

It's time to think about industrial communications as **1** integrated system



→ The Signal Is Clear™

SELECTONE

COMM CENTER

OUTDOOR WARNING

SELECTPHONE

PUBLIC ADDRESS



FEDERAL SIGNAL CORPORATION



SELECTONE®

COMMCENTER®

OUTDOOR WARNING



Integrated Communication

O U T D O O R

W A R E H O U S E

Public address announcements...multi-party telecommunications... intercom and paging... tone and voice messaging... outdoor warning. Any factory or plant probably has some or all of these systems, each fulfilling a critical communication requirement. Traditionally these systems have been viewed as individual pieces of the overall plant communications puzzle. Imagine how you could increase plant safety, minimize expense, and simplify maintenance with a single integrated system.

If plant safety and evacuation are on your mind, then it's definitely time to talk to Federal Signal. We have the products, the experience and the technical expertise to incorporate your unique communication needs into a single system that offers a profitable combination of efficiency and economy.

An integrated communication system benefits users in more ways than one.

In terms of employee and community safety, as well as the protection of capital equipment, in-process materials and finished inventory, the benefits of an integrated evacuation and warning system are virtually



FEDERAL SIGNAL CORPORATION
Electrical Products



Systems Made Simple



AUDIOMASTER®

SELECTFONE®

O F F I C E

P L A N T

incalculable. Combine these requirements with single- and multi-party employee communications for general phone, messaging and special instructions, and the result is a plant-wide system that lives up to everybody's expectations.

We've got the products and the know-how to make a variety of communication systems singularly effective.

- **SelectTone® Speaker/Amplifiers** tone generation, voice messaging and public address
- **CommCenter®** custom voice messaging and tone generation
- **Outdoor Warning** sirens and controllers
- **AudioMaster®** industrial public address
- **SelectFone®** intercom and paging

Federal Signal is in fact the world's largest prime manufacturer of industrial-grade audible/visual signaling devices and plant-wide communications systems. ISO 9001 Certification reinforces a long-standing commitment to manufacturing integrity, and performance with the most stringent quality and performance standards. Customers also benefit from our in-depth technical support that covers virtually every aspect of process control, plant safety and emergency evacuation applications.

Before and after the sale...we're with you every step of the way.

Helping develop the integrated communications system that works best in your environment calls for an impressive range of specialized services. The exhaustive evaluation of your facility typically begins with a plant "walk-through" that includes detailed sound surveys and sound demonstrations on site. Using the information from the plant walk-through, a Federal Signal technician will perform an extensive audit of your communications needs. The next step is to design a system that incorporates all the necessary components for a totally integrated plant communications strategy.

Throughout the entire process, we are continually evaluating product performance and reliability to make sure the individual components and sub-systems of your integrated communications package meet your most exacting specifications.

Contact Federal Signal to find out about the opportunity to have a free on-site systems evaluation.

SelecTone® systems cover the full range of industrial communication applications; start and dismissal, emergency evacuations, process control signaling, voice messages and public address. The SelecTone product family includes all the equipment necessary for a comprehensive industrial signaling and communication system; dependable, high quality Command Units, weatherproof, dust- and watertight, hazardous location and explosion proof Speaker/Amplifiers, Tone Modules with pre-recorded digital voice messages, tones or melodies, and the Connector Kits that make it all work together. Every model is designed with the greatest care for long life in harsh, industrial environments.

SelecTone Speaker/Amplifiers deliver performance, dependability and extended service life.

The Selectone Speaker/Amplifier product family offers a broad range of self-amplified speakers designed to broadcast pre-recorded tones, voice messages, melodies and live public address in plant-wide communication systems. Because the communication signal is amplified by each SelecTone Speaker/Amplifier, rather than by costly central amplifiers, the expense of running 70VRMS high-powered audio lines in conduit throughout the facility is eliminated.



MODELS
300X, 302GC, 50GC,
300GC

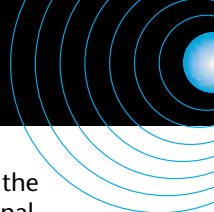
- Rugged construction for long life in harsh industrial environments.
- Virtually limitless system expansion for future growth.
- Standard duty, weatherproof, dust- and water-tight, hazardous area and explosion proof models.
- A range of models with outputs from 88dB to 114dB to overcome industrial noise levels.
- Attractive, low profile models for office environments.
- Integrated volume control.
- Choice of operating voltages, including 24VDC, 24VAC, 120VAC, 240VAC and more.
- Use with Federal Signal CommCenter or SelecTone Command Units for complete emergency communications systems.
- Expand existing public address and communication systems.
- Create fault tolerant communication systems – if one device fails, the others continue to operate.



