Specifications

SMART Audio™ classroom amplification systems
Model CAS-340

Shipping size and weight

SMART Audio™ system without speakers	10 1/8" W × 11 7/8" H × 14 3/4" D (25.7 cm × 30.2 cm × 37.5 cm) 8 lb. 14 oz. (4 kg)
SMART Audio wall-mounted speakers only	12" W × 10 5/8" H × 14 5/8" D (30.5 cm × 27 cm × 37.1 cm) 14 lb. 6 oz. (6.5 kg)
SMART Audio ceiling-mounted speakers only	12" W × 13" H × 28 1/2" D (30.5 cm × 33 cm × 72.4 cm) 25 lb. 6 oz. (11.5 kg)
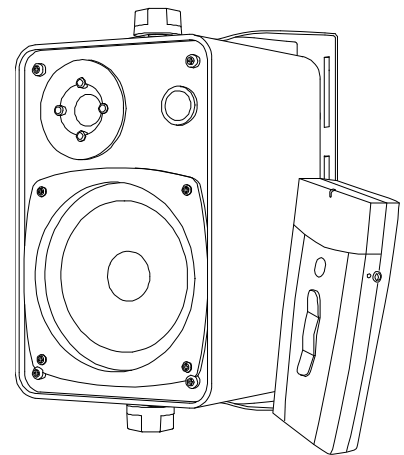
All dimensions +/- 1/8" (0.3 cm). All weights +/- 2 lb. (0.9 kg).

Environmental requirements

Operating temperature	14°F to 104°F (-10°C to 40°C)
Storage temperature	-4°F to 122°F (-20°C to 50°C)
Humidity	0% to 95% relative humidity, non-condensing

Compliance and certification

Environmental compliance	EU RoHS, EU WEEE

Extraordinary made simple® | **SMART**

| **Regulatory certification** | CE, UL, FCC class A, Industry Canada |

Included software

Your SMART Audio system includes the following software:

- SMART Audio software enabling a teacher to adjust the audio while teaching
- SMART Audio configuration software enabling a system administrator to customize the system
- SMART Notebook™ collaborative learning software

| **SMART Audio software** | Enables a teacher to control audio volume settings from a SMART Board® interactive whiteboard while teaching using SMART Notebook software. |
| Installation | Use the included installation CD. |

| Features | - Adjust output volume, including mute, for the microphone, the computer and two auxiliary inputs.
- Set speaker tone.
- Display infrared transmitting microphone battery level. |

| Computer requirements for Windows® operating systems | - Pentium® III 750 MHz processor
- 512 MB of RAM (1 GB recommended)
- 50 MB of free hard disk space for minimum installation
- Windows XP or later operating system for computers with 32-bit or 64-bit processors
- Java™ Runtime Environment 1.6 |

| Computer requirements for Mac operating system software | - 1 GHz PowerPC® G4 or G5 processor
- 1 GB of RAM
- 20 MB of free hard disk space
- Mac OS X operating system software 10.5.8 or 10.6.x
- Java Runtime Environment 1.6 |

SMART Audio configuration software

Enables a system administrator to designate audio settings during an installation.

> ☞ **I M P O R T A N T**
>
> SMART Audio configuration software is available only for computers with Windows operating systems. After system configurations are set, they will be stored in the SMART Audio system.

Installation

Use the included installation CD.

Features

- Set base volume output for audio input devices.
- Update product firmware.
- Set speaker trim, equalization, filter, frequency and bandwidth.
- Set page ducking for integration with an existing paging system.
- Customize teacher microphone button settings.

Computer requirements for Windows operating systems

- Pentium III 750 MHz processor
- 512 MB of RAM (1 GB recommended)
- 25 MB of free hard disk space for minimum installation
- Windows XP or later operating systems for computers with 32-bit or 64-bit processors
- Microsoft .NET Framework 3.5 or later

> **ℹ NOTE**
>
> If your computer does not have Microsoft .NET Framework 3.5 or later installed, this is included in the installation CD. This software requires an additional 595 MB of free hard disk space.

SMART Notebook software

Includes an icon to open SMART Audio software while teaching.

Features

You can access SMART Audio system software from SMART Notebook software.

