



POWERFUL OMNI-DIRECTIONAL OUTDOOR WARNING SIREN

- Available in 120VAC and 240VAC
- High-efficiency design requires only moderate power
- Produces 102dBc @ 100'
- Roof mount standard and pole mount optional

Omni-Directional Siren

Model 2

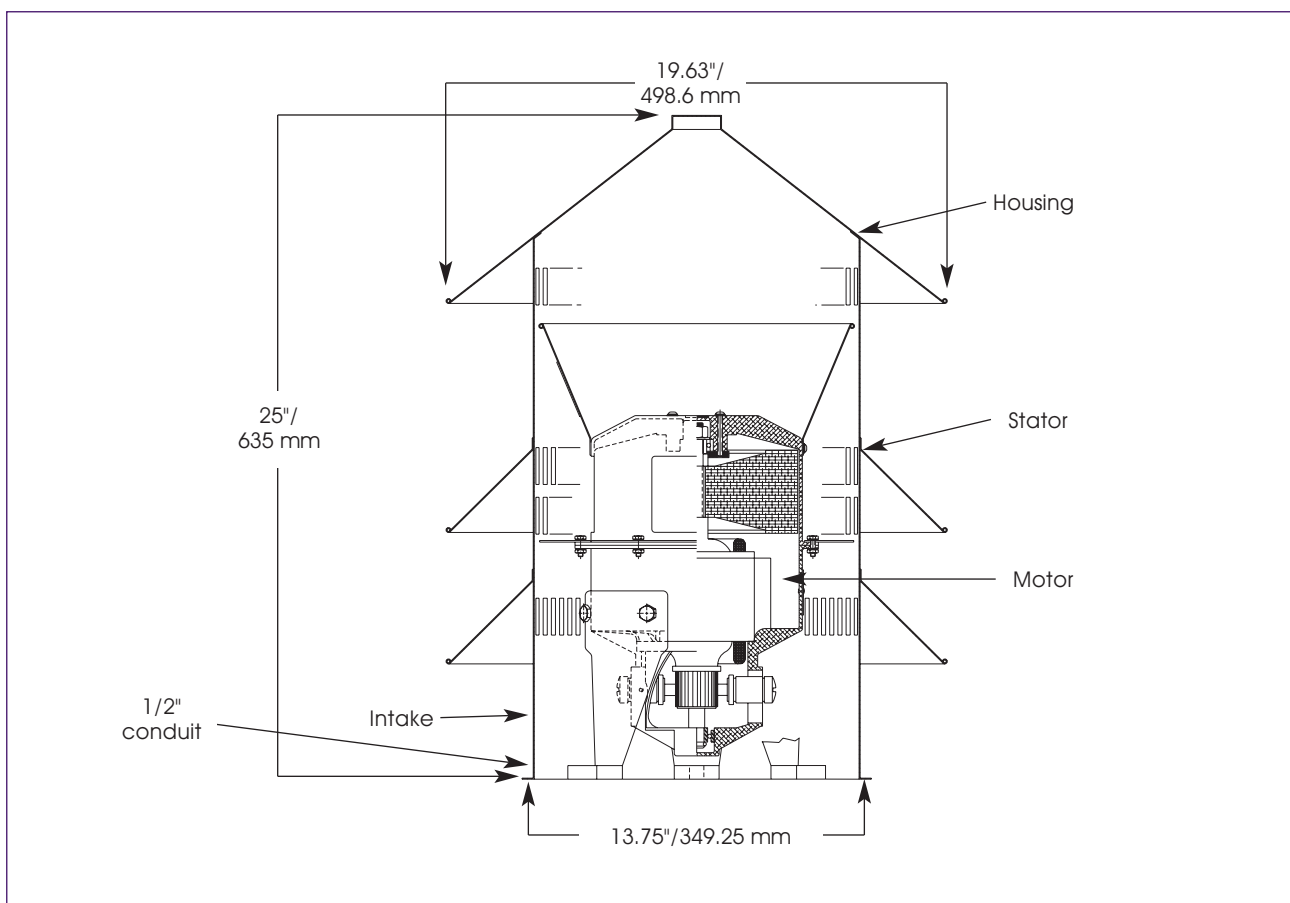
Federal Signal's Model 2 outdoor warning siren is an omni-directional siren capable of producing intense warning signals over a large area. The siren can be installed on a roof or utility pole.

Federal Signal's Model 2 is a single tone siren capable of producing 102dBc at 100 feet while making only moderate power source demands. The Model 2 has a universal motor which operates from either 120VAC/DC or 240VAC/DC. A Federal Signal Model RC2W motor starter (purchased separately) is required to operate this siren.

Federal Signal's Model 2 can serve as an outdoor plant-wide warning system where volume is needed to contrast with high ambient industrial sounds. It is ideal for use in the large, wide open areas found in industrial facilities such as refineries, steel mills and manufacturing plants. The Model 2 can be used for start/stop work signaling, plant evacuation or other emergency situations.

Model	Voltage	Decibels @100'	Output Frequency	Beam Width	Mount
2-120	120VAC/DC	102dBc	533Hz	360°	Roof (standard) or
2-240	240VAC/DC	102dBc	533Hz	360°	Pole (Model PMS required)

OMNI-DIRECTIONAL SIREN (2)



SPECIFICATIONS

Recommended Mounting Height:	35-40 feet	10.7-12.2 m
Available Tones:		1 standard
Effective Range*:	1,000 feet	304.8 m
Power Rating:	2 HP	2 HP
Power Requirements:	120VAC/DC 240VAC/DC	24A, single phase 12A, single phase
Net Weight:	59.0 lbs.	23.6 kg
Shipping Weight:	85.0 lbs.	36.0 kg
Height:	25.0"	635.0 mm
Diameter:	19.63"	498.6 mm

HOW TO ORDER

- Specify model and voltage
- Specify motor starter (RC2W)
- Specify options:
Pole Mount Stand (PMS)
Radio Activated Controller (FC)
- Specify radio frequency
- *Call the factory for assistance in specifying an outdoor warning system*

* Output a minimum of 70dBc

REPLACEMENT PARTS

Description	Part Number
Bearing (Two Required)	8239A045
Brush and Spring (Two Required)	8247A020
Brush Holder (Two Required)	8247A021



Battery Powered Electromechanical Siren

Models 2001-130

DESIGNED FOR OUTDOOR WARNING

- Patented stator/horn design allows highly efficient, high-output operation from minimal battery source
- Sound output can cover four square miles
- Full battery operation or battery backup
- Produces 130dBc @ 100'
- Three tones – Wail, Fast Wail and Steady
- Maintenance-free sealed bearing motors
- UL Listed Siren Controllers

The Federal Signal Model 2001-130 is a unique innovation in the high power outdoor warning siren market. The patented design represents a new generation of rotating, uni-directional electro-mechanical sirens.

The 2001-130 can be operated with a 120VAC battery-backup control cabinet or a 240VAC/VDC control cabinet.

This siren can be controlled remotely via wire or radio with the Model FC controller. The Model 2001-130 produces three distinctly different tones - Wail, Fast Wail and Steady. The high decibel output provides for maximum coverage from a single siren site.

Federal Signal's Model 2001-130 produces 130dBc at 100 feet. Its ring radiator projects a 60° beam of sound which rotates at two RPM and is adjustable to six RPM. The design allows for small size without compromising sound output, and minimizes wind loading.