MODELS COMMAND UNITS

SelecTone Command Units are the centerpiece of a total plant communication strategy.

- Central control of four tones and public address.
- Local and remote microphone access and tone initiation.
- Auxiliary audio input supports background music.
- Prioritized communication: local microphone, tones 1 through 4, remote microphone, auxiliary audio.
- On board amp supports local speaker.
- Handheld or desktop noise canceling microphones.
- Compatible with PLC systems.
- Rack mount, wall mount and desktop models.
- Models available for supervised systems.



Connector Cards and Tone Modules are the key to designing new communication systems or expanding existing systems.



MODELS UTM, AM25CK

- Connect a SelecTone Command Unit or CommCenter with SelecTone Speaker/Amplifiers.
- Add self-amplified Selectone devices to existing 25, 70 or 100VRMS centrally amplified communication systems, eliminating the need for more expensive amplifiers.
- Add hazardous area or weatherproof SelecTone Speaker/Amplifiers to existing commercial communication or public address systems.
- Create a balanced line audio system for superior noise suppression and clear communication.

Tones and messages for every application, location and event.

The Universal Tone Module (UTM) provides a selection of 32 distinct tones for use in plant-wide communication systems with a SelecTone Command Unit and a limitless number of SelecTone Speaker/Amplifiers or for use in stand-alone applications with a single SelecTone Speaker/Amplifier. Tones are selected easily via DIP switches and the modules are designed for quick plug-in installation.

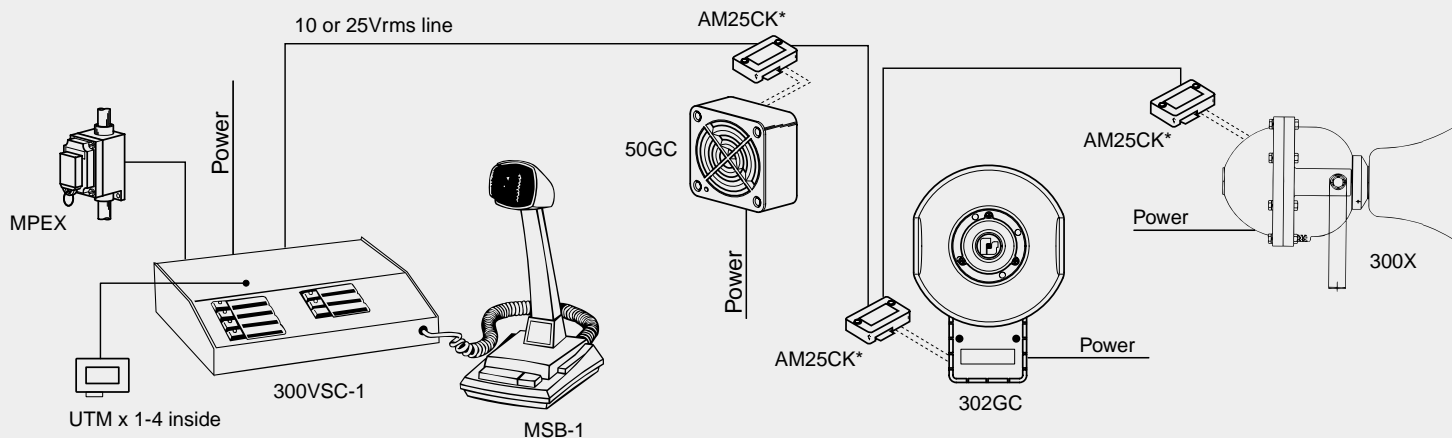
When a custom voice message, tone or melody is the solution to your application challenge, Federal Signal offers the TM33 Custom Tone Module. Users can select from a library of thousands of messages and melodies or they can provide a tape, script, or digital sound file for a custom recording in any language.

Microprocessors provide generate crisp, clear digital tones and messages. Tone Module housings are designed to shield the audio signal from RFI and EMI interference.

