UL Classified.

3) Does the product fit the system performance and appearance needs?

Like other Atlas-Soundolier products, the FR Series comes in a wide variety of cost, performance and aesthetic options.

Part 4 (continued)

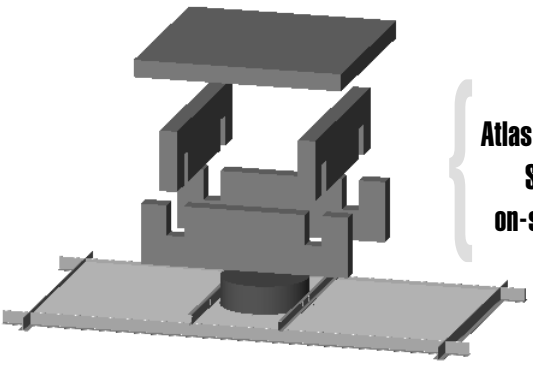
Other Atlas-Soundolier Products

Atlas-Soundolier offers a wide variety of products conforming to UL Standard 1480, "General Signaling", UL Standard 1480 "Fire Protective Signaling" and UL Standard 2043 which covers use in Air Handling Spaces (Plenums). Atlas-Soundolier also offers products that have been approved by specific local authorities for specific projects in those localities. These products will not have the general acceptance of the FR Series in a fire-resistant ceiling application. However, they will be valuable for their intended applications. Contact Atlas-Soundolier for more information on these products and their applications.

Contractor-Constructed Solutions

In some localities, contractors have received approval for non-fire-resistant loudspeaker systems by constructing and installing fire-resistant rear enclosures from drywall. While these drywall boxes can meet local codes, they are costly to build, cumbersome to install and *the added weight of the drywall may degrade the fire resistance properties of the ceiling system.*

In contrast, Atlas-Soundolier's FR Series is a pre-manufactured product that assembles quickly on site with no special tools or skills. The mineral-fiber FR Enclosure-Fiber Kit weighs very little and the entire FR Series Fire-Resistant Speaker Assembly installs in a way that maintains the fire-resistance properties of a properly installed ceiling. The installed cost of an FR Series system can be much less than the cost of a system using contractor-constructed drywall boxes, especially in markets where labor costs are high.



Atlas-Soundolier's FR Series Fire-Resistant Speaker Assemblies install quickly on-site with no special tools or training.

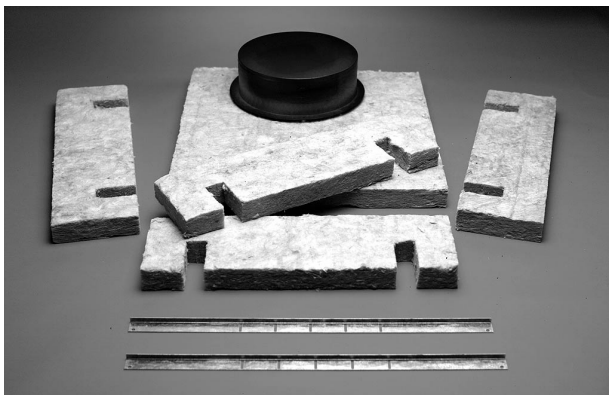
Part 5

Installing FR Series Systems

A fire-resistant ceiling is a complex system in its own right. Adding a loudspeaker system only increases this complexity and makes it even more important that every step in the process be done at the right time and in the right way. Here are some general guidelines for installing an FR Series system. For more information, refer to the FR Series Installation Manual.

1) Purchase FR Series Fire-Resistant Speaker Assemblies as Complete "Assemblies"

The FR Series Fire-Resistant Speaker Assemblies are UL Classified as complete systems. Using FR Series components individually would invalidate the UL Classification.



FR Enclosure-Fiber Kit, as part of the FR Series Fire-Resistant Speaker Assembly, includes enclosure, pre-cut fiber panels and rails.

2) Work Closely with Other Contractors on the Jobsite

Consult with the ceiling contractor in the early stages of a project to make sure they understand the FR Series installation requirements. Also consult with the electrical contractor, HVAC contractor and any other contractors who may be working in the ceiling to make sure the loudspeaker system can be installed with no conflicts.

3) Install the FR Series According to Atlas-Soundolier Guidelines

While the FR Series is easy to install, it must be installed correctly to maintain the fire-resistance properties of the ceiling and receive the approval of local authorities.