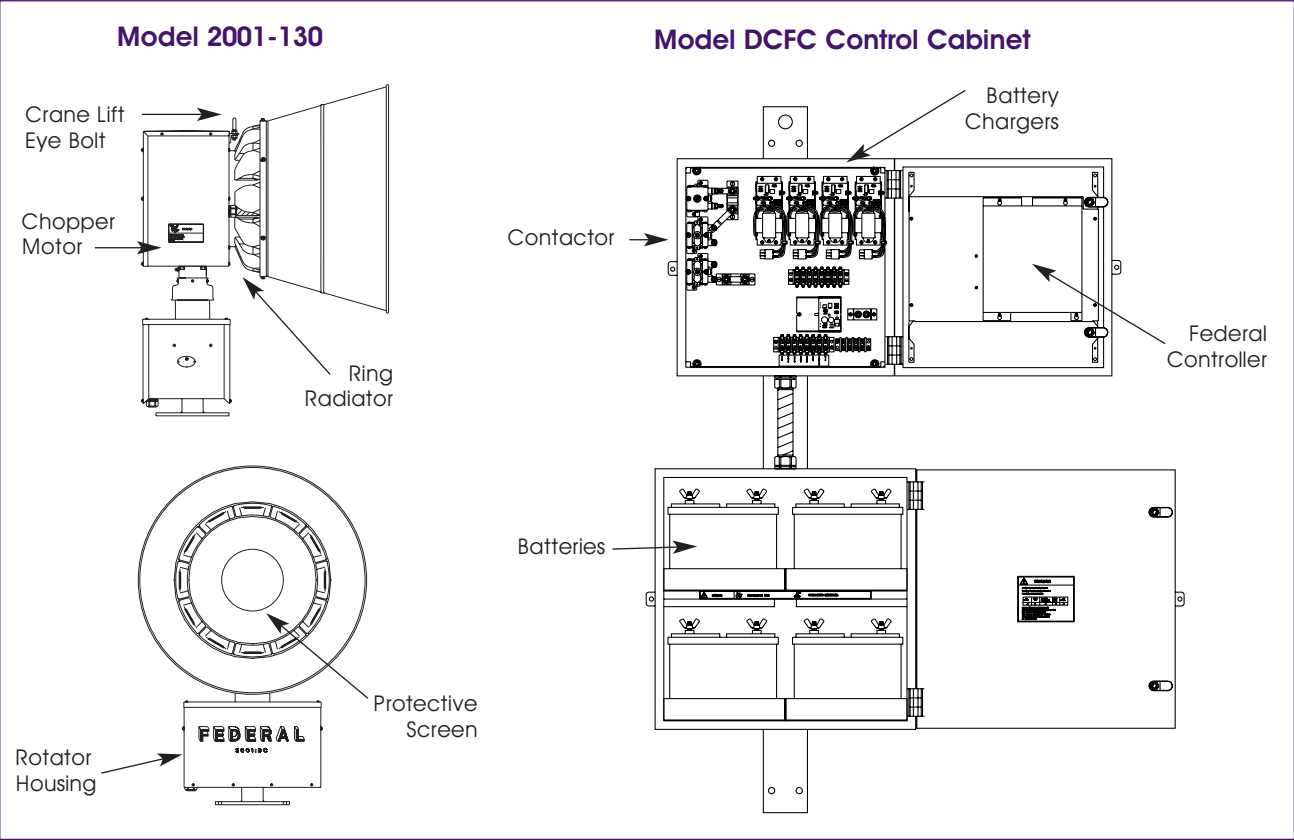
The Model 2001-130 is ideally suited for wide area coverage with high decibel output and attention getting signals. The Model 2001-130 also overcomes high ambient noise areas, such as those found in industrial plants, steel mills, chemical plants and refineries.

Model	Voltage	Decibels @ 100'	Operating Current	Standby Current
2001-130	48VDC	130dBc	100 amps (Nominal)	N/A
DCFC	120VAC	N/A	4 amps	0.2 amps
2001AC	240 ¹	N/A	30 amps ²	N/A

¹ Also operates on 208 or 220/240VDC (please specify)

² 50 amp service recommended

ELECTROMECHANICAL SIREN (2001-130)



SPECIFICATIONS

Rotation Speed: (2001-130) 2-6 RPM (adj.)

Continuous Signal Time*: (2001DC) 15 minutes minimum @ full output

Standby Time: (2001DC) 20+ days with 5 minutes full signal reserve

Effective Range at 70dBc: 6200 ft.

TONE

Steady:

Wail:

Fast Wail:

FREQUENCY

750 Hz

470-705 Hz

600-705 Hz

SWEEP

N/A

10.0 sec.

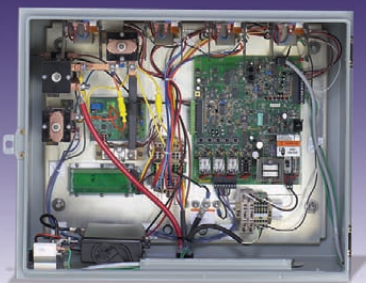
3.5 sec.

* After AC power failure

HOW TO ORDER

- Call the factory for assistance in specifying an outdoor warning system

Model Number	Operating Temperature	Net Weight	Shipping Weight	L	Dimensions W	H
2001-130	-22°F – 140°F -30°C – 60°C	395 lbs. 180 kg	450 lbs. 205 kg	41" 104.14 cm	37" 93.98 cm	55" 139.7 cm
DCFC	-22°F – 140°F -30°C – 60°C	141 lbs. 64 kg	234 lbs. 106 kg	16" 40.64 cm	24" 60.96 cm	48" 121.92 cm
2001AC	-22°F – 140°F -30°C – 60°C	159 lbs. 72 kg	182 lbs. 83 kg	10" 25.4 cm	24" 60.96 cm	24" 60.96 cm



Two-Way Digital Controller for 2001 and Eclipse Siren

Models ACFCTB and DCFCTB

ELECTRO-MECHANICAL SIREN CONTROLLER

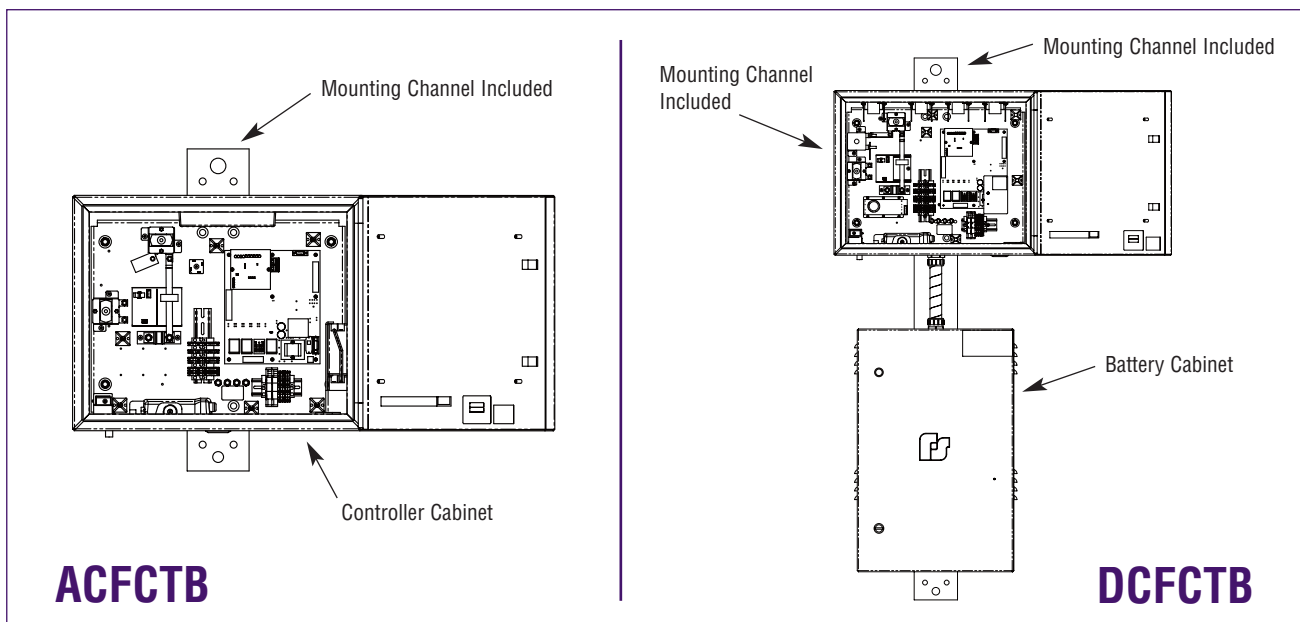
- Two-Way Siren Controller for 48VDC Sirens
- Two-Way Radio Control and Status Monitoring
- FSK Two-Way Signaling Format
- Simultaneous Single Tone, Two-Tone Sequential, and DTMF Decoding
- Push Buttons for Local Activation
- UL Listed for general signaling

The ACFCTB and DCFCTB models are two-way, battery-operated status monitoring siren controllers for use with the 2001 and Eclipse siren series. These controllers interface with an off-the-shelf two-way radio transceiver and communicate to the base control via FSK signaling. In addition to FSK, the controllers will simultaneously decode any combination of Single-Tone, Two-Tone Sequential, or DTMF formats for activation. This makes the two-way controllers compatible with virtually any existing siren control system.

All ACFCTB and DCFCTB models come equipped with two (2) independent relay outputs that can be programmed to activate with various codes. There are four (4) landline inputs and four (4) local push buttons for activation, plus cancel. Activation codes, relay timing, and optional warning sounds are programmed into the unit through a standard RS232 serial port or over-the-air from the central control point.

The ACTCFTB and DCFCTB models offer six (6) user programmable functions in addition to the five pre-set functions: ARM, DISARM, REPORT, GROWL TEST, and MASTER RESET. The controllers includes the necessary sensors and wiring to supply information on the following areas of operation: AC Power Status, Communications Status, Low Battery Voltage Indication, Siren Activation Current, Intrusion, and Siren Rotation.