Add Visual Impact to your Audible Warning System



Regardless of the application – process control, plant safety or emergency evacuation – Federal Signal has a visual signaling solution. With state of the art surface mounted printed circuit boards, long-life incandescent, strobe and LED lamps, superior optics that maximize light dispersion, a multitude of mounting options, a variety of operating voltages, and housings designed for indoor, outdoor, ordinary and hazardous locations – Federal Signal has visual signals for every application from food processing to steel mills.



*located inside speaker/amplifier

CommCenters® are digital playback units engineered to enable users to customize an industrial communications system for broadcasting pre-recorded voice messages, melodies, tones and signals over Federal Signal's SelecTone®, PA and multi-party paging systems. A substitute for outdated analog "endless loop" tape devices, CommCenters ensure consistent high-quality audio playback with digital messaging capability.

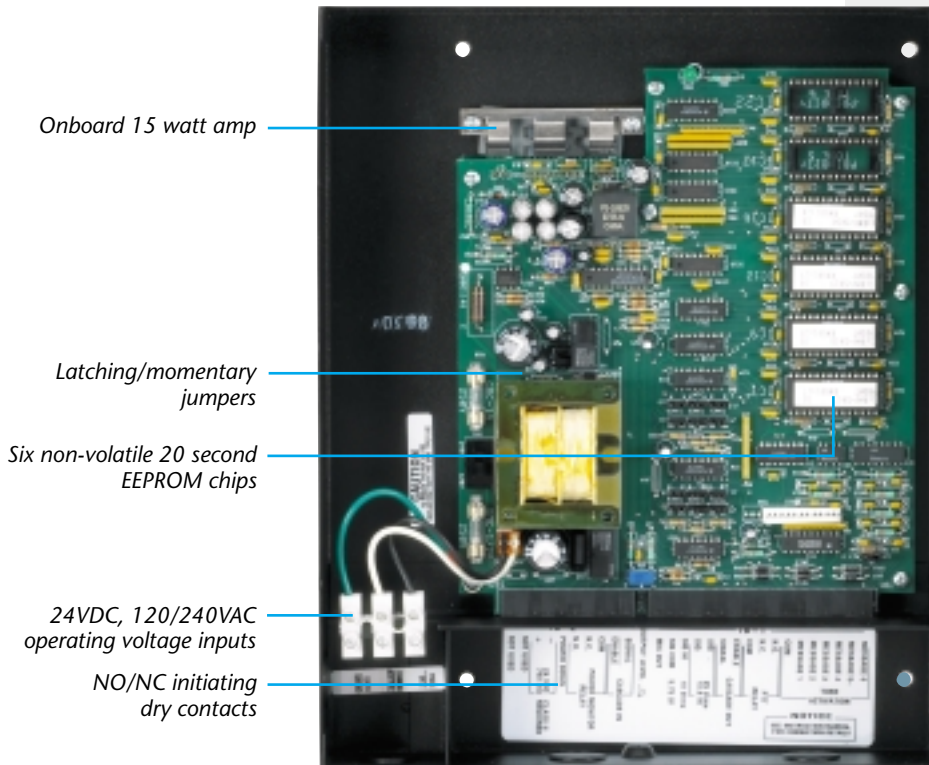
CommCenters eliminate the human factor in plant communications by providing crisp, clear, unmistakable pre-recorded voice. Designed to accommodate the signaling of routine, timed events (START, BREAK, LUNCH, DISMISSAL, etc.) or emergencies, these highly customized products are assembled to exact customer specifications, and are available in models that can be activated either locally or remotely via contact closures.

The digital messaging capability is ideal for emergency evacuation announcements. Clear, concise, pre-programmed instructions can be broadcast over a SelecTone or PA system. Additionally, audible devices can be incorporated into manufacturing areas to indicate process/machine status (RUN, STANDBY, SHUTDOWN, etc.). Pre-recorded messages can be used to convey these situations without interrupting production flow in neighboring areas, while distinct voice messages alert operators to emergency conditions.

- Outputs: 10VRMS, 25VRMS, or line level audio.
- Stores up to six voice messages, melodies, tones and/or signals.
- High-fidelity, non-volatile audio playback.
- 20 seconds of audio per chip.

CommCenter Library

Choose from Voice Messages as well as Tones or Novelty, Classical, Folk, Ethnic and Patriotic Melodies to meet your signaling need. Over 2,000 custom voice messages are available in the Federal Signal Library.



