YAMAHA

2016.2

Unified Communications
Microphone & Speaker System

YVC-1000

Smart Separation for Closer Communication

Separate microphone and speaker for an intimate audio/video experience

Product Information
http://www.yamaha.com/products/en/communication/

Effective remote communication through close audio/video integration

The YVC-1000 features separate microphone and speaker units that smoothly integrate audio and video for natural, comfortable remote communication. The high performance, full range speaker unit can be placed close to the display so that audio and video from the remote location blend naturally, while adaptive echo canceller and other Yamaha sound processing technologies facilitate stress-free conversation.

Control unit (with a built-in speaker)

Microphone

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YVC-1000

A high quality conferencing experience

Innovative sound processing technologies combine to create a productive communications environment

The YVC-1000 incorporates many high-quality sound technologies that Yamaha has developed over the years, including a unique Human Voice Activity Detection capability used to detect human voices. “HVAD” is an important element of several different sound processing features that require fast and efficient sorting of noise and human voices in order to make speaking and listening a more relaxing, stress-free experience during remote conferencing.

Yamaha’s unique sound optimization technologies

Adaptive echo canceller
Delivering the clarity essential to efficient business communication

Intelligently eliminates the echoes generated when microphones pick up sounds from speakers in environments with varying reflective properties. Adaptive echo canceller processes sounds of up to 20 kHz to facilitate clear, effective conversation.

Noise reduction
Reducing noise for clearer communication

The noise reduction function suppresses or eliminates unwanted sounds emitted from sources such as projectors and air conditioners. Continuous noise is removed from ambient sound picked up by the microphone in order to ensure that listeners hear only clear, intelligible voices.

Automatic gain control
Ensuring that everyone can hear and be heard

This function automatically boosts or attenuates the gain for individual voices depending on their level and distance from the microphone. Automatic gain control utilizes HVAD technology to ensure that only human voices are amplified, providing clear and concise communications even in noisy environments.

Dereverberation
Clear, reverb-free sound

Naturally occurring reverberation can often wreak havoc on sound quality in remote conferencing situations. Offering excellent vocal clarity even in spaces subject to excessive natural reverb, the YVC-1000 suppresses the reverberation caused by the varying sonic characteristics of different environments.

Automatic room EQ
The right sound for your room

Automatic room EQ optimizes speaker output in real time to match the dimensions and acoustic properties of any room. Audio quality is adjusted automatically based on the audio signal of the current call to provide a more listenable tone and even reduce unwanted echoing.

Automatic tracking
Focusing on what’s important

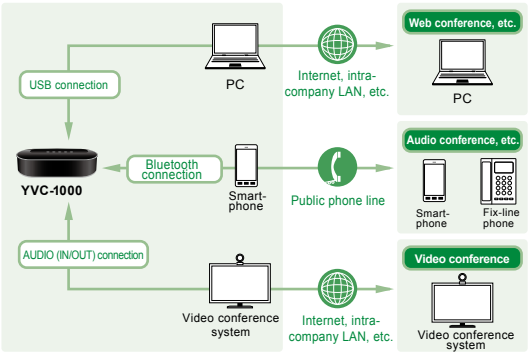
The YVC-1000 utilizes a Automatic tracking function that allows it to detect and track the location of a person’s voice in order to provide the clearest sound pickup possible. The ability to distinguish human voices from random background noise is particularly useful in conferences held in noisy environments with a large number of participants.

Flexible connectivity

Fast, easy connection to PCs, smartphones, tablets, and dedicated conferencing systems

Connect to the YVC-1000 via USB, Bluetooth*1, or the audio terminals*2 of a conferencing system for high quality audio in your conferences and meetings. This range of connection options allows you to quickly adapt to a variety of communications environments, as well as situations where conferencing might otherwise be difficult due to the lack of a landline, or internet connectivity issues.

*1 Supports the mSBC codec for transmission of broadband data.
*2 RCA pin plugs.



Smooth Bluetooth connection using NFC*1 technology

Connect simply and easily by placing an NFC-compatible smartphone or tablet over the NFC logo on the top of the control unit while the Bluetooth button is blinking*2.