TWO-WAY DIGITAL CONTROLLER FOR 2001 AND ECLIPSE SIREN (ACFCTB/DCFCTB)



SPECIFICATIONS

Operating Temperature:	-30°C to 65°C	Shipping Weight:	
AC Supply Voltage:		ACFCTB:	155 lbs. (70.5 kg)
ACFCTB:	115VAC @ 4.0 amps	DCFCTB:	300 lbs. (136.36 kg)
DCFCTB:	120VAC @ 4.0 amps	2001TR:	150 lbs. (68.2 kg)
2001TR:	208/220/240 VAC single phase @ 25-30 amps (approx.)	Current Draw:	< 0.2 amps in standby
ACFCTB:	8A @ 13.3VDC	4 Relay Outputs:	SPST
DCFCTB:	6A @ 13.3VDC	Contact Rating:	5A @ 28VDC
Battery Backup:			5A @ 240VAC
ACFCTB:	12VDC 12A/H standby	Audio Output Voltage:	>2V Peak to Peak
DCFCTB:	48VDC	Total Harmonic Distortion:	10% @ 1kHz Sinewave
Dimensions:		Maximum Audio Load:	8 Ohms
ACFCTB Controller:	18" x 22.5" x 11"		
DCFCTB Controller:	19.0" x 23.5" x 11.19"		
DCFCTB Battery Cabinet:	18" x 28.0" x 15.19"		
2001TR:	23" x 11" x 10"		

REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Two-way Federal Controller, AC Powered	ACFCTB(D) ^{1,2}
Two-way Federal Controller, DC Powered	DCFCTB(D) ^{1,2}
Two-way Federal Controller, High Band, 148-174 MHz, AC Powered	ACFCTB(D)H ^{1,2,3}
Two-way Federal Controller, High Band, 136-174 MHz, DC Powered	DCFCTB(D)H ^{1,2,3}
Two-way Federal Controller, UHF Band, 450-470 MHz, AC Powered	ACFCTB(D)U ^{1,2,3}
Two-way Federal Controller, UHF Band, 450-470 MHz, DC Powered	DCFCTB(D)U ^{1,2,3}

HOW TO ORDER

- Specify Federal Programming software (FSPWARE) for non-digital applications or Federal Commander Digital Software (SFCDWARE)

(D) Indicates Digital Federal Controller Two-Way

¹ For use with 2001 and Eclipse siren series

² Antenna and cable are not included with radio activation control and must be ordered separately

³ Batteries required. Call for assistance with specific system requirements



Directional Speaker Array

Model DSA

ADAPTABLE MOUNTING SYSTEM FOR CONTROLLED MULTI-DIRECTIONAL OUTPUT

- Overcomes ambient noise of industrial environments
- Provides maximum speech recognition and tone reproduction
- Produces 121dBc @ 100'
- Three mounting kits available

Federal Signal's Model DSA Directional Speaker Array provides excellent voice and tone reproduction and is ideal for overcoming high levels of industrial noise.

Design flexibility allows the user to combine up to four speaker arrays; each array will hold from two to six re-entrant speakers. Speakers have a 70° horizontal angle of dispersion, accommodating specific sound output patterns. (When vertical stacks are placed 90° apart, a 180° horizontal coverage is possible.)

The Model DSA mounting kits allow for multiple speaker arrays to be mounted on the same pole at 90° increments. The downward tilt can be adjusted by 15°. The mounting flexibility of this system allows the speakers to be pointed directly at a targeted area for more concentrated sound output.

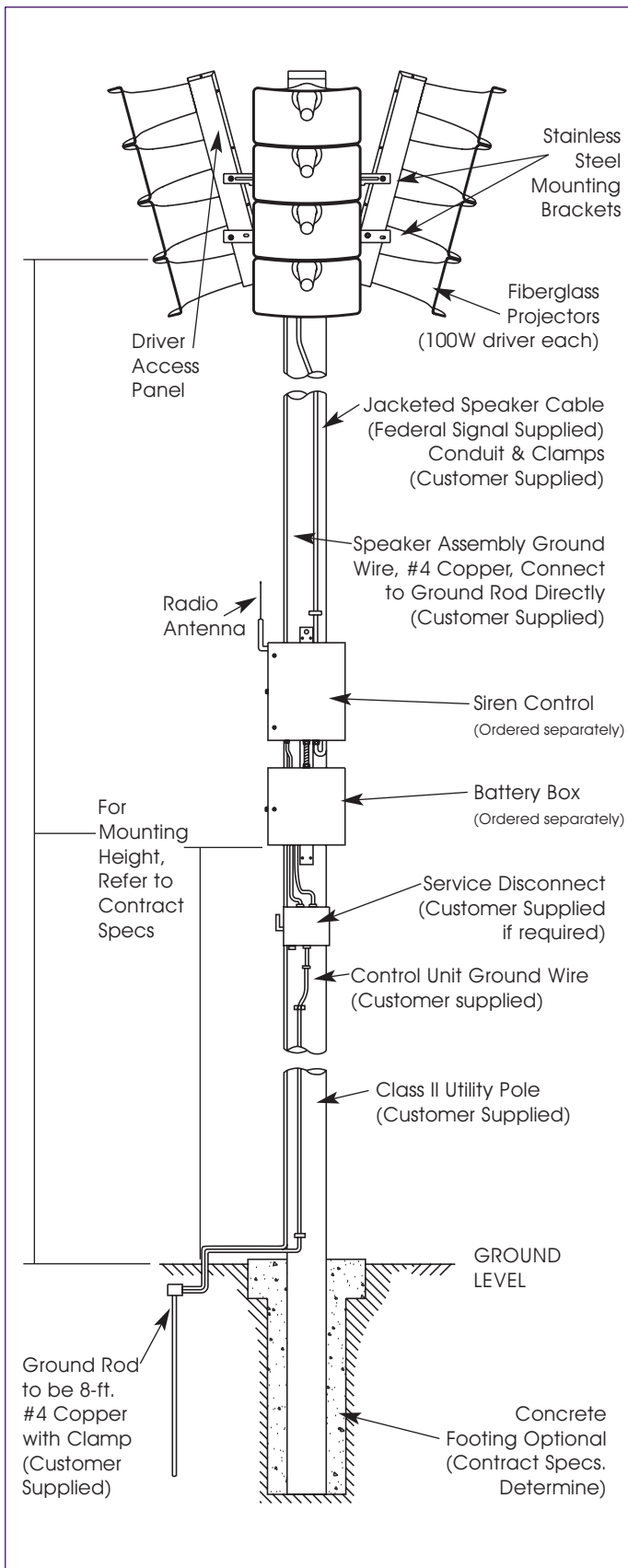
A DSA consists of a corrosion resistant aluminum frame with fiberglass projectors and stainless steel mounting hardware. Each speaker contains a high-efficiency 100-watt driver.

Amplification, tone generation and signal timing are provided by the Model UV controller, purchased separately.

Ideal for outdoor industrial plant warning, the Model DSA speaker array allows sound coverage to be customized to each site, preventing wasted sound in and around the plant. The Model DSA provides better speech intelligibility within a coverage zone than omni-directional speaker arrays.

Model	No. of 100W Speakers	Total Watts	Decibels @ 100'	Effective Range	Net. Wt. lbs./kg
DSA2	2	200	111dBc	1,700'	43/19.5
DSA3	3	300	115dBc	2,200'	80/36.2
DSA4	4	400	117dBc	2,600'	95/43.1
DSA5	5	500	119dBc	3,000'	110/49.9
DSA6	6	600	121dBc	3,400'	125/56.7

DIRECTIONAL SPEAKER ARRAY (DSA)



SPECIFICATIONS

Color:	Black projectors with Off-White Housing
Paint:	TGIC – Polyester Powder Coat Highly corrosion resistant
Frequency Response:	300Hz - 4000Hz

HOW TO ORDER

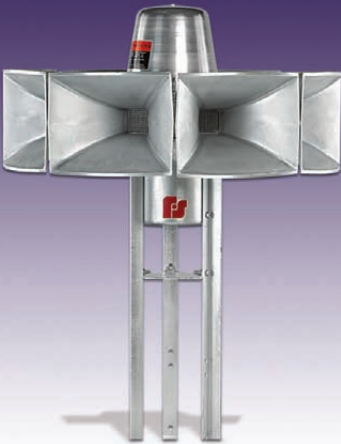
- The DSA speaker array is used in conjunction with the UV controller. The UV houses the amplifiers that drive the DSA speaker array. Each DSA is made up of individual 100 watt speakers.
FOR EXAMPLE: A DSA4 has four 100-watt speakers.
- Multiple DSA arrays can be controlled by a single UV as long as the total wattage meets or exceeds the total wattage required by the DSAs. The total watts required is the sum of all 100-watt speakers from each DSA.
- Call the factory for assistance in specifying an outdoor warning system*