Select voice messages from the standard CommCenter Library of 80 individual melodies, tones, signals and voice messages. An additional archive of over 2,000 custom messages is available to choose from. Federal Signal also gives you the option of creating a custom voice message using your own field recorder or providing a script for professional studio production specifying your choice of language and preference for male or female voice talent.



MODELS 300MB, 300MC

Station Level Paging Adapter



MODEL 300PBX-SB

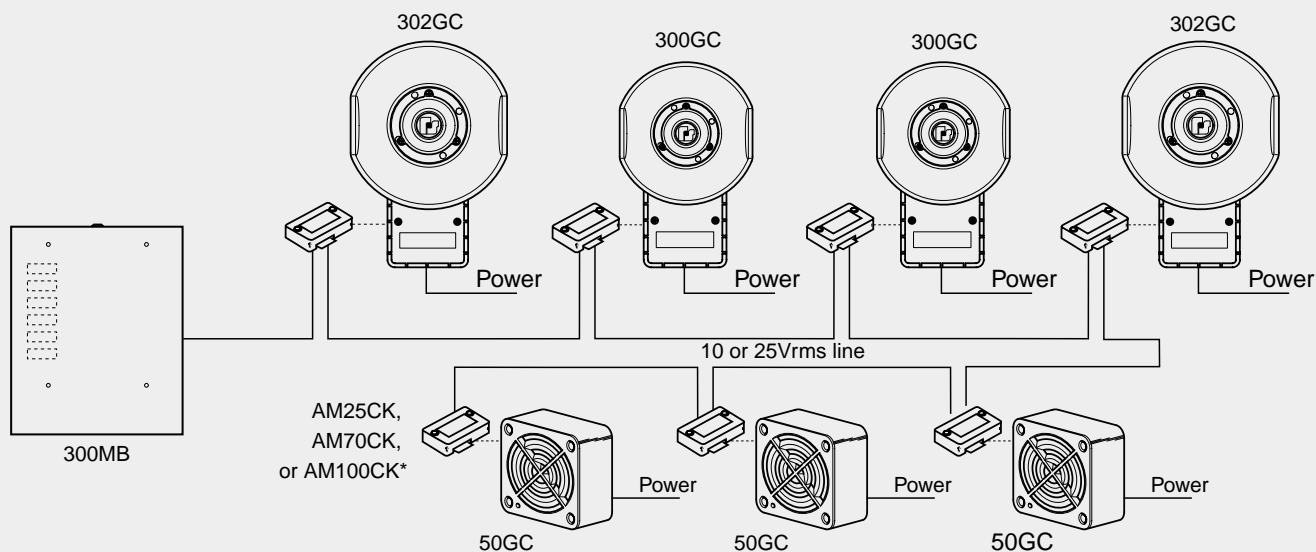
- Links telephone to SelecTone or Public Address system.
- Input connection via standard RJ11 modular jack—no other power input required.
- Uses existing telephone system.
- FCC Approved.

Initiating Devices for All Types of Industrial and Commercial Applications



MODELS PS PUSH BUTTONS & MPEX

- Multi-purpose initiation of emergency systems.
- Simple contact closure activates audible and visual signals and alarm panels.
- Choice of FIRE, EVACUATION, and EMERGENCY with Push Button stations.
- MPEX is suitable for explosion proof applications.
- UL Listed, cUL Listed, and CSFM Approved.
- Push Button stations available with tamper resistant covers.



*located inside each speaker/amplifier

Federal Signal produces a variety of reliable, high-powered electro-mechanical and electronic warning systems for large scale outdoor or plant-wide signaling at an economical cost. The entire product line, encompassing speaker arrays, sirens, controllers, and encoders, offer a high level of system customization.