Computer requirements

For more information, see *SMART Notebook software 11 for Windows and Mac computers release notes* (smarttech.com/kb/170144).
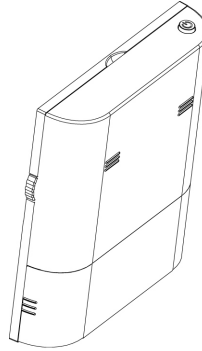
Control unit

Size	8 1/4" W × 9 1/2" H × 1 7/8" D (20.4 cm × 23.9 cm × 4.7 cm)
Weight	1 lb. 8 oz. (0.68 kg)

Audio	
Audio in	• Two sets of two RCA mono auxiliary inputs, 10 dB • USB audio input
Audio out	• One set of two RCA mono line outputs -10 dB, impedance 10 Ω • Cat 5e cable to room module
Input to output frequency response	20 Hz to 20 kHz, +/- 2 dB
Total harmonic distortion and noise	Less than 1%
Signal to noise	Greater than 50 dBA
Crosstalk	Greater than 60 dB m
Power	Power supply with wall-mounting bracket and 8' (2.5 m) power cable
Supply input	100V to 240V AC, 50 Hz to 60 Hz
Supply output	19V DC, 3.2 A, 60.8 W through a Cat 5e cable
Energy efficiency rating	IV or higher
Installation	Wall-mounted or placed on a desk.
Control	• Power button • Reset button

Room module

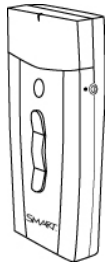|	
Size	8" W × 2 1/2" H × 6 1/4" D
	(20.3 cm × 6 cm × 15.8 cm)
Weight	1 lb. 12 oz. (0.8 kg)
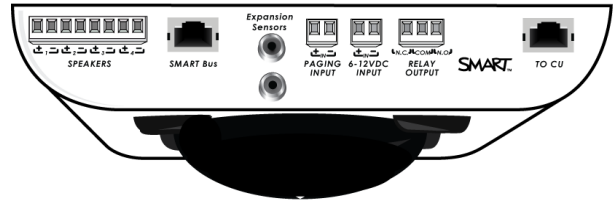
Audio

Audio in from control unit	Cat 5e cable with an RJ45 connector
Audio in from expansion sensors	Connectors for two expansion sensors
Audio in from paging input	One two-pin pluggable terminal block, 8 Ω, 25V and 70V (internally selectable)
Audio in from microphone	• Infrared sensor 2.3 MHz, 2.8 MHz • Maintains a +/- 3 dB field strength within a 15' (4.6 m) radius of the infrared sensor in normal lighting conditions
Speaker output	Four amplifier channels with a two-pin pluggable terminal block per channel, each is 4 Ω at 12 W (48 W total)
Paging override control	6V DC to 12V DC
Frequency response	20 Hz to 20 kHz, +/- 1 dB
Total harmonic distortion and noise	Less than 1%
Signal to noise ratio	Greater than 50 dB
Relay output	SPDT relay
Power	Received from control unit, 19V DC, 60 W through a Cat 5e cable
Installation	• Ceiling-mounted in either drop-ceilings or drywall ceilings. • Ceiling tile bridge included for drop-ceilings

SPECIFICATIONS
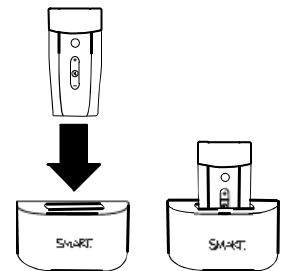
SMART Audio classroom amplification systems – Model CAS-340

Infrared transmitting microphone

Size	2 1/8" W × 4 1/4" H × 3/4" D
	(5.3 cm × 11 cm × 1.9 cm)
Weight	3 oz. (91 g)

Audio

Internal or external microphone	-40 dBu nominal, 100 Ω, 200 Hz to 15 kHz, +/- 2 dB
Signal to noise reduction	Greater than 50 dB
Total harmonic distortion and noise	Less than 2% at 15' (4.6 m) and less than 3% at 18' (5.5 m)

Audio input	• 3.5 mm external microphone input
	• 3.5 mm auxiliary audio input
Infrared transmission	• Infrared emitter 38 kHz uplink
	• Maintains a +/- 3 dB field strength within a 15' (4.6 m) radius of the infrared sensor in normal lighting conditions

Power

Battery	• 3.7V lithium ion
	• 1180 mAh capacity
Control	• Volume and mute controls
	• Status lights
	• Multifunction programmable soft button