MOUNTING KITS

<u>Model</u>	<u>Mounting Configuration</u>
DSAMK1	One vertical support wall mount
DSAMK2	Two vertical supports 180° apart on pole
DSAMK4	Four vertical supports 90° or 180° apart, pole mounted

REPLACEMENT PARTS

<u>Description</u>	<u>Model</u>
Driver, 100 watt	8570063A



POWERFUL OMNI-DIRECTIONAL OUTDOOR WARNING SIREN

- Omni-directional for 360° coverage
- Three distinct warning signals
- Full battery operation or battery back-up option
- High efficiency design produces 115dBc at 100 ft while making moderate power demands
- Optional roof mount stand
- 100% aluminum design

Electro-Mechanical Siren

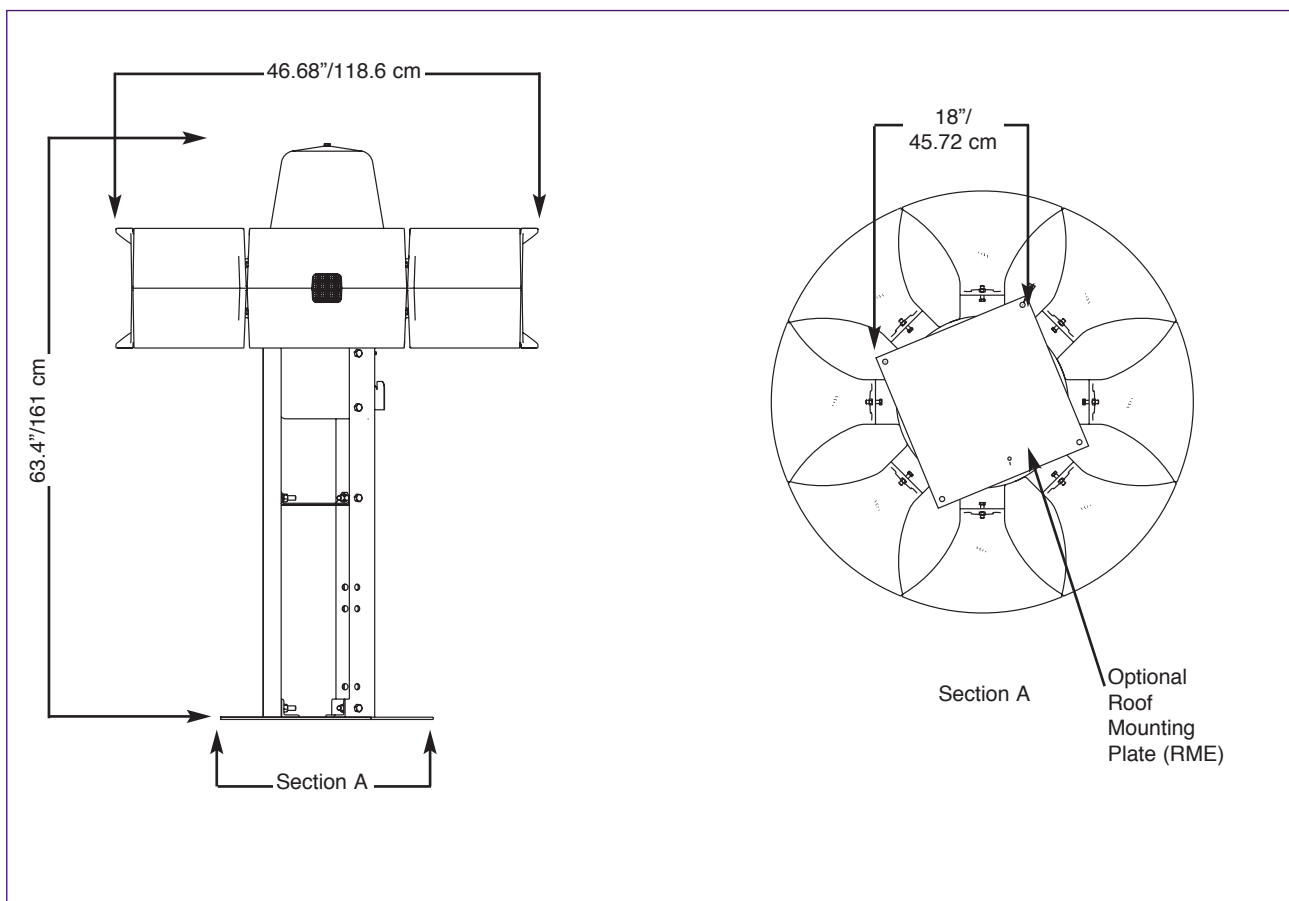
Model ECLIPSE8

The Eclipse8 is a mid-sized DC-powered omni-directional siren for outdoor warning that produces high intensity warning signals. This powerful and lightweight outdoor siren provides coverage with a maximum sound pressure level of 115dBc at 100 feet. The high decibel output provides maximum coverage with minimum installation costs. Operating from 48VDC, the siren utilizes the DC motor of our 2001 siren series for proven reliability.

The siren’s eight projector horns covers a 360° omni-directional area, with the capability of producing three signal options: steady, wail and fast wail. The Eclipse8 will supply a minimum of 15 minutes of siren operation from its batteries even after 24 hours without AC power. The siren controls are available with battery operation, AC operation and AC operation with battery back-up. One-way and two-way radio control or landline options are available.

Model	Voltage	Decibels @100'	Operating Current	Output Frequency	Beam Width	Mount
Eclipse8	48VDC	115dBc	112 amps (Nominal)	525Hz	360°	Roof or Steel pole

BATTERY POWERED SIREN (ECLIPSE8)



SPECIFICATIONS

Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Effective Range @ 70dBc:	2200'	
Net Weight:	225 lbs.	116.0 kg
Shipping Weight:	380 lbs.	173.0 kg
Height:	63.4"	161.0 cm
Width:	46.68"	118.6 cm

HOW TO ORDER

- Specify model (Eclipse8)
- Specify mounting option (RME)
- *Call the factory for assistance in specifying an outdoor warning system*

REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Motor	84020061

Siren Controller

Model FC



ECONOMICAL, FULL-FEATURED SIREN CONTROLLER

- Remote radio control function available
- Controls warning lights and audible devices
- Two-tone sequential, DTMF and digital FSK decoding
- Four individually programmable output relays
- Push-button local control or dry-contact closure inputs for landline control
- Six built-in siren tone signals

The Federal Signal Controller Model FC is a 120VAC radio receiver/decoder and timer with relay outputs. This versatile model is ideal for virtually all siren control applications and any other process which can be controlled via relay contacts.

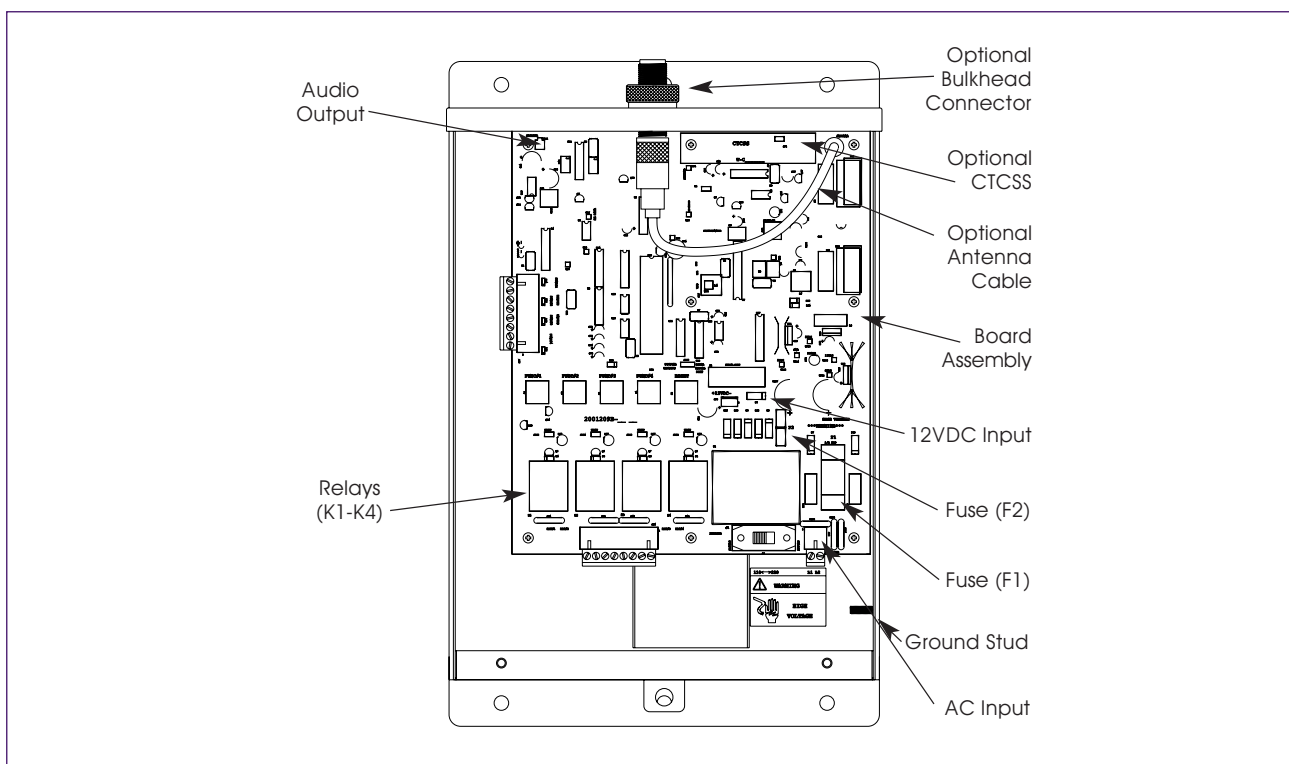
The microprocessor-based controller comes with two-tone sequential, dual-tone multiple frequency (DTMF), or frequency shift keying (FSK) decoding capabilities, and up to four individually programmable relays.