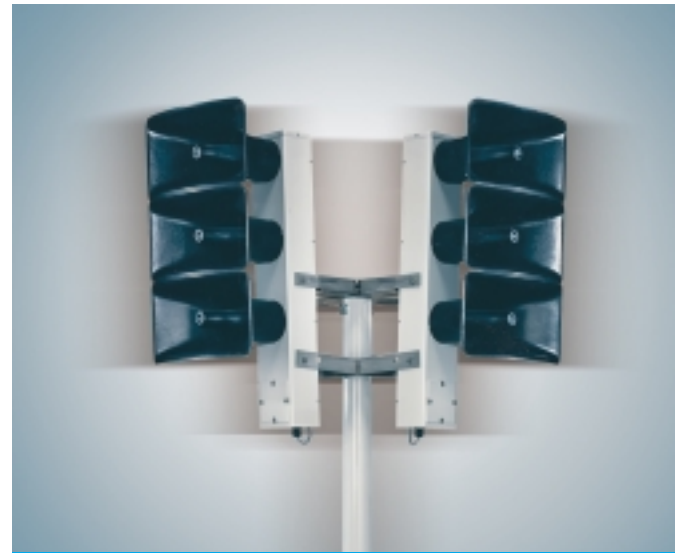
There are many reasons to install an outdoor warning system, beginning with the ability to cover large areas at a relatively low cost. A single siren, for example, performs the work of multiple speakers. Beyond protecting individuals at your own facility, an outdoor warning system also enables you to alert neighbors of an emergency situation.

With omni-directional sirens for 360-degree coverage and directional arrays for targeted dispersion, Federal Signal backs you up with a full scope of outdoor warning solutions. Hybrid systems can be easily configured to link up with SelecTone® indoor signaling systems that employ the same tones, central activation and control. Outdoor warning systems can also be interfaced with an existing PA, multi-party paging or signaling system. Further cost savings are achieved by eliminating the need to replace existing internal signaling systems.

2001 Electromechanical Siren

- Rated at 127dB @ 100 feet.
- Standard AC or battery powered DC models.
- On-board 120VAC trickle charger maintains battery power when not in use.
- Produces three tones: wail, fast wail, steady.
- Local or remote activation.

Directional Speaker Array



MODEL DSA



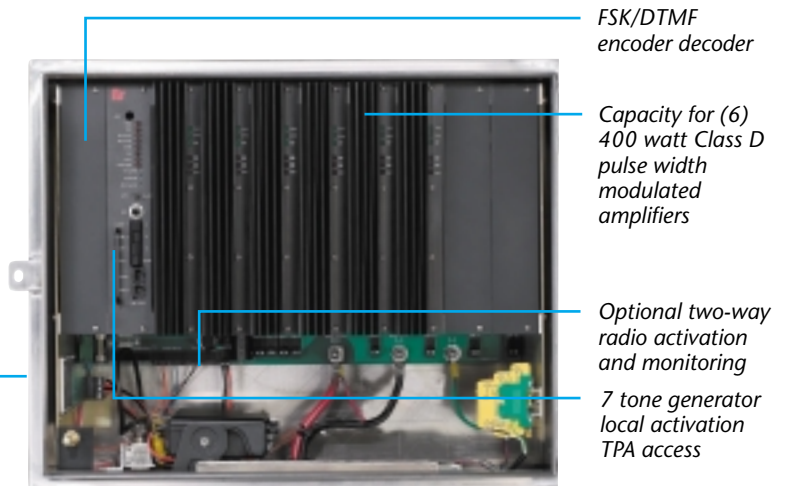
Modulator® Speaker Array

- Rated at 106dB to 125dB @ 100 feet
- Four 100-watt drivers per module.
- True 360-degree sound dispersion.
- Excellent frequency response promotes superior tone and voice production.
- Readily available drivers are quickly, and easily replaced.
- Roof or pole mounting.



MODEL MOD

- Controlled multi-directional sound output to specific areas.
- Economical approach for uniquely shaped facilities.
- Speech and tone reproduction.
- Rated at 121dB @ 100 feet.



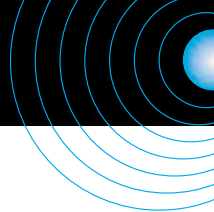
FSK/DTMF encoder decoder

Capacity for (6) 400 watt Class D pulse width modulated amplifiers

Optional two-way radio activation and monitoring

7 tone generator local activation TPA access

MODEL ULTRAVOICE



Security at an Economical Cost.

UltraVoice™ Controller

The high-efficiency UltraVoice controller is designed to control high-powered electronic outdoor sirens as well as indoor speaker systems. The unit, which combines amplifiers, tone generator, initiating device and PA access in a single unit, produces amplified audio signals including seven built-in warning tones, high-quality live PA, and up to 16 variable length pre-recorded voice messages.

