

SAFEPATH®

Emergency Communications / Voice Evacuation System

ARCHITECT AND ENGINEER SPECIFICATIONS

- Eight (8) digitally recorded voice messages with live-microphone override
- Uses only one (1) tone for messages
- Supervised speaker and strobe notification appliance circuits (NACs)
- Broadcast capability from a supplied background music (BGM) source
 - Unique supervision method allows for full-system supervision, including a BGM-mute feature during BGM broadcasting
- Easily interfaces with many existing phone-system page ports, central-office (C.O.) port and line-level signals
- Removable quick-connect / disconnect terminals for ease of wiring; accepts #12 to #22 American Wire Gauge (AWG)
- Power-limited circuitry via 'Class A' or 'Class B' wiring
 - 'Class A' wiring only with the use of an audio splitter
- Night ringer or security-alert connection
- NFPA 72, OSHA 1910.165 and ADA Compliant
- ®UL 864 9th Edition Listed & ®ULC Listed; FM, CSFM, & NYC Fire Department Approved



System Overview

SAFEPATH (Model SP40S) is a multi-functional, supervised paging, messaging, BGM-delivery and emergency voice-evacuation system that can interface with many Siemens fire-alarm systems. Further, Model SP40S provides full control of building audible and visual NACs.

This single-channel system is capable of delivering 40 Watts of supervised, high-quality audio power and 2 Amps of supervised, 24 VDC synchronized strobe power. Model SP40S is supplied with a 24VDC back-up battery.

Model SP40S comes standard with an on-board, digital voice-messaging system containing any of the following:

- Eight (8) standard messages
- One (1) hand-held microphone
- One (1) power supply / battery charger
- Several additional features

Models SP40S is also expandable to 5280 Watts, utilizing the following:

- Model SPB-80/4 (80 Watts, 4 Amps of strobe power)
- Model SPB-160 (160 watts) or Model SPB-320 (320 watts) supervised audio-power boosters

Specifications

SAFEPATH shall be a multi-purpose, NFPA compliant, supervised and general-purpose audio system for emergency communications / voice evacuation conditions. The voice output for the system shall be single-channel, incorporating supervision during the broadcasting of general paging / BGM.

The system shall be capable of delivering 40 Watts of supervised audio power and 2 Amps of supervised 24 VDC synchronized strobe power.

Supervised audio power shall be 40 Watts, minimum, expandable to 5280 Watts — depending on system configuration, as well as additional modules and power boosters. Supervised 24 VDC synchronized strobe power shall be at 2 Amps, expandable to the requirements of the installation.

The system shall be capable of operating from a 120VAC power source. Model 'E'-series shall be capable of operating from a 240VAC power source.

All models shall have a 24VDC back-up battery, and are available in either 115 VAC or 220 VAC.

System Overview — (continued)

Standard, on-board system features shall include:

- Digital voice messaging
- One (1) hand-held, push-to-talk microphone with override priority
- One (1) power supply / battery charger

The system shall be capable of interfacing with telephone systems for general-paging announcements, and will have night-ringer capabilities. 'Form C' contacts shall be provided for fire-system *Alarm* and *Trouble* conditions.

The system shall have eight (8) message contacts with contact-closure activation. Input voltage for BGM shall be capable of handling less than 2.5V, peak-to-peak, or less than 0.3 volts. The system shall have 13 priority-ordered inputs, including:

- One (1) on-board microphone
- One (1) auxiliary line-level input
- Eight (8) digital messages
- One (1) night-ringer input
- One (1) telephone-paging input, and
- One (1) BGM input

The system shall have preset audio levels for emergency messaging (pre-recorded and live intercom). The system shall revert back to a pre-set level, regardless of the volume set for BGM or for general paging.

BGM inputs can be tied to an AM / FM tuner, cassette, compact disc (CD), MP3, or any other remote source.

The system shall be supplied with eight (8) pre-recorded messages, and shall be capable of in-field recording of customer-unique messages.

Model SP40S shall have a dual-tone tone generator with Code-3 Tone and Slow Whoop. When the system is on battery power, telephone page, night ring and BGM shall be disengaged.

SAFEPATH shall have power-limited circuitry with an internal battery charger and power supply.

The power supply / charger section shall be able to charge 24VDC batteries with a maximum capacity of 33 Amp hours. Up to two (2) 12VDC, 12AH batteries may be housed in the enclosure. Batteries larger than 12AH shall be housed in a separate enclosure. Batteries shall be supplied separately.

The system shall have power-limited circuitry with 'Class B' wiring. Wiring terminal blocks will be removable and accept AWG wiring.