Options include a synthesized radio receiver (low band, high band, or UHF), a built-in tone generator, which adds six standard tones, public address capability, and a software package that allows the unit to be connected to any IBM-compatible computer to modify supplied timing or to create unique tone patterns. Programming options include radio receiver frequency, two-tone sequential tones/DTMF/FSK decoding digits, custom audible signal tones, and independent control of output relays and timing patterns for electromechanical sirens.

Up to six control codes may be programmed and activated by any combination of two-tone sequential, DTMF or FSK tone bursts. Four of the timing sequences can be initiated using local push buttons or remotely through dry contact closures.

The Federal Controller is used to control Federal Signal siren Models 2, 2001 and STH10. Also, the unit can be used to add radio activation of indoor PA and SelecTone® systems, to control warning lights, or to replace existing and outdated electro-mechanical timing mechanisms for existing systems.

RADIO ACTIVATED CONTROLLER (FC/FCG)



SPECIFICATIONS

ELECTRICAL

AC Power Inputs:	120 or 240VAC
Battery Input (12VDC):	10.5 to 18.0VDC
Input Current:	120VAC 180mA AC Max.
	12VDC 460mA DC Max.
Relay Output Timings:	0.5 to 999.0 seconds

RECEIVER/DECODER

Frequency Range (programmable):	
Low Band:	30 to 50MHz in 5kHz steps
High Band:	148 to 174MHz in 5kHz steps
UHF:	450 to 470MHz in 12.5kHz steps
Sensitivity:	0.35 uV for 12dB SINAD
Rejection:	(-60)dB
Selectivity:	(-60)dB
Stability:	5.0 ppm
Antenna Impedance:	50.0 ohms
Audio Band Pass:	64 to 3300 Hz

Deviation Acceptance:	3.5± 1.0kHz for valid decoding (3.3 kHz nom.)
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Decode Sensitivity:	20dB S/N (typical 0.5 uV or RF)
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DTMF

Format:	50/50 to 1000/1000 milliseconds (digit duration/digit silence)
Digit Length:	3 to 12 digits

FSK

Format:	1200 Baud, MSK
Usable Decode Sensitivity:	10dB SINAD (min.)

TWO TONE

Timing:	0.5 to 8.0 seconds duration (each tone)
Intertone Silence:	0.4 seconds max.
Frequency Range:	300-3000Hz
Operating Temperature:	-30°C to 65°C (-22°F to 140°F)
Dimensions:	14.25"H x 9.25"W 5.5"D (36.2 cm x 23.5 cm x 14.0 cm)

HOW TO ORDER

- Have your Sales Representative contact our highly trained Federal Signal Field Sales Engineers to help you design a system that meets your facilities specific requirements.
- Specify model (FC) – call representative for various options to meet specific requirements.
- Specify voltage (120VAC or 240VAC)
- Specify radio frequency
- Specify antenna (RP164) high band or UHF band (one way)
- Specify options:
Programming Software (FSPWARE)
Tone coded squelch decoder (CTCSS/PL)



DESIGNED FOR ALERT/
WARNING AND PUBLIC
ADDRESS OVER A WIDE AREA

- 360° sound coverage with no variation in the horizontal plane
- Multiple tones and public address
- Excellent frequency response
- Produces 106dBc to 121dBc @ 100'
- Each module has four 100-watt drivers
- Operates with UV controller

Modulator®
Speaker Array

Model MOD Series

Federal Signal’s Modulator® Speaker Array Series consists of a family of six electronic sirens. These innovative omni-directional sirens are capable of producing high-intensity warning signals over a wide area. This efficient design enables these sirens to produce a high sound level, while making only moderate demands on the power source.

Each Modulator Speaker Array is made up of aluminum modules that utilize four 100-watt drivers. Speaker arrays require a siren control unit/battery cabinet (purchased separately).

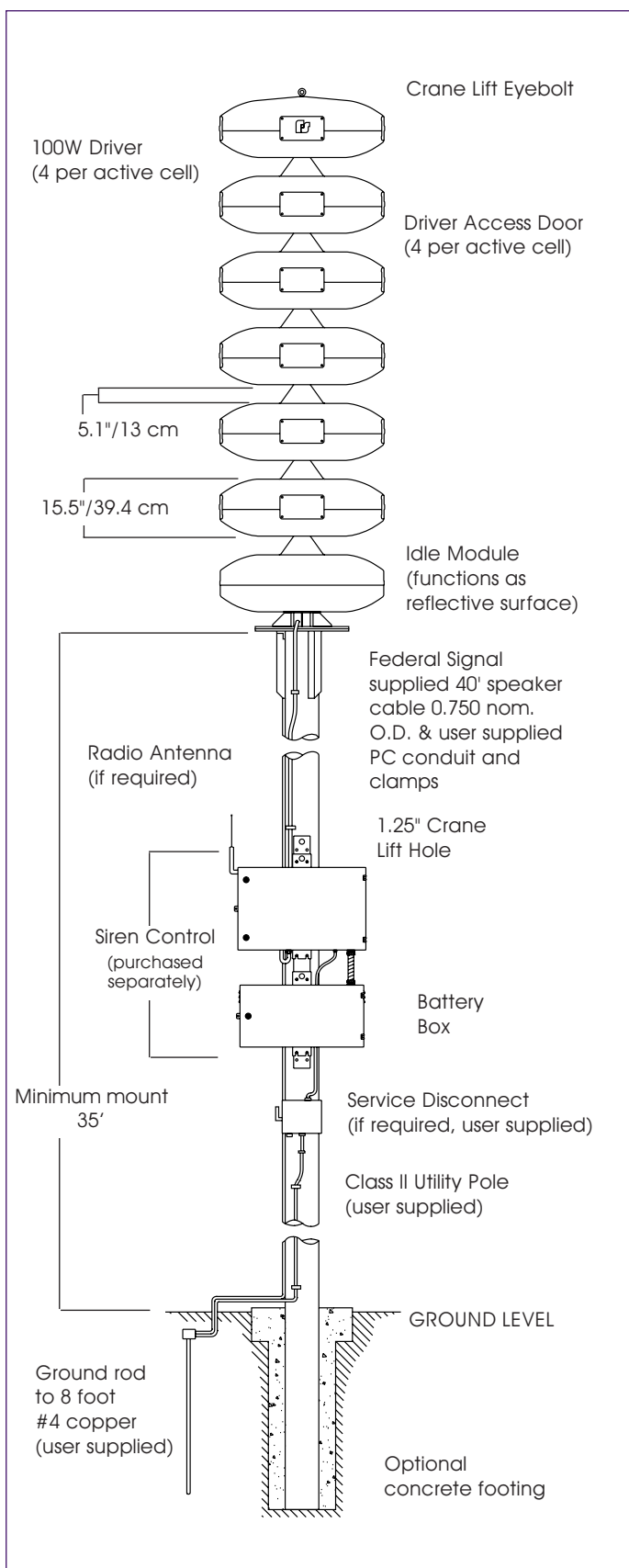
The Modulator Speaker Array provides a flat frequency response from 200 to 2000Hz for excellent voice reproduction or warning signals such as: Wail (attack), Pulsed Steady, Steady (alert), Alternating Steady, Alternating Wail, and Pulsed Wail – which are produced by the modulator siren control unit.

Federal Signal’s Modulator Speaker Array is intended for outdoor applications. Industrial sites such as refineries, chemical plants, power plants, or tank farms are typical applications for these omni-directional electronic arrays.

Model	Active Modules	Watts	Decibels @ 100'*	Effective Range @ 70dBc
MOD1004	1	400	106dBc	1,200'
MOD2008	2	800	112dBc	1,800'
MOD3012	3	1200	115dBc	2,200'
MOD4016	4	1600	118dBc	2,800'
MOD5020	5	2000	120dBc	3,100'
MOD6024	6	2400	121dBc	3,400'

* MOD 6048 available, produces 125dBc @ 100'. Contact factory for specification assistance.