- Delivers over 90% efficient audio output and 30-minute minimum run time.
- Can reproduce standard or custom tones and voice messages.
- 4- or 8-minute digital voice chips available.
- Houses up to six 400-watt amps.
- Painted steel cabinet is standard, aluminum available.
- Radio or local activation.
- Built-in battery charger.
- Optional microphone and battery heaters.
- Optional solar charging system eliminates the need for local 120VAC.

Siren Encoder/Decoder



MODEL SS2000

The versatile, user-friendly SS2000 series encoder/decoder, available in DTMF or FSK formats, offers one-way control and two-way status monitoring of nine different functions. Encoded command sequences are field programmable, and stored in memory for retention in the event power is interrupted.

The SS2000T (Two-Way DTMF) model can function as a stand-alone encoder, or can be connected to an optional printer to generate reports for all two-way controlled remote siren sites. The SS2000D (Digital/FSK) model can also be connected to a user's host computer running Federal Signal's SFCDWARE, and utilize a graphic user interface (GUI) to control the siren system.

- Two-way status monitoring permits checks of each siren in a system on a regular basis.
- Command sequences and operating parameters may be up or downloaded to the user's host computer.
- Power supplied by a standard AC wall outlet.

Siren Controller



MODEL FC

The economical Model FC Siren Controller is a 120VAC radio receiver/encoder and timer with four programmable relay outputs enabling you to control virtually all emergency sirens as well as other devices controlled via relay contacts.

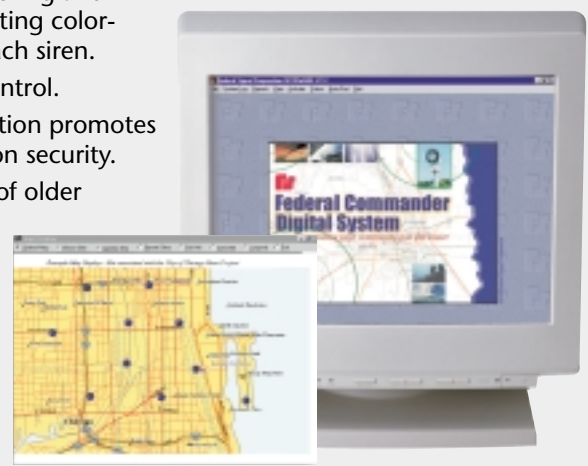
- Remote radio activation available.
- Controls warning lights and audible devices.
- Two-tone sequential, DTMF and digital FSK encoding.
- Push button local control or dry-contact closure inputs for landline control.
- Six built-in siren tones.

Federal Commander Digital System™

The Federal Commander Digital System offers safety directors and system operators comprehensive, secure activation and status monitoring of any siren system. Complete system includes the SS2000D Encoder, SFCDWARE Software package plus digital siren controllers.

- Single-point and click-siren activation and polling.
- Windows®-based operating system with facility map.
- Status map monitoring and setup with correlating color-coded status of each siren.
- Remote system control.
- FSK digital encryption promotes optimum activation security.
- Permits upgrade of older models to digital.

MODEL SFCDWARE



From broadcasting live PA to the entire facility via the speakers, to conducting one-on-one conversations, to “teleconferencing” with up to five parties at remote locations, SelectFone® represents a comprehensive approach to plant-wide intercom and paging systems for industrial communications. Ruggedly engineered to handle the toughest, most corrosive, high-noise environments, SelectFone two-way, multi-party systems are available in single-channel and five-channel configurations in either 24VDC or 120VAC versions.

Designed for both indoor and outdoor applications, SelectFone can be teamed with a

