

# SP2 Serverless Page/Party<sup>®</sup>



VoIP Multicast Paging and Intercom

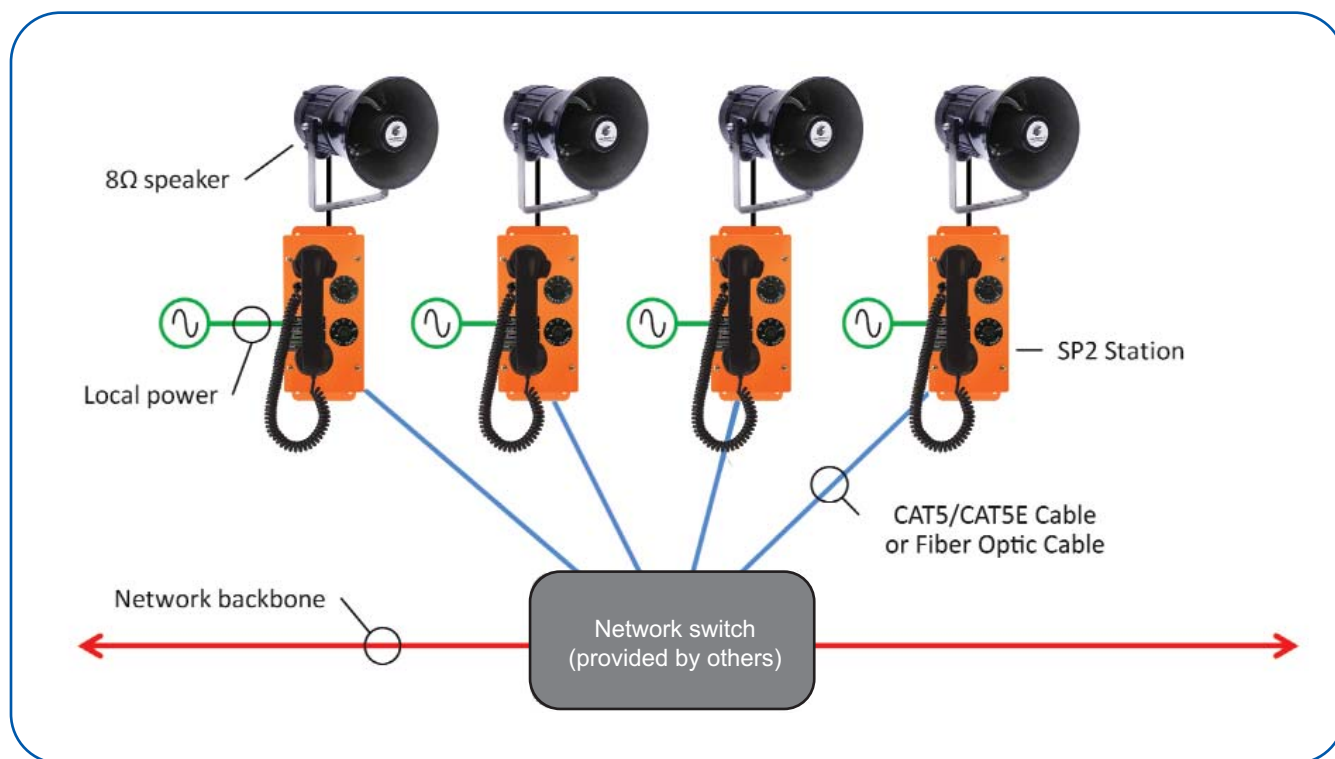
**SP2** is GAI-TRONICS' most advanced paging and intercom system yet. Combining the simplicity of "press to page, release to party" operation with cutting-edge multicast Voice over Internet Protocol (VoIP) technology, SP2 is capable of providing virtually instant communication in the most demanding of environments.

SP2 is a serverless system. While other systems rely on servers to route calls and administrate the system, SP2 uses multicast technology, bypassing the need for servers and resulting in a number of benefits.