MODULATOR® SPEAKER ARRAY (MOD)



SPECIFICATIONS

Frequency Response: 200-2000Hz \pm 1dB
 Horizontal Coverage: 360° \pm 1dB

Wind Loading @ 110mph wind velocity¹:

MOD1004	360 lbs.
MOD2008	540 lbs.
MOD3012	720 lbs.
MOD4016	900 lbs.
MOD5020	1080 lbs.
MOD6024	1260 lbs.

¹Wind loading is the calculated force of wind at 110mph (shoreline), exposure D (flat, unobstructed coastal areas) on frontal area 4.64 ft. per American National Standards Institute A58.1² Minimum design loads for buildings and other structures."

Model	Height (in./cm)	Net Wt. (lbs./kg)	Shipping Wt. (lbs./kg)
MOD1004	43.17"/109.65	181.0/82.0	350.0/158.8
MOD2008	63.7"/161.8	296.0/134.3	400.0/181.4
MOD3012	84.3"/214.1	411.0/186.4	600.0/272.2
MOD4016	105.0"/266.7	526.0/238.6	750.0/340.2
MOD5020	125.5"/318.8	641.0/290.8	1000.0/453.6
MOD6024	146.0"/370.8	760.0/344.7	1270.0/576.0

HOW TO ORDER

- Specify speaker array model number – each speaker array model must be ordered with a specific corresponding UV and Amplifier.

SPEAKER CONTROLLER

MOD1004	UV + 1 UV400
MOD2008	UV + 2 UV400
MOD3012	UV + 3 UV400
MOD4016	UV + 4 UV400
MOD5020	UV + 5 UV400
MOD6024	UV + 6 UV400

- Specify optional CABEX 10' cable extension²
- Call the factory for assistance in specifying an outdoor warning system

² 40 feet of cable is supplied with siren. Extension cable in 10 foot increments is also available. Mounting the UV controller further than 100 feet is not recommended (further mounting may decrease power output).

REPLACEMENT PARTS

Description	Model
Driver, 100 watt	8570063A



Federal Commander Digital System

Model SFCD

DIGITAL STATUS WARNING

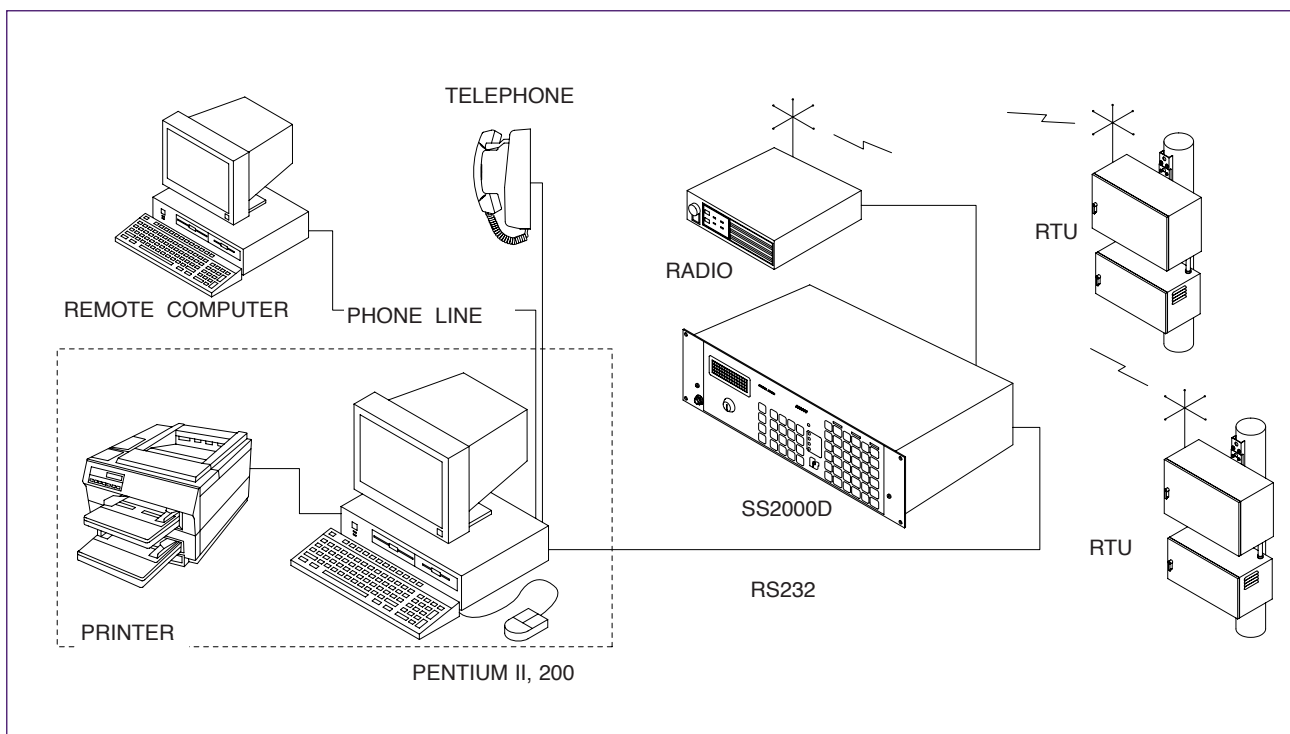
- Up to 225 sites
- 9 repeaters and two chains
- 10 person call list
- 1200 baud MSK modem
- Conventional and trunking radio compatibility
- Includes LapLink Remote Communications Software
- 56K PCI modem
- Optional Networking TCP/IP interface

The Federal Commander Digital System offers Emergency Management Directors and system operators complete, secure activation and status monitoring of any siren system, and consists of the SS2000D encoder, the SFCDWARE package, and digital Siren Controllers. From siren activation to in-home alert, this system is designed to provide your facility with complete alert and notification capability.

The Federal Commander continues to evolve to meet the changing demands of customers throughout the world to provide a system unmatched in its features and ease of use. Designed with Federal's modular philosophy, the system can grow to accommodate changing plant needs. From one Central Control and one RTU, the system can expand to include more than 250 RTUs, 16 zones, and digital tone alert receivers.

Digital Siren Controllers are available for both electronic sirens, speakers, and electromechanical sirens. These controllers come equipped with over-the-air programmability via secure digital technology.

FEDERAL COMMANDER SYSTEM (SFCD)



CCU MINIMUM REQUIREMENTS*

- An IBM compatible Pentium II running at 200 MHz or faster
- Windows® 98, NT, 2000 or XP
- 256-MB or more of Random Access Memory (RAM)
- 10.0 Gig Hard Disk or larger
- SVGA color monitor and controller (800 x 600 resolution, 24 bit color recommendation)
- CD ROM drive
- 101-key enhanced keyboard
- One parallel printer port
- One RS-232 serial port
- One telephone modem (provided)
- Mouse
- Dot matrix printer 24-pin with parallel interface
- Phone line for use of alarm reporting and remote dial-in feature
- AC surge protection device

*sold separately or customer supplied

HOW TO ORDER

- *Call the factory for assistance in specifying an outdoor warning system*



DTMF Siren Encoder/Decoder

Model SS2000

DESIGNED FOR ACTIVATION OF RADIO CONTROLLED SIGNAL DEVICES

- LCD shows 4-line control and programming information
- 18 “hot” command keys
- Hundreds of available functions
- Two-way unit automatically logs activity to printer output
- Desktop and 19" rack mount
- Optional printer and activation via contact closure through SS Remote
- Easy to program and use

Federal Signal's Model SS2000 is a versatile, user-friendly and economical siren controller that supports one-way communication with the option of two-way communications using DTMF or FSK encoding. Command sequences are programmable and stored in non-volatile memory chips for retention, even when electrical power is disrupted.

Power is supplied by a standard 120VAC wall outlet and can be backed up with a user supplied 12VDC battery and charger.