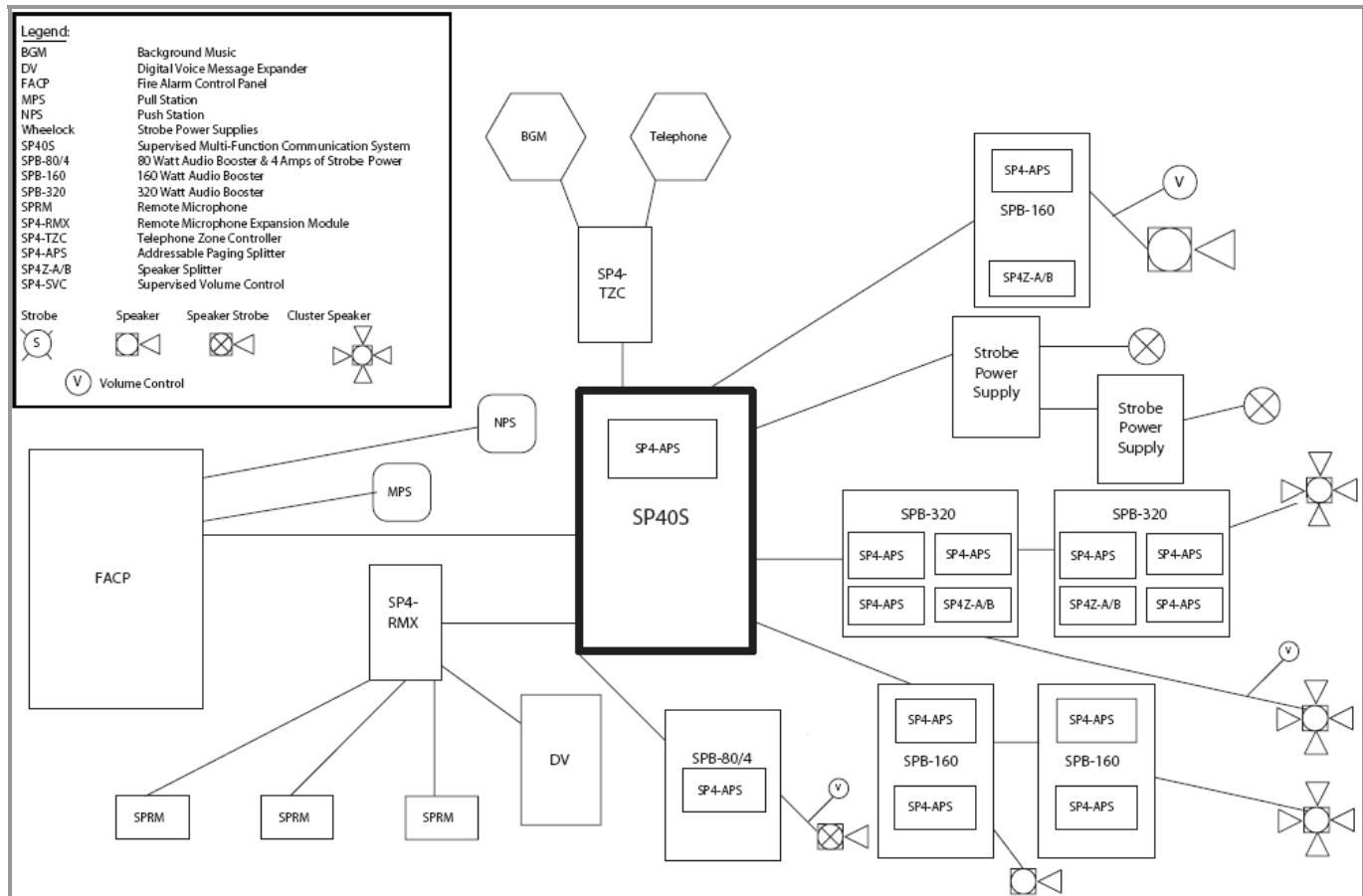
Technical Data

Input Power:	3.8A @ 120 VAC / 60 Hz.
Standby Current Draw:	140mA per amplifier board
Alarm Current Draw:	4.7 Amps per amplifier board
System Frequency Response:	▪ Voice: 400 — 6.5 kHz. ▪ BGM: 275 — 15 kHz.
Cross-Section Connection:	12 — 22 American Wire Gauge (AWG)
Speaker Outputs:	25V or 70.7V, power limited
Signal-to-Noise Ratio:	> 65 db
Dynamic Range	> 65 db
Total Harmonic Distortion:	2 %
Wall-Mount Dimensions: { W -x- H -x- D }	16" -x- 21" -x- 6" (41 cm. -x- 53.3 cm. -x- 15.2 cm.)
Weight:	36 Lbs. / 16329 g.
Finish:	Black or Red enclosure