- SP2 is fast. Since no server is needed to set up call routing and conference bridges, SP2 can provide immediate one way paging and full-duplex "party line" communication.
- SP2 is simple. There's no keypad, no extensions to memorize. Simply lift the handset, select a paging zone, squeeze the handset pressbar, and make an announcement over the system speakers. Release the pressbar and talk on one of the five available party lines.
- SP2 is reliable. There are no servers to fail or update. SP2 will also notify you of any problems via e-mail.
- SP2 is flexible. Every SP2 station is capable of being configured with unique characteristics, including priority, zone destinations, volume levels and so on. Indoor, weatherproof and hazardous area stations with worldwide approvals are available, ensuring that SP2 can be used everywhere it's needed



## SP2 Architecture



SP2 is simply wired to the nearest network switch using CAT5/CAT5E Ethernet cable, or Fiber Optic Cable. Local power is supplied to each station either as a separate power cable or contained in a hybrid power / network cable. Simple screw terminals within the station make field wiring possible without the need for any special tools.

Since SP2 is a serverless system, it can easily be integrated into an existing IP network. This can significantly reduce the installation cost of SP2 and simplify plant data architecture.

All SP2 stations feature a 30W, class D speaker amplifier. This amplifier is capable of producing paging output of up to 126dB when matched with GAI-TRONICS' 30W horn / driver combination.

SP2 stations can be supplied with a handset, for paging and intercom, or without a handset for where only paging coverage is needed.

## SP2 Features and Controls

SP2 was designed with the user in mind. SP2 features simple controls that are easily operable while wearing gloves. A handset with a high-output receiver and noise-cancelling microphone ensures clear communication in high noise areas.

**Rugged Construction**  
Reliable communications in any environment  
High visibility orange finish

**Receiver**  
Hearing aid compatible

**Universal AC Power**  
Worldwide operation

**Party Line Selector Switch**  
Simple conference calls

**Paging Pressbar**  
One-handed operation

**Optional Page Zone Selector Switch**  
Configurable zoning for every SP2 station

**Dynamic Microphone**  
Built-in noise cancellation ensures clear communication in high noise environments

**30 Watt Speaker Amplifier with Ambient Noise Compensation**  
Clear sound in any environment



## SP2 Connections

Each SP2 station can be expanded with several peripheral devices.



A 30W external speaker provides up to 126dB of paging audio



A flashing beacon attracts attention in very high noise areas



A headset enables hands-free operation in any environment

**600Ω**

A two-way 600Ω audio connection enables simple interfacing with other systems

## SP2 Series Variants

SP2 stations are available with many different mounting and environmental options, allowing SP2 to be used in every area of the facility.

### Indoor Wall-mount Stations



### Indoor Remote-mounted Subset Stations



### Weatherproof Wall-mount Stations



### Explosion-proof Stations



### Zone 2 Stations



### Technical Data - SP2 Series Specifications

#### Electrical

Supply Voltage ..... 120/230 V ac  
 Max Power Consumption ..... 400mA / 48.0VA @ 120 Vac  
 Input Frequency Range ..... 50/60 H  
 Network Requirements ..... 100 BaseT network with IGMP

#### Handset

Microphone ..... Dynamic, noise-cancelling  
 Microphone Noise Discrimination ..... 18dB @ 250Hz  
 Receiver ..... Dynamic, hearing aid compatible  
 External Control ..... Push-to-page handset pressbar

#### Handset Amplifier

Output Level (compression controlled) ..... 1.5V<sub>RMS</sub> nominal  
 Frequency Response ..... 250-6,500 Hz, +0/-3dB ref. to 1KHz  
 Distortion ..... <1.5% THD @ 1KHz (below compression level)  
 Receiver Level ..... 200mVRMS nominal

#### Network Connection

CAT5/5E Stations ..... Screw Terminals  
 Fiber Optic Station ..... Standard SFP Port

#### Speaker Amplifier

Max Output ..... 30W into 8Ω load with 1.5VRMS input  
 Frequency Response:  
   Distortion ..... <1% THD @ 1KHz to 24W  
                         <3% THD @ 1KHz to 30W