*1 NFC may not function correctly with some NFC-compatible devices.
*2 If you press the Bluetooth button once, it flashes in blue.

Excellent scalability

Connect additional speakers and microphones for larger meetings

In its standard configuration*1 the YVC-1000 is ideal for small and medium-size meetings. For conferencing on a larger scale, external speakers*2 and up to four additional YVC-MIC1000EX microphones can be added to cover a wider area and accommodate more conference participants.

*1 The standard YVC-1000 configuration consists of one control unit and one microphone.
*2 You can connect up to two commercially available powered speakers.

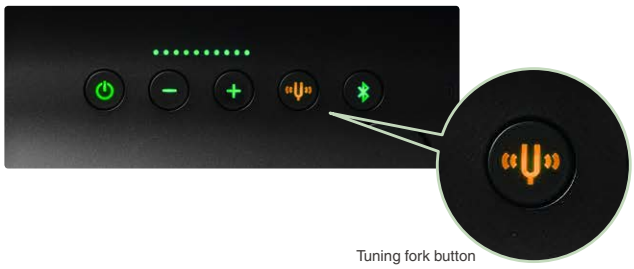
User-friendly design

Optimize acoustic settings with a single touch

The YVC-1000 automatically optimizes its acoustic settings by learning about the acoustic environment of a room as it operates. When time requirements mean that speed is an issue, simply pressing the tuning fork button activates the Automatic audio tuning function, immediately optimizing the acoustic settings for your current environment*1. If any acoustic problems are detected, the tuning fork button lights up orange to warn the user. Details on acoustic problems can be accessed through the audio guidance function*2, which also provides announcements for other operations, such as when Bluetooth connections have been established.

*1 Automatically measures acoustic characteristics of the operation space and the placement of microphones and speakers, while adjusting the filter settings of the adaptive echo canceller to optimize internal parameters. (This function optimizes settings for the adaptive echo canceller and Automatic room EQ to correct the difference in delay between the internal and external speakers and correct for the frequency characteristics of the external speaker.)

*2 Supports English, Japanese, Chinese, Korean, French, Spanish, and German. The default setting is English.

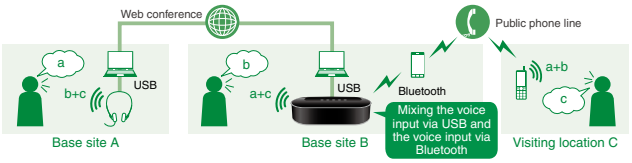


Tuning fork button

Convenient functions

Communicate with various sources simultaneously

The audio mixing function mixes multiple voice input sources connected to each interface (USB, Bluetooth, and audio input/output) allowing simultaneous communication over different lines. For example, while connected to a web conference via USB, you can also include more participants via smartphone using a Bluetooth connection by using the audio mixing function to combine the audio sources.



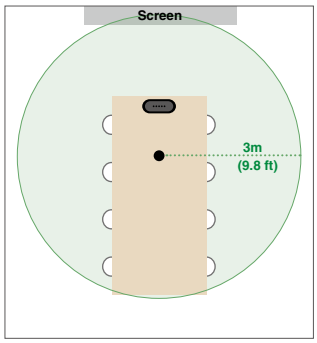
Connect to an external microphone for more flexibility during remote class sessions or seminars

Equipped with an external microphone*1 input, the YVC-1000 is ideal for applications such as remote classes or seminars where a handheld microphonemay be preferable. Simply connect an external microphone to output your voice through both the base unit speaker and speakers at remote destinations.

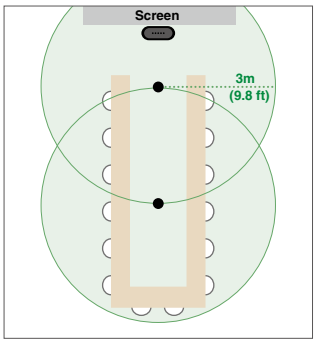
*1 Please refer to the website for information on tested handheld microphones.