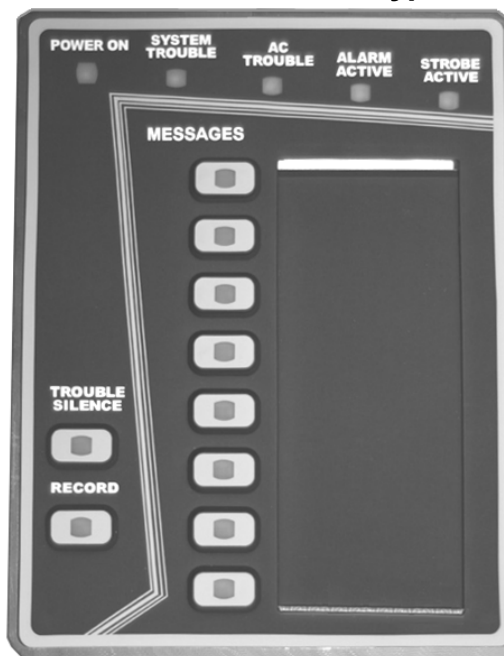
Audio and Activation Inputs

Priority Level	Priority Ordered Inputs	Type of Input
1	On-Board Microphone	Push-to-talk (PTT) microphone
2	Auxiliary	Remote microphone or remote-microphone expander
3	Digital Message Input 1	Contact-closure activation
4	Digital Message Input 2	
5	Digital Message Input 3	
6	Digital Message Input 4	
7	Digital Message Input 5	
8	Digital Message Input 6	
9	Digital Message Input 7	
10	Digital Message Input 8	
11	Night Ringer Input	Contact-closure input
12	Telephone Paging Input	Page-port input
13	Background Music Input	Line-level input @ 600 ohm [Input voltage must be < 2.5V, peak-to-peak, or 0.3 VRMS.]

Wiring Diagram



Model SP40S Front Keypad



[Close-up View]

Message Types

Message and Priority Number	Message Type	Gender Voice Type	Message Script
1	Fire (do not use elevators)	Male	Three (3) rounds of Code 3 horn, followed by: <i>"May I have your attention please! A fire emergency has been reported in the building. While this is being verified, please leave the building by the nearest exit. Do not use the elevators."</i>
2	Fire (do not use elevators)	Female	Three (3) rounds of Code 3 horn, followed by: <i>"May I have your attention please! A fire emergency has been reported in the building. While this is being verified, please leave the building by the nearest exit. Do not use the elevators."</i>
3	Fire	Male	Three (3) rounds of Code 3 horn, followed by: <i>"May I have your attention please! A fire emergency has been reported in the building. While this is being verified, please leave the building by the nearest exit."</i>
4	Emergency	Female	Three (3) rounds of Code 3 horn, followed by: <i>"May I have your attention please! An emergency has been reported in the building. While this is being verified, please leave the building by the nearest exit."</i>
5	Emergency	Male	Three (3) rounds of Code 3 horn, followed by: <i>"May I have your attention please! An emergency has been reported in the building. While this is being verified, please leave the building and report to the designated assembly area for your group."</i>
6	Weather	Male	Five (5) seconds of 1kHz. Tone, followed by: <i>"May I have your attention please! The National Weather Service has issued a severe-weather warning for our area."</i>
7	All Clear	Male	Five (5) seconds of 1kHz. Tone, followed by: <i>"May I have your attention please! The building emergency has ended. An 'all clear' has been given. Please resume normal activities."</i>
8	Test	Male	Five (5) seconds of 1kHz. Tone, followed by: <i>"May I have your attention please! This is a test of the evacuation system. Repeat -- this is only a test."</i>

Notes:

- Each message can be selected to have a code 3 pre-alert tone, a 1kHz continuous pre-alert tone, or no pre-alert tone
- Post-tones are also selectable, and match the pre-tones for individual messages
- Any of the eight (8) messages are field programmable, allowing for custom messaging:

- ✓ Each message length is 30 seconds
- ✓ A 1/8" line-level audio input jack is supplied for message recording
- ✓ A two-step recording procedure is required to ensure and verify the standard message will be permanently erased

Factory programmed messages are available for custom messages:

- ✓ Each message length is 30 seconds
- ✓ A 1/8" line-level audio input jack is supplied for message recording

Details for Ordering

Model Number	Part Number	Description
SP40S	S54459-C5-A1	<u>Red enclosure</u> for the multi-function emergency voice evacuation system with 24VDC battery-backup circuitry that provides supervised paging, messaging and <u>background-music</u> (BGM) delivery. Single-channel system with 40 Watts of supervised audio power and 2 Amps of supervised 24VDC synchronized strobe power with eight (8) standard messages. [Two batteries (not included) are required].
SP40S-B	S54459-C6-A1	<u>Black enclosure</u> for the multi-function emergency voice evacuation system with 24VDC battery-backup circuitry that provides supervised paging, messaging and BGM delivery. Single-channel system with 40 Watts of supervised audio power and 2 Amps of supervised 24VDC synchronized strobe power with eight (8) standard messages. [Two batteries (not included) are required].
SP40SE	S54459-C7-A1	<u>220 VAC input</u> for the multi-function emergency voice evacuation system with 24VDC battery-backup circuitry that provides supervised paging, messaging and BGM delivery. Single-channel system with 40 Watts of supervised audio power and 2 Amps of supervised 24VDC synchronized strobe power with eight (8) standard messages. [Two batteries (not included) are required].
SP-COA	S54459-C28-A1	Central office (C.O.) port adapter for SAFEPATH [Model SP40S]
AM-SP40S-SMK	S54459-C8-A1	After-market version of the SAFEPATH system's standard message kit [for up to eight (8) messages]
AM-SP40S-PMK	S54459-C9A1	After-market version of the SAFEPATH system's programmed message kit [for up to eight (8) messages]
AM-SP40S-NBT	S54459-C10-A1	After-market version of the SAFEPATH system's narrow-band signal-tone kit

Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.

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