### Indoor Wall-mount Stations



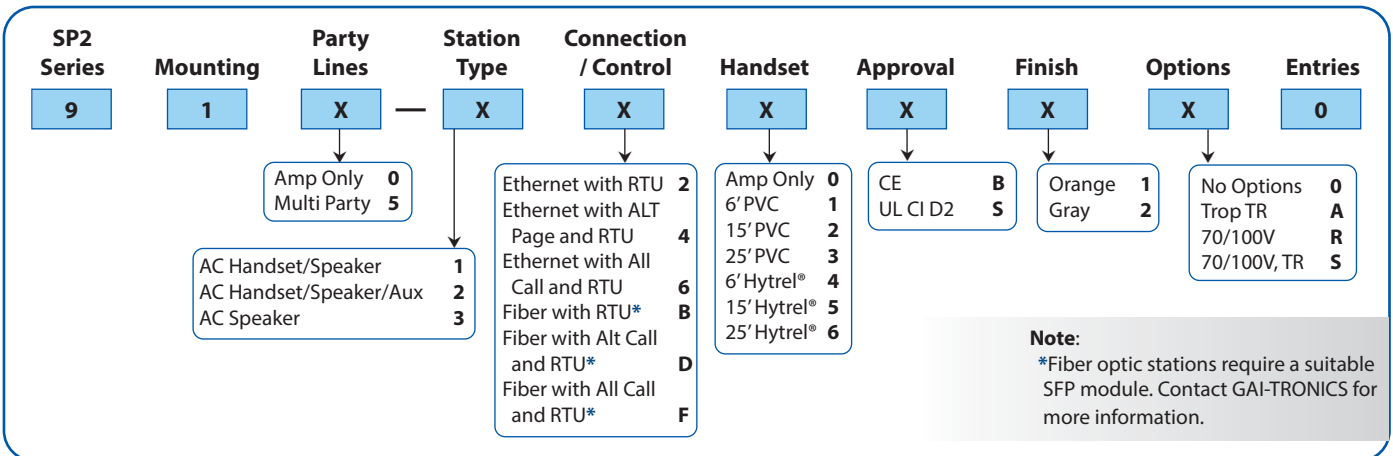
#### Mechanical

Construction ..... 16 gauge cold-rolled steel  
 Finish ..... Safety orange powder coating  
 Connections ..... Screw-type barrier terminal blocks  
 Dimensions (overall) ..... 12.5 H x 5.25 W x 7.34 D inches (317.5 x 133.4 x 188.4 mm)  
 Temperature range ..... -22°F to +140°F (-30°C to +60°C)  
 Relative Humidity ..... 95%, non-condensing

#### Approvals

Electrical Safety ..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
   and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC  
 NRTL Listed ..... Hazardous locations, Class I, Div. 2, (USA and Canada)  
   Groups A, B, C, D

#### Indoor Wall-mount SP2 Part Numbers\*:



\* Items marked as "X" are configurable. Not all option combinations are possible – please contact GAI-TRONICS for assistance.

## Indoor Remote-mounted Subset Stations

### Remote Amplifier



#### Mechanical

Construction ..... 16 gauge cold-rolled steel  
 Finish ..... Safety orange powder coating  
 Connections ..... Screw-type barrier terminal blocks  
 DB25 connection to subset  
 Dimensions (overall)..... 12.5 H x 5.25 W x 4.37 D inches (317.5 x 133.4 x 111.1 mm)  
 Temperature range ..... -22°F to +140°F (-30°C to +60°C)  
 Relative Humidity ..... 95%, non-condensing

#### Approvals

Electical Safety..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
 and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC

#### Remote Amplifier SP2 Part Numbers\*:

SP2 Series	Indoor Wall-mount	Party Lines	Station Type	Connection / Control	Remote	Approval	Finish	Options	Entries
9	3	0	4	X	0	X	X	X	0
				Ethernet with RTU 2 Fiber with RTU* B		UL Safety R CE B	Orange 1 Gray 2	No Options 0 Trop TR A 70/100V R 70/100V, TR S	

**Note:**  
 \*Fiber optic stations require a suitable SFP module. Contact GAI-TRONICS for more information.

### Desktop / Wall-mount Subset



#### Mechanical

Construction ..... Black ABS housing with aluminum front panel  
 Connections ..... DB25 connection to remote amplifier  
 Dimensions (overall)..... 8.94 H x 7.6 W x 4.56 D inches (227.1 x 193 x 115.8 mm)  
 Temperature range ..... -22°F to +158°F (-30°C to +70°C)  
 Relative Humidity ..... 95%, non-condensing

#### Approvals

Electical Safety..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
 and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC

#### Desktop / Wall-mounted Subset SP2 Part Numbers\*:

SP2 Series	Mounting	Party Lines	Station Type	Operation	Handset	Approval	Finish	Options	Entries
8	4	5	0	0	8	X	3	X	0
						UL Safety R CE B		No Options 0 Trop TR A	

\* Items marked as "X" are configurable. Not all option combinations are possible – please contact GAI-TRONICS for assistance.