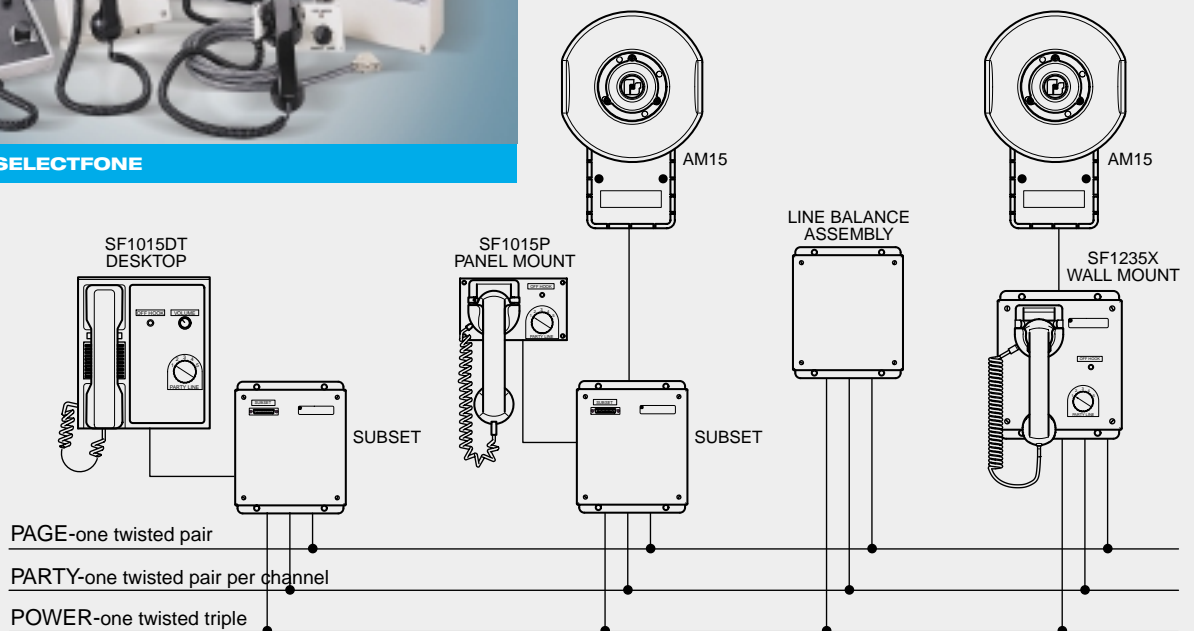
variety of loudspeakers for hazardous and explosion-proof areas. The full range of SelectFone models includes intercom/paging systems for office environments; units for panel-mount or desk-edge installations; and systems for outdoor and hazardous locations.

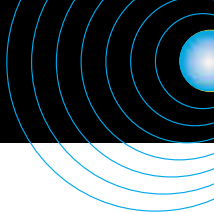
SelectFone is configurable to the unique needs of individual manufacturers and processors, and offers the productive advantage of user flexibility at a substantially lower overall systems cost. Easy-to-use systems require no special training, and accommodate an unlimited number of SelectFone stations and loudspeakers.

- Choose from wall-mount, desktop and panel-mount models.
- Available in 24VDC or 120VAC versions.
- UL Listed, cUL Listed, CSA Approved.
- Impact-resistant Cyclac™ handset with noise canceling microphone.
- System can be readily expanded to accommodate changing communication requirements.
- NEMA Type 12 models suitable for Class I, Division 2 indoor hazardous locations.
- NEMA Type 4X models are suitable for Class I Division 2 outdoor applications.

Line Balance Assembly

The Line Balancer ensures that each page and channel line is properly loaded in order to provide a strong, clear signal at each station within the SelectFone Intercom System.

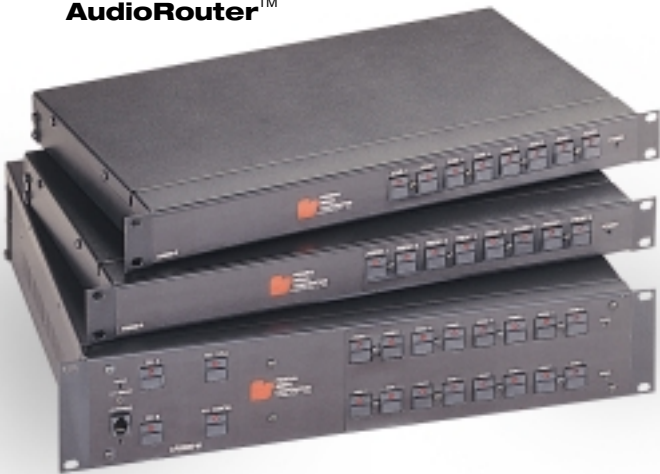




Federal Signal offers a comprehensive line of heavy-duty devices tailored to the needs of industrial PA requirements. This product line includes high-powered audio amplifiers, industry unique audio routers for zoning, tone generators, pre-recorded voice messaging and high-quality speakers to accommodate virtually any office or hazardous plant environment.

- Energy efficient designs.
- Rugged heavy-duty construction for the toughest industrial environments.
- UL Fire Listed, CSA Certified, CSFM Approved models available.