Microphone charging cradle

Size	4 1/4" W × 2 1/4" H × 2" D
	(11 cm × 5.8 cm × 4.9 cm)
Weight	4 oz. (0.11 kg)

6

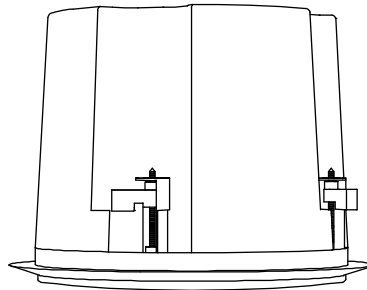|	
Power	
Power supply input	100V to 240V AC, 50 Hz to 60 Hz, 0.4 A
Power supply output	5V DC, 2 A
Energy efficiency rating	IV
Typical time to charge	1 hour
Typical duration of charge	7 hours
Installation	Placed on a desk or wall-mounted with the included mounting plate

Ceiling speakers (Model CAS-340-C only)

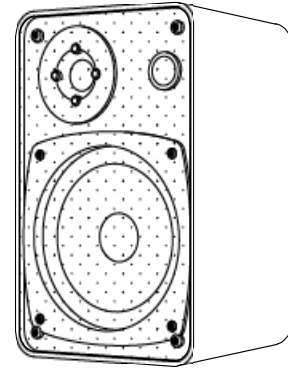|	
Number of speakers	4
Size	ø 9 1/2" × 6" D (24.1 cm × 15.2 cm)
Weight	3 lb. 3 oz. (1.48 kg)

Audio	
Wattage	15 W RMS per speaker
Impedance	8Ω +/- 2Ω
Frequency response	100 Hz to 15 kHz +/- 15 dB referenced to 400 Hz
Woofer	6 1/2" (16.5 cm) polypropylene with rubber
Tweeter	1/2" (1.3 cm) mylar
Power	Power and signal supplied from room module through speaker wires
Installation	• Installs in drop ceilings only
	• Includes a ceiling tile bridge

Wall speakers (Model CAS-340-W only)

Number of speakers	4
Size	5 1/2" W × 7 3/4" H × 5 1/4" D (14 cm × 19.7 cm × 13.3 cm)
Weight	3 lb. 12 oz. (1.72 kg)

Audio

Wattage	15 W RMS per speaker
Impedance	8Ω +/- 2Ω
Frequency response	100 Hz to 15 kHz +/- 15 dB referenced to 400 Hz
Woofer	4" (10 cm) polypropylene aluminum finish
Tweeter	1/2" (1.3 cm) polycarbonate
Power	Power supplied from room module through speaker wires
Installation	Installs on walls with a mounting bracket

SMART Audio system order numbers

CAS-340	SMART Audio system without speakers
CAS-340-W	SMART Audio system with wall-mounted speakers
CAS-340-C	SMART Audio system with an LCD screen on the control unit and wall-mounted speakers

SMART Audio system accessory order numbers

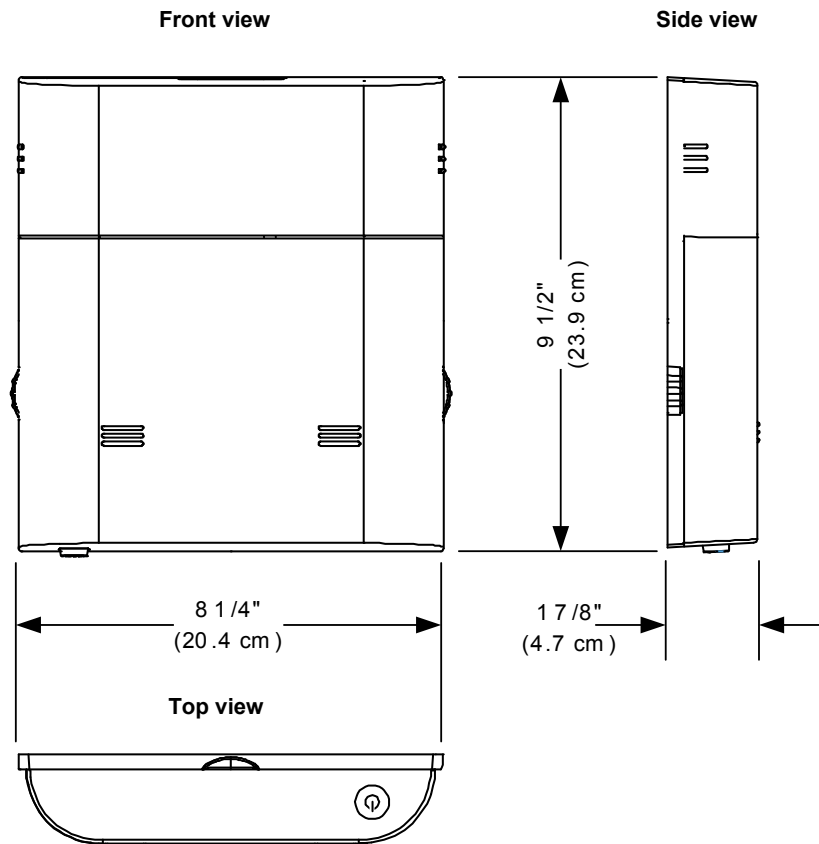|	
CAS-300-IRMC	SMART Audio CAS-340 system wireless infrared transmitter microphone
CAS-HSMIC	SMART Audio system wired headset microphone accessory
CAS-LVMIC	SMART Audio system wired lavaliere microphone accessory
CAS-SPKR-C	SMART Audio system ceiling speakers. Includes 4 speakers.
CAS-SPKR-W	SMART Audio system wall speakers. Includes 4 speakers.