**Indoor Remote-mounted Subset Stations - cont.**

**Flush-mount and Deskedge Subsets**



**Mechanical**

Construction ..... 16 gauge cold-rolled steel  
 Finish ..... Safety orange powder coating  
 Connections ..... DB25 connection to remote amplifier  
 Dimensions (overall)  
     Flush-mount ..... 6 H x 6 W x 5.61 D inches (152.4 x 152.4 x 142.5 mm)  
     Desk-edge ..... 5 H x 3.19 W x 7.01 D inches (127 x 81 x 178 mm)  
 Temperature range ..... -22°F to +140°F (-30°C to +60°C)  
 Relative Humidity ..... 95%, non-condensing

**Approvals**

Electrical Safety ..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
 and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC

**Flush-mount and Deskedge Subsets SP2 Part Numbers\*:**

SP2 Series	Mounting	5-Party Lines	Subset	Subset	Handset	Approval	Finish	Options	Entries
8	X	5	0	0	X	X	X	X	0
	Flush-mount 5 Desk-edge 6			6' PVC 1 15' PVC 2 25' PVC 3	6' Hytrel® 4 15' Hytrel® 5 25' Hytrel® 6	UL Safety R CE B	Orange 1 Gray 2	No Options 0 Trop TR A	

**Explosionproof Wall-mount Stations**



**Mechanical**

Construction ..... Cast aluminum with gray epoxy coating  
 Connections ..... Screw-type barrier terminal blocks  
 Dimensions (overall) ..... 14.31 H x 13.06 W x 11.68 D inches (363.6 x 331.8 x 296.6 mm)  
 Temperature range ..... -4°F to +140°F (-20°C to +60°C)  
 Relative Humidity ..... 95%, non-condensing  
 Environmental Rating ..... Type 4X (IP66)

**Approvals**

Electrical Safety ..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
 and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC  
 NRTL (Listed USA and Canada) ..... Hazardous locations, Class I, Div. 1, Groups B, C, D  
 Class II, Div. 1, Groups F, G, Class III, Div. 1, T6  
 ATEX/IECEx Certified ..... II 2 G Ex d [ib] IIB + H2 T6

**Explosion-proof Wall-mount SP2 Part Numbers\*:**

SP2 Series	Outdoor Wall-mount	Party Lines	Station Type	Connection / Control	Handset	Approval	Gray Epoxy Finish	Options	Entries
9	2	X	X	X	X	X	5	X	X
	Amp Only 0 Multi Party 5	AC Handset/Speaker 1 AC Speaker 3		Ethernet with RTU 2 Ethernet with ALT Page and RTU 4 Ethernet with All Call and RTU 6	Fiber with RTU* B Fiber with Alt* D Fiber with All* F	Amp Only 0 6' PVC 1 15' PVC 2 25' PVC 3 6' Hytrel® 4 15' Hytrel® 5 25' Hytrel® 6	UL CI D1 C ATEX Zone 1 E IEC Zone 1 G	No Options 0 Trop TR A	UL 2x1.5NPT 1 2x0.75NPT 2 ATEX/IEC 2xM40 2 2xM20 2

**Note:**  
 \*Fiber optic stations require a suitable SFP module. Contact GAI-TRONICS for more information.

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**Weatherproof Wall-mount Stations**