Conclusion

Atlas-Soundolier's UL Classified FR Series Speaker Assemblies are a cost-effective way to install a high-quality loudspeaker system in a fire-resistant ceiling system. The many benefits of these high-quality loudspeaker systems will appeal to specifiers, installers and end users alike.

Please visit the Atlas-Soundolier web site at www.atlas-soundolier.com for more information or call us at 800-876-7337.

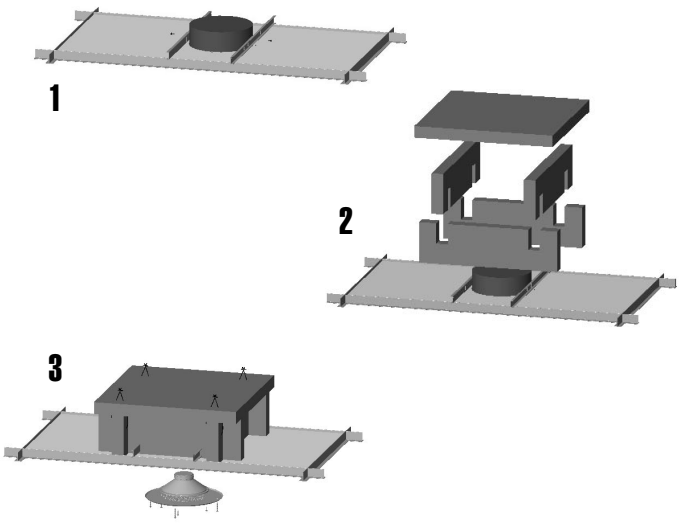
Part 6

FR Series Selection Chart

UL Classified Fire-Resistant Speaker Assemblies

FR Series. Atlas-Soundolier has developed the only speaker assemblies that are UL classified for fire-resistance in the United States and Canada. The FR Series has passed a fire-rating up to three hours (rating varies by ceiling construction), and has been tested in accordance with the UL standard – Fire Test of Building Construction and Materials, ANSI/ UL263 (ASTM E119, NFPA 251). FR Series assemblies include an enclosure-fiber kit, UL listed speaker/transformer assembly, and choice of UL Listed baffle. Each enclosure-fiber kit includes pre-cut fiber panels, metal enclosure, rail set, and hardware. The 43 speaker/ transformer combinations approved for use in FR assemblies are FR versions of the industry standard Atlas-Soundolier Strategy Series FA134, FA136, FA138 models and the C803A, C5A, C10A, and FC104 loudspeakers. The approved baffles are also FR versions of familiar Atlas-Soundolier models. To maintain UL Classification for fire-resistance, enclosure-fiber kits must be used with FR Series components.

MODEL	DESCRIPTION	MODEL	DESCRIPTION
FA95-4FR	Enclosure-Fiber Kit, (FA95-4), rails, hardware	**96-4FR**	Enclosure-Fiber Kit, (96-4), rails, hardware
FA95-6FR	Enclosure-Fiber Kit, (FA95-6), rails, hardware	**96-4XFR**	Enclosure-Fiber Kit, (96-4X), rails, hardware
FA95-8FR	Enclosure-Fiber Kit, (FA95-8), rails, hardware	**96-8FR**	Enclosure-Fiber Kit, (96-8), rails, hardware
FA97-4FR	Enclosure-Fiber Kit, (FA97-4), rails, hardware	**191-78FR**	Enclosure-Fiber Kit, (191-78), rails, hardware
FA97-6FR	Enclosure-Fiber Kit, (FA97-6), rails, hardware	**193-8FR**	Enclosure-Fiber Kit, (193-8), rails, hardware
FA97-8FR	Enclosure-Fiber Kit, (FA97-8), rails, hardware	**198-4FR**	Enclosure-Fiber Kit, (198-4), rails, hardware
95-8FR	Enclosure-Fiber Kit, (95-8), rails, hardware	**198-8FR**	Enclosure-Fiber Kit, (198-8), rails, hardware



Easy to Order! (See next page)

Choose from 43 FR Series speaker assemblies

Select matching FR enclosure-fiber kit

Select matching FR baffle

Easy to Install!