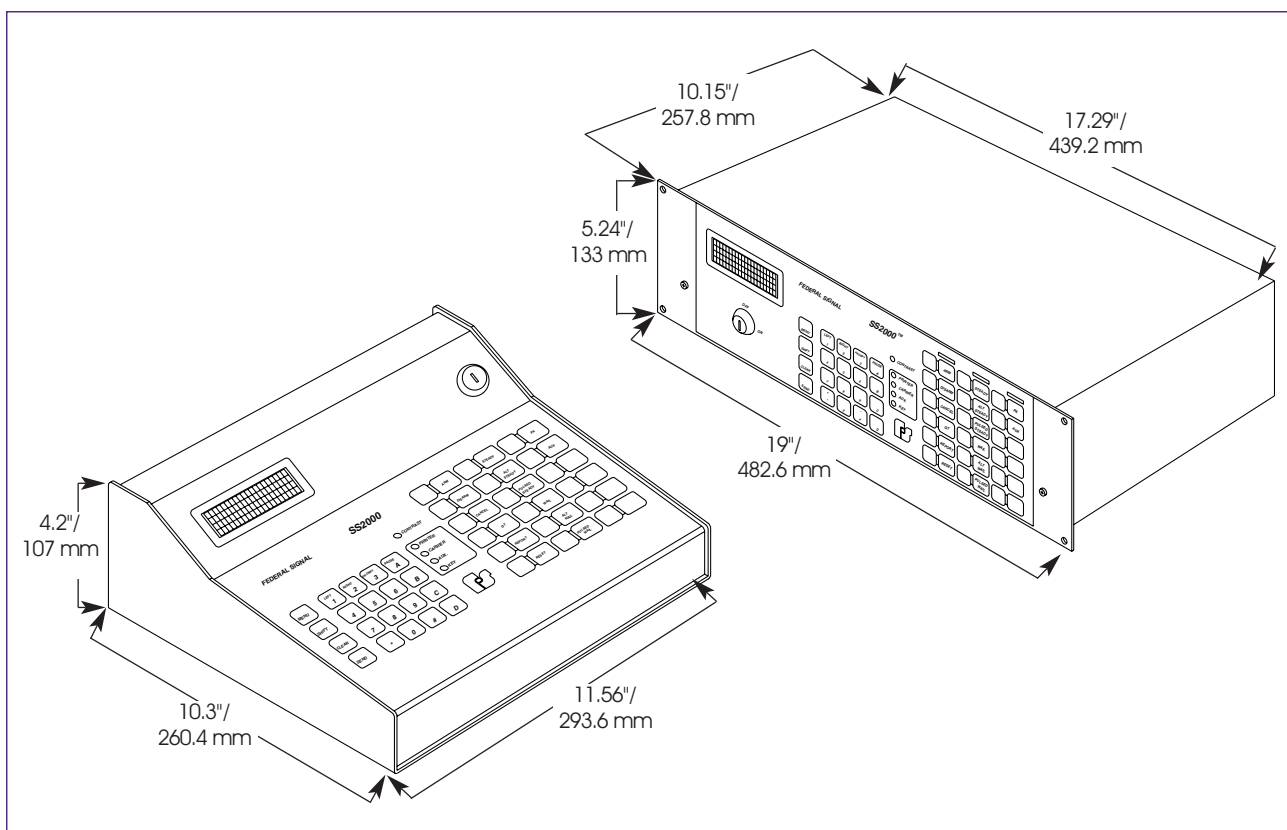
The Model SS2000 features a four-line backlit liquid crystal display (LCD), full DTMF keypad and 18 user-programmable function keys. Four LEDs are used to indicate the status of the optional printer, radio frequency (RF) carrier detection, key press and one miscellaneous function. A key lock is provided to secure the controller's key pad from unauthorized access.

As a status monitoring device for electronic sirens, the Model SS2000 or SS2000T monitors AC power, intrusion, amplifiers and drivers; operating current, charger, battery and audio A and B lines.

As a status monitoring device for mechanical sirens, the model SS2000 monitors AC power, intrusion, operating current, battery and rotation.

Federal Signal's Model SS2000T DTMF Encoder/Controller or SS2000D FSK Encoder offer many extended benefits to any radio controlled signaling device. This unit automatically reports siren/power failures and electronically checks sirens through report-back systems, eliminating the need for personnel at siren sites.

DTMF ENCODER/CONTROLLER (SS2000)



SPECIFICATIONS

Line Input:	120VAC wall transformer	Outputs:	3-DPDT (PTT, Audio and mic disconnect, spare)
Battery Input:	11.5-20.0VDC (overvoltage and reverse voltage protection)		1.25A at 24VDC
Input Current:	175mA standby, 250mA max.		0.4 at 120VAC
Operating Temperature:	32° F to 122° F 0°C to 50°C	Dimensions:	
Distortion:	< 3% from pure sinewave	Rack	19.0" x 10.15" x 5.24" (482.6 mm x 257.8 mm x 133.0 mm)
Emphasis:	Optional de-emphasis 6dB/octave	Desktop	11.56" x 10.25" x 4.2" (293.6 mm x 260.4 mm x 107.0 mm)
DTMF Format:	3-20 digits	Weight:	
DTMF Timing:	35/5 to 999/999 milliseconds (digit length/interdigit silence)	Rack	8.0 lbs./4.0 kg
Display:	80-character LCD display (4 lines x 20)	Desktop	6.0 lbs./3.0 kg
DTMF Decode Sensitivity:	20dB signal/noise		

HOW TO ORDER

- Have your Sales Representative contact our highly trained Federal Signal Field Sales Engineers to help you design a system that meets your facilities specific requirements.
- Specify model number
 - a. 1-way control, desktop (SS2000)
 - b. 2-way control, desk top (SS2000T for DTMF or SS2000D for FSK)
 - c. 1-way control, rack mount (SS2000R)
 - d. 2-way control, rack mount (SS2000TR for DTMF or SS2000DR for FSK)
- Optional printer
- Optional activation via contact closure (up to 20) (SS-REMOTE)



UltraVoice™ Electronic Siren Controller

Model UV

MICROPROCESSOR-BASED CONTROL SYSTEM FOR HIGH-POWER ELECTRONIC SPEAKER ARRAYS

- One- or two-way siren control
- Status monitoring
- Seven warning tones
- Public address
- Digital pre-recorded voice messages
- Land line or radio control
- Pole or wall mount
- Type 4 or optional 4X enclosure
- UL and cUL Listed

The Federal Signal UltraVoice™ is designed to provide one- or two-way control of high-power electronic sirens such as the MOD or DSA, or to control indoor AudioMaster speaker systems. UltraVoice produces amplified audio signals including seven built-in warning tones, high-quality live public address, and pre-recorded voice messages.

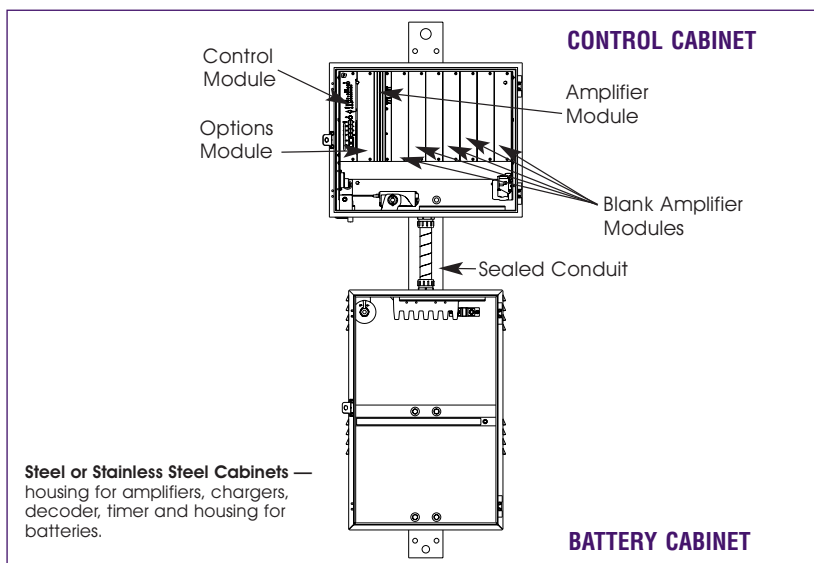
The UltraVoice is housed in two cabinets. The control cabinet houses the control module and amplifiers. A separate vented cabinet houses the batteries. The standard cabinet for the UltraVoice is made from 5052-H32 grade aluminum. This control cabinet is also available in 304 or 316 stainless steel. The number of amplifiers and batteries (purchased separately) required by an UltraVoice Controller depends on the power required by the specific siren array or speaker system.

Two-way systems provide siren status to the control station and include a sensor package, radio transceiver and encoder/decoder. Computer controlled status monitoring of the following conditions is provided: AC Power, Battery Voltage, Charger Operation, Activation Current, Signal Line A and B, Mode of Operation, Quiet Test, Intrusion, and Local Activation.

Options

UltraVoice units may be equipped with a programmable RF receiver for remote control using MSK, DTMF or Two-Tone Sequential protocols. Pre-recorded digital voice messages can be added by simply plugging in a four- or eight-minute IC chip. Windows®-based software is available that allows users to configure activation sequences.

