SPB Audio Power Boosters

www.boschsecurity.com





The Cooper Wheelock SAFEPATH4 SPB Audio Power Boosters provide additional supervised audio power for live voice, recorded messages, or background music. Fully supervised circuitry is always in effect even during background music.

The boosters provide the following:

- The SPB-320 provides 320 W of supervised audio power over four 80 W circuits
- The SPB-160 provides 160 W of supervised audio power over two 80 W circuits
- The SPB-80/4 provides 80 W of supervised audio power with 4 A of supervised, synchronizable strobe power over two 2 A circuits

Combine these boosters and POWERPATH[™] NAC Power Supplies for additional strobe power.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

 Region
 Certification

 USA
 UL
 UOQY: Emergency Communication and Relocation Equipment (UL864, 9th edition), UOXX: Control Unit Accessories, System (UL864, 9th edition)

 UL
 UCST: Audible Signal Appliances, General Siganal (UL464) (SPB-80/4 and SPB-160 models)

 CSFM
 see our website

▶ Connects easily to the SP40/2 or SP40S Facilities

 Interconnect multiple power boosters (up to 5280 W) to accommodate large installations

Communication System

Installation/configuration notes

Compatibility Information

The following products are compatible with the SPB Audio Power Boosters:

Category	Product ID	Product Description
Communication Systems	SP40/2	Facility communications system (red)
	SP40/2-B	Facility communications system (black)
	SP40S	Facilities communication system (red)
	SP40S-B	Facility communications system (black)

Splitters	SP4Z-A/B	Supervised speaker audio splitter
Power Supplies	PS-12/24-8C P	NAC power supply
	PS-12/24-8M P	Auxiliary power supply
	PS-24-8CP	NAC power supply/charger

Mounting Considerations

The power booster(s) must be mounted in a location within the environmental limits specified for indoor control panels. Do not install in hazardous areas.

Wiring Considerations

The audio input can be two-wire or four-wire: **Two-wire:** Supervision is performed over the same wires as the audio input signal. If any one audio booster in the system goes into a trouble condition, all secondary operations (background music, telephone paging) disengage from all audio boosters in the system. This conserves battery backup power if AC power is lost. When an alarm message or a live voice message from the microphone is broadcast by the SP40/2 or SP40S control panel, the amplifier section is energized and the message is broadcast through the audio booster network.

Four-wire: An alarm signal is sent to the audio boosters over an additional pair of wires. If any audio booster in the system goes into a trouble condition, only that audio booster loses secondary operations.

i Notice

i

When using the SPB-80/4, two additional wires are needed for strobe connections.

The terminals accept wiring from 22 AWG to 12 AWG (ISO 0.34 mm^2 to 4 mm^2).

Notice

Notification appliance circuits require a UL Listed end-of-line resistor (10 k Ω , 0.5 W).

Parts included

Quant. C	Component
----------	-----------

- 1 Power booster
- 1 Hardware pack
- 1 Literature pack

Technical specifications

Electrical

Current Draw (alarm):	9 A per amplifier board
Current Draw (standby):	120 mA per amplifier board
Voltage (input):	120 VAC, 3.8 A, 50 Hz or 60 Hz

Environmental				
Relative Humidity:		Up to 85.5% non-condensing at +86 ± 3.6°F (+30 ± 2°C)		
Temperature (operating):		+32°F to +120°F (0°C to +49°C)		
Mechanical				
Color:		Red		
Dimensions (H x W x D):		21 in. x 16 in. x 6 in. (53.3 cm x 40.6 cm x 15.2 cm)		
Material:		0.60 in. (15 mm) steel		
Weight (without batteries):		36 lb (16.3 kg)		
Audio				
Frequency Response:		BGM: 275 Hz to 15 kHz (±3 dB) Voice: 400 Hz to 6.5 kHz (±3 dB)		
Outputs				
Trouble Relay*:	(no	One set of non-supervised Form C (normally-closed) contacts rated at 2.0 A at 24 VDC maximum for resistive loads		
Visual NAC:	Two supervised output circuits each rated at 2.0 A at 24 VDC			
Central Amplified Audio Circuit				
SPB-80/4:	One supervised output circuit selectable for 25 V or 70.7 V output at 80 W maximum			
SPB-160:	Two supervised output circuits each selectable for 25 V or 70.7 V output at 80 W maximum			
SPB-320	Four supervised output circuits each selectable for 25 V or 70.7 V output at 80 W maximum			

*Do not exceed contact ratings. Doing so can cause the relay to fail, preventing indication of a trouble condition.

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

SPB-320 Supervised Audio Power Booster (320 W) Provides four 80 W circuits. Order number SPB-320

SPB-160 Supervised Audio Power Booster (160 W) Provides two 80 W circuits. Order number SPB-160

SPB-80/4 Supervised Audio Power Booster (80 W) with Strobe Power Provides two 2 A circuits. Order number SPB-80/4 Accessories

SPMB4Z Speaker Splitter Mounting Bracket Supports two audio splitters Order number SPMB4Z

Represented by:

Americas:

Americas: Bosch Security Systems, Inc. 130 Perinton Parkway Fairport, New York, 14450, USA Phone: +1 800 289 0096 Fax: +1 585 223 9180 security.sales@us.bosch.com www.boschsecurity.us

Europe, Middle East, Africa: Bosch Security Systems B.V. P.O. Box 80002

5617 BA Eindhoven, The Netherlands Phone: + 31 40 2577 284 Fax: +31 40 2577 330 emea.securitysystems@bosch.com www.boschsecurity.com

@ Bosch Security Systems 2014 | Data subject to change without notice 2730521355 | en, V2, 12. Sep 2014

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security Systems 11 Bishan Street 21 11 Bishan Street 21 Singapore 573943 Phone: +65 6571 2808 Fax: +65 6571 2699 apr.securitysystems@bosch.com www.boschsecurity.asia

China:

China: Bosch (Shanghai) Security Systems Ltd. 201 Building, No. 333 Fuquan Road North IBP Changning District, Shanghai 200335 China Phone +86 21 22181111 Fax: +86 21 22182398 www.bacsbecurity.com.cn www.boschsecurity.com.cn

America Latina:

America Latina: Robert Bosch Ltda Security Systems Division Via Anhanguera, Km 98 CEP 13065-900 Campinas, Sao Paulo, Brazil Phone: +55 19 2103 2860 Fax: +55 19 2103 2862 Iatam.boschsecurity@bosch.com www.boschsecurity.com