AudioRouter™



The AudioRouter is the first fully integrated audio multiplexing system designed specifically for demanding industrial environments. Employed in PA systems as a central control for routing voice pages, pre-recorded messages as well as other audio tones to specified zones within a facility. AudioRouter permits users to easily set-up sophisticated PA routing designs.

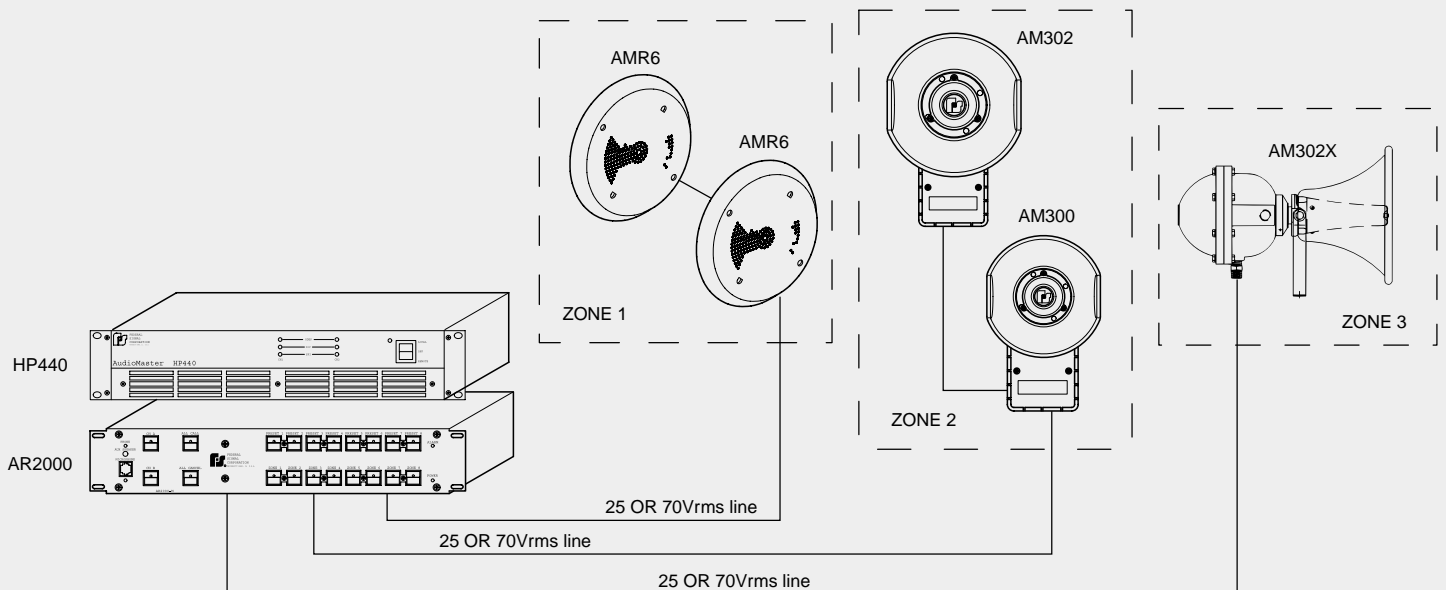
- Presets promote easy zone configuration.
- Station level page adapter assigns phone extension to paging function; records message to play upon conclusion of phone call.
- Compatible with all Federal Signal systems.
- 120VAC with 24VDC back-up operation.
- Standard 19-inch rack mount.
- 25VRMS, 70VRMS and line level audio inputs.

AudioMaster® Model CTS600, CTS1200, CTS2000, CTS3000 High-Powered PA Amplifiers

The Federal Signal AudioMaster line of amplifiers provides a combination of quality and performance for heavy-duty industrial applications. Units are available in four power ratings from 205 to 1745 watts @ 70Vrms, parallel-mono mode. Each output channel can be independently configured to drive either step-down transformers in a distributed "constant-voltage" loudspeaker system (70-volt mode) or a system of loudspeakers that do not require step-down transformers (8/4 ohm models).



MODEL AUDIOMASTER SPEAKERS



2645 Federal Signal Drive
University Park, IL 60466-3195

Phone: 708.534.4756

Fax: 708.534.4852

email: elp@fedsig.com

www.federal-signal-indust.com



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Electrical Products