CAS-300-IRSENS   SMART Audio CAS-340 system expansion infrared sensor. Includes 14' 9" (4.5 m) cable

CAS-CBLKIT-INST   SMART Audio system installation cable kit. Includes four 14' 9" (4.5 m) speaker cables and a 49' 3" (15 m) Cat 5e cable with RJ45 connectors.
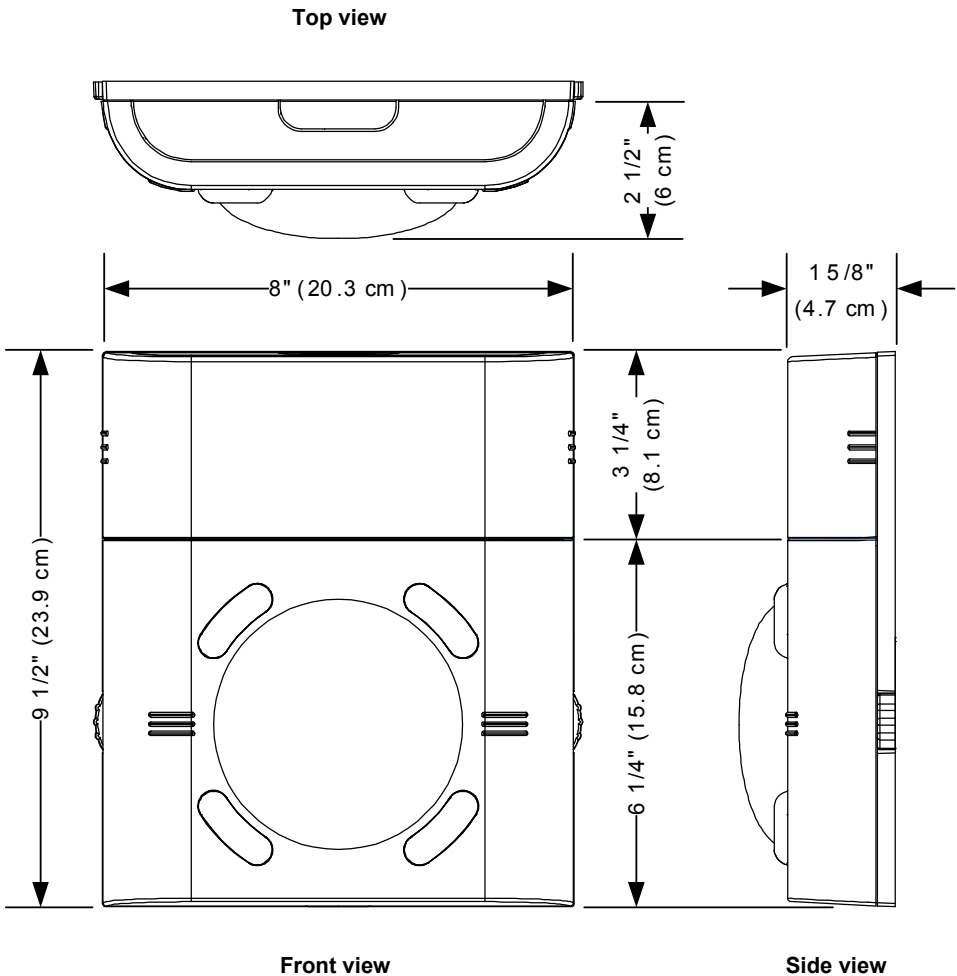
Physical dimensions