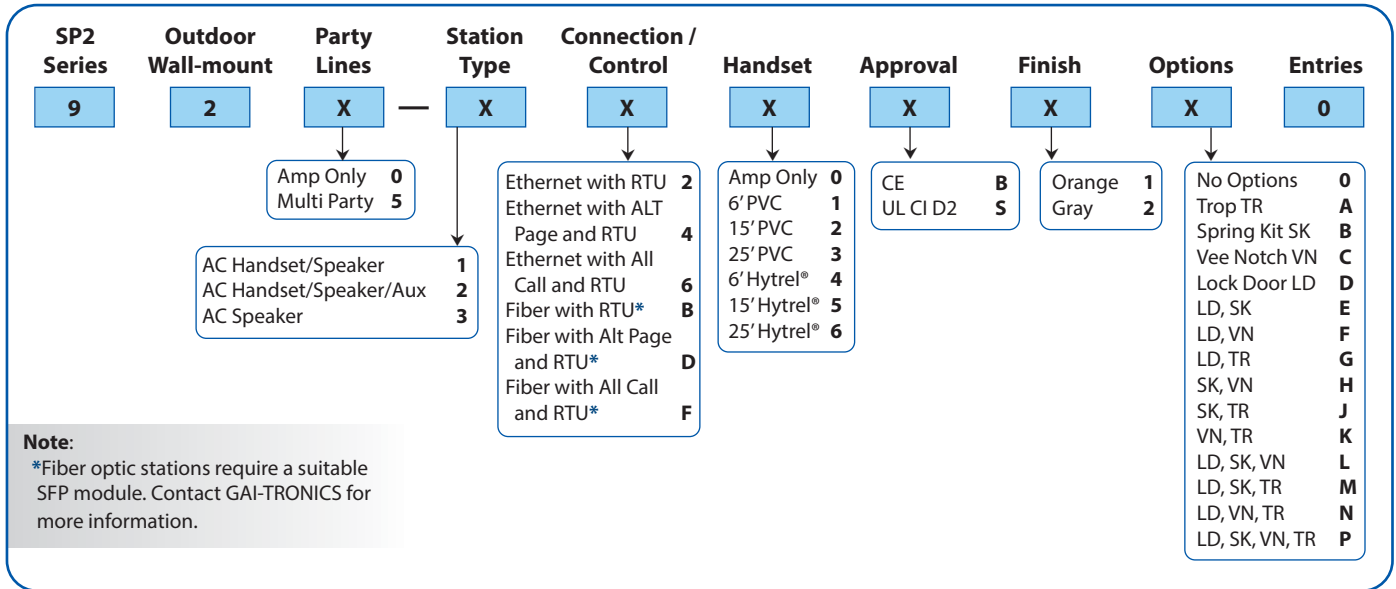
**Mechanical**

Construction ..... Engineered glass-reinforced plastic  
 Connections ..... Screw-type barrier terminal blocks  
 Dimensions (overall)..... 14.6 H x 10.9 W x 10.5 D inches (371 x 276 x 267 mm)  
 Temperature range ..... -22°F to +140°F (-30°C to +60°C)  
 Relative Humidity ..... 95%, non-condensing  
 Environmental Rating ..... Type 4X (IP66)

**Approvals**

Electical Safety..... Complies with IEC 60950 and UL 60950  
 CE Mark ..... Complies with Low Voltage Directive 73/23/EEC,  
 and the EMS Directive 89/336/EEC amended by the Directive 93/68/EEC  
 NRTL Listed ..... Hazardous locations, Class I, Div. 2, (USA and Canada)  
 Groups A, B, C, D

**Weatherproof Wall-mount Station SP2 Part Numbers\*:**



\* Items marked as "X" are configurable. Not all option combinations are possible – please contact GAI-TRONICS for assistance.

## Accessories

### Acoustic Hood - 9/14dB



- 6866-001 – Yellow hood 9dB
- 6866-002 – Gray hood 9dB
- 6866-003 – Yellow hood 14dB
- 6866-004 – Gray hood 14dB

### Acoustic Hood - 23dB



- 988-60-0002-701 – Yellow hood
- 988-60-0002-702 – Red hood
- 988-60-0002-703 – Orange hood
- 988-60-0002-704 – Blue hood

### Headset / Extension Cable



- 10401-201 – Headset/Microphone
- 10416-103 – 30' Extension cable with push-to-page switch
- 10416-104 – 50' Extension cable with push-to-page switch
- 10416-105 – 8' Extension cable with push-to-page switch

### Subset Extension Cable



- 12587-101 – 25' Subset extension cable with fitted connectors.
- 12587-102 – 25' Subset extension cable with fitted connectors and wall plate.
- 12587-104 – 15' Subset extension cable with one fitted and one loose connector.

# SP2

Contact your sales representative or call our toll-free sales hotline for further information at 1-800-492-1212.

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