1. **Attach rails to enclosure**
2. **Assemble pre-cut fiber panels over enclosure and notch fiber at rails**
3. **Wire top panel to sides at four corners**

Strategy Series – Fire-Resistant System Components**

ENCLOSURE-FIBER KIT*	MOUNTS SPEAKER ASSEMBLY*	INCLUDES		MOUNTS CHOICE OF BAFFLE*
		SPEAKER	XFMR	
FA95-4FR	FA114T72FR	FA114	T72	FA51-4FR
FA97-4FR	FA134T42FR	FA134	T42	FA170-4FR
	FA134T47FR		T47	FA720-4FR
	FA134T87FR		T87	FA730-4FR
FA95-6FR	FA116T72FR	FA116	T72	FA51-6FR
FA97-6FR	FA136T42FR	FA136	T42	FA170-6FR
	FA136T47FR		T47	FA720-6FR
	FA136T87FR		T87	FA730-6FR

* Enclosure-Fiber kit, speaker assembly, and baffle are ordered separately and must be used together to comply with UL classification.

** Fire-Resistant systems using Strategy Series will be available 3rd Quarter 1999.

ENCLOSURE-FIBER KIT*	MOUNTS SPEAKER ASSEMBLY*	SPEAKER ASSEMBLY INCLUDES		
		SPEAKER	XFMR	BAFFLE
FA95-8FR	FA118T72-170FR	FA118	T72	FA170-8
	FA118T72-51FR		T72	FA51-8
	FA118T72-720FR		T72	FA720-8
	FA118T72-730FR		T72	FA730-8
FA95-8FR	FA138T42-51FR	FA138	T42	FA51-8
	FA138T42-720FR		T42	FA720-8
	FA138T42-730FR		T42	FA730-8
	FA138T47-51FR		T47	FA51-8
	FA138T47-720FR		T47	FA720-8
	FA138T47-730FR		T47	FA730-8
	FA138T87-51FR		T87	FA51-8
	FA138T87-720FR		T87	FA720-8

* Enclosure-Fiber kit and speaker assembly are ordered separately

Standard Series – Fire-Resistant System Components***

ENCLOSURE-FIBER KIT*	SPEAKER ASSEMBLY*	SPEAKER ASSEMBLY INCLUDES		MOUNTS CHOICE OF BAFFLE*
		SPEAKER	XFMR	
96-4FR or 198-4FR	FC104T25FR	FC104	T25	**51-4FR** (Mounts 96-4FR) **161-4FR** (Mounts 96-4FR)
	FC104T70FR		T70	
	FC104T42FR		T42	
	FC104T47FR		T47	
	FC104T72FR		T72	

* Enclosure-Fiber kit, speaker assembly, and baffle are ordered separately and must be used together to comply with UL classification.

*** Fire-Resistant systems using Standard Series will be available 2nd Quarter 1999.

ENCLOSURE-FIBER KIT*	SPEAKER ASSEMBLY*	INCLUDES		MOUNTS CHOICE OF BAFFLE*
		SPEAKER	XFMR	
95-8FR	C5AT25FR	C5A	T25	**51-8FR** (mounts 95-8FR & 96-8FR)
96-8FR	C5AT70FR		T70	**62-8FR** (mounts 95-8FR & 96-8FR)
191-78FR	C5AT72FR		T72	**61-8WFR** (mounts 95-8FR & 96-8FR)
193-8FR	C5AT42FR		T42	**164-8FR** (mounts 191-78FR)
198-8FR	C5AT47FR		T47	**169-8FR** (mounts 193-8FR)
	C5AT87FR		T87	**161-8FR** (mounts 198-8FR)
95-8FR	C10AT25FR	C10A	T25	**51-8FR** (mounts 95-8FR & 96-8FR)
96-8FR	C10AT70FR		T70	**62-8FR** (mounts 95-8FR & 96-8FR)
191-78FR	C10AT72FR		T72	**61-8WFR** (mounts 95-8FR & 96-8FR)
193-8FR	C10AT42FR		T42	**164-8FR** (mounts 191-78FR)
198-8FR	C10AT47FR		T47	**169-8FR** (mounts 193-8FR)
	C10AT87FR		T87	**161-8FR** (mounts 198-8FR)
95-8FR	C803AT25FR	C803A	T25	**51-8FR** (mounts 95-8FR & 96-8FR)
96-8FR	C803AT70FR		T70	**62-8FR** (mounts 95-8FR & 96-8FR)
191-78FR	C803AT72FR		T72	**61-8WFR** (mounts 95-8FR & 96-8FR)
193-8FR	C803AT42FR		T42	**164-8FR** (mounts 191-78FR)
198-8FR	C803AT47FR		T47	**169-8FR** (mounts 193-8FR)
	C803AT87FR		T87	**161-8FR** (mounts 198-8FR)

* Enclosure-Fiber kit, speaker assembly, and baffle are ordered separately and must be used together to comply with UL classification.

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