Control unit   **Front view**   **Side view**

9 1/2"
(23.9 cm)

8 1/4"
(20 .4 cm)

1 7 /8"
(4.7 cm)

Top view

Room module

Top view

8" (20.3 cm)

2 1/2"
(6 cm)

1 5/8"
(4.7 cm)

9 1/2" (23.9 cm)

3 1/4"
(8.1 cm)

6 1/4" (15.8 cm)

Front view

Side view

Microphone and accessories

Microphone

Front view   **Side view**
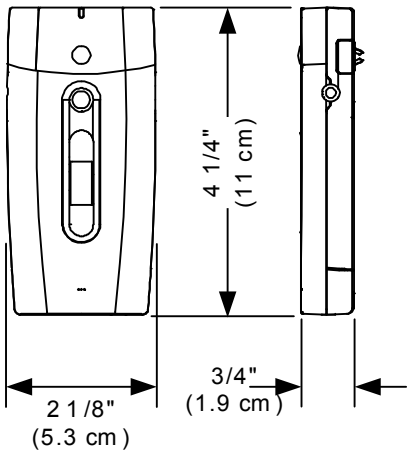
Microphone charging cradle

Top view

2"
(4.9 cm)

4 1/4"
(11 cm)

4 1/4"
(11 cm)

2 1/4"
(5.8 cm)

3/4"
(1.9 cm)

2 1/8"
(5.3 cm)
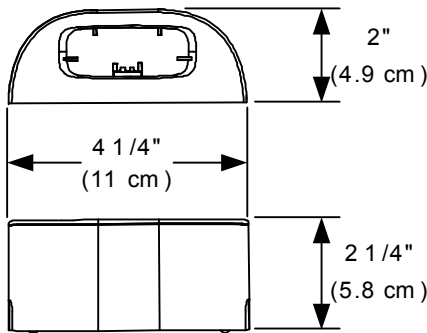
Front view

SMART Audio classroom amplification systems – Model CAS-340

Ceiling speaker

Side view

9 1/2" (24.1 cm)

8 1/8" (20.6 cm)

5 5/16" (13.5 cm)

5 5/8" (14.2 cm)
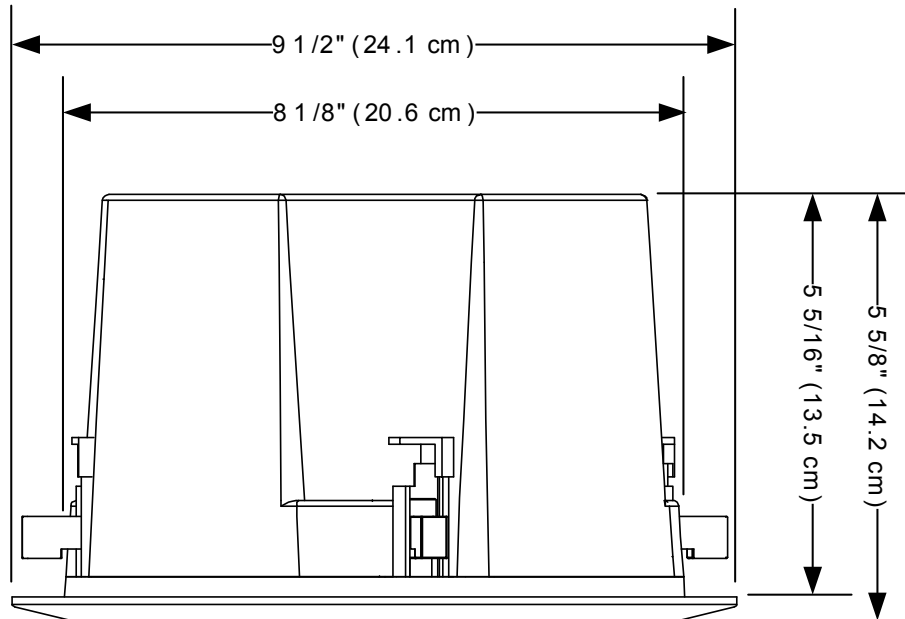
smarttech.com/support
smarttech.com/contactsupport