ULTRAVOICE™ ELECTRONIC SIREN CONTROLLER



HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements. We can help you:

- Specify model number –
UV Controller, one-way
UVT Controller, two-way with radio control options
- Specify radio control requirements –
One-way or two-way; Low band, High band, UHF and Private Line
- Specify protocol –
DTMF, MSK, Two-Tone
- Specify radio frequency
- Specify number of 400-watt amplifiers required (Model UV400)
- Specify options –
Digital Voice Chips, 4 or 8 minutes
Customized Tones available per quote
Solar Charging System
FS-MWIN - Windows® Programming Software (Two-Tone and DTMF)
Antenna
SS2000 Encoder
Stainless Steel or Aluminum Cabinets
HTR2 or HTR4 Battery heaters
SFCDWARE - Two-way digital programming and control software
MNC-MC - Microphone

STANDARD TONES

<i>Tone</i>	<i>A/B Tone Frequency Range</i>	<i>Sweep Rate (seconds)</i>
Wail	400/480-850/1020	13.0
Pulsed Wail	400/480-850/1020	1.5 /13.0
Alternate Wail	400/480-850/1020	1.5/13.0
Steady	850/1020	N/A
Pulsed Steady	850/1020	1.5
Alternate Steady	850/1020	1.5

SPECIFICATIONS

Power

Input Voltage: 120/240±10%,
50/60Hz VAC single-phase
Input Current: 7 A Max.
Operating Voltage: 24VDC
Standby Current:

UV 100mA DC
UVT 600mA DC

Standby Time: > 7 days
Continuous Signaling Time: 30 min.

Control Module

Signal Duration (auto reset): 3 min.

Microphone

Input Impedance: 10k ohms
Audio Distortion: 1% THD max.
Maximum Load: 600 ohms

Contact

Closure: (min) 500 ms<1.0k ohms

Amplifier Module

Frequency Response:
(300 to 3 kHz) ±3dB (ref. 1kHz)
Output Voltage (Tone and PA):
(to speaker drivers) 70Vrms
Input Impedance:
(per amplifier) 100k ohms

General

Operating Temperature^{**}:
-22°F to 149°F -30°C to 65°C

Enclosures:

Control Cabinet: Type 4 or 4X
Battery Cabinet: Type 4 (vented)

^{**} The siren can operate throughout this temperature range provided the battery temperature is maintained at 0°F/-18°C or higher.

BATTERY REQUIREMENTS

- Customer must provide necessary batteries.
- Delco Voyager M24MF batteries are required – call for assistance with specific system requirements.



UltraVoice™ Indoor Controller

Model UVIC

The Federal Signal UltraVoice™ Indoor Controller, Model UVIC, is designed to deliver clean, clear, amplified audio to a network of speakers (sold separately), configured for indoor notification or evacuation. The UltraVoice Indoor Controller has been designed for high quality reproduction of live or pre-recorded voice and tone, providing the ability to automate testing and emergencies.

The UVIC is housed in a single NEMA1 style cabinet, with provisions for up to two 400-Watt amplifiers (sold separately). Each controller requires 120VAC and contains two sealed lead-acid batteries, providing over 30 minutes of operation in the event power has been lost. The UVIC may be either Landline activated or Radio controlled from a remote location. Landline activation can initiate one of the 8 onboard functions by connecting a momentary dry contact closure (customer supplied) to the appropriate pc board mounted terminal block. These functions can contain a combination of tone and pre-recorded voice or Public Address. Public Address is available from the supplied microphone located inside the controller. If Radio-control of the UVIC is desired, an optional Federal Signal Encoder Model SS2000D and base station radio (approved radio license required at time of order) must be added to the control package and is typically located where administrative control and activation resides. In either configuration, each function will remain active for 3 minutes as standard.

The UVIC controller is also compatible with our Federal Commander® Windows® Based Digital status monitoring and activation software to “point and click” activation and local indication of alarms or fault conditions. Available functions to be displayed on a computer screen or captured to a database or printer are: AC Power, Battery Voltage, Charger Operation, Activation Current, Amplifier Status, Quiet Test, Intrusion and Local Activation.

Options

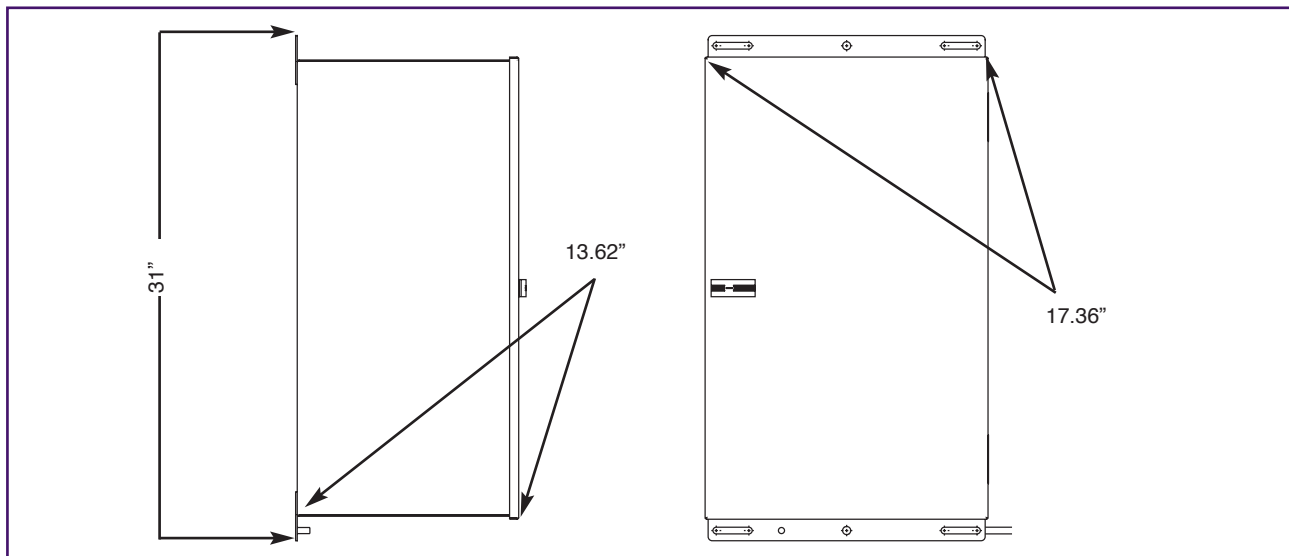
Ultravoice units may be equipped with a programmable RF receiver for remote control using MSK or DTMF protocols. Federal Commander Windows based software provides command and control for UltraVoice two way products

FEATURES

- Landline or Radio-Controlled w/Two-Way Status Monitoring
- Public Address
- Seven Standard Tones
- 70 Vrms Audio Output Standard (25 Vrms optional)
- 4 Programmable Relays, 600-Ohm, Line-Level and 33-OHM Audio Outputs (with optional UVARM)
- Type 1 Enclosure
- Up to 16 Digitally Stored Messages Standard (8 minute total storage capacity)
- Batteries and Local Microphone Included
- Optional Windows Based Activation and Status Monitoring Software
- UL and cUL Listed

Operating Temperature	Net Weight (No Amplifiers)	Shipping Weight (UVIC)	Shipping Weight (Batteries)	Height	Width	Depth
-30°C to 65°C	64.55 lbs	200 lbs	58.97 lbs	31"	17.36"	13.62"

ULTRAVOICE™ INDOOR CONTROLLER



ORDER INFORMATION

UVIC	Indoor Controller, No Radio
UVICH	Indoor Controller, Two-way VHF (150-174) MHz
UVICU	Indoor Controller, Two-way UHF (450-474) MHz
UVIC240	Indoor Controller, 240VAC, No Radio
UVICH240	Indoor Controller, Two-way 240VAC, VHF
UVICU240	Indoor Controller, Two-way 240VAC, UHF

SPECIFICATIONS

Input Voltage:	120 or 240VAC +/- 10%, 50/60 Hz Single-phase
Input Current:	5A AC, 45A DC Max
Operating Voltage:	24VDC
Standby Time:	3 Days with 5 minutes in reserve
Continuous Signaling Time:	30 minutes
Audio Output (UV400):	70Vrms (nominal)

OPTIONAL EQUIPMENT

MODEL	DESCRIPTION
UV400	Amplifier, 400-Watts
DVR	Digital Voice Recording Fee
SFCD10	Federal Commander® Two-way Status Monitoring Software, 10 Site License
SFCD25	Federal Commander Two-way Status Monitoring Software, 11-25 Site License
UVARM	UltraVoice Audio Relay Module Balanced 33-Ohm output: Adj. from 0.2-1.9 Vrms Balanced 600-Ohm output: Adj. from 0.2-3.0 Vrms or -12 to +11 dBa Single Ended Line-Level: Adj. from 0.2-3.0 Vrms Relay Outputs: 4 programmable relays rated 30Vdc, 15A
UVIC25ST*	Step-down transformer, 68-25 Vrms

* Note: 25Vrms step down transformer occupies one amplifier slot making the UVIC capable of a maximum of 400 watts in this configuration.