Images of sound pickup range (within 3 m (9.8 ft), to a maximum recommended range of 5 m (16.4 ft). *per microphone)

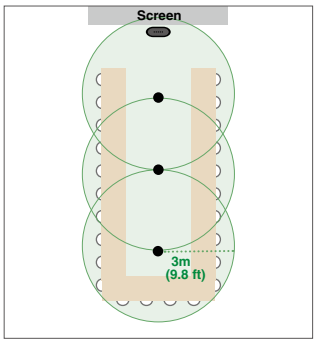
Microphone x 1



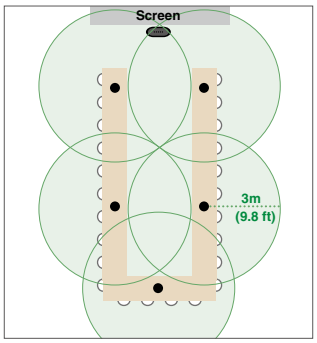
Microphone x 2



Microphone x 3



Microphone x 5



- The sound pickup range may differ depending on the operating environment and conditions.
- Sound quality improves when the person speaking is closer to the microphone.
- For the “Microphone x 3” and “Microphone x 5” configurations shown above, audio quality is superior in the “Microphone x 5” configuration as the microphones are placed closer to the participants.

Specifications

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YVC-1000

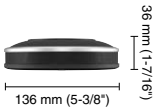
General	Interface	Control Unit: USB 2.0 High Speed, Bluetooth, NFC (Near Field Communication) Audio Input terminal (stereo RCA pin), Audio Output terminal (stereo RCA pin), External speaker terminal (RCA pin) x 2, Power terminal, Microphone terminal Microphone: Input and output terminals
	Power consumption (max)	20 W (one connected microphone), 35 W (five connected microphones)
	Radio interference standard	FCC (Part 15B) Class A, ICES-003
	Operating environment	Temperature: 0 to 40°C (32 to 104°F) Humidity: 20 to 85% (no condensation)
	Dimensions	Control Unit (W x H x D): 332 x 95 x 162 mm (13.1 x 3.74 x 6.38 in) Microphone (W x H x D): 136 x 36 x 136 mm (5.35 x 1.42 x 5.35 in)
	Weight	Control Unit: 1.8 kg (4.0 lbs), Microphone: 0.4 kg (0.9 lbs)
	Power source	120 V (60 Hz)
	Supported OS	OS: 32-bit or 64-bit Windows 10, 32-bit or 64-bit Windows 8.1, 32-bit or 64-bit Windows 8, 32-bit or 64-bit Windows 7, Mac OS X 10.11, Mac OS X 10.10, Mac OS X 10.9, Mac OS X 10.8 USB: USB 2.0 or later

General	Bluetooth	Bluetooth specification version: 2.1 + EDR Supported profile: HFP (1.6), A2DP Supported Codec: SBC, mSBC Wireless output: Class 2 Maximum communication distance: 10 m (32.8 ft)
	NFC	Compatible devices: NFC-compatible Android devices, versions 4.1, 4.2, 4.3 and 4.4
	Voice guidance	English, Japanese, Chinese, Korean, French, Spanish, German
	Accessories	Power cable (3 m (9.8 ft)), USB cable (5 m (16.4 ft)), microphone cable (5 m (16.4 ft)), Quick Start Guide
	Others	Firmware update (transfer from PC through USB)
Audio	Microphone unit	Unidirectional x 3
	Speaker unit	Full-range x 1
	Maximum volume	95 dB (0.5 m (1.6 ft))
	Frequency bandwidth	For sound pickup: 100 to 20,000 Hz, For playback: 100 to 20,000 Hz
	Signal processing	Adaptive echo canceller, Noise reduction, Automatic tracking, Automatic gain control, Automatic room EQ, Dereverberation, Automatic audio tuning

Front

Control Unit

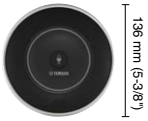
Microphone



Top side

Control Unit

Microphone



Terminals

Control Unit

1 Power terminal
2 USB port
3 Microphone terminal
4 External speaker terminals
5 Audio output terminals (AUDIO OUT)
6 Audio input terminals (AUDIO IN)

Microphone

7 Input terminal (IN)
8 Output terminal (OUT)

Option

Extension microphone for YVC-1000

YVC-MIC1000EX

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SHARING PASSION & PERFORMANCE

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